Ambiguous ambitions in the Meuse Theatre
This book is written in honour of Annemiek Verhallen and Henk Saeijs.

**Ambiguous Ambitions**

I love fish
and water
like
bricks and stones,
ordered
as
flexible structures.

I adore
this
self-sustaining sculptures
which may not
be destroyed
by
human ignorance.

*Leo Santbergen*
Ambiguous ambitions in the Meuse Theatre


Proefschrift

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Preface and acknowledgements

The idea to start-up a PhD research was born after I had met Annemiek Verhallen. Imagine a colourful, charming and energetic woman who has combined university curricula in both social and natural sciences. She never stopped to inspire students about envisioning their future in the context of the cross-border river basins that they live in. Annemiek invited me to temporarily take over the educational part of the integrated water management curriculum at Wageningen University and Research Centre. We developed a shared dream for the future: after she would have finished her dissertation on multi-stakeholder dialogues regarding the management of the River Scheldt estuary she would take over the teaching job again, offering me the opportunity to conduct a PhD study. Unfortunately, Annemiek passed away from the Earth suddenly in December 2007.

Given as Capricorn I paradoxically prefer both the loneliness of high mountains and the warmth of social gatherings, the idea of a time-consuming individual research project seemed both tempting and frightening to me. When I talked about the idea to Tineke Ruigh-Van der Ploegh she encouraged me to go for the dream and advised me to contact Sander Meijerink at Radboud University Nijmegen. Sander was enthusiastic from the very beginning, connected me to Pieter Leroy and a long lonesome and sometimes Spartan journey was initiated.

I remember my first conversation with Pieter at Antwerp University clearly. Due to traffic complications I had to embark on the regional train between Roosendaal and Antwerp. Despite the delay the welcome was very warm (with typical Belgian filter coffee) and the conversation inspiring. As one of the founding fathers, Pieter introduced the Policy Arrangement Approach to me. In the subsequent meetings, although he emphasised that he has not been married to this framework, he welcomed my choice to include it in the core of the research methodology. Pieter’s experience with outdoor PhD scholars and the serious amount of time that both Pieter and Sander dedicated to guide me along the challenging research path of dangers and pitfalls, have supported me to finish this adventure successfully. Besides, I feel like Sander and I have closed one particular life sub-cycle: When I worked for the Dutch delegation in the International Scheldt Commission, Sander interviewed me for his dissertation. Now in return, I have benefitted a lot from his support and scientific skills.

Writing acknowledgements includes the danger of forgetting names to be mentioned. Therefore in general, I would like to thank all my friends, family and colleagues at different departments and supporting units within the Brabants Delta Water Management Authority who provided me the preconditions for this multi-annual journey. Not to forget the local swimming society and the managers of the Ekoplaza Food Store at Breda, Jacqueline Looijen and Ina Brouwer, who always informed about my progress. A special word of thanks I owe to the politicians and the management of
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Without the additional material support of the Ministry for Infrastructure and Environment I would not have been able to finish this dissertation within the planned time period and with the opportunity to consult important process documents. Special words of thank I dedicate to Jaap Verhulst (national WFD programme leader between January 2004 and August 2010), Charles Aangenendt, Gerard Broseliske, Magda Caffé, Bob Dekker, Paul Latour and Fred Wagemaker. Jaap Verhulst has been the inspiring initiator of a Flemish-Dutch network of researchers and water managers around the Water Framework Directive and the Birds- and Habitats Directives. Within this network the idea was born to publish a bundle of reflexive essays on best practices in implementing and pitfalls of dealing with the ambiguous ambitions of the Water Framework Directive (Van der Arend et al., 2010). I especially thank the contributors and co-editors (Sonja van der Arend, Mark Wiering and Jelle Behagel) of that edition for sharing their observations and thoughts with me. Furthermore, I am very grateful to all the interviewees and participants in the written argumentation survey and the reflexive mirror sessions (see the Appendices I to III for an overview of them).

Special thanks to Duncan Liefferink for critically screening of the empirical chapter on the European political level; to Martin Bijlsma and Fred Wagemaker for the documents from the early Dutch national WFD implementation planning years; to Harry van Huet for the documents about the initial stage of the WFD Meuse Project Bureau; and to Janneke Schroevers-Wattel for the documents on the regional WFD implementation planning process in the Scheldt River Basin District.
I would like to thank all those colleagues in the Flemish Region of Belgium and the Netherlands who have been and are still involved in the implementation of the WFD in the International Meuse and Scheldt River Basin Districts for their valuable time and sharing their arguments with me. Gerda van Roode and Erik Matla, besides all the troubles we also shared much fun as the “WFD coordinators trio” in the North-Brabant Province. Gerda, I sincerely hope that one day I will be surprised by your book full of personal memoires and quotes that better should remain hidden. Arnould Lefebure and Willem Schreurs, who are the Secretary-General of respectively the International Scheldt and Meuse Commission, for sharing their reflections on the multilateral coordination processes. Jeroen Warner for the opportunity to organise a special workshop at the 2008 Freude am Fluss Conference and inspiring conversation on politics and multi-stakeholder platforms; Madelinde Winnubst for the practical recommendations on the PhD procedures at Radboud University Nijmegen. Special thanks also to Dolores Baita, Guido Moens and the staff and partners of the Scheldt without Borders network (Escaut sans Frontières/Grenzeloze Schelde), who showed me the power of connecting people across political levels within an international river basin. The colleagues at the Water Policy Department of the Antwerp Province (Didier Soens and Maarten VanderVelpen) and the Flemish Environment Agency (Sandra De Smedt, Ilke Dieltjens, John Emery, Wim Gabriëls, Jef Guelinckx, Henk Maackelberghe, Rudy Vannevel and Luc Van Craen). I remember a remark made by Henk Maackelberghe, at the time of adoption of the Water Framework Directive at a workshop in Brussels: ‘Leo, for sure this will be the first of a series of at least 100 workshops about this comprehensive and complicated directive.’ In my memory we have crossed this threshold a long time ago.

By publication of this dissertation one desire has turned into reality: writing a book about Integrated River Basin Management. This desire developed in the period when I worked at the Zeeland Directorate of the State Waters Management Agency, as chaired by the then director Henk Saeijs. Henk has been one of the founding fathers of the Integrated Water management Approach in the Netherlands. Henk has been a great inspirer and has always supported the idea of writing a book but stressed the combination with a PhD research. When I met Annemiek Verhallen subsequently the idea received a revival. Therefore I am very proud to dedicate this dissertation to Annemiek and Henk.

Without my mother, Lisa Santbergen-Peeters and my father, Joop Santbergen, this book could never have been written. Dad, I feel so sad about your suffering from this evil disease. At the same time I am so proud of you and mam in offering me all the opportunities, support and warmth I do need in my life. There are no words to express my gratefulness to you both. Finally, without the love, support and patience of my “other half orange”, Sanjai Jagesar, I would never have sustained the energy to fulfil this assignment. Now we will have more time again for our meetings with friends, family and travels to amazing nature sites and the world’s most vibrant cities that do not need much sleep.

Leo Santbergen
Breda, November 26, 2012
Figure 1.1: In Sanaa, Yemen’s capital, access to drinking water from groundwater resources is restricted to certain hours a day (Leo Santbergen, April 2005)
Introduction

“We realise the value of water only when the source has dried out”
Fuller (in: Van der Zalm, 1989: 327)

1.1 Calls for a different approach

The city of Brussels, headquarters of the European Union, is incomplete: a river is missing. One could say the capital of Belgium is hiding a part of its history beneath the earth’s surface. Brussels was founded at the borders of the river Zenne and its tributaries in a marsh (the present lower part of the city). The oldest written document in which Brussels is mentioned dates from 1015 to 1020: it speaks about a river port (where goods were handled) connecting Brussels with Antwerp and the North Sea (Deligne, 2005). The river brought food (fish), shelter (city walls), drinking water and relaxation (walking paths and bathing sites) to the inhabitants. Between 1250 and 1400, about 35 wells appeared in the city area. Water was used by households and industrial processes, polluting the resource unlimitedly. Ironically, pollution had been accelerated by the construction of a modern and systemic sewerage network since 1848. The negative impact of these human activities became unbearable: rich people turned their back to the river side and moved away, the poor workers stayed behind. Since the only function of the river left was a “discharge channel”, the elite decided to overarch the river as part of a major city redevelopment scheme. Consequently, the river turned into a sewer. The works were carried out in the 1871-1877 period, in the mean time providing the rich an opportunity to clean up the slums along the river side (ibid.).

Implicitly, this example of Brussels tells us how a healthy aquatic ecosystem may support sustainable socio-economic development whenever managed and used in a wise, no-detrimental way. There are numerous comparable examples of human interferences with the Earth’s river systems which have caused (and still cause) a dramatic decline of the state and functioning of the involved aquatic ecosystems (Jones, 2010; Solomon, 2010). Gradually, the combination of physical, chemical and biological changes pay off as significant limitations to socio-economic development such as, by floods and droughts, by water-related diseases and by decreasing harvestable fish stocks. Continued growth of the human population and unconditioned and uncoordinated land use patterns still contribute to a further deterioration of the wet natural resources (Rogers and Leal, 2010; Jones, 2010). Text box 1.1 sums the critical challenges of the global water crisis (based on Jones, 2010).

In terms of property rights, due to its fluid, dynamic and border-crossing nature, nobody entirely “owns” water resources; generally water resources are considered a common heritage of mankind (Savenije and Van der Zaag, 2000). However, many nation states take water resource management decisions unilaterally without taking
account of upstream and/or downstream consequences (ibid.). Although access to water is considered as a basic human right, due to particular political systems, socio-economic circumstances, a lack of infrastructure and hydro-geographic features, 17 percent of the world population has no access to safe drinking water (Jones, 2010). In conclusion, Cosgrove and Rijsberman (2000) refer to a global water crisis as one caused by bad institutions, bad incentives and uneven allocations of resources. In many international river basins, upstream-downstream asymmetries are part of the explanation of fresh water distribution conflicts (Savenije and Van de Zaag, 2000).

<table>
<thead>
<tr>
<th>Text box 1.1: Critical challenges of the global water crisis (based on Jones, 2010)</th>
</tr>
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<tbody>
<tr>
<td>o 3.6 millions of people die each year from water-borne disease, of which 2.2 million are in the Least Economically Developed Countries where 90 per cent are children under the age of 5;</td>
</tr>
<tr>
<td>o 40 per cent of the world population (2.6 billion people) has no access to basic sanitation rising to nearly 50 per cent in Asia and 70 per cent in Africa;</td>
</tr>
<tr>
<td>o Over 1.1 billion people (17 per cent of the world population) have no access to safe drinking water, including 300 million people in sub-Saharan Africa;</td>
</tr>
<tr>
<td>o Population growth and increasing demand is set to reduce global per capita water resources by more than a third in the coming 50 years;</td>
</tr>
<tr>
<td>o A third of the world population presently lives in countries suffering moderate to severe water stress and this is likely to rise to two-thirds of a much larger population by 2025;</td>
</tr>
<tr>
<td>o Agriculture is the largest water user in the world by consuming some 70 per cent of available resources, much of it in inefficient irrigation. Ten countries use more than 40 per cent of their water resources for irrigation;</td>
</tr>
<tr>
<td>o Commercialisation, privatisation and globalisation of water management have been detrimental in a number of developing countries, with conflicts between profit motive and service provision and clashes between multinational companies, national governments and the people. Financial crises are now rapidly transmitted around the world affecting water and sanitation provision;</td>
</tr>
<tr>
<td>o Climate change will cause a major redistribution of global water resources – in general, regions now short of water will get less and regions that currently have plenty of water will get more.</td>
</tr>
</tbody>
</table>

Some authors mention the increased risk of wars around fresh water resources (e.g. De Villiers, 1999). Barraqué (2004: 5) points at the influence of the media. Whereas they ‘have popularised this idea initially developed by hydrologists and ecologists as a potential extension of water stress, social scientists have carefully reviewed both the situations of shared waters and the so called water wars and they have discovered that the proportion of international rivers with conflicts was minimal’. Most conflicts where water was involved were not water wars, but at best wars where water could be taken as a weapon (Wolf, 1998; Turton and Solomon, 2000). Barraqué (2004: 5) adds that most conflicts on water sharing or reallocation are domestic rather than international: ‘big hydraulic schemes in particular are more frequently challenged both by economists and ecologists when they are domestic, only because they are more
numerous’. Notwithstanding that the number of water wars have been limited up to the time of writing, the diagnosis of a global water crisis upholds.

In response to the global water crisis, scientists, water managers and politicians around the globe have initiated a search for the Holy Grail of sustainable development, management and use of water resources. Parallel in the broader social and political context of the water policy domain, as of the late 1960s there were calls for more interactive, reflexive and deliberate planning and decision-making processes (Van Tatenhove and Leroy, 2003). For example, Integrated Water Resource Management (henceforth IWRM) has been introduced and has become one of the dominant paradigms in the global water policy discourses, since the early 1990s (Molle, 2009). Derived from the perception that traditional supply-driven technology and infrastructure-based water management concepts only are frequently not adequate to solve water resources problems, the IWRM approach is expected to deal with the complex nature of water resource systems and the understanding of water as both a common pool resource and an economic good (ICWE, 1992; Global Water Partnership, 2000). Text box 1.2 explains why water may be considered a common pool resource. In the European legislative context, as a resource, water is considered as a common property, rather than a market good (Barraqué, 2003). However as a public service, water is usually considered a commodity (ibid.).

Molle (2009: 484) presents the social life of the IWRM paradigm, i.e. the evolution from the idea of a river basin as an operational (hydraulic engineering) concept for the development and management of water resources (‘full control of nature to optimise human use’) towards ‘a wider political arena where contrasting interests and world views confront one another and are, sometimes – as promised by the IWRM rhetoric – reconciled’. The Global Water Partnership (2000: 22) defines IWRM as ‘a process which promotes the coordinated development and management of water, land and related resources, in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems’. IWRM requires an enabling environment in which the key stakeholders are actively involved and in which central-local policy coalitions and public-private partnerships implement policy strategies and allocation tools (Rogers and Hall, 2003). Building on the Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UN-ECE, 1992), river basins are considered the appropriate units for the sustainable use, development and management of interrelated water and land resources. This consideration paves the floor for the Integrated River Basin Management paradigm (henceforth IRBM; Savenije and Van der Zaag, 2000). Due to both the complex, holistic and ambiguous nature of the aims and concepts that it embraces, the IRBM paradigm invites a diversity of voices and interpretations. As will be explained in Section 1.2 this makes a harmonised translation into collective choices for all Europe’s river basins at least troublesome.
**Text box 1.2: Fresh water as a common pool resource**

Common pool resources are characterised by a combination of a low degree of exclusiveness and a high level of exhaustiveness (Savas, 1977). Common pool goods are those, like fish in the ocean, whose usage cannot be directly charged to individuals but whose quantity is reduced after use (Howlett and Ramesh, 2003).

What makes water a common pool resource? Studying the world’s fresh water resources a distinction is often made in blue and green water. Green water – the rainfall that is stored in the soil and then evaporates or is incorporated in plants and organisms – is the main source of water for natural ecosystems and for rainfed agriculture. Blue water – renewable surface water run-off and groundwater recharge – is the main source for human withdrawals and the traditional focus of water resource management (Cosgrove and Rijsberman, 2000). Available blue water totals about 40,000 km³ a year (Shiklomanov, 1999). Of this, an estimated amount of 3,800 km³ (roughly 10%) was withdrawn (diverted or pumped) for human uses in 1995. Of the withdrawn water, about 2,100 km³ were consumed. The remainder was returned to streams and aquifers, usually with significant reductions in quality.

If human populations are withdrawing only 10% of renewable water resources and consuming only 5%, there seems to be no overall problem of exhaustiveness. To illustrate the contrary Cosgrove and Rijsberman (2000: 6-7) summarise the facts:

- A large fraction of global water resources is available where human demands are small such as in the Amazon basin, Canada and Alaska.
- Rainfall and river run-offs occur in large amounts during very short periods, such as during the monsoon season in Asia and are not available for human use unless stored in aquifers, reservoirs or tanks.
- The withdrawal and consumption figures do not show the much larger share of the water resources that is “used” downstream as already degraded in quality by upstream pollution, hence of lower value.
- Water not used by humans generally does not flow unused to the sea. Instead it is used in myriad ways by aquatic and terrestrial ecosystems – forests, lakes, wetlands and coastal lagoons.

This leads to the following conclusions (ibid.):

1. Even though people use only a small fraction of renewable water resources globally, this fraction is much higher – up to 80-90% - in many arid and semi-arid river basins where water is scarce.
2. In many tropical river basins a large amount of water is available on average over the year, but its unequal temporal distribution means that it is not usable or that massive infrastructure is required to protect people from it and to store it for later use, with considerable social and environmental impacts.
3. In many temperate zone river basins adequate water resources are relatively evenly distributed over the year, but they are used so intensively that surface and groundwater resources become polluted and good-quality water becomes scarce.
1.2 Integrated River Basin Management: complexity and ambiguity

**Complexity**

Issues of IRBM are complex in nature. The complexity is expressed by substantive diversity and the involvement of multiple stakeholders in different policy sectors at and across interrelated political levels (Mitchell, 1990 and 2007; Driessen, 2007; Watson, 2007). IRBM concerns resilient ecosystems, anticipation and mitigation of floods, water scarcity, water quality deterioration and balancing of user functions. In many cases it may be not made clear explicitly which objectives receive priority over others. Furthermore, there are critical uncertainties and gaps in knowledge about cause-effect and means-ends relations (Driessen, 2007; Van Leussen, 2011). Water policy formulation, implementation and evaluation processes are played simultaneously by mutually dependent actor networks at different political levels within and across river basins. Although IRBM presupposes river basins as the appropriate level to address water management issues, Molle (2009: 492) summarises the arguments for the mismatch between political and river basin boundaries: ‘Yet, political or administrative boundaries seldom correspond to watershed lines and the socio-economic forces and processes as well as the webs of power that influence the management of water resources also do not dovetail with natural limits’. Or as Swyngedouw (2004) argues, social and environmental dynamics result in particular level configurations, both in terms of ecology and regulatory regimes, each supported by their discursive representations and justifications. Molle (2009: 492) concludes that ‘power is by nature mobile, unstable and dynamic and cannot be circumscribed to, or durably match, established boundaries or levels’.

As an ambition IRBM simultaneously seeks to address two highly complicated and complex problem sets: cross-sector planning and sustainable development (Jeffrey and Geary, 2006). The water policy domain, in realising its aims and management approaches is mutually dependent on other policy sectors like spatial planning, nature and agriculture (Van Rijswick, 2001; Driessen, 2007). Cross-sector planning is a challenging ambition since the speciality principle generally is a strong barrier. Each sector has its own legislation, division of tasks, responsibilities, cultures, instruments and implementation procedures (ibid.). Furthermore, Driessen (2007) argues that despite the subsidiarity principle, an effective top-down implementation of agreed policies from higher to lower governance levels often is an illusion. Given the extensive debates in international water sector journals (e.g. Water Policy and Water International), experts, politicians, water managers and other stakeholders puzzle over a common definition of IRBM and the paradigm’s interpretation and implementation under different physical and institutional circumstances. Advocates like the Global Water Partnership (2000) acknowledge that IRBM has never been unambiguously defined, nor has the question of how it is to be implemented been fully addressed.
As a matter of conclusion, Jeffrey and Geary (2006: 4; original italics) argue that:

[...] whilst the concept of IWRM has substantive intuitive influence, it remains a normative theory – a prescriptive framework derived largely from observation and focused on how things should be done. Despite its popularity (and one might say its reputation) IWRM remains: (i) a theory about, (ii) an argument for and (iii) at best a set of principles for, a certain approach to water resources management. Empirical evidence which unambiguously demonstrates the benefits of IWRM is either missing or very poorly reported.

Ambiguity
IRBM aims at collective-choice rules for sustainable development, management and use of water resources. To arrive at such rules there are (at least) two major challenges which invite ambiguity. Firstly, the holistic nature of sustainability attracts actors with diverging views, interests and interpretations which may change quite dramatically over time (Dryzek, 2005). The challenge is to arrive at common definitions, arrangements and actions which are supported, guided and periodically revised by the key stakeholders. Secondly, free-riding behaviour which will hinder collective action pops up at the horizon.

Given the range of pure ecocentric to anthropocentric life philosophies, stakeholders will have diverging views on both means and ends of sustainable development. Hence different stances and approaches will have to be acknowledged and bridged to arrive at common definitions and practices. Blewitt (2008: x) concludes: ‘Maybe the best way to view sustainable development is as a collage or a kaleidoscope of shapes, colours and patterns that change constantly as we ourselves change.’ In “soft” (anthropocentric) views of sustainability, nature is a resource mastered by humanity which should be handled with more care. Economic growth is essential for the pursuit of sustainability which can be realised by incremental changes over the next 30-50 years by a mix of legal arrangements, market forces and technological development (Pezzey, 1992; Bebbington, 2001; Klostermann, 2003). According to “hard” (ecocentric) views of sustainability, humans and nature are two separate things; harmony is sought. Economic growth must be abandoned or refined to reach a sustainable situation; a participatory process is required aiming at behavioural change. The present situation is along way from sustainability; it may take 150-200 years to bridge the gap (ibid.).

Opinions differ on the options for translation of the sustainable development discourse into policies and management approaches. Since the concept is multidimensional and encompasses social, ecological and economic goals and perspectives, some critics view it as vague, self-contradictory and incoherent, incapable of being put into practice (Blewitt, 2008). On the opposite side, others like the sociologist Ratner are more optimistic. Ratner (2004: 62) considers the sustainability concept meaningful ‘for the way it brings such differences into a common field of dispute, dialogue and potential agreement as the basis of collective action’. A coalition of economists and ecologists has tried to bridge the gap between ‘conventional economics’ (“soft” sustainability) and ‘conventional ecologies’ (“hard” sustainability; Costanza et al, 1997). Costanza (1991: 83; original italics) argues that one should stop ‘…thinking of ecological and
economic goals as being in conflict. To achieve sustainability we must develop an ecological economics that goes well beyond the conventional disciplines of ecology and economy to a truly integrative synthesis. Given that economic systems are dependent on their ecological life-support systems, ecological economics sees the human economy as part of a larger whole. Human preferences, understanding, technology and organisation co-evolve to reflect broad ecological opportunities and constraints. Humans are responsible for understanding their role in the larger system and managing it for sustainability. The primary macro-goal is sustainability of ecological oriented economic systems (ibid.). Since technology’s ability to remove resource constraints is critically uncertain, Costanza (1991: 85) pleads for a precautionary attitude. He translates ecological economics in a working definition of sustainability:

Sustainability is a relationship between dynamic economic systems and larger dynamic, but normally slower-changing ecological systems, in which: (a) human life can continue indefinitely; (b) human individuals can flourish; (c) human cultures can develop; but in which (d) effects of human activities remain within bounds, so as not to destroy the diversity, complexity and function of the ecological life-support system.

Following this definition, economic growth which is an increase in quantity cannot be sustainable indefinitely on a finite planet. Economic development which is an improvement in the quality of life without necessarily causing an increase in quantity of resources consumed may be sustainable (ibid.). Whenever one considers water as a finite resource, theoretical concepts of common pool resources management become relevant. On the other hand, whenever one views natural and human-made capital as substitutes rather than complements, neither factor can be limiting. In this research following Costanza’s precautionary attitude, water is considered as a finite, common pool resource for which there is no substitute. See the Figures 1.1 and 1.2 for an illustration of respectively the limited availability of drinking water (Sanaa in Yemen) and desiccation of water bodies (Ossendrecht in the Netherlands). As the photographs illustrate, both the relatively fresh water rich and poor countries may suffer from water shortages, albeit different in characteristics and consequences.

The second major challenge is the tension between individual free-riding behaviour and collective action. Despite a situation in which cooperation will secure mutual advantage, a rational actor knows that his individual behaviour will not influence the overall outcome significantly (Hay, 2002). Moreover, whenever others cooperate he will reap the benefits of their cooperation regardless of his participation. Tragically when all individuals behave rationally, no-cooperation arises and an outcome which is both collectively and individually suboptimal ensues (ibid.). A classical example of free-riding is the so-called tragedy of the commons as described by Hardin. Hardin (1968) states that when freedom of breed will not be abandoned, population growth will continue and it will lead automatically to a tragedy of the commons when the carrying capacity of natural resources is passed. There is no technical solution; it requires a fundamental extension in morality (ibid.). Hardin (1968: 1244; original italics) illustrates the tragedy by a sketch of a pasture which is open to all herdsmen:
It is to be expected that each herdsman will try to keep as many cattle as possible on the commons. [...] As a rational being, each herdsman seeks to maximise his gain. Explicitly or implicitly, more or less conscious, he asks ‘What is the utility to me of adding one more animal to my herd?’ This utility has one negative and one positive component. 1) The positive component is a function of the increment of one animal. Since the herdsman receives all the proceeds from the sale of the additional animal, the positive utility is nearly +1. 2) The negative component is a function of the additional overgrazing created by one more animal. Since however, the effects of overgrazing are shared by all the herdsmen, the negative utility for any particular decision-making herdsman is only a fraction of –1. [...] Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit – in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in the commons brings ruin to all.

Since Hardin published his *tragedy of the commons* it has become customary to say that common ownership of property leads to wasteful practices and environmental degradation (Needham, 2006). Bromley (1991) argues that the Hardin metaphor is both socially and culturally simplistic and historically false. It is false because there are examples of common property being managed responsibly for centuries (ibid.). Ostrom (1990) challenges theories that presume that individuals cannot organise themselves, cannot avoid producing suboptimal and in some cases disastrous results and always need to be organised by external authorities. She presents both successful and unsuccessful examples of small-scale, long-enduring, self-governing common pool resources institutions. In her opinion, arrangements for common pool resources

![Figure 1.2: Desiccation of the water body Vennen Groote Meer (Netherlands; January 16, 2012; Aerolinephoto at the request of Evides Drinking Water Company)](image-url)
management may be public, private and/or self-organising in nature (ibid.). In order to avoid over-exploitation of common pool resources which on the long term might be disastrous to all, collective-choice rules are required which are designed and accepted by multiple stakeholders at interrelated political levels.

According to Ostrom (1990), all efforts to organise collective action whether by an external ruler, an entrepreneur or a set of principals who wish to gain collective benefits must address a common set of problems. These concern free-riding, solving commitment problems, arranging for the supply of new institutions and monitoring individual compliance with sets of rules (ibid.). Hay (2002) argues that both structure and agency (and especially their interplay) may account for triggers and barriers towards collective-choice rule changes. Already chosen paths have lead to present institutions, a phenomenon labelled as path dependency (North, 1990; Pierson, 2000). Rule changes may be both intended (strategic) and unintended (instinctive) in nature and at the same time these may be hindered by conservative (f)actors (Hay, 2002). Agents acting in a routine matter will tend to reproduce existing structures and patterns of social and political patterns over time, while actors rejecting norms and conventions will tend to transform existing institutions and practices (ibid.).

To summarise Section 1.2, IRBM faces the challenge of dealing with complexity and ambiguity. The holistic concept triggers substantive diversity and involves multiple stakeholders at interrelated political levels within (inter)national river basins. One cannot assume that those stakeholders are blessed with perfect and complete information of their context. They have to make assumptions about their environment and about the future consequences of their actions and those of others if they are to act strategically. The ideas hold about their environment are, then, crucial to the way they act and hence to political outcomes (Hay, 2002). This refers to bounded rationality as defined by Simon (1957). Furthermore since actors are part of organisations that developed their own norms and values over time, they may think more about whether an action conforms to the norms and values of the institution than about what the individual consequences will be (Padt, 2007). By other means: is a strategy considered to be appropriate? This refers to logics of appropriateness as defined by March and Olsen (1989). In the context of international river basins, acting locally, agreement might be more difficult to reach, since local stakeholders might be driven more directly by short term oriented self-interests and will (partly) suffer from a lack of a holistic river basin view (Mitchell, 2007). On the contrary, actors at a river basin level might loose the connection with local circumstances and priorities (ibid).

In its search for sustainable development by collective action the IRBM concept embarks for ambiguity. As Fischer (2009: 175) argues, ambiguous meanings often serve important political functions: ‘By helping to bring together citizens with varying policy preferences, ambiguous meanings often facilitate cooperation and compromise.’ Ambiguous agreements are a common phenomenon in the context of the European Union (George, 2004: 115), ‘If every ambiguity had to be removed from treaties or legislation, agreement would never be reached’. As will be explained in the next section, the Water Framework Directive (henceforth WFD; European Communities, 2000) serves as a speaking example of such an ambiguous agreement.
1.3 The Water Framework Directive: ambiguous ambitions

Point of departure in this research is collective-choice rules for the sustainable use, development and management and use of Europe’s fresh water resources. As concluded in Section 1.1, water may be considered a common pool resource. Common pool resources are subject to exhaustiveness and their use is not exclusive, since nobody entirely owns them. A critical dilemma of common pool resources management is how individual users’ wishes and interests can be balanced with their common interests. Since the 1990s, IRBM has become one of the dominant paradigms in the European environmental policy domain. The WFD is both rooted in this policy discourse and an exponent of it. The WFD is the outcome of a delicate political process at the European level. It is the first environmental directive which has been concluded under the co-decision procedure between the European Parliament and the European Council of Ministers (Kaika, 2003). The final text has been the result of a delicate European negotiation process in which the European Parliament gradually obtained more power and in which non-governmental organisations gained more access to the informal European negotiation arenas (Kaika and Page, 2003). The Directive may be considered a mixture of the German tradition of detailed prescriptions and standards and the Anglo-Saxon philosophy of more generic frameworks (Knill and Liefferink, 2007). Due to the large number of amendments by the EP, time pressure and last-minute amendments by Member States in the final conciliation procedure, cross-reference faults are noticeable in the adopted text (Interviews 40 and 53, Appendix I).

As inspired by the Dublin principles on water and sustainable development (ICWE, 1992), the WFD acknowledges water both as a common pool resource and an economic good. The WFD embraces the three E’s of the sustainability definition of the United Nations, i.e. Economy, Environment and Ethics (Barraqué, 2003). It calls for the achievement of three broad goals: adoption of an efficient economic policy (including full cost recovery from water users; rehabilitation, protection and enhancement of the quality of the aquatic environment over the next 15 years; and making water policies more transparent by means of public information and participation (ibid.). Table 1.1 shows a brief overview of the content of the WFD’s articles. Read www.eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2000:327:0001:0072:en:PDF for the full text of the Directive.

Compared to the Global Water Partnership’s definition the WFD does not explicitly mention maximisation of economic and social welfare, but ‘promotes sustainable water use based on a long-term protection of available water resources’ (European Communities, 2000: 5). Recovery of costs for water services (Article 9) is a central instrument in the WFD’s approach which combines the user and polluter pays principles (European Communities, 2000: 12-13). The WFD does not include an explicit definition of sustainability. Instead in its Article 4 the WFD implicitly acknowledges a large range of water-related human activities as sustainable without clarifying their environmental, social and economic externalities (European Communities, 2000: 9-11). Since sovereignty and subsidiarity are central within the European institutional context, these implicit notions open the door to multiple interpretations. In the WFD subsidiarity is defined as: ‘Decisions should be taken as close as possible to the
locations where water is affected or used. Priority should be given to action within the responsibility of Member States through the drawing up of programmes of measures adjusted to regional and local conditions.’ (Preamble 13, European Communities, 2000: 2).

Table 1.1: Overview of the WFD’s Articles (European Communities, 2000)

<table>
<thead>
<tr>
<th>Art.</th>
<th>Content</th>
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<tbody>
<tr>
<td>1</td>
<td>Purpose: a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater; protection of aquatic ecosystems and directly dependent terrestrial ecosystems and wetlands; to promote sustainable water use based on a long-term protection of available water resources; progressive reduction of emissions of priority substances and cessation or phasing-out of emissions of the priority hazardous substances; contribution to mitigating the effects of floods and droughts.</td>
</tr>
<tr>
<td>2</td>
<td>Definitions of terms used in the Directive.</td>
</tr>
<tr>
<td>3</td>
<td>Coordination of administrative arrangements for river basin districts.</td>
</tr>
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<td>4</td>
<td>Environmental objectives (including intrinsic provisions for deadline extensions, lowering objectives and exemption conditions).</td>
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<tr>
<td>5</td>
<td>Requirements for characterising the river basin district, reviewing the environmental impact of human activity and conducting an economic analysis of water use.</td>
</tr>
<tr>
<td>6</td>
<td>Register of protected areas lying within each river basin district.</td>
</tr>
<tr>
<td>7</td>
<td>Requirements for designation, monitoring and protection of water bodies that are used for abstraction of drinking water.</td>
</tr>
<tr>
<td>8</td>
<td>Requirements for monitoring of the status of surface water bodies, groundwater bodies and protected areas.</td>
</tr>
<tr>
<td>9</td>
<td>Requirements for recovery costs for water services.</td>
</tr>
<tr>
<td>10</td>
<td>Provisions for the combined approach for point and diffuse sources of pollution, including both emissions limit values and water quality objectives or standards.</td>
</tr>
<tr>
<td>11</td>
<td>Requirements for the programmes of measures.</td>
</tr>
<tr>
<td>12</td>
<td>Provisions for issues which can not be dealt with at Member State level.</td>
</tr>
<tr>
<td>13</td>
<td>Requirements for the river basin management plans.</td>
</tr>
<tr>
<td>14</td>
<td>Public information and consultation requirements.</td>
</tr>
<tr>
<td>15</td>
<td>Reporting requirements.</td>
</tr>
<tr>
<td>16</td>
<td>Strategies against pollution of water.</td>
</tr>
<tr>
<td>17</td>
<td>Strategies to prevent and control pollution of groundwater.</td>
</tr>
<tr>
<td>18</td>
<td>Implementation progress reporting obligations of the EC.</td>
</tr>
<tr>
<td>19</td>
<td>Plans for future Community water policies legislation.</td>
</tr>
<tr>
<td>20</td>
<td>Provisions for technical adaptations to the WFD.</td>
</tr>
<tr>
<td>21</td>
<td>Provisions for the EC’s regulatory committee for implementation.</td>
</tr>
<tr>
<td>22</td>
<td>Provisions for repeals/transitional provisions of prior water legislation.</td>
</tr>
<tr>
<td>23</td>
<td>Provisions for penalties.</td>
</tr>
<tr>
<td>24</td>
<td>Implementation deadlines.</td>
</tr>
<tr>
<td>25</td>
<td>Date of entry into force (December 22, 2000).</td>
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</table>
The WFD’s ambiguity concerns both the sustainability paradigms and the governance and policy principles. See Table 1.2 for an overview of these as interpreted by the author by a textual analysis of the WFD. The interpretation of governance principles is inspired by the principles for effective water governance as defined by Rogers and Hall (2003: 27-29). Regarding its policy principles the WFD builds on the common environmental principles of the European Community (Preamble 11; European Communities, 2000: 2):

As set out in Article 174 of the Treaty, the Community policy on the environment is to contribute to pursuit of the objectives of preserving, protecting and improving the quality of the environment, in prudent and rational utilisation of natural resources and to be based on the precautionary principle and on the principles that preventive action should be taken, environmental damage should, as a priority, be rectified at source and that the polluter should pay.

Huitema and Bressers (2006: 3) argue that although the preamble of the WFD is ‘humming with rhetoric about integrated water management and achieving sustainable status’, the issue of groundwater was too controversial to be fully incorporated. Furthermore, ‘water quantity issues (flooding) are hardly regulated, despite having an obvious connection to water quality issues and despite having clear transboundary aspects’ (ibid.). However according to Barraqué (2003: 204), the WFD ‘offers an opportunity to generalise reasonable and equitable sharing between users to all European rivers, that is to move away from exclusively government-operated hydraulic and supply-side schemes towards more balanced supply-and-demand management, within each hydrographic district, by local user communities’. The river basin management approach may support this evolution. The WFD builds on the Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UN-ECE, 1992). The Directive further institutionalises river basins as the appropriate management units at the European level.

The WFD provides a set of governance and policy principles which in an ideal world should be implemented by Member States in a coordinated and transboundary fashion. The voluntary nature of the international coordination provisions may be considered an Achilles heel of the WFD. Huitema and Bressers (2006) claim that although the European Commission was envisioning the obligation to found river basin authorities at the sub basin level, Member States insisted to replace it by a suggestion. Van Rijswick and Havekes (2012: 246) add that ‘European law does not as yet provide an adequate solution’ for the ‘questions regarding shared responsibility on the one hand and the obligation of each Member State to fulfil European obligations on the other’. A second Achilles heel may be the weak cross-compliance arrangements.

Although its preamble mentions the importance of cross-sector integration, the WFD does not include explicit rules and principles on the coordinated development and management of water, land and related resources. According to Huitema and Bressers (2006: 19) the WFD ‘does not really relate to issues of land use planning (maybe because this is an issue the Commission does not have a say in)’. 
### Table 1.2: The WFD’s sustainability paradigms and governance and policy principles

<table>
<thead>
<tr>
<th><strong>Sustainability paradigms (location in the WFD text)</strong></th>
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<tbody>
<tr>
<td>o water is both a common pool resource and an economic good (Preamble 1)</td>
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<tr>
<td>o people, planet and profit (Preamble 12)</td>
<td></td>
</tr>
<tr>
<td>o ecological economics/goods and services of ecosystems (Preamble 17, 24; Art. 1)</td>
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<tr>
<td>o conventional economics/economic interests determine environmental protection ambition (Preamble 31, 32; Art. 4(3) and 4(5))</td>
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<tr>
<td>o conventional ecology (Preamble 42; Art. 1)</td>
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<tr>
<td>o integrated approach for surface water &amp; groundwater (Preamble 41; Art. 2(27))</td>
<td></td>
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<tr>
<td>o sustainable human development activities (Art. 4(3))</td>
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<tr>
<th><strong>Governance principles</strong></th>
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<tbody>
<tr>
<td>o the need for cross-sector integration mechanisms (Preamble 16 and 47)</td>
<td></td>
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<tr>
<td>o subsidiarity (Preamble 13 and 18)</td>
<td></td>
</tr>
<tr>
<td>o coherent, inclusive and communicative collective action (Preamble 14)</td>
<td></td>
</tr>
<tr>
<td>o active involvement of all interested parties including users and general public (Preamble 14 and 37; Art. 14)</td>
<td></td>
</tr>
<tr>
<td>o openness, transparency and accountability (Preamble 30)</td>
<td></td>
</tr>
<tr>
<td>o international, transboundary coordination (Preamble 35)</td>
<td></td>
</tr>
<tr>
<td>o equity and accountability: comparable monitoring and common environmental quality standards and emission limit values for certain groups or families of pollutants as minimum requirements (Preamble 42)</td>
<td></td>
</tr>
<tr>
<td>o (inter)national river basin (districts) as appropriate management units (Art. 3)</td>
<td></td>
</tr>
<tr>
<td>o accountability, inbuilt arbitration enforcing mechanisms: roles of the European Commission &amp; Member States (Preamble 49 and 53; Articles 3 till 21, 23 and 24)</td>
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<table>
<thead>
<tr>
<th><strong>Policy principles</strong></th>
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<tbody>
<tr>
<td>o an integrated Community policy on water (Preamble 9)</td>
<td></td>
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<tr>
<td>o prudent and rational utilisation of natural resources (Preamble 11)</td>
<td></td>
</tr>
<tr>
<td>o precaution and prevention (Preamble 11)</td>
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<tr>
<td>o environmental damage should be rectified at source (Preamble 11)</td>
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<tr>
<td>o the polluter should pay (Preamble 11 and 38)</td>
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<tr>
<td>o control of quantity securing good water quality (Preamble 19)</td>
<td></td>
</tr>
<tr>
<td>o greater integration of qualitative and quantitative aspects of both surface waters and groundwaters (Preamble 20 and 34)</td>
<td></td>
</tr>
<tr>
<td>o progressive reduction of emissions of hazardous substances and elimination of priority hazardous substances (Preamble 22 and 27; Articles 11k and 16)</td>
<td></td>
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<tr>
<td>o no deterioration (stand still) (Preamble 26; Art. 4(5) and Art. 4(8))</td>
<td></td>
</tr>
<tr>
<td>o combined approach of emission limit values and environmental quality standards (Preamble 40; Articles 10 and 16(8))</td>
<td></td>
</tr>
<tr>
<td>o recovery of the costs of water services, including environmental and resource costs (Preamble 38)</td>
<td></td>
</tr>
<tr>
<td>o one out, all out (Article 2(17; 19))</td>
<td></td>
</tr>
<tr>
<td>o no-shift of problems to other water bodies (Preamble 51, 53; Art. 4(8))</td>
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1.4 Central theme and set-up of the dissertation

This research is inspired by an interest in triggers and barriers for changes in collective-choice rules within the water policy domain at and across political levels. Central focus is the impact of the ambiguous ambitions in the WFD. The Directive offers a set of governance and policy principles to Member States for translating the IRBM paradigm into environmental objectives and management practices for all Europe’s surface and groundwater resources. The rule-altering potential of the Directive depends on how stakeholders in different policy domains will interpret and implement its objectives and principles within the overall context of prior developed institutions. At the one hand logical inconsistencies from ambiguous claims and actions may trigger a predominant instrumental use, i.e. to protect the status quo. On the other hand, whenever ambiguous policy preferences and traditions are acknowledged by multiple stakeholders as the point of departure in a search for common definitions and collective action, the Directive may trigger incremental rule changes.

Chapter 2 introduces the theoretical framework. It explains the need for an analytical framework that both includes a collective-choice rules typology and interrelations with other dimensions of a policy domain within the overarching context of generic political and social processes. The theoretical novelty of this research is the integration of the seven rule types of the Institutional Analysis and Development framework (henceforth IAD; Kiser and Ostrom, 1982; Ostrom, 1999, 2005) with the Policy Arrangement Approach (henceforth PAA; Van Tatenhove and Leroy, 2000; Leroy and Arts, 2006), as the elaboration of the latter’s rules of the game dimension. As will be argued, a more detailed operationalisation of this dimension enlarges the potential for an assessment of incremental collective-choice rules changes within a policy (sub) domain over time. For analytical purposes, as inspired by the work of Max Weber (1922), ideal-type collective-choice rules for IRBM are constructed based on practical experiences, literature review and interviews. These ideal-type rules serve as a benchmark instrument to track changes between the WFD’s drafting and negotiation stage (in the 1990s) and its first implementation planning cycle (from 2001 to 2009) within the multi-level governance context of transboundary river basins.

Chapter 3 introduces the hypotheses, scientific and societal research aims and the research questions. Subsequently, central concepts are briefly defined and spatial and temporal choices are presented. The chosen triangulation of research methods is introduced which includes a discussion of advantages and pitfalls of a participative and interpretative analysis. This research compares the first WFD implementation planning cycle at five interrelated political levels within the International Meuse River Basin District (European, multilateral, national, regional and local), with special emphasis on the most downstream riparian state (the Netherlands). How do actors who are involved in water policy implementation planning and decision-making processes at these political levels deal with the ambiguous nature and challenges of IRBM? How are the WFD’s environmental objectives, its exemption options and its governance and policy principles downloaded and incorporated into current water policy arrangements in the Netherlands? Reversely, to which extent are the Dutch successful in up-loading their best practices to the European and multilateral arenas? In other
words, what are the changes in collective-choice rules at different political levels as the outcome of interaction among actors, distribution of power and resources and dominant (and opposite) arguments?

The Chapters 4 till 8 are the empirical heart of this book. Each chapter starts with a brief chronological reconstruction of the water policy implementation planning process during the 1990 to 2009 period. The second part of each chapter consists of a detailed analysis of the four dimensions of a policy arrangement with the rules of the game as the principal entrance. Subsequently, conclusions are drawn about potential triggers and barriers for observed (lack of) changes in collective-choice rules. As will be described in Chapter 3, the analyses and conclusions are based on a detailed review of meeting documents, research reports and articles, interviews and reflexive mirror sessions with involved stakeholders and peer researchers and (non-)participatory observations of meetings and conferences.

Chapter 4 starts with the European water policy domain. After a brief overview of the WFD’s drafting and negotiation process (from 1995 to 2000), the environmental objectives and the governance and policy principles are described, as formulated in the official text and the related informal guidance documents of the Common Implementation Strategy (henceforth CIS; 2000 to 2009). Chapter 5 continues with an analysis of the first WFD implementation planning cycle at the multilateral level as coordinated by the International Meuse Commission. The national, regional and local levels in the Netherlands subsequently are covered by the Chapters 6 to 8. Chapter 8 also includes observations on the bilateral coordination efforts made by public actors in the Flemish Region of Belgium and the Netherlands. Chapter 9 closes the story of this book by a reflection on the findings and by presenting the conclusions and recommendations of the research.

Integrated River Basin Management: a strategic multi-stakeholder dialogue (Leo Santbergen, 2005)
2.1 Introduction

As introduced in Chapter 1, IRBM is a holistic concept that aims for collective-choice rules on the sustainable use, development and management of interrelated water and land resources. Intrinsically, the concept is ambiguous hence invites a diversity of voices and interpretations. Depending on the specific physical, social, economic and political conditions of a river basin, IRBM may challenge present rules-in-law and rules-in-use. The IRBM concept has become one among dominant paradigms within the European environmental policy domain since the mid 1990s. The WFD offers a set of governance and policy principles for translation of this paradigm into environmental objectives and management practices for all Europe’s surface and groundwater resources. Due to both its laborious political drafting and negotiation process and the holistic character of the IRBM concept, the WFD is ambiguous in nature. Consequently, like the paradigm it institutionalises the Directive opens the door to multiple interpretations such as expressed by the intrinsic exemption options in its core Article 4 on environmental objectives. Given this background it is uncertain whether and if so, to which extent the WFD’s implementation process, which involves multiple stakeholders of Member States in shared international river basins, will lead to changes in current collective-choice rules.

Since this research is inspired by an interest in triggers and barriers for collective-choice rule changes within the water policy domain, there is a need for an analytical framework which includes a rules typology and, by the aid of related theories, informs about potential explanations for observed (resistance to) changes. As a first clue, the Policy Arrangement Approach (PAA; Arts, Van Tatenhove and Leroy, 2000; Leroy and Arts, 2006) offers such a framework by linking four dimensions within a tetrahedron: (substantive and organisational) rules with policy discourses, actors (coalitions and oppositions) and division of resources and power (Liefferink, 2006: 60; Figure 2.1). Due to the indissoluble interrelatedness of the dimensions of the PAA, as a matter of principle, a researcher should address the entire tetrahedron (ibid.: 48).

A second clue which provides the opportunity to further elaborate the rules of the game dimension, lies in the Institutional Analysis and Development framework (IAD framework; Kiser and Ostrom, 1982; Ostrom, 1999, 2005). The 2009 Nobel Memorial Price in Economic Sciences winner Elinor Ostrom and many of her peer researchers have developed the IAD framework over three decades of theoretical and empirical studies (for an extensive definition and illustration of the framework, read the seminal
book ‘Understanding Institutional Diversity’; Ostrom, 2005). The framework has its roots in studies on rules and games in governing common pool resources (Ostrom, 1990; Blomquist, 1992; Ostrom, Gardner and Walker, 1994; Schlager, 1995) and includes (a definition of) seven rule types which may be applied to track and explain changes over time (Ostrom, 2005). Visit also http://dlc.dlib.indiana.edu/dlc (the Digital Library of the Commons) for an extensive database of research projects and articles. Ostrom, Gardner and Walker (1994) argue that choices on collective action may not be studied in isolation but as a configuration. A change in any rule type may affect the others. Additionally, these rules are the outcome of interactions among actors in action situations which are influenced by exogenous variables: biophysical/material conditions, attributes of a community and rules-in-use (Ostrom, 2011).

![Figure 2.1: The tetrahedron of a policy arrangement (Liefferink, 2006: 60).](image)

The theoretical novelty of this research approach is the integration of the seven rule types of the IAD framework with the PAA, as elaboration of the latter’s *rules of the game* dimension. A more detailed operationalisation of this dimension will enlarge the potential for an assessment of incremental collective rules changes within a policy (sub)domain over time. Since the rules dimension is the principal entrance of this research, Section 2.2 starts with an introduction to Ostrom’s rule types (Subsection 2.2.1). In order to operationalise an assessment of continuity and change of rules during a certain period the concept of ideal-types will be applied (Weber, 1922; see Subsection 2.2.2 for a further description). Based on a literature review the Subsections 2.2.3 to 2.2.9 present ideal-type collective rules for IRBM, as constructed for the analytical purposes of this research. As the next step, Section 2.3 continues with the PAA, from its definition (Subsection 2.3.1) to specification of the three other dimen-
2.2 Collective-choice rules for Integrated River Basin Management

2.2.1 The rule-types of Elinor Ostrom

The term institution may refer to ‘many different types of entities, including both organisations and the rules used to structure patterns of interaction within and across organisations’ (Ostrom, 1999: 36). Institutions are normalising in the sense that they tend to embody shared codes, rules and conventions which may serve to constrain behaviour of political subjects (Brinton and Nee, 1998), or in the sense that they may define logics of appropriate behaviour in a given setting to which actors conform in anticipation of the sanctions in cases of non-compliance (March and Olsen, 1989). Van Tatenhove and Leroy (2000: 17) define institutionalisation ‘in its sociological meaning, referring to the construction and the preservation of day-to-day activities and interactions of actors in institutions within the context of processes of societal and political change’. More specifically they regard institutionalisation as ‘the process leading to the formation, deformation and reformation of policy arrangements’ (ibid.). The IAD framework takes an explicit agency centred definition of institutions as ‘human-constructed constraints or opportunities within which individual choices take place and which shape the consequences of their choices’ (McGinnis, 2011: 170).

Rules of the game are one of the four dimensions of a policy arrangement, as part of a configuration with actors, distribution of power and resources and policy discourses (Arts, Van Tatenhove and Leroy, 2000). Rules define the possibilities and constraints for policy agents to act within a certain policy domain. They express which norms are legitimate and how policy outcomes are achieved such as by which procedures, by which allocation of tasks and by which division of competences between actors and organisations (Arts et al., 2000). Involved stakeholders constantly draw upon rules that delimit the agents who are the “right” political players to be involved and those who are not. Additionally, they define the boundaries of policy coalitions: who is in and who is out, how one can get in and what the relationship with outsiders is (ibid.: 61; Ostrom, 2005). Moreover, rules describe how the political game should be played: how issues may be raised; agendas set; interests articulated; policies formulated; decisions made; and measures implemented (Arts, Van Tatenhove and Leroy, 2000; Ostrom, 2005). Rules of the game relate to actors, resources and power and policy discourses respectively by means of interaction rules, regulatory power and rules of governance (see Figure 2.1; Liefferink, 2006: 60).
According to Ostrom (1999: 50, as informed by Ostrom, Gardner and Walker, 1994) ‘rules are shared understandings among those involved that refer to enforced prescriptions about what actions (or states of the world) are required, prohibited or permitted’. Often a distinction is made between formal, written down rules (and formulated by legislatures, regulatory agencies and courts of justice) and informal, rules-in-use, of which many are not written down (North, 1990; Ostrom, 1990). In many common pool resources settings the working rules used by appropriators may differ considerably from legislative, administrative or court regulations (Wade, 1988). ‘The difference between working rules and formal laws may involve no more than filling in the lacunae left in a general system of law. More radically, operational rules may assign de facto rights and duties that may even be contrary to the de jure rights and duties of a formal legal system’ (Ostrom, 1990: 51; italics added). These informal working rules pose severe challenges for the field researcher since many of those rules-in-use are not even conceptualised by agents as rules (Ostrom, 1999: 53). Hence, ‘in training researchers to identify and measure institutions, we stress the concept of rules-in-use rather than focusing on rules-in form’ (ibid.: 37).

Arts, Van Tatenhove and Leroy (2000) argue that it is obvious that the rules of the political game change continuously over time, partly as result of long-term societal processes such as political modernisation, partly caused by specific interactions among actors in tangible policy-making processes. One question is to which extent implicit, not written down rules of the game influence the outcome of a political process with regard to formalised written down rules. Another question refers to the rule-altering potential of current policy arrangements. Beck (1997) distinguishes rule-directed and rule-altering politics; the former refers to politics within the nation state model and the latter to sub-politics in what he mentions as the global risk society. Elinor Ostrom (1999: 53) implicitly refers to path dependency by mentioning settings ‘where the rules-in-use have evolved over long periods of time and are understood implicitly by participants’. According to Victor Ostrom (1999: 383) ‘rules are not self-formulating, self-determining, or self-enforcing’. Stability of rule-ordered actions depends upon the shared meanings assigned to the words used to formulate a set of rules (Elinor Ostrom, 2007). Without shared meanings when formulating rules, confusion may result about what actions are required, permitted or forbidden (Victor Ostrom, 1999).

Kiser and Ostrom (1982) distinguish three tiers of decision making and the relations among them: constitutional, collective-choice and operational decisions. Ostrom (1999; 2005) has further elaborated the three tiers which are linked in a nested hierarchy, as part of the IAD framework. She emphasises: ‘Decisions made about rules at any one level are usually made within a structure of rules existing at a different level. Thus, institutional studies need to encompass multiple levels of analysis.’ (Ostrom, 1999: 37) Rules affecting operational choice are made within a set of collective-choice rules that are themselves made within a set of constitutional-choice rules (see Ostrom, 1990: 50-55). Collective-choice rules are those used by appropriators, their officials or external authorities in making policies about how a common pool resource should be managed. Decisions which are made in collective-choice situations directly affect operational situations. Decisions made in constitutional-choice situations indirectly affect
operational situations by creating and limiting the powers that can be exercised within collective-choice arrangements and by affecting the decision regarding who is represented and with what weight in collective-choice decisions (Ostrom, 1990: 192). In 1999 Ostrom adds a fourth level of analysis of meta-constitutional choices (Ostrom, 1999: 60). The meta-constitutional legal of analysis ‘encompasses long-lasting and often subtle constraints on the forms of constitutional, collective, or operational choice processes that are considered legitimate within an existing culture; many of these factors may not be amenable to direct change by those individuals under the influence of these cultural predispositions, but these cultural factors do change over time, in part as a consequence of changing patterns of behaviour’ (McGinnes, 2011: 173).

Policy-making regarding the rules that will be used to regulate operational-level choices rarely takes place in a single arena. Actors of different networks will participate in several more or less related arenas within a nested hierarchy of institutional levels. Choices about (a change of) rules may be made by appropriators themselves and/or by government officials in bureaucratic structures, by elected representatives in local, regional or national legislatures and by judges in juridical arenas (Ostrom, 1990). Networks and arenas may be both formal (legislatures, regulatory agencies, courts) and informal (gatherings, private associations, appropriation teams) in nature. Actor strategies will be the outcome of a combination of internal and external variables. Ostrom (1990; 2005) challenges theories in which “the individual’s internal calculation process” only determines actor strategies. For example, Buchanan et al. (1978) argue that the general conclusion of public choice theorists is that institutions must be developed to restrain destructive utility maximising behaviour that serves the interests of particular individuals while adversely affecting the society as a whole. Hence, public choice theory does not lead to the conclusion that all collective action, all government action, is necessarily undesirable (ibid.). However, Ostrom (1986a and b) argues that despite its pretensions towards institutional design, public choice theory disregards or underestimates the effects of institutional factors in shaping actors’ preferences.

In the IAD framework Ostrom (1999, as interpreted by Howlett and Ramesh, 2003: 29) takes on board notions from actor-centred institutionalism, since this, unlike public-choice theory, takes into account the fact that rules, norms and symbols all affect political behaviour; that the organisation of governmental institutions affects what the state does; and that unique patterns of historical development constrain future choices (Howlett and Ramesh, 2003: 29). Institutions do not only include formal organisations (bureaucratic hierarchies and market-life exchange networks) but also legal and cultural codes and rules that affect the calculations by individuals and groups of their optimal strategies and courses of action (ibid.). Ostrom (1990; 2005) perceives individuals as weighing expected costs and benefits in making decisions as these are affected by internalised norms and discount rates (ibid.). Finally, Ostrom (1990: 53-54) points at resistance to changes in rules:
Rules are changed less frequently than are the strategies that individuals adopt within the rules. Changing the rules at any level of analysis will increase the uncertainty that individuals will face. Rules provide stability of expectations and efforts to change rules can rapidly reduce that stability. Further, it is usually the case that operational rules are easier to change than collective-choice rules and collective-choice rules are easier to change than constitutional-choice rules.

In the design of the IAD framework Ostrom (2005) further elaborates the seven rule types as introduced by her prior definition of institutions as ‘the sets of working rules that are used to determine who is eligible to make decisions in some arenas, what actions are allowed or constrained, what aggregation rules will be used, what procedures must be followed, what information must or must not be provided and what pay-offs will be assigned to individuals dependent on their actions’ (Ostrom, 1990: 51). Table 2.1 sums the rule types and their definitions. The set of rules is a configuration since the effect of a change in one rule type may depend upon the other rules-in-use (Ostrom, 1999 and 2005).

According to Meijerink and Van Tatenhove (2007), the rule types as defined by Ostrom (1990; 2005) may be applied both as an analytical framework (which rules are identifiable?) and a normative one (which rules should apply?). Entering the tetrahedron via the rules dimension corner is a suitable strategy for studying the influence of institutional change on particular policy areas (Liefferink, 2006). One could think of the influence of evolving European Union rules on national institutions, often referred to as Europeanisation. Furthermore, starting from the rules dimension is helpful for an (ex ante or ex post) evaluation of the effect of the introduction of new rules or procedures on other dimensions of the policy arrangement (ibid.). Within this research, the WFD is considered as a new set of formal collective-choice rules at the European political level. Given sovereignty, subsidiarity and ambiguity around the European rules, Member States may translate these into their own collective- and operational-choice rules. The governance and policy principles in the official WFD text (and informal interpretations of the Common Implementation Strategy; see Chapter 4) and their downloading by actors within and across Member States may include both triggers and barriers for changes of collective-choice rules.

In the IAD framework of Ostrom (1999; 2005), the rule types may be applied to constitutional, collective-choice and operational (action) situations. However, scholars should be aware that the definitions and descriptions of Ostrom are mainly oriented to and derived from studying operational action situations such as, governing of common pool resources by local communities (as inspired by game theory). Consequently, for the purposes of this research a reformulation is considered necessary for application of these rule types at the collective-choice level. In order to ascend the abstraction ladder from operational choices to collective choices, the definitions of the seven rule types of Ostrom have been translated into collective-choice challenges in the implementation of the IRBM concept (see Table 2.2).
Table 2.1: Rule types in CPRM (Ostrom, 2005: 186-215)

<table>
<thead>
<tr>
<th>Type of rule</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope:</td>
<td>Rules that define known outcome variables that must, must not or may be affected as a result of actions taken within an action situation. These rules affect the width of the outcome space (number of state variables affected) and specify the range on each outcome variable included in that space.</td>
</tr>
<tr>
<td>Position:</td>
<td>Rules that define (the number of) participants to which specific action sets are assigned at junctions in a decision making process. Positions are the links between participants and authorised actions. Most action situations contain more than a single position and sets of rules assign different kinds of authority to those in different positions.</td>
</tr>
<tr>
<td>Boundary (entry or exit):</td>
<td>Rules that define (1) who is eligible to enter a position, (2) the process that determines which eligible participants may enter (or must enter) positions and (3) how an individual may leave (or must leave) a position. Hence, these rules affect the number of participants, their attributes and resources, whether they can enter freely and the conditions they face for leaving.</td>
</tr>
<tr>
<td>Choice (prior labelled as authority):</td>
<td>Rules which specify what a participant occupying a position must, must not, or may do at a particular point in a decision process in light of conditions that have, or have not been met at that point in the process.</td>
</tr>
<tr>
<td>Aggregation:</td>
<td>Rules which determine who will participate in decision making, how much weight each participant will have relative to others and the specific formula to be used in adding up the contribution of each person’s decision to a final decision about the (proposed) action.</td>
</tr>
<tr>
<td>Information:</td>
<td>Rules that authorise channels of information flow among participants, assign the obligation, permission, or prohibition to communicate to participants in positions at particular decision nodes and rules that authorise the language and form in which communication will take place.</td>
</tr>
<tr>
<td>Pay-off:</td>
<td>Rules which assign external rewards or sanctions to particular actions or particular readings on outcome state variables. As such they establish the incentives and deterrents for action.</td>
</tr>
</tbody>
</table>

One may argue whether one needs all the seven rule types for an institutional analysis of a particular policy domain. Some authors have suggested that given the overlap between some of these types, certain types of rules alone can carry the analysis (Heilman, 1992; Sabatier, 1992; Huitema, 2002). For example, in his dissertation on hazardous waste siting decisions Huitema (2002) has reduced the number of rule types to five by integrating position and scope rules into choice rules. This research maintains all seven rule types, since the partly overlap is considered as potentially functional. The distinction between scope, position and choice rules is related to a specification of particular aspects of IRBM, i.e. internal and external integration, river basins as organisational entities, the impact of property and user rights and the choice between supply and/or demand management (see Table 2.2). Whereas boundary rules
include access of actors to the decision-making processes, the aggregation rules cover
the decision-making arrangements themselves. Ostrom herself implicitly opens the
doors to a diverse use of the rule types by mentioning that the seven rule types are to
be understood as broad clusters in an ‘effort to bring some order to the massive num-
ber of specific rules that one could analyse’ (Ostrom, 2007: 11).

Table 2.2: IRBM and challenges of collective-choice rules

<table>
<thead>
<tr>
<th>Type of rule</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope:</td>
<td>How to translate “river basins as the appropriate management units” with regard to current organisational structures and/or actor networks? What does internal integration (within the water policy domain) and external integration (across policy domains) mean for the nature of river basin legislation, policy documents and management plans?</td>
</tr>
<tr>
<td>Position:</td>
<td>How do (inter-)national river basin governance and policy principles affect property and user rights? By other means, given a specific institutional and hydro-geographical context which conditions should best apply to (acquisition and continuation of) rights to own and use water, land and other interrelated natural resources in a sustainable way?</td>
</tr>
<tr>
<td>Boundary (entry or exit):</td>
<td>Who should have access to the river basin management planning and decision-making process and who should not? What are conditions for entry and exit?</td>
</tr>
<tr>
<td>Choice (authority):</td>
<td>How to manage available fresh water resources in order to serve both different user functions and protection of the ecological life support system? How are qualitative and quantitative objectives of water resources legally anchored such as in relation to objectives for other natural resources?</td>
</tr>
<tr>
<td>Aggregation:</td>
<td>How to arrange decision-making at interrelated political levels within (inter)national river basins in order to reach common understanding for and broad public support for collective approaches? Who should agree with both adaptations of current and new rules?</td>
</tr>
<tr>
<td>Information:</td>
<td>Which types of information may be best collected and aggregated in order to arrive at common understanding and shared ownership over river basin management plans?</td>
</tr>
<tr>
<td>Pay-off:</td>
<td>What are collective rules supposed to deliver? What are the incentives and deterrents for deliverance?</td>
</tr>
</tbody>
</table>

This research aims at analysing potential changes of collective-choice rules due to the introduction of the WFD. In order to be able to track and assess both the sort of and magnitude of changes, there is a need for an analytical benchmark. The concept of ideal-types as defined by Weber (1922) offers an appropriate entry.

2.2.2 The ideal-type concept of Max Weber

Studying processes of IRBM includes the methodological challenge to bridge the natural and social sciences. On the one hand the concept is about a search for objective
facts on the state and functioning of natural resources: the field of natural sciences. On the other hand these natural resources are subject to rules as formulated, implemented and evaluated by multiple human actors with a diversity of norms, values and strategies: the field of social and political sciences. Values present a challenge to objectivity; they make for a crucial difference between the natural and the social sciences (Eliaeson, 2002). Whereas the natural sciences focus on objective facts and causal chains of courses and their effects, the social sciences struggle with the intrinsic subjective nature of its subjects such as with the value-load of all human observations and choices. For example, the ambiguous nature of the IRBM concept makes that there is not one common interpretation that serves all. Furthermore, a researcher’s own bias may colour the assessments, such as by emphasising the importance of some observations over others. At the methodological level values relate to the problems of inter-subjectivity and incommensurability (Eliaeson, 2002).

In his elucidating book ‘Max Weber’s Methodologies’ Eliaeson (2002: 12-15) argues that as influenced by nominalism and neo-Kantianism, Weber has tried to bridge the worlds of material reality and human construct. Other authors support this argument (Turner, 1990; Lepsisus, 1977). Eliaeson (2000: 12-13; original italics) explains that nominalism views concepts as ‘constructions of the human mind; that we ourselves ascribe the meaning our concepts signify’. Concepts cannot be confused with reality. ‘Concepts are only names we attach to phenomena; conceptual insight as such does not provide any knowledge’. Additionally, Eliaeson (2002: 13) argues that ‘to the neo-Kantians, in a certain sense, science creates its own objects of knowledge and our knowledge is always a product of human activities and thus is never independent of us. Analytically derived concepts do not necessarily have anything to do with reality as such; they are merely the means for increasing our knowledge through instrumental and conventional methodological procedures.’ Eliaeson (2002: 12) argues that according to Weber human beings cannot escape individual responsibility in the choice of values. ‘In the political process we cannot invoke the authority of science to guide us “all the way”.’ This points at scientific value-relativism (ibid.).

Although Weber agreed with the anti-positivists that human society in its totality is inaccessible to naturalist analysis, he did not conclude that conceptual constructs and rational scientific procedure should be exclusively reserved for the natural sciences (Eliaeson, 2002). In an attempt to incorporate the methodological vigour of natural sciences, Weber (1922: 542) defined sociology as ‘a science which attempts the interpretative understanding of social action in order thereby to arrive at a causal explanation of its course and effects’. Weber viewed social sciences as strictly empirical sciences which are the least fitted to presume to save the individual the difficulty of making a choice (Weber, 1922; 1949). Social scientists must live with competing value-hierarchies. They are not free to choose but also enforced to choose (ibid.). According to Weber (1922; 1949) human action cannot be interpreted in purely rational terms due to the various disturbances created by prejudices, errors in thinking, factual errors in the course of making instrumental choices as well as the whole range of moods and other influences on actual situations. Eliaeson (2002: 29) sums Weber’s approach to social science: ‘Values, as such, have no place in scientific understanding except as subject matter; in addition, they serve as the vantage points for instrumental goal-
oriented action analysis’. According to Weber ‘values become the very criteria for objective selection, indicating both the possibility and limits of objectivity’ (ibid.: 30). Eliaesen (2002: 31) argues that Weber makes no claims to normative validity for any of the values that serve as his point of view. Furthermore, ‘the scientific community has a special responsibility to interpret the significant cultural values and their relevance to current analyses’ (ibid.).

Weber (1922: 191, 192 and 2000) has introduced the ideal-type as value-free, analytical human constructs:

The ideal-type is formed by the one-sided accentuation of one or more points of view and by the synthesis of a great many diffuse, discrete, more or less present and occasionally absent concrete individual phenomena, which are arranged according to those one-sidedly emphasised viewpoints into a unified analytical construct. In its conceptual purity, this mental construct cannot be found empirically anywhere in reality. It is a Utopia. Historical research faces the task of determining, in each individual case, the extent to which this ideal-construct approximates to or diverges from reality. [...] we should emphasise that the idea of an ethical imperative, of a ‘model’ of what ‘ought’ to exist, is to be carefully distinguished from the analytical construct, which is ‘ideal’ in the strictly logical sense of the term. [...] An ‘ideal-type’ in our sense, to repeat once more, has no connection at all with value-judgements and it has nothing to do with any type of perfection other than a purely logical one.

In this research ideal-types are formulated for collective rules as they might (or might not) appear in the context of IRBM. These ideal-types collective rules should be understood as the author’s construct, as analytical units to compare real-life observations on the water policy domain at different political levels within an international river basin. They are applied instrumentally as a benchmark to track continuity and change in collective-choice rules during the periods before and after adoption of the WFD. The reader should bear in mind that these ideal-types are qualitative in nature and only meant to track the sort of and the extent of observable rule changes over time without any normative judgement. Furthermore, the concept’s application in the context of this research serves an attempt to grasp the diversity of potential appearances of IRBM.

2.2.3 Scope rules

Scope rules may concern both organisational choices (e.g. what type(s) of policies and management administrations rule the world?) and substantial ones (e.g. which attributes of a water resource are included and excluded?). More precisely, these rules define known outcome variables that must, must not or may be affected as a result of actions taken within an action situation (Ostrom, 2005: 208). Scope rules affect the width of the outcome space (number of state variables affected) and specify the range on each outcome variable included in that space (ibid.). The focus of this research is on the impact of hydrological boundaries on organisational structures, whereas for substantive choices the focus is on levels of integration. For example, how are “river basins as the appropriate management units” to be matched with political jurisdictions, eco-
nomic principles and boundaries of social structures and networks? Will this central IRBM governance principle be covered by existing organisational structures only or does it trigger additional or completely new ones? Additionally, what are collective choices for internal integration (within the water policy domain) and external integration (across policy domains)? How do these choices affect the nature of river basin legislation, policy documents and management plans?

The impact of hydrological boundaries on organisational scope rules

IRBM as defined by the Global Water Partnership (2000), presumes that water resources should be best managed at the level of (international) river basins. Consequently, political decision making about these resources should be preferably organised following hydrological boundaries. History shows the intimate connection between the stability of a group of people, its economic and social development and the availability and reliability of water (Caponera, 1992). The first developed social groupings may be typified as hydraulic civilisations (ibid.; Solomon, 2010). Jaspers (2003) argues that since ancient times whenever serious competition around available fresh water resources arose, there has been breeding ground for institutional upstream-downstream arrangements (ibid.).

The river basin approach does not found its roots in hydrological concepts only. Advocates of ecosystem management have also embraced watersheds as near-substitutes for ecosystems and as an appropriate physical landscape on which to put ecosystem management concepts into practice (Schlager and Blomquist, 2008). Saeijs (2006) relates the highly valuable ecosystems’ goods and services of river delta areas to high concentrations of people. For the sake of sustainable upstream-downstream relations, he stresses (multilateral) river basin institutions (ibid.). Also Folke et al. (2002) stress the importance of an ecosystem oriented approach since freshwater provides the foundation for any ecosystem function, which is a notion that has largely been neglected in the past. Falkenmark (2003: 38) argues that freshwater management and the management of ecosystems dynamics have to be integrated by viewing river basins as socio-ecohydrological catchments and ‘with full awareness of the different ethical and political dilemmas involved’.

Some authors warn that there is nothing logical in the presumption of choosing river basins as management units. Schlager and Blomquist (2008: x) emphasise that for people to govern watersheds, they will have to make collective choices. ‘Collective choices are ultimately political choices. Thus, governing watersheds well requires embracing politics’ (ibid.). The geographic river basin unit is imposed over the different forms in which societies had historically constructed their administrative units, their social interrelations and their political divisions (Barham, 2001). Schlager and Blomquist (2008: viii-ix) observe that due to differences between political and watershed boundaries, most watersheds (at least in the United States) ‘are governed and managed through complex, polycentric mixes of private and public bodies, of general-purpose and special district governments, of jurisdictions that lie within the watershed and jurisdictions that spill beyond it.’ Savenije and Van der Zaag (2000: 13) argue that ‘river basins do not respect village, district, provincial and national boundaries’. They point at numerous attempts ‘to fit the water into these administrative and institutional...
boundaries rather than to design institutions that fit the (physical and spatial characteristics of the) resource’. Often an administrative vacuum may be the consequence when dealing with the management of water resources, especially at the transnational level (ibid.). Pre-existing management units are presented as causes of failure (Dourojeanni, 2001) instead of departure points for designing management measures.

Stone (2002: 355; original italics) argues that arguments about the “best size” for a jurisdiction must always be interpreted as arguments supporting a particular configuration of power: ‘These strategies are all ways of changing who makes the decision. Each is a call for empowering a different set of people to make decisions and to have jurisdiction over something’. The advocates of the river basin approach seized the right moment to make its perspective heard, taking advantage of the space created many years ago by water and environmental problems in international relations (Moreyra and Warner, 2007). The delineation of a river basin may be arbitrary (due to ignorance) or strategic (driven by interests), but not natural or neutral. Hence, catchments and abstract catchment organisations should not be recommended as a panacea that could solve context-specific development problems (ibid.). Fischhendler and Feitelson (2003) argue that due to the common discrepancy between benefits and costs of cooperation at the basin level, other spatial levels are to be advanced in order to offset this discrepancy. As a result of globalisation, individualisation and the emergence of the risk society (see Beck, 2005) a whole series of local, regional and global arrangements appeared, set up by actors from different spheres and domains across the traditional borders of nation states and their divides (Van Tatenhove, Arts and Leroy, 2000). Both global economies and trading processes are just as important as local hydrology in ameliorating serious local water circumstances (Allen, 2007).

Opinions differ on the question whether generic-purpose administrations, functional water management entities, a mixture of both or other institutional arrangements (such as market-led initiatives, public-private partnerships and/or local self-organisation) should pave the way to integrated river basin management. Despite the mismatch, Rogers and Hall (2003: 21-22) conclude that hydro-geographical boundaries often provide opportunities for modern governance networks: ‘Although basins cut across jurisdictional boundaries and thus local government and other government entities which do not necessarily work together, the basin society (a river basin agency or commission) could require them to do so’. The Global Water Partnership (2000) emphasises coordination processes in which governments take the lead. Schlager and Blomquist (2008: 193) claim that [within the context of poly-centric governance networks] ‘governmental power is often needed to overcome free-rider tendencies, to raise funds and to make and enforce authoritative policies’. Solanes and Gonzalez-Villareal (1999: 19-21) call for neutral, autonomous (non-user) agencies or ministries for water policy making, water allocation and programme and project evaluation. ‘Where these functions are vested in institutions with functional responsibilities for specific water uses, or for discrete economic activities, water planning and management might not be objective’ (ibid.). The ‘Rio Declaration on Environment and Development’ (UNCED, 1992) emphasises that for sustainable development a leading role of States should be supported by both public-private and public-civil partnerships and active involvement of local communities. Schlager and Blomquist (2008: 24) con-
clude that ‘institutional complexity in a watershed can be viewed as an intrinsically trait to be minimised, an intrinsically desirable trait to be maximised or a phenomenon that is intrinsically neither good nor bad but a fact of life and where the extent and kinds of complexity vary from one watershed to another’.

In the case of international rivers the sovereignty principle and the transboundary principle are among the central governance arrangements (Savenije and Van der Zaag, 2000). The transboundary principle stresses that upstream water users have a responsibility towards downstream users and reversely (ibid.). Due to the sovereignty principle which means that ‘each nation has the right to develop its own policies, laws and institutions and their own strategies for natural resources development and utilisation’, international river basin authorities operate mostly without supranational authority (Savenije and Van der Zaag, 2000: 13). Berkes (2006) observes that actors at different administrative levels may share similar functions or responsibilities but these may not be tied together in any formal means through shared rules, strategies or actions, unless there is a formal linkage established. Often asymmetries between upstream and downstream riparian states are involved (Savenije and Van der Zaag, 2000; Meijerink and Wiering, 2009). Caponera (1992) argues that the utilisation of shared water resources requires riparian states to acknowledge the principle of limited sovereignty. Nicol (1996) adds that decentralisation may not be limited to devolution of responsibilities to lower levels only, but may simultaneously involve the delegation of negotiation rights and responsibility for broad policy formulation to higher levels. Savenije and Van der Zaag (2000: 26) embrace this dual philosophy: ‘This is precisely what is aimed at when we establish river basin organisations: certain decisions can only be effectively made at the basin level, while other decisions could be made most usefully at a much lower level such as the sub-catchment.’

Pahl-Wostl (2008: 1-22) advocates a transition towards more decentralised adaptive water management as a systematic, collaborative, poly-centric process ‘for improving management policies and practices by [social and iterative] learning from the outcomes of implemented management strategies’. Mitchell (2007: 60) stresses the importance of shared vision-building by linked multi-stakeholder platforms (abbreviated as MSPs) at the river basin and sub-basin levels as departure point for IRBM. All sub-basins and sectors (public, private and civil society) should be represented in the river basin platform. This platform provides the overall “big picture” perspective, considering a full range of values and (spatial) interests and associated conflicts, e.g. between upstream and downstream communities or between sectors. ‘To be effective, the members of a catchment-based MSP must report regularly to their constituents and represent the views of their constituents to the catchment – wide MSP.’ The sub-basin MSPs must ensure that the strategies from the basin MSP make sense at a more local level (ibid.). Watson (2007) stresses the importance of collaborative governance systems. These systems are not required for every issue type or situation of river basin management. Perhaps as such, these systems are best understood as ‘useful additions that can compliment and improve the effectiveness of existing bureaucratic and coordinated intergovernmental institutions rather than as their substitutes’ (Watson, 2007: 44). Schlager and Blomquist (2008) add that collaborative partnerships heavily depend
on who chooses to be involved; involvement is a challenge to sustain during time; and consensus-based collaborative processes can also lead to a gridlock. Finally, Rockloff and Moore (2006) conclude that there is no guarantee that polycentric organisations will be more responsive or fairer than centralised ones but neither is the opposite necessarily true.

Managing and protecting complex adaptive resource systems are challenging enough even if human uses, interests and values are not at stake. The addition of human beings brings an additional set of multiple levels (Lebel, Garden and Imamura, 2005; Berkes, 2006). Just as the physical dimensions of a watershed or other ecosystem appear at different levels, so do the multiple human uses and behaviours that occur in a watershed, complicating further the tasks of organising decision making, monitoring and enforcement (Adger, Brown and Tompkins, 2006). Consequently, institutional arrangements suited to decision making about complex adaptive systems may themselves need to exhibit some features of complexity and adaptability (Berkes, 2006). Blatter and Ingram (2000: 464) mention that since common goods such as water are multidimensional (including drinking, shipping, power generation, irrigation, recreation, ecological functions, economic development etceteras) there is no one best size of a geographical area for governing water. ‘It is necessary to determine the most important function(s), create the government structure(s) corresponding to these functions and find some mechanisms to deal with the interdependencies and spillovers between these functions’ (ibid.). Schlager and Blomquist (2008: 20) argue that institutional richness may be preferable to institutional neatness:

Multi-scale institutional arrangements, including small and local organisations linked horizontally with each other and vertically with large-scale organisations, may be able to achieve (1) close monitoring of local (subsystem) conditions; (2) representation of diverse interests associated with different physical components of the system as a whole; (3) error correction when management practices undertaken with respect to one element of the system create unanticipated negative effects elsewhere in the system; and (4) opportunities to communicate and exchange information across subsystem elements and to discuss subsystem interactions and system-wide conditions without necessarily trying to manage all parts of the system with a comprehensive organisation.

Schlager and Blomquist (2008: 103) argue that advocates of IRBM overlook the fact that an environment of complex adaptive systems (as watersheds are) works against comprehensive, integrated management. They mention that the transaction costs to appropriately account for the wide variety of circumstances within a watershed simply explode. ‘Comprehensive, integrated management at the watershed level taxes the cognitive abilities of people and generates burdensome levels of transaction costs’ (ibid.). Crabbé (2008) and Schlager and Blomquist (2008) conclude that introduction of a river basin approach creates new boundaries and coordination issues, for example between various levels and by creating new borders between (sub-)basins across administrative territories.

Table 2.3a shows the ideal-type collective-choice rules for organisational IRBM scope rules that have been constructed for the analytical purposes of this research.
These ideal-types are an attempt to cover the diversity of views from the aforementioned literature. Given the specific historical context of the studied river basin in this research (i.e. the Meuse) there is a bias towards a central role of governmental authorities in coordinating river basin management planning and decision-making processes. Discriminating factors between the ideal-types are whether hydrological boundaries determine the structures/networks and (with regard to the international context) whether there are functional entities with or without supranational authority. One might argue that there is also an ideal-type of river basin authorities with cross-sector competences. This ideal-type is not expected to be observed in reality, since with regard to international water law most states prefer the use of the term watercourse rather than river basin (Savenije and Van der Zaag, 2000: 23). ‘The latter concept comprises land areas, which are (also) governed by administrative, land use and other law. Letting land areas be governed by water law might lead to legal complexities.’ (ibid.) However, cross-sector aspects are dealt with under ideal-types for substantial IRBM scope rules (this Subsection; see Table 2.3c). Furthermore, the ideal-types for organisational scope rules do not deal with partnerships explicitly. These are supposed to be covered both implicitly by the terms ‘networks’ and ‘collaborative sub-basin communities’ and more explicitly by the ideal-types for boundary rules (see Subsection 2.2.6). Finally, the structures and networks as mentioned in the ideal-type definitions may be hierarchical or polycentric in nature.

Table 2.3a: Ideal-type collective scope rules for IRBM (organisational structures)

<table>
<thead>
<tr>
<th>Ideal-type A ↓</th>
<th>Ideal-type B ↓</th>
<th>Ideal-type C ↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water policy is implemented by organisational structures and actor networks which are driven by social, economic and political factors that do not follow hydrological (river basin) boundaries. These structures/networks may be multi-purpose or sectoral in nature and are under parliamentary control.</td>
<td>Water policy is implemented by functional water agencies, committees and actor networks which follow hydrological (river basin) boundaries. These functional entities and actor networks are controlled by parliamentary institutions.</td>
<td>Water policy is implemented by autonomous (sub) river basin authorities and/or communities that are organised along hydrological boundaries. These authorities and communities are beyond parliamentary control and do have their own polity rules.</td>
</tr>
</tbody>
</table>

**Substantive scope rules: levels of integration**

IRBM aims to link the conservation, management and development of interrelated land-water resources. It requires cross-border and cross-sector coordination and collaboration ‘in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems’ (Global Water Partnership, 2000: 22). The authors of the World Water Vision, Cosgrove and Rijsberman (2000:1), argue that:
Sustainable management of water resources requires systemic, integrated decision-making that recognises the interdependence of three areas:

1. Decisions on land use also affect water and decisions on water also affect the environment and land use.
2. Decisions on our economic and social future, currently sectoral and fragmented, affect hydrology and the ecosystems in which we live.
3. Decisions at the international, national and local levels are interrelated.

IRBM is based on the water systems approach which links water system components (surface water and groundwater, riparian zones and sediment), ecosystem characteristics and (user) functions of water resources for the benefit of a comprehensive, integrated management approach (Global Water Partnership, 2000). Water management and spatial planning are linked closely (Ministry of Housing, Spatial Planning and the Environment, 2000: 22): ‘Water use, hydrological regimes, water quality and vulnerability to extreme events are all profoundly influenced by land use patterns in the river basin.’ Hence, land use activities should be tuned to the hydrological potential of a river basin; hydrological principles should therefore be incorporated in spatial planning (ibid.). Jaspers (2003: 81) argues that ‘the notion that different uses can be combined and work together on a basin-wide scale is probably the most salient benefit and incentive for cooperation’. Benefits can be shared which would not be possible without an integrated approach (ibid.). Many land use and socio-economic functions depend on the availability of water resources of sufficient quantity and quality.

Reversely, those functions may impact the state and functioning of these wet common pool resources. Hence, integration of water management issues into other, related policy domains is one of the key challenges of IRBM (Mitchell, 1990; WWF, 2000; Santbergen, 2004; Watson, 2007; Heathcote, 2009).

Janssens and Van Tatenhove (2000: 155) translate the integration discourse as being the tension between differentiation and integration which they consider two sides of the same coin: ‘Integration is the process in which separate parts are united, while differentiation refers to the splitting up into separate parts, which presupposes ways of specialisation in order to solve problems’. Mitchell (1990: 4-5; 2007: 52-53) distinguishes between integrated and comprehensive interpretations. At the strategic level it may be more appropriate to use a comprehensive approach which includes ‘the broadest array of variables, relationships and processes with implications for coordinated management of aquatic and terrestrial resources’. Subsequently for operational choices, selection and integration of (f)actors within a river basin that are significant for solving the issues at stake may be more cost-effective (ibid.; Watson, 2007). Hooper, McDonald and Mitchell (1999) warn that integration may ask for significant transaction costs. The benefits should be capable of being identified or else the IRBM concept may become discredited (ibid.). While an integrated approach often will be needed when situations are characterised by complexity, uncertainty and conflict, it may not always be appropriate or even desirable (Fitzsimmons, 1996; Watson, 2007; Mitchell, 2007). Integration may not automatically lead to improved effectiveness of water resources management (Kindler, 2000: 313-314). ‘Fragmented and shared responsibilities are a reality and are always likely to exist’ (ibid.). Furthermore, there will be many situations in which relatively straightforward initiatives by one or coordinated
by a limited number of agencies will be sufficient to deal with an issue (Mitchell, 2007; Watson, 2007).

Janssens and Van Tatenhove (2000: 155) analytically distinguish three elements in the integration discourse, namely the integration of policy aspects, the direction of integration and stages of integration. Firstly, the contents of policy, policy instruments and planning and organisational elements may be integrated (policy aspects). Secondly, integration can occur in internal, external and/or vertical direction (ibid.; original italics):

*Internal* integration refers to the formulation of politics in which several sections, such as water, air and soil, within a policy domain are integrated. *External integration* applies to the coordination and integration of a policy domain with other policy domains. *Horizontal* integration is integration at the same administrative level, while *vertical* integration stands for integration between the administrative levels of national government, provinces and municipalities.

Thirdly, different stages of integration may be distinguished which show increasing coherence: *differentiation* (no coherence between sectors that are fully independent); *coordination* (of procedures and administrative instruments by largely independent sectors); *cooperation* (i.e. sectors are working together to formulate a partly mutual policy); and *integration*. Reaching integration, a new unity is created by merging of different sectors (Janssens and Van Tatenhove, 2000: 155-156). Finally, Janssens and Van Tatenhove (ibid.: 156) mention diagonal coordination which ‘refers to coordination procedures which cut through existing statutory systems in order to ensure close cooperation between departments, tiers of government and if necessary private partners in the planning and realisation of complex and urgent strategic projects’. External (or cross-sector) integration is challenged by departments and ministries which are competent in specific policy areas only, often represent diverging interests and define their policy objectives differently (Howlett and Ramesh, 2003). ‘New policies that innovatively deal with the complex nature of water resources management may be difficult to implement by sectoral institutions, which therefore may have to be reorganised.’ (Savenije and Van der Zaag, 2000: 15)

A key term with respect to integration is *redundancy*. Administrative fragmentation may lead to overlapping competencies and or limited or no attention to certain issues. When duplication of efforts among administrations lead to ineffective, uncoordinated action, or when no action at all takes place (e.g. because nobody may feel responsible), one speaks of *non-functional redundancy*. Mitchell (2007: 53) refers to the “silo effect” or ‘the tendency of agencies to take decisions only with regard to their own mandates and authority, without reference to those of other organisations’. Watson (2007: 34) argues that in essence, non-functional redundancy within the water sector has been regarded as the major institutional obstacle for IRBM. However, some degree of duplication and redundancy of organisational structures may aid reducing error proneness and promoting (social) learning, which are required in managing complex adaptive systems like watersheds and ecosystems (Schlager and Blomquist, 2008). Efforts at comprehensive regulation through integrated agencies are part of ill-adapted
institutions and procedures for such systems (ibid.). Mitchell (2007) adds that divided and shared management responsibilities across administrative levels within a catchment or an aquifer, are a key driver for initiating multiple stakeholder platforms for horizontal and vertical coordination. However, because of its complexity IRBM also invites centralisation (ibid.).

Experiences from the USA’s federal system show that poly-centric structures of overlapping organisations ‘are one organisational option that can increase the likelihood of checks on the persistent maintenance of maladaptive policies and practices’ (Schlager and Blomquist, 2008: 17). Overlapping organisations at larger levels can serve as forums for communication across local subsystems and as a check on local structures that behave in ways detrimental to other subsystems (Low et al., 2003). Thus, when overlap and/or duplication of efforts leads to social learning, synergetic and/or corrective action, functional redundancy takes place. Schlager and Blomquist (2008) argue that in addition to transaction costs considerations, people rationally may opt to create multiple organisations within a watershed because of the multiplicity of values, problems, relevant goals and scales. Lebel, Garden and Imamura (2005) distinguish the political level (watershed versus river basin versus other area), politics of position (related to the specific location within a given area) and the politics of place (related to the stakeholders’ identity, status and resources) as potential reasons for a multiplicity of organisational structures.

IRBM requires functional redundancy, both within the water policy domain and across related policy domains. Although value-neutral, functional water policy and management authorities (Rogers and Hall, 2003; Solanes and Gonzalez-Villareal, 1999) may contribute to internal integration, on the contrary they may not be able to break down barriers for cross-sector (i.e. external) integration. For example, Hooghe and Marks (2003) denote that functionally defined organisational structures usually are not engaged in political trade-offs or bargaining among service priorities by constituency-defined multiple service or multiple function organisations. Conflicts involving policies or performances by the former generally must be resolved in the juridical systems associated with the latter (ibid.). Schlager and Blomquist (2008: xi-xii) argue that ‘in order to cope with transaction costs, boundedly rational individuals construct multiplex, overlapping organisations that separately address limited goals and problems that would otherwise be impossible to achieve in a single, watershed-scale, general-purpose government.’ Watson (2007) observes a significant “implementation gap” since the idea of IRBM as unified management of water, land and related natural resources across entire river basins has rarely, if ever, been achieved in reality. Rogers and Hall (2003) add that hitherto the tools for river basin management, integrating land and water use have not been readily available to make this practical. Schlager and Blomquist (2008: 18) conclude that ‘a century of organisational behaviour research suggests that more nearly centralised organisations are susceptible internally to distortions of information and communications that can allow poor policies and practices to persist for undesirably long periods.’

As a synthesis of the presented views in the scanned literature, Table 2.3b and 2.3c present the constructed ideal-type rules for respectively internal integration and external integration.
Table 2.3b: Ideal-type collective IRBM scope rules (internal integration)

<table>
<thead>
<tr>
<th>Ideal-type A↓</th>
<th>Ideal-type B↓</th>
<th>Ideal-type C↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate legislation, policy documents and management plans for both water quality and quantity issues. Surface water and groundwater are dealt with in parallel.</td>
<td>Legislation, policy documents and management plans which includes parallel objectives and measures for both quantitative and qualitative aspects and for groundwater and surface water.</td>
<td>Legislation, policy documents and management plans with integrated objectives and measures for interrelated surface and groundwater bodies, including quantitative and qualitative aspects.</td>
</tr>
</tbody>
</table>

Table 2.3c: Ideal-type collective IRBM scope rules (external integration)

<table>
<thead>
<tr>
<th>Ideal-type A↓</th>
<th>Ideal-type B↓</th>
<th>Ideal-type C↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate legislation, policy documents and management plans for water policy and other policy domains without linkages.</td>
<td>Legislation, policy documents and management plans for other policy domains take into account water issues and reversely.</td>
<td>Cross-sector, integrative policies and management plans.</td>
</tr>
</tbody>
</table>

2.2.4 Position rules

Positions are the connecting link between participants and authorised actions (Ostrom, 2005: 193). These rules define (the number of) participants to which specific action sets are assigned at junctures in a decision process. Most action situations contain more than a single position and sets of rules assign different kinds of authority to those in different positions. A position rule may state whether there is a defined number, no limit, a lower limit or an upper limit on the number of participants who hold a position (ibid.). Where position rules do not exactly specify the number of participants, it is entirely the operation of the boundary rules over time in conjunction with the type of goods and attributes of a community that affect the number of participants, their characteristics and their ease of entry and exit (Ostrom, 2005: 194).

In this research position rules are viewed as user and property rights regimes for interrelated water and land resources. Regimes in use may bring along negative environmental, social and/or economical externalities. These unaccounted for pressures and impacts are one major reason behind calls for IRBM. Consequently, one important analytical question is how collective (inter-)national river basin governance and policy principles may affect the positions of owners and users of water and land. For states that share a river basin triggers and barriers for changes in these position rules depend on (1) the (stability of) prior user and property rights systems, (2) the degree to which the states manage to reach common interpretations of basic principles of international water law and (3) dominant views on the way(s) towards sustainable development.

(1) Property and user rights systems

Based on an extensive literature review Needham (2006: 30-51) claims that a property right is a social construct, a relationship between people - the person holding the right and all others. Whenever there is a person enjoying such a right, there is another
person with an associated duty. Without regulation of the relationship between rights and duties, a property right will cease to have any significance. Since property rights give or should give clarity, certainty and stability in the relationships between people, they tend to be stable over time. ‘When the rights are in landed property (land and buildings), the stability, coupled with the fact that buildings and other works on land can last a very long time, can mean that rights in land give continuity to the society.’ (ibid.) Property and user rights may be organised differently depending on the legal tradition of a riparian state (Barraqué, 2003, 2004; Needham, 2006). For example in the Anglo-Saxon tradition, the rights in the use of a resource are considered property, not the resource itself (ibid.; Denman, 1978). In the Continental tradition (which includes both the Napoleonic and the German legal systems), ‘it is the thing itself [e.g. a piece of land] which is the property and which can be owned’ (Needham, 2006: 35). ‘If the owner of the thing splits off a right and authorises someone else to exercise it, it might be possible for that person to trade that right: but that right is not property.’ (ibid.) Bromley (1991) distinguishes between four types of property regimes, i.e. state property, private property, common property and non-property. From the perspective of sustainable development, non-property regimes might be the most challenging. Non-property refers to open-access resources for which there are no defined groups of users or owners and the benefits are available to everyone (Needham, 2006).

Bromley (1991) argues that open access resources will tend to be over-exploited, since no-one may take concern for sustainable use and maintenance of these resources.

Regarding water property and user rights, European history shows a juxtaposition of Roman and Germanic legal traditions in combination with different administrative traditions (centralised versus subsidiarity; Barraqué, 2004). Under the regime of the communitarian customary law of German tribes, water was considered as a thing in common use to be managed by common institutions like water tribunals. Ancient Roman law distinguished between three categories: waters common to everybody (res communes omnium; including flowing water), public waters (res publicae) and private waters (i.e. those privately owned; Caponera, 1992). Only a small part of water resources were considered private: rain water, groundwater and minor water bodies. Generally, the ownership of these waters was attached to the ownership of land. The landowner had an exclusive and unlimited right of use (and abuse) over such waters and this right of use was without any restriction, independently of the consequences that the use could cause to neighbouring lands (ius utendi et abutendi; ibid.). Barraqué (2004: 19) claims that despite their different legal histories ‘it can be shown that all Member States of the European Union combine the reinforcement of government authority on water uses and at the same time the development of water communities to reduce transaction costs in the allocation of water resources’. The category of waters considered as common property is gaining momentum (ibid.: 21). Huitema and Meijerink (2009: 4) argue that ‘even in countries where private property rights over water are strong and relevant, such rights are only valid if supported by government and only as far as they have not been superseded or pre-empted by a publicly established system of rights and obligations’.

Individual riparian states may show different mixes of the three water resources property regimes over time. These regime-combinations may deal differently
with the environmental, social and economical externalities of the uses of land and water resources within an (inter)national river basin. One may argue whether non-property as defined by Bromley (1991) should be added. Barraqué (2004: 7) considers running water resources not as ‘free-for-all’, since ‘users of a river are usually well-defined and in finite number’. This research takes the stance that for shared river basins in Europe where Member States (try to) coordinate their water policies and management approaches, at least these basins are acknowledged as common resources. However, the pitfalls of an open access nature might wait around the corner, especially for those transboundary basins wherein the stakeholders from the involved riparian states do not manage to reach common interpretations of basic principles of international water law.

(2) Basic principles of international water law
Savenije and Van der Zaag (2000) argue that countries cannot begin to share a resource without agreement on basic legal principles. The 1815 Act of the Congress of Vienna established the principle of the freedom of navigation for all riparian states on the rivers they share on a reciprocal basis, as well as its priority over other uses (Salman, 2007). Despite the growing competition with other uses, especially after the Second World War including the emergence of some basic customary rules, ‘there is still no universal treaty in force that regulates the non-navigational uses of international watercourses’ (Salman, 2007: 625). For example, the different interpretations of the relationship between equitable and reasonable utilisation and the obligation not to cause significant harm are a major reason for the still insufficient number of parties that have both signed and ratified to the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses (Salman, 2007). Rogers and Leal (2010: 187-188) argue that ‘the failure to ratify it also says a lot about the desires of upstream countries not to cede sovereignty to a supranational body’. To bridge the gap, informal, customary international law has been developed by the International Institute of Law and the International Law Association, which are both scholarly non-governmental organisations. Whereas the resolutions of the International Institute of Law mainly focus on the obligation not to cause significant harm to other riparian states (e.g. prohibition of acts that may cause pollution of international watercourses), the International Law Association essentially departs from the principle of equitable and reasonable utilisation of shared watercourses (Salman, 2007). This latter principle has been anchored in the widely acknowledged and frequently cited ‘Helsinki Rules on the Uses of the Waters of International Rivers’ (International Law Association, 1966) and has been incorporated in a number of formal, legally binding conventions, protocols and treaties afterwards (Savenije and Van der Zaag, 2000).

Although the Helsinki Rules have specified a number of (hydrological, social, economic and environmental) factors for determining the reasonable and equitable share for each basin state (International Law Association, 1966), it remains unclear how to relate and weigh the different externalities of water uses. For example, Article 5 of the Helsinki Rules requires that all relevant factors (in a specific international drainage basin) are to be considered together and a conclusion should be reached on the basis of the whole. These factors are prone to subjective interpretations by the
riparian states (Savenije and Van der Zaag, 2000). Postel (1992: 189) argues that there is a need for clearer criteria ‘by which to judge, for instance, what constitutes a reasonable level of per capita water use given the total amount of water available in a river system and what constitutes a fair apportioning of water among nations sharing common sources’. The Helsinki Rules do not only include the right for a riparian State to use water, but also the duty to prevent ‘any new form of water pollution or any increase in the degree of existing water pollution in an international drainage basin which would cause substantial injury in the territory of a co-basin State’ (International Law Association, 1966: 2). In case of violation of this duty, the causer should compensate the injured and all reasonable measures should be taken to abate existing water pollution (ibid.). Salman (2007) stresses the importance of the Helsinki Rules, since they are the first international legal instrument to include and equate rules for both navigational and non-navigational uses of international drainage basins and to address issues of cross-border groundwater bodies.

To a large extent the Helsinki Rules are incorporated into the Convention on the Law of the Non-navigational Uses of International Watercourses (United Nations, 1997). It is a framework convention that aims at ensuring the optimal and sustainable utilisation, development, conservation, management and protection of international watercourses, for the benefit of present and future generations. Caflisch (1998: 15) illustrates the nature of compromise by mentioning that a number of downstream riparians considered the final text as ‘sufficiently neutral not to suggest a subordination of the no-harm rule to the principle of equitable and reasonable utilisation. On the contrary, a number of upstream riparians thought that formula ‘strong enough to support the idea of such subordination’ (ibid.). Based on a close reading of the Convention, Salman (2007) concludes that the prevailing view in the international (water) law community is the subordination one. Savenije and Van der Zaag (2000: 25) and Shihata (1998: vii) respectively qualify the debate as one about a ‘false dilemma’ or a ‘fictitious dichotomy’. Riparian stakeholders have rights and duties in the uses of watercourses. After all equitable distribution must take account of existing uses and the need to maintain the livelihood of the thereof dependent population (ibid).

In 2004, the International Law Association have adopted the ‘Berlin Rules on Water Resources’, as revision of the 1966 Helsinki Rules and subsequent supplemental rules (International Law Association, 2004). The Berlin Rules are informed by developments since 1966 within international environmental law, human rights law and humanitarian law related to war and armed conflict. These rules apply to all watercourses (both domestic and international drainage basins) and place the two principles of equitable and reasonable use and prevention of significant harm to other riparian states at an equal position (International Law Association, 2004: Article 12):

1. Basin States shall in their respective territories manage the waters of an international drainage basin in an equitable and reasonable manner having due regard for the obligation not to cause significant harm to other basin States.
2. In particular, basin States shall develop and use the waters of the basin in order to attain the optimal and sustainable use thereof and benefits therefrom, taking into account the interests of other basin States, consistent with adequate protection of the waters.
Salman (2007: 636; italics added) argues that the approach of Article 12 contrasts sharply with that of previous, formal and informal international water law: ‘Thus, whereas the Helsinki Rules and the UN Convention establish and emphasise the right of each of the riparian states to a reasonable and equitable share, the Berlin Rules emphasise the obligation to manage the shared watercourse in an equitable and reasonable manner.’ Some juridical experts indicate that the Berlin Rules actually render the principle of equitable utilisation subordinate to the no harm rule, reversing the established principle of the Helsinki Rules (Bourne, 2004). Furthermore, the Berlin Rules much stronger elaborate on aims of sustainability and environmental protection by implicitly defining ‘water necessary to assure ecological flows or otherwise to maintain ecological integrity or to minimise environmental harm’ as one water use category (Article 15(2) and Article 24), and by inclusion of a separate chapter on protection of the aquatic environments (Chapter V; International Law Association, 2004).

Whenever upstream and downstream states substantially differ of opinion about the interpretation of the aforementioned principles of international water law, sovereign forces may wait around the domestic corners to protect own water resources management practices and related land-use planning traditions. As concluded yet in Chapter 1, the absence of authority to enforce multilateral coordination may be considered an Achilles Heel of the European institutions. Savenije and Van der Zaag (2000) claim that the transboundary conception of limited sovereignty is an important precondition to reach common sense for the benefit of the sustainability aims of IRBM. Particularly this context invites a huge challenge of coordination of domestic land-use planning systems, since contrary to the environmental domain the European Commission has no formal competencies for policy initiatives in this sector. With regard to the downloading of the European governance and policy principles for IRBM, the question is to which extent riparian states view (further) incorporation of (transboundary) environmental, social and economical externalities within their land and water resources property and user rights regimes as necessary. Do they allow these externalities to alter the outlook of the sovereignty/subsidiarity medallion? The answers to these questions also relate to the dominant views on the ways towards sustainable development.

(3) Preferred paths towards sustainable development

The holistic and ambiguous nature of IRBM holds the danger of attracting a multitude of stakeholders who may use the concept instrumentally to justify their daily practices. Like sustainability it may turn into a buzzword serving multiple implicit and partly contradicting interpretations, without specifying common preconditions and requirements. For example the frequently cited definition of the Global Water Partnership (2000) may not harm anyone, since it mentions both a maximisation of economic and social welfare in an equitable manner and sustainability of vital ecosystems. Attractants may subscribe this Utopia while continuing businesses as usual (e.g. unconditional protection of prior user and property rights) which may compromise or support the abstract aims, depending on who’s definition to depart from. Rogers and Hall (2003) argue that development of water resources can lead to natural monopolies and major economic and physical side effects or externalities. As a barrier for collective arrange-
ments, ‘discussions of water rights usually focus upon the rights of the property right holder and ignore the contingent responsibilities which that holder has with regard to others in society who do not share the rights’ (ibid.: 18).

River basins host a diversity of ecosystems which are essential and dynamic factors of both intrinsic ecological values and production for social and economic development (Costanza et al., 1997; Folke, 1997). These natural resources have the attributes of common pools, are finite in volume, hence require restriction of human activities within sustainability bounds (Costanza, 1991). Folke et al. (2002) stress the importance of safeguarding the resilience of these social-ecological systems, e.g. as expressed in terms of self-organisation, learning and adaptation. The earth’s history has clearly shown that human interferences in water system processes and land use patterns have a significant impact on ecological processes and ecosystems’ functions, goods and services (Global Water Partnership, 2000; Falkenmark, 2003). Basically, a river basin can be seen as a mosaic of partly incompatible land and water demands (SIWI, 2001). The IRBM aims are sincerely challenged by intensification of land and water resources uses, as driven by ongoing population growth, urban migration, globalisation, industrialisation, efforts to alleviate poverty and hunger and increasing expectations (Saeijs and Van Berkel, 1995; Cosgrove and Rijsberman, 2000). Savenije and Van der Zaag (2000) argue that perhaps the opaqueness of system interactions over large distances within a shared international river basin may be the biggest issue to cope with.

A major challenge of IRBM is to link sustainability’s planet, people and profit dimensions beyond solely focusing on individual developments and objectives within each dimension. There is a need for interrelated criteria of social, economical and ecological resilience and their translation into land and water resources property and user rights regimes. This challenge includes a threefold dilemma: (1) satisfying human needs while minimising the pollution load added and accepting the consumptive water use that is involved; (2) meeting ecological minimum criteria in terms of fundamental ecosystem determinants (i.e. environmental flow to be left uncommitted in the rivers, secure flood flow episodes and acceptable river water quality); and (3) to secure hydro-solidarity between upstream and downstream societal and ecosystem needs (SIWI, 2001). Falkenmark (2003) adds that flexibility, resilience and adaptability of social and political institutions will be needed to enlarge the ability to establish trade-offs and to define ecological “bottom lines” between social, ecological and economic uses of water and related land resources. Costanza et al. (1997) advocate ecological economics in which protection of the ecological life support system (as expressed by water system functions, goods and services) is the fundament below social and economic systems. When one follows the philosophy of ecological economics, dramatic transformation of user and property rights may be required in order to prevent overuse and quality deterioration of interrelated land and water resources. Support for or resistance towards such change of collective-choice rules will depend on, among other factors, prior formal property regimes and different cultural norms, values and traditions (Ostrom, 1999). Water rights should not be unconditional but flexible and responsive to changing circumstances at both national and international level (Ministry of Housing, Spatial Planning and the Environment, 2000).
As a synthesis of the presented views in the studied literature, Table 2.4 presents the constructed ideal-type rules for collective position rules.

Table 2.4: Ideal-type collective IRBM position rules

<table>
<thead>
<tr>
<th>Ideal-type A↓</th>
<th>Ideal-type B↓</th>
<th>Ideal-type C↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection of prior water and land resources use and property rights without preconditions on environmental, social and economic externalities.</td>
<td>Conditional maintenance, alienation and acquirement of water and land resources use and property rights. Conditions include requirements to internalise social, economic and/or environmental externalities.</td>
<td>Reallocation of water and/or land use and property rights, based on interrelated conditions of ecological resilience, economic efficiency and social equity.</td>
</tr>
</tbody>
</table>

2.2.5 Boundary rules

Boundary rules, or entry and exit rules define (1) who is eligible to enter a position; (2) the process that determines which eligible participants may enter (or must enter) positions; and (3) how an individual may leave (or must leave) a position (Ostrom, 2005: 194). Hence, these rules affect the number of participants, their attributes and resources, whether they can enter freely and the conditions they face for leaving (ibid.). ‘The level or strictness of entry and exit costs is relative to the availability of an attribute or a resource in a community’ (Ostrom, 2005: 197). In this research boundary rules are interpreted as who has access to the river basin management planning and decision-making process and who has not? And who set the conditions for entry and exit?

As a general condition to decide who preferably should enter a river basin management planning and decision-making process, IRBM requires a framework where the different and often competing water related interests find a common ground and where multiple-sector stakes are regulated and balanced (Global Water Partnership, 2000). In the overall context of calls for more responsive, participative and accountable governments, the second Dublin principle (ICWE, 1992) stresses the need for a participatory approach in water resources development and management, involving users, planners and policy-makers at all political levels. As of the 1990s the IRBM concept echoes dimensions of distributed governance which has developed in response to disadvantages of both hierarchical and market-led governance models (Rogers and Hall, 2003: 11-13). It is rooted in the argument that ‘the State no longer believes it can solve societal problems acting alone, particularly socio-environmental ones and the private sector alone cannot address the problems of the poor and the environment’ (ibid.). Water policy and the process for its formulation must have as its goal the sustainable development of water resources and to make its implementation effective, the key actors/stakeholders must be involved in the process (Global Water Partnership, 2000). ‘A strategy for the management of shared river basins should be integrative, in the sense that it gives adequate attention to all relevant economic, social and environmental interests of riparian stakeholders.’ (Savenije and Van der Zaag, 1998: 56)
Question is who are the key actors/stakeholders? Savenije and Van der Zaag (1998: 56) take a broad stance by arguing that ‘the public should have an active voice in the management of river basins, since it is the public who have a stake in their development’. Given international hydrological systems as multi-purpose, common property resources, it may not only be difficult to identify all the stakeholders, these will also express different preferences, priorities and economic interests (Rees, 2002). Bates et al. (1993) advocate that everyone affected by or affecting a water resource should be included in decision-making processes whether located within the watershed or not. Effective water resources governance will require the combined commitment of government and various groups in civil society, particularly at local/community levels, as well as the private sector (Rogers and Hall, 2003). Ingram et al. (1984) argue that the people who are most effected by watershed uses, which are most often geographic communities situated within the watershed, must be given greatest weight in decision making. For economic, political and cultural reasons, local communities situated within watersheds need to be represented in watershed decision making processes (Schlager and Blomquist, 2008). The boundary rules question is not a question with answers and implications that can be defined topographically only. ‘Neither defining communities of interest broadly nor giving pride of place to local, geographic communities guarantees that a particular set of values will be pursued consistently over time as the watershed setting and its context change.’ (ibid.: 63)

Based on a review of European and American cases, Solanes and Gonzalez-Villareal (1999) argue that in most cases some sort of public organisation is effective for involvement of users. Public organisations may assure economies of scale and mandatory dispute resolution processes which is essential where a large number of diverse water users are involved (Hellinga, 1960). Rogers and Hall (2003: 35) stress the importance of partnerships in which ‘the key role of government and public sector workers is recognised as critical for the proper stewardship of water as a common pool resource’. Shared benefits and costs for all parties should be the basis for negotiations over shared waters (ibid.). Both Rogers and Hall (2003) and Schlager and Blomquist (2008) warn for the pitfall of quite large economic and social transaction costs of governance and mention that there is no single model of effective water governance. Rogers and Hall (2003) stress the importance of creating sub river basin societies. Such societies could both monitor and support government actions and policies or help to regulate public-private arrangements. Privatisation of water management tasks is a political sensitive issue, since in many countries this policy sub-domain is dominated by governmental actors. Savenije and Van der Zaag (2000: 29) distinguish between ‘the caretaker function’ and ‘the production function’ as related to the management of water resources. Caretaking concerns ‘safeguarding the national interests and assets’ (e.g. monitoring water rights, flood protection and multi-purpose works) and ‘is a typical role of government not suitable for privatisation’. The production function involves the provision of water services (e.g. irrigation and drainage, water supply and sanitation). This function may be privatised whenever both the excludability and subtractability of the water resource are high, ‘and if there is no threat of monopoly formation or other market failures’ (ibid.). Public-private partnerships
may be more convenient for the production function instead of pure privatisation (Lincklaen-Arriëns, 1996).

Since river basins are highly complex and dynamic socio-biophysical systems which generate water resources management issues characterised by high levels of uncertainty and conflict, intergovernmental coordination efforts will not suffice (Watson, 2007). In this context the key to success lies in the development of collaborative institutions in which a wide range of stakeholders (public, private and public) are engaged in a process of joint decision-making and problem-solving (Glasbergen, 1998; Wondolleck and Yaffee, 2000; Verhallen, Warner and Smit, 2007). Watson (2007: 37) adds that, since there can be no single correct interpretation or application of IRBM, ‘some sort of collaborative institutional process is required in order to define problems, identify what is desired and achievable to produce agreement as to how common goals will be achieved’. Successful implementation of IRBM policies requires less state-centric, collaborative governance systems which attempt to bridge the divide between the traditional bases of political power and other groups within civil society with interests in the management of land and water resources (Kooiman, 1993; Pierre, 2000). Collaboration may enable the avoidance of transaction costs that are associated with other methods such as command and control regulation (Watson, 2007). Collaboration may also improve organisational efficiency by limiting overlaps and duplication of effort. The success of collaboration will ultimately depend on the willingness of officials in government departments and agencies to engage and share decision-making power with private and civil stakeholders (ibid.). Savenije and Van der Zaag (2000) point at the importance of active participation of stakeholders and the general public in order to elaborate solutions that are sustainable and equitable and to make national laws compatible with traditional norms and customs found at the local level.

As a synthesis of the presented views in studied literature, Table 2.5 presents the constructed ideal-type rules for collective boundary rules. Different degrees of stakeholder participation as expressed by Arnstein’s ladder of citizen participation (1969), are noticeable between these ideal-types.

Table 2.5: Ideal-type collective IRBM boundary rules

<table>
<thead>
<tr>
<th>Ideal-type A↓</th>
<th>Ideal-type B↓</th>
<th>Ideal-type C↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to the river basin management planning process is restricted to public actors only. Other stakeholders are informed.</td>
<td>Non-governmental actors may have access to the river basin management planning process under conditions set by the public actors. Emphasis on co-thinking and consultation.</td>
<td>Ample opportunities for all interested stakeholders to join the river basin management planning process, including co-productions, co-decisions and self-realisation.</td>
</tr>
</tbody>
</table>

2.2.6 Choice rules

Choice rules partition possible actions of participants in an action situation into required, permitted and forbidden acts (Ostrom, 2005: 200). ‘The actions that participants must, must not, or may do are dependent both on the position they hold, prior
actions taken by others and/or themselves and attributes of relevant state variables’ (ibid.). Choice rules affect the basic rights, duties, liberties and exposures of members and the relative distribution of these to all, by narrowing or widening the range of actions assigned to participants (Ostrom, 2005: 200-201). Choice rules may be translated into a more generic, overarching question: What is precisely allowed regarding the use, development and management of a common pool resource and what is not? Choice rules may influence distribution of power and resources and reversely. ‘Choice rules empower, but the power so created can be distributed in a relatively equal manner or a grossly unequal manner. Choice rules thus affect the total power created in action situations and the distribution of this power.’ (Ostrom, 2005: 201)

This research focuses on collective choices around development, management and use of fresh water resources. Given the decreasing fresh water availability per human being (Saeijs and Van Berkel, 1995; Cosgrove and Rijsberman, 2000), a major choice rules dilemma is how to manage available fresh water resources (in relation to land and other natural resources) in an economic efficient and social acceptable way. Furthermore, how may different user functions and protection of the ecological life support system be served both at the same time? One dimension of collective-choice rules for IRBM concerns conditions for supply and/or demand management. The second dimensions concerns the nature of the license system for water-related human activities. For example, how are qualitative and quantitative objectives on the sustainable use, development and management of water resources legally anchored (e.g. with regard to interrelations between surface water and groundwater bodies)? Or more bluntly: which human activities are allowed or not with regard to these objectives?

**Supply and demand management**

As stated in Subsection 2.2.4 on position rules, IRBM faces a major challenge of interrelated social, economical and ecological resilience. The IRBM literature makes clear that a water supply oriented management approach alone will not suffice to cope with this challenge. Since river basins encompass both land and water, any IRBM strategy at least should take into account the multiplicity of links between the land and water components. IRBM views humans as embedded in eco-hydrological landscapes (Folke et al., 2002; Falkenmark, 2003). Consequently, interconnected and interdependent freshwater flows, crop production and other terrestrial ecosystem services should be managed in an integrated fashion taking into account upstream-downstream relations and river basin solidarity (Falkenmark, 1999; the World Bank, 1993). Rees (2002: 14, original italics) argues that land and water resources managers at all levels (from national agencies to individuals) ‘are able to engage in risk and cost shifting rather than genuine risk reduction’. She points at upstream-downstream asymmetries since, ‘given the nature of water as a hydrologically interconnected, multi-purpose resource’, upstream decisions and activities often generate quantitative and/or qualitative forms of risks for downstream populations (ibid.). Rogers and Leal (2010: 190) add that ‘large withdrawals of water [by upstream riparian states] typically create very difficult water-allocation problems for the downstream countries’. Falkenmark (2003) diagnoses that present water institutions are to a large extent based on the assumption of unlimited availability of water resources, unrestricted room for waste disposal and ignorance of
systemic rules. Emphasis is on individual appropriation, without curing externalities (ibid.).

IRBM requires a shift from a dominant focus on supply management to more demand management (Global Water Partnership, 2000). Concerning international river basins Savenije and Van der Zaag (2000) mention integrated supply and demand management among three critical elements for any IRBM strategy to establish sustainable solutions. An integrated approach combines reduction of losses at the supply side which increases the water yield (‘more crops and jobs per drop’) with efforts to diminish water demand (the World Bank, 1993; Cosgrove and Rijsberman, 2000). Savenije and Van der Zaag (2000: 31) define demand management as ‘the use of economic and legal incentives in combination with awareness raising and education to achieve more desirable consumption patterns, both in terms of distribution between sectors and quantities consumed’. It should be best coupled with an increased reliability of supply (ibid.). Whenever a river basin is not and may not become self-sufficient in terms of supply and demand management, inter-basin transfers are frequently proposed as part of the solution (Solomon, 2010; Rogers and Leal, 2010). IRBM challenges these traditional options of large-scale hydraulic engineering which should be considered as a last resort. Options for cost-efficient, integrated supply- and demand management should be explored first. For example, more efficient use of rainwater for agricultural production and increased recharge of aquifers through improved soil and water conservation measures may add to a more sustainable approach (Savenije and Van der Zaag, 1998). At the implementation level an integrated approach requires cross-sector and cross-border integration (ibid.: 2000). In cases where demand substantially surpasses supply options permanently or periodically, choice rules may include a hierarchy of user functions.

Supply and demand management within the context of international river basins asks for coordination by the riparian states which is based on principles of international (water) law (see also Subsection 2.2.4 on position rules). In many shared river cases there will be a mixture of autonomously operating supply and demand systems. In each involved riparian state, arguments of social equity, economic efficiency and/or ecosystem protection all may play a decisive role in domestic traditions, often to different degrees. The specific physical, social, economic and political conditions of the states that share a river basin will largely influence the rate of success for arriving at common, cross-boundary, integrated supply and demand management rules. From an assessment of 14 interstate river compacts in western United States, Heikkila, Schlager and Davis (2011: 140) conclude that more extensive cross-scale linkages emerged ‘in those basins where states faced more severe challenges around water management, such as conflicts over water allocation, extreme weather events, or developing water storage projects’.

Whenever severe water stress or water scarcity relates to upstream-downstream asymmetries, the challenge of shared arrangements may be hampered by prolonged controversy. In such cases external triggers may be helpful. For example, in the WFD negotiation process Portugal allied with Member States in the North of Europe on the issue of strict river basin management, partly because of the negative impact of the Spanish national hydrological plan on river flows at the downstream Portuguese side
(Kaika, 2003). Savenije and Van der Zaag (2000: 14) point at the *sovereignty dilemma*: ‘To what extent may individual countries develop and use resources found within their territories and to what extent do they have to consider interests of riparian countries and the ‘common interest’ of the river basin as a whole?’ Caponera (1992) argues that the utilisation of shared water resources requires riparian countries to acknowledge the principle of limited sovereignty. Rogers and Leal (2010: 191) point at the importance for political decisions on shared rivers to look beyond scientific-technical analyses ‘to take into account the qualitative benefits of resource sharing among coalitions’. Furthermore they argue, ‘it is important to link the potential river settlement to other pending economic and social issues between and among countries’ (ibid.).

As a synthesis of the presented views in studied IRBM literature, Table 2.6a presents the constructed ideal-type rules for choice rules (supply and demand management).

Table 2.6a: Ideal-type IRBM choice rules (supply & demand management)

<table>
<thead>
<tr>
<th>Ideal-type A</th>
<th>Ideal-type B</th>
<th>Ideal-type C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water supply management determines availability of fresh water for user functions.</td>
<td>Mixed supply and demand management determines fresh water availability without a hierarchy in user functions.</td>
<td>Integrated supply and demand management as expressed by a hierarchy in user functions.</td>
</tr>
</tbody>
</table>

*The nature of the licence system*

The nature of the licence system for water-related activities is a second dimension of collective IRBM choice rules. It expresses what is legally allowed or not with regard to the use, development and management of water resources, both with regard to the (potential) impact of activities on water quality and quantity and in relation to other natural resources. This dimension shows redundancy with the yet presented levels of integration dimension of the scope rules (see Subsection 2.2.3 for a detailed account). Within this research, the nature of the licence system is considered the formal, legal synthesis of choice rules with regard to internal and external integration. Table 2.6b presents the constructed ideal-type choice rules (nature of the licence system).

Table 2.6b: Ideal-type IRBM choice rules (nature of the license system)

<table>
<thead>
<tr>
<th>Ideal-type A</th>
<th>Ideal-type B</th>
<th>Ideal-type C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate, parallel licences for quality and quantity objectives related to development, management and use of water resources.</td>
<td>Licenses that integrate quantity and quality objectives related to development, management and use of water resources.</td>
<td>Integrated licences for interrelated development, management and use of natural resources (e.g. air, water, land).</td>
</tr>
</tbody>
</table>

The distinction (and redundancy) between scope rules and choice rules is considered functional since intentional, rhetoric wording in policy documents and management plans may significantly differ from their legally binding interpretations as expressed by the license conditions for regulating human activities. For example, when a policymaking community decides to conduct integrated environmental policies plans, this
decision does not necessarily include the choice to integrate different types of licenses into one new system.

2.2.7 Aggregation rules
Aggregation rules are necessary whenever stakeholders at multiple positions have partial control over the same set of action variables. They determine who will participate in decision making, how much weight each participant will have relative to others and the specific formula to be used in adding up the contribution of each person’s decision to a final decision about the (proposed) action (Ostrom, 2005: 202). Aggregation rules concern which arrangements count for rule alterations, such as the formulation and adoption of water policy and management plans. Within the context of IRBM a major collective-choice challenge concerns how to arrange decision-making at interrelated political levels within shared (inter)national river basins with the aim to reach common understanding and broad public support for collective-choice rules? Who should make and who should agree with adaptations of prior rules or new rules?

Howlett and Ramesh (2003: 7) argue that studying public policy processes is a complex and difficult task which should go beyond official records of government decision-making (e.g. as expressed by laws, acts, regulations and promulgations). Besides the record of concrete choices, any such analysis should also encompass the realm of potential choices and choices which are not made (Howlett, 1986; Lukes, 2005). This necessarily involves analysis of the complex array of state and societal actors involved in decision-making processes and their capacities for action (Howlett, 1986). Jenkins (1978 as cited in Howlett and Ramesh, 2003: 6) defines public policy as ‘a set of interrelated decisions taken by a political actor or group of actors concerning the selection of goals and the means of achieving them within a specified situation where those decisions should, in principle, be within the power of those actors to achieve’. The answer to the question who will participate in decision-making on development, management and use of river basins and how much weight each participant will have relative to others, depends on several factors such as the dominant (juxtaposition of) governance style(s) within a state, the prevailing policy making style(s) within a particular policy domain, the particular social, economic and physical conditions, configurations of resources, power and influence (e.g. among bureaucracies in different policy domains), access to information and constitutional choices (Howlett and Ramesh, 2003; Liefferink, 2006; Warner and Verhallen, 2007; Padt, 2007).

In general state actors play a central role in planning and decision-making on public policies (Allison and Halperin, 1972; Howlett and Ramesh, 2003). This certainly is true for water policy domain in the Netherlands (Van de Ven, 2004: Havekes, 2008) and the other states that share the Meuse River Basin (e.g. Meijerink, 1999). The ability of domestic states to make and implement policies strongly depends on two organisational dimensions: autonomy and capacity (Howlett and Ramesh, 2003: 60-61). Autonomy refers to the degree of the state’s independence from self-serving and conflicting social pressures, e.g. as exerted by interests groups and economic actors. In addition the state must also have the capacity to make and implement effective policies, which is a function of its organisational coherence and expertise (ibid.).
Departments and agencies may have different and conflicting interests and interpretations of the same issue at stake and how these differences are resolved has an impact on what policies are adopted and how they are implemented (Howlett and Ramesh, 2003). The capacity of states to operate autonomously from social pressures does not only depend on its own organisational strengths and weaknesses, but also on the organisational coherence and expertise of social and economic interests groups and other non-governmental organisations. The more fragmented prominent social groups are, the weaker the state’s ability to mobilise them towards the resolution of societal problems (ibid.). Contemporary trends like globalisation, decentralisation, privatisation and calls for active stakeholders’ participation have an impact on interrelations between the state, civil society and market (Van Tatenhove, Arts and Leroy, 2000), hence may influence the relative weight of public, private and civil actors in decision-making such as on river basin management plans.

Generally, aggregation rules may be classified as non-symmetric or symmetric. In non-symmetric cases, a single person (e.g. an expert or dictator) or a small subgroup may be allowed to select as well as avoid any of the feasible actions – full active and blocking capacity (Ostrom, 2005). In the case of symmetric aggregation rules multiple participants have joint control over action decisions, ranging from allowing any one authority member to make the decision for the collectivity (i.e. the anyone rule) to requiring all those given joint authority to agree prior to a decision (i.e. the unanimity rule; Buchanan and Tullock, 1962). Howlett and Ramesh (2003: 163) point at different levels of involvement and influence of actor categories at different stages of a public policy life-cycle. In theory virtually any member of the policy universe could become actively involved in the agenda-setting process, while at the stage of policy formulation there is a tendency to include only those state and societal actors who are members of a specific policy subsystem. ‘When it comes time to decide on a particular option, however, the relevant group of policy actors is almost invariably restricted to those with the capacity and authority to make binding public decisions’ (ibid.).

In IRBM literature consensus is most commonly presented as the appropriate decision making rule, since it produces more legitimate and acceptable solutions than other forms of decision making because all participants must consent to a proposal before it is adopted (Schlager and Blomquist, 2008). In essence, consensus is an unanimity rule which has the potential to impede collective action by empowering each individual with a veto (Buchanan and Tullock, 1962; Schlager and Blomquist, 2008). According to its advocates consensus holds the promise of reaching sensible and fair decisions without the conflict and strategic behaviour characteristic of traditional approaches (Schlager and Blomquist, 2008: 68). In opposite, hierarchical decision making based on science and professional standards of conduct is also often advocated for IRBM aims, ‘avoiding the difficult negotiations, compromises and trade-offs that so often characterise watershed management’ (ibid.; Mitchell, 2007). Scharpf (1997: 144) points at joint decision traps ‘in which the beneficiaries of the status quo can block all reforms, or at least ask for exorbitant side payments’. Coglianese (1999) mentions the danger of a search for the lowest common denominator; as such consensus among a select group will not always equate to socially optimal policy
Combinations of consensus and majority voting emerge in settings where the norm of reciprocity operates and participants expect to be in the minority position at varying times (Scharpf, 1997). Although voting has the added value of allowing collective action to occur, especially among large numbers of people even in the face of conflict, it is purchased at the expense of permitting the exploitation and domination of minority interests (Ostrom, 1987). Advocates of consensus point at the zero sum game (what is gained by one side is lost to the other) that may result from majority voting rules (Schlager and Blomquist, 2008).

Regarding IRBM decentralisation and subsidiarity are often mentioned (Global Water Partnership, 2000; Rees, 2002; Rogers and Hall, 2003). Jaspers (2003) argues that direct and active participation of stakeholders can be facilitated better in a system of decentralised decision-making. Nicol (1996) argues that decentralisation simultaneously may involve devolution of responsibilities to lower administrative levels (with the aim of technical capacity building and participation) and delegation of negotiating rights and responsibility for broad policy formulation to higher levels. Savenije and Van der Zaag (1998: 58) argue that IRBM ‘requires strengthening capacities at the highest and lowest levels within a basin’. Commitment at the highest political levels is necessary as well as active participation of stakeholders and the general public (ibid.). One major rationale behind decentralisation is ‘to bring river basin management as close as possible to the individual citizens and facilitate local variation in response to differing local conditions and preferences’ (Ministry of Housing, Spatial Planning and the Environment, 2000: 15).

As a synthesis of the presented views in studied literature Table 2.7 presents the constructed ideal-type rules for collective aggregation rules.

<table>
<thead>
<tr>
<th>Ideal-type A</th>
<th>Ideal-type B</th>
<th>Ideal-type C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent decision-making on water policy and management plans at different administrative levels within a river basin.</td>
<td>Asymmetric, top-down decision-making on water policy and management plans at different administrative levels within a river basin: lower levels have to comply with the rules from the higher levels.</td>
<td>Symmetric, consensus based decision making on water policy and management plans at different administrative levels: mixed top-down and bottom-up rules.</td>
</tr>
</tbody>
</table>

### 2.2.8 Information rules

Information rules arrange information flow channels among participants. They assign the obligation, permission, or prohibition to communicate to participants in positions at particular decision nodes and the language and form in which communication will take place (Ostrom, 2005: 206). One major collective-choice challenge of IRBM is to collect, aggregate and present information in such a way that river basin management plans are acknowledged and supported by a majority of public, private and civil stakeholders. A critical dimension of this challenge is the types of information that are considered legitimate in combination with the nature of the collection and aggregation process. The focus of this research is on this critical dimension.
Chapter 1 has introduced the social life of the IRBM paradigm: an evolution from supply-driven technology and infrastructure-based management approaches towards calls and experiments for more interactive, participatory and reflexive processes in which facts and values of multiple stakeholders intermingle. In the former, a technical-scientific rationale dominates the policy-target oriented information gathering and aggregation process. Empirical data are predominantly collected and interpreted by scientists and governmental officials as decision-supportive information which at the same time serves as the basis for assessment and evaluation of the state and functioning of river basins. The latter points at a social interaction perspective in which policy networks of multiple, interdependent and relatively autonomous stakeholders define the rules of the information gathering and aggregation process (Driessen, Goverde and Leroy, 2007). Participation of non-governmental stakeholders enriches the decision-making process with relevant viewpoints, interests and information about water-related issues that could not have been generated otherwise (Teisman, 2001). Social interaction helps to rule out overlooking important information which in turn may improve the decisions (ibid.). A social interactive perspective acknowledges the continuous struggle about the interpretation of information and the status of knowledge (Glasbergen, 1998). Verhallen, Warner and Santbergen (2007: 269-270) label the social interactive perspective as a mixed-mode model, in which ‘both values and facts guide the substantive processes’. The mixed-mode model acknowledges inherent differences in position and power and views conflicts as inherent part of transformative processes. Such processes may be typified as a ‘mix of learning and fighting’ in the search for ‘consensus with representation of divergence’ (ibid.).

Fischer (2009: 7) argues that within the context of industrialised western societies ‘policy analysis evolved to narrowly assist government officials with information and analysis relevant to public decision-making’. The institutions and practices of these societies are dominated by professional knowledge, leaving decision-makers, politicians and citizens largely dependent on the validity and reliability of the knowledge and competencies of involved experts (Dahl, 1989; Fischer, 2009). Additionally, neo-liberal arguments have triggered a strong focus on economic efficiency and cost-benefit analyses (Fischer, 2009). In the case of a financial crisis such economic arguments become more dominant. Several authors point at a (growing) lack of trust in experts as one of the critical issues in contemporary politics (Giddens, 1990; Beck, 1995; Jasanoff, 2006). Fischer (2009: 3) relates this lack of trust to a generic societal recognition of the limitations from expert-driven policy making: The past decades have shown ‘that experts are themselves incapable of answering many of the pressing questions, at least with sufficient degrees of certainty, not to mention supplying workable solutions’. Furthermore, the scientific knowledge turned out not to be the ‘neutral, objective phenomenon that it has long purported to be’ (ibid.). Nowotny (2003: 151) emphasises the ‘inherent transgressiveness’ of expertise:

First, it [expertise] must address issues that can never be reduced to be purely scientific and purely technical and hence must link up with diverse practices, institutions and actors. Second, it addresses audiences that are never solely composed of fellow-experts, whose expectations and modes of understanding reflect the heterogeneous experience of mixed audiences.
Fischer (2009) argues that experts do not work in isolation from social and political institutions. Formal knowledge and the technologies derived from science are both embedded in social identities, norms, discourses and institutes (Jasanoff, 2004). Furthermore, hierarchies of practitioners are organised in significant part around their own internal power structures, interests and status claims (Kuhn, 1962). Within the context of societal calls for democratic governance and public participation, the need for more deliberatively oriented policy analysis is often expressed (Fischer and Forester, 1993; Hajer and Wagenaar, 2003). De Bruijn and Ten Heuvelhof (2002) emphasise the importance of negotiated knowledge from interactive processes between analysts and other stakeholders, in order to improve the quality of analysis and decision-making. Fischer (2009) advocates deliberative dialogues as part of participatory policy inquiry such as between experts and citizens, since the latter may possess relevant situational information that has to be taken into account by the former. Not only may lay people bring in relevant social and empirical experiences to the planning and decision-making process, decision-makers frequently depend on their legitimisation and motivation for effective implementation of environmental polices and regulations (ibid., Sillitoe, 2007). Decisions based on limited and contested information will provoke strong reactions from stakeholders and will polarise decision making (Van Bueren, Klijn and Koppenjan, 2003).

The entire discourse on *democratisation of expertise* and *socially robust knowledge* is focused on the basic dilemma between democratic legitimacy by representation (vote) and the legitimacy conveyed by rationality on the basis of certified knowledge*. (Weingart, 2008: 132) The challenge is to make the process of knowledge production more integrated into the social context while at the same time to preserve the autonomy and independence of science (Nowotny, Scott and Gibbons, 2001). The axiom is that robustness of knowledge increases when research has been infiltrated and improved by social knowledge (ibid.). Context refers to social and political concerns and ‘the values and interests of lay publics that are directly or indirectly affected by scientific knowledge’ (Weingart, 2008: 137). Jasanoff (2003) points at the danger that participation may become an instrument to challenge scientific points on political grounds, for example by stakeholders who have more skills and means to lobby and influence politicians than average lay publics. Framing and learning are important concepts in promoting more meaningful interaction among policy-makers, scientific experts, corporate produces and the public (ibid.).

In the context of IRBM multi-stakeholder processes that deal with ambiguous issues should offer room for problem (re-)framing from the start (Warner and Verhalen, 2007). Dewulf et al. (2005: 117-118) add that whenever dealing with ambiguous situations, social learning, negotiation and conflict management strategies become more important, ‘because the relation between different stakeholders and their frames is at stake’. In ambiguous situations the structure of a problem is at stake, not the value of certain parameters. In other words: what are the relevant parameters or even which problems should be tackled? ‘What is ambiguous is the meaning of a situation and which frame should be applied to make sense of it.’ (ibid.) Putnam and Holmer (1992) mention reframing for the process of redefining the common problem domain and tuning and connecting the frames of different stakeholders. In this process
ambiguity is not only to be considered as problematic and negative, it is also an opportunity for change (Dewulf et al., 2005). In the reframing process ‘actors learn to understand the paradigms, metaphors, mindset or mental models that underpin how they operate. Insight is gained on the relationship between one’s own problem and problems of others.’ (Warner and Verhallen, 2007: 28) Such a process might lead to an integrative process in which collective frames develop (Aarts and van Woerkum, 2002).

Within social learning processes the acknowledgement and exploration of interdependencies by stakeholders is a prime condition (Steyaert and Jiggins, 2007). Social learning may be interpreted as a multi-stakeholder process in which contextualisation of scientific knowledge happens, for example by confronting facts and values of experts with those of lays. Steyaert and Jiggins (2007: 580) mention a ‘learning paradox’ with regard to incomplete information about the state and functioning of ecosystems (ibid.: 580): the fragmentary knowledge of stakeholders and the related diverse perceptions ‘may constrain or even block learning processes’. ‘On the other hand, learning processes are needed to change these perceptions and to build more adequate shared understanding that enables concerted action.’

Fischer (2009) argues that most deliberative approaches are problem- and conflict-oriented and take established social and political configurations of resources and power for granted. For transformation to happen, deliberations on these configurations should be included which requires anticipation and procedures for dealing with conflicts and emotions. Furthermore, tacit assumptions should be uncovered by a deliberative learning process (ibid.). Schön (1983: 296-297) calls for a new ‘reflective contract’ by which the client and the practitioner agree to conduct a joint inquiry, relevant to a situation for which the client is seeking help. Fischer (2009) mentions empowerment of local communities, a genuine (self-) reflexive spirit, tolerance for ambiguities, a set of ethical guidelines, political support from above and room for emotional intelligence and empathy as essential elements for initiation and facilitation of transformative learning processes. Transformative processes ask for rethinking the role of the educator, the trainer, the expert and the policy-maker (ibid.). Steyaert and Jiggins (2007) mention various roles for researchers in social learning processes, i.e. observer, facilitator and co-researcher. However, a set of agreed upon criteria for determining what constitutes success and failure of group deliberations is not available yet (Rowe and Frewer, 2005).

In analysing policy networks one should include the macro- or meta-constitutional context, e.g. economic development, political cultures, societal customs and traditions and other policy networks (Glasbergen, 1989). Within the context of international river basin districts, given the multi-level nature of policy planning, decision-making and implementation processes, such an analysis is extremely complicated in nature. Marteijn (in De Wit, 2008; translation from Dutch added) illustrates the dilemma of handling incomplete information in multilateral coordination within the Meuse River Basin:
There are so many images about one single river. How difficult – or on the contrary how easy – must it be to decide on the Meuse River when you know only part of the images? [...] What do we actually know from each other? How can we think of transboundary measures or solutions if our knowledge is limited to our own administrative territory?

The absence of supranational authority and the presence of language barriers, different cultures, traditions and legal arrangements pose additional challenges to the management of information collection and aggregation processes. Savenije and Van der Zaag (2000: 34) point at the important role of technical experts as the locus of institutional memory in shared river basins. Apart from their disciplinary training and knowledge, ‘they may have been involved in cross-border negotiations much longer than their superiors in (elected) political positions’ (ibid.). In the case of tense relations between riparian states, negotiated, relevant information could defuse a controversy based on wrong assumptions (Bulloch and Darwish, 1993). Priscoli (1990) argues that conflicts generated by data disagreements may be the easiest to solve. Consequently, negotiations between riparian states in conflict should best start with resolving the information issue (ibid.). ‘Lack of appropriate information often gives rise to simplified assumptions held by riparians about each other.’ (Savenije and Van der Zaag, 2000: 34) One may question to which extent this specific international context invites a predominant scientific-technical rationale over a more social interactive one.

As a synthesis of the presented views in studied literature, Table 2.8 presents the ideal-type collective IRBM information rules as constructed for this research.

Table 2.8 Ideal-type collective IRBM information rules

<table>
<thead>
<tr>
<th>Ideal-type A</th>
<th>Ideal-type B</th>
<th>Ideal-type C</th>
</tr>
</thead>
<tbody>
<tr>
<td>The river basin management planning process (definition of means and ends) is predominantly driven by expert information and knowledge from the natural sciences. Validity and reliability are central criteria for legitimised information and knowledge.</td>
<td>The river basin management planning process (definition of means and ends) is predominantly driven by expert information and knowledge from the economic sciences. Cost-benefit ratios and economic efficiency are central criteria for legitimised information and knowledge.</td>
<td>The river basin management planning process (definition of means and ends) is driven by information and knowledge from multiple disciplines and both from experts and lays. Joint fact finding and social robustness are central criteria for legitimised information and knowledge.</td>
</tr>
</tbody>
</table>

2.2.9 Pay-off rules

Pay-off rules assign external rewards or sanctions to particular actions or particular readings on outcome state variables. As such they establish the incentives and deterrents for action (Ostrom, 2005: 207). In interaction with other rule types, pay-off rules affect the net benefits and costs that will be assigned to particular combinations of actions and outcomes (ibid.). In the context of IRBM, to arrive at the Holy Grail of a social, ecological and economic resilient world of shared river basins, one has to deal
with (to name but a few): upstream-downstream asymmetries, free-riding behaviour, non-functional redundancy and bounded rationality. IRBM includes the major challenge ‘to identify development strategies whereby all riparians eventually benefit from an equitable allocation of costs and benefits’ (Savenije and Van der Zaag, 2000: 14). Kirmani and Le Moigne (1997: 1) argue that riparian cooperation in international river basins may pay-off, since ‘goals of economic development, poverty alleviation and a sustainable environment cannot be effectively achieved without developing and utilising shared water resources’. How to arrive in Utopia? Which ideal-type incentives and deterrents for collective, concerted action may be constructed from available literature?

Ison, Röling and Watsson (2007) distinguish three governance mechanisms for dealing with environmental problems: (1) regulations, incentives and penalties which aim to modify detrimental human activities; (2) relying on the invisible hand of the market or adjusting market forces through fiscal policies; and (3) raising awareness through the dissemination of information. Savas (1977, 1987) argues that in the case of common-pool resources, the government should establish property regimes through licensing to prevent their depletion. However, rewards and sanctions from laws and regulations alone may not suffice for full public support, hence for effective compliance with collective-choices (Howlett and Ramesh, 2003). The extent to which formal institutions are acknowledged and supported by informal customs, norms, values and traditions may serve as a more reliable indicator for evaluating the formers’ pay-off. For example, there may be differences in how water users perceive their entitlements to water and what their (user) rights are according to formal laws and regulations (ibid.).

For shared, international river basins, Kirmani and Le Moigne (1997: 1) point at historical factors, physical differences, political realities and socio-economic variations which will have to be considered as part of the setting in which issues of efficiencies, distribution, equity and rights are addressed. For example, ‘some riparians have tended to utilise as much water as possible to establish prior water rights while others who started late feel deprived of their fair share’ (ibid.). Savenije and Van der Zaag (1998: 32) point at an increasing awareness of the importance of public participation in river basin planning and decision-making processes: ‘Plans, when implemented, often encounter a reality on the ground which was not anticipated; requiring the reworking of implementation strategies; or else local actors may circumvent or simply ignore new policies and new plans.’ Howsam (1996: 378) argues that the ‘abolition of customary rights can be destructive of the principle of user participation’. Traditional legal systems may include some important lessons for legal reform (ibid.).

The fourth principle of the Dublin Statement stresses that, since water has an economic value, it should be recognised as an economic good (ICWE, 1992). Gupta (2009) mentions a conflict within the global water policy community between those who view water predominantly as a common pool resource (in relation to human needs) and those who view water as an economic good. The latter perception stems from the neo-liberalism and private sector management discourses (ibid.). It has triggered a marketisation process and the use of economic instruments (e.g. water pricing for recovery of costs for water services, social cost-benefit analyses) as stimuli to
comply with collective-choice rules. Schuijt (2003) views economic valuation as a process of strategically behaving actors. Within such processes policy instruments are seldom ideologically and distributionally neutral (Majone, 1989). Depending on the specific institutional context, similar approaches may lead to different pay-off and reversely, various approaches may be abstractly equivalent in the sense that, given sufficient information and total institutional flexibility, they can be shown to produce an efficient allocation of the available resources’ (Majone, 1989: 119).

Friedman (1953: 301-319) argues that it is necessary to examine the particular institutional arrangements when choosing among different economic approaches, hence to introduce additional non-economic criteria like administrative and political feasibility. Persuasive arguments about the appropriate ranking of values ‘are certain to be at least as important as technical analyses in determining one’s preferences’ (Majone, 1989: 120). Schuijt (2003: 33) warns that ‘economic value is purely based on people’s explicit willingness-to-pay or willingness-to-accept estimates for ecosystems goods or services’. Other means will be required to estimate the value of those goods and services for which humans are not willing to pay or accept (ibid.).

Turner, Peace and Bateman (1994) argue that economic value must not be confused with total ecosystem value which includes both primary and secondary values. The primary value is the value of a healthy ecosystem as the basis for life support on earth (Schuijt, 2003). Secondary value includes the range of user en non-user functions which depend on a healthy ecosystem, i.e. is the utilisation value. Economic value only captures this secondary value (ibid.). De Groot (1992) adds that different types of ecosystem values exist such as ecological value, social-cultural value and intrinsic value, which cannot be fully captured by economic value. Different stakeholders, for strategic motives, may (try to) over- or underestimate the economic value of functions, goods and services of ecosystems at stake (Schuijt, 2003). Daily (1997) argues that regarding goals of ecological sustainability, fair distribution of resources and property rights and efficient allocation of resources, economic valuation only deals with the third goal which is insufficient for informing decisions about preferable policy alternatives. Furthermore, according to Hanley and Spash (1993) many environmental effects are irreversible. A cost-benefit analysis incorporates benefits in nature that are lost for a certain period of time while in reality these benefits are lost forever (ibid.).

Pearce and Turner (1990) emphasise that through economic valuation a monetary value is placed on environmental assets that may stimulate public awareness of the value of the world’s ecosystems. Since valuation of ecosystem services is something one does implicitly when a choice concerning the environment has to be made, their translation into economic terms may help making these values more explicit and recognisable for planning and decision-making processes (Costanza et al., 1997; Schuijt, 2003; Saeijs, 2006). The difficulty is that, although people’s decisions for protecting a common pool resource may be motivated by altruism and ethical considerations, these motivations may not be quantifiable in prices (Stevens et al., 1991). In addition Schuijt (2003: 46) argues that ‘pricing can also give the opposite effect: if the benefits of a natural resource are less than the benefits of project development in a
cost-benefit analysis, decisions based on such an analysis may result in the destruction of this natural resource.’

Although introduction of both water pricing systems (e.g. on the use and pollution of water resources) and economic valuation instruments in river basin management planning may be an important step, methodological inconsistencies and institutional barriers for including opportunity costs and environmental externalities still will have to be solved (Schuijt, 2003; Van der Arend, Broekhans and Van der Veeren, 2010). Rees (2002; 8) argues that charging systems can reduce or increase the risk of supply shortage or pollution damage. The outcome depends on the way these systems affect the demand for water or waste water discharge services (ibid.). Savenije and Van der Zaag, 1998: 49) emphasise that although economic incentives are important instruments for demand management, they should be embedded in a broader context of educational, administrative, legal and political actions ‘to influence demand while safeguarding equity principles’. Gowdy (1997) warns that markets do not automatically lead to sustainable outcomes. They cannot show whether a natural system is approaching its limits and fail to see the context or interconnection between species as well as resource quality (ibid.). Instead, a system of democracy should be utilised to allocate natural resources as part of the legislative process (Sagoff, 1998).

Within shared river basins, actors face the challenge how to find ways of turning potential conflicts into constructive cooperation and to turn what is often perceived as a zero-sum game (in which one party gains and another loses) into a win-win outcome (Postel, 1992). Wondolleck and Yaffee (2000) argue that the key to success lies with the development of collaborative institutions in which a wide range of stakeholders are engaged in a process of joint decision-making and problem-solving. In order to arrive at collective choices, Watson (2007) emphasises the importance of collaborative networks of public, private and civil stakeholders who all are willing to invest financial, human and intellectual resources. Generally, people will be more eager to invest in collective arrangements whenever they expect trade-off opportunities such as in the context of shared rivers when riparian states acknowledge upstream-midstream-downstream interdependencies and realise that not all interests are incompatible. Also, when started from a common vision for an entire river-basin, joint investments of riparian states or investments by one riparian state at the territory of another, may be more cost-efficient and sustainable than parallel investments by individual riparian states (e.g. Ruijgh-van der Ploeg and Verhallen, 2002). Meijerink (1999) argues that the opportunity for trade-offs may increase when the scope is tactically enlarged to issues from outside the water policy domain. As such, riparian states may exchange problem-solving capacity at a reciprocal basis. On the other hand, whenever power asymmetries are large and available fresh water resources scarce, trade-off opportunities might be much more difficult to discover and/or establish.

Saeijs (2006) argues that working with natural processes instead of against these will pay-off for all on the long run, since generally all human interference may induce additional investments such as for mitigation and compensation of the loss of ecosystem’s capacity to deliver goods and services. This requires a change of both the attitude of hydraulic engineers and public perception. For example, not to consider
floods as a waste and threat, but to acknowledge that floods may be highly productive in agricultural terms (Savenije and Van der Zaag, 2000).

As a synthesis of the presented views in studied literature Table 2.9 presents the ideal-type collective IRBM pay-off rules which are constructed for this research.

Table 2.9: Ideal-type collective IRBM pay-off rules

<table>
<thead>
<tr>
<th>Ideal-type A↓</th>
<th>Ideal-type B↓</th>
<th>Ideal-type C↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rewards and sanctions from laws and regulations are major drivers for compliance with collective-choice rules (e.g. as expressed by standards and license conditions).</td>
<td>Economic incentives and market forces are major drivers for compliance with collective-choice rules.</td>
<td>(Sub-)Basin communities voluntarily invest resources (human, financial, expertise) as collaborative capital for compliance with collective-choice rules.</td>
</tr>
</tbody>
</table>

**Rules configuration**

To conclude Section 2.2, Ostrom (2005) stresses that scholars need to analyse the effects of a full rules configuration rather than assume they can study the impact of one rule at a time – while assuming that the other rules are randomly distributed. The focus of this research is on an analysis of the translation of a set of collective European organisational and substantive principles by actors at interrelated political levels within the international Meuse River Basin. The aim is to track changes in a full rules configuration over time, not to isolate individual rule types. An observed rules configuration at a specific moment never walks alone. It may be considered the outcome of interactions between dominant and opposing policy discourses, as expressed by actors at multiple levels and across policy domains within the context of a particular configuration of power and resources and in interaction with pre-existing rules. Consequently, this research needs a more encompassing analytical framework. The Policy Arrangement Approach (PAA; Arts, Van Tatenhove and Leroy, 2000; Lieffrerink, 2006; Leroy and Arts, 2006) offers such a framework. For the aims of this research the seven rule types of Ostrom are incorporated in the PAA as elaboration of its rules dimension. The next section introduces and explains the PAA.

**2.3 The Policy Arrangement Approach (PAA)**

**2.3.1 Definition**

The Policy Arrangement Approach (PAA) has been developed by Dutch scholars in environmental policy sciences. It is an attempt to provide for a value-neutral, analytical framework which links structural, long-term processes in the social and political context with daily strategies and practices of diverse actors in a particular policy domain (Leroy, Arts and Van Tatenhove, 2003; Klaver et al., 2003). The founding fathers aim to counterbalance the predominantly agency-centred and managerial approaches within the Dutch environmental policy sciences since the 1980s (Leroy, Arts and Van
Tatenhove, 2003). They stress that ‘the research-based nucleus of the policy arrangement approach lies in the determination of an explanation behind the dynamics (and the stability) within a given policy domain, by departing from the interplay between actors and structures’ (Leroy, Arts and Van Tatenhove, 2003: 19; translation from Dutch added). In addition they introduce the concept of political modernisation in an attempt to grasp dominant developments in the overall political and societal context (Van Tatenhove, Arts and Leroy, 2000). The rationale behind the PAA has not been the development of a new theory about policy, management and politics, but ‘the integration of parts of existing substantial theories’ (Leroy and Arts, 2003: 97). The added value of the analytical framework lies in ‘the combination of the robust terms and themes from these theories and in the rejection of their demonstrable weaknesses’. (ibid.: 98)

A policy arrangement is understood as the (temporary) substantive and organisational stabilisation of a policy domain which consists of four dimensions (Arts, Van Tatenhove and Leroy, 2000; Liefferink, 2006; Leroy and Arts, 2006; Wiering and Arts, 2006):

- actors and their coalitions and oppositions involved in the policy domain;
- the division of resources between these actors, leading to differences in power and influence, where power refers to the mobilisation of and deployment of the available resources and influence to who determines policy outcomes and how;
- rules of the game currently in operation, in terms of formal procedures of decision making and implementation as well as informal rules and ‘routines’ of interaction;
- current policy discourses, where discourses entail the argumentation lines of the actors involved with regard to substantive and organisational aspects, as expressed by world views and paradigms, policy and governance principles and operational rules and practices.

The concept policy arrangement links long-term processes of political and social change with day-to-day policy making processes (Van Tatenhove, Arts and Leroy, 2000). It combines two distinguishable, complementary ways of analysis. The first level of analysis (structural social change) focuses on the formation of policy arrangements as a result of both changing relations between state, market and civil society and an evolution from government to governance (ibid.). Secondly, analysis at the level of interaction emphasises the arguments actors use in interaction, the norms and values actors stand for, their problem definitions and their concepts of the society-nature relationship and societal and political responsibilities (Van Tatenhove, Arts and Leroy, 2000). One way to delineate a policy domain is to focus (1) on the way in which a specific policy issue is formally institutionalised in a political system (ministries, departments, policy plans, laws and regulations, etceteras) and (2) on the way in which these formal boundaries are used and challenged by the relevant players in the field (Arts, Van Tatenhove and Leroy, 2000). Any stabilisation of a policy domain may be temporary, as arrangements evolve, either by policy innovations on the ground or by processes of political modernisation. Also policy arrangements may develop and evolve at different levels of policy making: local, national and international (ibid.).
By relating the (influence of) strategic considerations and goals of actors at one side and the broader social and political context on the other side, the policy arrangement approach offers a comprehensive framework for analysis and interpretation of developments within a given policy domain over time (Bogaert, 2004). The framework aims for balancing the attention to both substantive as organisational dimensions, in order to avoid radical social-constructivism (in which power and structure only gain relevance by perceptions of actors) or structural determinism (ibid.). Liefferink (2006: 48) stresses that the four dimensions are inextricably interwoven: they do not just sum up to define a policy arrangement.

The interrelatedness of the four dimensions can be symbolised by a tetrahedron, in which each of the corners represents one dimension (see Figure 2.1 in Section 2.1). Any change in one of the dimensions may induce change in other dimensions. For example: the appearance of new actors or a change in the constellation of coalitions may add new elements to the prevalent discourse or lead to another distribution of resources and/or rules of the game. As a consequence of the indissoluble interrelatedness, the analysis of a policy arrangement should in principle address the entire tetrahedron (Liefferink, 2006). The four-dimensional analysis of a given policy domain allows for different analytical perspectives as dependent on the research question. Each perspective will highlight different aspects of the arrangement and requires its own methodology (ibid.). The challenge within any research that departs from the PAA is to choose a principal entrance, a corner to enter the tetrahedron, without losing sight on the interrelations with the other dimensional corners and with the courage to limit oneself in a particular research focus.

The PAA is not only a promising analytical framework which has triggered diverse empirical case studies, it is also subject to a critical debate. Critiques focus on three main topics: (1) the nature of and too generic conceptualisation of political modernisation; (2) the implicit explanatory potential of the combination of (parts of) existing theoretical concepts; and (3) the limited predictive value of the framework. Regarding the first topic Hajer (2003: 53; translation from Dutch added) argues that within the PAA ‘political modernisation is considered too deterministically (at least includes this pitfall) as a macro-sociological impact variable and too less as manifestation of concrete practices’. Glasbergen (2003: 79) questions whether political modernisation refers to factual developments or to a normative ideology. Illustrated by a study of diverse cases within the Dutch institutional context he concludes the latter. Political modernisation, he argues, should be understood as an ideology in which environmental objectives are subordinate to financial-economical interests. Additionally, contrary to the suggestion of the ideology, the state still remains the most crucial actor with regard to the realisation of societal change (ibid.).

According to Herweijer (in Klaver et al., 2003: 86), the PAA’s elaboration of (political) modernisation is too comprehensive whereas the distinctiveness is too limited. For example, no distinction has been made between social, juridical and political modernisation (ibid.). The term needs further development and clarification (Spaargaren in Klaver et al., 2003: 90). The founding fathers answer that their application of political modernisation is meant in a purely instrumental, analytical way (Leroy and Arts, 2003).
They admit that the term requires theoretical refinement and empirical clarification, e.g. within the European context by inclusion and elaboration of the multi-level governance concept (ibid.). This research, inter alia, aims to contribute to such further elaboration by the choice for a multi-level governance case-study within the context of a transboundary European river basin. See Section 2.4 for a brief introduction to multi-level governance and Chapter 3 for a description of the chosen research framework.

With regard to the second critique, Herweijer (in Klaver et al., 2003: 85-86) points at the still limited explanatory power of the PAA, due to the predominantly implicit hypotheses. Hajer (2003: 54) adds that the PAA combines concepts of the “classical” and “new” political sciences in a seemingly eclectic way, at least without a sufficiently explicit argumentation of theoretical choices. The explanatory power of the PAA could be enlarged by a modelling of the coherence among its four dimensions (Herweijer in Klaver et al., 2003: 85). One may argue whether this second critique relates to the (over?) ambitious intentions of the PAA founding fathers to pay sufficiently balanced attention to both the role of actors and structures and substantive and organisational factors. The inventors have opted for ‘an intellectual fruitful middle position’ at the crossroad of relevant paradigms and theoretical concepts, in order to both prevent radical stenches and profit from the strengths of all these approaches (Leroy and Arts, 2003: 99). ‘The PPA is developed in a critical debate with and inspired by a large number of recent developments in general sociology, environmental sociology, management sciences, policy sciences, politics and international relations’ (Leroy, Arts and Van Tatenhove 2003: 16).

Given these two critiques one may question whether all these theoretical concepts from different backgrounds may be combined in an unproblematic and scientifically sound way. For example, what are the criteria for the selection of “robust terms and themes” from the rich diversity of theoretical concepts? One major challenge is to make the theoretical choices more explicit and to further operationalise the relations between the four dimensions for empirical scrutiny. This research picks up the second part of this challenge by the detailed operationalisation of the rules dimensions at the collective-choices level in combination with an assessment of developments in the other three dimensions over time.

The third critique concerns the limited predictive value of the PAA. Ringeling (in Klaver et al., 2003: 84-85) concludes that so far, the PAA has focused predominantly on policy making processes and too less on implementation and maintenance. He plies for a more comprehensive empirical analysis of actual governance styles and practices of policy making and steering (ibid.). Herweijer (in Klaver et al., 2003: 85-86) regrets the limited explanatory and predictive capital of the analytical approach. To his opinion the emphasis is put too one-sidedly on discursive changes as trigger for policy changes. A more fundamental identification of explanatory mechanisms should add to a more proactive contribution towards anticipating policy change (ibid.). Although the emphasis of the PAA primordially remains at scientifically sound empirical-analytical analysis of policy structuration and change processes, the potential for formulating policy interventions could be enlarged (Klaver et al., 2003). The PAA’s dimensions
offer four principal entrance points in combination with further conceptualisation of
trends in the political and societal context (ibid.). The prescriptive potential of the
PAA lies in the combination of a rich diversity of variables which are not considered
in isolation, but as a configuration (Leroy and Arts, 2003). Whenever the theoretical
argumentation and the analytical operationalisation reach an adequate quality level, the
prescriptive application of the PAA may be increased as a logic next step (ibid.).
Arts and Goverde (2006: 69-92) have picked up the conceptual challenge by presenting
an instrument for evaluation and intervention which is compatible with the PAA. The
instrument which is inspired by concepts of governance capacity and congruency is
an attempt to add a normative framework to the PAA (ibid.). However, Arts and Leroy
(2006: 279) conclude that this normative model has not widely been applied yet. ‘We
consider it a theoretical and methodological innovation for the PAA now that should
be validated by empirical research at a later stage’ (ibid.).

The limited instrumental, prescriptive value may also relate to the observation
that, so far, the PAA predominantly offers a framework for non-incremental policy
developments (see Klaver et al., 2003; Leroy and Arts, 2003). Especially overall politi-
cal and societal developments are difficult to manipulate by policy interventions
(Leroy and Arts, 2003). By focusing on trends in long-term political and societal pro-
cesses it overlooks more short-term, incremental changes within a given policy domain.
This research aims to add to the potential for analysing incremental changes within a
policy domain by a detailed operationalisation of the rules dimension. As presented in
Section 2.2 seven ideal-type rules for Integrated River Basin Management (IRBM)
have been derived from the Institutional Analysis and Development (IAD) frame-
work. These analytical units show some degree of redundancy, which is considered
functional for observing incremental changes.

The principal entrance of this research is the rules of the game corner. Collective-choice
rules on the sustainable use, development and management of water (in relation to
other related natural resources) are shaped by the continuous interplay among prior
rules, policy discourses, actor coalitions and oppositions and configurations of
resources and power within the overall physical, social, economic and political con-
text. Within this research the WFD is interpreted as a set of European collective-
choice IRBM rules and principles (with regard to both organisational and substantive
issues) that enters the International Meuse River Basin District in December 2000.
The transformative impact of this framework will depend on how its rules and prin-
ciples will be interpreted, translated, negotiated and/or transformed into collective-
choice rules by networks of multiple actors at and across the interrelated multilateral,
bilateral and domestic political levels. This research questions whether and to which
extent do these new European requirements challenges prior collective-choice rules
within the water policy domain. Potential explanations for continuity or change of
rules will be explored by means of theories around the PAA’s dimensional corners.

The Subsections 2.2.3 till 2.2.9 already provided for ideal-type IRBM collective-
choice rules. By means of these ideal-types the seven rule types of Elinor Ostrom may
be assessed at different political levels within the International Meuse River Basin
District before and after introduction of the WFD. As such the ideal-types act as a
benchmark to track continuity and (incremental) changes of rules over time. As a next step in this Chapter the Subsections 2.3.2 till 2.3.4 will introduce the three other dimensions of the PAA: policy discourses, actors (coalitions and oppositions) and the division of resources and power. These Subsections are informed by notions from a range of theories in the political and social sciences (as thoroughly presented by Hay, 2002; Meijerink and Van Tatenhove, 2007; and Padt, 2007) and analytical frameworks of the policy process (as compared by Schlager, 1999; Meijerink, 2005; Crabbé, 2008 and Meijerink and Huitema, 2009). Potential triggers and barriers for institutionalisation of the new set of European rules and principles may become noticeable from the interactions within the configuration of the four PAA’s dimensions. Be aware that the prior rules (before adoption of the WFD) will be assessed by means of the ideal-types of the Subsections 2.2.3 till 2.2.9. Hence, within this Section 2.3 there is no subsection on the rules dimension.

### 2.3.2 Policy discourses

The term discourse as applied in the social sciences goes beyond the use of language in everyday speech, discussion and/or modes of talking (Van den Brink and Metze, 2006). It is more specific in nature (ibid.). Discourse can be defined as ‘a specific ensemble of ideas, concepts and categorisations that are produced, reproduced and transformed into a particular set of practices and through which meaning is given to physical and social realities’ (Hajer, 1995: 44). Similarly, Dryzek (2005: 9) defines a discourse as:

> [...] a shared way of apprehending the world. Embedded in language, it enables those who subscribe to it to interpret bits of information and put them together into coherent stories or accounts. Discourses construct meanings and relationships, helping to define common sense and legitimate knowledge. Each discourse rests on assumptions, judgements and contentions that provide the basic terms for analysis, debates, agreements and disagreements.

Thus understood, discourse refers to a set of concepts that structure the contributions of participants in a discussion, as embedded in language (Hajer, 2006). Based on these two discourse definitions and structuration theory (Giddens, 1984 and 1990), the founding fathers of the PAA define policy discourses as ‘dominant interpretative schemes, ranging from formal policy concepts to popular story lines, by which meaning is giving to a policy domain’ (Arts, Van Tatenhove and Leroy, 2000: 63).

Fischer and Forester (1993) argue that qualitative social research has a lot to gain from the extra dimension that discourse analysis offers since it pays explicit attention to meaning and arguments. Discourse analysis ‘provides instruments to describe the shared or divided meanings and the sometimes minimal changes in these meanings and arguments, which often stay out of sight with institutional analysis of [actors’] interests’ (Van den Brink and Metze, 2006; 14). Hajer (2006: 70, original italics) links notions on meanings and arguments to power and dominance through discourse coalitions: ‘a group of actors that, in the context of an identifiable set of practices, shares the usage of a particular set of story lines over a particular period of time’. Practices are to be understood as ‘embedded routines and mutually understood rules and norms that
provide coherence to social life’ (ibid.). Discourses that become dominant may be a trigger for institutional change or as Hajer (2006: 70) argues:

[...] We thus have a simple two-step procedure for measuring the influence of a discourse: if many people use it to conceptualise the world (discourse structuration) and if it solidifies into institutions and organisational practices (discourse institutionalisation). If both criteria are fulfilled we argue that a particular discourse is dominant.

Hajer’s ideas on politics as a struggle for discursive hegemony come close to those of Sabatier and Jenkins-Smith (1999). They argue that advocacy coalitions of private and public actors across political levels struggle for dominancy of their policy core beliefs. The battle for dominant policy discourses may be one explanation for observed institutional dynamics (Liefferink, 2006; Padt, 2007). Dryzek (2005) challenges the hegemonic assumption. In the case of environmentalism he observes a variety of discourses, sometimes complementing one another, but often competing, which all may inform both informal and formal practices (ibid.). Also Huitema (2002: 12) who has conducted a detailed discourse analysis of hazardous waste policy decision processes in the United Kingdom, Netherlands and Canada, doubts the assumption of the single discourse hegemony:

I speak of a possible mixture of discourses, because I do not believe that one discourse will necessarily be hegemonic in the sense that Hajer meant it. For certain, one discourse on facility siting may be very relevant at the collective choice level at some point in time, but this may rapidly change and be completely different at the operational level.

Regarding the policy discourse dimension, the PAA has been influenced significantly by Hajer’s conceptualisation (Arts, Van Tatenhove and Leroy, 2000). Central in Hajer’s argumentative approach are discourses, story lines and discourse coalitions. His approach focuses on the constitutive role of discourses in political processes and allocates a central role to the discoursing subjects, in the context of the idea of duality of structure (Hajer, 1995). Storylines are defined as narratives on social reality through which elements of many different domains are combined and that provide actors with a set of symbolic references that suggest a common understanding (Hajer, 1995). Storylines are essential elements in the clustering of knowledge, the positioning of actors and the creation of coalitions amongst the actors within a given policy domain (ibid.). Discourse coalitions are defined as ‘the ensemble of (1) a set of storylines; (2) the actors who utter these storylines; and (3) the practices in which this discursive activity is based. Storylines are here seen as the discursive cement that holds a discourse coalition together’. (Hajer, 1995: 65)

Arts, Van Tatenhove and Leroy (2000) define policy discourses as interpretative schemes of actors that help them to understand and give meaning to environmental problems and to design possible strategies and tactics to tackle them. In general a policy arrangement can be characterised by one dominant policy discourse, the content of which is continuously challenged by (elements of) competing discourses (ibid.). Informed by Foucault and Giddens the main theoretical thesis of this argumentative
The discourses dimension links with the resources and power dimension through discursive power (Liefferink, 2006). Dryzek (2005: 9) argues that discourses are bound up with political power: ‘Sometimes it is a sign of power that actors can get the discourse to which they subscribe accepted by others.’ The other way around, discourses can themselves embody power in the way they condition the perceptions and values of those subject to them, such that some interests are advanced, others suppressed (Foucault, 1980). The impact of a discourse can often be assessed from both the policies as issued by governments or intergovernmental bodies and in institutional structures (Dryzek, 2005: 20). ‘Beyond affecting institutions, discourses can become embedded in institutions.’ Sometimes discourses may take indirect effects on the policies or institutions of government such as individuals and communities who create an alternative political economy based on self-sufficiency. Furthermore, there may be direct impacts on society and culture ‘without having to pass through formal institutions or public policies’. For example, feminism has changed the division of labour in households (ibid.). Whether discourse coalitions may alter actual rules configurations depends on the power and resources of these coalitions (Hajer, 1995).

According to discursive approaches rules change may occur when actors succeed in attracting other actors to a certain policy discourse (Crabbé, 2008). Dryzek (2005) argues that the more complex a situation, the larger is the number of plausible perspectives upon it. He refers to environmental problems as interconnected and multidimensional, hence complex. Since they are by definition found at the intersection of ecosystems and human social systems, they are double complex (ibid.). Dewulf et al. (2005) argue that whenever multiple and interdependent users of natural resources frame issues in very different ways, ambiguity will result, i.e. the coexistence of two or more equally plausible interpretation possibilities. Consequently, integrated management of natural resources requires dealing with frame differences as part of a continuous process of negotiation and social learning, in a reciprocal way by mutually acknowledging frames and connecting them. ‘Some or all parties will have to revise, enlarge or reframe the way they relate to the issues and to each other, in order to support mutual understanding and common action.’ (ibid.: 115)

One may even argue that the vaguer (or more ambiguous) a policy discourse is, the more open it is to different interpretation frames, the greater its mobilising capacity and the more impressive its consensus ability is (Arts, Van Tatenhove and Leroy, 2000; Crabbé, 2008). Following this argument, the degrees of interpretation freedom with regard to the organisational and substantive rules and principles of the WFD, offers opportunities for mobilising capacity and consensus building. Storylines, being the attractive and often seductive one-liner versions of policy discourses, may enable various or even opposing policy actors to join forces (Arts, Van Tatenhove and Leroy,
The risk underneath these seductive one-liner versions may be that substantial differences in opinions and perceptions among stakeholders (on both means and ends) are hidden under a thin layer of verbal consensus. Consequently, joint forces may turn out to be opportunistic, short term alliances and/or may hold the danger of symbolic planning outcomes (Hendriks et al., 1999).

From an analytical perspective not only the resources and power dimension, but also the rules of the game dimension closely relates to the policy discourse dimension (Liefferink, 2006). Whenever (a coalition of) actors succeed(s) to convince or overrule others of the importance to conceptualise an issue by means of a preferred set of storylines, these may challenge the current configuration of rules. Discourses may be interpreted as preferences or prescriptions for certain types of institutional arrangements, since different discourses may emphasise different actors, different roles, different relations and different methods of interest aggregation (Huitema, 2002). Linking up with the rules dimension, entering the policy arrangement tetrahedron from the corner of policy discourses offers opportunities for empirical analysis at two different levels. The first level refers to general ideas about the organisation of society, particularly the relationship between the state, market and civil society, i.e. about the preferred mode of governance (Liefferink, 2006; see rules of governance in Figure 2.1). Such ideas clearly exceed specific policy issues or sectors. Through the views of actors involved however, they may have an impact on specific policy arrangements. The second level concerns ideas about the concrete policy issues at stake, such as the character of the problem, its causes and possible solutions. Discourses at this level imply substantive strategic positions of actors in the arrangement (ibid.). For this second (substantive) level, this research suggests to add policy principles between the policy discourses and rules of the game dimensions in Figure 2.1. Groups of actors around one particular discourse (so-called discourse coalitions) may be discerned at both levels, substantive and organisational (Liefferink, 2006).

The seven rule types of the IAD framework cover both substantive and organisational aspects within a nested hierarchy of four levels of action situations, i.e. meta-constitutional, constitutional, collective-choice and operational (Ostrom, 2005; McGinnis, 2011). As elaboration of the policy discourse dimension of the PAA, Wiering and Arts (2006) sketch a three-layered discursive body. The ontological nucleus of this body includes deeply rooted views and paradigms on how to rule the world, which are very resistant to change, e.g. as solidified by constitutions. With regard to a given policy (sub)domain, a normative skin of policy and governance principles covers the nucleus. These principles reflect the collective-choices for coping with a (set of interrelated) policy issue(s). Although these principles, whenever institutionalised in certain organisational entities and policy programmes, may dominate during a long period of time, they may be altered relatively more easily than constitutional choices. The third discursive layer concerns the strategic coating, i.e. operational rules and daily practices which may be adapted soon as new insights have developed. The discursive body of a specific policy (sub) domain must be viewed in the overall political and socio-economic context, as captured by political modernisation (Van...
Tatenhove, Arts and Leroy, 2000) and the meta-constitutional level of analysis (Ostrom, 2005; McGinnis, 2011).

The three discursive layers come close to the tripartite, hierarchical structure of belief systems in the Advocacy Coalition Framework (ACF) as developed by Sabatier and Jenkins-Smith (1999: 121-122). They distinguish deep core beliefs, policy core beliefs and secondary beliefs. The deep core of a shared belief system includes ontological and normative beliefs which operate across virtually all policy domains and which are very resistant to change. Policy core beliefs ‘represent a coalition’s basic normative commitments and causal perceptions across an entire policy domain or subsystem’ (ibid.). These beliefs may be considered the normative skin of collective-choices such as regarding the appropriate division of authority between governments and markets, the level of government best suited to deal with the problem and the basic policy instruments to be used. ‘The ACF assumes that policy core – not deep core – beliefs are the fundamental glue of coalitions because they represent basic normative and empirical commitments within the domain of specialisation of policy elites’ (Sabatier and Jenkins-Smith, 1999: 121-122).

Finally, secondary aspects of a coalition’s belief system point at a large set of narrower, near-surface beliefs concerning the seriousness of the problem or the relative importance of various causal factors in specific regions, policy preferences, the design of specific institutions to tackle a problem and the evaluations of various actors’ performance (ibid.). Secondary beliefs may be considered the strategic coating, as expressed by operational rules and practices. ‘The basic argument of the ACF is that, although policy-oriented learning often alters secondary aspects of a coalition’s belief system, changes in the policy core aspects of a governmental program require a perturbation in no-cognitive factors external to the subsystem.’ (Sabatier and Jenkins-Smith, 1999: 123) Secondary belief aspects are assumed to be more readily adjusted in light of new data, new experience, or changing strategic considerations, e.g. by across-coalition, policy-oriented learning (ibid.: 122).

Since policy discourses may concern both organisational and substantive issues, all seven rule types of Ostrom may have a link with this dimension. For example, position and boundary rules (who is in a position to act and who is not) reflect power asymmetries which may on the one hand support prevailing discourse coalitions and on the other hand may provoke discourse oppositions to flourish and gain more influence. Choice rules point at actions which are and which are not allowed, e.g. as embedded in and influenced by dominant policy discourses. Aggregation rules may reflect and/or influence discursive power relations. Information rules affect the availability and access to certain information channels as such reflect and/or affect power asymmetries among discourse coalitions and oppositions. Pay-off rules establish incentives and deterrents for action which may affect dominancy of certain discourse coalitions and/or oppositions. Scope rules may reflect discursive power (which issues are included or excluded?) and reversely, discursive power changes may induce scope rules change (which ideas become dominant?).

Within this research, the seven rule types of the IAD framework (Ostrom, 2005) are studied at the collective-choice level, i.e. what is the impact of the WFD’s governance rules and policy principles on water policy arrangements at interrelated political
levels within the International Meuse River Basin District? To which extent does this European water policy discourse challenge current collective-choice rules?

These collective-choice rules at the European level relate to the normative skin of the discursive body which is informed by both constitutional choices and operational rules and daily practices of actors in the Member States of the European Union in interaction with actors in the European institutions. Regarding the policy discourses dimension, the following questions guide the analysis of this research:

- What are the dominant and opposing arguments on governance and policy principles in the water policy domain at interrelated political levels within the International Meuse River Basin District before and after adoption of the Water Framework Directive?
- Which potential explanations do (lack of) changes in these arguments over time deliver with regard to observed continuities and/or changes in collective-choice rules?

2.3.3 Actors

Scholars in social and political sciences have to deal with the classic divide between structure and agency, or duality of structure, as addressed extensively by Giddens (1984; 1990). Many theories seem to struggle with this duality and approach it from different stances. Some theories emphasise the intentions, reasons and motives of acting agencies, while other theories mainly stress structures and their dominance over agents. See for an extensive introduction to the rich palette of theories: Sabatier (1999: 6-12); Hay (2002: 1-54); Howlett and Ramesh (2003: 20-49); Padt (2007: 19-24); Meijerink and Van Tatenhove (2007: 185-198) and Crabbé (2008: 24-25). This research departs from the conclusion that both structure and agency (in their undeniable relations and interactions) need to be included in any analysis of institutional development within a policy domain during a certain time period. Both the PAA and the IAD framework embrace this conclusion hence, also for this argument, are considered appropriate analytical tools.

The IAD framework is often mentioned as an example of rational-choice institutionalism. The framework, however, goes beyond the limitations of the (too) narrowly, agency-centred rational-choice theory. Rational-choice theory denies the existence of any kinds of action other than the purely rational and calculative by self-interested individuals (Scott, 2000). Individual actors are considered to have a clear and transitive hierarchy of preferences such that in any given context there is only one optimal course of action available to them (Hay, 2002). For rationalist models, context determines conduct and structure determines agency (ibid.). Rational-choice models show great difficulties in explaining collective action, the origins of social norms (especially those of altruism, reciprocity and trust) and social structures (Scott, 2000; Hay, 2002).

Rational-choice institutionalism aims to balance more between structure and agency. It ‘is a family of frameworks focusing on how institutional rules alter the behaviour of intendedly rational individuals motivated by material self-interest’ (Sabatier, 1999: 8). Although the IAD framework has part of its roots in rational-choice theory (e.g. gaming), Ostrom (2005: 64) explicitly takes on board a broader view:
Instead of completely independent decision making, individuals may be embedded in communities where unobserved norms of fairness and conservation may change the structure of a situation dramatically. Within these situations participants may adopt a broader range of strategies than expected using an assumption of a narrow self-interest. Further, individuals may change their strategies over time as they learn about the results of past actions.

In the IAD framework action situations are central as the “black box” in which policy choices are made by actors in interaction and as influenced by exogenous variables, i.e. biophysical conditions, attributes of the community and rules-in-use (McGinnis, 2011). The rules-in-use include formal rules (or rules on paper), the repertoire of norms, strategies and rules being used on a regular basis by participants and property rights. Attributes of the community point at all relevant aspects of the social and cultural context, within which an action situation is located, i.e. trust, reciprocity, common understanding, social capital and cultural repertoire. (ibid.) The IAD framework aims to explain for degrees of collective action, e.g. around the management of common pool resources.

Within the rational-choice institutionalism family, whereas historical institutionalism points at the importance of path dependency (North, 1990; Pierson, 2000), sociological institutionalism focuses on the impact of norms and values of organisation as developed over time (March and Olson, 1989). Institutions tend to reproduce themselves and may harden their profile of values even when their environment changes (Peters, 2005). They do not automatically adapt to structural societal and political changes and this may lead to suboptimal performance, for example by legitimising prevailing policies rather than changing them (March and Olson, 1989). If so, this implies that politics may become highly symbolic and that the so-called rational decision-making becomes little more than a ritual (ibid.). This however, does not imply that actors cannot intervene in the allocation of resources and the set of rules. Rationalists believe that games can be designed purposefully by changing the institutional constraints (North, 1990). If there is a logical need for an institution, it will be created by rational intervention of actors. This view holds that structure follows strategy (Parsons, 1995).

Given path dependency, actors are socialised within institutional settings which define informal rules and procedures (Rosamond, 2000). Accordingly, logics of appropriateness (March and Olson, 1989; Hall and Taylor, 1996) and bounded rationality (Simon, 1957) may better explain political behaviour than those which assume instrumental self-interest (Hay, 2002). Or as Padt (2007: 21) describes logics of appropriateness: ‘If an institution is effective in influencing the behaviour of its members, those members will think more about whether an action conforms to the norms and values of the institution than about what the individual consequences will be’. Bounded rationality refers to the fact that human rationality is limited in terms of incomplete and fragmented knowledge, observation and communication, memory of the human mind, attention spans and the psychological and organisational environment (Simon, 1957).

The IAD framework acknowledges path dependency, bounded rationality and logics of appropriateness. For example, inclusion of rules-in-use and property rights point at historical paths chosen. Additionally, common understanding, social capital and cultural repertoire implicitly refer to logics of appropriateness. Furthermore, the
limits of agency (in its interaction with structure) are expressed by the framework’s formulation of outcomes: ‘Outcomes are generated by the conjuncture of the outputs of a given action situation, other closely related action situations and exogenous influences that may not always be subject to effective control of human intervention.’ (McGinnis, 2011: 176). Also the PAA acknowledges the dual relationship between structures and agents by considering institutionalisation as the ongoing processes of transformations by which structures are (re)produced in interaction with agencies (Van Tatenhove and Leroy, 2000). Within this approach, institutionalisation ‘refers primarily (a) to the phenomenon whereby over time day to day actors’ behaviour solidifies into patterns and structures, whereas these patterns in turn structure day to day actors’ behaviour’ (Leroy and Arts, 2006: 7). ‘As a consequence and secondly, the concept refers (b) to the gradual sedimentation of meanings into rules of behaviour and organisational structures, that in turn reproduce and recreate these meanings’ (ibid.). Institutions are ‘more or less commonly accepted rules of the game, coalitions, discourses and problem definitions, acknowledged and legitimised in the context of a policy arrangement’ (Van Tatenhove and Leroy, 2000: 20).

The PAA includes explicit attention to agency by inclusion of the actors’ dimension, as informed by theories on policy networks (Rhodes, 1984; Marsh and Rhodes, 1992; Kickert, Klein and Koppenjan, 1997), discourse coalitions (Hajer, 1995) and advocacy coalitions (Sabatier, 1988; Sabatier and Jenkins-Smith, 1999). In the framework’s approach of the actor dimension, coalitions and oppositions are central. As actors do not act individually in policy practices but most of the time in concert, it is useful not to focus on individuals or on single organisations but on (inter-organisational) coalitions (Arts, Van Tatenhove and Leroy, 2000). Each coalition consists of a number of actors who share interpretations of a policy discourse and/or resources, in the context of the rules of the game. Some coalitions may support the dominant policy discourses or rules of the game, while others might challenge these (supporting versus challenging coalitions) (ibid.). In public administration science policy networks are defined as more or less stable patterns of social relations between interdependent actors, which take shape around policy problems and/or policy programmes (Kickert, Klein and Koppenjan, 1997). Following this perspective, joining a policy coalition is considered a strategic choice by actors, aiming to achieve their goals and therefore looking for partners with whom policy interpretations are shared and an acceptable consensus can be reached (Arts, Van Tatenhove and Leroy, 2000). As long as there is no shared perception of the content of the problem, it is difficult to be sure about the strategies other parties will develop and it will also be difficult to decide upon one’s own course of action (Van Bueren, Klijn and Koppenjan, 2003; Ostrom, 2005).

An important step in building coalitions and oppositions concerns framing of problems by multiple actors in the agenda-setting stage of a policy life cycle (Howlett and Ramesh, 2003). Prevailing frames are not always widely, or as strongly, held by all important policy actors, hence the agenda-setting process is very often one in which a clash of frames occurs (Bleich, 2002). True, Jones and Baumgartner (1999) point at policy change which may be induced by policy opponents who manage to fashion new policy images, e.g. by successfully exploiting multiple venues that are generally present
in a policy domain. When advocates of policy change actively search for venues, this strategic behaviour is called venue shopping (ibid.) Kingdon (1995), in his Multiple Streams Framework, introduces policy entrepreneurs, i.e. stakeholders who (try to) make use of windows of opportunity through which acknowledgement and framing of problems, identification and selection of potential policies to deal with the problems and political developments come together. Policy entrepreneurs connect certain issues to preferred solutions and actively try to ascertain political support for their problem-solution combinations (Crabbé, 2008; Meijerink and Huitema, 2009). As such, policy entrepreneurs may be key actors in building coalitions and oppositions.

Within an advocacy coalition parties share a set of normative and causal beliefs (i.e. deep core values and policy beliefs) and show a non-trivial degree of coordinated behaviour to realise their objectives and policy proposals (Sabatier, 1988). A basic argument of the ACF is that core and policy beliefs of an advocacy’s coalition’s policy and policy program are resistant to change (Dudley and Richardson, 1996). Sabatier and Jenkins-Smith (1999) mention that for radical transformations of core values and policy beliefs, a perturbation external to the policy subsystem is necessary such as changes in socio-economic conditions, public opinion, in systemic governance coalitions or policy decisions and impacts from other subsystems. Learning within and across advocacy coalitions may account for incremental change of secondary aspects of a belief system, e.g. the less than subsystem-wide beliefs concerning problems, causes and remedies (ibid.; Meijerink, 2005). Supporting conditions for cross-coalition learning are analytically tractable issues, an intermediate level of informed conflict and the presence of professional forums prestigious enough for members of opposing coalitions to participate in (Sabatier and Jenkins-Smith, 1993).

From an institutional perspective, the formation and development of policy coalitions is linked to processes of political modernisation in which globalisation and individualisation are among the central elements (Arts, Van Tatenhove and Leroy, 2000). The process of political modernisation is paralleled by the involvement of ever more private and public actors in national and international environmental politics, thereby inducing the broadening of policy coalitions (ibid.). The broadening of coalitions takes place in two directions, as both horizontal interrelations (at one political level) and vertical interrelations (between different levels) have grown (Arts, 1990). Also local-global coalitions may occur, a process which may be labelled as trans-nationalisation of policy coalitions (Hoogenboom, 1988). Arts, Van Tatenhove and Leroy (2000) ask whether the nation-state retreats in favour of international and sub-national levels in the face of globalisation and European integration. And if so, how are policies made and implemented in this system of multi-level governance? (ibid.) Although this research does not choose the role of the nation state as the central research topic, it will include observations of the role of the Dutch national government as one important agent.

Entering the policy arrangement tetrahedron at the actors’ corner, research questions can be theoretically inspired, for instance by macro-theories on changes in the relationship between the state, market and civil society, or more practice-oriented, focusing on the roles, positions and strategies of actors (Liefferink, 2006).
In the tetrahedron, actors and discourses meet in discourse coalitions, actors and rules in rules of interaction and actors and power in relational power (see Figure 2.1 in Section 2.1). Within the PAA the IAD’s rule types may be considered as a configuration of interaction rules, as informed both by structure as well as agency. The WFD’s governance and policy principles may challenge prior rules configurations within Member States. Given the no generalisable nature of IRBM different political, social, economic and/or physical contexts (e.g. within, shared international river basins) may ask for local tailor-made solutions, as the outcome of more or less participatory processes in which multiple actors are involved and supposed to arrive at collective choices. Key-words to link actors with the seven IAD’s rule types are coalitions and oppositions as illustrated (in a no-limitative way) by the analytical questions of Table 2.10.

Table 2.10: Analytical questions relating actors and IRBM collective-choice rule types

<table>
<thead>
<tr>
<th>Type of rule</th>
<th>Actors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope:</strong> Are there coalitions of actors (at and across interrelated political levels) who advocate transformation of existing or introduction of new organisational structures for (integrated) river basin management? If so do they manage to convince or overrule opposing coalitions?</td>
<td></td>
</tr>
<tr>
<td><strong>Position:</strong> To which extent are coalitions of actors (at and across interrelated political levels) who aim for reallocation of user and property rights, challenged by oppositions?</td>
<td></td>
</tr>
<tr>
<td><strong>Boundary (entry or exit):</strong> To which extent may public, private and civil actors (at and across interrelated political levels) have access to (coalitions for) policy implementation planning and decision-making? Who oppose such access?</td>
<td></td>
</tr>
<tr>
<td><strong>Choice (authority):</strong> Do coalitions of actors (at and across related political levels) strive for integrated supply and demand rules for the benefit of all? To which extent do coalitions oppose an integrated approach?</td>
<td></td>
</tr>
<tr>
<td><strong>Aggregation:</strong> Does symmetric decision-making by coalitions of actors (at and across related political levels) take place and which role does the subsidiarity principle play?</td>
<td></td>
</tr>
<tr>
<td><strong>Information:</strong> What kind of information do dominant coalitions of actors (at and across related political levels) support in the river basin management planning and decision-making process? For example, to which extent does expert knowledge dominate the process and is lay knowledge included?</td>
<td></td>
</tr>
<tr>
<td><strong>Pay-off:</strong> What are trade-off opportunities that may trigger coalitions of actors to invest in collaborative capital for collective arrangements on the sustainable use, development and management and use of shared water resources? Does a majority of actors express shared ownership of the (objectives and measures in the) river basin management plans?</td>
<td></td>
</tr>
</tbody>
</table>

To conclude this Subsection, for the purpose of this research the rules of the game are the principal entrance into the policy arrangement tetrahedron. The seven rule types
of the IAD framework (Ostrom, 2005; see Table 2.1 in Subsection 2.2.1) are interpreted as collective-choices which at the same time may guide and be challenged by actor coalitions and oppositions in river basin management planning and decision making processes. The actual configuration of rules may be abandoned, transformed or (re-)invented due to multiple (strategically operating) actors who may turn out to be active policy entrepreneurs (in the search for change) or their opponents (aiming to protect the status quo). The interactions between all these actors at and across interrelated political levels within an international river basin should be understood in the context of dual interaction with structural features which include both triggers and barriers for rule changes. Coalitions and oppositions are keywords in the analysis of the actor dimension, as guided by the subsequent questions:

- Which (types of) actor coalitions and oppositions do we notice at interrelated political levels within the International Meuse River Basin District before and after introduction of the Water Framework Directive? Are these policy discourse and/or resources coalitions?
- Which potential explanations do (lack of) changes in actor coalitions and oppositions over time deliver regarding the observed continuities and/or changes in collective-choice rules?

The concept of *policy entrepreneurs* refers to ‘certain individuals and organisations that potentially effect policy change (“change agents”)’ and their strategies (Huitema and Meijerink, 2009: 8). Although this concept offers an interesting option for an in-depth analysis of the actors’ dimension, it would go beyond the principal entrance of this research which is incremental change in the collective-choice rules configurations within the water policy domain in a particular time period. For the aims of this research an identification of actors’ coalitions and oppositions is considered sufficiently detailed. Furthermore, an in-depth analysis of diverse individual actors and organisations at and across interrelated political levels within the International Meuse River Basin District would require a significant research effort on its own.

**2.3.4 Resources and power**

Similar to other policy implementation processes, one important question in IRBM is who have the power, resources and influence to plan, decide and act and who have not. The concept of power may be approached from an *one-dimensional*, *two-dimensional*, or *three-dimensional view* (Lukes, 2005). The central assumption of the *one-dimensional view* is the primacy of decision-making on observable, overt controversial issues, as expressed by competing and collaborating interests groups in the political process. Subjective interests are seen as policy preferences revealed by political participation (ibid.). Dahl (1957) describes this ‘intuitive [one-dimensional] view of the power relation’ as ‘to involve a successful attempt by A to get B to do something he would not otherwise do’.

The *two-dimensional view* adds the unarticulated, covered or suppressed interests and includes potential issues and nondecision-making (Lukes, 2005). In this view, (subjective) interests are seen as policy preferences or grievances (of which people
might even be mistaken about or unaware of) (ibid.). Bachrach and Baratz (1970)
claim that power shows two faces, one for decision-making and one for nondecision-
making. Both should be regarded as attempts of a person or a group to limit the scope
of the political process (ibid.). They refer to Schattschneider (1960: 71) who argues
that ‘all forms of political organisation have a bias in favour of the exploitation of
some kinds of conflicts and the suppression of others’. Consequently, ‘Some issues are
organised into politics while others are organised out’ (ibid.). Contrary to the one-
dimensional view interests groups are not thought of as free-forming, voluntary, com-
petitive, or autonomous, for they depend on the state for recognition and support in
Pal (1993) points at states, that often maintain special ties with (and even may sponsor
the establishment of) certain interests groups, e.g. for reasons of co-optation or ac-
 commodation.

In his three-dimensional view, which he presents as a radical one, Lukes (2005: 25-29)
adds two elements. Firstly, control over the political agenda does not necessarily take
place through decision-making, since ‘the bias of the system can be mobilised,
recreated and reinforced in ways that are neither consciously chosen nor the intended
result of particular individuals’ choices’. Moreover the bias of the system is also, most
importantly sustained ‘by the socially structured and culturally patterned behaviour of
groups and practices of institutions which may indeed be manifested by individuals’
inaction’. The phenomena of collective action and systemic or organisational effects
may serve as examples. Secondly, Lukes (2005: 27, 59), in addition to actual conflicts,
stresses the (importance of) various ways of suppressing latent conflicts within society:
‘…that the most effective and insidious use of power is to prevent such conflict from
arising in the first place’. In rhetoric wording: ‘Indeed, is it not the supreme exercise
of power to get another or others to have desires you want them to have – that is, to
secure their compliance by controlling their thoughts and desires?’ (ibid.) Lukes (2005:
28, original italics) defines latent conflicts as deriving from ‘…a contradiction between
the interests of those exercising power and the real interests of those they exclude. The
excluded may not express or even be conscious of their interests, an argument which
does not ‘assume that the absence of grievance equals genuine consensus.’ (ibid.)

The PAA departs at least from a two-dimensional view on power. In this analyti-
cal framework power has to be regarded on the one hand, as the ability of actors to
mobilise resources and on the other hand, as a relational and a structural phenomenon
of social and political systems (Arts, Van Tatenhove and Leroy, 2000). Power is about
the asymmetrical distribution of resources (structural phenomenon) revealing itself in
relations of autonomy and dependency between actors (relational phenomenon). The
more these relations of power are objectified in institutional mechanisms and routines
- fixing, so to speak, the allocation of competencies, qualifications, revenues and posi-
tions - the more natural and obvious domination seems (Frouws, 1993). Stakeholders
strive to maintain and transform their social or physical environment by achieving
certain policy outcomes. Such outcomes may be achieved not only by determining
political decisions but also by dominating public debates, defining policy issues, setting
agendas or even changing the rules of the game, either at national or at international
level (Arts, Van Tatenhove and Leroy, 2000). With the attention to outcomes not only
from decision-making the founders of the PAA also seem to be informed by Lukes’ arguments on the third dimension of power. However, they do not (explicitly) express themselves about the questions of latent conflicts, real interests of the excluded and the issue of the excluded who may not express or even be conscious of their interests.

Entering the policy arrangement tetrahedron at the corner of division of power and resources, three analytical perspectives become visible: relational power (i.e. the linkage with actors), discursive power (i.e. the linkage with policy discourses) and regulatory power (i.e. the linkage with rules of the game; Liefferink, 2006: 60; see Figure 2.1 in Section 2.1). The empirical analysis to be undertaken in this perspective comes close to the British school of policy network analysis (as defined by Rhodes, 1984; Marsh and Rhodes, 1992). The core idea of a policy network analysis is that actors around a given policy issue are to different degrees dependent upon each other for resources, e.g. money, information or political legitimacy. Different resource coalitions may be identified. In one policy arrangement money may be the central stake while in another arrangement the exchange of for instance knowledge and expertise may be crucial (Liefferink, 2006). In the policy game resources can be seen as weapons, i.e. actors attempt to determine outcomes with the help of resources but at the same time as prizes, i.e. during the process actors attempt to improve their situation by changing the distribution of resources to their advantages (Rhodes, 1986).

Rules play an ambiguous role, since they are based upon both formal and informal arrangements. On the one hand they can be used strategically, i.e. as legal resources, in the policy game. On the other hand they are not, as for instance money or personnel, exclusively controlled by certain actors. Rules can be changed nevertheless by actors who have the power to do so (Liefferink, 2006). The same actually goes for discourses. Discourses can be used as weapons for gaining for instance political legitimacy. Without being under any actor’s exclusive control some actors may be able to change the content of the narratives prevailing in the arrangement or even to introduce wholly new ones. Such discursive power is often based upon political legitimacy and in turn may induce legitimacy (ibid.) Power and influence are intrinsically related but there is no one-to-one relationship between them, as policy actors may decide not to make use of their resources and/or fail to achieve the outcomes they wanted.

As expressed by regulatory power, the observed rules configuration at a certain moment in time at a given political level may reflect the division of resources and power at that level and interconnected other levels. Consequently, the detailed analysis of the seven rule types of the IAD framework may include implicit notions on incremental changes in resources and power. These implicit notions may be made more explicit by primary observations on this dimension. By combining observations on both dimensions a functional redundant research approach is aimed for. The reader should be aware that regulatory power may be expressed both by formal, written down rules and informal, unwritten customs, traditions and approaches. Furthermore, any change in the rules configuration may challenge distribution patterns and processes of resources and power and reversely. For example, boundary, position, choice and aggregation rules may
reflect the outcome of relational and regulatory power. And scope rules may be linked to discursive power. Table 2.11 illustrates the relations between division of resources and power and collective-choice rules for IRBM by means of a (no-limitative) series of analytical questions.

Table 2.11: Analytical questions on resources/power and IRBM collective-choice rules

<table>
<thead>
<tr>
<th>Type of rule</th>
<th>Configuration of resources and power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope:</td>
<td>To which extent do different stakeholders acknowledge hydrological boundaries as point of departure for river basin planning and decision-making? Which stakeholders (are willing to) invest financial, human and/or technical capital in cross-sector integration attempts?</td>
</tr>
<tr>
<td>Position:</td>
<td>To which extent are powerful stakeholders willing and able to influence the (re-)allocation of uses and property rights, as based on principles of ecological, social and economic resilience?</td>
</tr>
<tr>
<td>Boundary (entry or exit):</td>
<td>Are there powerful actors who allow or hinder other actors (at and across interrelated political levels) to join the river basin planning and decision-making process? Which resources do public, private and civil actors bring in (e.g. money, expertise and human capital)?</td>
</tr>
<tr>
<td>Choice (authority):</td>
<td>To which extent does the distribution of resources and power support collective choices for sustainable development, management and use of shared, natural resources?</td>
</tr>
<tr>
<td>Aggregation:</td>
<td>To which extent does the division of power and resources support symmetric decision-making by at and across related political levels? How does it influence the subsidiarity principle and (limited) sovereignty principles?</td>
</tr>
<tr>
<td>Information:</td>
<td>Which types of information are gathered and aggregated? For example, do powerful experts allow local lay knowledge to be included?</td>
</tr>
<tr>
<td>Pay-off:</td>
<td>Which role do market forces play a role in compliance checking for collective-choice rules?</td>
</tr>
</tbody>
</table>

Although this research does not aim to elaborate all the questions of Table 2.11 in detail, this list will serve as a checklist to spot remarkable developments in the distribution of resources and power in the studied period. In addition to the detailed analysis of the rules dimension, two overall analytical questions are formulated in order to make the implicit notions on the distribution of resources and power more explicit:

- Which changes are observed in the division of resources and power in the water policy domain at interrelated political levels within the international Meuse River Basin District before and after introduction of the Water Framework Directive?
- Which potential explanations do (lack of) changes in the division of resources and power over time deliver regarding observed continuities and/or changes in collective-choice rules?

It should be noted that power (in terms of resources and capacities) is relatively easy to assess, whereas it is very hard to measure political influence (Wiering and Arts, 2006). This research does not analyse changes in influence since this would require a
particular research approach on its own such as a social network analysis. To perform a social network analysis at different political levels would go beyond the principal scope of and available means for this research process.

2.4 River basins and multi-level governance

Van Tatenhove and Leroy (2003) argue that in order to understand change and stability in any policy domain, it will be necessary to combine an analysis of strategic conduct with an institutional analysis which includes processes of transformation within the political domain of society. Informed by Held (1989) they apply a broad concept of the political domain, defined as ‘the setting in which different agencies and organisations (from the state, market and civil society) produce and distribute resources (power and domination) and meaning (discourses) to shape public life’ (Van Tatenhove and Leroy, 2003: 157-158). With regard to the broader political domain, several authors (e.g. Van Tatenhove and Leroy, 2003; Kooiman, 2003) mention a shift from government to governance, due to tendencies of globalisation, decentralisation, privatisation and (calls for) multi-stakeholder participation. Governance relates to the broad social system of governing which includes but is not restricted to the perspective of government as the main decision-making political entity (Rogers and Hall, 2003). Kooiman (2003: 4) views governance as the totality of theoretical conceptions on governing. Subsequently, he provides for a definition of governing (ibid.):

Governing can be considered as the totality of interactions, in which public as well as private actors participate, aimed at solving societal problems or creating societal opportunities; attending to the institutions as contexts for these governing interactions; and establishing a normative foundation for all those activities.

A central presupposition of the IRBM concept is that (inter)national river basins are the most appropriate political level to arrive at collective-choice rules for the sustainable use, development and management of interconnected (ground- and surface) water resources. Since what happens at a specific political level within a river basin may impact the rules configurations at other political levels (and reversely), any institutional analysis of a particular river basin should include structure and agency at all these interdependent political levels.

To grasp governance processes within the European context, Marks (1992) has phrased multi-level governance. Related to developments in EU structural policy following its major reform in 1988 he defines multi-level governance as ‘a system of continuous negotiation among nested governments at several territorial tiers’ (Marks, 1993: 392). Multi-level refers to the increased interdependence of governments at different territorial levels (vertical dimension), while governance expresses the growing interdependence between governments and non-governmental actors at various territorial levels (horizontal dimension; Bache and Flinders, 2004). Rosenau (2004: 31) concludes that governance is a broader concept than government. The latter refers to formal rule systems of governments (local, regional, national and international).
Governance ‘refers to any collectivity, private or public that employs informal as well as formal steering mechanisms to make demands, frame goals, issue directives, pursue policies and generate compliance’ (ibid.). Jessop (2004: 52) mentions that ‘in broad terms governance refers to mechanisms and strategies of coordination adopted in the face of complex reciprocal interdependence among operationally autonomous actors, organisations and functional systems’. The state apparatus could be described ‘as based on “government + governance” and as exercising “governance in the shadow of hierarchy”’ (ibid.). Jessop (2004; 57) further elaborates the differences between government and governance:

On the one hand, the sovereign state can be seen as the quintessential expression of hierarchy (imperative coordination) because it is, by definition, the political unit that governs but is not itself governed. Hence, beyond the sovereign state, we find the anarchy of interstate relations and/or the heterarchy of a self-organising international society. And, on the other hand, it is primarily concerned with governing activities in its own territorial domain and defending its territorial integrity against other states. In contrast, governance is based on reflexive self-organisation (networks, negotiation, negative coordination, positive concerted action) rather than imperative coordination. And it is concerned in the first instance with managing functional interdependencies, whatever their scope (and perhaps with variable geometries), rather than as with activities occurring in a defined and delimited territory.

In the European integration debate both neo-functionalists and intergovernmentalists focus on interactions between the national and the supranational levels (Bache and Flinders, 2004). Neofunctionalists argue that supranational actors and interests groups have a significant role in shaping EU decisions. Intergovernmentalists emphasise the centrality of sovereign states in the European policy making process. Informed by the policy networks approach Marks has added the influence of actors at the sub-national level (ibid.) Based on a review of a broad array of governance literature, Marks and Hooghe (2004) notice two central claims. Firstly, the dispersion of governance across multiple jurisdictions is both more efficient than and normatively superior to, central state monopoly. Secondly, in order to internalise variations in the territorial reach of policy externalities, governance must be multi-level (Marks and Hooge, 2004). For example, in the context of river basin management some issues could be better dealt with at the European level (e.g. product regulation in relation to safeguarding a level playing field), at the multilateral table (e.g. equitable distribution of fresh water in prolonged periods of droughts), at the national level (tariff setting for cost-recovery of water services) and the local level (organising stakeholder participation for cleaning up a specific water system).

Bache and Flinders (2004) ask what implications multi-level governance does have for the power, position and role of the nation state. As is often assumed, does multi-level governance point at an erosion of the nation state or does it lead to a transformation or reorganisation of state power? In the context of the European Union, globalisation, integration and regionalisation are frequently mentioned as eroding factors for the power, position and role of the nation state. However, according to Sbragia (1992:
274, 289) governments ‘will continue to be central actors’ because ‘the territorial claims that national governments represents … are exceedingly strong’. And, ‘the importance of national boundaries as key organisers of political power and economic wealth in the European Community’ is not to be underestimated (ibid.). Keohane and Nye (2000: 12) argue that ‘the nation state is being supplemented by other actors - private and third sector...in a more complex geography’. Also Rosenau (2004: 33) argues that ‘States are still among the main players on the global stage but they are no longer the only main players’.

In the multi-centric world states face challenges to their continuing authority and legitimacy (Evans, 1997; Rosenau, 2004). Jessop (2004: 63-69) poses three propositions about changes in statehood in advanced capitalist societies: (1) de-nationalisation of territorial statehood; (2) de-statization of the political system; and (3) the internationalization of policy regimes. These three trends should not be understood as excluding a continuing and central political role for nation states. But the role ‘is necessarily redefined as a result of the more general re-articulation of the local, regional, national and supranational levels of economic and political organisation (ibid.). The state is no longer the sovereign authority (Jessop, 2004: 71). It is just one of the participants in the pluralistic guidance system of negotiated decision-making, to which it contributes its own distinctive resources (ibid.).

Casella and Weingast (1995) challenge the nested hierarchical structure of the nation state, since this structure has no obvious economic rationale and is opposed by economic forces. Peters and Pierre (2004: 83) argue that multi-level governance is not controlled from above ‘as tends to be the rule in hierarchical systems’. Instead trans-national institutions engage in direct communication with subnational actors or vice versa. In these multi-level games especially national actors may be concerned over loss of control over subnational institutions whilst simultaneously being expected to be able to ensure compliance with the policies, rules and programs of international institutions (ibid.). According to Jordan (2001) multi-level governance is not a theory but provides a description of the European Union. Although a mobilisation of subnational authorities takes place (e.g. by Europe’s regional development policy), multi-level governance overstates the autonomy and influence of subnational authorities (ibid.). Rooted in the American metropolitan context Ostrom, Tiebout and Warren (1961: 831) have introduced polycentricity as a term for the coexistence of ‘many centres of decision-making that are formally independent of each other’. Public choice students argue that instead of conceiving authority in neatly defined local, regional, national and international layers, each public good or service should be provided by the [task-specific] jurisdiction that effectively internalises its benefits and costs (Marks and Hooghe, 2004: 21). Rosenau (2003) mentions Spheres of Authority (SOAs) which include both formal and informal rule systems. These spheres are embedded in a context of contradictory forces of globalisation, centralisation and integration on the one hand and localisation, decentralisation and fragmentation on the other hand (Rosenau, 1997).

Marks and Hooghe (2004: 24) argue that task-specific jurisdictions are a common feature of international regimes. Such jurisdictions are ‘ubiquitous in efforts to internalise transnational spillovers in the absence of authoritative coordination’ (ibid.).
Börzel and Risse (2003) conclude that except for international political economy, nation states seem reluctant to provide private actors with true governance authority beyond their control. At the transition zone of national and international authority, task-specific jurisdictions tend to dominate (Marks and Hooghe, 2004). The European Union which is mainly a general-purpose jurisdiction, ‘is an exception that proves the rule’ (ibid.: 25). Transnational governance arrangements are usually task-specific and overlap with existing jurisdictions for solving particular collective action problems (Marks and Hooghe, 2004). ‘It is extremely difficult to tie national states into authoritative transnational jurisdictions that are general-purpose, rather than designed around particular policy problems.’ (ibid.: 25) Task-specific jurisdictions are widespread at the local level, for example where local communities face depletion of a common pool resource (Ostrom, 1990; Keohane and Ostrom, 1995; Marks and Hooghe, 2004). Although governments often will be cautious to lose steering control, the mixture of general-purpose jurisdictions and task-specific jurisdictions may offer private and civil stakeholders diverse opportunities to (try to) influence policy planning and implementation processes.

To conclude this Subsection, arrangements within a given policy domain are embedded in the political domain of society, hence may reflect macro-scale developments over time. Within the European context the multi-level governance concept is an attempt to grasp the complex, multilayered institutional context of policy planning and decision-making processes at interconnected political levels. The IRBM concept as defined by the WFD considers (inter)national river basins as the appropriate units to arrive at collective arrangements. This research aims to sufficiently catch the meta-institutional context by assessing and comparing the rules configurations within the water policy domain at different interrelated political levels within an international river basin during a twenty years period (from 1990 to 2009). The International Meuse River Basin District has been chosen as the theatre for analysis. Its multilateral commission may be qualified as a clear example of a task-specific jurisdiction in the transition zone of national and international authority.

2.5 Synthesis

This research is inspired by an interest in triggers and barriers for changes in collective-choice rules within the water policy domain at and across political levels. The point of departure is the IRBM concept which aims at the sustainable use, development and management of interrelated land-water resources. The WFD introduces a set of rules and principles at the European level, both organisational and substantive, in order to improve the quality (and quantity) of all surface and ground water systems in relation to sustainable human activities. The Directive has been formulated, negotiated and adopted in an era in which IRBM has become one of the dominant paradigms in the environmental policy domain. Due to both its laborious political drafting and negotiation process and the holistic character of the IRBM concept, the WFD is ambiguous in nature. Since the WFD opens the door to multiple interpretations it is
uncertain whether and if so, to which extent the WFD’s implementation process will challenge current rules configurations, especially among Member States that share international river basins.

The central question of this research is, to which extent do the new European collective-choice rules challenge prior rules in the water policy domain. To answer this question two analytical frameworks have been presented which in combination allow both for assessment of trigger and barriers of collective-choice rules over time, as well as informs about potential explanations. The first framework is the PAA (Van Tatenhove and Leroy, 2000; Liefferink, 2006; Arts and Leroy, 2006) which links four dimensions within a tetrahedron, i.e. (substantive and organisational) rules with policy discourses, actors (coalitions and oppositions) and division of resources and power (Liefferink, 2006: 60; see Figure 2.1 in Section 2.1). The principal entrance of this research is the rules of the game corner, since the focus is on (triggers and barriers for) changes of collective-choice rules on the sustainable use, development and management of interrelated land-water resources. These rules are shaped by continuous interaction between actors, discourses, current rules as developed over time and distribution of power and resources on the one hand and driving forces in the broader physical, social, economic and political context on the other hand. A second clue lies in the IAD framework (Kiser and Ostrom, 1982; Ostrom, 1999, 2005). The IAD framework has its roots in studies on rules and games in governing common pool resources and includes (a definition of) seven rule types which may be applied to track and explain incremental changes over time (see Table 2.1 in Subsection 2.2.1).

The theoretical novelty of this research is integration of the seven rule types of the IAD framework with the PAA, as elaboration of the latter’s rules of the game dimension. Based on a review of IRBM literature the seven rule types of the IAD framework have been translated into ideal-types (as defined by Weber, 1922). These ideal-types serve as an analytical benchmark to track incremental rule changes over time. By comparing the observations on rules in the era before and after adoption of the WFD, the degree of change may become traceable. Subsequently, analysis of developments within the other three dimensions of a policy arrangement may account for potential explanations for (triggers and barriers) of observed rules changes. Since the WFD’s river basin management approach focuses on shared river basins within the overall political domain of the European society, its implementation depends on coherence among policy arrangements at all involved, interdependent governance levels. Therefore for the aim of this research, the degrees of rules changes will be assessed for both the interdependent political levels within the International Meuse River Basin District (multilateral, national, regional and local) and the European level. As a next step, Chapter 3 will present the (methodological choices behind the) research framework before plunging into the empirical data of the Chapters 4 to 8.
Figure 3.1: 't Merkske Brook is the only WFD water body within the territory of the Brabantse Delta Water Management Authority for which the Good Ecological Status is considered feasible and affordable before the end of 2027 (Wim Zweep, 2006)

Figure 3.2: Members of the General Assembly of the Brabantse Delta Water Management Authority played the WFD implementation simulation game (Leo Santbergen, May 24, 2007)
Research approach

‘A credible inquiry generally has the effect on its readers of a mosaic image; often imprecise in terms of defining boundaries and specific relationships but very rich in providing depth of meaning and richness of understanding.’ Erlandson et al. (1993: 30)

3.1 Introduction

As introduced in Chapter 1 the departure platform for this research is the Integrated River Basin Management (IRBM) concept. The river basin as a management or planning unit has gone through several stages since its western “discovery” in the 18th century to its advent as the overriding concept behind European water policy (Molle, 2009). The concept has been interpreted in various ways to support different world views and has served diverse interests (ibid.). Although IRBM has been formally institutionalised at the level of the European Union by adoption of the Water Framework Directive (WFD), its ambiguous nature has remained unaltered. Fischer (2009: 175) argues that ambiguous meanings often have important political functions:

Seeking to satisfy different interest groups at the same time, government policies frequently compromise a sequence of ambiguous claims and actions that contain logical inconsistencies. [...] What they [technocratic policy analysts] have generally missed, however, is the degree to which ambiguity enables conflicting groups to find ways to live with their differences. By helping to bring together citizens with varying policy preferences, ambiguous meanings often facilitate cooperation and compromise.

Stone (2002: 157) points at the centrality of ambiguity in politics especially as expressed by symbols actors refer to. She argues that ‘a type of policy analysis that does not make room for the centrality of ambiguity in politics can be of little use in the real world’. Following the argumentation lines of Fischer and Stone, the ambiguity of the IRBM concept may be considered an essential feature for its political survival. Furthermore, whenever ambiguous meanings facilitate cooperation and compromise, incremental changes of collective-choice rules may be expected over radical shifts. The opposite may also be truth: whenever ambiguous claims trigger sharp polarisation (for example among political parties), radical rules change may come from a significant change of those in power (such as after parliamentary elections).

This research is driven by a desire to understand how interpretation differences of an ambiguous policy concept may trigger or hinder changes in collective-choice rules that it advocates. The author’s professional job as WFD implementation coordinator at the Brahantse Delta Water Management Authority offers a good opportunity for an in-depth, inside-out analysis of the Dutch water policy domain within the European context by means of a participatory and interpretative research approach. As described in Chapter 2 this research works with a hybrid analytical framework
which incorporates the seven rule types of the Institutional Analysis and Development (IAD) framework (Kiser and Ostrom, 1982; Ostrom, 1999, 2005) into the Policy Arrangement Approach (PAA; Arts, Van Tatenhove and Leroy, 2000; Leroy and Arts, 2006). Since the IRBM paradigm such as expressed by the WFD portrays river basins as the appropriate cross-border planning and management units, this research opts for a multi-level governance study. It questions what may be the changes in collective-choice rules as triggered or hindered by interactions among actors with their dominant and opposing argumentation lines and the distribution of power and resources at different interrelated political levels within a shared river basin. The International Meuse River Basin District has been selected as the geographical and political research territory with a special focus on the Netherlands as the most downstream riparian state.

Section 3.2 presents the research hypotheses, the scientific and societal aims and the central research question with the related operational questions. Subsequently, Section 3.3 sketches the analytical approach including the spatial and temporal delineation and triangulation. Since the researcher is also actor within the process that is analysed, Section 3.4 elaborates on both the added value and pitfalls of the chosen participatory, interpretative research approach. Section 3.5 closes this chapter by means of a synthesis of the chosen research approach.

3.2 Hypotheses, aims and questions

3.2.1 Hypotheses
This research starts with the observation that since the mid 1990s the IRBM concept has become a dominant paradigm in European water policy discourses. The concept is defined and interpreted differently by actors at multiple political levels who represent a diversity of world views, policy Utopias and operational practices. Consequently, the IRBM paradigm is considered both a hybridisation of life philosophies as well as an instrument (no blueprint method) to arrive at collective-choice rules on the sustainable use, development and management of shared interrelated land-water resources, within the overall context of social, economic and political values and driving forces. At first glance, the IRBM paradigm seems to be the target of a community of mysterious stakeholders, who move about like amoebas by extending finger-like projections of protoplasm (the so-called pseudo feet). One may not predict exactly which values and driving forces when, how and why cause the stakeholders’ movements into certain directions. The WFD is an attempt to guide their direction into a common European interpretation of IRBM with the aim to harmonise its implementation. This Directive offers a set of legally binding requirements, as expressed by its governance and policy principles (see Table 1.2 in Section 1.3), environmental objectives and intrinsic exemption options (see Article 4, European Communities, 2000: 9-11).

As a political construct of multiple actors the WFD includes elements from different (ideal-type) governance models and substantive world views. Consequently, the WFD’s wording is ambiguous and offers considerable degrees of interpretation freedom. For example, the text mentions water both as a common heritage and an
economic good. At the WFD’s core are the environmental objectives (Article 4) which will have to be realised while at the same time required management practices may not lead to ‘significant adverse effects’ on the ‘wider environment’ or ‘equally important sustainable human development activities’ (European Communities, 2000: 9). Given the Directive’s ambiguous wording its common European implementation strategy may be expressed by different voices. Without sufficient room for interpretation diversity the WFD would not even have been adopted by the politicians (read Subsection 4.2.2 for a detailed account of the delicate drafting and negotiation process). These ambiguities may become a trigger or barrier for attempts to alter current collective-choice rules in a search for more integrated river basin policies and management approaches. The outcome of the WFD’s implementation process will largely depend on how a diversity of stakeholders in Europe’s shared rivers, within their historically grown institutional context, will (strategically) interpret and download the laboriously negotiated European formulations. Given sovereignty and subsidiarity, it is up to the Member States how far they swim together and to which extent they transform both prior domestic policies and operational rules and practices.

In order to provide for a meaningful scientific contribution to the evaluation of multi-stakeholder processes which deal with dilemmas of sustainable development, this research opts for an in-depth and inside-out longitudinal assessment of one international European river basin district. Given both the complexity of collective-choice rules configurations and their development over time and the particular physical, political, social and economic context of individual river basins, a comparison of more river basins would be too demanding in terms of time and resources (in the context of an individual PhD assignment). A comparably detailed assessment for several interrelated political levels within one international river basin is already a major job for one researcher to perform. Additionally, whenever the researcher has a long time series of practical experiences from within a particular river basin, it will bring along much less the danger of unbalanced conclusions. It also brings in the option of analysing linkages across political levels within such a river basin which is a major challenge of the IRBM concept. Based on these considerations the International Meuse River Basin District has been opted for as the researcher’s arena (see also Subsection 3.3.2 regarding the spatial characterisation).

The history of river basin management coordination efforts by Belgium and the Netherlands shows a long record of conflicts and distrust (Meijerink, 1999; 2008). Multilateral agreements on both the Scheldt and Meuse Rivers could only be agreed upon after both enlarging the actor field with France and by tactical linking of issues across policy domains (ibid.). Before the WFD’s adoption progress in the International Commission on Protection of the Meuse River against Pollution (ICPM) has been laborious in nature (read Chapter 5 for a detailed account). The position of the Netherlands as most downstream riparian state makes it the demanding party in most issues where upstream-downstream asymmetries play a role. Besides, differences in domestic political traditions and planning- and decision-making cultures may hinder transboundary coordination efforts (Eppink, 1998; Mostert, 1998; Santbergen, Prins and Niesing, 1998; Meijerink, 1999; Hofstede, Hofstede and Minkov, 2010). Given
this context, one may not expect strong triggers for changes of collective-choice rules for these particular two river basins due to the introduction of the WFD.

On the opposite, experts and high-ranking officials in France, Germany and the Netherlands have allied in the early drafting stages as advocates of a more integrated, river basin management approach (Melis and Boudewijn, 2002). Positive coordination results from the international Rhine River Basin were expected to pay off for a common European approach of transboundary water systems. These Dutch public actors who considered themselves as European forerunners, have been very active in attempts to upload Dutch principles and practices. Consequently, after the WFD's introduction, one may expect rule-altering potential to become noticeable in the multi-lateral coordination process for the International Meuse River Basin District. Furthermore, given their perception of being a forerunner one may expect limited or no changes of prior domestic rules in the Dutch water policy domain. Given both the European institutional context of subtle political compromises and the long path towards success in the Rhine River Basin, one may expect any rule changes to be incremental.

3.2.2 Aims and questions
The central scientific aim of the research is to explore the triggers and barriers for changes in collective-choice rules on the sustainable use, development and management of water resources. This shall be shown by analysing the impact of the interpretation of the policy and governance principles, the environmental objectives and exemption options of the Water Framework Directive (WFD) at interrelated political levels within the International Meuse River Basin District. Since the WFD may be considered both as the output of and input to societal and political calls for (more) integrated water resources management at the level of (inter-)national river basins, it is impossible to distract its “pure” impact on a prior rules configuration. Therefore, this research does not concentrate on such an unravelling process, but focuses on the impact of the WFD in a more instrumental sense. The Directive is considered as a set of “new” European rules, principles and objectives which have come out of a delicate political melting process of settled and new policy discourses in which Member States attempted to upload their implementation practices and wishes. As such, the Directive's requirements may not be entirely new and may surprise a Member State, since the original upload may have been transformed in a more or less convenient fashion. Consequently, the analysis of this research may elucidate certain (barriers and/or triggers for) changes in collective-choice rules but may not relate them one-to-one to the introduction of the WFD.

In this sense the Directive is considered a sublimation moment in a process of incremental change within the European environmental policy domain. Read Subsection 4.2.1 for a detailed account of the evolution of the European environmental policy domain and its water sub-domain. As described in Chapter 2 the seven rules of the IAD framework have been translated into ideal-type collective-choice rules for IRBM, as a value-free benchmark to compare observed configurations before and after adoption of the WFD. These ideal-type collective-choice rules are considered the analytical elaboration of the rules of the game dimension of the PAA. Subsequently, potential
triggers and barriers for observed rule changes are detected by means of an analysis of the developments in the other three PAA dimensions: policy discourses, actors (coalitions and oppositions) and the distribution of resources and power.

As a bye-catch, by combining practical experiences as a water policy adviser with theoretical insights of a scientific research this dissertation wishes to contribute to deliberations on how to efficaciously organise multi-stakeholder processes for complicated issues in contemporary river basin management (societal research aim). The challenge of the societal research aim lies not in the provision of a universal blueprint method, since this will not be an appropriate answer to the diversity of institutional histories and circumstances and given the particular context of the chosen spatial research area. The word “efficacious” points at desirable process conditions for multi-stakeholder dialogues which may be initiated by public and/or non-governmental actors in an attempt to both confront facts with values and to move beyond the disadvantages of a merely scientific rational or a solely communicative process approach. Given the practical experience and personal curriculum of the author until the time of writing there is a special interest in and an undeniable bias towards, the roles that public officials may play in such dialogues.

The central question of this research is how continuity or change in collective-choice rules for water resources management at interrelated political levels within the International Meuse River Basin District, after adoption of the European Water Framework Directive, may be explained. The adoption of the WFD is considered a milestone in the history of the European environmental policy domain, since it legally anchors the IRBM concept in an attempt to harmonise the use, development and management of Europe’s groundwater and surface water resources. As such the Directive is considered a sublimation moment of different definitions and interpretations of the IRBM concept which has become a dominant paradigm in the European water policy sub-domain.

The ambiguity of the European translation of the IRBM concept is most clearly expressed by the WFD’s Article 4 which includes several terms and exemption options that open the door to multiple interpretations (European Communities, 2000: 9-11). Additionally, the Directive’s policy and governance principles which are scattered throughout the text are multi-interpretable as well. As one option the discursive ambiguity may be used by actors in an instrumental way, i.e. to support the status quo, hence may act as a barrier for changes in the rules configuration. As another option ambiguous meanings may facilitate cooperation and compromise, hence may trigger common definitions and/or rule changes which are accepted by actors with diverse world views, preferences and interests. The rule-altering potential of an ambiguous policy discourse may not happen in isolation from its interplay with developments in the other three dimensions of a policy arrangement. Furthermore, driving forces in the broader physical, social, economical and political context (during the studied time period) may limit or enforce this rule-altering potential.
The central research question is dissected in three operational research questions:

1. Which are the observed collective-choice rules before and after adoption of the Water Framework Directive?
2. What are the remarkable developments in policy discourses, actors (oppositions and coalitions) and the distribution of resources and power before and after adoption of the Water Framework Directive?
3. Which potential explanations for observed continuity or change of collective-choice rules may be derived from the interplay between rules and developments in policy discourses, actors and the distribution of resources and power at the interrelated political levels over time?

The operational questions are answered for all studied political levels in the International Meuse River Basin District (see Subsection 3.3.2 regarding the spatial and temporal delineation). The Chapters 5 to 8 present the answers to the operational research questions for each individual political level. For question 1 the ideal-types rules as defined in Chapter 2 serve as a benchmark instrument. The final Chapter 9 compares the observations for the individual political levels and discusses the potential impact of linkages across these levels. This final chapter also returns to the central research question and research aim before jumping to the conclusions and recommendations. Several interviewees have expressed the added value of inclusion of a brief chronological reconstruction. Therefore the author has decided to include two main parts in the empirical chapters. Each chapter will start with a chronological reconstruction of the water policy implementation planning process before and after introduction of the WFD. The second part will present the analysis of the four dimensions of the Policy Arrangement Approach (PAA) concerning the studied period. Depending on the interests of the reader one may opt to read the first or the second part of a selected empirical chapter (or both).

From a methodological point of view this research tests the explanatory power of the hybrid analytical construct, i.e. the combination of the IAD framework with the PAA. The added value of this combined approach comes from both the detailed elaboration of the seven rule types of the former and the richness of the related theories of the latter. Since each of the four dimensions of a policy arrangement may be informed by a diversity of theories, the obvious pitfall for a curiosity driven research cat is to drown in a swamp of eclectic interpretation options. Given the primary entrance of the PAA tetrahedron at the rules of the games dimension, another challenge is to provide for a balanced assessment of the other three dimensions. An adequate delineation of the research approach aims to avoid these pitfalls.

3.3 Delineation

3.3.1 Definition of central concepts
Since this research aims for a value-free assessment of continuity and change of collective-choice rules, at least as much as possible, it does not want to depart from any
particular normative definition of involved concepts. It acknowledges that interrelated multi-level and multi-stakeholder processes within an international river basin district concern the confrontation of diverse definitions and interpretations. To provide transparency from the onset regarding the studied concepts, definitions which should be understood as points of departures for analysis are presented here.

Ambiguity is understood as ‘the quality of being open to more than one interpretation’ or ‘not having one obvious meaning’ (Oxford Dictionary of English, 2003). It is considered a central element of politics (Stone, 2002), which is not necessarily a good or a bad thing but an intrinsic feature of human life and politics. Ambiguities may lead to inconsistencies in policies or facilitate cooperation and compromise (Fischer, 2009). This research starts with a generic interest in the impact of ambiguity on water policy formulation and its implementation.

There are several formulations which try to grasp the diversity of interpretations attached to the concept of institutions. Within this research the term institution refers to ‘many different types of entities, including both organisations and the rules used to structure patterns of interaction within and across organisations’ (Ostrom, 1999: 36). It is this definition which is central in the IAD framework (Ostrom, 2005; McGinnis, 2011) and which mainly focuses on interrelated rules configurations at different levels of analysis. Ostrom (1999: 36-39) sums the challenges of studying institutions. One of the most difficult problems is how to identify and measure them. ‘Because institutions are fundamentally shared concepts, they exist in the minds of the participants and sometimes are shared as implicit knowledge rather than in an explicit and written form’. In training researchers to identify and measure institutions, Ostrom stresses the concept of rules-in-use rather than focusing on rules-in-form. The IAD framework departs from the acknowledgement that ‘regularised human behaviour occurs within a wide diversity of rule-ordered situations that share structural features such as markets, hierarchies or firms, families, voluntary associations, national governments and international regimes’. Therefore a study of institutional development requires ‘multiple inputs from diverse disciplines’. Furthermore, there is a nested structure of rules within rules which may challenge any analysis of institutions (ibid.). As introduced in Subsection 2.2.1 Kiser and Ostrom (1982) distinguish three tiers of decision making and the relations among them: constitutional, collective-choice and operational decisions. Rules affecting operational choice are made within a set of collective-choice rules that are themselves made within a set of constitutional-choice rules (Ostrom, 1990). Ostrom (2005) adds a fourth level of analysis of meta-constitutional choices. Finally, ‘at any one level of analysis, combinations of rules, attributes of the world and communities of individuals involved are combined in a configural rather than an additive manner’ (Ostrom, 1999: 37).

Within the IAD framework, rules are defined as ‘shared understandings among those involved that refer to enforced prescriptions about what actions (or states of the world) are required, prohibited or permitted’. (Ostrom, Gardner and Walker, 1994; Ostrom, 2005: 36) Operational-choice rules point at the ‘implementation of practical decisions by those individuals who have been authorised (or allowed) to take these actions as a consequence of collective-choice processes’ (McGinnis, 2011: 173). Collective-choice rules are ‘the processes through which institutions are constructed and policy decisions
made by those actors authorised to participate in the collective decisions, according to the procedures as established by constitutional-choice processes’. Constitutional-choice-rules mean ‘the processes through which collective-choice procedures are defined, including legitimising and constituting all relevant collective entities involved in collective- or operational-choice processes. The meta-constitutional level of analysis encompasses long-lasting and often subtle constraints on the forms of constitutional-choice, collective-choice or operational-choice processes that are considered legitimate within an existing culture.’ Many of the cultural factors may not be amenable to direct change by those individuals under their influence but these do change over time, in part as a consequence of changing patterns of behaviour. (ibid.) The meta-constitutional level of analysis may be compared with the macro-institutional context in the Policy Arrangement Approach. The seven rule-types as defined by Ostrom (1999; 2005) have been derived from studying several cases of common pool resources management. In this research they serve as an analytical tool to assess continuity and change of collective-choice rules in the water policy domain over time. See Table 2.1 in Subsection 2.2.1 for definitions of these rule-types.

As described by the previous two chapters Integrated Water Resources Management (IWRM) is an ambiguous holistic concept which may be considered as an instrument to arrive at collective-choice rules for the sustainable use, development and management of water resources. Without opting for any normative assumptions this research takes the definition of the Global Water Partnership as analytical point of departure for this research: ‘a process which promotes the coordinated development and management of water, land and related resources, in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems’ (Global Water Partnership, 2000: 22). This definition embraces three ambiguous challenges: coordinated development and management of natural resources; welfare maximisation in an equitable manner; and sustainable, vital ecosystems. Although the definition literally relates sustainability to ecosystems only, from the manifold subsequent publications on the concept’s interpretation and implementation IWRM should be understood as a three-dimensional sustainability challenge. Planet, people and profit should be combined within the context of transboundary river basins as social-ecological systems (Falkenmark, 2003), as is the central topic of Integrated River Basin Management (IRBM).

Many definitions of Integrated River Basin Management (IRBM) presuppose that hydro-geographically defined river basins are the ideal units for the design and implementation of collective-choice rules. Obviously, this presupposition neglects the apparent misfit with social, economic and political boundaries. Furthermore, many of these definitions include notions on Utopias for planet, people and profit dimensions without providing clear guidance on their interrelations. This research departs from the acknowledgement of an actual mismatch between river basins and other policy and management units, the calls for more (internal and cross-sector) integration and multi-stakeholder processes and the diversity of perceptions around IRBM and its ambiguous terms and ambitions.
Sustainable development is another highly ambiguous concept. Its most frequently cited definition is the one of the Brundlandt Commission (WCED, 1987: 43): ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’. Blewitt (2008: ix-x) sums the challenges related to dealing with ambiguities of the concept:

Sustainable development is a process that requires us to view our lives as elements of a larger entity. It requires a holistic view of looking at the world and human life. It requires recognition that other people may not see things like this at all and will have different perceptions, values, philosophies, aims and ambitions. It requires an understanding that the world is multi-faceted, fragmented and complete. [...] Maybe the best way to view sustainable development is as a collage or a kaleidoscope of shapes, colours and patterns that change constantly as we ourselves change. [...] Sustainable development warrants an attitude of mind that welcomes change, difference, creativity, risk, uncertainty, a sense of wonder and a desire and capacity to learn.

Sustainable development faces a similar mismatch between systems’ boundaries as IRBM. For example, Grainger (2004) distinguishes several ecological and socio-political levels. Institutions at different socio-political levels may affect the ecological systems at different levels in specific ways. For example, a small town or village community may not act sustainable if sustainability is understood in isolation from either wider ecological or political processes or other towns, villages and surrounding rural areas (ibid.). Robinson and Tinker (1997) argue that one of the main obstacles for developing a common conceptual framework on sustainable development is the lack of genuine consensus among experts as to how ecological, economic and social systems relate to one another. Blewitt (2008: 27) adds that ‘different individuals, communities, pressure groups, institutions and governments are likely to view sustainability and sustainable development from different perspectives’. This research acknowledges that on a range from ecocentrism to anthropocentrism there are different views and strategies to cope with the challenge of interlinking the planet, people and profit dimensions of sustainable development. Ratner (2004: 62) argues that the sustainability concept is meaningful, ‘not because it provides an encompassing solution to different notions of what is good, but for the way it brings such differences into a common field of dispute, dialogue and potential agreement as the basis of collective action’. Following this line of thought this research views sustainable development as a major process challenge for public and non-governmental actors who may argue about, try to share and/or negotiate over both facts and values.

In this research IRBM and sustainable development both are considered as governance challenges to deal with ambiguities at multiple interrelated political levels. As expressed by Kooiman (2003: 4) governance can be seen as ‘the totality of theoretical conceptions on governing’. Governing may be defined as ‘the totality of interactions, in which public as well as private actors participate, aimed at solving societal problems or creating societal opportunities; attending to the institutions as contexts for these governing interactions; and establishing a normative foundation for all those activities’ (ibid.). Multi-level governance has been phrased by Marks (1992) to capture developments in EU structural policy following its major reform in 1988. He defines multi-level
governance as ‘a system of continuous negotiation among nested governments at several territorial tiers’ (Marks, 1993: 392). ‘Multi-level’ refers to the increased interdependence of governments at different territorial levels (vertical dimension) while ‘governance’ expresses the growing interdependence between governments and non-governmental actors at various territorial levels (horizontal dimension; Bache and Flinders, 2004). Rosenau (2004: 31) concludes that governance is a broader concept than government. The latter refers to formal rule systems of governments (local, regional, national and international). Governance ‘refers to any collectivity, private or public, that employs informal as well as formal steering mechanisms to make demands, frame goals, issue directives, pursue policies and generate compliance’ (ibid.).

Within the Northern-American context, the polycentric governance concept has been developed, which has also informed the IAD framework (Schlager and Blomquist, 2008; Dragos Aligica and Boettke, 2011). Polycentricity is ‘a system of governance in which authorities of overlapping jurisdictions (or centres of authority) interact to determine the conditions under which these authorities, as well as the citizens subject to these jurisdictional units, are authorised to act as well as the constraints put upon their activities for public purposes’ (McGinnis, 2011: 171-172). A polycentric system of governance is multi-level, multi-type, multi-sectoral and multi-functional. Multi-level points at local, provincial, national, regional and global units of governance. Multi-type distinguishes between ‘general purpose nested jurisdictions (as in traditional federalism) and ‘specialised cross-jurisdictional political units (such as special districts’). Multi-sectoral means that public, private, voluntary, community-based and hybrid kind of organisations may be involved. Multi-functional indicates that the concept ‘incorporates specialised units for provision (selection of goals), production (or co-production), financing (taxes, donors), coordination, monitoring, sanctioning and dispute resolution’ (ibid.).

This research acknowledges the different natures of governance but chooses the actor arenas at a (nested) hierarchy of political levels which are initiated by governments as the units for analysis, i.e. the WFD implementation planning structures at the European, multilateral and Dutch national, regional and local levels. It takes on board the involvement of non-governmental actors but does not aim to make an assessment of all potential sectoral and functional entities as identified by the polycentric governance concept. Since competent authorities in the Member States are primarily responsible for timely compliance with the WFD’s requirements and since, at least within the context of the European environmental policy domain, these authorities should be understood as governmental entities, this research approach comes close to the multi-level governance concept as explained by Bache and Flinders (2004).

The term stakeholder has its origin in organisational theory. The classic definition of a stakeholder is ‘any group or individual who can affect or is affected by the achievement of the organisation’s objectives’ (Freeman, 1984: 46). Friedman and Miles (2006) distinguish narrow and broad definitions of a stakeholder which depends on the chosen strategic and normative considerations. In general, narrow definitions refer to humans (individuals or groups) as defined and acknowledged by a corporation, whereas broader definitions may include entities (not restricted to humans) outside a corporation who may not even be aware of affection relations with a corporation. The
The stakeholder concept has moved beyond organisational theory only and has grown in popularity among policy-makers, regulators, non-governmental organisations, business and the media (ibid.). The term actor is used interchangeably with stakeholder in colloquial language but has a slightly different connotation (Ramírez, 1999). For example, system analysts refer to an actor as ‘a person who carries out one or more of the activities in the system’ (Checkland, 1981: 312). The word actors stresses that stakeholders are active and interact with each other (Grimble and Wellard, 1997). With societal calls for more transparency and interactive policy-making since the 1960s and 1970s, the stakeholder concept has entered the European environmental policy domain. Stakeholders are individuals, groups or institutions that are concerned with or have an interest in the water resources and their management (World Bank, 1993). They include all those who affect and/or are affected by the policies, decisions and actions of the system (Grimble et al., 1995). With regard to environmental issues: plants, animals and humans all may be considered stakeholders, although the former two are not able to speak for themselves. Generally, theories on multi-stakeholder processes make a distinction in public, private and civil stakeholders and emphasise the stakes of present and future generations (Warner and Verhallen, 2007).

3.3.2 Spatial and temporal choices

**Spatial features**

The principal focus of this research is at potential explanations for continuity and changes of collective-choice rules at interrelated political levels within a particular international river basin district. The aim is not to provide for conclusions that may be applied to international river basins in general. The International Meuse River Basin District, as delineated for implementation of the WFD, has been selected as spatial unit of analysis. Many public actors in this district, including the author, are also involved in the adjacent International Scheldt River Basin District. Furthermore, the territory of the (Dutch) Brabantse Delta Water Management Authority, which is the studied local political level in this research, is situated in the transition zone of both river basin districts (1/5 Scheldt and 4/5 Meuse). This territory also borders the Flemish Region of Belgium which is one of the riparian states in both river basins. Although the main focus is on political levels within the International Meuse River Basin District some observations on the Scheldt neighbour will be included as well. Consequently, this Subsection also provides basic spatial features for the International Scheldt River Basin District. Figure 3.3 shows a map of both districts.

The source of the Meuse River is situated at an altitude of 384 m in Pouilly-en-Bassigny in France (IMC, 2005b). Its length from its source to its mouth in the North Sea is 905 km. The most important sub-basins in the international basin are those of the following tributaries: the Chiers, the Semois, the Lesse, the Sambre, the Ourthe, the Rur, the Schwalm, the Niers, the Dommel and the Mark. Several of these sub-basins are transboundary (IMC, 2005b). The downstream Mark sub-basin is shared by the Flemish Region of Belgium and the Netherlands and includes a major part of the territory of the Brabantse Delta Water Management Authority. The Meuse River is a typical example of a rain fed river (IMC, 2005b; De Wit, 2008). Its flow depends on
Figure 3.3: Map of the International Scheldt (West) and Meuse (East) River Basin Districts (Source: DGRNE on behalf of the IMC and ISC)
precipitation; considerable fluctuations may occur between the seasons and the years. Part of the river basin includes hilly areas with an impermeable soil. There, precipitation in tributary basins may flow rapidly into the Meuse and result in sudden flash floods. The limited rainwater retention in the soil in the middle section of the basin leads to low flows during drier periods. High river flows generally occur in winter and spring. Variations in flow may appear abrupt, resulting in floods that last from a few days to several weeks. This was the case in 1993 when a maximum flow of 3100 m³/s was measured in Eijsden (border measuring station between the Walloon Region of Belgium and the Netherlands). Summer and autumn are mainly characterised by longer periods of low flows in a range from 10 to 40 m³/s at Eijsden (ibid.).

Like the Meuse River the Scheldt River is a typical rain fed lowlands river. In the 1990 to 2001 period the average annual precipitation in the Scheldt River Basin District has been 820 mm (De Weer, Dieltjens and Latour, 2005). Given the relatively small scale of this European river there are no big differences in precipitation through the seasons. Contrary to the Meuse one may not distinguish a particular wet and dry season (ibid.). The average annual discharge of the Scheldt (at the Dutch-Belgium border) amounts up to 110 m³/s (Van Eck, 1999) whereas the average annual discharge of the Meuse River (at its mouth towards the North Sea) is 350 m³/s (De Wit, 2008). The Scheldt district is situated between the western border of the Meuse District and the North Sea. Table 3.1 shows some basic features for both river basin districts (based on IMC, 2009 and De Weer, Dieltjens and Latour, 2005). The water bodies in both river basins are subject to extensive human interventions which support a diversity of activities. The most important user functions are drinking water supply, domestic water uses, agriculture, industry (including hydropower generation; only in the Meuse Basin), navigation (for leisure and transportation goods), recreation, living ecosystems and landscape values (IMC, 2005b; De Weer, Dieltjens and Latour). In both basins nuclear power plants require cooling water from the river.

Table 3.1: Basic features of the International Meuse and Scheldt River Basin Districts

<table>
<thead>
<tr>
<th>Riparian State</th>
<th>Meuse River Basin District</th>
<th>Scheldt River Basin District</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area (km²)</td>
<td>Inhabitants (x 1000)</td>
</tr>
<tr>
<td>France:</td>
<td>8.919</td>
<td>671</td>
</tr>
<tr>
<td>Luxembourg:</td>
<td>65</td>
<td>43</td>
</tr>
<tr>
<td>Walloon Region:</td>
<td>12.300</td>
<td>2.189</td>
</tr>
<tr>
<td>Flemish Region:</td>
<td>1.596</td>
<td>416</td>
</tr>
<tr>
<td>Brussels Region:</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Netherlands:</td>
<td>7.500</td>
<td>3.500</td>
</tr>
<tr>
<td>Germany:</td>
<td>3.984</td>
<td>1.994</td>
</tr>
<tr>
<td>Total→</td>
<td>34.364</td>
<td>8.813</td>
</tr>
</tbody>
</table>

This table includes data from the IMC (2009) and De Weer, Dieltjens & Latour (2005).

The 8.8 million inhabitants in the International Meuse River Basin District consume drinking water produced from ground- and surface water. In this respect, the district
is self-supporting. On the contrary, the Scheldt River Basin is not self-supporting. Without both water transfers from the Meuse River Basin (such as to Brussels, Antwerp and a part of the Zeeland Province (the Netherlands) and extensive exploitation of groundwater resources, there would be a shortage of drinking water in the Scheldt River Basin (Saeijs and Santbergen, 1998). Substantial quantities of Meuse water are exported by pipes or canals to provide drinking water to about 6 million people living outside the basin (IMC, 2005b). Despite the generic self sufficiency in the International Meuse River Basin District, water shortages (in dry periods) are mentioned as an important problem with regard to the ecological functioning of the Meuse River and its tributaries (IMC, 2005d).

The important multilateral water management issues as formulated by the competent (governmental) authorities in both international river basin commissions show many similarities (IMC, 2000d; ISC, 2009). The International Meuse Commission (henceforth IMC) explicitly mentions the negative environmental affects of hydro-morphological alterations for the benefit of navigation and hydropower, with special attention to fish migration (IMC, 2000d). The IMC includes restoration of hydro-morphological features. Water pollution reduction is of major concern of both commissions. The IMC points at flood protection and the issue of water shortages and emphasises the need for synergy between the flood protection programme and implementation of the WFD (ibid.). The International Scheldt Commission (henceforth ISC) mentions flood prevention and drought management (ISC, 2009). Qualitative and quantitative threats of groundwater bodies are a challenge for both commissions. The ISC explicitly includes process issues, i.e. coordinated monitoring, information exchange on cost-effective measures and transnational cooperation on measures for integrated management and tuning of environmental objectives (ibid.).

Figure 3.4 shows a map of the territory of the Brabantse Delta Water Management Authority, as located in the transition zone of the Meuse and Scheldt Rivers and the North Sea (the so-called Southwestern Delta). In the WFD implementation reports, this territory is named as Brabant-West. This may be confusing given that West-Brabant is the geographical name for the western part of the territory only. The territory covers 170,767 ha and involves 810,000 inhabitants as spread over 21 municipalities (www.brabantsedelta.nl as visited on May, 18, 2012). 25 WFD surface water bodies have been delineated, including ‘t Merkske with the potential quality of a natural water system (i.e. a lowlands brook system that partly forms the border between the Flemish Region of Belgium and the Netherlands; see Figure 3.1 at page 82). At the eastern border the territory of the adjacent Dommel Water Management Authority starts. The Mark River, as connected with the Vliet River, drains into Lake Volkerak at the border between the International Meuse and Scheldt River Basin Districts. The southern, border-crossing part of the territory is a gently sloping, sandy Pleistocene area of about 1,000 km² (Witter, Van Stokkom and Hendriksen, 2006). In this Pleistocene area at the Dutch-Belgian border, the height is about 20 to 25 m above sealevel, while the cities of Breda, Roosendaal and Bergen op Zoom are situated more or less at sealevel. The clay polders in the northern Holocene, downstream part of the basin are situated at or slightly below sealevel (-1 m; ibid.).
Figure 3.4: Map of the territory of the Brabantse Delta Water Management Authority (Drafted by Joris van Buul, 2012)
Human interferences for making the runoff capacity more efficient (with regard to socio-economic development) have altered the natural flow characteristics and related ecological state and functioning of the Mark River and the majority of its tributaries dramatically. The driving forces for the hydro-morphological alterations, of which many have been considered irreversible in the first WFD implementation planning cycle, were the need for more space and better drainage conditions, due to economic and population growth and intensification of land use (in particular the modernisation of agriculture after World War II; Witter, Van Stokkom and Hendriksen, 2006). The stream flow area of the Mark has increased more than threefold as a result of the river being deepened and widened. The river has been shortened by 7.5% and its hydraulic resistance decreased because a number of sharp bends were removed (ibid.).

Witter and Raats (2001) sum the side-effects on the hydraulic functioning of the river system: an increase in peak discharges by about 40%; a shift in the winter balance resulting in more runoff and less storage; a decrease in mean surface water and groundwater levels in the upstream part of the basin by about 20 cm; and a decrease in river bank storage capacity by about 20 km$^2$ as floodplains have been converted into polders. The combination of pollution and significant hydromorphological alterations have contributed to the substantial WFD assignment: the overall ecological state and functioning of the water bodies in the territory is evaluated as insufficient to bad (Van den Berg and Postma, 2009). Due to expected climate change and without additional measures, issues of floods and droughts occur more frequently in the future.

**Temporal features**

The studied period runs from 1990 to December 2009. It includes the starting-up process of the multilateral coordination efforts in the International Meuse River Basin, the drafting and negotiation process of the WFD and the first WFD implementation planning cycle. The first cycle ends with publication of the first generation river basin management plans for the 2010 to 2015 period. In the International Meuse River Basin multilateral coordination has been started in the 1990’s, after conclusion of both the Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UN-ECE, 1992) and the Treaty on Protection of the Meuse River against Pollution (Anonymous, 1994). The multilateral starting up process paralleled the drafting and negotiation stage of the WFD.

The author has his working experience in both the Scheldt and Meuse River Basins since 1991. Before the start of the formal multilateral commissions for these two river basins the author has been the secretary of the International Study Group (ISG). The ISG has acted as an informal platform for collection and comparison of information and practical experiences on water management issues (with a special focus on water quality and ecology) in the Scheldt River Basin. The platform operated in the shadow of the formal multilateral negotiations and had the unwritten assignment to pave a smooth way to a fast start up of the foreseen multilateral commission. Although the focus of the ISG has been the Scheldt River and its main tributaries, many of the involved experts and officials were also active in the Meuse River Basin. In 1994 after publishing its final report (Santbergen, 1994), the ISG has been disman
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The author continued his career as a member of the Dutch delegation in working-groups of the then International Commission on Protection of the Scheldt River against Pollution (ICPS). In this position he has supported the establishment of the international secretariat at Antwerp. Since October 2005 the author works as policy adviser and WFD implementation process coordinator in one of the regions within the Dutch part of the Meuse River Basin (Brabant-West, which is the territory of the Brabantse Delta Water Management Authority). Given his personal history, the author has easy access to first-hand data and involved stakeholder networks.

Within this research the adoption of the WFD is predominantly viewed as an exogenous factor to the research area, introducing a “new” set of policy and governance principles for IRBM as instrument to arrive at collective-choice rules for the sustainable use, development and management and use of water resources. To frame developments as internal, endogenous or inside versus external, exogenous or outside implicates certain strict boundaries of policy domains. Such boundaries are often difficult to draw (Wiering and Crabbé, 2006). As an example, since some Dutch actors have been simultaneously active within the European and Dutch policy arenas, the WFD may not entirely be considered as an exogenous factor. Since the scientific aim is to assess continuity or change of collective-choice rules as triggered by the WFD, it is considered necessary to include observations from the Directive’s drafting and negotiation stage. Consequently, the empirical analysis of this research starts with a historical reconstruction of the period 1990 to 2000. In this period river basins have been acknowledged as appropriate units for water resources management and the WFD has been formulated, negotiated and adopted. In the Chapters 4 to 8 the seven rule types of Ostrom will be assessed for all studied political levels and developments in the other three dimensions of a policy arrangement will be presented as well. The same will be done for the 2001 to 2009 period which is the first WFD implementation planning cycle. The empirical observations end in December 2009 when the first generation river basin management plans have been adopted.

Within this research the focus is on multi-stakeholder platforms (henceforth MSPs) as representative discursive arenas within policy actor networks at a (nested) hierarchy of political levels within the International Meuse River Basin District. These MSPs have been initiated and chaired by governmental actors. Since rules configurations are formed and challenged in policy planning and implementation processes at interrelated and politically delineated spatial levels, this research opts for both a diachronic (or longitudinal) as well as a parallel mode of analysis. A diachronic approach is the equivalent of a video shot which records the motion of the object in question: it emphasises the process of change over time (Hay, 2002). Having his working-experience in the Meuse River Basin the researcher considers himself as one of the actors in continuous motion, hence able to provide detailed video shots of at least the local and regional levels. At the same time it is a parallel analysis since the water policy arrangements at all studied political levels are dissected for the same time-period. The studied political levels include the European Water Directors (and its related Strategic Coordination Group), the multilateral coordination efforts by the IMC and the Dutch national, regional and local water management coordination platforms.
3.3.3 Sources for data collection: triangulation

This research may be typified as a multi-level case study, since it aims for a detailed analysis of a policy implementation process at different, interrelated political levels within one international river basin district. ‘The case study is a type of research during which the researcher tries to gain a profound insight into one or several objects or processes that are restricted in time and space’ (Verschuren and Doorewaard, 1999: 163). The restriction in space concerns the territory of the International Meuse River Basin District (including some observations from the adjacent Scheldt River Basin District). Time is delineated as the 1990 to 2009 period. A case study is characterised by (1) a small number of research units; 2) labour-intensive data generation; (3) more depth than breadth; (4) a selective, strategic sample; (5) qualitative data and research methods; and (6) an open observation on site (Verschuren and Doorewaard, 1999: 164).

In depth analysis of five political levels within one international river basin district invites a qualitative research method in which ‘the emphasis will not be put on counting and calculating on the basis of the observation results, but on comparing and interpreting these results’ (Verschuren and Doorewaard, 1999: 164). For example, this case study includes a qualitative discourse analysis of a multi-stakeholder and multi-level policy implementation planning process, in the search for dominant and opposing argumentats. It is explorative in an attempt to unravel what happened with the same implementation subject (the Water Framework Directive) at several interrelated places at the same time. Presented paradigms, governance and policy principles and collective-choice rules are not meant as attributes or indicators in a natural scientific sense of quantitative research. They are applied as qualitative tools for analysing the WFD implementation processes at the studied political levels.

An in-depth case study may be performed by using various labour-intensive methods for generating data (Verschuren and Doorewaard, 1999). It invites a triangulation of methods: combining individual with group interviews, (non-) participatory observations and a content analysis of textual and audio-visual material (Verschuren and Doorewaard, 1999). In addition, triangulation of sources is highly recommended (ibid.). The selection of the case within this research is strategic and not at random. The focus is on an inside-out, in-depth analysis of one particular river basin the author is familiar with and, for example, not on a comparison of several river basins. Open, on site observations are an important component in the chosen approach. In this research data collection is performed by a triangulation of methods and sources of information which means that a subject or case can be viewed best from different angles in order to obtain a balanced collage of video shots which is not biased by one person only. ‘One reason for this [triangulation] is that the various sources, viewed from the research objective and research issue, each have their own advantages and disadvantages’ (Verschuren and Doorewaard 1999: 125). Punch (2005: 241) explains the logic of triangulation: ‘The findings from one type of study [method] can be checked against the findings deriving from the other type.’

This research combines desk research (primary and secondary document analysis) with oral interviews, a written argumentation survey and (non-) participative observations of meetings. 53 oral interviews have been conducted (see Appendix I for the list of interview-
Furthermore, several short conversations with diverse stakeholders have been performed in the context of attended meetings. A written argumentation survey has been organised which means that involved stakeholders were invited to fill in a detailed questionnaire (31 participants; see Appendix IIa for a list of participants). By qualitative analysis of the interviews and the written statements, the range of views and argumentations of diverse stakeholders could be obtained in a relatively short time. Appendix IIB presents the questions from the survey. Since the interviews and the written argumentation survey have been conducted on a confidential basis, referrals in the text will be generally unless the participants have approved otherwise. Non-participative observations mean that the researcher attends the meetings without causing interferences. Participative observations mean that (a) periodically the researcher shares his observations with the platform members and provides them with advice on process architecture/rules of the game and/or (b) the researcher is one stakeholder himself in the platform. Mirror sessions with different stakeholders (including peer researchers) have been organised by the researcher (or peer researchers) to exchange and discuss observations and opinions (see Appendix III for an overview of these reflexive sessions and participants). Finally, the national WFD programme leader has organised periodical reflection sessions with WFD researchers and PhD students. The results of these sessions have been published as a booklet of essays on dilemmas, best practices and recommendations for the WFD’s implementation process (van der Arend et al., 2010; in Dutch). Appendix IV summarises the studied multi-stakeholder platforms and applied sources of information at the studied political levels. See Figure 3.2 (page 82) for an illustration of a local multi-stakeholder dialogue.

3.4 The researcher and participative, interpretative analysis

A researcher who aims to unravel the meaning of argumentation lines and strategies of multiple actors in relation to continuity and change of collective-choice rules within a given policy domain in which he or she is one of the involved actors, automatically gets involved in an interpretative analytical approach (as defined by Yanow, 1993; 2000). ‘As meanings are not directly observable, the realm of meaning has to be approached through reflection and interpretative analysis’ (Fischer, 2003: 139). Case-study research is common to mainstream social science, for example with an emphasis on interpretation of the social meanings held by actors under investigation (Fischer, 2003). Interviewing, observing and document analysis are the primary data collecting methods in such an interpretative case-study approach (ibid.). These primary methods are supported by observation of political deliberations, interest and community group activities and the undertakings of implementing agencies (Yanow, 1996).

This research can be characterised as a participative, interpretative analysis in which the researcher aims to take advantage of his privileged position as one of the inner circle, local governmental actors in the WFD implementation process. This position offers direct access to primary information sources, ample opportunities for conversations and interviews with a diversity of stakeholders and options for both participatory and non-participatory observations. The principal aim of this research is to
reconstruct a complicated transboundary policy implementation process, as value-free as possible, in order to detect triggers and barriers for change of collective-choice rules during a studied period. Given the dual role of the author in the studied process, both as researcher and local governmental stakeholder, there is a challenge of dealing with the undeniable personal bias and impact of his actions.

The main advantage of a participative, interpretative approach is the potential for an inside-out, in-depth analysis of a (politically) policy formulation, negotiation and implementation process, which may point the finger at informal, unwritten rules-in-use in addition to and interacting with formal, written down rules (as emphasised by Ostrom, 1999, 2005). Or, as Fischer (2003: 141, 142) puts it, ‘In the world of politics, the “real” reasons and motives for an action – as opposed to those officially offered – are as important as the action itself.’ Fischer (2003: 149) describes the rationale behind such an inside-out analysis:

> With this information the analyst builds an interpretative context for analysing social and political actions. Knowing which words or actions have importance can only come from such familiarity with the situation – understanding what is significant to political stakeholders and other policy-relevant publics. This familiarity is obtained through social interaction with the participants, in particular with the help of methodological techniques such as participant-observation and ethnography.

A major challenge of an interpretative analysis in which non-participative observations are combined with participative observations lies in continuous awareness and acknowledgement of the impact of the role of the researcher on the interpretation of the collected data. Conform the range of naturalistic research roles (Gold, 1958), this researcher may be sometimes complete observer (of platform meetings in which he is not a member), observer as participant (of platform meetings in which he is not a member, but incidentally consulted by members), participant as observer (of platform meetings in which he is a member and at the same time observes the other members) and complete participant (e.g. when conducting advices for the daily board and general assembly of the water management authority). Although the researcher should be aware of the possible effects of the chosen role on the interpretation of data (Punch, 2005), this triangulation of research roles offers opportunities for a creative approach of information sources (Verschuren and Doorewaard, 1999).

Another major challenge of qualitative, interpretative analysis is the credibility or trustworthiness of the researcher’s conclusions (Mishler, 1990). The research conclusions should reflect the diversity of constructed realities by involved stakeholders: ‘[..] a credible outcome is one that adequately represents both the areas in which these realities converge and the points on which they diverge’ (Fischer, 2003: 154). An assessment and its conclusions should be traceable and understandable for both involved stakeholders and interested parties outside the studied case area. Lincoln and Guba (1985) argue that a qualitative assessment should provide its audience with evidence to show that findings could be repeated, if it were replicated with the same or similar respondents in the same or similar context. Whereas qualitative researchers in general focus on credibility of their findings, empirical analysts focus on the validity of their results (Fischer, 2003). Verschuren and Doorewaard (1999: 170) argue that a qualita-
tive case study approach often is stronger in its *internal validity*, whereas the *external validity* of the result is often under pressure. ‘If there are fewer cases studied, the more difficult it is to declare the results of applicable to the whole situation or to similar cases’ (ibid.). Fischer (2003: 155) argues that ‘the qualitative inquirer’s concept of credibility is a more accurate conceptualisation of what goes on in quantitative research under the labels of validity and reliability’. The main difference is that ‘empirical analysts turn to their body of peers in the relevant scientific community to establish the credibility of their research’, whereas ‘the qualitative researcher takes the subjects themselves as a reference point’. In both cases the same logic is applied of ‘interpretation and persuasive argumentation rather than proof and demonstration per se’ (ibid.).

According to Yanow (2000: 8) an interpretative approach emphasises the treatment of differences as ‘different ways of seeing, understanding and doing based on different prior experiences’. Discrepancies between expectations and present experience should be considered as a potential source of insight. A conflict ‘is produced in the juxtaposition of the analyst’s “estrangement” from the analytical situation and his or her growing familiarity with that situation’ (ibid.). The more the researcher gets involved with his subject, the easier it may become to lose the required distance or helicopter view. Within the context of this research there is synergy in the researcher as policy implementation adviser on the one hand and his role as analyst of the process in which he is involved on the other. Both roles require insight in arguments and strategies of different stakeholders involved. Furthermore the role of adviser necessitates that the researcher does not allow his own preferences and expectations to unduly influence the presentation of information (including the pro’s and con’s) for a range of options to be acted upon by the politicians of the daily board and the interests’ representatives in the general assembly of the water management authority.

Five methodological steps have been taken to strike the balance between inside familiarisation with the studied process and its context and sufficient distance for an as value-free as possible, credible analysis. The reconstruction of the (integrated) river basin management planning process in the 1990 to 2009 period, as based on a systematic reading of the meeting documents from the multi-stakeholder platforms at the five interrelated political levels (see Appendix IV for an overview), is the first important methodological step. This reading concerns an assessment of dominant arguments about water policy and governance principles, environmental objectives and exemption options and identification of collective-choice rules. As the second step, the process reconstruction and the subsequent (non-)participative observations of the first WFD’s implementation planning cycle have been compared with findings of peer researchers who have studied the same period, both in the Netherlands and in other European Member States. Thirdly, so-called mirror sessions have been organised to present and discuss the research findings. Fourthly, by means of qualitative interviews and a written argumentation survey, perceptions, argumentation lines and strategies of diverse stakeholders have been registered and interpreted. Finally, group meeting observations have been discussed with the observed. This triangulation of information sources and methods and comparison with findings from other researchers is considered adequate to avoid the pitfalls of the chosen participative research approach.
3.5 Synthesis

Figure 3.5 summarises the research approach as presented in this Chapter. This research aims to assess incremental changes in collective-choice rules at five interrelated political levels within the International Meuse River Basin District (the European, multilateral and Dutch national, regional and local) during the period 1990 to 2009. The particular focus is at the impact of the WFD, more specifically its IRBM wording, related governance and policy principles and its environmental objectives and exemption options. Central in the research approach is the combination of two analytical frameworks. The seven rule types of the Institutional Analysis and Development framework (IAD; scope, boundary, position, choice, aggregation, information and pay-off) have been incorporated into the Policy Arrangement Approach (PAA) as the latter’s rules of the game dimension.

Based on a review of IRBM literature, the author has constructed three ideal-types for each of the seven rules (see the Tables 2.3a till 2.9 in Chapter 2). These ideal-types serve as an analytical benchmark to track incremental changes over time. By comparing the observations on rules in the era before and after adoption of the WFD (1990 to 2000 and 2001 to 2009 respectively), the degree of change may become traceable. Subsequently, analysis of developments within the other three dimensions of the PAA (policy discourses, actors and resources and power) may account for potential explanations for (triggers and barriers) of observed rules changes. Chapter 4 continues with the process reconstruction and the empirical analysis for the European political level.
Informal meeting of the EU Water Directors and the European Commission at Hotel Krasnapolsky in Amsterdam on December 2 and 3, 2004

The Dutch Presidency of the Amsterdam meeting with in the middle Bob Dekker, the EU Water Director of the Netherlands (Source for both photographs: Ministry of Transport, Public Works and Water Management)
Ambiguous ambitions at the European Level

‘Although the European Commission agreed that the new text proposal had become somehow complicated (like a matryoshka), it considered this compromise between the wishes of both the Council of Environmental Ministers and the European Parliament inevitable.’ (Fragment of an internal Dutch memorandum, June 20, 2000)

4.1 Introduction

This first empirical chapter provides for an analysis of the origin of the ambiguous ambitions in the Water Framework Directive (WFD; European Communities, 2000) and the subsequent interpretations in the guidance documents and policy summaries of the Common Implementation Strategy (CIS). Due to the politically complicated, multi-stakeholder context, European institutions are driven by ambiguous ambitions. The WFD is no exception that proves the rule. This directive is the first environmental one that has been subject to the co-decision procedure as introduced by the Amsterdam Treaty. Following this procedure, the European Parliament (EP) has seized the moment in order to enlarge its influence (Kaika and Page, 2003). The European Commission (EC), the Member States and the EP needed two conciliation rounds to prevent a series of laborious drafting and negotiation years from ending without a directive at all (Interviews 40 and 43; Appendix I). Numerous, sometimes last minute, textual amendments had to be approved to make a political compromise possible (ibid.). Given this context, it may not come as a surprise that the WFD is highly ambiguous in nature.

Section 4.2 explains the WFD as a hybrid construct in the European environmental policy domain. Subsection 4.2.1 starts with a historical overview of the European environmental policy domain, followed by a brief characterisation of three waves of European water policy legislation. Subsequently, the Subsections 4.2.2 and 4.2.3 present a reconstruction of both the WFD drafting and negotiation stage and the CIS. Since Dutch, French and German public actors have been very active in trying to upload domestic practices and traditions to the European level, this reconstruction is important to understand better the context of subsequent implementation processes at interrelated political levels within the International Meuse River Basin District. However, this research does not aim to repeat the analysis as published by British scholars (Kaika and Page, 2003; Page and Kaika, 2003; Kaika, 2003). Given the central research focus on the Netherlands as the most downstream Member State in the International Meuse River Basin District, this research adds observations from both interviews with involved Dutch actors and an analysis of their documents.

As a next step, Section 4.3 particularly explores the extent of changes in the configuration of collective-choice rules for Integrated River Basin Management (IRBM) at the European level over the 1990 to 2009 period. The author’s observations are interpreted as ideal-type IRBM rules (with regard to scope, position, boundary, choice,
aggregation, information and pay-off) before and after adoption of the WFD. The interpretations are predominantly based on an analysis of the official WFD text and the CIS meetings’ reports and documents, as well as secondary analysis and the aforementioned interviews (see Appendix I for an overview of the interviewees). In the search for potential triggers and barriers for changes in collective-choice rules, Section 4.4 assesses dominant and opposing argumentation lines around the WFD’s governance and policy principles and its environmental objectives and exemption options. Furthermore, developments in both, the identified coalitions and oppositions of actors, as well as the division of resources and power are presented. Finally, Section 4.5 closes this chapter with a synthesis that provides for potential explanations of observed changes in and/or continuation of collective-choice rules for IRBM at the European level. As explained in Chapter 2, potential explanations may come from the interaction between developments in the rules of the game dimension and the other three dimensions of a policy arrangement over the studied period and theories that are related to each of these dimensions.

4.2 The WFD a hybrid construct in environmental policy

4.2.1 Development of the environmental policy domain

The European environmental policy domain has gradually developed from a series of incidental measures (to overcome non-tariff trade barriers) towards a sophisticated, multilevel governance system in which policy-making powers are shared between supranational, national and sub-national actors (Jordan, 2001; Hildebrand, 2005). Informed by Hildebrand (2005) and Knill and Liefferink (2007), four phases of environmental policy development within the European Union may be distinguished. This research adds a fifth one related to the uncertainty that derives from both the enlargement of the European Union with respectively ten and two new Member States in 2004 and 2007 and the global financial crisis since 2008. See Table 4.1 for a brief characterisation of the five phases.

The first phase runs from 1957, when six European states (Italy, Germany, Belgium, France, the Netherlands and Luxembourg) signed the Treaty of Rome (as legal foundation under the European Economic Community; henceforth EEC), to 1971. The overriding objective of the then EEC was to harmonise national laws in order to abolish trade barriers between the Member States (Hildebrand, 2005). The Treaty did not include explicit, formal legal provisions to support any Community-wide action on the environment even though indirect common interpretations offered some room for manoeuvre (ibid.). A broad interpretation of the ‘raising of the standard of living’ wording of its Article 2 ‘allowed environmental legislation to be “smuggled” into Community law (Burchell and Lightfoot, 2001: 34). All environmental initiatives had to be directly connected to the objective of economic cooperation and development (Rehbinder and Stewart, 1985; McGrory, 1990). The pace of environmental protection was essentially set by strongly environmentally oriented Member States (Hildebrand, 2005). McGrory (1990) qualifies the common environmental measures in this period as incidental to the overriding economic objective.
Table 4.1: Phases in the development of the European environmental policy domain

<table>
<thead>
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<th>Phase</th>
<th>Brief characterisation</th>
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| I: 1957 to 1971 | **Incidental Environmental Measures:**  
  - Italy, Germany, Belgium, France, the Netherlands and Luxembourg sign the Treaty of Rome on the European Economic Community.  
  - No legal basis for environmental action, incidental initiatives relate to the common market and ‘raising of the standard of living’. |
| II: 1972 to 1986 | **The Responsive Period:**  
  - Fear of competitive distortions in the Common Market by differences in environmental standards, environmental disasters, growing public awareness and improving living conditions are drivers for environmental action.  
  - Interpretations by the ECJ on environmental provisions as linked to the setting up or operation of the internal market.  
  - Adoption of the first three environmental actions programmes (including principles and objectives of environmental policy) and directives. |
| III: 1987 to 1991 | **Legal Basis and Initiative:**  
  - The Single European Act (SEA*) provides for a legal basis of European environmental policy development and the European Parliament (EP) gets more access to decision-making by the cooperation procedure.  
  - De jure consolidation of de facto developed environmental policies.  
  - Significant increase in initiatives and legal statutes. |
| IV: 1992 to 2004 | **Consolidation and Integration:**  
  - The Maastricht Treaty on the European Union (1992) expands qualified majority voting to most environmental issues. Sustainable growth is added as one of the main Community objectives. The importance of integration of environmental considerations into other policy sectors is stressed.  
  - Increased attention to the impact of proposed accession of new Member States overshadows other issues like environmental protection. Consolidation efforts of prior legislation prevail over new initiatives. |
| V: 2005 onwards | **Uncertainty by Enlargement and the Global Financial Crisis:**  
  - Global financial crisis since 2008 overshadows environmental issues and may trigger a potential slow-down of environmental policies.  
  - Uncertainty about the impact of new power balances & governance rules on environmental policies, as introduced by the 2007 Lisbon Treaty. |

*) The SEA (European Communities, 1987 into force since 01-7-1987) was the first major revision of the 1957 Treaty of Rome. A core element of the SEA was to create a Single Market within the EU by 1992. The SEA reformed the legislative process by introducing the cooperation procedure between the European Council and the European Parliament and by extending qualified majority voting to new policy domains.
Hildebrand (2005) argues that one cannot yet appropriately speak of institutionalisation of environmental protection. ‘This is hardly surprising given the political climate of the time, with the green movement largely in its infancy and environmental problems not seen as salient political issues’ (Burchell and Lightfoot, 2001: 35).

The 1972 Stockholm UN Conference on the Human Environment marks the start of the second phase. This international event has put environmental concerns high on the European political agenda (Burchell and Lightfoot, 2001). At their subsequent Paris Summit, the EU Heads of States invited the Community institutions to develop an action programme on the environment, which resulted in the First Programme of Action on the Environment (Commission of the European Communities, 1973). From the studied literature, four potential drivers for the introduction of a common environmental policy during the second phase (from 1972 to 1986), become noticeable. The first driver is the fear that trade barriers and competitive distortions in the Common Market could evolve out of different environmental standards (Johnson and Corcelle, 1989). Secondly, subsequent environmental catastrophes have triggered the increased international politicisation of environmental problems and also have underlined the cross-border nature of certain forms of environmental pollution (Liefferink, Lowe and Mol, 1993; Hildebrand, 2005). Thirdly, increasing public protest against environmental destruction triggered a considerable degree of pressure upon elected government officials (Hildebrand, 2005). Fourthly, the literature frequently makes reference to the Preamble and Article 2 the Treaty of the European Union, i.e. the goal of improving the European living conditions (Knill and Liefferink, 2007).

Despite unfavourable legal conditions it is remarkable that, by the mid 1980s, not only had three subsequent environmental action programmes been passed (including a constant broadening of environmental objectives and activities), but also around 200 binding legal acts primarily in the form of directives and regulations (Weale, 1996). Gradually, European environmental policy had developed into an independent policy domain, even without having a relevant legal basis (Knill, 1995; Sbragia, 2000). Whereas the First Programme of Action on the Environment (Commission of the European Communities, 1973) introduced eleven principles of environmental policy, the Third Programme of Action on the Environment (Commission of the European Communities, 1982) acknowledged the importance of environmental resources as a fundament for further economic and social development and emphasised the need for an overall strategy to incorporate environmental considerations into other policy sectors (Hildebrand, 2005).

Throughout the 1970s environmental policy continued to develop but in a very ad hoc and incremental manner, according to the whims of the Member States (Lenschow, 2004). Haigh (1996) viewed the early 1970s as the ‘dark ages of EU environmental policy’, since unanimous voting in the Council of Environmental Ministers (henceforth the Council) meant standards developed at the pace of the most reluctant state or coalition of states. The lowest common denominator ruled decision-making in the Council, within the context of weakly developed supranational institutional and legal structures (Jordan, 2005). Democratic oversight by the EP and national parliaments remained weak and inconsistent and national pressure groups concentrated
efforts on domestic affairs as the thought locus of environmental policy (Burns, 2005; Mazey and Richardson, 2005).

Since the early 1980s, the number of pieces of environmental policies began to expand more rapidly, since the EC successfully took the standards promoted by the then leader Member States for proposals which reached further than the lowest common denominator of state preferences (Jordan, 2005). Koppen (2005: 67-86) describes how rulings by the European Court of Justice (ECJ) in the 1960s and 1970s helped to legitimise the EC’s opportunistic initiatives, to create new opportunities for the EP and to tighten the legal framework of compliance with the EU rules. Hildebrand (2005: 29) characterises European environmental policy in the second phase as ‘a “responsive” one in the sense that it evolved according to the momentary economic, political and social circumstances’. The lack of a sound legal basis caused uncertainty and a more incoherent than an integrated approach (ibid.).

The third phase (1987 to 1991) is primarily characterised by the legal and institutional consolidation and further development of environmental issues into a common policy domain. Although the Single European Act (SEA; European Communities, 1987) was rooted more in economic than environmental policy motives (i.e. completion of the internal market), it acknowledged environmental policy as a legitimate European domain (Hildebrand, 2005; Knill and Liefferink, 2007). The explicit mentioning of EU environmental policy in the Treaty ultimately only confirmed in legal terms what already had been accomplished de facto in the preceding years, e.g. as expressed by the subsequent environmental action programmes. Gradually the EP obtained more power within the European institutions. The SEA’s cooperation procedure (Article 95) enhanced the EP’s right to participate in the legislative process (ibid.). Lenschow (2005a) denotes that the European Commission seized the moment to gradually generate an extensive corpus of common policies. Haigh and Baldock (1989: 12) mention three different ways in which the SEA has affected Community environmental policy: (1) through majority voting and the cooperation procedure; (2) through the objective of completing the internal market; and (3) through the new legal provisions as basis for environmental policy development. In addition, Jordan (2005) argues that in the 1980s, a relatively rapid and profound transformation took place in the development of European environmental policy, as encouraged by rising levels of public concern for environmental matters in (then) “greener” Member States such as Germany, the Netherlands and Denmark. ‘Between 1989 and 1991 the EU adopted more environmental statutes than in the previous 20 years combined’ (ibid: 6).

The fourth phase (from 1992 to May 2004) starts with adoption of the Treaty on the European Union (Maastricht Treaty) which introduces ‘sustainable and non-inflationary growth respecting the environment’ as one of the basic common tasks (European Economic Communities, 1992: 2). Furthermore, the Treaty has reinforced the requirement that environmental protection should be integrated into other European policy sectors (Wilkinson, 1997). It has expanded the qualified majority decision making rule (instead of unanimity) for environmental issues in the Council. Subsequently, the introduction of the co-decision procedure by the Amsterdam Treaty (European Communities, 1997) is among the more influential shifts in this phase. It replaces the cooperation procedure and provides the EP and the Council with equal
power including a true veto right (Judge, Earnshaw and Cowan, 1994). The Amsterdam Treaty results in a general strengthening of environmental policy concerns vis-à-vis other policy areas of the Community. This holds in particular for the position of the then Directorate-General Environment amongst other DGs (Haigh and Lanigan, 1995). Since the Amsterdam Treaty, the EC has elaborated strategies for integration of environmental protection requirements into EU policies such as energy, transport and agriculture (Lenschow, 2002). Within these strategic documents, the EC stresses the need for horizontal coordination between various DGs and vertical coordination between various tiers of government from the local to the European level (ibid.).

The 1998 Cardiff Summit of Heads of State and Government ‘has set off a process aiming at better integration of environment objectives and sustainable development into central Community policy sectors which are the drivers behind economic development’ (Common Implementation Strategy, 2001: 10). Priority areas for action for DG Environment are integration into regional policy, agricultural policy, fisheries policy, development policy, marine policy and other sectors (e.g. energy, transportation and internal market; ibid.: 11). For example, since the mid-1990s environmental considerations have formed a key component in the successive reforms of the Common Agricultural Policy (henceforth CAP), which have encouraged more environmental friendly farming practices (Dühr, Colomb and Nadin, 2010). In spite of these integration attempts, the “greening of EU policies” has been rather slow and limited (ibid.; Burchell and Lightfoot, 2001). Sbragia (2000: 299) mentions three reasons which may account for this laborious integration process: (1) the political priority given to economic growth, employment and competitiveness; (2) the relatively weak position of DG Environment among other sector DGs; and (3) the sometimes reluctant attitudes of Member States.

Zito (1999) states that the increasing legal and institutional “anchoring” of the European environmental policy paradoxically goes hand in hand with stagnating political dynamics. Knill and Liefferink (2007) add two observations. Firstly, problems associated with environmental protection no longer have the same priority on the political agenda of the EU and most member states as in the 1980s and early 1990s. A general slow-down in economic growth in the beginning of the 1990s, the persistent problem of high unemployment and increased competition in the wake of international market liberalisation may account for the priority shift (ibid.; Young and Wallace, 2000). Consequently, the political commitment to impose stringent and intrusive regulations through command and control processes has diminished very significantly (Sbragia, 2000). Secondly, the main focus of EU environmental policy is no longer on the definition of legally binding limits. The EU increasingly focuses on more flexible and less harmonisation-oriented regulatory concepts, which allow the member states greater room to manoeuvre with regard to the implementation of policies (Knill and Liefferink, 2007; Knill and Lenschow, 2000). Since the end of the 1990s the main EU focus shifts towards accession procedures and institutional reform in the light of the 2004 and 2007 enlargements of the EU. And although these enlargements have led to an expansion of common environmental standards to in total 12 new Member States, regional cohesion, economic growth, competitiveness and employment have preoccupied the Member States’ governments most (Dühr, Colomb and Nadin, 2010). Inte
The integration of environmental protection objectives into other EU sector policies has been insufficient so far, as the goal of environmental sustainability has remained subservient to the social and economic priorities (ibid.; Jordan and Schout, 2006).

Finally, the fifth phase starts with the May 2004 enlargement of the European Union with ten new Member States from Eastern Europe. In this phase reflections on a reorganisation of the European governance rules result in the adoption of the Lisbon Treaty (European Union, 2007b) which has become into force in December 2009. The impact of the enlarged set of actors and shifts in governance rules on the future direction of and priority-setting within the European environmental policy domain is highly uncertain. Additionally, the global financial crisis (since 2008 to 2012 at the time of writing) may have significant impact on available financial resources for environmental policies. At the same time, climate change has become an explicit priority of the European Union, e.g. as expressed by the establishment of the new Directorate-General for Climate Action in February 2010. Within the CIS, the DG Environment has drafted the Guidance Document No. 24 ‘River Basin Management in a Changing Climate’ (European Communities, 2009g). Whereas the global financial crisis may trigger a generic slowdown of environmental policy, the policy discourse on sustainable river basin management in the context of climate change may trigger new initiatives. On the one hand, due to the EU’s enlargement, one may expect new Member States to incorporate European environmental policy requirements. On the other hand the EU’s predominant focus on socio-economic development remains, especially in times of financial crisis. Deliberations on and investments for saving the Euro (and the entire European integration project) may overshadow initiatives for rule alterations in the environmental policy domain.

Three European water policy waves

With regard to European water policy development, generally three waves are distinguished. Between 1970 and 1990 the European institutions have launched several directives on the reduction and prevention of water pollution, based on a preliminary regulatory approach. The yield of this first wave of European water legislation is a kaleidoscope of sector directives including water quality standards for surface water, bathing water, fish water, shellfish water and drinking water, which partly cover the same issues (Kallis and Nijkamp, 2000; Grimeaud, 2001). Notwithstanding this legislative bloom, in 1990 the EU still faced major problems with water pollution in general and eutrophication in particular. A second wave of water legislation evolved (from 1991 to 1999) which primarily aimed at emissions reductions, e.g. directives on Urban Waste Water Treatment (European Communities, 1991a), the Nitrates Directive (European Communities, 1991b) and the Directive concerning Integrated Pollution Prevention and Control (IPPC; European Communities, 1996) (Kallis and Nijkamp, 2000; Grimeaud, 2001). The numerous water policy regulations from the first and second wave gave rise to criticism about the lack of consistency (Dworak et al, 2007).

The WFD (European Communities, 2000) marks the start of the third wave of water policy regulation (Kallis and Nijkamp, 2000; Grimeaud, 2001; Kaika, 2003; European Parliament, 2007) and has been drafted and adopted in the fourth phase of environmental policy development (see Subsection 4.2.1). This directive is the product
of an incremental, laborious political negotiation process in an era, starting with the 1992 December Edinburgh meeting of the European Council, in which the European institutions look for a “better regulation” and “better law-making”. In particular, the then European Council reached agreement on guidelines to implement the subsidiarity principle and measures to increase transparency and openness in the decision-making process of the Community (European Communities, 1992b). Although fast results were hindered by complexity and lack of political support, simplification of EU legislation gradually has become one of the main contemporary priorities in the European arenas. The environmental policy domain has become the first test case. The WFD has been adopted ‘in order to concentrate, rationalise and standardise, as well as improve the efficiency of European water protection legislation’ (Dworak et al., 2007: ii). Given its 72 pages including some detailed technical annexes one may argue to which extent the WFD actually has become an example of simplification of EU legislation. However, that is not the topic of this dissertation. No doubt the WFD can be characterised as an ambiguous attempt to harmonise river basin management approaches in Europe. It is an instrument which offers room for multiple interpretations of its principles, environmental objectives and exemption options as the subsequent Subsections 4.2.2 and 4.2.3 will describe.

4.2.2 Formulation, negotiation and adoption of the WFD
Appendix V provides a brief chronological reconstruction of the drafting and negotiation process of the WFD. The seeds for the WFD were sown at the Community Water Policy Ministerial Seminar in Frankfurt in 1988. In the conclusions water is declared a precious resource which must be carefully managed and priced accordingly (Commission of the European Communities, 1988). The Ministers express the importance of guidelines for integrated water management (water quantity and quality) and development of a policy for rational use of water resources. They call for new Community legislation which covers ecological quality of surface waters. More specifically, they stress the need for a combined approach of quality objectives and emission standards, the importance of adequate waste water treatment infrastructure, the need for measures to reduce pollution from diffuse sources (nutrients and pesticides by agriculture in particular) and integration of water policy (as part of an overall environmental policy) with industrial, agricultural and regional policies (ibid.). Furthermore, by its resolution of June 28, 1988, the Council of Ministers asked the EC to submit proposals on improvement of ecological quality in the Community’s surface waters (European Communities, 2000: 1). The declaration of the 1991 Ministerial Groundwater Seminar at The Hague ‘recognised the need for action to avoid long-term deterioration of freshwater quality and quantity and called for a programme of actions to be implemented by the year 2000 aiming at sustainable management and protection of freshwater resources’ (ibid.).

During the early 1990s a number of debates took place on several aspects of EU water policy. Issues raised were implementation costs versus (too limited) achievements (so far), a too mono sector approach, ongoing revisions of existing directives (e.g. drinking and bathing waters, hazardous substances) and concerns about the pressure from the ECJ. In the broader social and political context, there are calls for
simplification and integration of European legislation, more subsidiarity and better access to environmental information (e.g. as expressed by the 1998 Aarhus Convention; UN-ECE, 1998). Between 1988 and 1995, the EC drafted several versions of an ecological quality directive, aiming at legally binding, uniform European water quality standards. High-ranking officials and ministers in several Member States fear high socio-economic implementation costs and loss of autonomy due to such a new directive. Dutch water officials fear another mono sector directive, whilst they ply for more coherence, transparency and integration of the existing legislation (Interviews 30 and 43, Appendix I). In this era, partly induced by growing dominance of policy discourses such as integrated water resources management, sustainability and simplification and transparency, there were several calls for integrated, flexible and adaptive frameworks and more participative approaches.

January 26, 1995, at an expert meeting in Brussels, the Dutch national government launches its position paper on ‘the Commission Proposal on Ecological Water Quality (EQW) and the integration of European Water directives’ (Ministry of Transport, Public Works and Water Management, 1995a). At this meeting, French and Dutch water policy experts agree to organise an informal bilateral meeting of their EU Water Policy Directors. On February 15, 1995, both directors expressed not to be in favour of the EC’s idea to arrive at a sectoral directive on a basic European ecological water quality. Instead they opted for a more integrated approach of European water policy legislation in order to increase transparency and with sufficient implementation room for the Member States (subsidiarity). They stressed the importance of a cross-border river basin management approach. As a next step, the French EU Water Director invited his counterparts of the Netherlands, United Kingdom, Germany and Spain (the then EU Presidency) for an informal meeting at Paris (April 7, 1995). After discussion of the Dutch position paper, the five Water Directors decided to draft a joint discussion paper on the desirable future EU water policy. The French would urge the EC to organise an informal meeting with the Water Directors from all 15 Member States (with the aim to convince the EC of the need of a different approach). The British EU Water Director would draft a proposal for the joint paper. May 1995 the first draft of the discussion paper appeared, soon followed by a second Dutch position paper ‘Environmental framework Directives of the European Union – Ideas on Coherence and Suggestions for a Logical Basic Structure’ (Ministry of Housing, Spatial Planning and the Environment, 1995).

The EC invites the 15 Water Directors for a first informal meeting at Brussels (June 19, 1995). At this meeting, the final draft of the joint paper (Summerton, 1995a) is discussed. The EC stresses that the primary issue is not the lack of coherence, but the delays with implementation of existing water-related directives by the Member States. At the end of this laborious meeting, the EC (reluctantly, according to the Dutch delegation minutes) agrees to prepare a strategic document on future EU water policy. In turn, the EC asks the EU Water Directors to come forward with examples of where there is a lack of coherence in the current corpus of EU water legislation. In June 1995 a public hearing of the EP and a Council meeting take place, both on water policy. The overall conclusion is that there is a need for a fundamental review of Europe’s water policy legislation. At the second informal meeting of the EC with the
EU Water Directors at Brussels (October 18, 1995), the then Environmental Commissioner presents DG Environment’s discussion document on European Community Water Policy (DG Environment, 1995). Also, the British memorandum with examples of a lack of coherence in EU water policy (Summerton, 1995b) is discussed. Under growing pressure of the EP, the Council and the EU Water Directors of the Member States, on February 21, 1996, the EC releases a Communication on European Community Water Policy setting out the leading principles for a water framework directive (Commission of the European Communities, 1996). Directly after the Communication, the EC starts an open consultation round and invites specific interests groups and organisations to participate (Kaika, 2003). As reaction to this Communication, the EU Water Directors of France, United Kingdom, Germany and the Netherlands prepare a joint document: ‘Summary of Discussions about Guidelines for a Water Policy of the Union’ (Roussel et al., 1996). After consideration of the remarks from the informal, open consultation procedure (which ends in May 1996), the EC launches its first draft proposal for the Water Framework Directive early December.

The first draft proposal is discussed informally with technical experts and the EU Water Directors. In February 1997, the EC adopts the final version of its first proposal on the Water Framework Directive (Commission of the European Communities, 1997a). The next step includes both an extensive inter-service consultation round in which most other Directorate-Generals participate and a mandatory consultation of the Economic and Social Committee and the EP. Again discussions follow with the EU Water Directors and also the EP cautiously takes notices of the proposed text. Although the EC incorporates several remarks into its amended proposal of November 1997 (Commission of the European Communities, 1997b), a number of major issues remain to be solved: the organisational interpretation of international river basin management coordination, a quantification of the good ecological status, the implementation terms, the incorporation of the Dangerous Substances Directive (76/464/EEC), the scope and arrangements for (full) cost recovery for water services and arrangements for tackling many small sources of diffuse pollution. Among all the Member States the Netherlands show to be the most anxious for wording that may point at legally binding objectives and requirements. Given the large ambition gap between the EP and the Council of Environmental Ministers, the EP deliberately delays the procedures with the aim of bringing the WFD under the co-decision procedure of the 1997 Amsterdam Treaty (Kaika, 2003; Interviews 40 and 43, Appendix I).

The WFD is the first environmental directive that is designed under the co-decision procedure of the Council and the EP (as introduced by the 1997 Amsterdam Treaty). This has made the WFD an important test case for the EP in attempts to increase its power and influence. As thoroughly reconstructed by Kaika and Page (2003), a delicate political power game follows between the EP (with a prevailing focus on environmental interests and supported by environmental NGOs), the Council of Ministers (with a dominant focus on socio-economic interests and supported by a strong industrial and agriculture lobby) and the DG Environment in the European Commission (officially in a neutral position but with close connections to some environmental NGOs). Finally, after laborious political negotiations and last-minute editing in the so-called conciliation procedure, on June 28, 2000, both the Council and the
EP agree on a compromise text (ibid.; Interviews 40 and 43, Appendix I). Kaika and Page (2003) conclude that ‘As the significance of the directive became more evident, the debate over its details became increasingly confrontational. Once the economic costs of tightening environmental regulations and the ecological risks of reconsidering existing environmental regulations became transparent, the process of amendment became intense.’ Also Dutch actors mention the delicacy and toughness of the drafting and negotiation process (Melis and Boudewijn, 2002; Interviews 40 and 43, Appendix I). Being the product of a compromise, the final text offers much room for interpretation differences. As Kaika (2003: 311) concludes: ‘Most of the controversial passages have been hedged in such a way that member states can interpret them in different ways. This makes the implementation phase immensely important and gives particular executive powers to the actors who will participate in this phase.’

Héritier, Knill and Mingers (1996) conclude that in the context of the European environmental policy domain, “regulatory competition” between Germany and the United Kingdom was (and to some extent still is) a main factor. The principles of precaution and action at the source lie at the heart of the emission-oriented German conception of environmental policy (Weidner, 1987; Knill and Liefferink, 2007). Regardless of local conditions which might vary, the Best Available Technology (BAT) should be used uniformly in order to reduce the emission of pollutants (ibid.) In contrast, the British philosophy stresses that the objective is not the prevention of emissions at (almost) any price, but rather the definition of an optimal, i.e. most cost-effective, way of managing the environment (Weidner, 1987; Jordan, 1993; Knill, 1995). The optimum may fluctuate depending on local circumstances, the cost of the preventive technology and the economic situation of the company (ibid.). While German regulatory models dominated the 1980s, policies emphasising the quality of the environment and the local context and conditions have gained influence since the 1990s. More recent EU policies thus coincide to a greater extent with the British notions (Knill and Héritier, 1996; Sbragia, 2000). The official WFD text seems to confirm this evolution. While the initial EC’s ideas mainly focused on legally binding water quality objectives, the final negotiation result shows a more general framework including economic tools and principles. Although the environmental objectives are still at the heart of the WFD (Article 4; European Communities, 2000: 9-11), the intrinsic exemption options offer room for both specific local and regional conditions and circumstances and economic costs and benefits considerations.

Due to the aforementioned shifts in power balance related to the co-decision procedure, the growing access of non-governmental actors in the drafting process, the increasing influence of British implementation notions and early fear for severe socio-economic consequences in several Member States, the WFD may be characterised as a hybrid political construct. For example, it includes both potentially high ecological ambitions and options for exemptions. From a juridical point of view, Van Rijswick (2010) and Page and Kaika (2003) qualify the WFD as one among the most complicated and difficult interpretable pieces of legislation in the European environmental policy domain. However, it is an innovative directive with many positive elements and innovation challenges for the future management of Europe’s fresh water resources.
The question is to which extent the directive’s intrinsic interpretation ambiguities will become triggers or barriers for changes in collective-choice rules for Integrated River Basin Management (IRBM) at different political levels within Europe’s river basins. As a first indication, interpretations and definitions of the Common Implementation Strategy (CIS) may serve.

4.2.3 The Common Implementation Strategy (CIS)
The informal meeting of the then French and Dutch EU Water Directors in February 1995 may be considered the date of birth of the periodical meetings of the European Commission’s DG Environment with all Europe’s Water Directors. At these meetings the idea for the Common Implementation Strategy (CIS) develops. The main aim of the CIS (which officially has been launched at Stockholm in May 2001) is to allow a coherent and harmonious implementation of the WFD, e.g. by filling in interpretation gaps from the drafting and negotiation stage. The main focus is on methodological questions related to a common understanding of the technical and scientific implications of the WFD. In the CIS, several non-legally binding guidance documents have been produced showing ‘an informal consensus position on best practice agreed by all partners’ (see Appendix VI for an overview of the guidance documents until 2009).

In the first years (from 2000 to 2002) emphasis within the CIS lies on the requirements for the river basin characterisation reports (the so-called Article 5 reports) and testing, application and validation of related guidance documents in so-called pilot river basin projects. The use of economic instruments is an important issue in this phase. The extensive guidance document on water and economics (the so-called WATECO document; European Communities, 2003a) is the first one and considered a benchmark for subsequent guidance documents (on analysis of pressures and impacts; identification of heavily modified water bodies; reference conditions of inland surface waters; typology and classification of transitional and coastal waters and tools for assessment and classification of groundwater). Also information sharing (such as the use of geographic information systems and intercalibration of domestic monitoring programmes) and best practices in river basin management receive considerable attention. The focus of the guidance documents predominantly is on internal issues of the water policy (sub-) domain. Cross-sector policy issues are not profoundly discussed, except for linking water to economics – although this linkage mainly concerns pricing mechanisms for water services.

In the second CIS phase (from 2003 to 2005), the EU Water Directors and the European Commission (EC) try to limit the administrative burden and increase efficiency by a simplification of the organisation. All issues are regrouped into four working groups, named Ecological Status, Integrated River Basin Management, Groundwater and Reporting. Additionally, two Expert Advisory Forums (EAFs) are initiated which prepare the draft daughter directives on groundwater (European Union, 2006) and priority substances (European Union, 2008). Economic methodological aspects are further elaborated and the CIS partners struggle with the lack of monitoring data. The EU Water Directors stress that pragmatic solutions need to be developed which bridge the gap between the technical and scientific possibilities and the formal requirements. They clearly express their preference for developing a decentralised
Geographical Information System. They also agree that large numbers of small water bodies may be grouped for reporting in order to limit administrative burden. Not all groundwater bodies for abstraction of water use (other than for drinking water production) will have to be designated.

The EU Water Directors and the EC gradually enlarge the scope to cross-sector policy issues. DG Environment presents a working document on tools within the CAP which may support the implementation of the WFD (DG Environment, 2003). The EU Water Directors and the EC agree on the added value of EU activities on flood prevention and protection. The EU Water Directors accept to include the marine strategy in their mandate and recognise the increasing importance of climate change for water policy. However, with regard to climate change, a comprehensive compilation of existing information and knowledge is considered a necessary prerequisite for further discussion. According to the EC and the EU Water Directors agriculture will be one of the central issues for a successful WFD implementation. Therefore, DG Environment initiates a series of workshops involving agriculture and environment experts in order to share views and to enhance the links between agriculture and water policy taking into account the experiences of the pilot river basin exercise. In addition, both the Member States and the EC agree to seek discussion and close cooperation between the relevant authorities on agriculture and water policy. For example, a Strategic Steering Group with representatives of DG Agriculture and Rural Development and DG Environment is initiated which reports to the Water Directors. One guidance document is drafted on assessment of eutrophication in the context of different European directives (European Communities, 2009f) and one on the management of wetlands in the context of the WFD (as proposed by a coalition of environmental NGOs; European Communities, 2003l). Finally, electronic reporting sheets are developed which will be part of a Water Information System for Europe (WISE). The EU Water Directors support a pragmatic development of WISE which will be integrated in a wider environmental reporting concept.

Analysing the CIS process in 2005, three remarkable conclusions may be drawn. Firstly, the EC concludes that the submitted Article 3 and 5 reports are so diverse, that it may be very difficult to conduct a balanced compliance checking analysis. Secondly, the EU Water Directors adopt the conclusion of a Dutch presentation concerning an analysis of WFD key issues - as derived from comparison of the Article 5 reports. Based on figures up to 2004, the conclusion is that the condition of Europe’s aquatic ecosystems is to some extent more worrying than anticipated or hoped for. This is partially due to the non-achievement of objectives under other environmental/water legislation and the considerable lack of information regarding many aspects. Thirdly, the EU Water Directors approve the ‘Discussion Document on Environmental Objectives under the Water Framework Directive’ (European Communities, 2005b). From this document it becomes clear that the use of exemptions (Article 4) should not be considered as derogations but as an integral part of the WFD systematic for a staged compliance (European Communities, 2005b: 16; italics added):
It is therefore unlikely that Member States will be able to address all the problems facing the water environment in a single planning cycle. The Directive allows for this by incorporating the use of exemptions as an integral part of the river basin planning process. The exemptions provide the means by which Member States can prioritise action to improve the water environment over a series of planning cycles.

In line with this common interpretation of exemptions, at a workshop on the WFD and hydromorphy (Prague, October 2005), the Water Directors propose to apply a more practical approach for defining Good Ecological Potential for heavily modified water bodies. The pragmatic approach starts with defining feasible mitigation measures instead of reference conditions. Finally the EC agrees with this alternative approach, in addition to the original, more theoretical one. Several actors mention that gradually the EC acknowledges the mismatch between the high environmental objectives ambition and the severe socio-economic consequences of full compliance in 2015. Hence, the exemptions gradually evolve into a regular prioritisation instrument (Interviews 18, 43, 46, 51 and 52, Appendix I; Ten Heuvelhof et al., 2010).

In the third CIS phase (from 2006 to 2009), the focus shifts to improvement of implementation comparability, simplification and transparency of European water policy and enforcement of cross-sectoral policies integration. The Water Directors of the EU25 Member States, with the exception of Denmark, adopt the (informal) declaration on WFD and Agriculture. With regard to internal integration, the scope is enlarged to floods, water scarcity and droughts. The EU Water Directors recommend enforcement of coordination and integration of implementation activities of older directives (e.g. Urban Waste Water Treatment, Nitrates) into the CIS. Activities on developing common understanding of environmental objectives and exemptions should be continued with high priority. The intercalibration exercise continues and further streamlining of (electronic) reporting and monitoring is supported. Remarkably the Integrated River Basin Management working group disappears.

At the first European Water Conference (Brussels, March 2007), from its first WFD implementation progress report, the EC concludes both a poor legal WFD transposition (19 Member States with major shortcomings) and poor performance of the economic analyses (low level of information on cost-recovery in different sectors; Commission of the European Communities, 2007a and b). In addition hardly any information is available on application of Article 4.7 (i.e. an inventory of new foreseen activities which may be allowed notwithstanding detrimental impact on the environmental objectives). The EC states that climate change should not be an excuse to hide poor water management practices. Notwithstanding the CAP reform, diffuse pollution from agriculture will remain one of the main challenges for improving water quality in the EU. Changes in production patterns (e.g. bio-fuels) will put further pressure on EU waters. EU transport and energy policy have started integrating requirements of EU water policy. Challenges for transport (navigation) and energy (hydropower) policies remain to further reduce negative impacts on the aquatic environment. Finally, Member States could benefit more from the (enlarged) opportunities within the Regional Development and Cohesion Fund to include water policy objectives (ibid.).

The EP releases a study report on ‘simplification of European Water Policies’ in which the CIS and WISE are mentioned as good examples (Dworak et al., 2007).
In June 2007 the coalition of environmental NGOs – as lead by the European Environmental Bureau (EEB) and the World Wide Fund for nature (WWF) - has submitted a complaint on the definition of water services by 11 Member States (including the Netherlands). Subsequently, the EC asks those Member States for additional information.

In June 2008 the EU Water Directors approve the key-messages in the discussion document on disproportionate costs in relation to environmental objectives and exemptions (Common Implementation Strategy, 2008). Different views exist on the issue of disproportionate costs. Some Member States wish to take into account ability to pay, others stress that this reason is not explicitly mentioned in the WFD. The EU Water Directors agree that application of the disproportionate costs argument should not water down the WFD's ambitions. They stress that applying the exemptions should not be the rule but exceptional. Furthermore, they suggest that the effects of past expenditures should be analysed in more detail as, to their opinion, the costs of basic measures cannot be considered when deciding on disproportionate costs. The Strategic Steering Group on WFD and Agriculture has established a catalogue of measures and a network of pilot river basins. However, some EU Water Directors indicate their concerns on the lack of ambitions in the agricultural sector to include WFD measure in the rural development programmes.

December 2008 the EU Water Directors and the EC agree that compliance checking is a joint responsibility. The outcome of the exercise should be accessible to the wider public, for example by producing a strategic document on European water management. The compliance checking should be based on the requirements of the Directive and on comparable, good quality data of the Member States. The reports drafted by the multilateral river basin commissions should be taken into account in the compliance checking assessment for (draft) domestic river basin management plans. The EU Water Directors once again stress the need for Member States to work with the agriculture sector to include important measures (e.g. buffer stripes) in the river basin management programmes. Some Member States indicate they do not expect an influence of the financial crisis on the capacity to implement measures linked to WFD, while others fear that this will have a (dramatic) negative impact. They agree that the importance of the water sector for sustained economic development should be used as an argument, since the lack of investments for water policy objectives may have serious negative implications, particularly in the context of climate change.

In 2009 the EU Water Directors and the EC conclude that the CIS should work more on dissemination of its products to the wider public, e.g. by producing more understandable summaries. Alternative working methods for future Water Directors meetings could be explored in order to encourage a wider participation of all Member States (seminars, parallel sessions, etceteras). The EU Water Directors highlight the importance of a continuous involvement of the EC at all levels. In turn, the EC stresses that the allocation of sufficient financial and human resources by the Member States is a prerequisite for a successful continuation of the CIS. The involvement of river basin commissions and national and international experts should be encouraged more in the CIS process. The EU Water Directors consider the update of the Rural Development Programmes following the CAP Health Check (i.e. an evaluation of its
results) a one-off opportunity to improve the funding of water protection measures linked to agriculture. European level discussions on effective buffer stripes and national implementation of good agriculture and environmental conditions are desirable.

To conclude this Subsection, both DG Environment and the EU Water Directors of the Member States have invested their (water policy and management related) expertise into the informal Common Implementation Strategy (CIS). Although the CIS has delivered several technical guidance documents, discussion papers and policy summaries that may support WFD implementation planning at interrelated political levels, both the interpretation gaps after the laborious WFD drafting and negotiation process and the ambiguities around the environmental ambitions are not dissolved. As an indication, the CIS so far could not prevent (the first) 21 infringement cases of the EC against individual Member States (including the Netherlands) on non-conformity with specific WFD requirements. While both the EU Water Directors and the EC stress that the high environmental ambitions should not be watered down, they commonly interpret the WFD’s exemption options as regular prioritisation instruments for a staged compliance until ultimately 2027.

Furthermore, although the disclaimer in all guidance documents mentions ‘an informal consensus position on best practice agreed by all partners’, at the same time it emphasises that ‘the document does not necessarily represent the official, formal position of any of the partners’, including the European Commission (European Communities, 2003a to l, 2005a to d, 2007a to c, 2009a to g and 2011). Given the persistent ambiguities around the interpretation of the WFD’s governance and policy principles, one may wonder to which extent the offered room for manoeuvre may trigger or prevent changes in collective-choice rules for IRBM at the European, as well as the multilateral and domestic political levels. Section 4.3 continues with an analysis of the degree of changes in observed rules at the European political level (before and after adoption of the WFD).

4.3 The WFD and European rules of IRBM

The IRBM paradigm, as defined in the 1992 Helsinki Convention on the Protection and Use of Transboundary Watercourses and Lakes (UN-ECE, 1992), has been a central model in the negotiations on the WFD from the start (Saager, 2001). This section explores to which extent the IRBM paradigm, as translated into governance and policy principles within the official WFD text and as interpreted by the informal CIS guidance documents, triggers changes or continuation of collective-choice rules in the European water policies (sub-) domain. For the purpose of the analysis, the ideal-type rules as defined in Chapter 2 serve as a benchmark instrument to compare observations on the WFD drafting and negotiation period (from 1990 to December 2000) with those on the first WFD implementation planning cycle (from 2001 to December 2009).
4.3.1 Scope rules
As defined in Section 2.2.3, scope rules may concern the geographic area, the type of organisational structures and networks and the issues to be decided on. For the aim of this research a distinction is made between organisational and substantive scope rules. Concerning the former the focus is on the impact of hydrological boundaries on organisational structures/actor networks, whereas for the latter the focus is on the levels of integration. For example, are “river basins as the appropriate management units” translated into functional agencies and to which extent may these entities operate autonomously? Additionally, what are collective choices for internal integration (of issues within the water policy domain) and external integration (of issues across policy domains)? To what extent do these choices affect the nature of river basin legislation, policy documents and management plans?

Organisational scope: the impact of hydrological boundaries
The WFD emphasises (transboundary) river basin(s) (districts) as the appropriate units for integrated management of European groundwater and surface water resources (and related terrestrial ecosystems). River basin districts are defined as ‘the area of land and sea, made up of one or more neighbouring river basins together with their associated groundwaters and coastal waters, which is identified under Article 3(1) as the main unit for management of river basins’ (European Communities, 2000: 6). Article 3(4) legally binds the Member States to ‘ensure that the requirements of this Directive for the achievement of the environmental objectives established under Article 4 and in particular all programmes of measures are coordinated for the whole of the river basin district’ (ibid.: 8). Given sovereignty and subsidiarity, it is up to the individual Member States how to implement the WFD adequately and timely for (parts of) river basin districts within their territories. For coordination within international river basin districts, they may use existing organisational structures stemming from international agreements (ibid.). At the early proposal drafting stage, the EC attempted to enforce multilateral coordination committees. Due to opposition by the majority of Member States, Article 3 has become more voluntary in nature. Since the WFD neither provides for far reaching, legally binding specifications and common definitions, nor calls for supranational, autonomous authorities, it is up to the Member States how far they swim together.

The WFD advocates a switch to more sustainable, balanced and equitable water use by means of river basin management, predominantly based on hydrological boundaries. By organising water management administrations around hydrological units instead of existing political administrative boundaries, all water may be covered, independent of its political jurisdiction (Page and Kaika, 2003). As such, river basin management plans may become strong drivers for multilateral cooperation as well (ibid.). This notion of river basins as the appropriate units for water policy arrangements denies the (potential) mismatch with (a context of) more dominant political, economic and social system boundaries. Besides, especially multilateral coordination may be considered an Achilles heel, given Europe’s relatively weak supranational options. A close look at the WFD’s requirements for the programmes of measures (Article 11 and Annex VI; European Communities, 2000: 13 till 15 and 64-65) and the
river basin management plans (Article 13 and Annex VII; European Communities, 2000: 16 and 66-67) shows that the focus primarily is on measures within the authority of water policy and management administrations. Also the informal CIS guidance documents mainly focus on issues that are directly related to the management of groundwater and surface water, hence implicitly support the advocacy for (functional) water management units based on hydrological boundaries.

Article 13 of the official WFD text expresses the ambition to arrive at ‘single international river basin management plans’ for international river basin districts falling entirely within the European Community (European Communities, 2000: 16). ‘Where such an international river basin management plan is not produced, Member States shall produce river basin management plans covering at least those parts of the international river basin district falling within their territory to achieve the objectives of this Directive’ (ibid.). Article 4(8) of the formal WFD text emphasises interrelations across upstream, midstream and downstream water bodies with its implicit no-shift principle (European Communities, 2000: 11):

When applying paragraphs 3, 4, 5, 6 and 7, a Member State shall ensure that the application does not permanently exclude or compromise the achievement of the objectives of this Directive in other bodies of water within the same river basin district and is consistent with the implementation of other Community environmental legislation.

The CIS supports the call for integrated, cross-border river basin management plans. The Planning Process Guidance Document (European Communities, 2003k: 13-14) includes a range of possible planning types which reflect the visions of initiating (competent) authorities, from ‘plain rational-instrumental’ to ‘interactive with an open eye for the power of fundamental debate’. The former relates to a top-down problem definition by authorities in which implementation plans – as defined by public actors – follow ‘[..] a target-means rationality’. Private actors may participate during implementation (ibid.). Interactive planning types point at collaborative coalitions of public and private actors, who define the problems and take care of preparation and implementation of the plans. In this sense, ‘policy making means: on the basis of a powerful discourse, regrouping of actors and means with the aim of achieving certain targets (e.g. “water service”’)’ (European Communities, ibid.: 14). However, this guidance document stresses that ‘water planning has to be considered a systematic, integrative and iterative process to improve and support a sound management of water resources. It is not an objective of the WFD in itself’ (European Communities, 2003k: 9; italics added). The overall methodological approach should be tuned to specific regional and national circumstances and (long-established) planning traditions of the Member States (ibid.: 3, 10) and planning processes in other policy domains (ibid.: 9). Additionally ‘the different planning types can occur at the same time in a certain region’ (ibid.). Although the guidance document supports river basins as the appropriate (water resources) management unit, it points at likely spatial conflicts with other policy domains (European Communities, 2003k: 17): ‘By creating a spatial unit for water management, based on river basins, it is likely that spatial conflicts will occur with other policy
sectors that have a significant impact on water, but are structured along administrative and political boundaries.’

The observations point at ideal-type B collective-choice scope rules at the European level in the 1990 to 2009 period (see Table 4.2a). Both the WFD and the CIS advocate functional management coordination structures which follow (sub-) river basin boundaries. Given sovereignty and subsidiarity as prevailing governance principles, the European institutions are cautious not to express supranational ambitions; at least not explicitly. Instead, the emphasis is on (enforcement or creation of) multilateral and bilateral structures which are coordinated by public actors of involved Member States.

Table 4.2a: Ideal-type organisational IRBM scope rules (European level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
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<tbody>
<tr>
<td>A: Water policy is implemented by organisational structures and actor networks which are driven by social, economic and political factors that do not follow hydrological (river basin) boundaries. These structures/networks may be multi-purpose or sectoral in nature and are under parliamentary control.</td>
<td></td>
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<tr>
<td>B: Water policy is implemented by functional water agencies, committees and actor networks which follow hydrological (river basin) boundaries. These functional entities and actor networks are controlled by parliamentary institutions.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Water policy is implemented by autonomous (sub) river basin authorities and/or communities that are organised along hydrological boundaries. These authorities and communities are beyond parliamentary control and do have their own polity rules.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X.

There is no difference with the studied period before adoption of the WFD, which may not come as a surprise, since the WFD has been formulated in the spirit of the 1992 Helsinki Convention. Be aware that this analysis accounts for the water policy (sub-) domain. In the broader institutional context of European sector policies, river basins do not play a major role in planning and decision-making. For example, the major European funds mainly concentrate on (transnational) regions and agriculture. Environmental issues are included in some of the programmes within these funds without large influence on their overall structure (Dühr, Colomb and Nadin, 2010: 270-294 and 310-324). Incidentally, river basins do become visible in innovative transnational spatial planning and territorial cooperation initiatives, such as for the Baltic Sea and the Danube (Dühr, Colomb and Nadin, 2010: 226-227). Generally, within the European institutions, policy sector implementation coordination structures and networks are not driven by hydrological boundaries.
**Substantive scope: internal integration**

The official WFD text may be considered a strong formal trigger for integration of water-related issues within the water policy institutions (i.e., internal integration). Article 1 explicitly mentions surface water and groundwater, the protection of both territorial and marine waters, links protection of aquatic ecosystems to terrestrial ecosystems and wetlands and although not in depth, touches the field of anticipating floods and droughts (European Communities, 2000: 5-6). The primary aim of the WFD is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which thereby contributes to ‘the provision of the sufficient supply of good quality surface water and groundwater as needed for sustainable, balanced and equitable water use’ (ibid.). The focus is mainly ecological and hydrological, including water pricing instruments (Article 9; European Communities, 2000: 12-13) as a first step to bridge the worlds of water politics and economics.

According to Article 6 (European Communities, 2000: 12), Member States shall ensure the establishment of a register of ‘all areas lying within each river basin district which have been designated as requiring special protection under specific Community legislation for the protection of their surface water and groundwater or for the conservation of habitats and species directly depending on water’. Article 7 (European Communities, 2000: 12) mentions that groundwater bodies must be identified which are used or intended to be used for the abstraction of more than 10 m$^3$ of drinking water a day (or serving more than 50 persons) as an average. Groundwater bodies where abstraction takes place for other uses should be identified as well, but only when they cross the boundary between two or more Member States or when they are identified as being at risk or failing to meet the Article 4’s environmental objectives (ibid.).

In the CIS, the EC, the EU Water Directors of the Member States, national experts and interests groups further elaborate the WFD’s internal integration ambitions. All the CIS’ guidance documents include the same text box to emphasise integration as a key concept underlying the WFD (see Text Box 4.1). The guidance documents cover a broad array of issues from within the water policy domain and explicitly link these with economic and financial instruments. For cost-efficiency reasons (e.g. to limit the administrative implementation reporting burden) Member States shall identify surface water and groundwater bodies as reporting and compliance checking units through which the integration aspects should become noticeable (European Communities, 2003b: 2-3):

The “water body” should be a coherent subunit in the river basin (district) to which the environmental objectives of the directive must apply. Hence, the main purpose of identifying “water bodies” is to enable the status to be accurately described and compared to environmental objectives. [...] At the same time, an endless subdivision of water bodies should be avoided in order to reduce administrative burden if it does not fulfil any purpose as regards the proper implementation of the Directive. In addition, the aggregation of water bodies may, under certain circumstances, also help to reduce meaningless administrative burden, in particular for smaller water bodies.
Text Box 4.1: Integration: a key concept underlying the Water Framework Directive (European Communities, 2003a to l, 2005a to d, 2007a to c, 2009a till g and 2011; original emphasis)

The central concept to the Water Framework Directive is the concept of integration that is seen as key to the management of water protection within the river basin district:

- Integration of environmental objectives, combining quality, ecological and quantity objectives for protecting highly valuable aquatic ecosystems and ensuring a general “good” status of other waters;
- Integration of all water resources, combining fresh surface water and groundwater bodies, wetlands, coastal water resources at the river basin scale;
- Integration of all water uses, functions and values into a common policy framework, i.e. investigating water for the environment, water for health and human consumption, water for economic sectors, transport, leisure, water as social good;
- Integration of disciplines, analyses and expertise, combining hydrology, hydraulics, ecology, chemistry, soil sciences, technology, engineering and economics to assess current pressures and impacts on water resources and identify measures for achieving the environmental objectives of the Directive in the most cost-effective manner;
- Integration of water legislation into a common and coherent framework. The requirements of some old water legislation (e.g. the Freshwater Fish Directive) have been reformulated in the Water Framework Directive to meet modern ecological thinking. After a transitional period, these old Directives will be repealed. Other pieces of legislation (e.g. the Nitrates Directive and the Urban Wastewater Treatment Directive) must be coordinated in river basin management plans where they form the basis of the programmes of measures;
- Integration of all significant management and ecological aspects relevant to sustainable river basin planning including those which are beyond the scope of the Water Framework Directive such as flood protection and prevention;
- Integration of a wide range of measures, including pricing and economic and financial instruments, in a common management approach for achieving the environmental objectives of the Directive. Programmes of measures are defined in River Basin Management Plans developed for each river basin district;
- Integration of stakeholders and civil society in decision making, by promoting transparency and making information accessible to the public and by offering an unique opportunity for involving stakeholders in the development of river basin management plans;
- Integration of different decision-making levels that influence water resources and water status (these could be at local, regional or national level), for an effective management of all waters;
- Integration of water management by different Member States, for river basins shared by several countries, existing and/or future Member States of the European Union.

The analysis of the CIS documents shows that despite the WFD’s detailed delineation criteria, Member States have different views on the interpretation and consequently practical application of the term water body. In their aim for harmonisation and
developing common understanding of the definition, the EC and the EU Water Directors struggle with a subsidiarity dilemma. On the one hand Guidance Document 2 (‘Identification of water bodies’; European Communities, 2003b) offers room for a pragmatic, flexible and iterative approach by referral to to a diversity of specific regional and national circumstances within the European Union. On the other hand the guidance document makes clear that the identification of water bodies must be consistent and coordinated within a river basin district. In particular, international river basin districts need to develop common approaches for the whole river basin (ibid.). ‘In the end, it is a matter for Member States to decide on the basis of the characteristics of each River Basin District.’ (ibid.: 9) Furthermore, ‘the scale chosen for a particular “water body” will have influence on the management of active involvement of stakeholders and the public’ (ibid.: 10). The question whether an element of surface water is significant regarding the WFD’s objectives leaves domestic interpretation room.

The inclusion of groundwater bodies adds to the complexity of the integration ambitions, since they are more difficult to delineate. Their boundaries do not easily match hydrological surface water boundaries. Furthermore, the nature of the chosen water bodies system invites ambiguity, since the narrow focus on major water systems may hinder the more comprehensive river basin management philosophy in which relations between smaller and bigger water systems (internal integration) and between water systems, spatial development processes and socio-economic systems (cross-sector integration) are central. In this respect the WFD seems to be caught within the water policy (sub-) domain since it provides no explicit objectives and rules on cross-sector integration, although does mention the importance of it. Van Rijkswick and Havekes, 2012: 104) argue that, given the existence of daughter directives and a number of prior water-related directives that remain in force, ‘it would therefore be incorrect to describe the WFD as a fully integrated approach’.

This research denotes a predominant WFD focus on internal integration arrangements. In principle, the Directive concerns all groundwater and surface waters in Europe, both qualitatively and quantitatively. According to some Dutch officials and experts, the WFD has become far too thick for a general framework. Water quantity issues (like flood prevention and management) are insufficiently included and the Directive includes cross-reference errors, due to the large number of (partly incoherent) amendments by the EP (Melis and Boudewijn, 2002; Interviews 40 and 53, Appendix I). Criticizers mention an integration deficit given the too one-sided attention towards water quality issues. Both Saager (2001) and Saeijs (2006) argue that, due to required unanimity of votes for water quantity issues (rule in the 1992 Maastricht Treaty), the EC considered a short term political agreement on a water framework directive, fully including water quantity issues, unfeasible. However, WFD’s Article 1 opens the (back) door to water quantity issues in offering a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which, amongst other purposes, ‘contributes to mitigating the effects of floods and droughts’ (European Communities, 2000: 5).

In the course of the CIS, the EC and the EU Water Directors agree on the added value of EU activities on flood prevention and protection. The Water Directors accept inclusion of the marine strategy in their mandate. Although they mention the potential
impact of climate change, the Water Directors do not address explicit activities on this issue until June 2007. The Water Directors welcome an initiative on droughts, given the negative impact of water shortages in the summer of 2003. The observations point at an evolution from ideal-type A rules towards ideal-type B rules (see Table 4.2b). The WFD clearly marks the beginning of a third wave of European water policy in which internal integration tendencies are enforced (as introduced in Subsection 4.2.1). The internal integration exercise has not been completed yet by adoption of the WFD. Although the significance of relations between surface water and groundwater bodies is mentioned in the WFD, no rules are provided for integrated environmental objectives for (the management of) related surface and groundwater bodies. Besides, more detailed rules for the management of groundwater bodies have been concluded seven years later, with the adoption of the parallel, though closely related, Groundwater Directive (European Union, 2006).

Table 4.2b: Ideal-type internal integration rules of IRBM (European level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate legislation, policy documents and management plans for both water quality and quantity issues. Surface water and groundwater are dealt with in parallel.</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>B: Legislation, policy documents and management plans which include parallel objectives and measures for both quantitative and qualitative aspects and for groundwater and surface water.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>C: Legislation, policy documents and management plans with integrated objectives and measures for related surface and groundwater bodies, including quantitative and qualitative aspects.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’. The ‘x’ points at a reduced resemblance of the observations with ideal-type A rules after adoption of the WFD.

**Substantive scope: external integration**

Whereas the WFD explicitly focuses on internal integration issues, by means of detailed Articles and the integration text box in the CIS guidance documents, referral to cross-sector integration is more implicit and in generic wording. For example, the WFD’s Preamble expresses the importance of ‘further integration of protection and sustainable management of water into other Community policy areas such as energy, transport, agriculture, fisheries, regional policy and tourism’ (European Communities, 2000: 2). The directive is mentioned as a ‘basis for a continued dialogue and for the development of strategies towards a further integration of policy areas’ and ‘can also make an important contribution to other areas of cooperation between Member States, *inter alia*, the European spatial development perspective (ESDP)*’ (ibid.). Despite these argumentations, the WFD does not include explicit arrangements for cross-sector policies making and integration. Coordination talks between the EU Water Directors, DG Environment and other DGs on water and agriculture and
water and regional development, do not alter the predominant emphasis within the CIS on internal integration issues. At the end of 2009, the cross-sector integration intentions are not translated yet into strong incentives for opening up the water policy box and salient internalisation of wet elements into other policy domains.

Parallel to the WFD drafting and negotiation process, a European spatial development approach has been considered as a method of securing ‘convergence and coordination between various sectoral policies’ (which may have spatial impacts) through a territorial development strategy (Commission of the European Communities, 1998b: 7). Due to sovereignty and subsidiarity, several Member States have resisted (and prevented) spatial development to become a formal objective of the European Union (Dühr, Colomb and Nadin, 2010). To a large extent, the European Spatial Development Perspective has been influenced by traditions and spatial planning approaches by France and the Netherlands (ibid.). A comparison by the European Commission implicitly points at the cross-sector integration challenge: in all EU countries planning is just one sector of government activity that rarely has any special influence over the activities of other departments other than the competence to regulate physical development. It is often a relatively weak sector (Commission of the European Communities, 1997c).

Statement 47 of the WFD’s Preamble expresses the cross-sector integration intentions while cryptically pointing at the limited authority of DG Environment: ‘This Directive should provide mechanisms to address obstacles to progress in improving water status when these fall outside the scope of Community water legislation, with a view to developing appropriate Community strategies for overcoming them’ (European Communities, 2000: 5). Interpreted more positively, this statement may open up windows for cross-sector initiatives. Van Rijswick and Havekes (2012: 103) argue that one consequence of the broad nature of the WFD’s overall objectives (as expressed by Article 1; European Communities, 2000: 5-6) is, ‘that the relationship with other policy areas becomes particularly apparent’. In conclusion, current practices at the European level point at dominance of ideal-type B collective rules for external integration (see Table 4.2c) such as cross-sector compliance checks and inter-services consultations.

Table 4.2c: Ideal-type external integration rules of IRBM (European level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate legislation, policy documents and management plans for water policy and other policy domains without linkages.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Legislation, policy documents and management plans for other policy domains take into account water issues and reversely.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Cross-sector, integrative policies and management plans.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X’.

For example, both the 1992 Maastricht Treaty (European Communities, 1992a) and the 1997 Amsterdam Treaty (European Communities, 1997), explicitly include
integration of environmental aspects into all EU policies as one of the common priorities (framed as Environmental Policy Integration (EPI); Jordan and Schout, 2006). However, given a formal divide in sector competencies, the European institutions do not aim for integrative policies documents that cover issues of different directorate-generals at once. Instead, individual documents per directorate-general dominate the scene. Additionally, during the CIS neither DG Environment nor the the EU Water Directors are able to provide for strong triggers for cross-sector arrangements.

4.3.2 Position Rules
As introduced in Subsection 2.2.4, within the context of this research, position rules relate to the question as to how do collective (inter-)national river basin governance and policy principles affect the positions of owners and users of water and land. Or reversely, which conditions should apply to acquisition, continuation and termination of rights to own and/or use (interrelated) water and land resources, in order to comply with common principles of ecological, social and economic resilience? Three ideal-types of collective position rules have been distinguished (see Table 4.3).

The WFD’s Article 1 relates sustainability to ‘a balanced and equitable water use’ (European Communities, 2000: 6). The Preamble mentions that “This Directive should provide for such a [overall] framework [of action] and coordinate and integrate and, in a longer perspective, further develop the overall principles and structures for protection and sustainable use of water in the Community in accordance with the principles of subsidiarity” (ibid.: 2). The official WFD text offers a rich mixture of phrases that may be interpreted as a diversity of paradigms with regard to sustainability and from which the ambiguous nature of the directive becomes readable (see also Table 1.2 in Section 1.3). For example, water is both mentioned as a common pool resource and as an economic good. Sustainability has several connotations: people, planet and profit; ecological economics, goods and services of ecosystems; conventional economics, public interests determine environmental protection ambitions; conventional ecology; and sustainable human development activities. Both the official WFD text and the CIS guidance documents do not include specific notions on translation of these sustainability views into domestic property and user rights systems.

Meijerink and Wiering (2009) mention an ecosystem oriented interpretation of the integrated river basin management paradigm as predominant in the WFD. Scrutiny of the WFD’s text shows that, obviously, this interpretation is ambiguous in nature. Whereas the Preamble (1) addresses water as a common pool resource, Article 4.3 protects a number of human activities which are labelled as sustainable, but at the same time may be the reason for the directive’s existence. Navigation, recreation, water storage (for drinking water supply, power generation or irrigation), water regulation, flood protection and land drainage are not sustainable by definition and may cause detrimental effects on the state and functioning of aquatic (and related terrestrial) ecosystems. The statement of the EU Water Directors on the future of Europe’s Water Policy (European Water Directors, 2005: 1-2) expresses that, although the WFD mentions both maintenance of human uses and compliance with
environmental objectives, it provides no clear messages on interlinkages and rules of the game in order to actually be able to meet both at the same time (italics added):

The results of this first comprehensive [Article 5] characterisation were encouraging and challenging at the same time. On the one hand, the success rate demonstrated that the implementation of the WFD can be done in time and the reports constitute an essential basis for integrated and sustainable water management. On the other hand, the results of the analysis clearly demonstrated that there is a wide range of issues that need to be addressed in order to maintain not only the [human] uses but also to enable the achievement of the WFD objectives within the timetable foreseen.

The introduction of water pricing instruments aims at sustainable, balanced and equitable water use. These instruments are an attempt to link economic efficiency with social equity and ecological resilience, hence offer potential for an evolution towards ecological economics (as defined by Costanza, 1991). Considering water as a common pool resource means effects of human activities remain within bounds, so as not to destroy the diversity, complexity and function of the ecological life support system (ibid.). Considering water as a common pool resource, the EP proposed to start the Preamble with the statement that ‘water is not a commercial product like any other but instead is a part of Europe’s heritage which belongs to the peoples of the European Union and ought, therefore to be protected’ (Kaika and Page, 2003: 320). In the summer of 1999, remarkably the EC opposed inclusion of this statement. This objection has been indicative of the shift within the Commission ‘towards giving high priority to the idea of water as an economic good and subsequently to water pricing as a key tool for environmental protection’ (ibid.; Kaika, 2003).

For a framework, the WFD includes very detailed technical prescriptions and the EC’s prior strive for a directive on ecological standards still is visible in the environmental objectives (Article 4; European Communities, 2000: 9-11). However, economic interests also survived in the same Article’s 4 “escape” options on implementation time extensions (Article 4.4), on lowering objectives (Article 4.5) and on allowing new water system modifications (Article 4.7). So far, the European institutions have opted for a middle of the road position where planet, people and profit gather, without providing explicit clues on their interlinkages.

The observations in this research point at ideal-type B position rules at the European level (see Table 4.3). One may argue that it is not appropriate to fill in this table at the European political level, since the European institutions have no formal authority to interfere in the domestic user and property right systems. However, there is an indirect influence, such as whenever implementation of European environmental governance and policy principles actually requires changes by Member States in land and water uses patterns within the delineated European regions. Furthermore, think about the impact of European policies and related funds that guide food production and rural development. For example, the CAP initially was highly protectionist and interventionist (Fouilleux, 2010). In the context of the post-1945 food shortages, the reconstruction ambitions and the security concerns of the Cold War, it aimed for
increasing productivity and achieving European self-sufficiency. The principle of guaranteed prices for agricultural products triggered large-scale (over-)production. Due to the international trade negotiations, the sustainable development discourse and the increased participation and influence of environmental activists, subsequent CAP reforms paved the way for inclusion of social and environmental externalities (ibid.). Since the 1999 CAP reform internalisation of these externalities is aimed for by the rural development policy (as the so-called second pillar of the CAP; European Communities, 1999).

As described in Subsection 4.2.1, the European environmental policy domain has evolved from concerns to overcome trade barriers and competitive distortions only into its own institutions. Gradually, integration of environmental objectives into other policy sectors has become one of the European priorities (see also the examination of the EU’s environmental credentials by Burchell and Lightfoot, 2001). Against this historical background, it is apparently logical that the WFD and the CIS documents include notions on economic valuation and political weighing of social, economic and environmental externalities. Together with generic cross-compliance rules, these notions indicate that property and user rights are not unconditioned with respect to social, economic and environmental externalities.

Table 4.3: Ideal-type collective-choice IRBM position rules at the European level

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Protection of prior water and land resources use and property rights without preconditions on environmental, social and economic externalities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Conditional maintenance and acquirement of water and land resources use and property rights. Conditions include requirements to internalise social, economic and/or environmental externalities.</td>
<td></td>
<td>( \times )</td>
</tr>
<tr>
<td>C: Reallocation of use and property rights, based on interrelated conditions of ecological, economical and social resilience.</td>
<td></td>
<td>( \times )</td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘\( \times \)’.

4.3.3 Boundary rules

As defined in Subsection 2.2.5, in the context of this research, boundary rules are interpreted as who has access to the river basin management planning process and who has not? What are conditions for entry and exit? What are the degrees of participation for different stakeholder categories? Three ideal-types of boundary rules have been distinguished (see Table 4.5).

The WFD has been drafted and negotiated in the period when the European institutions, in their White Paper on European Governance, acknowledged that many Europeans were losing confidence in the ‘poorly understood and complex system to deliver policies that they want’ (Commission of the European Communities, 2001: 3). As a medicine, the White Paper introduces five principles of good governance: openness, participation, accountability, effectiveness and coherence. The WFD’s Article 14 should be understood as expression of the participation principle (ibid.: 10):
The quality, relevance and effectiveness of EU policies depend on ensuring wide participation throughout the policy chain – from conception to implementation. Improved participation is likely to create more confidence in the end result and in the Institutions which deliver policies. Participation crucially depends on central governments following an inclusive approach when developing and implementing EU policies.

The White Paper does not provide detailed arrangements for neither ‘ensuring wide participation throughout the policy chain’, nor ‘an inclusive approach’. Proportionality and subsidiarity, open communication and easy access to transparent information, interactive planning processes, multi-level partnerships and voluntary agreements, expert advice, a stronger culture of consultation, dialogue, evaluation and feedback are considered key-elements (Commission on the European Communities, 2001).

The WFD’s Article 14, albeit in different wording, echoes the tenth principle of the ‘Rio Declaration on Environment and Development’, which expresses the rationale for public participation in environmental decisions (United Nations, 1992a: 5):

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

Agenda 21 adds that public actors ‘should establish innovative procedures, programmes, projects and services that facilitate and encourage the active participation of those affected in the decision-making and implementation process’ (United Nations, 1992b: 88-89). The participation principle has been further institutionalised by the adoption of the Aarhus ‘Convention on access to information, public participation in decision-making and access to justice in environmental matters’ (UN-ECE, 1998). The ‘encourage the active involvement of all interested parties’ wording in the WFD’s Article 14 seems to be taken from Agenda 21, although its implications do not become clear. Actually, the wording is rather confusing with regard to the provisions in the article. The title of Article 14 better covers the content of the article which mainly focuses on formal procedures for ‘public information and consultation’ on three written products in the river basin management planning process, i.e. a timetable and work programme for production of the plan, an interim overview of the significant water management issues identified in the river basin and draft copies of the river basin management plan (European Communities, 2000: 16).

Why the WFD’s Article 14 includes the ‘active involvement’ wording? Should it be interpreted as an implicit attempt to go beyond formal information and consultation procedures? The related informal Guidance Document n° 8 on Public Participation (European Communities, 2003h) suggests larger ambitions, since it reflects a
broad range of participation literature and methods, from one-way information towards interactive planning and social learning. As they have to comply with the subsidiarity and sovereignty principles however, European policy makers are very cautious not to affect any domestic arrangements. They stay close to Article 14 but also offer room for implementation differences by stressing that the public participation process shall be organised and adapted to particular national, regional and local circumstances (European Communities, 2003h). Nonetheless, the guidance document cautiously goes beyond the ambition of Article 14, when it mentions that ‘encouraging the first [participation in the development and implementation of plans] should be considered the core requirement for active involvement. The latter two forms [shared decision-making and self-determination] are not specifically required by the Directive but may often be considered as best practice’ (ibid.: 20).

Early 1998 the European Commission decides to directly involve environmental NGOs in the process of amending the draft WFD, but without clarifying the legal and institutional status of their involvement (Scheuer, 2001). However, these actors had important early access to draft legislation and to key civil servants at the Commission (Kaika and Page, 2003). DG Environment and the EU Water Directors point at the importance of continuation of the ‘unprecedented open coordination’ which has led to the adoption of the WFD (Common Implementation Strategy, 2001: 2):

There was a strong support to a continuation of this unprecedented open cooperation on implementation issues, which have traditionally been dealt with individually by Member States and without the active involvement of the Commission. An open and transparent process is necessary as part of a new partnership working method and to ensure a maximum of efficiency for the implementation process.

Furthermore, the cooperation should go beyond the horizon of public actors. From the start of the CIS, both the EC and the EU Water Directors of the Member States consider stakeholder involvement highly important. ‘The basic idea is to promote an open, clear exchange of views and concerns between all the parties directly responsible for the implementation of the framework directive and the ones who will be interested or affected by it.’ (Common Implementation Strategy, 2001: 14-15) With Candidate Countries (for entry to the European Union), back-to-back meetings with the EU Water Directors meetings are organised. Water is considered a key issue in the context of accession from institutional, technical and financial points of view.

In November 2001, selection criteria are chosen for active involvement of interests groups and NGOs in the CIS (Common Implementation Strategy, 2003a). A distinction is made between ‘level 1 organisations’ (with participation rights) and ‘level 2 organisations’ (with information rights only). First level organisations have observer rights for meetings of the Strategic Coordination Group (SCG; that prepares the meetings of the EU Water Directors and the EC) and can nominate experts to participate in working groups and/or pilot river basin projects (i.e. (trans-) national projects which aim to test the guidance documents for their practical feasibility). A level 1 organisation is a European umbrella organisation of national or regional organisations, has a specific profile with regard to community water policy and has demonstrated its
policy profile and relevance in the past (ibid.). Level 2 organisations are those organisations that do not fully meet all level 1 criteria. These organisations are not allowed to participate in the SCG meetings, but they have full access to the (WFD part of) CIRCA (= Communication and Information Resources Centre Administrator (http://circa.europe.eu), a virtual, collaborative workspace for actors and partners of the European institutions). In addition, they may provide written contributions indirectly via their representatives in the SCG and/or directly to EC officials. In any case, interest groups and NGOs are not allowed to attend the meetings of the EU Water Directors.

Based on the selection criteria, the EC and the respective working group leaders decide who is in and who is out and inform the SCG about the decisions (Common Implementation Strategy, 2003a). For efficiency reasons, the number of organisations that may attend the SCG meetings is limited to a maximum of 35. Organisations are grouped in thematic clusters of similar interests, for which a maximum number of seats are agreed (see Table 4.4 for the division of seats). Participating in the SCG meeting implies that stakeholders get organised in such a way that the maximum number of seats for each meeting are not exceeded. A meeting attendant may also bring in the points of other stakeholders whenever a certain overlap of interests exists. Appendix VII shows an overview of the accepted organisations and their level of involvement. In a letter to the then Swedish Chair of the SCG, the European Environmental Bureau (EEB) expresses its sincere support for the proposed strategy for participation of NGOs in the CIS (Hey, 2001). For efficiency reasons (available human and financial resources) the EEB considers attendance of the meetings of the SCG as most appropriate (ibid.). At the end of the first WFD implementation planning cycle, the EEB/WWF coalition concludes that the WFD implementation process is strong in ‘starting a reform process, by working across borders and engaging organised groups’ (Scheuer, 2009: 4).

<table>
<thead>
<tr>
<th>Stakeholder category</th>
<th>Maximum number of reserved seats in the Strategic Coordination Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture:</td>
<td>3</td>
</tr>
<tr>
<td>Energy:</td>
<td>3</td>
</tr>
<tr>
<td>Industry:</td>
<td>3</td>
</tr>
<tr>
<td>Navigation:</td>
<td>3</td>
</tr>
<tr>
<td>Water supply and waste water:</td>
<td>3</td>
</tr>
<tr>
<td>Environmental NGOs:</td>
<td>6</td>
</tr>
<tr>
<td>Other NGOs (legitimate uses of water):</td>
<td>4</td>
</tr>
<tr>
<td>International governmental organisations:</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total →</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

The options for active stakeholder involvement also concern the highly influential Expert Advisory Forums (EAFs). For these platforms, that discuss complicated
technical issues and prepare proposals for daughter directives of the WFD, the EC refers to the spirit of open consultation and involvement that was employed in the preparations of the proposal for the WFD and the proposal for a list of priority substances. The EC views the EAF as Consultative Forums in which multiple stakeholders may participate, including actors in Member States, NGOs, outside experts, representatives of socio-economic interests groups and members of the EP.

As expressed yet in Subsection 4.2.2, the WFD has been formulated and adopted in an era in which there were calls and initiatives to both enlarge access to and increase transparency of the European institutions. As a part of this evolution, the WFD drafting process has been the first example within the European environmental policy domain in which the EC’s DG Environment has (further) widened its windows to private and civil actors. However, public actors at the European and domestic levels condition the access rules and degrees of stakeholder involvement. In the CIS the public actors continue with the prior boundary rules. These observations point at ideal-type B collective-choice boundary rules during the 1990 to 2009 period (see Table 4.5).

Table 4.5: Ideal-type IRBM boundary rules at the European level

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Access to the river basin management planning process is restricted to public actors only. Other stakeholders are informed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Non-governmental actors may have access to the river basin management planning process under conditions set by the public actors. Emphasis lies on co-thinking and consultation.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Ample opportunities for all interested stakeholders to join the river basin management planning process, including co-productions, co-decisions and self-realisation.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X’.

4.3.4 Choice rules
As introduced in Section 2.2.6, for the aim of this research, two indicators for observation of choice rules change have been defined. The first indicator concerns water supply and demand rules. Three ideal-types have been identified for this indicator, ranging from a focus on water supply only to integrated demand and supply management, in which a hierarchy of functions applies, as conditioned by fresh water availability and protection of the ecological life support system (see Table 4.6a). The second indicator expresses the nature of license system. Ideal-types range from separate, parallel licenses for quality and quantity objectives for the development, management and use of water resources, towards licenses integrated licenses for interdependent natural resources (including water; see Table 4.6b).
Supply and demand management

With regard to supply and demand management, ambiguities in the European approach become noticeable from the Preamble in the official WFD text (European Communities, 2000: 1-5). In its fourth statement, the EP and the Council of Environment Ministers notify that water resources in the Community are under increasing pressure from the continuous growth in demand for sufficient quantities of good quality water for all purposes. The supply of fresh water is acknowledged as a service of general interest in Europe (statement 15). Furthermore statement 23 points at the need for common principles to promote sustainable water use and statement 24 mentions that good water quality is important to secure the drinking water supply for the population. For recovery of the costs of water services, an economic analysis of water services will be necessary, based on long-term forecasts of supply and demand for water in the river basin district (statement 38). Remarkably the WFD’s main text fails to mention demand management, while supply of fresh water is emphasised as a general interest service. However, its Annex VI mentions the option of demand management in the list of supplementary measures which Member States may choose from (European Communities, 2000: 64).

Article 1 of the WFD (European Communities, 2000: 5) mentions the promotion of ‘sustainable water use based on a long-term protection of available water resources’ among the main purposes of the WFD. It also points at ‘the provision of the sufficient supply of good quality surface water and groundwater as needed for sustainable, balanced and equitable water use’ (ibid.: 6). The WFD does not provide a more detailed definition of ‘sustainable, balanced and equitable water use’ which opens the door to interpretation differences. Furthermore Article 1 includes protection and enhancement of ‘the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems’ among the WFD’s main purposes (European Communities, 2000: 5). The Directive is not entirely clear how to guide political choices with regard to the interrelations between sustainable water use and ecosystem protection. For example, the WFD’s core Article 4 predominantly focuses at detailed requirements for the chemical and ecological state of surface water bodies and the quantitative and chemical state of groundwater bodies. Although Article 8.1(i) of the WFD prescribes monitoring of ‘the volume and level or rate of flow’ of surface water ‘to the extent relevant for ecological and chemical status and ecological potential’ (European Communities, 2000: 12), its environmental objectives do not include quantitative criteria for surface water bodies.

Part of the explanation for the ambiguity in the WFD’s general and environmental objectives is the political sensitive nature of water quantity issues at the European level. The wording of the Preamble’s statement 19 may be interpreted as a cautious attempt to take water quantity issues on board (European Communities, 2000: 2; italics added):

This purpose [improving the aquatic environment] is primarily concerned with the quality of the waters concerned. Control of quantity is an ancillary element in securing good water quality and therefore measures on quantity, serving the objective of ensuring good quality, should also be established.
A similar attempt becomes noticeable from the ‘contributes to mitigating the effects of floods and droughts’ wording in Article 1 (European Communities, 2000: 5). Van Rijswick and Havekes (2012: 358) argue that ‘the WFD does not yet provide for concrete rules on water use or allocation during shortages or threshold values in times of drought’. They advise to include a ‘good quantitative surface water status’ in the environmental objectives of Article 4 in relation to limitation of water shortages (ibid.: 361). At the time of adoption of the WFD a ply for overall principles has been the maximum political compromise possible, as expressed by Statement 41 of the Preamble (European Communities, 2000: 4; italics added):

For water quantity, overall principles should be laid down for control on abstraction and impoundment in order to ensure the environmental sustainability of the affected water systems.

With regard to supply and demand management, Member States shall include the following ‘basic measures’ in their programmes of measures (Article 11(3); European Communities, 2000: 14):

(c) measures to promote an efficient and sustainable water use in order to avoid compromising the achievement of the objectives specified in Article 4;
(e) controls over the abstraction of fresh surface water and groundwater and impoundment of fresh surface water, including a register or registers of water abstractions and a requirement of prior authorisation for abstraction and impoundment. These controls shall be periodically reviewed and, where necessary, updated. Member States can exempt from these controls, abstractions or impoundments which have no significant impact on water status;
(f) controls, including a requirement for prior authorisation of artificial recharge or augmentation of groundwater bodies. The water used may be derived from any surface water or groundwater, provided that the use of the source does not compromise the achievement of the environmental objectives established for the source or the recharged or augmented body of groundwater. These controls shall be periodically reviewed and, where necessary, updated;

Given the political sensitivity as related to the importance of water supply for socio-economic development and the lack of supranational authority of the European institutions on the issue, before adoption of the WFD, the EU had no common policy on fresh water supply and demand management. At a meeting of the European Water Partnership, the Executive Director of the European Environment Agency argues that too often responses of national and regional governments around Europe to limited availability of water resources have shown investments in ‘unsustainable projects such as bigger and more reservoirs, water transfers and desalination plants’ (McGlade, 2008). Instead of crises management by supply management, these public actors must take action to reduce water demand (ibid.). The WFD, albeit cautiously and circumvented by ambiguity, has taken on board notions of both demand management and supply management without providing rules with regard to their interlinkages. Although the WFD includes notions on the interdependencies between quality and
quantity, an explicit and clear European common perspective on integrated demand- and-supply management seems beyond its horizon.

Triggered by figures on increased suffering from droughts between 1976 and 2006, the widespread droughts event of 2003, the climate change debates and the WFD’s integration discourse, the EC sends a communication to the EP and the Council ‘addressing the challenge of water scarcity and droughts in the European Union (Commission of the European Communities, 2007c). It mentions full implementation of the WFD as ‘a priority in order to address mismanagement of water resources’ (ibid.: 3). The communication marks a discursive evolution towards a strategy for integrated fresh water supply and demand management (ibid.: 4; original emphasis):

Water saving must become the priority and all possibilities to improve water efficiency must therefore be explored. Policy making should be based on a clear water hierarchy. Additional water supply infrastructures should be considered as an option when other options have been exhausted, including effective water pricing policy and cost-effective alternatives. Water uses should also be prioritised: it is clear that public water supply should always be the overriding priority to ensure access to adequate water provision.

In conclusion, the observations point at an evolution from ideal-type A rules before adoption of the WFD towards ideal-type B collective choice rules on supply and demand management afterwards (see Table 4.6a). The European strategy for water scarcity and droughts, for which the WFD’s integration discourse is among the important triggers, expresses the need for more integrated supply and demand rules (ideal-type C). However, the strategy ‘opt for legislation at the level of the Member States and not at EU level’ (Van Rijswick and Havekes, 2012: 357). As such the water scarcity discourse goes beyond the WFD’s rules for supply and demand management.

Table 4.6a: Ideal-type IRBM choice rules (supply and demand; European level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Water supply management determines availability of fresh water for user functions.</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>B: Mixed supply and demand management determines fresh water availability without a hierarchy in user functions.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>C: Integrated supply and demand management, as expressed by a hierarchy in user functions.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’. The ‘x’ points at a reduced resemblance of the observations with ideal-type A rules after adoption of the WFD.

**Nature of the licence system**

Given the previous analysis of wording on supply and demand management and the wording of the internal integration part of subsection 4.3.1 (scope rules), it may not come as a surprise that there is no European legislation on water quantity licensing.
Within this context the WFD also strictly focuses on water quality as a shared competency of the European institutions and the Member States (again see statement 19 of the WFD’s Preamble; European Communities, 2000: 2). Statement 34 of the Preamble may be interpreted as another attempt for integration, for it points at ‘a need for a greater integration of qualitative and quantitative aspects of both surface waters and groundwaters, taking into account the natural flow conditions of water within the hydrological cycle’ for the purposes of environmental protection (ibid.: 4). Statement 40 of the Preamble (ibid.: 4) introduces a combined approach with regard to pollution prevention and control (as continuation of prior European water policies on integrated pollution prevention and control), i.e. control of pollution at source through the setting of emission limit values and environmental quality standards. Additionally, common environmental quality standards and emission limit values for certain groups or families of pollutants should be laid down as minimum requirements in Community legislation (Statement 41; ibid.). According to Statement 42, pollution through the discharge, emission or loss of priority hazardous substances must cease or be phased out (ibid.). The WFD aims ‘to achieve a level of protection of waters at least equivalent to that provided in certain earlier acts, which therefore should be repealed once the relevant provisions of this Directive have been fully implemented’ (Statement 51; ibid.: 5).

With sovereignty and subsidiarity as central governance principles, it is up to the Member States as to how to implement the common European principles for qualitative and quantitative protection of Community waters. On the one hand, the WFD does not include explicit prescriptions for the nature of the domestic licences systems for water-related activities and for obvious political reasons predominantly focuses on quality objectives. On the other hand the WFD’s statement that ‘control of quantity is an ancillary element in securing good water quality’ is clear about the interdependencies with regard to water resources. Its inclusion may be interpreted as an implicitly for a more integrated legislative approach, similar to the explicit combined approach for water quality and emission standards. In this context, it is illustrative that the integration box in the informal guidance documents refers to the need for a more integrated and coherent legislative framework for water (although without further specification).

These observations point at an evolution from ideal-type A rules (between 1990 and 2000) towards ideal-type B rules (between 2001 and 2009; see Table 4.6b). Besides by discursive statements about the relevancy of a more integrated legislative approach, this evolution becomes noticeable most clearly in the requirements for the programme of measures. Subarticles 11(3e) and 11(3f) prescribe authorisation and control systems with regard to respectively abstraction and impoundment of fresh surface water and groundwater bodies and artificial recharge and augmentation of groundwater bodies, as related to significant impact on water status (European Communities, 2000: 14).
Table 4.6b: Ideal-type IRBM choice rules (licence system’s nature; European level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate, parallel licences for quality and quantity objectives related to development, management and use of water resources.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Licenses that integrate quantity and quality objectives related to development, management and use of water resources.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>C: Integrated licences for interrelated development, management and use of natural resources (e.g. air, water, land).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’. The ‘x’ points at a reduced resemblance of the observations with ideal-type A rules after adoption of the WFD.

4.3.5 Aggregation rules

As defined in Section 2.2.7 a major challenge of IRBM concerns how to arrange decision-making at interrelated political levels within shared (inter)national river basins with the aim to reach common understanding and broad public support for collective-choice rules. The aggregation rules may appear in different ways, as expressed by the identified ideal-types (see Table 4.7). The aggregation question ‘who should make and who should agree with adaptations of prior rules and with new rules?’ shows redundancy with boundary rules. For the purpose of this research, the question who is involved in planning and decision-making and to which degree (e.g. information, consultation and co-decision) is covered under boundary rules (see Subsection 4.3.3). The aggregation rules concentrate on the coherence between and the nature of decision-making rules at different administrative levels within a river basin.

The official WFD text clearly embraces calls in the broader social and political context for more transparency, better access to environmental information and opportunities for (active) participation of non-governmental stakeholders. The Preamble’s Statement 14 stresses that ‘the success of this Directive relies on close cooperation and coherent action at Community, Member State and local level as well as on information, consultation and involvement of the public, including users’ (European Communities, 2000: 2). Statement 46 adds that ‘to ensure the participation of the general public including users of water in the establishment and updating of river basin management plans, it is necessary to provide proper information of planned measures and to report on progress with their implementation with a view to the involvement of the general public before final decisions on the necessary measures are adopted’ (ibid.: 5). WFD’s Article 14 seems to be contradictory in nature, perhaps due to the delicate political drafting and negotiation process. Although its Subarticle 1 starts with ‘Member States shall encourage the active involvement of all interested parties in the implementation of this Directive, in particular in the production, review and updating of the river basin management plans’, what follows is more consistent with the Article’s title, i.e. public information and consultation (European Communities, 2000: 16). Subarticle 2 expresess that written comments to documents that are
made available by the Member States (i.e. a timetable and work programme for the production of a river basin management plan; an interim overview of the significant water management issues identified in the river basin; and draft copies of the river basin management plan), are a prerequisite ‘to allow active involvement and consultation’ (European Communities, 2000: 16). However, Article 14 does not further specify active involvement, such as with regard to aggregation rules.

Subsection 4.2.2 has showed that, due to the co-decision procedure of the Amsterdam Treaty (European Communities, 1997), the EP increased its influence in the formulation, negotiation and adoption of the WFD. Besides, in the formulation stage, DG Environment of the European Commission has invited groups of stakeholders to contribute to draft documents. At the CIS stage, the SCG takes care of the policy linkages among the working groups and drafting groups, discusses outstanding (technical) issues and exchanges information on European projects and pilot river basin testing projects (Common Implementation Strategy, 2001; RIZA, 2003). To avoid non-functional redundancy by CIS working groups, both the SCG and representatives of working groups take care of coordination, e.g. by means of cross-participation. Every two years a work programme is prepared (Common Implementation Strategy, 2001). The SCG evaluates the outcome of the different working groups and prepares documents and reports for the Water Directors’ meetings and provides guidance to the key activities. Consensus is the decision-making rule within the common implementation strategy (ibid.). During the 2000 to 2002 period, in the case of disagreements, minority views could lead to a veto on the finalisation of a given guidance document (Common Implementation Strategy, 2003b: 7):

The reasons for such situations to occur were manifold. On the one hand, the issues for discussion were not only of technical nature but also related to legal interpretation and political considerations. This situation was complicated by the fact that the aim of the CIS process is to promote “best practices” of implementation which may, in some cases, go beyond the legal requirements of the directive. On the other hand, the description of clear and concrete guidance may limit the flexibility that is necessary to develop different approaches for the specific national, regional or local circumstances.

If no consensus can be achieved, the diverging views should be reflected in a transparent way (Common Implementation Strategy, 2001; 2003b).

The EC takes care of the minutes of the SCG meetings. Any delegation may comment on the draft summary record, the presented working documents or on any item on the agenda of the meeting. The EC, the Presidency and the SCG are jointly responsible for the efficient and effective preparation of issues for the EU Water Directors meetings. Finally, the EU Water Directors decide on publication, testing and application of the guidance documents (Common Implementation Strategy, 2001; RIZA, 2003). High-ranking officials of the Member States and/or the EC lead the working-groups which include participants of other interested Member States, Candidate Countries, stakeholders and NGOs. Private and civil stakeholders are invited when they can contribute to the work with a specific expertise. The involvement of European Economic Area-countries, the European Environment Agency and
EUROSTAT is considered important for the success of the process (Common Implementation Strategy, 2001; 2003b). Contrary to the working groups, the EAF have a more formal character. The proposals by the EAF are subject to the co-decision procedure between the Council of Ministers and the EP. The EU Water Directors are informed on their progress and products and may not explicitly be asked to approve them (RIZA, 2003). The CIS may not prejudice the formal committee procedure of WFD’s Article 21 (Common Implementation Strategy, 2001). This WFD Article provides the European Commission with a regulatory committee that assists compliance checking (European Communities, 2000).

Clear criteria for aggregation of water bodies should be agreed at river basin district level and in a transparent way. The EAF on Reporting elaborates the details on whether and how aggregation of water bodies for the purpose of reporting is possible (European Communities, 2003b). According to the ‘discussion document on environmental objectives under the Water Framework Directive’ (European Communities, 2005b), a harmonised, comparable and transparent approach for the application of the exemptions and the cost-effectiveness assessment should be coordinated within (multilateral) river basin districts and Member States. The appropriate level of application of assessments may be different for specific issues. The document points at the duty of the EC to ensure that such an approach is taking place in-between member states and in-between river basin districts (ibid.). The decision-making process differs for chemical and ecological status criteria. Specific criteria for the good chemical status, both for surface water and groundwater bodies, are decided on by the EP and the Council of Ministers. The EC prepares the proposals. Regarding the good ecological status, Member States are required to develop their national classification schemes which should be consistent with the Annex V provisions in the WFD (see European Communities, 2000: 33-63). In order to compare these national classification systems, the results of the so-called intercalibration exercise will have to be agreed by the Regulatory Committee established under Article 21 (European Communities, 2005b; 2011).

In order to integrate WFD requirements into Rural Development Programmes (and to link them with measures in the agricultural sector) level differences will have to be overcome. The DG Environment (2003: 18) concludes that ‘the cooperation between the competent authorities for Rural Development Planning and the water authorities in Member States and regions need to be further ensured and even strengthened’. Reversely, ‘competent authorities for rural development planning need to be involved in the drafting of river basin management plans. According to the subsidiarity principle, it will be the task of Member States to ensure this coordination between authorities, but also between Member States themselves’ (ibid.). The ‘Final Paper about Co-operation and participation at the interface of EU Agricultural and Water Policies’ (Dworak et al., 2006) includes remarkable observations on level linkages. Within border-crossing river basins, stakeholders in the water and agricultural sectors take part in participatory processes at all levels. Hence, the transfer of knowledge and information across these levels is of utmost importance. However, as Dworak et al. (2006: 8 and 22) observe:
While the policy arena at lower governance levels is influenced by decisions and processes on higher levels through the establishment of frameworks and overarching policies, there is still a considerable degree of independence between the respective activities. Linkages between processes do not necessarily exist. [...] The mode and instruments of participatory activities also vary among those levels. Past experience has shown that the local level plays a crucial role for effectively involving key actors from the agricultural sector and establishing successful cooperation.

The WFD has been drafted and negotiated in a transition period towards more open, transparent and participatory policy processes at the European level. However, notwithstanding the WFD’s call for cross-sector policy integration and ample options within the CIS for co-thinking (and more limited also for co-production) by private and civil stakeholders, final decisions on interpretation of WFD’s definitions, terms and requirements, primarily take place within the inner circle of the water policy domain. As such, high-rank officials and experts of the Member States and the EC pull the strings, like in the meetings of the EU Water Directors and the Article 21 Committee. On the other hand, participation of experts from private and civil stakeholders in the CIS working groups and pilot river basin projects points at more bottom-up influences. Notwithstanding serious cross-sector coordination efforts, such as by means of a Strategic Steering Group on the WFD and Agriculture, the WFD and the CIS do not alter existing European cross-compliance procedures dramatically. These observations point at juxtaposition of ideal-type B and C aggregation rules at the European level over the 1990 to 2009 period (see Table 4.7).

Table 4.7: Ideal-type, collective-choice IRBM aggregation rules at the European level

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Independent decision-making on water policy and management plans at different administrative levels within a river basin.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Asymmetric, top-down decision-making on water policy and management plans at different administrative levels within a river basin: lower levels have to comply with the rules from the higher levels.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Symmetric, consensus based decision making on water policy and management plans at different administrative levels: mixed top-down and bottom-up rules.</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B and ideal-type C rules as expressed by the ‘X’.

4.3.6 Information rules

As argued in Subsection 2.2.8, one major collective-choice rule challenge of IRBM is to collect, aggregate and present information in such a way that river basin management plans are acknowledged and supported by a majority of interested public, private and civil stakeholders. A critical dimension of this challenge is the types of
information that are considered legitimate in combination with the nature of the collection and aggregation process. The focus of this research is on this critical dimension. Three ideal-type information rules have been identified (see Table 4.8).

The screening of both the text of WFD and its related guidance documents points at a predominant technical-scientific rationale which intermingles with a socio-economic rationale. As in the era before adoption of the WFD, validity, reliability, costs-benefits ratios and economic efficiency are central criteria for legitimised expert information and knowledge at the European level. As concluded in the Subsections 4.3.3 (boundary rules) and 4.3.5 (aggregation rules), the DG Environment has opened up its window for more active contributions by environmental NGOs and socio-economic interests groups both at the WFD drafting and implementation stages. Notwithstanding the decision-making primacy for the DG and the EU Water Directors, ample opportunities are offered for informal information exchange, early consultation, co-thinking and (more limited) co-productions. Although non-governmental actors have expressed their gratitude for the increased openness and transparency, the highly politised context of the European institutions could not prevent classic divides and controversies around facts, figures, policy ambitions and related socio-economic consequences. Position papers and letters of interests groups are clear indicators for those disagreements, although they could also be interpreted as part of negotiation strategies and rituals. On the other hand, the disclaimer in the CIS guidance documents point at a remarkably broad informal consensus on the (predominantly) technical issues (European Communities, 2003a to l, 2005a to d, 2007a to c, 2009a to g and 2011):

This technical document has been developed through a collaborative programme involving the European Commission, all the Member States, the Accession Countries, Norway and other stakeholders and Non-Governmental Organisations. The document should be regarded as presenting an informal consensus position on best practices agreed by all partners. However, the document does not necessarily represent the official, formal position of any of the partners. Hence, the views expressed in the document do not necessarily represent the views of the European Commission.

Generally, controversies have been tackled by making different opinions explicit (such as between environmental NGOs and the hydropower industry) or by searching for compromises (e.g. between WWF and the Netherlands on the contents of the guidance document on the role of wetlands).

From a scrutiny of the texts from WFD’s Article 14 (European Communities, 2000: 16) and the CIS guidance document on public participation (European Communities, 2003h), a remarkable inconsistency becomes apparent. The former stresses information and consultation on implementation planning timetables, an overview of significant water management issues and (draft) river basin management plans, without explicitly mentioning the Article 5 reports (European Communities, 2000: 16). The latter stresses the importance of joint fact finding for the Article 5 river basin characterisation exercise, in order to arrive at common sense about the present state as of the water resources (European Communities, 2003h). As such, joint fact finding for the
Article 5 reports is considered a first step for shared ownership of the subsequent river basin management plans (ibid.). Furthermore the guidance document on public participation reflects a broad range of participation literature and methods, some of which may lead to a fear (by the public actors) of lack of control. For example, the social learning, co-decision and self-determination options in the informal guidance document seems to reach (far) beyond the legally binding information and consultation requirements in the official WFD text. As they comply with the subsidiarity and sovereignty principles however, European policy makers are very cautious not to affect any domestic institutional arrangements. That is why these informal European consensus options are to be chosen or neglected by domestic actors, as determined by their own traditions, choices and preferences.

Although the guidance document on public participation plies for interactive and participatory approaches (European Communities, 2003h), the (traditions of the) European institutions do not trigger a complete opening up of the stakeholder process at the European level, such as for the drafting of the CIS guidance documents. This process remains dominated by inner circle experts and officials in the water policy sub-domain (Common Implementation Strategy, 2003a: 2):

It is evident that the close cooperation and the improvement of information exchange between the WFD implementation process and the relevant international organisations and networks will improve the dissemination of results, the harmonisation of approaches and the avoidance of duplication of efforts. At the same time, it must be recognised that the countries of the wider and enlarged EU are the driving forces behind the joint implementation process. Therefore, the status of participation of such organisations should be clearly in the role of “observers” with the main aim to ensure efficient information exchange.

The CIS guidance documents are targeted to those experts and water managers who are directly or indirectly implementing the WFD. After approval by the Water Directors and the EC, guidance documents are made publicly available. In practice, the guidance documents are prepared by small drafting teams of inner circle actors of the water policy sub-domain. Other actors are informed and consulted in working groups, conferences and pilot river basin activities and are supposed to bring in relevant information. Some actor coalitions (e.g. of environmental NGOs and the hydro-power industry) bring in position papers at the SCG meetings. Access to information in Europe’s virtual office (CIRCA) is restricted to experts and representatives in Member States, EEA countries, accession and candidate countries and stakeholders’ representatives. Example of a co-production is the guidance document on the role of wetlands in the WFD, as proposed by a coalition of environmental NGOs (European Communities, 2003l).

The ‘Strategic Guidance on the Principles and Communication of the First [Article 5] Analysis’ (European Communities, 2005a: 14) mentions that ‘it should also be checked whether other data holders, such as water suppliers or local NGOs, may have some valuable information which, if properly quality assured, can complement the existing data in order to improve the quality of the assessment.’ This guidance document also points at legitimisation arguments (ibid.: 15):
Where data gaps are identified that are likely to have significantly affected the results of the analysis, the analysis should be appropriately reviewed, updated and completed in the period 2005 to 2008. A comprehensive review of the analysis must be completed in 2013. Such a prioritised “closing of the gap” will lead to a higher degree of certainty and knowledge for the preparation of the “programme of measures” and thereby reduce the risk of non-targeted and expensive measures and facilitate the public participation process by demonstrating that the proposed measures are well founded and justified.

In the document, the EC plies for appropriate communication strategies by the Member States, preferably coordinated at the river basin district level: ‘If possible, involve stakeholders in the fact finding for the analysis and take account of their information and contributions, before the [Article 5] report is finalised’ (ibid.: 16).

At the second European Water Conference (Brussels, April 2009), the EEB/WWF coalition presents results of an interim survey on the contents of draft river basin management plans of individual Member States. In this inquiry environmental NGOs often express fragmented, poorly presented information in the draft river basin management plans. They mention lack of coherence and transparency in the objective setting and appraisal of measures and poor information about proposed budgets and capacities (Scheuer, 2009). However, those NGOs also observe that in general authorities of Member States have improved communication with and involvement of key stakeholders in the WFD implementation process (ibid.). On the contrary, the environmental NGOs are largely dissatisfied with the quality of the consultation processes. Due to a lack of inclusion in the drafting process (in 15 of 22 cases), the NGOs are not convinced that the river basin management plans’ consultation will create shared ownership (ibid.).

From the moment that they became more incorporated into the formal amendment process (early 1998), NGOs feared for too many opt out options for Member States, given the degrees of interpretational freedom of central terms in WFD’s Article 4 (Kaika and Page, 2003). ‘In other words the NGOs were always alert for what they saw as the danger of allowing the new directive to replace the obligations of existing directives with a more relaxed regulatory regime, which would allow Member States voluntary compliance rather than legal obligations’ (ibid.: 317-318). April 2009 the EEB/WWF coalition still fears the pitfall of an “interpretation freedom trap”, since in many of the 29 surveyed draft river basin management plans deadline extensions and lower objectives are proposed, ‘although often no or little information is provided about 2015 objectives and the selection of measures’ (Scheuer, 2009: 4).

The observations in this research point at a juxtaposition of ideal-type A and B collective-choice information rules at the European level (water policies sub-domain) in the 1990 to 2009 period (see Table 4.8). The WFD drafting process and the CIS both are dominated by experts and a mixture of a scientific-technical and socio-economic rationale. The WFD’s implementation is not considered to be dealt with by lay know-ledge. Although the opportunities for non-governmental stakeholders to (try to) influence the European water planning process have gradually increased over time, with the CIS as one clear example, (classic) controversies around facts, figures,
ambitions and socio-economic consequences have not entirely disappeared. Viewed positively, the informal consensus on best practices by involved multiple-stakeholder experts might be an indicator for development of broad support for common solutions. On the contrary, from a more sceptical stance, one might wonder what the actual consensus is about when nobody formally subscribes the guidance documents. The critical remarks by the EEB/WWF coalition make clear that at least the environmental NGOs still have serious doubts about the actual impact of the WFD.

Table 4.8 Ideal-type IRBM information rules at the European level

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>The river basin management planning process (definition of means and ends) is predominantly driven by expert information and knowledge from the natural sciences. Validity and reliability are central criteria for legitimised information and knowledge.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>The river basin management planning process (definition of means and ends) is predominantly driven by expert information and knowledge from the economic sciences. Costs-benefits ratios and economic efficiency are central criteria for legitimised information and knowledge.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>The river basin management planning process (definition of means and ends) is driven by information and knowledge from multiple disciplines and both from experts and lays. Joint fact finding and social robustness are central criteria for legitimised information and knowledge.</td>
<td></td>
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</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and ideal-type B rules as expressed by the ‘X’.

4.3.7 Pay-off rules

Ad defined in Section 2.2.9, pay-off rules point at the incentives and deterrents for action (Ostrom, 2005). In interaction with other rule types, pay-off rules affect the net benefits and costs that will be assigned to particular combinations of actions and outcomes (ibid.). In this research three ideal-type IRBM pay-off rules have been constructed (see Table 4.9).

The WFD fits in the neo-liberal tradition of the European institutions in which economic incentives and market forces prevail and in which (potential) non-economic distortions (such as from different environmental standards in the Member States) should be prevented. The Directive makes this tradition more explicit for the water policy sub-domain by the incorporation of economic principles and instruments, e.g. as expressed by its Article 9 on recovery of costs for water services and assessments of economic benefits and disproportionate costs as key elements in the economic analysis (European Communities, 2003a). These economic principles and instruments should be understood as additional to formal rewards and sanctions, as expressed by the compliance checking procedures of the European institutions.
The EC is in charge of compliance checking. When a Member State does not comply with (some of) the requirements, the Commission may initiate an infringement procedure, after a mandatory round of consultation with the incriminated Member State (Koppen, 2005). The consultation is a first step in which the Member State is asked to provide additional information and/or arguments and/or to voluntarily adjust the alleged infraction (ibid.). It is the discretionary power of the Commission to decide whether or not to file suit if a Member State persists in its non-compliance (ibid.; Mostert, 2010). As final resort, jurisprudence by the ECJ will make clear whether Member States’ interpretations may hold and whether they will suffer from (financial) penalties. In addition, given Article 23 (European Communities, 2000: 20), ‘Member States shall determine penalties applicable to breaches of the national provisions adopted pursuant to this Directive. The penalties thus provided for shall be effective, proportionate and dissuasive.’

The EEB/WWF coalition has formulated five headline indicators to assess how governments are performing and to which extent the river basin management plans pick up the challenge of sustainable water management (Scheuer, 2009: 2): ‘(1) transparent and publicly owned water management; (2) reducing wastage and using water well; (3) more space for living rivers; (4) healthy, safe water for people and nature; and (5) visionary and adaptive water policies’. Although formally the NGOs are not in charge of compliance checking, their benchmarks may be influential since they may trigger the EC to initiate legal infringement procedures. For example, the first assessment of the draft river basin management plans (Scheuer, 2009) has induced infringement procedures on narrow and arbitrary definitions of water services by eleven member states (including the Netherlands). Verhulst, Van der Molen and Mak (2010) ply for a more intelligent infringement policy which supports best practices of cooperation and coordination (in the spirit of the WFD) instead of a too rigid compliance checking approach (in the finest wording of the WFD). Mostert (2010) argues that, given its discretionary power, the EC may support alternative implementation strategies, as long as they lead to compliance with the European objectives.

November 2009, infringement cases are running against 21 Member States (including the Netherlands) on non-conformity with WFD requirements. Water services definitions are still matter of concern. Since the EC faces a number of complaints related to Article 4(7), it is conducting a survey across Member States using additional information sources beyond the river basin management plans. Article 4(7) allows for conditioned failure to achieve good groundwater status and/or good ecological status (of a natural surface water body) or good ecological potential (of a heavily modified surface water body), as the result of new modifications to the physical characteristics of a water body or new sustainable human development activities (European Communities, 2000: 11). A modification of a water system should be included and explained in the river basin management plan when it is still in the planning stage.

Guidance Document No 11 (European Communities, 2003k: 13-15) presents a range of planning process types, from ‘plain rational-instrumental’ to ‘interactive with an open eye for the power of fundamental debate’. In the interactive types, the initiative for a planning process may come from public, private and/or civil stakeholders. These interactive types may pay-off as collaborative capital, since ‘the discussion in
this type of planning is structured by new viewpoints on a problem that are recognised by several actors. On the basis of these viewpoints, strong coalitions can be formed, pursued by the adjustment of ongoing activities’ (ibid.). The Guidance Document attaches high priority to ‘establishing effective mechanisms for public participation (consultation and active involvement) in planning and decision-making, right from the start of the IRBM process’ (ibid.: 47). The document sketches potential pay-off benefits of active stakeholder involvement (ibid.: 46, 47):

River Basin Management Plans are likely to be more successful through achievement of “buy-in” to their objectives and delivery by promoting “ownership”, acceptability and the cooperation of relevant stakeholders; Decision making is likely to be more efficient through earlier identification and, where possible, resolution of conflicts; Solutions are likely to be more sustainable and equitable through the input of a wider range of knowledge and perspectives; In the longer term, relationships between competent authorities and stakeholders are likely to be strengthened.

Despite this rhetoric, which builds on the options for joint fact finding, self-organisation and social learning of the Guidance Document No 8 (European Communities, 2003h), public officials and experts have dominated the WFD’s planning processes so far.

Table 4.9 Ideal-type collective IRBM pay-off rules (European level; 1990 to 2009)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Rewards and sanctions from laws and regulations are major drivers for compliance with collective rules (e.g. as expressed by standards and licence conditions).</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Economic incentives and market forces are major drivers for compliance with collective rules.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: (Sub-)basin communities voluntarily invest resources (human, financial, expertise) as collaborative capital for compliance with collective rules.</td>
<td></td>
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</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’.

The research observations point at a stable juxtaposition of ideal-type A and B pay-off rules, both before and after adoption of the WFD (see Table 4.9). The WFD confirms the prior economic principles and makes them more explicit for the water policy sub-domain. This research shows no clear indications for ideal-type C rules.
4.4 European rules in the context of policy discourses, actors and resources and power

The primary focus of this research is on triggers and barriers for changes in collective-choice rules for IRBM at interrelated political levels within the International Meuse River Basin District. As explained in Chapter 2, for each of the seven collective-choice rules, three ideal-types have been constructed as a benchmark for tracking changes over the 1990 to 2009 period. From the subsequent assessment at different political levels (European, multilateral, national, regional and local), challenges for a coordinated implementation may become noticeable. In order to detect potential explanations for continuity or change of collective-choice rules, this dimension should be considered in interaction with the other three dimensions of a policy arrangement (i.e. policy discourses, actor coalitions and oppositions and distribution of power and resources; Arts, Van Tatenhove and Leroy, 2000; Liefferink, 2006; Leroy and Arts, 2006). Since the rules dimension has been assessed yet in detail in Section 4.3, this section adds observations on the other three dimensions.

4.4.1 Policy discourses

Within the European institutions, ambiguity is an essential feature for political survival in a continuous search for compromises. The discourse analysis of this research shows that the WFD is no exception. Section 1.3 has introduced the ambiguous nature of the WFD’s policy discourse as expressed by the wording of its paradigms, governance and policy principles (see Table 1.2 for an overview). As concluded in Subsection 4.2.3, the Directive may be characterised as a complicated, hybrid political construct that includes potentially high ecological ambitions, as well as exemption options and interpretation ambiguities. The 24 informal implementation guidance documents express the compromises and multi-interpretability. For example, the policy summary of the guidance document ‘Exemptions to the Environmental Objectives’ considers the WFD as a framework that gives the general orientation ‘with scope for differences in understanding and application’ (European Communities, 2009c: 3).

As perhaps best illustrated by the extensive deliberations on the interpretation of the Directive’s core Article 4 (environmental objectives and exemption options), one might speak of an “interpretation freedom trap”. Both the EC and the EU Water Directors signal that the offered interpretation room may hinder effective WFD implementation and that often, ‘the reflections on these issues do not interpret the nature and the ambition of the WFD in a correct way. In particular, the substantial benefits of achieving the environmental objectives, i.e. benefits for the environment, the individuals, water users and the economy and society as a whole, are neglected’ (European Communities, 2009c: 3, 4). These European actors consider development of a common understanding of the level of ambition essential in order to prevent distortions and lack of comparability in the way the directive is implemented across the EU. Given the potentially too large interpretation flexibility, many of the Directive’s terms may be subject to such a high degree of abstraction and subjectivity that Member States may not be able to provide more than very general motivations for their application. This overkill of interpretation freedom may lead to accommodation and
prudent implementation strategies and lack of harmonised criteria for quantification, especially in the context of shared, international river basins. Remarkably, the EU Water Directors and the EC admit that common understanding for a number of key terms related to the application of exemptions may be a mission impossible not to strive for (European Communities, 2009c: 20; italics added):

As mentioned earlier, the exemptions contain a number of conditions for their application. To some extent, these conditions are qualified by terms which are not easy to interpret. The most important terms are “disproportionately expensive/disproportionate costs”, “technically feasible”, “significantly better environmental option” or “sustainable (human) development”. It will hardly be possible to agree on a common application of these terms. Thus, it is even more important that the methodologies developed by the Member States are presented in an open and transparent manner so that they can be discussed in the public consultation process.

The observations over the 1990 to 2009 period do not show major differences in dominant argumentation lines on paradigms and governance and policy principles in the European water policy sub-domain. The WFD presents a rich palette of sustainability paradigms without making a choice and without providing explicit clues as how to interconnect the planet, people and profit dimensions (see Table 1.2 in Section 1.3). The Directive further institutionalises “river basins as the appropriate management units”. In general, its governance principles echo principles of good governance and effective water governance (such as defined by Rogers and Hall, 2003: 27-29). Sovereignty, subsidiarity, a level playing field (with regard to the internal European market), integration and active stakeholder involvement remain key principles. The WFD provides no detailed requirements for integration and active stakeholder involvement. Concerning the latter, calls for more openness, transparency and interactive policies formulation are translated into ample opportunities for information and consultation of non-governmental stakeholders. Although the WFD emphasises the importance of multilateral river basin committees, their formal roles and positions remain unaltered.

The WFD re-emphasises the common environmental policy principles of Article 174 of the Treaty establishing the European Community and adds specific water-related ones, i.e. the combined approach (emission limit values and water quality standards), one out, all out, no deterioration, no-shift and integration of quantity and quality of surface waters and ground waters. Whenever the one out, all out principle is interpreted strictly, it may bring large socio-economic consequences, since for every individual water quality parameter standards will have to be complied with. On the other hand, new modifications to the physical characteristics of surface and groundwater bodies are allowed for reasons of new sustainable human development activities, as expressed by Article 4(7) (European Communities, 2000: 11):
Member States will not be in breach of this Directive when:

- failure to achieve good groundwater status, good ecological status or, where relevant, good ecological potential or to prevent deterioration in the status of a body of a surface water or groundwater is the result of new modifications to the physical characteristics of a surface water body or alterations to the level of bodies of groundwater, or

- failure to prevent deterioration from high status to good status of a body of surface water is the result of new sustainable human development activities and the following conditions are met:
  
  (a) all practicable steps are taken to mitigate the adverse impact on the status of the body of water;
  
  (b) the reasons for those modifications or alterations are specially set out and explained in the river basin management plan required under Article 13 and the objectives are reviewed every six years;
  
  (c) the reasons for those modifications or alterations are of overriding public interest and/or the benefits to the environment and to society of achieving the objectives set out in paragraph 1 are outweighed by the benefits of the new modifications or alterations to human health, to the maintenance of human safety or to sustainable development and
  
  (d) the beneficial objectives served by these modifications or alterations of the water body cannot for reasons of technical feasibility or disproportionate cost be achieved by other means which are a significantly better environmental option.

Article 4(7) may be considered the WFD’s apogee of ambiguity, providing maximal room for interpretation differences stemming from diverging world views. It offers Member States a politically important escape option for too severe environmental requirements on a too short timeline. For example, the Member States’ implementation ambitions will be expressed by the way they will define overriding public interest, new sustainable human development activities, technical feasibility and disproportionate costs. Article 4(8) introduces the no-shift principle as an attempt to link water bodies within river basins in order to arrive at coherent river basin management. Again, given this Subarticle refers to the preceding subarticles 3 till 7, Member States’ ambitions will largely depend on how the aforementioned terms in the preceding paragraphs of Article 4 will be interpreted.

With regard to information rules, scientific-technical and socio-economic argumentation lines intermingle at the European level, as clearly expressed by the wording of the Single European Act (European Economic Communities, 1987: 17-18):

In preparing its action relating to the environment, the Community shall take account of:

- available scientific and technical data;
- environmental conditions in the various regions of the Community;
- the potential benefits and costs of action or of lack of action;
- the economic and social development of the Community as a whole and the balanced development of its regions.
Burchell and Lightfoot (2001: 43) argue that ‘apart from trying to ensure a level-
playing field, the SEA was an attempt to address the market failures inherent in the
single market’. As part of the dominant discourse, environmental pollution is framed
as ‘an unwanted side effect of human economic activity’ (ibid.). Inclusion of the pre-
cautionary principle goes beyond a scientific-technical rationale since it suggests that
preventive action should be taken even before a definite causal link has been proved
between a human activity and any consequent harm to the environment.

The socio-economic discourse around the WFD is expressed amongst other is-
issues by the recurrent discussions on a common definition of disproportionate costs.
In June 2007, the EU Water Directors stress that applying the WFD’s exemptions
should not be the rule but exceptional. Furthermore, they suggest that the effects of
past expenditures should be analysed in more detail, since the costs of basic measures
cannot be considered when deciding on disproportionate costs. Some Water Directors
stress their wish to take into account ability to pay as part of a more pragmatic
approach, especially in the first river basin management cycle. Others highlight that
any alternative approach should not influence the decision on disproportionality. They
underline that ability to pay is not explicitly mentioned in the WFD. All agree that in
any case the ambition of the Directive should not been watered down. Finally, both
the EC and the EU Water Directors decide that the use of exemptions should not be
considered as derogations, but as an integral part of the WFD approach for a staged
compliance. As such, the exemption options are considered a regular prioritisation
instrument to prevent disproportionate costs (European Communities, 2009c).

April 2009, from the draft river basin management plans the EEB/WWF coali-
tion concludes that it becomes clear that the “interpretation freedom trap” occurs.
The coalition argues that in the draft river basin management plans, ‘although often
no or little information is provided about 2015 objectives and the selection of
measures, deadline extensions and lower objectives are proposed in many cases’
(Scheuer, 2009: 4). Also the EC concludes that the content of the majority of the draft
river basin management plans is too general and insufficiently supported by explana-
tion of choices made (Commission of the European Communities, 2009). Others are
more positive and count the blessings. For example, Page and Kaika (2003: 331) men-
tion seven water policy innovations as expressed by the WFD:

1. Coordination of policies that previously addressed different water types sepa-
rately and coordination of water management strategies;
2. Switching to river management based on hydrological boundaries;
3. Introducing the ‘combined approach’ to pollution control by linking emission
limit values to environmental quality standards;
4. Incorporating quantitative elements into environmental planning at the EU
level;
5. Redefinition of ‘good water status’ and redrawing the list of priority hazardous
substances;
6. Introduction of the costs of environmental externalities into water pricing in
order to encourage demand management;
7. Increasing public participation in policy making in order to increase transpa-
rency and compliance.
Public officials at the Dutch Ministry of Transport, Public Works and Water Management, who have coordinated the first river basin management drafting process, claim that water systems may not be directed towards a good ecological status within six years (Verhulst, Van der Molen and Mak, 2010). They view the staged approach of the WFD (with three subsequent 6-years terms) as a realistic opportunity to enforce the implementation of required measures. Furthermore the river basin management plans are an important tool for increasing transparency and information exchange and may support more active involvement of and communication with diverse stakeholders (ibid.).

### 4.4.2 Actors

With regard to *scope rules*, a coalition of EU-Water Directors at five Member States (Germany, France, the Netherlands, United Kingdom and Spain), supported by actors in the EP, manage to convince the EC of the need of a water framework directive instead of a sector directive on ecological quality objectives (Melis and Boudewijn, 2002; Interviews 40 and 43, Appendix I). According to Melis and Boudewijn (2002), the WFD negotiation process reflects general European level coalitions, i.e. coalitions of southern Member States (water scarcity, water as a social right) and northern Member States (environmental concerns, water as a common pool resource). For her part, Kaika (2003) mentions the occurrence of a-typical alliances, in which France and Portugal are amongst the strongest advocates. The position of Spain has been ambiguous. Although Spain is mentioned among the forerunners, according to Kaika and Page (2003), within the Council of Environmental Ministers Spain tried to prevent the WFD becoming law. From Interview 43 (Appendix I) it has become clear that Spain has been part of the five forerunner states, because it was the then chair of the EC. On the other hand, although Portugal is not mentioned as forerunner, its environmental minister strongly advocated adoption of the WFD (ibid.). The position of both Portugal and the Netherlands as downstream riparian states may account for their WFD advocacy voices (Meijerink and Wiering, 2009).

Within the CIS, sector coalitions try to influence the scope of the process and whenever necessary express their opposing interests. For example, two clear confrontational discourse coalitions occur around the interpretation of irreversible hydro-morphological changes. At one bank of the river, there is a strong international lobby coalition of environmental NGOs including Birdlife International, the European Environmental Bureau (EEB), Greenpeace, Seas at Risk, the UK Wildlife Trusts and the WWF (the EEB/WWF coalition). This coalition, predominantly driven by ecological interests, plies for a strict implementation, taking into account morphological changes for designation of heavily modified water bodies only. At the side of the river, a number of Member States and EURELECTRIC (i.e. a union which represents the electricity industry), predominantly bearing socio-economic interests in mind, advocate a broader interpretation which includes hydrological changes (in some cases related to hydropower dams) as irreversible too. In the heat of the debate, the EEB/WWF coalition builds up the pressure by mentioning its withdrawal option in a letter to the EU Water Directors (Hontelez and Long, 2002; italics added):
The EEB and WWF have informed the Strategic Co-ordination Group that their support for ALL guidance documents depends on a solution to both of these outstanding issues in strict accordance with the WFD. We trust that you will be able to resolve this situation in the appropriate manner at your meeting in Copenhagen, so that we are not forced to take such a decision, which would mean a complete absence of environmental NGO support for the WFD CIS outputs to date.

Given the importance of cross-sector arrangements for compliance with the WFD’s water-related environmental objectives, it is remarkable that the official text does not directly refer to the common objective of environmental policy integration. Although Preamble (16) mentions that the WFD ‘should provide a basis for a continued dialogue and for the development of strategies towards a further integration of policy areas’ (European Communities, 2000: 2) mainly the inner circle actors of the water policy sub-domain are actively involved in the Directive’s implementation. In their analysis of the efforts for environmental policy integration at the EU level, Jordan and Schout (2006) conclude that it is still not conceptualised as a shared challenge. Furthermore they point at the sharp value differences between the participating actors (namely the sectors), the relatively weak position of environmental actors within both the EC and the EP and the absence of a strong central governance network manager (ibid.). Detailed further, Jordan and Schout (2006: 83; original italics) argue that:

[...] it is already evident that the EU as a whole is heavily reliant on a small number of fairly weak coordination capacities to tackle Environmental Policy Integration, namely mission statements, specification of outputs (i.e. management by targets and tasks) and some simple bureaucratic procedures (e.g. to produce environmental policy appraisals). Other than the Commission’s own internal reforms, the EU has made very little effort to put in place adequate bureaucratic procedures (rules) and horizontal coordination mechanisms more deeply to institutionalise Environmental Policy Integration.

With regard to position rules, economic experts and water policy officials, focus on economic tools and principles, such as the incorporation of valuation methodologies of environmental externalities in water services costs calculations. There are no indications for actor coalitions who advocate definition of interrelated common principles of ecological, social and economic resilience as starting-point for a (re-)allocation of uses and property rights. Environmental NGOs and socio-economic interests groups experience increased access in the drafting phase of the WFD (boundary rules). However, the environmental NGOs have mixed feelings, since they fear implicit co-optation attempts by the decision-makers (e.g. Kaika, 2003). Non-governmental actors get actively involved in the CIS process. Their access is conditioned by the EU Water Directors and DG Environment and emphasis lies on information and consultation.

The choice rules concentrate on water quality issues mainly. Issues of water quantity, as related to supply and demand management and the nature of licenses systems, are subject to delicate political negotiations by the Member States. The WFD includes both statements about the relevancy of a more integrated legislative approach and prescriptions for basic measures that may be considered as choice rules of a more
integrated nature. As inspired by the discourse of the WFD, the European Commission advocates a firmer integrative strategy to anticipate water scarcity and droughts (Commission of the European Communities, 2007c).

Concerning aggregation rules, actors in the European Parliament (EP), due to the introduction of the co-decision procedure, have obtained considerably more influence in the WFD drafting and negotiation process. The increased role of the EP has offered also new opportunities for lobbying by interests groups. Kaika (2003) argues that economic interest groups mainly lobbied at the national level, trying to influence the opinion of the ministers representing their country in the Council of Environmental Ministers. The environmentalists (like the EEB/WWF coalition), however, lobbied both at the national level and at European venues. They established good contacts with both the Brussels bureaucracy (especially the DG Environment) and the EP. Environmental NGOs successfully lobbied for a much tighter implementation scheme, stricter standards for some dangerous substances and enlarged possibilities to be actively involved in the drafting process of the river basin management plans (ibid.).

Concerning information rules, environmental policy at the European level often involves highly technical discussions (Burchell and Ligtfoot, 2001). Due to a variety of actors who attempt to fit into the policy game, environmental policy making at the European level tends to take place within loose issue networks (Peterson and Blomberg, 1999). According to Greenwood (1997), technical expertise is an important entry card for most policy networks, as they provide useful (and cheap) information to decision-makers. The environmental policy domain is no exception (ibid.). Based on a literature review, Burchell and Lightfoot (2001: 59) conclude that ‘environmental groups have been able to identify within the EU structures a potential set of opportunities for access and influence, beyond those which they are capable of utilising at national levels’. Furthermore, both actors within the EC and the EP have, on occasions, actively encouraged contact with the environmental movement, possibly to encourage a counter-lobby to combat the influence of the powerful business and agricultural lobby groups active at the EU level (ibid.). The observations of this research point at WFD implementation guiding process at the European level which is predominantly driven by expert knowledge. Within the CIS, the EC and the EU Water Directors offer ample opportunities for private and civil actors to bring in relevant information, knowledge and expertise. However, at the end of the day it is up to the EU Water Directors and officials at the DG Environment to decide on the guidance documents.

With regard to pay-off rules, while the EC was relieved with the compromise of the second reconciliation meeting, representatives of farmers’ and industrial interests feared severe socio-economic costs (Kaika, 2003). Environmental NGOs were disappointed at a first glance, but later on acknowledged some important gains from the negotiations. They stressed that the added value of the WFD for improvement of environmental quality would largely depend on ‘the good will and seriousness of all players to fully use the opportunities of this Directive for enhanced water protection and to prevent the abuse of the legal ambiguities of the agreed text’ (Page and Kaika, 2003: 338). The drinking water sector also had mixed feelings. On the one hand, the
WFD could result in lower water treatment costs while on the other hand costs could be presented to the sector in a disproportionate way as well. Some local governments feared loss of influence when a river basin management approach would be chosen (Gilbert, 2000).

The EEB/WWF coalition may be characterised as a resources coalition with the EC, who pays them to act as critical watchdog of Member States’ implementation processes (Kaika and Page, 2003; Knill and Liefferink, 2007). For example, triggered by the coalition’s signals and interim assessments, the EC initiates 11 infringement cases due to significant differences of opinion with Member States about their definitions of water services. From the perspective of the EEB, the Council of Environmental Ministers was defending the interests of industry and agriculture (power coalition), hence preventing the production of a powerful directive, whereas the delegation of the EP in the reconciliation meetings ‘was carrying the banner of the environmentalists’ (opposing power coalition; Kaika and Page, 2003).

### 4.4.3 Resources and Power

Regarding scope rules, the WFD strongly echoes the need for an integrated river basin approach as advocated by the 1992 Helsinki Convention. However, due to the strong sector oriented organisation of the European institutions, which follow social, economic and political driving forces, hydrological boundaries hardly play a role. The legal anchorage of the integration principle within the Single European Act (SEA) seems promising. The principle requires that environmental considerations be an integral part of all other Community policies (Koppen, 2005). In addition, Jordan and Lenschow (2000) argue that the Amsterdam Treaty strengthened the commitment to achieve sustainable development and environmental policy integration. Also it greatly empowered the European Parliament (EP) by extending its co-decision-making powers (Jordan and Fairbrass, 2005).

Although the integration principle provides the environmental policy domain with a unique status (it is the only sector for which such a requirement is formulated; ibid.), its implementation strongly depends on the willingness and efforts by other DGs and the Member States. For example, with the CAP reform, integration attempts for policies on water, agriculture and rural development, become noticeable. At the same time, available funds are too limited and Member States, for political reasons, may underuse the opportunities while the financial and personnel position of DG Environment would be too weak to make a real difference (Knill and Liefferink, 2007; Dühr, Colomb and Nadin, 2010). Furthermore, cross-sector policy integration is hindered by the traditional, mainly parallel operating actor networks around the different DGs as developed over time (Jordan and Schout, 2006). Lenschow (2005b) argues that further environmental policy integration is hindered by the unwillingness of most other policy sectors to share responsibility for remedying environmental damage with the environmental sector. Given this context and notwithstanding ambitious integration wording in both the WFD and the CIS guidance documents, the European balance of resources and power seems to have guided the advocates towards a prevailing focus on internal integration issues (within the water policy sub-domain) only.
Chapter 4

The European institutions are not in a legal position to interfere with domestic user and property rights (position rules). For example, there is no Community spatial planning policy (Dühr, Colomb and Nadin, 2010). However, Europe’s regional development and social cohesion policies, the CAP and related funds indirectly have an impact on domestic land use patterns and planning processes. Since the Treaty of Rome, the primary focus of Europe’s policies is on harmonious and balanced development of economic activities throughout the Community, addressing regional disparities across Member States (Brunazzo, 2010). The Treaty also laid the foundation of the protectionist and interventionist CAP as supported by influential farmers’ interests groups at the Member States (Fouilleux, 2010). Environmental concerns and sustainable development have progressively found their way into the agricultural policy debate since the 1980s. Environmental NGOs have obtained access to the CAP debate and have developed an increasing expertise and discursive capacity. However they rest without co-decision power (ibid.). With the subsequent reforms of the regional development and agricultural policies and related funds, the attention to environmental externalities gradually increases (Brunazzo, 2010; Dühr, Colomb and Nadin, 2010; Fouilleux, 2010). However, their influence, in terms of percentages of the available European funds, remains rather limited (ibid.).

Concerning boundary rules, the WFD is considered as an important test case for opening up the European windows for reasons of transparency, access to information and active involvement of stakeholders. The WFD has also been the first environmental directive which has been adopted by the co-decision procedure. Overall, the co-decision procedure has provided the EP more (equal) power (most notably the actual right to veto) within the European institutions (Knill and Liefferink, 2007). The then EP, whose members were not directly connected to individual Member States, was more eager to adopt new legally binding environmental policies than the Council of Environmental Ministers, whose members were more primarily bounded to domestic socio-economic interests (Kaika, 2003). At the same time, the WFD drafting and negotiation process has provided non-governmental organisations more access to the informal European negotiation arenas (Kaika and Page, 2003). Due to a large number of amendments by the EP and the sensitive political negotiations, as related to potential socio-economic consequences, with last-minute editing, the final WFD text includes several “weaving faults”, i.e. wrong cross-references and language translation nuances (Interviews 40 and 53, Appendix I).

In the European environmental policy domain, economic interests are over-represented. Generally, business interest groups clearly outweigh environmental interests, both in terms of (staff) numbers and financial means (Burchell and Lightfoot, 2001; Mazey and Richardson, 2005). The DG Environment attempts to compensate for the structural inferiority of environmental associations in particular by means of supporting them financially (Knill and Liefferink, 2007). For example, the funds within the EC are the most important source of income of the EEB (Webster, 1998), introducing the risk of co-optation (Knill, 2003). Well-funded and experienced stakeholder groups hold a structural advantage in the participatory mechanisms at the European level (Kaika, 2003). In the CIS, by means of ex ante, clear, written down participation rules, the EU Water Directors and the EC seriously attempt to balance
contributions by environmental and economic interests groups (Common Implementation Strategy, 2001, 2003a). The participation rules have been chosen by public actors. The emphasis is on observer status for selected stakeholder groups and co-thinking and co-production opportunities (ibid.). Although the EEB/WWF coalition is generally positive about the participation options, it acknowledges its relatively limited influence (Scheuer and Royo-Gelabert, 2004: 64; italics added):

The EEB and WWF have tried to ensure that the guidance documents are in keeping with the WFD’s legal objectives and requirements. However, as we have shown in this resource document, this has not always been the possible principally because we do not have the same political influence as the Member States. As a result, some of the 13 guidance documents produced so far are sometimes biased towards the interests of a particular Member State or States. This has been the case, for example, with the WFD’s quantitative water management requirements, relevant to irrigation, hydro-power and ‘self-services’. Additionally, we are concerned that these compromises could politically restrict the European Commission in pursuing Member States that breach the WFD.

With regard to aggregation rules, environmental issues may be decided on by qualified majority voting (Article 100a in the SEA) or by unanimity (Article 130s in the SEA). Decisions made by the European Court of Justice mainly point in the direction of application of Article 100a (Koppen, 2005). Application of Article 100a means that the EP has co-decision authority and that environmental protection measures are closely related to the internal market policy of the Community (ibid.). Application of Article 130s means that the EP has only consultation options, but in the same time it offers Member States the option to adopt more stringent national standards (as long as these do not cause competitive market distortions) (ibid.).

Weale (2005) argues that the European policy making process is densely populated with veto players (i.e. actors whose views have to be taken into account), which prevents any actor or group of actors to constantly direct the direction of political and economical integration. Standards that leader states promote are aggregated and transformed and modified under the need to secure political accommodation from the powerful veto players (ibid.). Héritier (2002) refers to a continuously evolving “policy patchwork” which cannot easily be absorbed into national systems without some prior adjustment. Börzel (2005) mentions inter-state preferences as one of the most significant drivers behind development of European environmental policy, preferences that are largely influenced by differences in economic weight. Quantitative water resources issues still resort under Article 130s, hence with veto right for individual Member States (Jordan and Fairbrass, 2005). This aggregation rules divide between water quality and quantity issues (as largely driven by influential economic interests) may account for the limited choice rules options for the CIS actors with regard to a more integrated approach.

Concerning information rules, the main aim of the CIS is to provide informal scientific-technical guidance to domestic actors when implementing the WFD. For this purpose, several guidance documents, related policy summaries, discussion papers and background documents have been produced (see Appendix VI for an overview). It is
not the intention of the CIS to develop a hierarchy of importance of issues. The guidance documents stress voluntary participation depending on national prioritisation of resources and national interests and may support capacity building and training (European Communities, 2003a to l, 2005a to d, 2007a to c, 2009a to g and 2011). Consequently, the implementation outcome will largely depend on multilateral, bilateral and domestic translations, as triggered by the subsidiarity principle. Under the wings of the EU Water Directors several workshops and activities take place on WFD issues with the aim of exchange of information and experiences. CIS actors try to influence the deliberations by a diversity of instruments, such as questionnaires, position papers, letters, working documents, power point presentations, workshops, seminars and pilot river basin projects.

One conclusion of the pilot river basin testing project is that guidance documents have been used extensively and are generally seen as suitable, efficient and helpful tools (Common Implementation Strategy, 2004). However, short fact sheets on national approaches and joint seminars are preferred over additional guidance documents (ibid.). The DG Environment makes use of the virtual CIRCA office as a collaborative space for CIS actors and together with the European Environment Agency invest in the development of WISE (Water Information System for Europe). Electronic reporting sheets are developed to support compliance checking procedures. European Water Conferences are organised to disseminate information and exchange experiences and opinions among public, private and civil actors.

The traditions of the European institutions point at compliance checking procedures in combination with economic incentives like funding (pay-off rules). Notwithstanding the importance of encouragement of active stakeholders’ involvement, both the EC and the EU Water Directors do not provide WFD funds for capacity building and training of specific stakeholder groups. The pilot river basin testing projects have supported exchange of experiences with regional and local stakeholders, but European funds in general are too limited too reach those without sufficient means and skills. Besides, DG Environment has no direct control over any of the major European funds. For stakeholders in accession countries, funds have been made available to make participation easier. One may argue that, given the sovereignty and subsidiarity principles, it is up to the Member States to provide for adequate resources as implicitly stated by WFD’s Article 14. One CIS background paper (Dworak et al., 2006) pays specific attention to the potential added value of voluntary, cooperative agreements, such as to tackle diffuse sources of water pollution by agriculture, in addition to regulatory approaches.

Financially, Member States may benefit from the CAP reforms by making use of the increased opportunities for co-financing water policy objectives. Because implementation of the WFD will require some changes in agricultural practice which may entail social and economic hardship, the EC has introduced a new article under the Rural Development Regulation (Article 38) which aims to ‘compensate for costs incurred and income foregone resulting from disadvantages in the areas concerned related to the implementation of […] Directive 2000/60/EC’ (Interwies et al., 2006: 46). Furthermore, farmers’ financial support depends on cross-compliance requirements (as defined by the European institutions) and Good Agricultural and
Environmental Codes (as partly defined by Member States). The Rural Development Regulation increasingly offers opportunities for financial support on agri-environmental measures (for example buffer stripes) (ibid.).

April 2009 at the second European Water Conference, the EEB/WWF coalition concludes that so far, economic tools for cost recovery for water services are poorly used by the Member States (Scheuer, 2009: 4). Additionally, the coalition mentions that the WFD implementation process is weak in ‘mobilising political resources in order to grasp the opportunities arising from new climate and energy policies and, for example, to establish water saving objectives’ (ibid.). On the positive side, the EC supports the CIS activities financially such as organisation of meetings and participation costs for accession and candidate countries. Member States have to pay own implementation costs (administration, measures, monitoring and evaluation) and multilateral coordination by river basin committees. Finally, the global financial crisis since 2008 may provide Member States an alibi to embrace the exemption options more warmly or to downgrade their implementation ambitions.

4.5 Synthesis: limited rules change for ambiguous ambitions

One might argue that given the ambiguous ambitions and wording of the WFD, powerful economic players will interpret common argumentation lines to protect their status quo, hence will counterforce triggers for changes in collective-choice rules. However, depending on the values and interests of actors involved, the opposite may also be true. Weale (2005) argues that, at the European level, the dense population of veto players, whose views have to be taken into account, causes both aggregation and transformation of standards and ambitions as proposed by others. The diffuse and delicate political planning and decision-making process as influenced by multiple stakeholders, leads to a continuously evolving policy patchwork (Héritier, 2002). This patchwork cannot easily be absorbed into national systems without some prior adjustment (ibid.). If we add inter-state preferences as one of the most significant drivers behind development of European environmental policy (Börzel, 2005) and the significant difference in decision-making rules for water quantity and quality, it is not difficult to jump to the conclusion that an unambiguous, common implementation of the integrated river basin management paradigm is synonymous with a search for the Holy Grail. But, as the actors of Monty Python and the Holy Grail convincingly have demonstrated, such a quest may deliver unexpected settings and outcomes (Chapman et al., 1975).

Table 4.10 brings together the observations of the Sections 4.3 and 4.4. The table sums potential explanatory factors for observed continuities and changes of collective-choice rules in the European water policies sub-domain between 1990 and December 2009, as derived from observations on the other three dimensions of a policy arrangement (policy discourses, actors and division of resources and power). The grey-coloured cells indicate remarkable evolutions. The table shows that the WFD and its CIS have not triggered dramatic changes. Most obvious is the internal integration evolution (i.e. of issues within the water policy sub-domain), as expressed by an
incremental change of (part of) the substantive scope rules and choice rules. Organisational rules and the other rules types largely remain the same. Functional (water management related), multilateral river basin management coordination structures have already been present before adoption of the WFD. These structures have no (or little) supranational authority and work in addition to domestic governmental structures. The WFD text encourages enforcement of these existing and, where considered necessary, development of similar new coordination structures (e.g. multilateral river basin committees as stemming from international agreements).

Table 4.10: Observed collective-choice rules and potential explanations (European level)

<table>
<thead>
<tr>
<th>Rule-types in the 1990 to 2009 period</th>
<th>Potential explanations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope (organisational): Water policy implementation is guided by a sector network of experts, public officials and non-governmental actors who take hydrological river basin boundary as the functional point of departure (ideal-type B).</td>
<td>Sovereignty and Subsidiarity; Stable sector structures and actor networks; the Integrated River Basin Management Paradigm</td>
</tr>
<tr>
<td>Scope (internal integration): An evolution towards river basin management plans which include parallel objectives and measures for both quantitative and qualitative aspects and for groundwater and surface water bodies (from ideal-type A towards B).</td>
<td>The Integrated River Basin Management paradigm; Different decision-making rules for water quality and quantity issues</td>
</tr>
<tr>
<td>Scope (external integration): Policy documents and management plans from other policy domains take into account water issues and reversely (ideal-type B).</td>
<td>Cross-compliance procedures; Environmental Policy Integration; the Integrated River Basin Management Paradigm; Relative weak position of DG Environment among other sector DGs</td>
</tr>
<tr>
<td>Position: Conditional maintenance, alienation and acquisition of water and land resources use and property rights. Conditions include requirements to internalise social, economic and/or environmental externalities (ideal-type B).</td>
<td>Sovereignty and Subsidiarity; Industrial and agricultural actors; Environmental Policy Integration; Integrated River Basin Management Paradigm</td>
</tr>
<tr>
<td>Boundary: Nongovernmental actors may have access to the river basin management planning process under conditions set by the public actors. Emphasis on co-think and consultation (ideal-type B).</td>
<td>Integrated River Basin Management paradigm; Principles for good (water) governance; Financial support by DG Environment for alliances with NGOs</td>
</tr>
<tr>
<td>Choice (supply and demand management): A cautious evolution from supply management only to a mixed supply and demand management approach (from ideal-type A towards B).</td>
<td>Integrated River Basin Management paradigm; Sovereignty and Subsidiarity; European water quality/quantity divide</td>
</tr>
<tr>
<td><strong>Rule-types in the 1990 to 2009 period ↓</strong></td>
<td><strong>Potential explanations ↓</strong></td>
</tr>
<tr>
<td>--------------------------------------------</td>
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</tr>
<tr>
<td>Choice (nature of the licences system): A cautious evolution towards licences that integrate quantity and quality objectives related to development, management and use of water resources (from ideal-type A towards B).</td>
<td>Sovereignty and Subsidiarity; Discursive statements on the need for a more integrated and coherent legislative framework</td>
</tr>
<tr>
<td>Aggregation: A juxtaposition of asymmetric, top-down and symmetric, consensus based decision-making on water policy and management plans at different administrative levels within river basins (a juxtaposition of ideal-types B and C).</td>
<td>Sovereignty and Subsidiarity; Legally binding European directives; Integrated River Basin Management paradigm</td>
</tr>
<tr>
<td>Information: The river basin management planning process (definition of means and ends) is predominantly driven by expert information and knowledge from the natural and economic sciences. Validity, reliability, costs-benefits ratios and economic efficiency are central criteria for legitimised information and knowledge (a juxtaposition of ideal-types A and B).</td>
<td>Dominance of public actors/experts from the water policy domain; Neo-liberalism; cost-effectiveness; Precaution and prevention.</td>
</tr>
<tr>
<td>Pay-off: Both rewards and sanctions from laws and regulations and economic incentives and market forces are major drivers for compliance with collective-choice rules (juxtaposition of ideal-types A and B).</td>
<td>Legally binding European directives; The polluter pays principle, affordability, cost-effectiveness; Sovereignty and subsidiarity; Neo-liberalism; Dominance of public actors/water experts from the water policy domain</td>
</tr>
</tbody>
</table>

Legend: The grey-coloured cells indicate remarkable evolutions.

Two strong barriers for change of *organisational scope rules* change become noticeable from the resources and power dimension. Firstly, given sovereignty of riparian states and the subsidiarity principle, one may not expect an advocacy or development of supranational authority for international river basin committees. Secondly, the European institutions strongly work along policy sector lines with actor networks that generally are not organised along hydrological boundaries. Additionally, despite IRBM rhetoric which points both at interdependencies between the qualitative and quantitative state of water resources and pressures from land- and water-based human activities, sector interests in the context of regional and rural development and economic growth have more political weight and influence. As such, a broadening of the scope towards issues from outside the water policy sub-domain (with land use planning) is not likely to occur. Furthermore, the financial and personnel position of the DG Environment is relatively too weak to alter this historical European path towards a widening of the scope of the river basin management coordination structures beyond water sector issues.
The sharp divide between decision-making procedures for water quality issues (based on co-decision and qualified majority voting) and water quantity issues (based on consultation and unanimity voting), probably is the most pregnant barrier for a more far-stretching change of internal integration rules. However, one of the major impacts of the WFD is enforcement of the internal integration evolution. The Directive has reduced the number of prior water-related directives considerably and it explicitly has raised attention towards linkages between the management of groundwater and surface water bodies. Furthermore, it mentions mitigation of effects of floods and droughts and includes drinking water protection issues and so forth. A coalition of relatively water scarce Member States, that favour full sovereignty over water quantity issues, have prevented a change of decision-making rules on water quantity issues so far.

With regard to external (cross-sector) integration, the WFD fits into the wider European context of the 1990s in which environmental policy integration arguments progressively gain more ground. For example, cross-sector integration of environmental issues is mentioned in the Treaty on the European Union among the major priorities (European Communities, 1992a). However, notwithstanding the joint attempt of DG Environment and DG Agriculture and Rural Development to integrate (some of) the WFD requirements into the (revision of) the CAP, sector policies, in combination with sustainable economic growth and regional development discourses remain dominant and act as a barrier on further institutionalisation of environmental objectives into other policy domains. Overall, directorate generals, who are circumvented by sector interests groups, mainly work in parallel.

From the wider neo-liberal European context, the WFD has picked up economic instruments and has incorporated these into the position rules of the water policy sub-domain (albeit implicitly, since the European institutions do not have formal authority to interfere with water and land user and property rights systems of the Member States). Economic and ecological experts have caught the opportunity of the CIS to try to incorporate environmental externalities into costs calculations for water services. Although methodological deficits so far have hindered a full success story of economic valuation, awareness has been raised among European actors. Perhaps, this increased awareness may trigger future deliberations on conditions for social, economic and ecological resilience in the context of sustainable development, management and use of interrelated land-water resources. As a counterbalance, the paradigmatic diversity in the official WFD text around sustainability, taking on board the full range of notions from conventional ecology, conventional economics and ecologically informed economics, may act as a barrier to early fruitfulness of such deliberations.

The WFD has been formulated and adopted in an era in which there were calls and initiatives to both enlarge access to and increase transparency of the European planning and decision making processes (the good governance discourse). The WFD has been considered a test case for opening up the boundary and aggregation windows of the environmental policy domain. While the DG Environment enlarged access for interests groups to the WFD’s drafting process, the EP, under the co-decision procedure, has managed to cash several amendments. In the CIS, the DG Environment and the EU Water Directors have offered ample opportunities for interests groups to get informed, bring in knowledge and expertise, to co-think and, to a more limited extent,
to co-produce. Although the WFD process certainly has triggered early involvement of multiple non-governmental stakeholders, conditions remain determined by the public actors. The privileges that environmental NGOs have acquired (such as financial support of the DG Environment) on the one hand may be viewed as a trigger for opening up the process. On the other hand these NGOs are cautious not to get co-opted and other interests groups may feel disadvantaged. Besides, all DGs have developed their own sector actor networks of influence over time. Given these observations, full and open access to the European water policies planning and decision-making processes (e.g. with pronounced co-decision and self-determination options), is not to be expected. The emphasis of active involvement remains on information and consultation of diverse interests groups by the public actors.

For both indicators of choice rules (supply and demand management and the nature of water-related licences systems) the observations point a cautious evolution from ideal-type A towards ideal-type B rules. Notwithstanding the sharp divide between decision-making procedures for water quality and water quantity issues and the fact that European institutions have no formal authority to interfere with domestic demand and supply practices and licences systems, the careful and ambiguous, wording of the official WFD text might trigger awareness raising about the importance of linking both supply and demand management and quality and quantity issues. Advocates consider the WFD’s inclusion of notions on the importance of integrative efforts an important step forward, of which the rule-altering potential should not be underestimated. Among the advocates is the EC with its call for an integrated supply and demand approach for anticipation of water scarcity and droughts in which a hierarchy of water uses is central (Commission of the European Communities, 2007c).

The evolution from asymmetric, top-down decision-making by public actors towards more mixed top-down and bottom up processes enters the environmental policy domain. The WFD is considered an important test case for this latter type of aggregation rules. However, enlarged involvement opportunities for private and civil actors neither causes complete abundance of asymmetric practices, nor expansion of co-decision procedures to civil and private actors. Additionally, although the EP has acquired more shared decision-making power with the Council of (Environmental) Ministers, it still has less to say about water quantity issues. Besides, as argued before, sector boundaries are persistent and hard to overcome by the still relatively weak, albeit growing, DG Environment and its circumventing environmental NGOs. Finally, interests groups may try to influence decision-making by increasing lobbying activities, but still have no or limited co-decision and self-determination options.

The Common Implementation Strategy (CIS) fills in prior calls for more open access to information and for more transparency and emphasis a combination of economic and technical-scientific criteria for legitimised information and knowledge (information rules). Public actors and a selection of experts from private and civil interests groups dominate the information collection and aggregation process for the guidance documents. The guidance documents are informal and these do not necessarily reflect the formal opinions of involved stakeholder groups who are also not asked to explicitly express shared ownership. Implicitly, the contributors to the documents may be considered shared owners, but with regard to the informed and/or consulted actors, it
is not clear to which extent they (and the organisations they represent) support or oppose the documents. The official WFD text itself consolidates prior European principles and practices, e.g. by incorporating explicit information and consultation requirements in Article 14 (European Communities, 2000: 16) and reporting obligations in Article 15 (ibid.: 17). The more ambitious wording in two of the guidance documents, on joint fact finding, negotiated knowledge, social learning, shared ownership building and open, interactive planning (European Communities, 2003h and k) should be considered as choice options for the sovereign Member States, rather than as requirements at the European political level.

With regard to pay-off rules, traditionally, the European Commission has a strong focus on compliance checking procedures. Special funds are available to support active involvement of accession countries, such as for participation in pilot river basin projects. In addition, the use of economic instruments is advocated. The observations concerning actors, resources, power and policy discourses all point at a stable dominance of ideal-type B rules during the entire 1990 to 2009 period.

To sum up, the analysis of this research shows that the WFD until 2009 did not trigger major changes in collective-choice rules within the European water policy sub-domain. In general, the Directive mainly echoes policy discourses in the wider European institutional context in the era in which it has been drafted, negotiated and adopted and has incorporated dominant argumentation lines of these into the water policy sub-domain. Its major contribution has been cleaning up a considerable part of the diversity of water-related directives and further institutionalisation of the IRBM paradigm at the European level. Although the WFD clearly supports internal integration tendencies, its triggers for cross-sector efforts are too weak to make a difference. The division of resources and power, e.g. parallel operating DGs with their own actors’ networks and a relatively weak position of the DG Environment among these, in combination with dominance of economic growth and rural development discourses, account for most strong barriers against a further integration of collective-choice IRBM rules into other policy domains.

In the drafting and negotiation stage, water officials, ecologists and economic experts have embraced neo-liberal discourse elements in order to incorporate the application of economic principles and instruments into the water policy sub-domain. Their efforts for economic valuation of environmental externalities of water supply and demand practices may be considered a first, albeit cautious step on the (long) way to define common interrelated principles of economic, social and economic resilience. Furthermore, incorporation of notions on interlinkages between both quality and quantity issues and supply and demand management, albeit again by means of cautious wording, opens the floor to opportunities for more integrated licences systems and water management practices. Given the lack of formal authority of European institutions to interfere with domestic supply and demand approaches, user and property right systems and license systems, it is remarkable that some actors have managed to include these potentially far reaching discursive elements into the WFD. How influential these elements actually are should become visible in the multilateral and domestic
interpretations and implementation practices (see the subsequent empirical Chapters 5 to 8).

Finally, this analysis of the European level shows that potential explanations for observed changes and continuations of collective-choice rules are not easily drawn from assessments of individual dimensions of a policy arrangement alone. Policy discourses, actors and the division of power and resources all deliver parts of the whole explanation. This observation supports the argument of the developers of both the Policy Arrangement Approach and the Institutional Analysis and Development framework to respectively consider the four dimensions and rule types as configurations. In the next chapter it will become clear whether this observation also holds at the multilateral level of the International Meuse Commission.
Sandra Borowski and Henk Saeijs prepared the Dutch tactics for a meeting of the International Commission for Protection of the Scheldt River against Pollution (Source: Zeeland Directorate of the State Waters Management Agency, 2000)

Cover of the first multilateral Meuse River Basin Actions Programme as drafted before adoption of the Water Framework Directive (Source: International Commission for Protection of the Meuse River against Pollution, 1998)
Sovereignty and subsidiarity rule the multilateral Meuse Theatre

‘The Water Framework Directive has urged all the riparian states and regions in the International Meuse Commission to enforce their multilateral coordination efforts. First of all, it has triggered the entry of new public actors. Secondly, the Directive has offered new opportunities for involvement of NGOs. Finally, it has widened the scope to both qualitative and quantitative water related issues.’

Mario Cerutti (Secretary-General of the International Meuse Commission between 2003 and 2010; Interview on January 31, 2011).

5.1 Introduction

As concluded in the previous chapter the Water Framework Directive (WFD) echoes the European policy discourse on better governance (concerning issues such as integration, transparency and active involvement of stakeholders) and incorporates it into the water policy domain. The combination of the ambiguous ambitions and definitions of the Directive and the policy sectors based configuration of resources and power has prevented significant collective-choice rules change at the European level. However, one may not underestimate the rule-altering potential of the inclusion of politically sensitive phrases in the WFD and its related guidance documents on supply and demand management, integration of water quality and quantity, cross-sector integration, economic valuation of environmental externalities and encouragement of active stakeholders’ involvement. The interplay among strategies of actors’ coalitions and oppositions, division of resources and power, current rules and the Integrated River Basin Management (IRBM) discourse within and across Member States, ultimately determines to which extent this rule altering potential actually will trigger changes in collective-choice rules. As described in Chapter 3, the central research question is to which extent the WFD triggers rules changes at a (nested) hierarchy of political levels within the International Meuse River Basin District. This chapter poses and answers the question how the actors at the multilateral level (in this particular district) handle the ambiguous European ambitions and rule altering potential.

Firstly, Section 5.2 provides a chronological overview of the evolutionary process of (enforcement of) the multilateral coordination from the signing of the first Meuse River Treaty (Anonymous, 1994) till the end of the first WFD implementation planning stage (December 2009). This brief reconstruction is important to understand the historical context of conflict and prudent trust building that has been the point of departure for the Meuse riparian states and regions. Additionally, it provides for an impression of the atmosphere in which the multilateral talks take place. Subsequently in the search for continuity and change, Section 5.3 compares observed collective-choice rules for IRBM during the 1990 to 2009 period with the ideal-types as defined in Chapter 2. As a third step, Section 5.4 provides for an assessment of policy
discourses, actors’ coalitions and oppositions and the division of resources and power over time. Finally, Section 5.5 closes this chapter with a synthesis, summarising potential explanations for observed continuities and changes in collective-choice rule-types.

5.2 Laborious enforcement of multilateral coordination

5.2.1 Life before the WFD (1990 to 2000)

The ‘Convention on the Protection and Use of Transboundary Watercourses and International Lakes’ (the Helsinki Convention; UN-ECE, 1992) is based on the IRBM paradigm. Saager (2001) argues that the Helsinki Convention has been among most important triggers for drafting the 1994 Charleville-Mézières ‘Treaty on Protection of the Meuse River against Pollution’ (Anonymous, 1994). After a long history of political conflict and distrust, the signing of the 1994 Meuse Treaty has been considered an important turning-point in the multilateral water relations (Meijerink, 1999). The 1994 Meuse Treaty mainly focuses on multilateral coordination of surface water and sediment management of the Meuse River (Anonymous, 1994). The Treaty has been signed by the Republic of France, the Royal Kingdom of the Netherlands and the three Regional Authorities of Belgium (Brussels, Wallonia and Flanders). The contracting parties declared to work together in a spirit of good neighbours in order to maintain and improve the quality of the main river course. Four principles (in the European acquis communautaire) are central in the multilateral coordination efforts: precaution, prevention, source oriented emission reduction and the polluter pays. Economic acceptability and a level playing field are mentioned as important preconditions for measures to be taken. The riparian states and regions aim at defining preconditions for sustainable development of the Meuse River and its hydro-geographic basin (ibid.).

Emphasis of the Meuse Treaty is on information exchange concerning pollution sources, monitoring networks, (intentional) quality objectives and management programmes of the individual riparian states (Anonymous, 1994). The Treaty introduces the intention to establish a homogeneous water quality monitoring network and aims at coordination of the national and regional warning and alarming systems on accidental pollution. Stakeholder participation is limited to observer status for the European Community, Member States within the river basin who are not contracting parties and intergovernmental organisations or commissions with comparable interests or tasks (ibid.). January 1, 1995, based on the Treaty the International Commission on Protection of the Meuse River against Pollution (henceforth ICPM) has started its activities on an informal basis.

April 1996: the ICPM decides to incorporate a number of border-crossing cooperation structures (bilateral and trilateral) within its coordination framework. January 1, 1997, the ICPM launches its final international Warning and Alarming System on accidental pollution of the Meuse River (WASM). Evaluation and improvement of this system is one of the main activities of the ICPM. In 1997 the ICPM also publishes its first report on the water quality of the Meuse River (i.e. the quality in 1994; ICPM, 1997). After ratification of the 1994 Meuse Treaty by all contracting parties (January 1, 1998) the ICPM continues on a formal basis. The ICPM launches
its homogeneous water quality monitoring network for the entire Meuse River. At 17 monitoring stations in the Meuse River (from source to mouth) substances/parameters of the multilateral list are measured once every four weeks. Biological quality parameters would be added later when the harmonisation exercises had been finished. In 1998 the ICPM launches its first Meuse River Actions Programme (ICPM, 1998). The overall aim is to improve transparency on joint actions and individual actions of the states and regions and to stimulate international coordination. Emphasis of the first programme is on short term actions by the contracting parties, both individually and in concert (1998-2003). Remarkably, the list of joint actions is relatively short. In October 1998 the ICPM decides on the list of relevant physical-chemical substances for the Meuse River. Besides, the ICPM works with a list of candidate substances and parameters.

March 18, 1999, the first ministerial conference of the ICPM contracting parties took place in Namur (Belgium). The Environmental Ministers reconfirmed the international coordination objectives in a spirit of good neighbours and welcomed first positive results regarding multilateral coordination for water quality amelioration such as the WASM, the homogeneous water quality monitoring network and the LIFE water sediment project (ICPM, 1999). They supported the first Meuse River Actions Programme and asked the ICPM to come forward with an interim progress report in 2000. The Environmental Ministers asked special attention to reduction of diffuse sources of pollution by means of joint actions. In 2003 the ICPM would evaluate the first Meuse River Actions Programme and draft a second one including intentional objectives by 2010. An Internet site would be launched soon to inform the general public. The Ministers emphasised the WFD’s importance for the activities of the ICPM and asked for a study of its implications. They emphasised the necessity of a close cooperation between the ICPM and the High Waters Working Group, given relations between the management of high water levels and ecological values of the Meuse River. Implications of potential multilateral coordination of groundwater systems by the ICPM would be studied. The Ministers invited Germany and Luxembourg to join the ICPM. Finally, the Ministers decided to grant access to NGOs to attend the plenary ICPM meetings for those issues that relate to their activities (with an advisory role; ibid.). The Declaration of Namur (ICPM, 1999) marked the entry into a new era in which the multilateral coordination of the WFD implementation would become central.

5.2.2 Implementation of the WFD (2001 to 2009)
In first WFD implementation planning period, three sub-periods are distinguished at the multilateral level:

- From January 2001 to December 2002: Exploring implications of the WFD towards a second Meuse Treaty,
- From January 2003 to December 2005: Drafting of the multilateral Article 5 roof report and laborious reorganisation attempts,
- From January 2006 to December 2009: Preparation of the multilateral roof river basin management plan; procedural debates.
The so-called roof report is the multilaterally coordinated part of the Article 5 report. The report is a transboundary synthesis of the Article 5 editions of the individual Member States. It concerns those issues only for which multilateral coordination is considered necessary in addition to those issues which are to be solved trilaterally, bilaterally or nationally. The decision to draft a multilateral roof report is a remarkable milestone given that the WFD (European Communities, 2000: Article 3(4), page 8) does not prescribe one. The Directive mentions that ‘Member States shall ensure that the requirements of this Directive for the achievement of the environmental objectives established under Article 4 and in particular all programmes of measures are coordinated for the whole of the river basin district’ (ibid.). A similar observation applies for the multilateral roof river basin management plans (European Communities, 2000: Article 13(2), page 16):

In the case of an international river basin district falling entirely within the Community, Member States shall ensure coordination with the aim of providing a single international river basin management plan. Where such an international river basin management plan is not produced, Member States shall produce river basin management plans covering at least those parts of the international river basin district falling within their territory to achieve the objectives of this Directive.

In retrospect: the Meuse riparian states and regions decided to draft a multilateral roof Article 5 report, as they viewed it as important starting point for the subsequent multilateral roof river basin management plan.


At the end of 2000 the 8th Plenary Meeting installs a temporary working group to identify both the potential tasks of the ICPM in relation to the WFD implementation and required adaptations of the 1994 Charleville-Mézières Treaty. In 2001 Luxembourg and Germany decide to become a contracting party of the ICPM, whereas the Belgian Federal State expresses the intention to enter. At the 9th Plenary Meeting (November 2001) the states and regions on the hand hand stress own responsibilities for WFD implementation and on the other the added value of multilateral coordination at the level of the entire river basin district under the wings of the ICPM. They ask the WFD Working Group to prepare a proposal on modalities for the structures of the ICPM in relation to international WFD coordination tasks. Environmental NGOs ask for more direct ways of participation, similar to the arrangements of the international Rhine and Danube commissions. Instead of their proposed three-level approach (see Subsection 5.3.3 for a further description) the ICPM decides to follow a more limited participatory approach.

November 30, 2001: the Environmental Ministers of the Meuse river states and regions declare to adapt the ICPM structures for the new task of multilateral coordination for the WFD’s implementation (Ministerial Declaration of Liege, ICPM, 2001). A focal shift takes place from water quality for the Meuse River to integrated water management for the entire Meuse River Basin District. In November 2002 the 10th Plenary Meeting approves the adapted organisational ICPM structures. The previous transnational High Waters Working Group has been incorporated in the ICPM struc-
tures and the Coordination Working Group has been added. In addition coordination for border-crossing sub-basins (surface, ground and coastal waters) shall take place in “appropriate regional frameworks”. The ICPM is asked to draft a second Meuse Actions Programme which will have to take into account implications of the WFD’s implementation. The 1994 Treaty shall be adapted to these implications (ibid.). Multilateral coordination of the WFD implementation is considered one important activity, parallel to implementation of the Meuse Actions Programme. The Coordination Working Group coordinates the activities of the three technical working groups (i.e. physical-chemical, ecology and high waters) but has an equal position in the ICPM hierarchy. All working groups draft annual working plans and may work with temporary project groups. The states and regions express the intention to open up the multilateral window for participation of experts from NGOs in working groups.

Given that the WFD and the High Waters Working Group bring in new activities the Dutch delegation (supported by the Flemish Region of Belgium) proposes to expand the secretariat with one additional executive secretary. The Walloon and French delegations are not convinced of the need and disagree. During the meeting a lack of progress on several activities from the first Meuse Actions Programme becomes visible. Environmental NGOs are seriously disappointed about the lack of actual active participation opportunities. According to them sovereignty hinders effective multilateral coordination. The WWF and Inter Environnement Wallonie (which is a Walloon Region based green NGO) conclude that the new Meuse Treaty only includes minimal information and consultation requirements. They characterise the ICPM as a forum for information exchange only instead of a platform for active development of border-crossing water policy. As symbolic sign of protest they leave the meeting room. RIWA Meuse (which is an international drinking water interests’ umbrella organisation) is deeply disappointed about the lack of a final international accidental pollution model and will offer the ICPM its own proposal. The representative of Walloon industries plies for a level playing field by taking into account exceptional low river flows in dry periods.

December 3, 2002: the French Republic, the Federal Republic of Germany, the Grand Duchy of Luxembourg, the Belgian Federal State, the Regional Authorities of Brussels, Wallonia and Flanders and the Royal Kingdom of the Netherlands sign the Ghent Meuse Treaty (Anonymous, 2002) which replaces the 1994 Charleville-Mézières Treaty (Anonymous, 1994). With the new Treaty the riparian states and regions intend to establish a sustainable and integrated water management within the Meuse River Basin District, in particular taking into account the multiple-functionality of the water systems (Anonymous, 2002). Special tasks of the (renamed) International Meuse Commission (henceforth IMC) will be the multilateral coordination of the WFD requirements, drafting an international river basin district management plan, coordination of preventive and protective high waters measures, contribute to mitigation of effects from floods and droughts and multilateral coordination of prevention and combat of accidental pollution. It is remarkable that integration with other policy domains (spatial planning, nature management, forestry and urbanisation) is mentioned explicitly in relation to flood prevention and protection, but not with regard to the WFD requirements. The new Treaty mentions the same four cooperation
principles ‘as defined and commonly interpreted in European environmental law’ (Anonymous, 2002: Article 3(1), page 5). Coordination of issues within border-crossing sub-basins may take place in ‘appropriate regional frameworks’ (ibid: Article 4(5), page 7). With regard to participation procedures it is remarkable that the new Treaty mentions the option for observers to bring in relevant information, but not a reverse right of observers to receive relevant information (ibid: Article 6, page 9).

**The Article 5 roof report and laborious reorganisation attempts (2003 to 2005)**

In 2003 the Heads of Delegations decide to hire a consultancy firm (the Eurogroup) as temporary liaison officer for WFD activities (drafting the Article 5 roof report mainly). As a matter of principle NGOs may participate in working groups and project groups, as long as they provide their information and expertise and as long as they do not use the meetings for lobbying. Criteria for participation will be detailed further by the then chair and the secretariat. The Belgian Federal delegation plies for more equilibrium in the type of participants, since to its opinion environmental NGOs dominate by numbers. All Heads of Delegations support the German-French proposal for an international Article 5 roof report for the entire Meuse River Basin District (Interview 42, Appendix I). A table of contents is approved. In the second stage of the Meuse Actions Programme (2004 to 2009) emphasis again will lie on the Meuse River. Within the programme there should be balance and coherence with other IMC activities like the WFD coordination and high water activities. In addition to the WFD and water quantity issues five priority themes are mentioned: (1) warning, alarming and modelling of accidental pollution (lead: Netherlands); (2) homogeneous monitoring network (lead: France); (3) fish (lead: Flanders); (4) manure and eutrophication issues (lead: Wallonia); and (5) water sediment (lead: Netherlands).

The Heads of Delegation welcome the idea of the Dutch delegation to come up with proposals for quantitative objectives and process evaluation criteria for the multilateral coordination. Later, actual support from the other delegations turns out to be limited, since such criteria have not been formulated. At the end of 2004 the Dutch delegation expresses worries about the timely international WFD coordination and apologies for the limited provision of its national data so far. The EC’s observer points at the necessity of a timely deliverance of the Article 5 roof report based on available information. The Walloon Union of Enterprises (again) refers indirectly to an international *level playing field* with regard to the WFD’s environmental objectives which, to the union’s opinion, should take into account periods of extreme low discharge rates in the river.

In 2004 the Heads of Delegation do not reach full agreement on the description of tasks and organisation of the IMC secretariat. The French and Walloon delegations ask for an overview of additional WFD tasks before deciding on additional human and financial resources. According to the Dutch, Flemish and German delegations it is already clear that mainly due to the WFD, there are substantial additional tasks for the Commission. Seven NGOs have been accepted as observers. Their representatives are invited for a special annual meeting with the Heads of Delegations. The Article 5 roof report (Part A) shall be based on 23 reporting units. The part B reports (national parts) will not be harmonised. Since not all delegations (including the Netherlands)
provided requested data in time, the secretariat has not been able yet to conduct an evaluation of the first stage of the Meuse Action Programme. Due to limited resources, highest priority is given to WFD activities. The draft list of pertinent substances for the Meuse River Basin District is approved. Monitoring data will be collected for candidate pertinent substances. November 2004 the risk analysis (to be included in the Article 5 report) is not available yet, as the Head of Delegation still would have to decide on the multilateral procedures. The Heads express their intention to exchange views with NGOs on public consultation procedures and decide on the participation procedures for NGOs in project group activities. Given the laborious procedural discussions some NGOs start to lose interest in active participation.

At the 12th Plenary Meeting (December 2004), the Walloon delegation asks questions about the legitimisation of some activities by the IMC and refers to a strict interpretation of WFD’s Article 3. According to the Walloon Region of Belgium the IMC should restrict itself to the coordination of methods and procedures and should not collect its own data. Furthermore, the Coordination Working Group should revise the mandates for the working groups and project groups for the benefit of clear work programmes. Although the then chair points at unclear mandates for the secretariat (which have hindered coordination of the Article 5 report drafting process), the states and regions do not conclude any action for improvement. The Dutch delegation notifies differences in interpretation and application of the (European) WFD guidance documents. The Dutch argue that the IMC could help to obtain insight in the different domestic approaches. The Plenary Meeting recommends the riparian states and regions to enforce the bilateral coordination efforts on WFD implementation issues in border-crossing river sub-basins. The Monitoring Project Group will receive the mandate to establish an international WFD monitoring programme, as based on the national networks before the end of 2005. Opinions differ from a more limited interpretation (Wallonia: chemical water quality only) to broad (Germany and the Netherlands: chemical and biological parameters, surface water and groundwater). The homogenous network will continue at least until 2006 and will be part of the multilateral coordination of the national WFD monitoring networks.

In 2005 the IMC reorganises itself for the 2006 to 2009 period in which the WFD activities would become more dominant. The organisation scheme includes four permanent working groups and a number of temporary project groups (see Figure 5.1). Although the Coordination Working Group is drafted centrally in the scheme, it formally does not have a higher hierarchical position compared to the other three working groups. However, from the scheme it seems that both the Coordination Working Group and the Hydrology/High Water Working Group have a direct link with the Heads of Delegation (who actually take the decisions), while the other working groups only have indirect links. The former Ecology Working Group has been “downgraded” to a temporary project group. Since both working groups and project groups are active during the same period, it is not clear in practice what is the actual difference between “permanent” and “temporary”. The role of NGOs becomes not visible in the organisation scheme.
In 2005 the IMC publishes its Article 5 roof report (IMC, 2005b). All riparian states refer to this report in their related national reports in order to proof the EC that multilateral coordination has taken place. There is an English translation and a brochure (IMC, 2005c) available. Based on the roof report the IMC selects the ‘important water management issues’ at the level of the entire river basin district (IMC, 2005d):

- hydro-morphological alterations (including fish migration barriers,
- water shortages (taking into account environmental, social and economic considerations),
- pollution from households, agriculture and industry,
- flood prevention and mitigation in relation to ecological restoration and natural erosion and sedimentation processes,
- and water shortages in relation to sustainable water use; groundwater quality and quantity.
At the end of 2005 the delegations still did not agree on an extension of the secretariat. The delegations informed each other about their national public consultation procedures (WFD’s Article 14). France and Wallonia had initiated extensive public surveys about important water management issues. The exchange of information on national monitoring programmes had been completed. The Flemish delegation regretted the lack of a joint multilateral report with common conclusions. Finally, NGOs again criticised the lack of openness of the IMC such as no public access to the warning and alarming system on accidental pollution. RIWA Meuse expressed deep disappointment regarding the exclusion of its water quality figures in the roof Article 5 report. RIWA and other observers expressed their willingness to contribute actively to the roof river basin management plan, for example by offering monitoring data and expertise.

**The roof river basin management plan, procedural debates (2006 to 2009)**

In 2006 irritation about the lack of progress is expressed explicitly by some delegations. For example, the then German Head of Delegation mentions a strong focus on procedural discussions which deflect attention from urgent activities. The suboptimal information about an accidental pollution with high cadmium concentrations in the Meuse River causes irritation among the downstream situated Dutch and Flemish riparian states. Progress on the improvement of the multilateral warning and alarming system is hampered by laborious debates. A joint workshop with the International Scheldt Commission parties on this issue has been postponed. A new project group will consider (dis)advantages of integration or parallelism for the homogenous and WFD monitoring networks. Based on a German proposal the IMC will draft a roof monitoring report. The IMC initiates activities on a comparison of national definitions on economic issues like application of the *disproportionate costs* argument.

NGOs again ask for more openness, transparency and less bureaucratic participation procedures. In response the Heads of Delegations approve participation of experts from observer organisations in the working groups and project groups. The Heads of Delegations decide not to integrate issues from NGOs in the list of important water management issues. Instead they may be mentioned in the working plans for the working groups and/or project groups. A French proposal to draft the roof Meuse River Basin Management Plan in a mixed top-down (by the IMC) and bottom-up process (by the riparian states and regions) has been approved. The delegations agree to depart from the significant multilateral water management issues. The Groundwater Project Group has concluded that there is no groundwater body that requires multilateral coordination. The IMC actors decide to draft a list of water bodies which do require trilateral or bilateral coordination. The Objectives and Measures Working Group doubts whether there could be draft texts available by mid 2007, since most riparian states and regions have only initiated national activities on drafting programmes of measures in 2006. The working group has started with an inventory of basic measures conform the WFD’s Annex VI (European Communities, 2000: 64).

In 2007, driven by a Flemish-Dutch proposal, the IMC decides to include a chapter on floods and droughts in the roof river basin management plan. Progress in the Objectives and Measures Working Group is laborious with lots of procedural
discussions (such as on drafting a work plan; Interview 34, Appendix I). In March the Heads of Delegations decide to initiate a project group on warning and alarming of accidental pollution (with a Dutch chair). Luxembourg and Germany decide to join and tributaries are included. In December the project group turns into a permanent working group. The IMC publishes the roof report on the WFD’s transboundary monitoring requirements (IMC, 2007). The Heads of Delegations discuss five major issues as mentioned in a Dutch discussion document. The issues mainly concern irreversible hydro-morphological changes and application of the Article 4’s exemptions. The aim of the Dutch delegation is to provide clarity on the views of the delegations in order to support the coordination activities in the working and project groups. The Dutch delegation wished to avoid different images and interpretations on the WFD’s environmental objectives and exemptions in the implementation within the international river basin district (Interviews 18 and 51, Appendix I).

The IMC chair speaks informally with representatives of NGOs. The NGOs consider the participation procedures as too inflexible, for example they have no access to minutes of working group meetings. Besides, the IMC does not offer resources for translation of their documents. All 7 NGOs wish to continue as observers of the IMC. Also the Flemish MINA Council (which is an advisory platform for nature and environmental policy), after initial opposition from the Walloon delegation, has been granted the observer status. The Plenary Meeting is happy about the initiatives from the Walloon and Dutch delegations for integration of the Meuse Junior Symposium in the 3rd International Meuse Symposium under the wings of the IMC. The Plenary Meeting supports the initiative of the Reinwater Foundation (Stichting Reinwater; which is a Dutch NGO) for an IMC brochure on street litter. The IMC decides to act as the competent authority for multilateral coordination of the European Floods Directive. The French delegation is in favour of integration of the WFD and homogeneous monitoring networks. The Walloon PEGASE model will be used to study the impact of basic WFD measures on water quality improvement. There is little progress on coordination of groundwater issues and comparison of cost-effectiveness analyses. RIWA Meuse asks the IMC to consider an additional list of twelve substances as relevant Meuse substances in relation to drinking water production.

2008: the Heads of Delegation agree to change the rules of procedure. NGOs may attend working group meetings (except for the Coordination Working Group) for issues that the chairs decide upon. The NGOs notify a lack of progress and too many short notice cancellations of working group meetings. The chair of the drafting team for the roof part of the river basin management plan mentions a laborious progress. The (German) IMC chair expresses the need for more mutual trust and asks the provision of the draft national documents in order to accelerate multilateral coordination. France expresses the lack of a sound method for estimation of benefits. The Dutch request the other delegations to provide representatives in the working and project groups more mandate for manoeuvre. The Flemish delegation stresses the necessity of both multilateral and bilateral coordination.

Only the Walloon delegation opposes to the publication of monitoring results of the 2007 domestic WFD programmes in the international river basin management plan. The Walloon do not consider figures for one particular year as representative
and given the fact that the domestic methods have not been not coordinated multilaterally. The Walloon delegation is in favour of a restriction to the current homogenous (pre-WFD) monitoring network for the main stream (excluding tributaries). The Walloon public actors view the homogeneous network as a good coordinated network which should be continued in the future. The Walloon delegation is not in favour of collecting information on water temperature and litter (important issues according to some NGOs), since they are not earmarked as significant domestic water management issues. The Dutch delegation gets irritated about the delay in the study report on water temperature issue which has repeatedly been promised by the Walloon delegation. Some delegations ply for more scientific research before adding those issues.

The editing of the litter brochure has been delayed given priority to drafting the roof part of the international river basin management plan. This drafting process remains laborious as well. In October data from several riparian states still lack. At the end of November the Plenary Meeting releases a draft version for public consultation. An IMC-GIS website will be designed by the Walloon actors. Finally, this somehow troublesome year ends with the conclusion that the work plan for the multilateral Floods Directive coordination activities (Article 13) is not available yet. The French and German delegations stress that national discussions should be finished first.

To conclude the IMC chronology, in 2009 the Heads of Delegations decided on the multilateral milestone of a future integration of the homogeneous IMC network and the WFD monitoring programmes of the riparian states. They decied to prepare a report on 10 years of monitoring data from the homogeneous network. RIWA Meuse again offered to make use of its monitoring data which date back to 1950. The Benelux Economic Union had published a revised disposition on fish migration (Benelux, 2009). The new disposition aims for restoration of fish migration conform the WFD terms. Rerring to this disposition, the IMC’s Ecology Project Group strated the drafting process for a Fish Master Plan. The Plenary Meeting decided on practical coordination rules (multilateral in relation to bilateral activities) for the Floods Directive’s requirements and the inclusion of drought issues. In November, the Plenary Meeting approved the roof part of the International Meuse River Basin Management Plan with reservations by the Walloon and German delegations. No comments had been received in the national public consultation rounds. The Plenary Meeting approved the proposed 2010-2015 working plan and took notice of the adapted organisational structures. As of 2010 progress of the four main working groups (Accidental Pollution, WFD, Monitoring and Hydrology/High Water) would be discussed in the (renamed) Direction Working Group (as liaison with the Heads of Delegations). There was only one project group left, namely on the multilateral Geographical Information System.

This brief historical reconstruction illustrates that, despite the somehow laborious nature of the multilateral coordination game, the water policy discourse gradually has become more integrated in nature. Incrementally and despite the procedural debates, important milestones have been decided on which may pay-off in the future. The next section will continue with an analysis of observed collective-choice rules for IRBM during the 1990 to 2009 period.
5.3 The WFD and multilateral rules of IRBM

This section explores to which extent the governance and policy principles, the environmental objectives and exemption options in the official WDF text and their interpretations in the Common Implementation Strategy (CIS) may have provoked changes in collective-choice rules for IRBM at the multilateral political level. The ideal-types rules (as defined in the Subsections 2.2.3 till 2.2.9) are the benchmark instrument for the assessment.

5.3.1 Scope Rules

As defined in Section 2.2.3, scope rules may concern the geographic area, the type of organisational structures and networks and the issues to be decided on. For the aim of this research a distinction is made between organisational and substantive scope rules. Concerning the former the focus is on the impact of hydrological boundaries on organisational structures, whereas for the latter the focus is on the levels of integration. For example, are “river basins as the appropriate management units” translated into functional agencies and to which extent may these entities operate autonomously? Additionally, what are collective choices for internal integration (of issues within the water policy domain) and external integration (of issues across policy domains)? To which extent do these choices affect the nature of river basin legislation, policy documents and management plans?

Organisational scope: the impact of hydrological boundaries

As presented in Subsection 5.2.1, before adoption of the WFD there has already been a multilateral river basin committee which has started the exchange of information on the implementation of water quality policies of the then involved riparian states. The committee followed the hydrological boundaries of the basin of the Meuse River but only focused on the main river itself. Subsection 5.2.2 has shown that the WFD has triggered enlargement of this committee by also including the tributaries, hence inviting new riparian states to participate. The nature of the committee remains functional: it focuses on water management related issues only. After adoption of the WFD the committee has broadened its attention from exchange of information and harmonisation efforts for monitoring networks only to coordination of issues that have a significant multilateral dimension. The committee has no supranational authority and works in addition to existing parliamentary institutions in the participating riparian states and regions (by providing no legally binding advices and recommendations). These observations point at ideal-type B collective scope rules both before and after adoption of the WFD (see Table 5.1a).

Substantive scope: internal integration

The scope of the ICPM as based on the Charleville-Mézières Meuse Treaty (Anonymous, 1994) was limited to selection of measures for compliance with the quality objectives for the surface water of and the aquatic ecosystems in the Meuse River. Tributaries have only been discussed when measures in these sub-basins would
contribute to objectives for the Meuse River. Sediment issues for the main river have been included, whereas groundwater issues excluded (as shown by the Meuse Action Programme (ICPM, 1998)). Due to the WFD, the scope has been enlarged to all those water issues that require multilateral coordination including tributaries (Anonymous, 2002). In this respect adoption of the important water management issues (IMC, 2005d) has been a significant step, since the riparian states have acknowledged those issues as to be necessarily multilaterally coordinated (Interviews 18, 42, 51 and 53, Appendix I). This overview includes hydro-morphological alterations of water systems, as due to electricity generation, navigation and water discharge management; water quality (nutrients, heavy metals, organic micro-pollutants, crop protection substances and protection of drinking water); water quantity (flood prevention and mitigation, water shortages and sustainable management; and groundwater issues.

Table 5.1a: Ideal-type organisational scope rules for IRBM (multilateral level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Water policy is implemented by organisational structures and actor networks which are driven by social, economic and political factors that do not follow hydrological (river) basin boundaries. These structures/networks may be multi-purpose or sectoral in nature and are under parliamentary control.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>B: Water policy is implemented by functional water agencies, committees and actor networks which follow hydrological (river basin) boundaries. These functional entities and actor networks are controlled by parliamentary institutions.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Water policy is implemented by autonomous (sub) river basin authorities and/or communities that are organised along hydrological boundaries. These authorities and communities are beyond parliamentary control and do have their own polity rules.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X’.

Given the political delicacy of water quantity issues at the European level and the laborious history of the multilateral talks, it seems remarkable that these issues are discussed by the IMC (Interview 42, Appendix I). Although both water quality and water quantity issues are adopted, emphasis is mainly on parallel approaches, as expressed by separate working groups/product groups and the separate actions programmes on high waters (WHM, 1998; IMC, 2005e) and quality issues (ICPM, 1998). Also, groundwater and surface water issues are discussed in separate product groups. Apparently, the salient integration wording in the WFD’s Preamble (European Communities, 2000: Statements 19 and 25) in combination with the work of the prior High Waters Working Group may have triggered inclusion of water quantity issues, albeit mentioned in generic terms (IMC, 2005d: 2, 4; translation from Dutch added):
Also water shortage may be a critical bottleneck for ecological functioning of the Meuse River and its tributaries. [...] Specific attention will be given to solving erosion problems with an eye on maintenance of the natural discharge capacity of rivers. [...] The fresh water availability has its limits. Consequently, also water use will have to comply with the sustainability principle in order to diminish the effects of droughts. Mining activities have disturbed local hydrological equilibria and the connections between groundwater and surface water resources. A new equilibrium will have to be found. [...] For part of the groundwater resources, there are quantitative problems.

The analysis of documents and meeting reports does not show attempts to formulate integrated objectives and measures for quantitative and qualitative aspects of individual groundwater and surface water bodies. The observations point at an evolution from ideal-type A towards ideal-type B collective-choice rules on internal integration between 1990 and 2009 (see Table 5.1b).

### Table 5.1b Ideal-type internal integration rules for IRBM (multilateral level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate legislation, policy documents and management plans for both water quality and quantity issues. Surface water and groundwater are dealt with in parallel.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>B: Legislation, policy documents and management plans which include parallel objectives and measures for both quantitative and qualitative aspects and for groundwater and surface water.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>C: Legislation, policy documents and management plans with integrated objectives and measures for related surface and groundwater bodies, including quantitative and qualitative aspects.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’.

**Substantive scope: external integration**

Both before and after adoption of the WFD the IMC does not take on board detailed cross-sector linkages, although the overview of important water management issues includes one implicit argumentation line on their importance (IMC, 2005d: 1; translation from Dutch added):

> The use of freshwater from the Meuse and policies from spatial planning and other domains are not always tuned to the environmental objectives of the WFD, in particular concerning navigation and electricity generation. An approach need to be developed which will guide the way to at least the most cost-efficient combination including environmental externalities.

In generic terms the second Meuse Treaty (Anonymous, 2002: 1; translation from Dutch added) refers to the shared wish of the riparian states and regions to cooperate
for the aim of sustainable development. All Parties express ‘the willingness to, individually, implement appropriate measures on integrated management of the International Meuse River Basin District [...] in particular with regard to the multifunctionality of the Meuse River.’ The Treaty does not include definitions of sustainable development, integrated management and multiple-functionality. There have been limited discussions on the linkages between nature conservation policy (Natura 2000) and the WFD requirements (Interviews 18 and 42, Appendix I). The Common Agricultural Policy (CAP) and other rural development policies are not detailed further at the multilateral level. It is remarkable that the second Meuse Treaty (Anonymous, 2002: Article 2 (c)) mentions integration with other policy domains (spatial planning, nature management, forestry and urbanisation) explicitly in relation to flood prevention and mitigation, but not with regard to the WFD requirements. In conclusion, the IMC does not work out specific arrangements on cross-sector policies coordination or integration. The multilateral documents mainly focus at water management issues. These observations point at ideal-type A collective rules for external integration, both before and after adoption of the WFD (see Table 5.1c).

Table 5.1c: Ideal-type external integration rules for IRBM (multilateral level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate policy documents and management plans for water policy and other policy domains without linkages.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Policy documents and management plans for other policy domains take into account water issues and reversely.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C: Cross-sector, integrative policies and management plans.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A rules as expressed by the ‘X’.

5.3.2 Position Rules

As introduced in Subsection 2.2.4, within this research, position rules relate to the question as to how do collective (inter-)national river basin governance and policy principles affect the positions of owners and users of water and land. Or reversely, which conditions should apply to acquisition, continuation and termination of rights to own and/or use (interrelated) water and land resources, in order to comply with common principles of ecological, social and economic resilience? Three ideal-types of position rules have been distinguished (see Table 5.2).

It is remarkable that both Meuse Treaties (Anonymous, 1994; 2002a) do not refer directly to the international principles of equitable and reasonable utilisation and the obligation not to cause significant harm, as expressed by the Helsinki Rules (International Law Association, 1966), the ‘Convention on the Law of the Non-navigational Uses of International Watercourses’ (United Nations, 1997) and the ‘Berlin Rules on Water Resources’ (International Law Association, 2004). As such, at a first glance, the riparian states and regions seem to get round the political delicate issues of water and land resources user rights and the related economic, social and environmental externalities.
The focus of the two Meuse Treaties, by referring to the (Helsinki) ‘Convention on the Protection and Use of Transboundary Watercourses and International Lakes’ (UN-ECE, 1992), is predominantly on water quality issues (see also Subsection 5.3.1 on scope rules). However, the Helsinki Convention should not be interpreted as excluding water quantity issues (Tanzi, 2000). For example, Article 2.2(c) of the Helsinki Convention (UN-ECE, 1992: 3, italics added) mentions that the Riparian Parties shall take all appropriate measures ‘To ensure that transboundary waters are used in a reasonable and equitable way, taking into particular account their transboundary character, in the case of activities which cause or a likely to cause transboundary impact’. Furthermore, Article 2.2(b) aims for ecologically sound and rational management of transboundary waters and conservation of water resources. Article 2.6 adds transboundary cooperation on the basis of equality and reciprocity (ibid.). Article 10 mentions consultations by Riparian Parties on the basis of reciprocity, good faith and good-neighbourliness, ‘at the request of any such Party’ (UN-ECE, 1992: 8). The Helsinki Convention does not literally include an obligation not to cause significant harm but its Article 2.1 translates it as ‘The Parties shall take all appropriate measures to prevent, control and reduce any transboundary impact’ (ibid.: 2). Article 1.2 includes a broad definition of transboundary impact which does not limit the focus to direct water-related human activities (UN-ECE, 1992: 2):

"Transboundary impact" means any significant adverse effect on the environment resulting from a change in the conditions of transboundary waters caused by a human activity, the physical origin of which is situated wholly or in part within an area under the jurisdiction of a Party, within an area under the jurisdiction of another Party. Such effects on the environment include effects on human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other physical structures or the interaction among these factors; they also include effects on the cultural heritage or socio-economic conditions resulting from alterations to those factors.

The second Meuse Treaty (Anonymous, 2002) cautiously opens the door to inclusion of quantitative issues, by adopting the WFD’s ‘…contributes to mitigating the effects of floods and droughts…’ wording. Both Meuse Treaties echo four basic European environmental cooperation principles: precaution, prevention, source oriented pollution prevention and the polluter pays (Anonymous, 1994; 2002a). Whereas the Treaty of Charleville-Mézières includes notions on good-neighbourliness and prevention of distortion of economic competitiveness, the Treaty of Ghent remarkably does not mention these. In its Article 5 on research and development programmes the Helsinki Convention mentions the ‘development and application of environmentally sound technologies, production and consumption patterns’ and ‘environmentally sound water-construction works and water-regulation techniques’ (UN-ECE, 1992: 5, 6). The Meuse Treaties do not refer to such environmentally sound technologies (Anonymous, 1994; 2002a).

The riparian states and regions of the International Meuse Commission (IMC) intentionally coordinate their water policies and management related activities on the basis of sovereignty. The IMC has no supranational authority and cannot formally interfere with domestic user and property rights’ systems. It is up to the individual,
sovereign riparian states to decide on these territorial issues and their multilateral coordination. In the Ghent Treaty the riparian states and regions express their awareness of the fact ‘the Meuse River is used for divergent essential, ecological, economic and social functions and objectives’ (Anonymous, 2002: 3). The Helsinki Convention (UN-ECE, 1992) includes some generic notions on sustainability. For example, its Article 2.5(c) echoes the Brundtland report (WCED, 1987): ‘Water resources shall be managed so that the needs of the present generation are met without compromising the ability of future generations to meet their own needs’ (UN-ECE, 1992: 3). Furthermore, its Article 3.1(i) advocates sustainable water resources management ‘including the application of the ecosystems approach’ (ibid: 4). However, within the IMC, up to the time of writing in 2012 there haven been no attempts to define sustainability or to translate this concept into (interrelated) principles of ecological, economical and social resilience. The Helsinki Convention recalls the ‘ECE Declaration of Policy on the Rational Use of Water’ (UN-ECE, 1984). This Declaration refers to integrated management of river basins, which includes integrated supply- and demand management, rational use of water resources (both in a quantitative and qualitative sense) and remarkably, a potential far-stretching principle on cross-sector integration (ibid.: principle 6, page 16):

Priority should be accorded to the coordination of land-use planning and water management. This could be restrictions on the use of certain areas, already subject to serious water shortages and or heavy environmental stress, as well as the separation of areas of water use from those of water abstraction. However, the general principle should be maintained, where possible, that the establishment of new industrial complexes, power plants, intensive livestock farming, the development of new settlements and the expansion of urban areas should be compatible with the availability of water of sufficient quality and quantity at reasonable distances.

In conclusion, given international water rules and conventions and referral in the Meuse Treaties to the ‘Convention on the Protection and Use of Transboundary Watercourses and International Lakes’ (UN-ECE, 1992), one might expect multilateral discussions on the impact of land user and property rights on the state and functioning of the Meuse River and its tributaries. However, the strong focus on water quality issues, the sovereignty principle and the political priorities of the individual riparian states and regions have avoided such complicated discussions so far. Since common definition of position rules is an important aspect in the context of sustainable river basin management, the lack of multilateral rules and discourses points at unconditioned protection of prior property and user rights with regard to transboundary environmental, social and economic externalities. These observations indicate ideal-type A position rules before and after adoption of the WFD (see Table 5.2).
Table 5.2: Ideal-type position rules for IRBM (multilateral level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Protection of prior water and land resources use and property rights without preconditions on environmental, social and economic externalities.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Conditional maintenance and acquirement of water and land resources use and property rights. Conditions include requirements to consider social, economic and/or environmental externalities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C: Reallocation of use and property rights, based on interrelated conditions of ecological, economical and social resilience.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A rules as expressed by the ‘X’.

5.3.3 Boundary Rules

As defined in Subsection 2.2.5, in this research boundary rules are interpreted as related to who has access to the river basin management planning and decision-making process and who has not? What are conditions for entry and exit? What are the degrees of participation for different stakeholder categories? Three ideal-types of boundary rules have been distinguished (see Table 5.4).

In the 2001 Plenary Meeting environmental NGOs ask for more direct ways of participation and propose a three-level approach. As the first level, they propose to install an advisory forum of users and interests groups. The advisory forum may provide advice (by request and own initiatives) on issues of river basin management and activities of the working groups. A delegation of the forum attends the Plenary Meetings to elucidate the advice. Secondly, experts from NGOs will have access to working groups in order to cooperate on relevant issues. The third level concerns a political dialogue of information, education and communication in order to raise awareness and involve the general public. The then ICPM does not accept the first proposal on an advisory forum. Instead NGOs may attend the Plenary Commission Meetings as observers if they meet three criteria: (1) they are statutory organisations of which representatives have mandate to talk on behalf of the organisations; (2) they have interests in and expertise relevant for the tasks of the Commission; and (3) they acknowledge the principles, objectives and organisational rules of the Commission. The number of observers may be limited for reasons of efficiency, balance among interests and balance among regional and international NGOs. NGOs may not attend parts of the plenary meetings on financial and organisational aspects and are not allowed to join the meetings of Heads of Delegations. Instead the Heads of Delegations organise a special consultation meeting with the NGOs annually (the first meeting has taken place in 2004). Experts from NGOs may attend at project group meetings (since 2004) and working group meetings (since 2006) if not for lobbying reasons and if not distributing documents of the Commission. Every four years access requests will have to be renewed.

Table 5.3 shows an overview of participating NGOs (that obtained a formal observer status until the end of 2009). Emphasis is on water users’ interest organisations
and environmental NGOs who have conditional and limited access to the multilateral river basin management coordination process. Due to the WFD, the IMC prudently has opened its window a little bit more towards non-governmental actors. The multilateral roof river basin management plan mentions that the IMC does not have authority to implement Article 14(1) of the WFD on active involvement of interested parties (IMC, 2009: 28). According to the editors, the observers and experts from NGOs and other interests groups have contributed to the drafting process of the plan (ibid.). From the plan it does not become clear what have been these contributions. The observations point at an evolution from ideal-type A towards ideal-type B boundary rules (see Table 5.4).

Table 5.3: Participation of NGOs and interests groups in the IMC

<table>
<thead>
<tr>
<th>Organisation(s)</th>
<th>Rate of participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secretariat-General of the Benelux (Belgium, Netherlands, Luxembourg)</td>
<td>Plenary Meeting (observer)</td>
</tr>
<tr>
<td>URGE = Union régionale du grand Est des Fédérations pour la Pêche et la Protection du milieu aquatique (France)</td>
<td>Plenary Meeting (observer)</td>
</tr>
<tr>
<td>Fédération des Associations agréées de Pêche et de la Protection du Milieu aquatique de la Meuse (FAPPMM) (France)</td>
<td>Plenary Meeting (observer in 2000 and 2001)</td>
</tr>
<tr>
<td>Bond Beter Leefmilieu (Flanders)</td>
<td>Plenary Meeting (observer)</td>
</tr>
<tr>
<td>MINA Council (Flanders)</td>
<td>Plenary Meeting (member of the Flemish delegation; observer)</td>
</tr>
<tr>
<td>WWF (Belgium)</td>
<td>Plenary Meeting (observer)</td>
</tr>
<tr>
<td>UWE = Union Wallonne des Entreprises (Walloon Region)</td>
<td>Plenary Meeting (observer); expert in the Pressures Project Group (2004, 2005).</td>
</tr>
<tr>
<td>IEW = Inter-Environnement Wallonie (Walloon Region)</td>
<td>Plenary Meeting (observer); expert in the Groundwater Project Group (2004, 2005).</td>
</tr>
<tr>
<td>Aluseau (Luxembourg)</td>
<td>Plenary Meeting (observer)</td>
</tr>
<tr>
<td>Stichting Reinwater (the Netherlands)</td>
<td>Plenary Meeting (observer from 2002 onwards)</td>
</tr>
<tr>
<td>European Anglers Alliance (All)</td>
<td>Plenary Meeting (observer in 2000 and 2001)</td>
</tr>
<tr>
<td>European Union of National Associations of Water Suppliers and Waste Water Services (EUREAU) (All)</td>
<td>Plenary Meeting (observer in 1999 and 2001)</td>
</tr>
</tbody>
</table>
Table 5.4: Ideal-type IRBM boundary rules (multilateral level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Access to the river basin management planning process is restricted to public actors only. Other stakeholders are informed.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>B: Non-governmental actors may have access to the river basin management planning process under conditions set by the public actors. Emphasis on co-thinking and consultation.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>C: Ample opportunities for all interested stakeholders to join the river basin management planning process, including co-productions, co-decisions and self-realisation.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The observations in this research come closest to ideal-type A and B rules as expressed by the ‘X’.

5.3.4 Choice Rules

As introduced in Section 2.2.6, for the aim of this research two indicators for observation of choice rules change have been defined. The first indicator concerns water supply and demand rules. Three ideal-types have been identified for this indicator, ranging from a focus on water supply only to integrated demand and supply management in which a hierarchy of functions may apply, as conditioned by fresh water availability and protection of the ecological life support system (see Table 5.5a). The second indicator expresses the nature of licenses system. Ideal-types range from parallel licences for quality and quantity objectives for the use, development and management of water resources towards integrated licences for interdependent natural resources (including water; see Table 5.5b).

Supply and demand management

The multilateral roof river basin management plan (IMC, 2009: 9; translation from Dutch added) mentions ‘water quantity management (to hold, to store, to discharge)’, ‘water for human consumption’ and ‘living ecosystem’ among the most important water (related) functions in the International Meuse River Basin District. Furthermore, the plan (ibid.: 26) points at close interrelations between the objectives and measures of the WFD and Directive 2007/60/EC on the assessment and management of flood risks (European Union, 2007a) and the potential impact of climate change. The plan includes an important argumentation which implicitly points at an integrated approach for water quality and quantity issues (IMC, 2009: 26, translation from Dutch added): ‘Partly due to climate change the Meuse Riparian States have the duty to elaborate and coordinate supra-regional waterhousekeeping measures within the International Meuse River Basin District in order to obtain and maintain a good water state.’ Interviewees 18, 42 and 51 (Appendix I) have mentioned laborious discussions on the inclusion of statements on the impact of climate change. Generic notions in the plan (IMC, 2009: 26-27; translation from Dutch added) point at the importance of both supply and demand management, albeit not literally mentioning these terms and without more specific objectives. ‘In order to mitigate the effects of droughts, the Riparian
States will notice wherever necessary to diminish surface water abstractions from the Meuse, while at the same time to influence water use positively by means of information’. In addition, coordinated measures within the river basin district will have to be taken in times of droughts, in order to serve multifunctional use. ‘Sustainable use of water within the entire Meuse River Basin District asks for individual and collective measures in order to protect the natural environment, conserve water resources and to use less water in production processes’ (ibid.).

The IMC has no formal authority to interfere with water supply and demand policies management approaches of the riparian states and regions. In the spirit of principles in (in)formal international law and triggered by the WFD wording on mitigation of effects of floods and droughts, the riparian states and regions have included notions and activities on water quantity issues. Although references to supply and demand management are implicit and in generic wording, the importance of their written inclusion for potential future collective action should not be underestimated (Interview 42, Appendix I). In conclusion, the WFD seems to have triggered a discursive evolution from ideal-type A towards ideal-type B collective choice rules (see Table 5.5a). This evolution is in its embryonic stage: it is up to the sovereign riparian states and regions to decide how far the translation into quantitative, measurable objectives and measures should go.

Table 5.5a: Ideal-type IRBM choice rules (supply and demand; multilateral level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Water supply management determines availability</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>of fresh water for user functions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Mixed supply and demand management deter-</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>mines fresh water availability without a hierarchy in user functions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C: Integrated supply and demand management, as</td>
<td></td>
<td></td>
</tr>
<tr>
<td>expressed by a hierarchy in user functions.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’. The ‘x’ points at a reduced resemblance of the observations with ideal-type A rules after adoption of the WFD.

**Nature of the license system**

Similar to the European institutions the IMC has no formal authority to interfere with the licence systems of the riparian states and regions. In line with the WFD requirements the multilateral river basin management plan (IMC, 2009) includes assessments of the quantitative and qualitative state of individual groundwater bodies and the qualitative state of individual surface water bodies. The assessments are presented and discussed in parallel without drawing conclusion on their interrelations (other than in generic wording). From the analysis of meeting documents and reports no implicit or explicit argumentats on the nature of licence systems become noticeable. Whereas the integration text box in the European CIS guidance documents refers to the need for a more integrated and coherent legislative framework, there are no multilateral discursive indications for integrated license systems. Although the multilateral WFD related documents bring together quality and quantity issues, they do not provide for
integrated objectives and measures. These observations point at ideal-type A choice rules (see Table 5.5b).

Table 5.5b: Ideal-type IRBM choice rules (license system’s nature; multilateral level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate, parallel licenses for quality and quantity objectives related to the use, development and management of water resources.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Licenses that integrate quantity and quality objectives related to the use, development and management of water resources.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C: Integrated licenses for interrelated use, Development and management of natural resources (e.g. air, water, land).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A rules as expressed by the ‘X’.

5.3.5 Aggregation Rules

As defined in Section 2.2.7, a major collective choice challenge of Integrated River Basin Management (IRBM) concerns how to arrange decision-making at interrelated political levels within shared (inter)national river basins with the aim to reach common understanding and broad public support for collective choices. The aggregation rules may appear in different ways, as expressed by identified ideal-types (see Table 5.6). The aggregation question ‘who should make and who should agree with adaptations of prior rules and with new rules?’ shows redundancy with boundary rules. For the purpose of this research the question, who is involved in planning and decision-making and to which degree (information, consultation or co-decision), is covered under boundary rules (see Subsection 5.3.3). The aggregation rules concentrate on the coherence between and the nature of decision-making at different administrative levels within a river basin.

The IMC formulates advices and recommendations for the states and regions. The Plenary Meeting may take decisions whenever a majority of delegations is present and with unanimity of votes as decision-making rule (ibid.: 8; Anonymous, 1994: 6). Each delegation has one vote. The absence of one or more delegations accounts for voice absten-tion but may not hinder the unanimity rule (as long as a majority of delegations is present) (ibid.). Observers from the European Union, intergovernmental organisations, NGOs and/or interested States who are not a contracting party but have an interest in the work of the IMC do not possess voting right (Anonymous, 2002: 9). Under the first Meuse Treaty, intergovernmental organisations and NGOs did not have observer rights (Anonymous, 1994: 7). The unanimity rule points at symmetric decision-making in the sense that all involved actors with a right to vote will have to agree (which may trigger a search for consensus). However, since observed multilateral decision-making is restricted to water policy related state-actors (from the water policy domain) only, it qualifies as asymmetric in the sense that civil and private actors are excluded (and are supposed to accept the top-down decisions).
The IMC states and regions struggle with the tension between sovereign domestic implementation approaches and multilateral coordination. The meeting reports make clear that on the one hand, the delegations emphasise that the planning schemes of the individual riparian states for drafting the (national) river basin management plans determine the timetable for the roof multilateral Meuse River Basin management plan. On the other hand they stress that domestic schemes should take into account the preconditions and requirements for international coordination. In practice the timetables of the riparian states and regions determine the moments of data availability, causing delays in the multilaterally agreed ones. In December 2004 the Plenary Meeting recommends the riparian states and regions to enforce their bilateral and trilateral coordination efforts on WFD implementation issues in transboundary water sub-basins. The IMC itself focuses mainly on the multilateral coordination of issues that are of concern for the entire river basin district. For example, monitoring programmes for specific groundwater bodies, given their relatively limited territory and transboundary impact, have not been coordinated multilaterally but bi- and trilaterally. Although points of departure differ among the riparian states and regions, all the groundwater programmes meet the minimal WFD requirements (IMC, 2007; Jansen, Schreuders and Haverkamp, 2002).

Summarising: the generic governance principles at the multilateral scale echo the European ones. Due to subsidiarity and sovereignty it is up to the IMC states and regions how to implement the WFD within their territories. At the same time the WFD requires multilateral, bilateral and national coordination efforts, depending on the geographical and thematic scope of issues at stake (Anonymous, 2002: 2). This specific combination invites a juxtaposition of ideal-type A and C aggregation rules at the multilateral level (see Table 5.6). On the one hand, for issues without cross-border interdependencies parallel planning and decision-making processes of the states and regions suffice. On the other hand, for issues with multilateral interdependencies the states and regions search for common definitions and agreements. The WFD does not alter this mixture of aggregation rules; it explicitly stresses the importance of a common, multilateral search for sustainable river basin management practices.

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Independent decision-making on water policy and management plans at different administrative levels within a river basin.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Asymmetric, top-down decision-making on water policy and management plans at different administrative levels within a river basin: lower levels have to comply with the rules from the higher levels.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C: Symmetric, consensus based decision making on water policy and management plans at different administrative levels: mixed top-down and bottom-up rules.</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and C rules as expressed by the ‘X’.
5.3.6 Information Rules

As defined in Section 2.2.8, one major collective-choice challenge of IRBM is to collect, aggregate and present information in such a way that river basin management plans are acknowledged and supported by a majority of interested public and non-governmental stakeholders. A critical dimension of this challenge is the types of information that are considered legitimate in combination with the nature of the collection and aggregation process. The focus of this research is on this critical dimension. Three ideal-type information rules have been identified (see Table 5.7).

Before adoption of the WFD the information rules are dominated by the riparian states and regions. NGOs have no access to the organisational structures of the then ICPM. The predominant scientific-technical and socio-economic information is collected, compared and aggregated by experts and officials from the riparian states and regions in a process which is often laborious. As an example, the first multilateral report on the water quality of the Meuse River which presents “homogenous” data from 1994, is adopted and published in 1997 (ICPM, 1997) after an exhaustive three years process of drafting, translation and last minute editing. After the adoption of the WFD at the European level the riparian states and regions have to decide on the option whether or not to conduct multilateral roof reports in addition to national editions. Some interviewees point at a delicate growth process in which some delegations gradually are convinced of the need of (more salient) multilateral coordination (Interviews 18, 34, 42, 51 and 53, Appendix I). Finally, the IMC partners opt for a multilateral roof river basin characterisation (Article 5) report (IMC, 2005b), a report on the WFD monitoring networks in the International Meuse River Basin District (IMC, 2007) and a multilateral roof river basin management plan (IMC, 2009).

Progress in the multilateral coordination process to a large extent depends on the availability of national data and information as contributions by the involved actors. The states and regions of the IMC conclude that the Article 5 risk assessment exercises have clearly demonstrated that the available data and information are not always compatible and do not allow for a harmonised multilateral assessment. A prudent call for “multilateralisation” speaks from the Article 5 roof report’s wording (IMC, 2005b: 56):

A more harmonised data management is required, not only because of the need and the willingness to continue the coordination, but also in view of the future reporting obligation of the states and regions. Furthermore, the analysis of the characteristics, the study of the impacts of human activity and the economic analysis of water use have highlighted the usefulness of instruments such as harmonised decision support systems (i.e. models and scenarios).

The Article 5 roof report shows that there are insufficient data available for final estimates of cost recovery rates of water services and baseline scenario’s. Data and methods are not comparable between parties and sometimes even within the territory of one party (IMC, 2005b). In the roof part of the international river basin management plan, the states and regions, for reasons of limited reliability, decide not to show
estimated reduction percentages for nutrients (Nitrogen and Phosphorus) for the entire river basin district (IMC, 2009; Interviews 34, 42 and 51, Appendix I).

From a substantive point of view it is remarkable that the IMC struggles with integration of the prior homogeneous water quality monitoring network and the WFD monitoring requirements. The meeting documents and Interview 42 (Appendix I) deliver three possible explanations. Firstly, the WFD requirements are predominantly perceived as the competency of the Member States. Secondly, different views exist on definition of homogeneous and reliable comparability of monitoring data. Finally, the IMC secretariat did not attach high priority to the issue given other urgent multilateral coordination issues (which implicitly reflects low priority by some of the riparian states and regions).

The information in the multilateral reports mainly is collected, compared and aggregated by experts from the riparian states and regions. Experts from NGOs have limited access to the drafting processes. During the plenary meetings the observers from the NGOs mainly focus on position statements and repeatedly some show their dissatisfaction with the limited possibilities for active involvement. By introduction of a website access to information for the general public is enlarged. Inner circle actors need an access code to the connected virtual IMC office which contains all the meeting documents as of 2001. Between 1995 and 2010 the IMC has published annual reports and four brochures: regarding the IMC in general (1), the use of pesticides (2), a synthesis of the roof Article 5 report (3) and street litter (4). Some NGOs complain several times about the lack of openness, transparency and limited access to documents. Both the roof Article 5 report and the multilateral river basin management plan do not include explicit contributions from NGOs and interests groups. In this respect, it is remarkable that no comments are received in the formal public consultation round on the multilateral river basin management plan. Additionally, the meeting report from the November 2009 Plenary Meeting does not include remarks or expressions of support for the multilateral river basin management plan by observers from the NGOs.

Despite the lack of formal consultation comments on the multilateral river basin management report, the disappointment of environmental NGOs and the repeated offer from the drinking water sector to include their monitoring data on a broader range of relevant substances both implicitly point at disagreement with the multilateral output so far. Position papers from these groups dominate the scene. Overall, expert information and knowledge based on scientific-technical and socio-economic legitimisation criteria have dominated the multilateral coordination process during the 1990 to 2009 period. These observations point at a juxtaposition of ideal-type A and B collective-choice information rules (see Table 5.7).
Table 5.7 Ideal-type IRBM information rules (multilateral level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>The river basin management planning process (definition of means and ends) is predominantly driven by expert information and knowledge from the natural sciences. Validity and reliability are central criteria for legitimised information and knowledge.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>The river basin management planning process (definition of means and ends) is predominantly driven by expert information and knowledge from the economic sciences. Costs-benefits ratios and economic efficiency are central criteria for legitimised information and knowledge.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>The river basin management planning process (definition of means and ends) is driven by information and knowledge from multiple disciplines and both from experts and lays. Joint fact finding and social robustness are central criteria for legitimised information and knowledge.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’.

5.3.7 Pay-off Rules

As defined in Section 2.2.9, pay-off rules point at the incentives and deterrents for action (Ostrom, 2005). In interaction with other rule types, pay-off rules affect the net benefits and costs that will be assigned to particular combinations of actions and outcomes (ibid.). In the context of this research, three ideal-types of IRBM pay-off rules have been identified (see Table 5.8).

The observations show tension between river basin management rhetoric at the European level (for example WFD’s Article 3) and the laborious multilateral coordination attempts by the sovereign riparian states and regions. The IMC has no supranational authority and the second Meuse Treaty (Anonymous, 2002) does not include rewards or sanctions. Progress depends entirely on political willingness and mutual trust building. However, the European Court of Justice may punish individual Member States in cases of non-compliance with the WFD’s obligations. If multilateral coordination does not succeed, the riparian states and regions may proceed individually and may ask the EC to mediate (Article 3 and 13, European Communities, 2000: 8 and 16). As final resort, Article 12 applies (European Communities, 2000: 16).

Where a Member State identified an issue which has an impact on the management of its waters but cannot be resolved by that Member State, it may report the issue to the Commission and any other Member State concerned and may make recommendations for the resolution of it. The Commission shall respond to any report or recommendations from Member States within a period of six months.
Up to December 2009 the IMC riparian states did not make use of Article 12. Since the European Commission may not address WFD implementation failures directly to the IMC but to the individual Member States, gradually, indirect pressure for adequate multilateral coordination and cooperation may increase. As a counter-force, given a long history of conflicts and distrust it may not come as a surprise that multilateral coordination after the adoption of the WFD remained laborious. Interviewee 42 (Appendix I) points at the actual delivery of multilateral roof reports as remarkable sign of trust-building among the riparian states and regions: ‘The sometimes controversial nature of the joint drafting process proofs that trust relations have been developed sufficiently in order to continue multilateral coordination efforts after conflict.’

Both the Meuse Treaties (Anonymous, 1994; 2002a) and the multilateral reports do not include explicit statements on the nature of pay-off rules. Given references to the polluter pays principle and the European guidance document on Water and Economics (European Communities, 2003a) and a search for most cost-effective combinations of measures, the states and the regions implicitly embrace economic incentives and market forces as drivers for compliance with collective rules, in addition to formal rewards and sanctions from the European and domestic levels. These observations point at a juxtaposition of ideal-type A and B pay-off rules before and after adoption of the WFD (see Table 5.8).

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Rewards and sanctions from laws and regulations are major drivers for compliance with collective rules (e.g. as expressed by standards and licence conditions).</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Economic incentives and market forces are major drivers for compliance with collective rules.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: (Sub-) Basin communities voluntarily invest resources (human, financial, expertise) as collaborative capital for compliance with collective-choice rules.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’.

5.4 Multilateral rules in the context of policy discourses, actors and resources and power

As explained in Chapter 2, institutionalisation of collective-choice rule-types for IRBM is the primary focus of this research. In the previous section observed rules at the multilateral level (within the International Meuse Commission) have been presented, both for the 1990 to 2000 period (before adoption of the WFD) and the 2001 to 2009 period (the first WFD implementation planning cycle). As concluded in Chapter 2, rules development over time should be best studied in relation to (changes in) the other three dimensions of a policy arrangement: policy discourses, actors (coalitions
and oppositions) and the distribution of resources and power. Observations on these three dimensions may deliver potential explanations for observed continuities and/or changes in collective rules. Since the WFD has elaborated the IRBM paradigm into a European set of rules and principles, one would expect rules changes to occur depending on the extent to which these requirements fit into the multilateral rules, traditions and practices. In other words: how new are the IRBM discourse and its related rules at this political level? To which extent do these trigger changes in the distribution of resources and power and actors constellations? Given the European IRBM discourse as the research’s starting-point this section begins with the policy discourses dimension of the policy arrangement approach.

5.4.1 Policy discourses

Table 5.9 sums the observations on policy discourses at the multilateral level for the 1990 to 2009 period. A distinction is made between governance and policy principles, as based on the analysis of the both Meuse Treaties (Anonymous, 1994; 2002a), multilateral publications, meeting reports and roof reports. The scope evolves from water and ecological quality improvement for the Meuse River only (before publication of the WFD) towards integrated and sustainable river basin management (after adoption of the WFD). The IMC documents do not provide for further definition of this paradigm but refer to the multiple-functionality of the Meuse. The Meuse is considered the fundament for essential ecological, economic and social user functions and objectives. This argument is not translated into interrelated conditions for ecological, social and economical resilience but is a more implicit reference to the people, planet and profit mantra.

The governance scope is at river basins as the appropriate coordination units for issues with a multilateral dimension. The IMC’s actors clearly make a distinction between issues that should be coordinated multilaterally, bilaterally or nationally. Overall, subsidiarity by sovereign riparian states and regions is a dominant governance principle at the multilateral scale which relates to all seven rule types. The policy scope is on internal integration, i.e. on inclusion of a broad array of water management issues, including quality and quantity, groundwater and surface water, aquatic and terrestrial ecology, floods and droughts. Remarkably, for the WFD’s information and participation requirements, the IMC states and regions consider the multilateral role as limited. Harmonisation is a multilateral keyword. The IMC’s riparian states and regions consider the WFD ‘a significant new impetus to water policy’. In their opinion the WFD ‘provides a legal basis for more extensive coordination within entire river basin districts across administrative and national borders’ (IMC, 2005b: 4). Additionally, ‘although the Directive does not explicitly call for transboundary coordination under the Article 5 Analysis’, the IMC’s actors consider this as obvious. Therefore they decide to coordinate their activities on the Article 5 requirements and to establish an international roof report on characteristics of the Meuse River Basin District, meaning a review of the environmental impact of human activity and an economic analysis of water use (ibid.; Interview 42, Appendix I). The IMC’s riparian states and regions emphasise that the analysis methods for the national Article 5 reports differ and are not harmonised within the IMC. Therefore, comparability of the data is limited. For
example, there may be aggregation difficulties due to the specific domestic methodologies applied for delineating groundwater bodies (IMC, 2005b).

Table 5.9: Policy discourses and rules at the multilateral level (1990 to 2009 period)

<table>
<thead>
<tr>
<th>Type of rules</th>
<th>Policy discourses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope:</strong></td>
<td>Governance principles: River basin districts as the appropriate coordination units for issues with a significant multilateral dimension; Distinction between multilateral, bilateral and national coordination issues; Subsidiarity by sovereign states and regions. Policy principles: Internal integration; Integrated and sustainable river basin management based on multiple-functionality; Inclusion of quality and quantity aspects of both surface and groundwater.</td>
</tr>
<tr>
<td><strong>Position:</strong></td>
<td>Governance principle: Subsidiarity by sovereign states and regions. Policy principle: The Meuse as fundament for essential ecological, economic and social user functions and objectives (planet, profit and people).</td>
</tr>
<tr>
<td><strong>Boundary (entry or exit):</strong></td>
<td>Governance principles: Conditioned access for non-governmental actors with emphasis on information and consultation (observer status); River basin management approach; Subsidiarity by sovereign states and regions.</td>
</tr>
<tr>
<td><strong>Choice:</strong></td>
<td>Governance principle: Subsidiarity by sovereign states and regions. Policy principles: Precaution and prevention; Progressive emission reduction of hazardous substances/elimination of priority hazardous substances; Progressive reduction of emissions of hazardous substances and elimination of priority hazardous substances; No deterioration (unless unfavourable natural conditions, or unforeseen or exceptional circumstances, or new modifications for reasons of overriding public interest); Source oriented pollution prevention.</td>
</tr>
<tr>
<td><strong>Aggregation:</strong></td>
<td>Governance principles: Subsidiarity by sovereign states and regions; Multilateral coordination by means of non-legally binding advice and recommendations; states and regions decide by unanimity of votes. Policy principle: Internal integration; A level playing field for socio-economic sectors across Europe.</td>
</tr>
<tr>
<td><strong>Information:</strong></td>
<td>Governance principles: Synthesis of expert knowledge as provided by sovereign states and regions; Harmonisation of monitoring efforts for the aim of transboundary comparability. Policy principles: Validity, reliability, cost-benefit ratios and economic efficiency are central criteria for legitmised information and knowledge.</td>
</tr>
<tr>
<td><strong>Pay-off:</strong></td>
<td>Governance principle: Subsidiarity by sovereign states and regions. Policy principles: The polluter and user should pay; Environmental damage should be rectified at source, A level playing field for socio-economic sectors across Europe; Proportionality.</td>
</tr>
</tbody>
</table>

The European Commission stresses that the Article 5 analysis is an iterative exercise based on available data and information. Due to the lack of available information, the Article 5 roof report could not take account of the impact of the groundwater status on surface water ecosystems. 'If this criterion was taken into account, groundwater
bodies provisionally assessed as being “not at risk” may have become “at risk” (IMC, 2005b: 35). Notwithstanding the shortcomings, the IMC States and Regions consider the roof part of the Article 5 report as an important milestone (IMC, 2005b: 55-56):

A first set of important steps were made as a result of the current coordination:

- in order to present the results of the analysis at a suitable scale and level of detail, the basin district was divided into working units; these may at a later stage constitute a starting point for a possible identification of international sub-basins;
- a harmonised typology for the main course of the Meuse river was adopted;
- a harmonised methodology for identifying significant hydro-morphological pressures has been adopted;
- a list of five pollutants specific to the Meuse river was identified.

This [multilateral] *acquis* should make future international coordination easier. Finally, it should be emphasised that an integrated approach has been taken to the current Action Programme on Flood Protection of the IMC, with a view of linking flood prevention and protection to other objectives and to the whole of the river basin’s ecosystem. This approach opens opportunities for using synergies between flood protection and prevention and the implementation of the WFD.

The IMC predominantly focuses on a comparison of provided data and methods of the riparian states and regions. Opinions differ on degrees of and methods for harmonisation. Debates mainly take place on procedural arrangements and less on common definitions of the multiple interpretable WFD terms. As the IMC’s states and regions do not explicitly discuss the contents and multilateral implications of the European guidance documents, they seem to take the WFD’s ambiguous terms, definitions and the informal CIS interpretations for granted.

### 5.4.2 Actors

At the multilateral level the most remarkable change as triggered by the WFD is the widening of the *scope and boundary rules* of the IMC. Between 1992 and December 2002, the main focus of the ICPM is on the Meuse River. Consequently, the number of actors is limited to the riparian states that share territories around the main river. Exception is inclusion of the Brussels Region of Belgium (with its territory entirely situated in the Scheldt River Basin) for which the Meuse River Basin is the only drinking water source. By appointing the (renamed) International Meuse Commission (IMC) as the competent multilateral WFD authority, tributaries are also embraced, offering Germany, Luxembourg and the Belgium Federal State the opportunity to enter the multilateral coordination game. Prior to the WFD, there are no formal options for NGOs to participate. Due to WFD’s Article 14, the options for NGOs to join activities, although limited in nature, slightly increase. NGOs repeatedly complain about the limited transparency of the IMC and the restricted access to information (information rules).

Concerning *aggregation rules*, decision-making on non-legally binding advice and recommendations is restricted to the state actors in the IMC (with unanimity as decision-making rule). The IMC’s actors have no formal authority to discuss property and user rights systems (position rules), supply and demand management systems and the
nature of licences systems (choice rules) of the sovereign states and regions, as regarding their transboundary impacts. Finally, the IMC has no formal authority for establishment of its own system of rewards and sanctions (pay-off rules).

Within the multilateral coordination network a stable community of water-related officials and experts develops, which gradually elaborates a multilateral acquis. As such this community may be typified as a discourse coalition of public actors for IRBM. However under the paradigm’s surface, diverse interpretations and domestic traditions have to be bridged. Interviewees 34, 42 and 51 (Appendix I) have noticed changing coalitions and oppositions among the IMC delegations, depending on the issues and related world-views and domestic approaches at stake. Before adoption of the Meuse Treaty of Ghent (Anonymous, 2002), following native languages, actors from the French, Walloon and Brussels delegations at the one side and actors from the Flemish and Dutch delegations at the other side tended to gather whenever issues were circumvented by uncertainties and obscurities.

After entry of the new actors, Germany works as important binding actor across the language divide, while the Flemish actors in general seem to understand the French language nuances better than the Dutch and Germans do (Interview 42, Appendix I). In addition the Dutch political system seems to provide for most informal deliberation freedom for public officials, whereas the French, Walloon, Flemish and German equivalents are more subject to strict political mandates (Interviews, 34 and 42, Appendix I). Remarkable oppositions and coalitions appear around procedural issues which continue for some years (such as the legal seat anchorage of the commission’s secretariat, participation procedures for NGOs and mandates/tasks for the secretariat, working groups and project groups). Perceived obstruction from one (or more) delegation(s) to one issue reversely may provoke tactical obstruction (delays) to other issues by other delegations (see also Meijerink, 1999).

At the non-governmental side of the river single issue organisations (such as for anglers, entrepreneurs, nature protection and drinking water) which have their roots in individual riparian states and regions dominate the multilateral scene of the IMC (see Table 5.3 in Subsection 5.3.3). Due to the laborious and relatively closed process by the public actors, only a few of these organisations continue attendance at the annual plenary meetings and remain active in repeating their arguments. For example, the Union of Walloon Enterprises repeatedly plies for a level playing field taking into account exceptional low flow rates of the Meuse River. The Reinwater Foundation asks attention for the issues of street litter and water temperature (in relation to cooling water discharges in dry summer periods). Inter Environnement Wallonie plies for sustainable water management in relation to spatial planning policy and for more attention to ecological restoration aspects. The representative of anglers asks for more attention to barriers for fish migration in both directions (upstream and downstream).

Water-related multilateral and multiple issues coalitions are scarce in the International Meuse River Basin District. RIWA Meuse is an umbrella organisation of Dutch and Belgian drinking water companies that periodically releases position papers on the importance of cross-border river basin management coordination for protection of drinking water sources. For example, RIWA Meuse annually asks attention to more dangerous substances for drinking water production and access to data from the
international Warning and Alarming System for the Meuse River Basin on accidental pollution (WASM). RIWA-Meuse does not include German and French companies. As compared to the neighbouring International Scheldt River Basin District (with its Scheldt without Borders coalition) the green NGOs do not have a significant multilateral coalition. There has been one attempt, i.e. Mosa Natura (which means natural Meuse). As founded in 2004, this informal network brought together around sixty green interests groups, drinking water companies and regional governments which expressed the importance of a more natural Meuse River Basin (www.mosanatura.eu as consulted on June 2\textsuperscript{nd}, 2012). The network acted like a platform for establishing contacts among managers, policy makers and other stakeholders for exchange of experiences, learning and starting-up joint projects for education, participation, research and nature development. Since the network did not aim for common multilateral opinions or lobbying, the network did not opt for the status of a legal person and observer status in the IMC. Since one of the founding organisations, the Reinwater Foundation, went bankrupt, the network is not active anymore.

5.4.3 Resources and Power
The WFD offers opportunities to enforce multilateral coordination efforts. Article 3 includes coordination arrangements for transboundary river basins. According to this article Member States sharing a river basin shall ensure both the designation of international river basin districts and multi-lateral coordination of their management activities. At the request of Member States the EC may act as facilitator. For their coordination activities Member States may use existing structures stemming from international agreements (European Communities, 2000: 8). Article 12 adds that issues that cannot be dealt with at Member State level may be reported to the EC. ‘The Commission shall respond to any report or recommendations from Member States within a period of six months.’ (ibid.: 16) Article 13 mentions that ‘Member States shall ensure [multilateral] coordination with the aim of producing a single international river basin management plan’ (ibid.). The Achilles heel in the multilateral game may be sovereignty. Since the European Commission applies compliance checking procedures at the level of individual Member States, the success or failure of multilateral coordination efforts primordial depends on the political willingness of riparian states and mutual trust building among them within international river basin committees. For this reason Article 13 includes an escape option: ‘Where such an international river basin management plan is not produced, Member States shall produce river basin management plans covering at least those parts of the international river basin district falling within their territory to achieve the objectives of this Directive’ (European Communities, 2000: 16).

In the multilateral context it is remarkable that the informal, non-legally binding European WFD guidance documents which are meant to support the implementation process, are not part of the scope of deliberations within the IMC’s organisational structures. From the Interviews (18, 34, 42, 43, 51 and 53, Appendix I) it becomes clear that they are taken for granted since extensive discussions have already taken place at the European levels (and furthermore they should be considered as informal consensus papers). In the multilateral river basin management plan (IMC, 2009) the
guidance document on water and economics (European Communities, 2003a) is the only one that is referred to directly. The observer of Europe’s DG Environment points at an important shift in financial means from the Structure and Cohesion Funds, which is more attention to regional development with more room for financial support of water management measures for the Member States (for example linking the WFD and agriculture, floods and droughts). Remarkably, these financial opportunities are not further explored at the multilateral table.

Between 1995 and the end of 2002, based on the Charleville-Mézières Meuse Treaty (Anonymous, 1994), Wallonia and the Netherlands (who have equal shares of the river basin territory) together provide 70% of the financial costs for the secretariat and the joined activities of the ICPM. Under the 2002 Ghent Treaty (Anonymous, 2002) Wallonia and the Netherlands remain the major contributors (30% each). With the latter Treaty German becomes the third formal working language of the commission (next to French and Dutch). The financial and human resources for the IMC secretariat, the working groups and joint publications are limited. Costs for simultaneous interpretations and translation of documents into the three official working languages (as performed by Benelux employees) are a major component of the Commission’s annual budget. Although the Dutch and Flemish delegations periodically ply for structural enforcement of the secretariat (mainly due to additional WFD coordination tasks), the secretariat is not expanded (mainly due to a French-Walloon opposition). Instead, in 2003 the IMC partners hire a Belgian consultancy firm to support the international WFD implementation activities. In 2009 partly triggered by the severe international economic recession, the Heads of Delegations decide to decrease the annual budget.

The IMC parties do not provide resources for participation of NGOs nor for translation of their documents which does not help to encourage their active involvement. From the analysis a strong drinking water lobby (by RIWA Meuse) and a relatively weak, informal network of environmental NGOs (the Mosa Natura network) become visible. It is remarkable that RIWA Meuse repeatedly offers its data for inclusion within the IMC documents but that the states and regions are reluctant to incorporate them. Cooperation with environmental NGOs starts to become more visible such as by means of a joint brochure on street litter (IMC, 2010). Interviewee 42 (Appendix I) mentions that apparently the different approaches from the non-governmental actors, in combination with the power balance partly may account for the IMC’s attitude towards the NGOs. For example, the drinking water sector may be perceived as powerful (as supported by large companies), hence potential influential and also this sector, in the perception of some of the IMC’s public actors, too one-sidedly stresses its own interests. The green NGOs may be perceived as less powerful and also are willing to contribute human resources in a search for mutual benefits (ibid.).

Regarding aggregation rules physical, political and economic asymmetries between upstream and downstream riparian states may influence the multilateral coordination game. Some observations point at Germany as powerful binding actor and the Flemish Region of Belgium as influential due to their experiences from the Scheldt River Basin (Interview 42, Appendix I). For example, the Flemish Region of Belgium
has guided the SCALDIT project on integrated testing of guidance documents by multiple actors in the Scheldt River Basin (ibid.). A language divide and different political cultures and traditions may form part of the explanation for the lack of multilateral coalitions. The website of the former Mosa Natura network clearly expresses this challenge (www.mosanatura.eu):

A river basin like the Meuse includes many cultural differences among states and regions. Organisations have different visions and objectives and implement different types of measures. Since we live in one, shared river basin with lots of interdependencies it is important to learn both to understand each other and to collaborate.

5.5 Synthesis: sovereignty and subsidiarity rule the multilateral world

Table 5.10 brings together the observations from the Sections 5.3 and 5.4. The table summarises potential explanatory factors for observed continuities and changes of rules, as derived from the other three dimensions of a policy arrangement (policy discourses, actors and division of resources and power). The grey-coloured cells indicate remarkable evolutions. Coming from a long history of distrust and conflicts and given strong emphasis on sovereignty and subsidiarity, dramatic changes in multilateral rules changes, as due to adoption of the WFD, were not to be expected on forehand. However from the assessment of rules (Section 5.3), it becomes clear that the IRBM discourse of the WFD has triggered internal integration tendencies (scope rules), a prudent widening of the multilateral window towards non-governmental actors (boundary rules) and implicit notions on the importance of both supply and demand management (choice rules). For the remaining rule-types, continuity of prior arrangements prevails.

Clearly the policy discourses dimension provides a potential explanation for observed rules changes. On the contrary, the resources and power dimension mainly offers explanations for continuity of prior collective-choice rules. Under the label of sovereignty and subsidiarity, the riparian states and the regions emphasise the lack of (formal) multilateral authority and leave significant collective-choice rules (positions of land owners and users: position rules; the nature of licence systems; choice rules) unspoken. Although the IMC states and regions express awareness of the multifunctionality of the Meuse (Anonymous, 2002) they do not invite actors from user sectors to participate. It is up to the individual states and regions themselves to organise participation of users in the domestic implementation processes. The same observation goes for the cross-sector integration potential as offered by European funds for regional development and the Common Agricultural Policy (CAP).
Table 5.10: Observed collective-choice rules and potential explanations (multilateral level)

<table>
<thead>
<tr>
<th>Rules-types in the 1990 to 2009 period ↓</th>
<th>Potential explanations ↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope (organisational): Water policy implementation is coordinated by a functional international river basin committee without supranational authority (ideal-type B).</td>
<td>Sovereignty and subsidiarity; IRBM paradigm; Entry of new state actors from tributaries</td>
</tr>
<tr>
<td>Scope (internal integration): An evolution towards river basin management plans which include parallel objectives and measures for quantitative &amp; qualitative aspects &amp; for groundwater and surface water bodies (from ideal-type A towards B).</td>
<td>IRBM paradigm; Incorporation of High Waters Working Group; European water quality/quantity divide</td>
</tr>
<tr>
<td>Scope (external integration): Separate management plans from the water policy domain and other policy domains (ideal-type A).</td>
<td>Dominance of public water actors/experts; No discussions on use of European funds; Speciality principle</td>
</tr>
<tr>
<td>Position: Protection of prior water and land resources use and property rights without preconditions on environmental, social and economic externalities (ideal-type A).</td>
<td>Sovereignty and Subsidiarity; Strong focus on water quality issues</td>
</tr>
<tr>
<td>Boundary: Prudent enlarged access for non-governmental actors to the river basin management planning process under conditions set by the public actors (from A towards B).</td>
<td>IRBM paradigm; Sovereignty and subsidiarity; No financial support for participation of NGOs; Fear of powerful interests groups</td>
</tr>
<tr>
<td>Choice (supply and demand management): An embryonic evolution from supply management only to a mixed supply and demand management approach (from A towards B).</td>
<td>IRBM paradigm; Sovereignty and subsidiarity; European water quality/quantity divide</td>
</tr>
<tr>
<td>Choice (nature of licences systems): Separate, parallel licences for quality and quantity objectives related to development, management and use of water resources (ideal-type A).</td>
<td>Absence of argumentation lines; Sovereignty and subsidiarity</td>
</tr>
<tr>
<td>Aggregation: Independent decision-making by riparian states and regions and symmetric, consensus based decision-making (A and C).</td>
<td>Absence of supranational authority/sovereignty and subsidiarity; Upstream-downstream asymmetries</td>
</tr>
<tr>
<td>Information: The planning process is driven by a mixture of a scientific-technical and a social-economic rationale. Validity, reliability, costs-benefits ratios and economic efficiency are central criteria for legitimised information and knowledge (juxtaposition of ideal-types A &amp; B).</td>
<td>Dominance of public actors/water experts from the water policy domain; Neo-liberal argumentation lines; Cost-effectiveness</td>
</tr>
<tr>
<td>Pay-off: Rewards and sanctions from laws and regulations &amp; economic incentives and market forces are major drivers for compliance with collective rules (mix of ideal-types A and B).</td>
<td>Polluter pays, affordability, cost-effectiveness; Sovereignty and subsidiarity; Neo-liberalism; Dominance of public water actors</td>
</tr>
</tbody>
</table>

The grey-coloured cells indicate remarkable evolutions.
After adoption of the WFD, the substantive scope of the IMC is widened by inclusion of groundwater issues (quality and quantity) and floods and droughts (scope rules). However objectives and measures are formulated and presented in parallel. For surface waters, in line with WFD’s Article 4, the focus is mainly on chemical and ecological quality and is less on quantitative issues (although they are intrinsically related). Interrelations between water bodies are not worked out (IMC, 2005b; 2007; 2009) and there are no indications that the WFD has triggered integrated objectives and measures. A potential barrier comes from the observation that the ambiguous European ambitions are taken for granted at the multilateral level. As denoted in Chapter 4, full and explicit inclusion of water quantity issues is a controversial issue at the European level (as expressed by the different decision making rules for quality and quantity issues). Although the explicit notions on the importance of an integrated approach in the WFD’s Preamble (Statement 19, European Communities, 2000: 2), the official WFD text does not provide (strong) requirements on integrated quality and quantity objectives and measures (see Article 4, European Communities, 2000: 9-11). The CIS guidance documents go around this controversy and the IMC states and regions do not further elaborate on these documents (despite some attempts from the Dutch delegation to start up deliberation on common multilateral interpretations, such as of the Article 4 exemption terms). Viewed positively, the rule-altering potential of inclusion of notions on more water-related issues may not be underestimated.

The IRBM paradigm of the WFD has urged the IMC states and regions to invite additional public actors from tributary states and has triggered a cautious evolution towards conditioned information and consultation of non-governmental actors (boundary rules). The hesitating attitude may be explained by the breakable trust-building process, different public participation traditions and perhaps fear of loose of control by inviting powerful interest organisations at the multilateral table. The rule-altering potential from (and future enforcement of) widening the boundaries, among other factors, heavily depends on trust-building between state and non-governmental actors and the ways actors will deal with the political, social, economic and physical upstream-downstream asymmetries. With regard to aggregation rules gradually, all riparian states and regions agree that multilateral roof reports and plans have an added value. Although their contents predominantly may be qualified as syntheses of domestic documents, some indications on development of a multilateral acquis become noticeable, like an agreed division in sub-basins for reporting purposes. Besides, the IMC oyster prudently opens its shells to civil and private stakeholders, offering more co-thinking opportunities in the IMC’s product teams. However, the decision-making rule remains the same, namely unanimity of votes by involved riparian states and regions (Anonymous, 1994; 2002a).

The juxtaposition of ideal-type information rules may be explained by a combination of dominance of water experts and neo-liberal argumentation lines. The influence of non-governmental actors and lay-knowledge is limited. With regard to the Article 14 requirements from the WFD, the IMC states and regions stress that they are addressed at the individual Member States (again: sovereignty and subsidiarity rule the multilateral world). Additionally, the financial means of the IMC, as provided by the states and regions are relatively limited and mainly spent for translation of the
Commissions’ documents. There are no funds available for capacity building of and translation of documents from NGOs. NGOs repeatedly complain about the lack of access to information and the IMC’s working processes. Incidentally, initiatives from NGOs are accepted. In general information collection and aggregation at the multilateral scale takes place in a top-down fashion by the riparian states and regions. In this aggregation process, there is strong emphasis on one-way information and consultation of private and civil actors.

According to the IMC states and regions specific pay-off rules will have to be defined at the domestic political level. In general, the multilateral pay-off discourses echo the neo-liberal principles from the European level: the polluter pays, cost recovery of water services, selection of the most cost-effective combinations of measures and so forth. These principles are considered incentives for more rational use of water resources, in addition to formal rewards and sanctions (at the domestic level). From the European level, there are no direct pay-off mechanisms with regard to multilateral coordination efforts. Indirectly, IMC states and regions may feel more urged to enforce their multilateral efforts, since individual Member States may report to the European Commission whenever they do not succeed in solving transboundary issues with neighbour states and regions.

To conclude this chapter, at first glance the adoption of the WFD has not triggered dramatic rules changes at the multilateral level. Path dependencies and historical legacies (from prevailing policies and conflicts), related to physical, political, economic and social asymmetries among upstream, midstream and downstream riparian states, dominate the multilateral coordination efforts. In this context one should remember the history of highly politicised Dutch-Belgian negotiations over Meuse and Scheldt issues (as thoroughly analysed by Meijerink (1999)). Besides language barriers, different political and cultural traditions may account for part of the explanation (Eppink, 1998; Hofstede, Hofstede and Minkov, 2010). However, one should not underestimate the rule-altering potential from the WFD in combination with the ongoing trust-building process. A deeper jump into the observations of this research delivers some remarkable, albeit embryonic and fragile evolutions.

The IRBM paradigm, notwithstanding the ambiguous European ambitions around it, seems to have urged the IMC states and regions to enforce their coordination efforts. Although laborious and often procedural debates continue to dominate the scene, the roof Article 5 report and the roof river basin management plan proof that multilateral coordination actually has taken place. Publication of these reports does not have a solely symbolic, procedural value, since it marks the birth of a multilateral acquis. The direct discursive influence from the WFD becomes visible in a widening of the scope of the IMC with more water related issues, e.g. groundwater, floods and droughts. The scope enlargement underscores that the IMC states and regions acknowledge the importance of internal integration. However, the IMC actors neither reduce the integration gap as caused by the European divide between (decision making procedures on) water quality and quantity issues, nor compensate for weak cross-sector integration arrangements (external integration). Another direct influence of the WFD has been the entry of three new states, with Germany as a powerful one.
There are some indications that Germany may act as a binding actor for the native Dutch and French actors whereas the Flemish may support the process positively, due to their expertise from the Scheldt River Basin. Additionally, opportunities to bring in positive experiences from the adjacent Rhine River Basin increase, as due to personnel alliances between the German and French delegations within the International Rhine Commission (IRC) and the IMC (Interviews 42 and 53; Appendix I).

With regard to choice rules, although the IMC has no formal authority to interfere with domestic arrangements (sovereignty and subsidiarity), arguments in the roof documents point at implicit acknowledgement of the importance of both supply and demand management. Concerning boundary rules, the IMC has prudently opened up its windows for bottom-up influences, such as contributions by NGOs. The embryonic and fragile nature of this evolution is illustrated by both the complaints of some NGOs on the limited openness, transparency and access to information and the lack of financial support by the IMC for capacity building of NGOs. Viewed from a sunny side of the Meuse River, embedded in a troublesome historical context, the WFD has enforced multilateral harmonisation efforts, albeit still laborious and often procedural in nature. At the long term this joint process may pay-off as gradual sedimentation of a common, multilateral acquis, regarding IRBM. Perceived from a clouded side of the river, overemphasis on sovereignty and subsidiarity may hinder prosperous development of the multilateral embryo into a cross-sector river basin celebrity. Whenever trust-building further succeeds, openness and transparency may increase as well. If otherwise, the IMC will remain a relatively closed Oyster which may discourage active participation of other policy sector, private and civil actors, hence will make collective, multilateral arrangements which are supported by many more troublesome.

Finally, the analysis of the multilateral level arrives at the same methodological conclusion as the analysis of the European level from Chapter 4. Once more it should be emphasised that potential explanations for observed (lack of) rules change are not easily drawn from assessments of individual dimensions of a policy arrangement alone. Instead, actors, the division of power and resources and policy discourses all deliver parts of the whole explanation. In the next three empirical chapters, it will become clear whether this observation also holds at subsequently the domestic national, regional and local political levels in the Netherlands, as most downstream riparian state within the International Meuse Commission.
In 2003 the Aquarein report triggered a political wake-up call in the Netherlands regarding the implementation of the WFD (Source: Alterra, 2003).

In 2004 the Dutch national authorities adopted the WFD Implementation Memorandum as summarised for a broad audience by this joint brochure of the TPW Ministry and the associations of Dutch provinces, municipalities and regional water management authorities.
Going Dutch: the feasibility and affordability mantra

'It remains remarkable that we have said yes to a European directive for which we have to conclude afterwards that it will take us many years to become fully aware of its consequences. Even in a good marriage this might happen.' Kees van der Staaij (in: Tweede Kamer der Staten-Generaal, 2004d).

6.1 Introduction

As described in Chapter 3, the central research question is to which extent the WFD triggers rules changes at a (nested) hierarchy of political levels within the International Meuse River Basin District. This chapter poses and answers the question how the actors at the Dutch national level (in this particular district) deal with the ambiguous European ambitions and rule altering potential. As a decentralised unitary state (Kickert, 2004; Andeweg and Irwin, 2005), the Netherlands almost by nature have opted for a mixed top-down and bottom-up implementation approach for the Water Framework Directive (WFD). Consequently, this research presents an assessment of the implementation process at three administrative levels: the national level (this chapter), the regional level (Chapter 7) and the local level (Chapter 8). This chapter presents the strategic choices that have been made at the national level as guiding the regional and local implementation activities in all the Dutch parts of four European river basins. The regional level covers the Dutch part of the International Meuse River Basin District, whereas the local level concerns the cooperation process between municipalities, the Brabantse Delta Water Management Authority (Waterschap Brabantse Delta) and non-governmental stakeholders. Since the author has been actively involved as WFD process coordinator in the Brabantse Delta territory, the assessments in the Chapters 6, 7 and 8 will be more detailed and enriched with observations from inside out as compared to the two previous ones.

Section 6.2 starts with a chronological overview of the Dutch water policy domain before and after adoption of the WFD. Subsection 6.2.1 describes the evolution from a focus on water quantity issues only, via inclusion of water quality issues (since the 1970s), towards the Integrated River Basin Management (IRBM) paradigm of the 1990s. Subsequently in chronological order, four WFD implementation stages at the Dutch national level are distinguished and described in Section 6.2.2, from a relatively late political WFD wake-up call (in November 2003) to drafting and adoption of the river basin management plans (2008 and 2009). Section 6.3 explores the extent of changes in the observed collective-choice rules for IRBM (as defined in Chapter 2), between the period before and after introduction of the WFD. As a next step, Section 6.4 provides an assessment of policy discourses, actors’ coalitions and oppositions and the division of resources and power (in relation to observed rules). Finally, Section 6.5 closes this chapter with a synthesis, summarising potential explanations for observed (lack of) rule changes (including the impact of the WFD).
6.2 From water quantity towards integrated river basin management

This section presents a brief chronology of the Dutch national water policy domain from the 1960s to December 2009 with emphasis on both the 1990 to 2000 and the 2001 to 2009 period. The domestic road starts from a “battle against water” and land reclamation and runs via attacking water pollution towards experiments with interactive policy making and integrated water systems management. In the 1990s, at the European level Dutch water experts and officials actively try to influence discussions on a different approach of water policy. Together with other Member States the Netherlands urge the then hesitating EC to leave the idea of another sectoral water policy directive for the benefit of a framework for integrated river basin management. After adoption of the WFD the Dutch politicians fear significant socio-economic consequences and struggle with the high ecological ambitions. They choose to follow a more pragmatic path, which is guided by the feasibility and affordability mantra. Appendix VIII provides for a synthesis of the stages in the Dutch water policy domain at the national level before and after adoption of the WFD.

6.2.1 Water policy life before the WFD (1960 to 2000)

An evolution towards integrated water management

In the Dutch water policy domain similar waves as described for the European water policy domain (see Subsection 4.2.1) are noticeable. Until the 1960s the traditional hegemonic discourse came down to the “battle against water” (Van de Ven, 2004). Water was considered a threat to society and policy strategies were installed to protect people and economic life against the water (Wiering and Crabbé, 2006). In the 1970s water quality issues supplement the water quantity approach, especially with the responsibilities for surface water pollution and waste water treatment (Van Leussen, 2002). The adoption of the Surface Water Pollution Act (Wet Verontreiniging Oppervlaktewater; Anonymous, 1970) marks the start of the first (qualitative) wave. The (substantive) integration wave starts in the early 1980’s when a special advisory committee to the Gelderland Province mentions the need for an integrated water management approach, due to a combination of the increasing demand for fresh water and water quality deterioration (Van de Nes and Romijn, 1980). With its Second National Water Policy Memorandum (‘Coping with Water’/‘Omgaan met Water’) the Ministry of Transport, Public Works and Water Management (henceforth TPW Ministry) introduces the water systems approach (Ministerie van Verkeer en Waterstaat, 1985). In this approach water systems are considered unities of surface water, sediment and banks (related to ground water resources) within a broader natural, social, administrative and political context (ibid.). Disco (2002) mentions an ecological turn in the Dutch discourse on water management in the 1980s and 1990s. This turn becomes most explicit in the Third National Water Policy Memorandum in which the TPW Ministry further details the water systems approach from an ecocentric angle (Ministerie van Verkeer en Waterstaat, 1989). This third memorandum mentions healthy, well functioning (aquatic) ecosystems as the fundament under human society, as providing goods and services for humans, plants and animals. They set conditions for the sustainable use of
available water resources. Furthermore, integrated water management requires balancing of interests (of natural and socio-economic subsystems) related to the functioning of water systems at different temporal and spatial levels (ibid.)

In the 1980s and 1990s there are worldwide calls for new public management, including more catalytic, community-owned, competitive, mission-driven, results-oriented, customer-driven, enterprising market-oriented, anticipatory and decentralised governments (Osborne and Gaebler, 1992; read for an extensive elaboration Denhardt, 2004: 136-144). This new concept of government ‘has its roots in practical developments in public administration worldwide, in the set of ideas generally referred to as “reinventing government” and in a conceptual link to the public policy and especially the public choice perspective in public administration theory’ (Denhardt, 2004: 136). Elements of new public management are also reflected by principles of effective water governance (Rogers and Hall, 2003). Within this context the integrated water management concept offers a new frame of reference. In the literature on public administration, the new frame is put forward as an alternative for existing coordination problems (Grijns and Wisserhof, 1992). Public administration experts ply for optimised coordination between water managers, between water managers and other policy domains and between policy makers, target groups and interested citizens (Wiering and Crabbé, 2006). Furthermore, the integrated water management concept has been embedded in a cross-border context by advocating river basins as the appropriate policy and management units (UN-ECE, 1992; Global Water Partnership, 2000) and as formally anchored at the European level by the WFD (European Communities, 2000).

In the 1990s organisational integration rhetoric becomes noticeable in the Dutch water policy domain. Calls for more simplification, transparency, participation, efficient and responsive administrations and integration are, amongst other initiatives, echoed in numerous interactive planning experiments within the Dutch water policy domain. The TPW Ministry summarises the Dutch experiences in a Guidance Document on Interactive Planning Processes (Hendriks et al., 1999). The national project team for preparation of the Fourth National Water Policy Memorandum initiates an explorative research project on future organisation of regional water management within the context of a more integrated approach (Van der Vlies, De Putter and Hötte, 1996; Interview 51, Appendix I). In the foreword of the final report the chair of the guidance committee (who then is also the chair of the Association of Regional Water Management Authorities; Unie van Waterschappen; henceforth UvW) emphasises that existing administrative structures and the functional nature of the water management authorities are not open for discussion. He concludes that ‘integrated water management primarily is an issue of good cooperation and coordination. Provinces, water management authorities and municipalities all hold crucial positions which are not enforceable by legislation. Finally, political willingness will determine the success of integrated water management.’ (Van der Vlies, De Putter and Hötte, 1996: 1) The report plies for more effective cross-sector integration by means of synchronisation of planning processes. In order to support spatial water management, municipal spatial plans should be updated and water system and land use functions should be tuned (ibid.)
Wiering and Crabbé (2006) diagnose a tight web of both substantive laws and procedural, constitutional rules about the jurisdiction and competences of the water policy agencies. Due to this complexity authorities often rely on informal agreements about divisions of tasks (ibid.). Because of the hegemony of the state Liefferink (2006) characterises the Dutch water policy arrangement as etatist. The water sector’s limited cross-sector focus may be fostered by a specific epistemic community that traditionally focuses on hydraulic engineering (Disco, 2002). Wiering and Crabbé (2006) conclude that the water agencies, with their knowledge infrastructure, have a relatively firm grip on their policy environment and are not willing to give up their hegemony in water management.

The 1993 and 1995 near-floods in the Meuse and Rhine river basins and the 1998 water distress and a number of remarkably dry summers in the 1990s, cause a political shift of attention to flood prevention and protection and droughts management, within the context of climate change. The European negotiations on the WFD take place in this period of decreased domestic political attention to water quality issues. Since the Dutch consider themselves among the European forerunners, in their perception the WFD will mainly urge upstream riparian states to enlarge investments in water quality amelioration (Ten Heuvelhof et al., 2010; Interviews 18, 30, 39, 40, 43, 51 and 52, Appendix I). With the Fourth National Water Policy Memorandum (Ministerie van Verkeer en Waterstaat, 1998) the national water authorities shift to a more pragmatic, anthropocentric definition of the IRBM approach, emphasising safety against floods in the context of (restoration of) resilient water systems. In analogy with the WFD this fourth memorandum is presented as a more generic policy framework, which has been influenced by multiple stakeholders in an interactive process (Interview 51, Appendix I).

At the time of adoption of the WFD calls for change and integration cumulate in the decision of the Dutch Council of Ministers on ‘A Different Approach to Water, Water Management Policy in the 21st Century’ (Ministry of Transport, Public Works and Water Management, 2000). The different approach is mainly triggered by floods and droughts issues (and not by water quality issues). The decision document points at a combination of climate change, ongoing land subsidence in the lower parts of the Netherlands and growth of population density and socio-economic pressures (Ministry of Transport, Public Works and Water Management, 2000). To anticipate these expected changes a different approach is required, including allocation of extra land for water in addition to technological measures and enforcement of the linkages between water policy and spatial planning. A three-step strategy (retaining, storing and draining) is in the centre of the new approach (ibid.). This means that precipitation should be held as long as possible in the catchment area where it falls. When this is no longer possible, the water is temporarily stored in the water storage areas created for this purpose. Excess water is drained only when these options have been used to their full potential. Regionally-tailored efforts are needed in the context of multilaterally coordinated river basins. By further practical elaboration of such a multiple-level strategy the objectives for prevention of dropping water-tables, salinisation and improving water quality must be incorporated (ibid.). This brief overview shows that at the time
of drafting and negotiating the WFD quantity is the major issue in the Dutch water policy domain which catches public and political attention, not quality.

**Dutch ambitions, gains and losses in the WFD drafting and negotiation stage**

Liefferink and Andersen (2005: 57) argue that in the European environmental context of qualitative majority voting alliance-building between countries is important, particularly for the formation of blocking minorities or in order to exert more positive pressure on the political process. They observe changing coalitions and oppositions of Member States on a case-by-case basis (ibid.). The WFD drafting and negotiation process may serve as an example in which the Dutch, at least in the initial stage, proactively searched for a broad coalition to support their ideas for a more integrated framework directive. Remarkably, at the end of the 1980s the EC was inspired by the Dutch approach on water quality objectives setting, including basic water quality standards (*basiskwaliteitsnormen*) for all surface waters (Interviews 18, 39 and 40, Appendix I). Although this offered potential for an uploading of Dutch practices, the Dutch water experts and officials feared lower ambitions since the EC officials emphasised the basic, minimum protection level. In the then Dutch approach the basic water quality standards were considered as point of departure towards more ambitious (intentional) ecological quality values (*streefwaarden*). Besides, the Dutch were inspired by societal calls for more integration, transparency and simplification of laws and regulations. They became more in favour of an integrated approach in the European water policy domain over another sectoral directive (as proposed by the then EC; ibid.).

The chronological process reconstruction in Subsection 4.2.2 has made clear that Dutch national water policy officials and experts have been very active in the early drafting stage of the headlines of the new integrated water framework directive. Especially in 1995 and 1996, the Dutch took initiatives to find coalition partners in support of their position papers in which the domestic approach of water quality standard setting had been central. The Dutch perceived themselves among the European forerunners for which, as a downstream state within four European River Basins (Rhine, Meuse, Ems and Scheldt), a transboundary river basin management approach would certainly pay-off at the long term (Melis and Boudewijn, 2002; Meijerink and Wiering, 2009; Ten Heuvelhof et al., 2010). The then French and Dutch high-ranking officials may be considered the founding fathers of the informal meetings of the EU Water Directors with the EC (Interview 43, Appendix I). According to Melis and Boudewijn (2002), the Netherlands considered support from the United Kingdom, France and Germany as very important given the large political and economic weight of these Member States. Implicitly, their observation is supported by Liefferink and Andersen (2005) who point at the generally sufficient critical mass of the French-German cooperation on the European integration process at large and at Germany as by far the largest of the environmentally progressive countries in the European Union.

After their first successful interventions the influence of the Dutch public actors diminishes. Other Member States (e.g. United Kingdom) soon take over the role of initiator. Melis and Boudewijn (2002) point at an understaffed TPW Ministry, limited water knowledge within the Ministry of Housing, Spatial Planning and Environment (henceforth HSE Ministry) and national compromise instructions from coordination
among ministries that all want to express their major points of interest. For example, the Ministry of Agriculture, Nature and Food Quality (henceforth ANF Ministry) from the beginning emphasised that additional (WFD) measures in the agricultural sector would be a mission impossible (Interviews 18 and 43, Appendix I). Ten Heuvelhof et al. (2010: 84-86) mention three possible explanations for the waning Dutch influence. Firstly, low commitment at the HSE Ministry that coordinated the Dutch WFD negotiation strategy for the Council of European Ministers. Water issues did not get high priority within this ministry and the experts and officials at the TPW Ministry did not manage to change this. Secondly, with the growing decision-making influence of the European Parliament and after the release of the first draft text of the WFD, the European negotiation game became highly political and moved forward relatively rapidly. Consequently, the involved Dutch water experts and officials lost their substantive grip on the process. Thirdly, there are some indications from their interviews that the Dutch, as compared to the French and German, lack a tradition of early and intensive juridical involvement at the drafting stage of a European Directive (ibid.).

One might ask what the Dutch actors did win and lose. In the early drafting stage the Dutch stressed the importance of subsidiarity (by advocating a flexible directive that provides enough room to consider specific local conditions), an (international) river basin management approach, integration and harmonisation of source- and effect-oriented directives (a combined approach), identical definitions in different directives, less detailed and more integrated reporting requirements and development of a common overall Community strategy for future actions in the field of water policy (Ministry of Transport, Public Works and Water Management, 1995a). According to the Dutch, at the European level, the source oriented (emission reduction) approach and the effect oriented (water quality standards) approach are to be considered as parallel. They cannot be related in a quantitative way (Ministry of Housing, Spatial Planning and the Environment, 1995). At the level of (sub-) river basins (multilateral) attempts may be more appropriate for quantification of such relations (ibid.).

The subsidiarity principle should guide the way to a framework directive which reflects ‘an even balance between constituting an effective minimum protection level and offering a flexible policy instrument to Member States’ (Ministry of Transport, Public Works and Water Management, 1995a: 8). Especially, coherence between air, surface water, groundwater and sediment policies should be improved (Ministry of Housing, Spatial Planning and the Environment, 1995). The Dutch prefer intentional water quality objectives (ibid.) and a mixture of actions in the field of infrastructure and water management, including juridical arrangements, limitations to water user activities, emission reduction, hydrological measures and ecological restoration projects (Ministry of Transport, Public Works and Water Management, 1995a). Diffuse emission sources and relations between quantity and quality of surface water and groundwater resources should receive more attention (ibid.).

At the WFD negotiation stage the Dutch considered the proposed implementation term (25 years) too long (Melis and Boudewijn, 2002; Interviews 40 and 43, Appendix I). On the other hand they plied for more realistic and feasible objectives.
Contrary to the EP, the Dutch were proponent of inclusion of *heavily modified and artificial water bodies* as separate categories in the WFD (with less demanding environmental objectives). Given the large pressures from households, agriculture and industry, extensive hydrological and morphological alterations of Dutch water systems had taken place in the past. If the WFD would only acknowledge the state of natural water bodies as the central objective, dramatic investments would be required to undo the aforementioned large-scale alterations. Furthermore, the Dutch negotiators were against water transfers between river basins in times of scarcity, for practical reasons. The EP was proponent of such provisions in the WFD. The EP plied for full cost recovery for water services for several sectors. The Dutch supported the principle, but were against a division into sectors, since parts of the water related activities are financed from general taxes (hence difficult to present individually). Overall, the Netherlands agreed with the majority of the EP amendments. During the conciliation procedure the Dutch negotiators stuck to the draft text as agreed by the European Council in June 2000. In that particular text, the WFD’s objectives had been formulated as intentional in nature (i.e. *with the aim of achieving* wording). On the contrary, the EP (supported by the EC) was in favour of the WFD as a legal obligation (i.e. *in order to achieve* wording). In the exhaustive negotiation game the EP finally gave in for the benefit of other gains (Kaika and Page, 2003). Although the Dutch negotiators “celebrated” this small “victory”, juridical experts point at the generic obligatory, legally binding nature of European directives (Van Rijswick, 2001; Backes, Kruyt and Van Rijswick, 2007, Mostert, 2010; Van Rijkswick and Havekes, 2012; see also the Stage II part of Subsection 6.2.2).

In sum: at the positive side of the drafting and negotiation balance the Dutch gained the river basin management approach, inclusion of both quality and quantity issues and interactions between groundwater and surface water, the combined approach of emission reductions and water quality objectives, inclusion of the option of designation of heavily modified and artificial water bodies and a permanent informal network of EU Water Directors (which could pay off in the Common Implementation Strategy). On the other hand they did not manage to reduce the implementation term and issues of floods and droughts have not been fully integrated. Furthermore, the WFD systems both for water body classification (Annex II, European Communities, 2000: 23-30) and for ecological objective setting and monitoring (Annex V, European Communities, 2000: 33-63) have become rather detailed and complicated. Notwithstanding the major gain of a uniform European wide system, which may be promising for the quality of Europe’s waters, it requires adaptation of Dutch traditions and practices of monitoring and ecological goal setting. Although the WFD has put the issue of ecological quality of water systems high on the Dutch political agenda again, it may not be the Holy Grail that ecologists are searching for (Van der Wal and Waajen, 2010).

To conclude this subsection, the period of formulation and adoption of the WFD fitted well within the evolutionary context of the Dutch water policy domain. From a predominant focus on water quantity management until the 1960s a gradual shift occurred via water quality management to integrated water systems management in the 1990s. However due to near floods events halfway the 1990s, water quality
issues have moved into the political background. Dutch water experts, ecologists and officials have tried to seize the European momentum for renewed attention to water quality issues, especially at the initial drafting stage. From the interviews and secondary analysis it becomes clear that these national actors, soon after the drafting start, had lost their substantive grip on the political process in Brussels. Furthermore, they did not fully manage to ex ante evaluate potential administrative and socio-economic consequences of adoption of this ambitious and ambiguous Directive. The next subsection continues with the dominant argumentations and strategic choices in the first Dutch domestic WFD planning implementation cycle. In contrast with the high initial uploading ambitions of national water policy actors at the European level, the analysis will show a remarkable late political WFD wake-up call and subsequent struggle with the WFD’s core Article 4 on the environmental objectives and related exemption options.

6.2.2 Implementation of the WFD (1998 to 2009)
In the first Dutch national WFD implementation planning cycle four subsequent partly overlapping stages may be distinguished (see Table 6.1 and Appendix VIII). These stages serve to to structure the historical reconstruction.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Brief characterisation</th>
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<tr>
<td>I (1998 to 2003):</td>
<td>Low political priority until two late wake-up calls: A national WFD Implementation Project Team starts preparing the Article 3 and Article 24 requirements. The Dutch consider themselves European forerunners. Regional and local water managers are not actively involved. Political attention is low until parliamen-tary questions (June 2003) and the release of the Aquarein study report (November 2003).</td>
</tr>
<tr>
<td>II (2004 and 2005):</td>
<td>Realistic ambitions, first river basins characterisations and iteration: The national Water Policy Department introduces the pragmatic feasibility and affordability mantra and opts for a prudent formulation of the Dutch river basin characterisation reports. An iterative process design is proposed to arrive at realistic environmental objectives and programmes of measures for a staged compliance with the WFD requirements (until 2027).</td>
</tr>
<tr>
<td>III (2006 to 2008):</td>
<td>Harmonised objectives and measures, acceptable cost-benefit ratios: Gradually, the regional packages of measures are harmonised by the national authorities. Large parliamentarian pressure downsizes the ambitions for the first generation river basin management plans to acceptable cost-benefit ratios.</td>
</tr>
<tr>
<td>IV (2008, 2009):</td>
<td>Drafting river basin management plans and formal consultation: Drafting the Dutch water management plans at all involved political levels is synchronised with the terms for the WFD river basin management plans. The parallel formal consultation rounds on these plan figures do not deliver surprises.</td>
</tr>
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Stage I: Low political priority until two late wake-up calls (1998 to 2003)
Around the time of adoption of the WFD domestic political attention to water quality issues is relatively low (Arcadis, 2002). The Dutch ministers present the political agreement on the WFD as a victory and the then Dutch water managers consider
themselves as European forerunners. The WFD is considered to foremost have an important impact on upstream and midstream riparian states. In November 1998 the TPW Ministry initiates the national WFD Implementation Project Team (Projectteam Implementatie Kaderrichtlijn Water) with representatives of the HSE and ANF Ministries, the UvW and the Inter-Provincial Platform (Interprovinciaal Overleg; henceforth IPO). The Association of Dutch Municipalities (Vereniging van Nederlandse Gemeenten; henceforth VNG) is also invited but chooses not to attend the meetings. The major task of the project team (and related working groups) is threefold. Firstly, the project team prepares for a timely and correct transposition of the WFD into Dutch legislation (conform Article 24, at the latest 22 December 2003). Secondly, it develops proposals for delineation of the Dutch territories of involved international European river basins (conform Article 3). Thirdly, it prepares the national WFD Implementation Handbook, based on a synthesis (and explanation) of the guidance documents from the European Common Implementation Strategy (CIS). The project team also coordinates the Dutch contributions to the CIS and reports important implementation issues and controversial aspects to the director-generals of involved ministries.

At this first stage, regional and local water managers are not very active yet in planning the WFD’s implementation (Arcadis, 2002). They concentrate more on the process for measures on safety against floods and local water distress, as part of the ‘Start Agreement on Water Policy in the 21st Century’ (in Dutch: Startovereenkomst Waterbeheer 21e Eeuw; Anonymous, 2001). This agreement mentions coherence between the administrative (sub) river basin delineations for both flood defence and water stress and the WFD requirements, by means of an integrated approach. Nonetheless, the UvW expresses the fear of parallel processes and management plans (Tweede Kamer de Staten-Generaal, 2003a). In 2002 provinces and water management authorities generally express a positive attitude towards the WFD but complain about the lack of clarity and transparency from the national authorities on expected implementation implications. To turn the tide the TPW Ministry appoints national coordinators for initiation of regional river basin coordination structures. Although predominantly triggered by the WFD requirements, the (national) aim of these (regional) structures should also be to integrate the Water Management in the 21st Century process (WM21, which concerns anticipation of floods and droughts in relation to climate change). A (national) Internet site is launched and regional WFD information and consultation sessions are organised.

The national water official and experts are surprised by the conclusions from three pilot WFD exploration projects (Ems, the middle part of Holland-North and Western-Scheldt; Hassoldt and Busch, 2002; Dommering et al., 2002). From these exercises it becomes clear that required information for the Article 5 reports (which are the river basin characterisations) and the related river basin management plans (Article 13) is not entirely available. Furthermore, national methods and practices do not match easily with the new European rules. Information is scattered among several organisations and its collection and aggregation may require lots of time (for example regarding ecological objectives, monitoring, hydro-morphological aspects and fish populations) (ibid.; Interview 39, Appendix I). The process gradually becomes more laborious. For example, the drafting process of the handbook suffers from several
delays caused by working group chairs who do not manage to deliver text proposals in time. A printed (albeit incomplete) edition is disseminated in March 2003 but does not play a significant role in the subsequent implementation process (Vroege, 2009; Interviews 39, 40 and 46, Appendix I). Furthermore, parliamentarians, NGOs and socio-economic interest groups start to raise questions about the national ambitions with regard to the WFD’s environmental objectives. Worries grow about the potential socio-economic impact of a strict implementation.

In general NGOs and socio-economic interest groups and the *UvW* express support for the proposed approach for transposition of the WFD in national legislation, namely strict transposition and optimal use of existing administrative and political structures (in order to invest maximal energy in actual implementation issues). The interest groups ask for more transparency on the nature of the WFD’s environmental objectives (are these obligations of best efforts or obligations of result?). For example, to which extent may water services be considered as governmental task, hence be covered by generic financial state means? (Tweede Kamer der Staten-Generaal, 2003a: 37). The *UvW*, in line with an advice from the then State Advisory Commission on Water Legislation (Staatscommissie voor de Waterstaatswetgeving, 1999), plies for a bottom-up approach for the establishment of river basin management plans with an important role for the regional water management authorities (*waterschappen*). Besides, the association plies for a strict implementation of monitoring requirements in order to limit additional administrative burden. The *UvW*, NGOs and other interest groups ply for a further integration of Dutch water legislation which may not be hindered by a too strict WFD transposition.

April 2003: at a national workshop on water body typology and reference conditions regional and local water managers ask for acceleration of drafting national guidelines and instructions. They emphasise that regional and local politicians will only accept national WFD ambition choices if socio-economic consequences will be made clear in advance. From the June 2003 report of the Permanent Commission on Transport and Water Management in the Lower House of Parliament (Tweede Kamer der Staten-Generaal, 2003b) it becomes clear that all political parties ask numerous questions about definitions and national interpretations, organisation of the implementation process and above all the unclear Dutch ambitions with regard to the environmental objectives and the related potential socio-economic consequences. Ambitions on an integrated approach for water quantity and quality issues and cross-sector consequences should be made clear. Doubts arise about the feasibility of a timely transposition of the WFD into Dutch legislation. Remarkably, the parliamentarians ask why the process has remained bureaucratic for so long, since the WFD asks for a more political process with active involvement of socio-economic stakeholders. Notwithstanding this first political WFD wake-up call, in the June 2003 interim progress report to the European Water Directors and the EC the TPW Ministry mentions that there have been no major problems in the domestic WFD implementation process so far (Ministry of Transport, Public Works and Water Management, 2003a). The report
concludes that, up to 2003, the WFD has not been not a big issue compared to flood protection and local flooding: ‘This had some effect on capacity building’ (ibid.: 5).

In a memorandum with answers to the questions of the Permanent Commission on Transport and Water Management the State Secretary for Water Management announces a national WFD ambition proposal (Tweede Kamer der Staten-Generaal, 2003c: 2). The announcement precedes publication of a study report on the potential socio-economic impact of the WFD requirements in November 2003. This so-called *Aquarein* report (Bolt et al., 2003), as drafted by Alterra (which is a research institute) at the request of the rural development department within the ANF Ministry, causes a second, more pronounced political WFD wake-up call (Interviews 18, 26, 30, 41, 52, Appendix I; Ten Heuvelhof et al., 2010). According to the editors the WFD implementation requirements may generate significant negative consequences for the agricultural sector in the Netherlands (Bolt et al., 2003). The main message is that not all the WFD objectives may be established, even not when all Dutch farmers’ land would be taken out of production (ibid.). In a letter to the Lower House of Parliament (Tweede Kamer der Staten-Generaal, 2003d: 1, translation from Dutch added), the State Secretary for Water Management emphasises the explorative nature of the *Aquarein* report:

The reader should be aware that the Alterra study, by means of different scenarios, provides insight in the consequences whenever objectives for nutrients would be strictly interpreted. The approach does not take account of the WFD option to differentiate. Besides the study did not extensively include other potential management measures that may contribute to the ecological functioning of water bodies. The scenarios depart from (full) compliance with the WFD objectives in 2015 and do not include the exemption options for a staged approach until 2027. The study also does not anticipate the exemption option to decide on lower objectives in case of unfeasibility or disproportionate costs.

Triggered by the alarming study report the Lower House of Parliament again asks more detailed information on expected socio-economic consequences. Consequently, approval of the national WFD Implementation Act has been postponed. The delay triggers a first non-compliance procedure from the European Commission against the Netherlands (regarding no timely transposition of Article 24 of the WFD; Tweede Kamer der Staten-Generaal, 2003e, 2004a and c) which finally results in a condemnation by the European Court of Justice (Van Rijswick, 2010). Besides, the generic (regional and local) positive attitude towards the WFD partly dampens and turns into a fear for the (perceived) obligatory nature of the environmental objectives. Since then, discussions mainly focus on a pragmatic and realistic implementation ambition. In the same period the partners of the National Political Water Platform conclude that the majority of municipalities are very passive and have an information backlog. December 2003, the National Political Water Platform decides on three central starting-points for pragmatic WFD implementation: (1) no more national rules than necessary; (2) to continue present policies and management and maintenance practices as much as possible; and (3) maximum decision making room in the successive implementation stages.
Stage II: Realistic ambitions, first river basins characterisations and iteration (2004, 2005)

**Intentional ambitions or strict obligations, a recurrent debate**

In the beginning of 2004 a national WFD programme leader is appointed at the Water Policy Department who starts with reorganising national WFD tactics and ambitions (Interview 18, Appendix I). The Dutch Council of Ministers decides on the headlines of a new (integrated) Water Act, based on three major arguments: (1) less and more simple regulation; (2) the European river basin management approach; and (3) better legal anchorage and instrumentation of contemporary integrated water management. April 2004 the Council approves the WFD Implementation Memorandum (Tweede Kamer der Staten-Generaal, 2004b) which emphasises a staged, pragmatic, feasible and affordable implementation until the end of 2027. Prior land use and property rights and spatial planning policy are leading together with a European level playing field. An optimal mixture of source and effect oriented pollution reduction measures will be required to meet no deterioration as the minimum WFD requirement. July 1, 2004, the Lower House of Parliament approves the WFD Implementation Act by stressing a pragmatic implementation approach (Tweede Kamer der Staten-Generaal, 2004d). The State Secretary for Water Management promises to perform a societal cost-benefit analysis in relation to the draft programmes of measures and river basin management plans. The Upper House of Parliament follows on April 5, 2005 (Eerste Kamer der Staten-Generaal, 2005). Although the Upper House expresses worries about the inter-ministerial coordination and the socio-economic consequences, it approves the proposal without voting (ibid.).

November 2004, the National Political Water Platform approves a memorandum with the Dutch interpretation of the juridical nature of the WFD’s environmental objectives (LBOW, 2004a: 1; translation from Dutch and italics added):

In fact, one might speak of a **direct obligation** with regard to implementation of measures from the river basin management programme. For the environmental objectives, there is a **staged obligation**. Exceptions are the protected areas and other areas for which the river basin management programme mentions full compliance before the end of 2015. According to the Dutch competent authorities, the exemptions from Article 4.3 till 4.7 should also be applicable to protected areas, as long as compliance with other relevant European legislation is guaranteed.

In contrast with earlier interpretations from the WFD negotiation stage, when the then Dutch state negotiators “celebrated” the **intentional nature** of the adopted wording, the State Secretary for Water Management points at a history of European intentions that juridically should be interpreted as **obligations** (Tweede Kamer der Staten-Generaal, 2004d: 18-19). Besides, given the lack of a 100% juridical guarantee, she advises to implement as all objectives and measures were obligations in order to avoid unwelcome pay-off surprises afterwards (ibid.: 30). According to legal experts, the WFD does not include the terms **obligations** and **intentions** in its wording (Van Rijswick, 2001; Backes, Kruyt and Van Rijswick, 2007). They point at ambiguous phrases in the official text. For example, the environmental ministers from the Member States overruled
the EC and the EP by including *aim to achieve* instead of *in order to* within the formulation of Preamble’s Statement 26 (European Communities, 2000: 3). The former wording should be interpreted as intentions whereas the latter points at obligations (Kruyt, 2007: 97). However, the same statement includes minimal (obligatory) water quality requirements (ibid.) Backes, Kruyt and Van Rijswick (2007) and Van Rijswick and Havekes (2012) argue that in general European directives concern legal obligations. Also the intrinsic and detailed exemption options of Article 4 point at the obligatory nature (ibid.). Finally, Article 2(35) (European Communities, 2000: 7; italics added), defines ‘environmental quality standards’ which point at obligations (Van Rijswick, 2001; Mostert, 2010).

The discussion on the juridical nature of the WFD requirements pops up at several moments up to December 2009. The 2004 national discussion triggers European officials and the then Commissioner of DG Environment who get the perception that the Netherlands go for a too low WFD implementation ambition (e.g. designation of as much heavily modified water bodies as possible) without appropriate motivation (Tweede Kamer der Staten-Generaal, 2004d). Meetings with the EC (both at official and ministerial level) take place to elucidate the Dutch approach (e.g. Tweede Kamer der Staten-Generaal, 2004c). The ambiguity in the Dutch argumentation lines is expressed by the State Secretary for Water Management in one of her meetings with parliamentarians (Tweede Kamer der Staten-Generaal, 2007c: 9; translation from Dutch added): ‘A Member State will not be held accountable [by the EC] for compliance with the objectives, but for the implementation of measures that should guide the way to [compliance with] the objectives.’ (Read also the list of questions and answers about the 2006 December Memorandum, Tweede Kamer der Staten-Generaal, 2007b)

*The first river basins characterisation (Article 5 reports)*

The national Article 5 Reports (one for each river basin) are subject to critical screening by a national audit committee prior to reporting to the EC. The independent committee that is initiated by the national Water Policy Department, checks the completeness, coherence and consistency of the Dutch draft reports. Central question is how to maintain sufficient political room for manoeuvre with regard to formulation of feasible and affordable objectives and measures. The audit committee advises to choose a more offensive wording in the reports and to restrict the contents to facts (in order to prevent discussions with the EC; LBOW, 2004b). NGOs and socio-economic interests groups in general are positive about the coherence and wording of the Article 5 reports. According to them, the *level playing field* principle should become visible in the multilateral roof reports to be drafted by the international river basin committees. Furthermore they ask for more coherence between the risks and economic analyses, an integrated approach of water quantity and quality issues, a sound anti-drought approach for all protected nature areas (not for Birds and Habitats Directives areas only), a transparent designation of water bodies, more attention to cost recovery for water uses and societal cost-benefit analyses, a more broad consideration of chemical water quality (not limited to 12 parameters only) and more equal attention to water related recreation in all the reports.
The Article 5 reports make clear that for the majority of Dutch water bodies full compliance with the environmental objectives by 2015 will be improbable (Tweede Kamer der Staten-Generaal, 2005a: 3). The Lower House of Parliament takes notice of the national and multilateral Article 5 Reports. The parliamentarians still have worries about the socio-economic consequences and ask questions about the interpretation and implications of the one-out, all-out principle, the principle of no-deterioration and the no-shift principle (Tweede Kamer der Staten-Generaal, 2005b; read also the letter of the State Secretary about legal anchorage of the WFD’s terms and definitions, Tweede Kamer der Staten-Generaal, 2006b). March 2005, the State Secretary for Water Management sends the Article 5 reports to the EC in time. Subsequently, the national public actors prepare and discuss the organisational and substantive rules for the next stage in the first WFD implementation planning cycle which is the formulation of realistic environmental objectives for all the Dutch water bodies as the basis for the selection of cost-effective measures. The river basin characterisation reports are an important building block for this next stage.

**Implementation process design: iteration**

The Water Policy Department proposes the “funnel model” (trechtermodel) for the WFD process up to December 2009 (see Figure 6.1; English edition of the figure in Wittenhorst and Mak, 2005). This means that the process will evolve from a general inventory of the range of potential objectives and measures (from a maximum to a minimum ambition level) towards final programmes of measures (based on the feasibility and affordability criteria). The Lower House of Parliament will be informed periodically and may influence important implementation decisions by means of annual December memoranda. The model allows for iteration steps in national, regional and local implementation activities, in which cost-effectiveness is a central selection criterion and in which societal cost-benefits analyses should be conducted (ibid.). Regional and local WFD pilot projects will be conducted with the aim to get a better grip on the range of potential objectives and measures. These projects may also help to choose the generic policy starting-points for the preparation of the first generation of river basin management programmes (which cover the 2010 to 2015 period).

Periodically, the Water Policy Department plies for an integrated approach on WM21 and WFD at both the regional and local levels. In turn, the chairs of the regional river basin platforms ask for a more transparent inter-ministerial coordination, especially with regard to the WFD ambitions. November 2005, the National Political Water Platform approves the pragmatic alternative approach for formulation of ecological objectives for heavily modified water bodies, as proposed by Dutch water bureaucrats at a European workshop on hydro-morphologic issues in Prague. At the end of 2005, the Water Policy Department and the VNG agree to initiate a stimulation programme on active participation of municipal experts, civil servants and politicians (the so-called ‘Water Ambassadors Agreement’; VNG, 2006; 2009).

The 2005 December Memorandum (Ministerie van Verkeer en Waterstaat, 2006a) reconfirms the headlines of the 2004 WFD Implementation Memorandum and follows the informal rules from the (draft) European guidance document on environmental objectives, most notably a staged realisation of objectives prior to exploring
the lowering of objectives. National, regional and local water managers are expected to formulate draft objectives in 2006 and are allowed to follow both the theoretical WFD and the pragmatic approach. The memorandum provides a definition on no deterioration, meaning whenever the quality of the entire (basin of a) water body does not change to a lower class within one 6-year planning period. In 2006 the regional water authorities and municipalities should draw a picture of the urban water assignment including most urgent bottlenecks. Integration of WM21 and WFD measures (not objectives) should take place in the local and regional implementation processes. Provinces are the directors of the regional programmes of measures. The national authorities should take care of well coordinated national frameworks for the regional processes. The national authorities aim for a European level playing field, European measures for priority substances and multilateral agreements on standards and application of the no-shift principle (Article 4(8) of the WFD; European Communities, 2000: 11) within the international river basin committees. Environmental NGOs and socio-economic interest groups are informed and consulted by means of one national and seven regional consultation platforms (ibid.).

Figure 6.1: The Dutch WFD “funnel model” (Wittenhorst and Mak, 2005)

Environmental NGOs and socio-economic interest groups subscribe the main starting-points, but consider the 2005 December Memorandum as too generic. The biggest Dutch association of entrepreneurs is very critical about the Dutch national ambitions (VNO-NCW, 2005). The association postulates that investments by upstream Member States should be a precondition for European judgements on WFD compliance by the Netherlands. Additionally, decisions on objectives and measures should be taken nationally, since the regional water authorities do not represent all interests in a balanced way. The no-deterioration requirement should not be anchored in Dutch legislation in order to avoid limits to socio-economic development projects (ibid.). In general, parliamentarians in the Lower House of Parliament support the
chosen approach in the 2005 December Memorandum (Tweede Kamer der Staten-Generaal, 2006a). The estimated cost figures for WFD measures (as aggregated by national experts; about 8 billion euros till 2015) should be further reduced to become political acceptable. Besides, disproportional costs for the agricultural sector should be avoided. National interpretations of some WFD terms and definitions are to be expected on the short term (ibid.). In its advice to the draft 2005 December Memorandum, the Advice Commission Water (ACW) plies for elaboration of a more integrated approach for water quality and quantity issues (ACW, 2005). The commission misses an overview of results so far from the diffuse (non-point) emission sources approach. Based on a scrutiny of the Article 5 reports the commission also notices an almost fundamental change of the domestic surface water and groundwater quality monitoring methods and practices and asks for an overview of related financial and societal consequences (ibid.).

**Stage III: Harmonised objectives and measures, acceptable cost-benefit ratios**

In the third stage national, regional and local water authorities face the challenge to formulate the ecological objectives for all delineated surface water bodies as well as to identify and select cost-effective programmes of measures. Given the complicated mixture of national, regional and local implementation processes with multiple actors, the national Water Policy Department faces a major twofold steering dilemma: (1) How to translate the pragmatic *feasibility and affordability* mantra into reliable and politically acceptable cost-benefit ratios? And (2) how to harmonise processes of autonomous (regional and local) authorities for the sake of sufficiently comparable environmental objectives and programmes of measures across the country?

**Downgrading implementation costs & incomplete benefits estimations (2006)**

The WFD quick scan of the Environmental Assessment Agency (Ligtvoet et al., 2006) shows pessimistic conclusions similar to the 2003 *Aquaréin* report (Van der Bolt et al., 2003). Due to considerable investments, water quality has ameliorated dramatically since the 1970s. However, the WFD requirements are far from fulfilled and continuation of current policies only will lead to no more than stand still. Expensive additional measures will be necessary to comply with the environmental objectives. Protection of prior land use activities and minimal changes in land and water user rights may hinder progress. The assessment agency plies for a mixture of ecological restoration projects, emission reduction measures from diffuse (non-point) pollution sources and additional waste water treatment infrastructure. Besides, more transparency and integration of existing methods on ecological objectives setting, as related to policy files of different ministries, will be required (ibid.). Remarkably, the quick scan receives rather limited attention. At the time of publication the national Water Policy Department struggles more with the deadlines of the chosen “funnel model”. For example for political reasons, the ANF and HSE Ministries hesitate with the provision of (theoretical) maximum packages of measures. The ANF Ministry periodically stresses the limits related to laborious derogation agreements with the EC on the Nitrates Directive (‘no additional measures affordable’; Interviews 11, 12, 18, 41 and 47, Appendix I). Furthermore, the river basin regions differently interpret the WFD assignment and
required types of measures. Regional politicians ask for transparency about the generic national WFD measures before selecting additional specific regional measures. Finally, not all societal benefits of WFD investments may be easily and reliably quantified, given controversies and inconsistencies among available methods, e.g. intrinsic natural values, willingness-to-pay etceteras.

In order to get a better grip on feasible and affordable measures, the national Water Policy Department asks a special project team of national and regional water officials and economic experts to conduct a strategic societal cost-benefit analysis for the Netherlands as a whole. Additionally, some river basin regions decide to conduct their own economic analyses, which mainly run in parallel. Conclusions from the regional analyses are synthesized in the so-called (regional river basin) Summer Memoranda which are ingredients for the 2006 December Memorandum. A broad coalition of environmental NGOs and recreation and drinking water interests groups (named The Clean Water Coalition) conduct their own study on the benefits of investments for cleaner water. The coalition presents a brochure with the conclusions to the Lower House of Parliament (Coalitie Baten Schoon Water, 2006). The coalition denotes that so far, the focus has been on the costs one-sidedly. The brochure provides ample examples of social, economic and ecological benefits of proposed WFD investments. The coalition plies for a more balanced financial discussion (ibid.).

Representatives of economic interests groups and the ministries of TPW and Economic Affairs initiate a joint explorative study on the financial impact of three WFD ambition scenarios for Dutch entrepreneurs (Ecorys, 2007). The report estimates additional investments by Dutch industry between €40 and €180 millions a year (direct costs for emission reduction measures) and a number of indirect effects. Although the report briefly mentions potential benefits from the WFD, it does not make an attempt to quantify them. The report mainly concentrates on expected negative consequences (ibid.). These figures are incorporated in the national strategic societal cost-benefit analysis (Ministerie van Verkeer en Waterstaat, 2006c).

August 2006, the Water Steering Group expresses worries about the comparability of the regional costs estimations for WFD measures. The members signal different starting-points, hypotheses and prepositions. Unfortunately, the national strategic societal cost-benefit analysis cannot yet answer questions about the most cost-effective measures and disproportionate costs. The Water Policy Department concludes that the figures from the Meuse River Basin are much higher compared to the other regions. The department requests this region to exclude the least cost-effective and the measures that may cause disproportionate costs (‘like the other regions did as agreed earlier’; Interviews 20 and 48, Appendix I). The Meuse region has filled in its own estimation for national measures (especially for the maximum ambition scenario) since the national authorities did not provide them completely. The final national strategic societal cost-benefit analysis shows an unbalance between costs (€ 9.2 billions) and benefits (€ 6 billions) although not all benefits could have been quantified (Ministerie van Verkeer en Waterstaat, 2006c). Water system restoration projects are considered most cost-effective, followed by nutrient reduction efforts by means of both waste water treatment plants and measures in agriculture and additional chemical pollution reduction (ibid.). The National Political Water Platform draws the
conclusion that a staged WFD implementation is preferable in order to prevent *disproportionate costs*. The platform members conclude that the analysis does not provide insight yet in the division of the costs among socio-economic sectors. To the disappointment of representatives of the industrial interest groups the national Water Policy Department does not opt for either quantification of disproportionality or for setting limits to future increases in water taxes (VNO-NCW, 2007). Both environmental NGOs and members of the Water Steering Group ask for stronger national steering of the regional and local processes in order to ensure comparability of and to reduce divergency in the packages of measures and related financial figures.

Compared with draft editions the final 2006 December Memorandum (Ministerie van Verkeer en Waterstaat, 2006b) shows a remarkable strategic move. Instead of emphasising estimated additional State investments for WFD measures, the national authorities “cash” a potential cost reduction of €1.9 billions by implementing WFD and WM21 measures in an integrated way (by means of combined measures that deliver *synergy* and *innovation*). The national authorities will provide special funding for such integrated projects (ibid). First priority is given to (almost) full implementation of WM21 measures before the end of 2015, while for the WFD assignment a staged approach till 2027 is mentioned (Tweede Kamer der Staten-Generaal, 2006c). The WM21 measures should be WFD proof and wherever possible should contribute to WFD objectives (ibid.). Considerable additional investments will have to be made in order to conduct 70-80% compliance with the WFD objectives in 2027 (Ministerie van Verkeer en Waterstaat, 2006b). Environmental NGOs and interests groups wonder whether the EC would accept a 70-80% compliance rate (too low ambition), whereas some sectors (namely industry and agriculture) express worries about disproportionate costs (too high ambition).

The Advice Commission Water plies for enforced inter-ministerial coordination and enforced national coordination of the regional and local processes (ACW, 2007). Given the European obligations the commission advises to anchor the choices from the regional and local processes into regional river basin covenants. The commission denotes a delay with the no legally required municipal water plans and questions whether this will hinder a timely and sufficient WFD implementation at the local level. Furthermore, the commission doubts whether the estimated financial savings due to an integrated implementation of WFD and WM21 measures, will be actually feasible. Given different process stages (WFD planning versus WM21 implementation), opportunities may be missed. Short term financial support of the regional and local processes would contribute to synergetic and innovative solutions (ibid.). Some members of the Lower House of Parliament have their doubts too about the *feasibility* and *affordability* of the proposed ambitions (Tweede Kamer der Staten-Generaal, 2007c; Waterforum, 2007). They ply for a balance between societal costs and benefits, a further reduction of the implementation costs and more emphasis on WFD investments in upstream Member States (ibid.). Although the associations of regional water management authorities (UvW) and provinces (IPO) ply for additional national measures on diffuse pollution sources, so far the ministries remain reluctant to add these.

As announced in the 2006 December Memorandum, 2007 is the year of the local and regional processes under the wings of the regional river basin platforms (in order to identify most cost-effective packages of measures; Ministerie van Verkeer en Waterstaat, 2006b; Schultz van Haegen, 2007). Soon the regional and local authorities conclude that more time is required for collecting and aggregating required information for all individual WFD water bodies. Delays are also introduced by national frameworks, guidelines and web based applications that ‘constantly run behind schedules’ (Interviews 18, 20, 41; 46; 50; 52; 53, Appendix I; Ten Heuvelhof et al., 2010).

Especially the formulation of ecological objectives for artificial and heavily modified water bodies requires much more time. In practice, processes of formulating objectives and selecting cost-effective measures run in parallel instead of one after the other (as a logical order to define the “distances to targets”). To improve the comparability of the programmes of measures for all Dutch river basins the national Water Policy Department initiates a (three-staged) harmonisation exercise (DGW, 2007). The project plan is approved by the National Political Water Platform under the condition that it may no lead to disturbance of the local and regional processes (LBOW, 2007). It implicitly presupposes integrated local and regional processes (DGW, 2007).

In the first half of 2007 the harmonisation exercise makes clear that more time is needed to collect and aggregate required data in a sufficiently comparable way. For example, regional and local civil servants and experts struggle with the interpretation and application of irreversible hydro-morphological alterations and disproportionate costs. Therefore, the chairs of the regional river basin platforms ask for transparent national definitions of these central WFD terms.

Initially, the national Water Policy Department is not in favour of providing for generic national definitions, in order to prevent laborious juridical discussions with the European institutions. The department stresses important regional room for manoeuvre in application of these terms. However, as a compromise, June 2007, the Water Policy Department releases an informal argumentation line on significant damage (Ministerie van Verkeer en Waterstaat, 2007a). Whenever supported by sound arguments, regional partners may deviate from this generic national interpretation (ibid.).

The interim findings of the harmonisation exercise are presented to the National Political Water Platform in June 2007 (Mak, 2007). Main focus of the regional and local actors is on the own implementation processes in which experts from the water management authorities take the lead. Generally, formulation of the ecological objectives runs in a comparable way. Departing point in all sub-basins is a staged compliance until 2027. Criteria for the selection of measures are continuation of current policies, practical feasibility and public acceptance. Remarkably, expert judgement dominates cost-efficacy estimations (without quantification attempts). In the regional packages, hardly any tailor-made measures are included additional to generic, national policy for agriculture and other diffuse pollution sources. Decision support systems such as the WFD Explorer are only used by a few. The no-shift assignment (WFD’s Article 4.8) lacks in almost all packages. Finally, in most cases a transparent motivation of objectives and selected measures still lacks (ibid.). Based on the interim findings, the national Water Policy Department decides to provide stricter guidelines for further
harmonisation and formats for the provision of data (which are considered necessary for drafting the river basin management plans; Dierikx, 2007). The letter with the sharpened instructions also describes the Dutch national strategy for a staged WFD implementation until 2027 (Dierikx, 2007: 5; translation from Dutch added):

A total package of measures will be defined for the entire implementation period up to 2027. From this package a selection of feasible and affordable measures will be selected for implementation until 2015 (as part of the first river basin management plans). These measures are reported to the European Commission as Dutch obligations. Whenever measures may turn out not to be feasible before 2015, they may be interchanged with measures from the total package of measures (and hence the former may be postponed to a later stage). The advantage of this approach is that transparency is increased towards the European Commission regarding the Dutch ambitions, while at the same time it becomes clear which measures are included as obligations within the river basin management plans.

Given this brief assessment it may not come as a surprise that at the end of 2007 the State Secretary for Water Management concludes that the scope and completeness of regional packages of measures still show too many differences (Ministerie van Verkeer en Waterstaat, 2007b). Also the ecological objectives and cost-effectiveness estimations are not entirely available (ibid). After consultation of an independent committee of economic experts the national Water Policy Department asks the Environmental Assessment Agency to conduct a so-called Ex Ante Evaluation of cost-effective measures instead of a societal cost-benefit analysis. The argument that there is a lack of reliable methods for quantitative estimations of all societal benefits (including ecological values), is supported by environmental NGOs and socio-economic interest groups at both the national and the regional levels. While the national authorities still aim for further harmonisation of regional packages for the sake of a sound Ex Ante Evaluation, regional and local politicians and civil servants consider the new national deadlines not feasible. Some fear unnecessary additional checks of their almost finished work. Given the delays and methodological difficulties the State Secretary for Water Management decides not to publish a 2007 December Memorandum. Instead she releases an interim WM21/WFD progress message to the Lower House of Parliament (Ministerie van Verkeer en Waterstaat, 2007b).

After a meeting of the State Secretary for Water Management with representatives of the Lower House of Parliament (June 19, 2008) about the conclusions of the Ex Ante Evaluation (Ligtvoet et al., 2008), the question remains whether the EC would accept the Dutch approach (Tweede Kamer der Staten-Generaal, 2008a). By reading the policy letter of the Dutch Council of Ministers (Huizinga-Heringa, 2008b), it becomes clear that, although the proposed cost-effective packages of measures may deliver substantial ecological gains in the national and regional water bodies, in 2027 full compliance with the ecological objectives may be feasible for only 40 till 60% of the surface water bodies. According to the Lower House of Parliament this leaves room for two options: either these objectives are formulated too ambitious and should be best lowered, or the ambitions with regard to the measures are too low hence additional measures should be selected (Tweede Kamer der Staten-Generaal,
The Ex Ante Evaluation report mentions that additional water system restoration investments will be far more cost-effective than further reduction of nutrient emissions (unless dramatic additional investments take place in the agricultural sector with large socio-economic consequences; Ligtvoet et al., 2008). The UvW considers the estimations from the Ex Ante Evaluation too negative since figures and expert judgement by its members are more optimistic about the positive impact of the proposed packages of measures (Unie van Waterschappen, 2008b). According to the UvW emphasis should be put more on effective additional measures for the agricultural sector (ibid.), while the Council of Ministers stresses the delicate political position of the Netherlands and limitations due to related high socio-economic costs (Huizinga-Heringa, 2008b: 7; translation from Dutch added):

Based on model calculations the Ex Ante Evaluation shows that only a significant positive effect may be expected from additional measures in the agricultural sector, whenever these will be implemented at large-scale. In that case the costs will increase dramatically. From the consultation with the European Commission about the Fourth Actions Programme for the Nitrates Directive it should become clear to which extent the Dutch derogation may hold and to which extent additional measures may be affordable for the agricultural sector.

The State Secretary for Water Management adds that the Council of Ministers still aims at a full compliance for 70 till 80% of the surface water bodies in 2027, as prior estimated in the 2006 December Memorandum (Tweede Kamer der Staten-Generaal, 2008a: 5). She points at potential additional positive contributions from research measures on cost-effective measures and measures from the innovation funds (ibid.).

The Ex Ante Evaluation shows that the harmonisation process has lead to further reduction of estimated investments costs (Ligtvoet et al., 2008). According to the evaluation, water managers have proposed the best cost-effective packages of measures. Together, all regional measures for the 2010 to 2027 period will lead to an annual increase of water related taxes of no more than 0.7% or less (ibid.). This is in line with the national mantra of feasible and affordable WFD implementation. In the course of the WFD process between the second half of 2005 and mid 2008 the total costs of all measures have been diminished gradually (to satisfaction of the Lower House of Parliament and farmers’ and industrial interest groups). This may be considered the result of the “funnel model” process in which harmonisation, feasibility, affordability and synergy have been keywords. Remarkably, the editors of the Ex Ante Evaluation doubt whether the EC would consider the 0.7% tax increase as the disproportionality threshold or that additional measures may be required (Ligtvoet et al., 2008; Tweede Kamer der Staten-Generaal, 2008a). Notwithstanding the remaining questions, the Lower House of Parliament supports the generic WFD approach without bringing up further amendments.
Stage IV: Drafting river basin management plans and formal consultation

**Parallel processes for drafting a new generation of water plans (2008)**

2008 may be labelled as the year of parallel processes on the way towards the draft river basin management plans and related national, regional and local water policy and management plans. While the regional and national water management authorities fill the national databases with WFD measures for surface water bodies, the provinces do the same for the groundwater bodies and part of the Natura 2000 sites. At the same time others within these administrations are drafting the new water policy and management plans and conducting a strategic environmental impact assessment for these plans. Additionally, while ecologists formulate the final ecological objectives, other experts are transforming the monitoring networks (for an overview of the Dutch WFD monitoring efforts, see Tweede Kamer der Staten-Generaal, 2007a), testing the final quality standards and drawing aggregated maps. Furthermore, municipalities prepare decisions on their lists of WFD measures. Drafting and coordinating all the water management plans at the multilateral, national, regional and local levels at once (since the competent Dutch authorities decided to synchronise all the water plan figures with the WFD timetable) is a (time-demanding) profession in itself. Consequently, similar to 2007, for the involved experts, (editing) civil servants and (deciding) politicians 2008 becomes an intensive year.

Spring 2008, the national Water Policy Department initiates a national editing team on the (draft) river basin management programmes (Interview 52, Appendix I). The team which includes representatives from the four river basins organises regional sessions to start up the drafting process (ibid.). The fundament for the river basin management plans has already been provided in February 2008 by the instruction letter from the State Secretary for Water Management (Huizinga-Heringa, 2008a). The letter may be considered as another attempt to harmonise the regional packages of measures and includes the national rules for earmarking WFD measures and for motivating a staged WFD implementation until 2027. All cost-effective measures within water bodies and other (smaller) water systems that contribute significantly to the environmental objectives of the WFD should be earmarked as WFD measures. From this pool, measures that are considered feasible and affordable for the period until 2015 will be selected as obligations for the first river basin management plans. Also measures that contribute to the water conditions of the Natura 2000 sites and part of the anti-desiccation measures should be included. All the measures that do not significantly contribute to the WFD measures (such as flood protection, local water stress) will not be quantified in the river basin management plans. However, they will be described generally, as part of the motivation for a staged implementation of WFD measures (ibid.). The UvW generally subscribes the chosen reporting approach but argues that the obligatory WFD measures to be reported should exclude those outside the designated WFD water bodies. ‘Measures outside the water bodies will be indicated but do not resort to the juridically obligatory WFD programme of measures’ (Unie van Waterschappen, 2008a: 2).
After approval of the conclusions of the Ex Ante Evaluation by the Lower House of Parliament the drafting process accelerates. The national editing team benefits both from the final memoranda of the regional river basin platforms which include the motivation for objectives and selected measures and from the harmonised national WFD databases. However, discussions on the legal consistency of the arguments, especially with regard to the exemption options of the WFD’s Article 4, remain until the start of the formal consultation round. Repeatedly, the national Water Policy Department expresses worries about the comparability of the regional argumentation lines, as written by the State Secretary to the regional and local partners (Huizinga-Heringa, 2008a: 2; translation from Dutch added):

Based on differences in starting positions and decentralised responsibilities in water management, differences in regional packages of measures certainly may be possible. However, I would like to point your attention that differences may become problematic whenever they enfeeble motivations for choices that we have made in the Netherlands. One example: One water manager excludes a measure for reasons of significant damage to a user function or limited effectiveness, while another water manager in apparently similar circumstances selects and implements the same measure.

One critical question to be solved with regard to the drafting process is the legal anchorage of the WFD’s environmental objectives (Interviews 45, 52 and 53, Appendix I). Parallel to the drafting process the HSE and TPW Ministries elaborate a national generic rule for legal anchorage of the WFD’s environmental objectives. Both ministries are cautious to prevent a direct restrictive linkage between the objectives and license requirements for water-related human development activities. In their approach, the argumentation behind the formulated environmental objectives and related programmes of measures within the provincial water policy plans and the related plans of the water management authorities are central for approval or disapproval of such license requests. While the draft regional and local plans have almost been finalised for the formal consultation round, the national Water Policy Department asks for significant changes (Interviews, 41, 45 and 46, Appendix I). The provinces and the water management authorities in the Meuse River Basin oppose such dramatic alterations since they fly in rather too late in the process and more importantly, since, to their opinion, such changes would require a second formal consultation round (ibid.). Finally, in order to solve the controversy, the national Water Policy Department provides a list with generic argumentation wording that may be included in the regional and local plans.

Another critical issue to be solved for the river basin management plans is the question whether to provide detailed information per individual water body or in a more aggregated fashion (Interviews 18 and 52, Appendix I). October 2008, the National Political Water Platform decides to include a table that provides a general qualitative overview of measure types per individual water body without specific numeric details (which should be included in the regional and/or local plans anyway). December 12, 2008, the Dutch Council of Ministers approves the draft river basin management plans and releases them for the formal consultation round (which runs
between December 22, 2008 and June 22, 2009). Simultaneously, the politicians from the provinces and water management authorities approve their draft plans for the same purpose.

Smooth coordination of parallel formal consultation (2009)

February 2008, the National Political Water Platform approves the start memorandum on cross-scale coordination of the formal and simultaneous consultation procedures for the draft river basin management programmes and national, regional and local water management programmes (CSN, 2008). Involved administrations cooperate in a joint project team in order to tune answers before they are released. A special web based tool has been developed to support this coordinated answering process. The web based tool includes a postal code option to make it easier for citizens to get easy overview and access to relevant draft plans and related programmes of measures per region. The aims of the common communication about the procedures are consistent management of expectations towards the consulted actors, to be clear about the coherence and differences among the different water management programmes, generate public attention to water (quality) management issues and to stimulate citizens to participate. A number of information and consultation meetings have been organised and a consultation guidance (which is a brief introduction to all the draft programmes) has been available to the consulted (ibid.).

Informal consultation rounds already took place for the 2005 and 2006 December Memoranda. Furthermore, a combined formal consultation round has been organised on both the time schedule for drafting the river basin management plans and the list of significant water management issues (as deducted from the Article 5 reports). Continuous informal consultation of organised interests groups has taken place by sessions of the WFD consultation platforms at the national, regional and local levels. Given these extensive consultation efforts, the range of views and ambitions has been well-known to the public actors at the start of the formal 2009 consultations. Most original reaction is a poem written by scholars. In answer to all the received views, only minor amendments have been made in the final river basin management programmes and related national, regional and local programmes. December 2009, the Dutch Council of Ministers adopts the final river basin management plans. Environmental NGOs express their disappointment about a lack of ambition and mention too much business as usual, while the industrial and agricultural representatives generally are more satisfied. The national WFD programme leader in the 2004 to 2009 period admits that the national tactics have failed to hold the environmental NGOs on board sufficiently. He considers those groups as natural allies in compliance with the environmental objectives (Interview 18, Appendix I).

To round up this subsection, the fear for legally binding obligations and significant socio-economic consequences from the WFD’s implementation have made the Dutch road towards integrated river basin management somehow troublesome. Although national authorities have mentioned the European river basin management approach as one of the three major reasons for drafting the new integrated Water Act (Anonymous, 2009a), the first implementation planning cycle has not paved the way to
integrated river basin management plans. The emphasis is on water quality and ecological values of water bodies, whereas issues of floods and droughts are mainly dealt with in parallel processes and documents. In section 6.3, the impact of the WFD on national rules for (integrated) river basin management will be explored in more detail.

6.3 The WFD and national rules of IRBM

This section explores to which extent the WFD’s policy and governance principles, the environmental objectives and the exemption options and the related informal interpretations of the Common Implementation Strategy (CIS) may have provoked changes in collective-choice rules for IRBM (as defined in the Subsections 2.2.3 till 2.2.9) at the national political level in the Netherlands.

6.3.1 Scope rules

As defined in Section 2.2.3, scope rules may concern the geographic area, the type of organisational structures and networks and the issues to be decided on. For this research a distinction is made between organisational and substantive scope rules. Concerning the former the focus is on the impact of hydrological boundaries on organisational structures, whereas for the latter the focus is on the levels of integration. For example, are “river basins as the appropriate management units” translated into functional agencies and to which extent may these entities operate autonomously? What are collective choices for internal integration (of issues within the water policy domain) and external integration (of issues across policy domains)? To what extent do these choices affect the nature of river basin legislation, policy documents and management plans?

Organisational scope: the impact of hydrological boundaries

The Netherlands have a stable decentralised unitary state tradition in which a nested hierarchy of general administrative institutions (state, provinces and municipalities) rules the country. Van Rijswick and Havekes (2012: 183) express the essence of the Dutch state model:

Decentralised authorities are in principle free to regulate and administer their domestic matters, but in doing so they may not act contrary to higher rules. And, when the higher legislative level decides to regulate a matter itself, then the rules made by the lower authority cease to operate.

From a constitutional law perspective the principle reasons behind decentralisation are ‘to spread power and the principle that public authority should be exercised at a level as close as possible to the citizens’ (Van Rijkswick and Havkes, 2012: 146). The Dutch unitary state model is often referred to as Thorbecke’s House, i.e. the administrative organisation of the Netherlands as introduced with the Dutch 1848 Constitutional Act (as designed by the liberal Johan Rudolph Thorbecke (1798-1872); Neelen, Rutgers and Tuurenhout, 2003). Together with the general administrative bodies, which are under
parliamentary control, functional water management authorities and semi-public bodies (drinking-water companies), take care of an integrated water management approach (Van Rijswick and Havekes, 2012).

The origin of the functional water management authorities lies in the self-realisation of local drainage and flood defence arrangements for reclaimed peat land by small farmers’ communities (Van de Ven, 2004; Havekes, 2008). Due to land subsidence, the communities had to protect themselves against the water by a combination of measures to secure good drainage (Van de Ven, 2004: 56-59):

Each farming community carried out drainage and the construction dikes separately. The landowners had to maintain the hydraulic structures and the supervision of the maintenance was carried out by the local administration. This supervision was in fact a juridical matter. The village administration formulated rules concerning the requirements, which had to be met. [...] Subsequently, the village administration checked whether the landowners maintained the hydraulic structures according to the rules and passed their judgement. [...] So, to this day, field drains are maintained by those directly involved. [...] …every farming community was responsible for draining their surplus water into the outside waters. It was unacceptable to let their surplus water flow into the drainage system of a neighbouring community. [...] Cooperation between the various settlements was necessary to solve certain drainage problems.

Since the amount of reclaimed land and the population increased to a size which became unmanageable by small groups of individuals, around the 13th Century the first regional water management authorities started to develop (Van de Ven, 2004; Havekes, 2008). As governed by the representatives of the inhabitants in an administrative area, these organisational structures may be considered as functional entities (for water management purposes) which were coordinated by local authorities. Local drainage areas rather than natural hydrological borders of the European rivers and inland rivers and brooks have been the basis for the division into administrative units (ibid.).

Given the Netherlands are the delta of four European rivers (Rhine, Meuse, Scheldt and Ems) in which a complex network of artificial, heavily modified and natural water systems has been developed, clear hydrological, (sub)river basin borders may not easily be drawn. However, from historical analysis an evolution of merging water management authorities into larger units, which increasingly approach natural hydrological (sub) basin boundaries, becomes visible. Since the 1950s nearly 2,650 local water management authorities have merged into 25 regional water management authorities (Van Rijkswick and Havekes, 2008: 153). Today, these administrative bodies are ‘so-called “all-inclusive” water authorities, which are responsible for all elements of water management within their territory’ (ibid.).

Prior to implementation of the WFD and for reasons of flood and drought management in relation to climate change, a national division into 17 sub-basins has been decided on (Ministry of Transport, Public Works and Water Management, 2000). These sub-basins are pragmatically tuned to territorial borders of provinces and water management authorities. Additionally, multilateral river treaties already provided for transboundary basin delineations. Given this historical context, it is not remarkable that the Dutch have struggled somehow on delineating the domestic WFD sub-basins.
The then national working-group on geographic WFD issues concludes that the WFD requirements may lead to some choices that are not correct from a hydrologic perspective (Van de Velde, 2001). Finally, the national authorities decide to take the river basin delineations in multilateral treaties as points of departure for the national division into WFD sub-basins, as expressed by the June 2002 national WFD progress report for the European Water Directors (Ministry of Transport, Public Works and Water Management, 2002: 3):

In the Dutch coastal waters setting geographical boundaries between the river basin districts of Scheldt, Meuse, Rhine and Ems is rather artificial, as in the Dutch delta there is intensive intermixing of in particular Rhine and Meuse. This phenomenon of intermixing has given rise to heated discussions as to how particular fresh water basins should be integrated into individual river basin districts. Eventually, in deciding upon setting the borders of national river basin districts, compliance has been sought with the existing international agreements for the protection of the Rhine and Meuse, rather than accepting proposals to follow existing administrative borders of inland water management authorities. In each river basin district coor- dinative committees will be formed including representatives from current competent authorities (inland water management authorities, provinces and the National Water Management Agency (Rijkswaterstaat)).

As national rule of the game, the division for Water Management in the 21st Century (WM21) which is optimally tuned to the administrative territories of the water management authorities, should be adapted to the WFD delineation of (sub-)basins (Anonymous, 2001). In practice, overall the WFD and WM21 divisions fit quite well (see Figure 6.2). Only four out of the 17 WM21 sub-basins are split into more WFD river basins, among them West-Brabant which is the territory of the Brabantse Delta Water Management Authority. Despite opposition from the North-Brabant Province which feared additional administrative burden from reporting to two WFD sub-basins, the national authorities decided not to merge both divisions on the short term. The national authorities did not want to disturb the WM21 process which was in the implementation phase yet (Van de Velde et al., 2002).

Initially, the WFD implementation process supports calls for more simple, transparent and integrative organisational structures. At the national level informal water policy coordination and working group structures on water quantity and quality issues gradually are integrated. At the start of the Dutch WFD implementation process a national working group is asked to advice on WFD implementation coordination structures with unchanged formal structures as precondition (Projectteam Implementatie Kaderrichtlijn Water, 2001b). Based on the advice, the national authorities decide on informal national-regional WFD coordination structures per WFD (sub-)basin with a central steering role for the TPW Ministry. Ten Heuvelhof et al. (2010) point at an informal double WFD pillar structure within the Dutch constitutional house which has provided ample opportunities for functional redundancy (see also Figure 6.3 in Subsection 6.3.5). At the regional and local level, the water management authorities
Figure 6.2: Division into 17 sub-basins (the WM21 approach; grey-coloured areas) and the four national sub-basins for implementation of the WFD (black lines; Van de Velde et al., 2002)
have played a central role in the WFD processes for formulation of environmental objectives and selection of measures (see the Chapters 7 and 8 for a detailed assessment of these decentral processes). Also in the drafting process of the new, integrated Water Act, no discussions take place on reorganisation of formal structures. Focus is on better internal coordination arrangements by integrating eight former water management related statutes and by minor shifts in strategic and operational tasks and responsibilities in order to reduce dysfunctional redundancy.

This research concludes that the Dutch organisational landscape has not been significantly altered due to the first WFD implementation planning cycle. The observations point at ideal-type B organisational IRBM scope rules both in the period before and after adoption of the WFD (see Table 6.2a). During the 20th Century, the functional water quantity and water quality management authorities have been scaled up and developed into more integrated, all-in structures (Havekes, 2008; 2010). The water management authorities have their own policy departments, are centres of water (related) knowledge and are for almost 100% self-sufficient by water-related levies, but for implementation of measures they are largely dependent on the rules and principles of other policy sectors as defined and implemented by the general administrative bodies.

Table 6.2a: Ideal-type collective-choice IRBM scope rules (organisation; national level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A:</strong> Water policy is implemented by organisational structures and actor networks which are driven by social, economic and political factors that do not follow hydrological (river) basin boundaries. These structures/networks may be multi-purpose or sectoral in nature and are under parliamentary control.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B:</strong> Water policy is implemented by functional water agencies, committees and actor networks which follow hydrological (river basin) boundaries. These functional entities and actor networks are controlled by parliamentary institutions.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>C:</strong> Water policy is implemented by autonomous (sub) river basin authorities and/or communities that are organised along hydrological boundaries. These authorities and communities are beyond parliamentary control and do have their own polity rules.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X’.

Actually, the regional water management authorities are water policy implementation agencies for inland water systems. Due to their expertise, skills and competences, these water management authorities may be considered as natural WFD sub-basin management structures (Havekes, 2010). Although these authorities have their own elected politicians, who are representatives for different water users’ categories, they are under supervision of the provincial and national authorities. These latter
authorities have to weigh water issues to the importance of issues from other policy
domains. The national authorities have their own water management agency for water
bodies of national strategic importance. The national-regional WFD coordination
structures and related networks are informal and additional in nature, with no formal
decision-making competences (Wittenhorst and Mak, 2005). They advise both the
national, regional and local authorities and the water management authorities on WFD
implementation issues (ibid.).

**Substantive scope: level of internal integration**
Before adoption of the WFD, with the Second National Water Policy Memorandum
(Ministerie van Verkeer en Waterstaat, 1985), the *integrated water systems approach* be-
comes among dominant paradigms in the water policy discourse. However, qualitative
and quantitative issues largely remain covered by parallel laws and regulations: the
Surface Water Pollution Act (Anonymous, 1970), the Water Management Act (*Wet op
de Waterhuishouding*; Anonymous, 1989), the Groundwater Act (*Grondwaterwet*; Anony-
The Water Management Act includes regulations for integrated water policy and man-
agement plans at the national, regional and local levels and the legal instruments for
quantitative management of surface water (Anonymous, 1989; Van Rijswick, 2001). It
is a framework act which means that national and provincial authorities and water
management authorities will have to decide on additional rules that specify the generic
aims and instruments from the act.

The Surface Water Pollution Act includes the instruments for surface water qual-
ity management. Qualitative groundwater issues are covered by the Land Protection
Act whereas the Groundwater Act focuses on quantitative issues. Licenses for surface
water abstractions and discharges may also concern qualitative aspects whenever the
Surface Water Pollution Act does not provide for adequate protection (Van Rijswick,
2001). Furthermore, quantitative groundwater issues which are not covered by the
Groundwater Act may be dealt with by the Water Management Act (ibid.). Notwith-
standing the instrument of integrated water policy and water management plans, there
are no legal requirements for integrated water quality and quantity objectives. Explicit
linkages are rare such as groundwater standards for nitrates in relation to drinking
water production. Generally, groundwater and surface water issues are covered by
parallel networks of experts and officials (Interviews 44 and 48, Appendix I).

In general the domestic water policy legislation integration discourse, which has
its roots in the 1990s, has been supported by the WFD. The European river basin
management approach has been mentioned by the Dutch Council of Ministers among
the three major reasons for drafting and adopting the 2009 Water Act (Tweede Kamer
der Staten-Generaal, 2004e). The Water Act which replaces eight former statutes in
the area of water management including the Water Management Act, the Surface Wa-
ter Pollution Act and the Groundwater Act, aims to enforce the integrated water sys-
tem management approach (Anonymous, 2009a). The new Act brings together water
quality and quantity objectives into one, more integrative water license procedure, but
it does not further clarify and quantify the interrelations between standards for
groundwater and surface water bodies. For dessication of terrestrial nature sites, the
quantitative interrelations have been legally acknowledged before adoption of the WFD (Van Rijswick, 2000: 23; translation from Dutch added):

Dessication closely relates to quantitative groundwater management, but, due to the interplay between groundwater and surface water bodies, also to quantitative surface water management. These interrelations have been acknowledged explicitly by Article 24(2) of the Water Management Act (Anonymous, 1989) and by case law.

Van Rijswick (2001: 64, 83 and 369) points at two weaknesses of the WFD: despite its Preamble’s Statement 19 on the importance of linking water quantity and quality issues, the WFD’s articles provide for (1) a limited elaboration of water quantity management and (2) weakly developed relations between quantity and quality policies. The subsequent Groundwater Directive (European Union, 2006) and the Floods Directive (European Union, 2007) have filled in the first omission better than the second. Although Statement 19 of the Preamble mentions control of quantity as an ancillary element in securing good water quality (European Communities, 2000: 2), the WFD does not include specific requirements for formulation of interlinked quantity and quality objectives. According to Annex VI of the WFD (European Communities: 64) Member States may choose from a non-exhaustive list of supplementary measures in order to meet the environmental objectives for surface water and groundwater bodies. This list includes abstraction controls and artificial recharge of aquifers. Member States are free to opt for quality objectives oriented quantity measures, under the labels of ‘other relevant measures’ and ‘negotiated environmental agreements’ (ibid.).

In the Netherlands, since the 1993 and 1995 near-flood events, societal and political attention predominantly flows to flood prevention issues. Due to the adoption of the WFD, water quality and ecological restoration issues regain some political attention, especially after publication of the 2003 Aquarein report (Van der Bolt et al., 2003). However in general, water quality issues still receive low public attention as compared to flood management, climate change and socio-economic development. Notwithstanding integration of informal national water quantity (WM21) and water quality (WFD) organisational structures and despite national internal integration rhetoric, the river basin management plans mainly focus on WFD issues (due to a fear for European obligations). The dominant focus of the Dutch river basin management plans on water quality and ecological restoration issues indicates a sharp contrast with the Dutch tradition of integrated national water policy documents since 1985. The Dutch river basin management plans include a synthesis of objectives and management measures for individual water bodies’ types without providing much clarity on the interdependencies between them (Ministerie van Verkeer en Waterstaat, 2009a).

Since the WFD explicitly includes both groundwater and surface water management issues and their interdependencies, its implementation challenges parallel domestic actor networks to provide for more interactions. However, significant knowledge gaps and stage differences (for example the related European Groundwater Directive is finalised only in 2006) contribute to a relative underexposure of interactions between surface water and groundwater bodies in the first Dutch WFD implementation planning cycle (Interviews 41, 44 and 46, Appendix I). Given the
complicated nature of these interaction issues, the WFD packages of measures mainly include research initiatives to tackle them. Due to the WFD, interactions among surface water and groundwater actor networks are expected to increase substantially at the second WFD implementation planning cycle between 2010 and 2015 (ibid.). At the same time, due to the persistent nature of the ground water pollution issues and the long time span for ground water processes, quick wins are rather not to be expected (Interview 47, Appendix I).

The observations point at an evolution from a juxtaposition of ideal-type A and B IRBM scope rules (internal integration) before adoption of the WFD towards dominance of ideal-type B rules after adoption of the WFD (see Table 6.2b). In the period before adoption of the WFD Dutch water legislation is divided over a diversity of acts, while the national water policy and management plans are more integrative yet. In the period after adoption of the WFD, also a legislative integration evolution becomes noticeable with adoption of the new Water Act (Anonymous, 2009a). Van Rijswick and Havekes (2012: 359) argue that ‘an expansion of the environmental objectives [WFD’s Article 4] would be advisable with a view to adequate protection of surface water, because many of the implementing instruments aim primarily at achieving the environmental objectives and not so much at the general objectives contained in WFD’s Article 1’. They propose ‘to include the objective to limit water shortage by ensuring a “good quantitative surface water status” in [WFD’s] Article 4’ (ibid.: 361). If the EC and the Member States follow this advice, further internal integration tendencies may be expected in the future.

Table 6.2b: Ideal-type collective-choice IRBM internal integration rules (national level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate legislation, policy documents and management plans for both water quality and quantity issues. Surface water and groundwater are dealt with in parallel.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Legislation, policy documents and management plans which include parallel objectives and measures for both quantitative and qualitative aspects and for groundwater and surface water.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Legislation, policy documents and management plans with integrated objectives and measures for related surface and groundwater bodies, including quantitative and qualitative aspects.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’. The ‘x’ points at a reduced resemblance of the observations with ideal-type A rules after adoption of the WFD.

Although the new 2009 Water Act clearly marks a significant internal integration step, actually it mainly brings together existing parallel pieces of legislation which included certain linkages already. For example, the instrument of integrated water policy and water management plans has been incorporated from the former Water Management Act (Anonymous, 1989). The internal integration exercise seems not to be completed.
For example, qualitative groundwater issues mainly remain in the Land Protection Act (Anonymous, 1983). As mentioned earlier the WFD has not been the initial trigger for the internal integration evolution, but is among the three main arguments for drafting the new, more integrated Water Act. The lacuna for a more integrated method of standard setting (by explicitly relating quantity and quality aspects) has not been filled completely by the WFD. However, its instructions for definition of and monitoring of compliance with its environmental objectives (Annex V; European Communities, 2000: 33 till 63) indirectly may include some triggers, such as inclusion of those hydrological and morphological characteristics which are supportive for the ecological state of water bodies. In the first domestic WFD river basin management planning cycle up to December 2009, relations between upstream, midstream and downstream surface water bodies and relations between surface water and groundwater bodies have not been systematically considered in the exercise of ecological objectives setting. Finally, the ambiguous nature of the WFD has lead to a paradox: on the one hand it has supported the domestic legislative integration tendency; on the other hand the Dutch river basin management plans predominantly focus on water quality and ecology, leaving out detailed measures for floods and droughts management.

**Substantive scope: level of external integration**

When reading the Preamble of the WFD one may interpret high cross policy sector integration ambitions. For example, Statement 16 stresses that ‘Further integration of protection and sustainable management of water into other Community policy areas such as energy, transport, agriculture, fisheries, regional policy and tourism is necessary. This Directive should provide a basis for a continued dialogue and for the development of strategies towards a further integration of policy areas’ (European Communities, 2000: 2). Furthermore, Statement 47 continues with ‘This Directive should provide mechanisms to address obstacles to progress in improving water status when these fall outside the scope of Community water legislation, with a view to developing appropriate Community strategies for overcoming them.’ (ibid.: 5) After consultation of the full 72 pages of the WFD, the reader might be disappointed about the lack of more specified cross-sector coordination and integration arrangements. However, Van Rijswick (2001) and Mostert (2010) argue that the WFD may trigger cross-sector integration initiatives whenever Member States and domestic actors are willing to do so.

In this research, the level of external integration has been explored by addressing the relations between water policy and respectively agriculture (the WFD and the Nitrates Directive, nature conservation (the WFD and the Birds- and Habitats Directives and spatial planning. Whereas the relations with agriculture and nature have been discussed explicitly in the Dutch WFD implementation planning process, the relations with spatial planning have hardly been an issue.

In the Netherlands before adoption of the WFD, legislative arrangements have been introduced for coherence between national plans of related policy domains. The former Water Management Act included coordination requirements between policy plans for water, the environment, spatial planning and traffic and transport (Anonymous, 1989; Van Rijswick, 2001). As a generic rule, whenever a new national or provincial policy document is drafted it should incorporate relevant relations with and
requirements from other policy domains, at least at an equal ambition level as expressed by earlier policy documents. This refers to the so-called leapfrog principle (Haasje-over-principe). Furthermore, to express shared responsibilities the national water policy memoranda are signed by the TPW, HSE and AFN ministries (Anonymous, 1989). The Water Act has remained these former cross-sector coordination arrangements (Anonymous, 2009a). Its Section 4.1 provides that the ministers for infrastructure, environment and agriculture co-sign the national water plan as to intertune policies for water, environment, spatial planning, nature and agriculture. Section 6.4 provides arrangements for coordination of water pollution and environmental licences (Articles 6.27 till 6.29; ibid.). So far, after long discussions between proponents and opponents, no decision has been made to fully integrate the water license system into the environmental one. Dominant arguments especially from the side of water managers are that such integration might sincerely weaken the coherence of the water management approach and the water management authorities might lose their grip on water pollution issues (Van Rijswick, 2001: 375-376). See also Subsection 6.3.4 (choice rules) for a more detailed account on the nature of the Dutch license system.

Ostrom (2005) stresses the importance of studying informal traditions and practices, in addition to formal, legal arrangements. To speak more bluntly, apart from the leapfrog principle how do the different ministries actually work together? For example, the specialty principle which means that ministries are not allowed to interfere with the specific competences of another ministry, may trigger barriers to cross-sector integration attempts, especially in the case of delicate political issues with potential large socio-economic impact. The chronological WFD process reconstruction of this research reveals indications for such barriers, although remarkable differences occur depending on the ministries involved. On the one hand, the WFD planning implementation process shows more complicated and tense relations between the TPW and ANF Ministries. On the other hand, there are indications for more cooperative relations between the TPW and HSE Ministries. At the WFD drafting and negotiation stage the TPW and HSE Ministries both have been active at the European level (for example by launching Dutch position papers), whereas the ANF Ministry has been more reticent (Melis and Boudwijn, 2002; Interviews 18 and 43, Appendix I).

Soon after adoption of the WFD the perception of a Dutch victory and high environmental ambitions gradually dampens by a fear of strict legally binding requirements and disproportionate socio-economic implementation costs. Dutch national authorities and parliamentarians refer to the severe restrictive consequences from the transposition of the Air Quality Directive into Dutch legislation. Consequently, the HSE and TPW Ministries are very eager to cooperate on the juridical and legal arrangements around the WFD's environmental objectives (as will be illustrated in Subsection 6.3.4 (choice rules). Given the strong national political emphasis on continuation of current policies with the aim of a feasible and affordable WFD implementation, no large additional spatial claims have been included in the first generation river basin management plans. The ANF Ministry has operated tactically both to avoid additional investments to the Nitrates Directive by the agricultural sector and a too tight coupling of the WFD and requirements of the Birds- and Habitats Directives. With regard to the former, the launch of the 2003 Aquarein study report (Van der Bolt
et al., 2003) was timed perfectly from a political point of view (Interview 18; Appendix I). Concerning the latter, the ANF Ministry did not provide for much additional human and financial resources in linking up with the regional and local WFD implementation processes. At the national level prior agreed financial resources for the Birds- and Habitats Directives were accepted as leading for the WFD implementation process. In other words, regarding the WFD, the ANF Ministry successfully has avoided significant additional investments for the agricultural sector and nature conservation.

Water management and spatial planning
Concerning spatial planning water systems do not play a major role until the 1980s (Van Buuren, 2009). In the 1980s, as driven by concerns about the negative impact of socio-economic development on the environment, the then Dutch Council of Ministers asks for more attention to the balance between intensive and extensive forms of use of space, taking into account environmental and water aspects (Sijmons et al, 1990). Consequently, the so-called Additional Fourth National Memorandum on Spatial Planning (Vierde Nota Ruimtelijke Ordening Extra (VINEX; Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 1991) includes a zoning system which takes the physical system boundaries as fundament, with water as the most important entry (Van Buuren, 2009). In the subsequent Fifth National Memorandum on Spatial Planning (Vijfde Nota Ruimtelijke Ordening; Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 2001) water is broadly accepted as one among major guiding principles within spatial planning (Van Buuren, 2009). This integrative evolution takes place in the period in which the room for water approach (as triggered by the near 1993 and 1995 floods) gains ground in the Fourth National Water Policy Memorandum (Ministerie van Verkeer en Waterstaat, 1998).

To prevent further loss of space for water systems, a water assessment procedure (watertoets) is introduced for all decisions on locations for new spatial developments and alterations of existing land use destinations and practices (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 2003; Van Hal, 2004; Van der Vlist and van Dijk, 2009). In the first decennium of the 21st Century political attention shifts to supporting conditions for socio-economic development. Quality amelioration of water and nature is not considered as own objective but as a legal condition for sustainable development (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 2006). According to the Spatial Planning Act spatial policy is written down in coherent spatial visions (structuurvisies) at the national, provincial and municipal levels. The visions will have to be translated into legally binding land and water use destinations in municipal zoning plans (Anonymous, 2006).

Although not primarily triggered by the WFD, the Water Act announces an enforcement of the linkage between water management and spatial planning procedures. For national and regional water systems, the respective water plans should include strategic structure visions by which (headlines of) spatial requirements for water policy and programmes of measures are anchored. These structure visions should be guiding for spatial planning, hence may enforce the relations between planning of water policy and spatial development (Anonymous, 2009a; Van Rijswick and Havekes, 2012; Inter
views 45 and 50, Appendix I). The national Space Memorandum (*Nota Ruimte*, Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 2006) bundles the national policy strategies for several aspects of spatial planning (nature, economy, water management), which have been dealt with in separate memoranda before. It is an attempt of the Dutch Council of Ministers to reduce dysfunctional redundancy among policy domains and to increase transparency and coherence (ibid.). Although the memorandum may be considered a first step towards cross-sector, integrative national policy plans, due to the *speciality principle*, individual ministries still draft their own sector plans.

The *leapfrog principle* should pay off especially at the level of strategic policy documents of the provinces, which may choose between close coordination arrangements for parallel policy sector plans and integrated environmental quality documents. As detailed further in Chapter 7, in the Dutch part of the Meuse River Basin both options are present. However, at the national level until December 2009, the choice for integrated, cross-sector policy plans has not been made. These observations point at ideal-type B IRBM scope rules for external integration (see Table 6.2c).

### Table 6.2c: Ideal-type collective-choice IRBM external integration rules; national level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate policy documents and management plans for water policy and other policy domains without linkages.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Policy documents and management plans for other policy domains take into account water issues and reversely.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Cross-sector, integrative policy and management plans.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X’.

### 6.3.2. Position rules

As introduced in Subsection 2.2.4, within this research, position rules relate to the question as to how do collective (inter-)national river basin governance and policy principles affect the positions of owners and users of water and land. Or reversely, which conditions should apply to acquisition, continuation and termination of rights to own and/or use (interrelated) water and land resources, in order to comply with common principles of ecological, social and economic resilience? Three ideal-types of position rules have been distinguished (see Table 6.3). With regard to position rules, the WFD explicitly addresses relations between water and agriculture and between water and nature conservation. Protected areas from both the Nitrates Directive and the Birds- and Habitats Directives are included in the WFD’s register of protected areas (European Communities, 2000: 32).

### Water and agriculture

As described in Subsection 6.3.1, small communities of farmers have initiated the Dutch water management organisation long time ago (Van de Ven, 2004; Havekes,
Village administrations formulated the collective-choice rules for maintenance and management of hydraulic infrastructure and supervised their implementation (ibid.). This historically central role of land owners and users in water management is part of the explanation why the Dutch authorities prefer voluntary agreements to adapt land use practices over expropriation. This does not lead to the conclusion that land property and user rights and water user rights are unconditioned. The Dutch Civil Code (Burgerlijk Wetboek; Book 5, Article 1, Part 2; translation from Dutch added; www.wetboek-online.nl) defines that owners of a thing (like land) are free to use it while excluding all other persons, ‘as long as this is not in conflict with the rights of others and taking into account restrictions based on legal rules and unwritten law’. Both private law and public or administrative law may restrict absolute power and freedom of land owners or users (Needham, 2006). According to basic law of Dutch land use planning, the owner of land may not change the use of it without prior permission and an application to change the use will be judged against a valid land use plan which specifies the uses permitted on that land. Land use planning, by restricting the possible uses to which land may be put, can also affect the income from the land to which the owner has a right. In cases where restrictions do not affect everyone equally damage compensation schemes may apply (ibid.). According to Article 10 of the Spatial Planning Act (Anonymous, 2006), land includes water. So activities on water too are subjected to land use regulation (Needham, 2006). The municipal, local land use plans are legally binding.

Concerning diffuse sources of water pollution, agriculture is a major contributor (Riza, 2002; Ligtvoet et al., 2006). Rooted in a history in which farmers for centuries have had a central position in water regulation and flood defence structures and given the contribution to Dutch economy, authorities are cautious to affect their property and user rights significantly. Wisserhof (2000) identifies strong corporatist policy arrangements in which a coalition of the state (represented by the Ministry of Agriculture), the agricultural community and the parliamentary committee on agriculture has been dominant from 1945 until the 1980s. Frouws (1993) argues that agriculture is the only sector of the Dutch economy in which corporatism has been a long-lasting policy arrangement. The pre- (Second World) war agricultural crisis and European protection and stimulation mechanisms (triggered by the ideology of agrarian particularism) may provide for a large part of the explanation. Since the 1980s onwards, the dominant corporatist arrangement gradually erodes, mainly due to external social and political pressures (Wisserhof, 2000). In the 1990s agricultural policy broadens towards integrated rural development, providing other actors more firm access and influence (ibid.; Ministerie van Landbouw, Natuurbeheer en Visserij, 1992; Van Tatenhove, 1993; Frouws and Van Tatenhove, 1993). Bekke and De Vries (1994) denote a role change of the ANF Ministry from a sectoral client ministry to becoming a ministry of general administration. Wiering and Immink (2009) argue that the dominant position of the agricultural sector within the inland water management authorities has decreased gradually for the benefit of other interests.

Notwithstanding the still relative large influence of actors from the agricultural sector, land and water user rights are not unconditioned. Since the 1970s public and political awareness on environmental quality degradation and overproduction trigger
environmental protection policy and measures, both at the European and domestic levels. Due to severe water quality problems, the Surface Water Pollution Act (Anonymous, 1970) is adopted. The then primary focus is on emission reduction from point sources of pollution (such as by means of waste water treatment infrastructure). Since the 1980s, in order to tackle diffuse pollution sources, several agricultural policy measures have been announced, as stemming from the Manure Substances Act (Meststoffenwet; Anonymous, 1986b) and the Land Protection Act (Anonymous, 1986a) (Van der Schans et al., 2001; Hulshof, 2005). Given the particular physical circumstances (the combination of large surface waters in connection with a relatively large number of related shallow groundwater systems) and the large amount of animal manure (from factory farming, intensive dairy farming and large-scale application of fertilisers), the Nitrogen and Phosphorus emissions to the water systems are considerable (and among the highest in Europe; RIZA, 2002; MNP-RIVM, 2004a). Consequently, the policy assignment is substantial. For example, the Third National Water Policy Memorandum includes (intentional) Nitrogen and Phosphorus emission reduction aims for the 1985 to 1995 period of 70% and 75% respectively (Ministerie van Verkeer en Waterstaat, 1989).

After adoption of the Nitrates Directive (European Communities, 1991b), a breath-taking cat and mouse play develops between the EC and the Netherlands. Given the specific physical characteristics and the high emission rates in agriculture, the Dutch national authorities decide to designate the entire territory as nitrates sensitive area. Furthermore, the explicit linkage between the WFD and the Nitrates Directive (by means of the former’s register of protected areas), requires the Dutch to include agri-environmental measures into the WFD’s programme of basic measures. The Dutch mouse, chased by an impatient European cat, which has provided the mouse extra time to grow more fat by means of temporary derogations, increasingly gets strangled in an uneven wrestling match. While the ANF Ministry stresses that the WFD may not lead to supplementary measures to these of the Nitrates Directive, the TPW Ministry feels the pressure from provincial and water management authorities who continue asking for additional generic measures.

Several reports (RIZA, 2002; Van der Bolt at al., 2003; NMP-RIVM, 2004a; Ligtvoet et al, 2006) make clear that additional measures in the agricultural sector may only pay off significantly whenever implemented at large scale. Expected socio-economic consequences from such measures will be considerable and are labelled as disproportional by the national authorities. Farmers’ interests groups periodically ask for inclusion of considerable past expenditures, the need for differentiated water quality standards (related to sensitiveness of diverse water system types) and a (European) level playing field (LTO, 2006, 2007). The scared mouse finds a temporary way out in (limited) introduction of buffer-stripes (along valuable and nutrient sensitive brooks in the higher, sandy parts of the Netherlands), research projects on testing potential cost-effective measures, the formulation of healthy ecosystem supportive levels of nutrients for different water system types, prolongation of derogation as long as possible, avoidance of legally binding uniform European standards and asking investments by upstream riparian states (with reference to the no-shift principle).
The conclusions of the evaluation of the Manure Substances Act (NMP-RIVM, 2004b) clearly show that additional measures will be inescapable. Subsequently, from the information letter to the Lower House of Parliament on the national ambition for the fourth Nitrates Actions Programme (2010 to 2013 period) (Tweede Kamer der Staten-Generaal, 2008b), it becomes clear that measures from the third Nitrates Actions Programme (until December 2009) will not be sufficient to meet the water quality objectives. For Phosphorus a stand-still in the 2015 to 2030 period (as compared to the present situation) will be the result. Without additional measures the EC would not accept further prolongation of the derogation. March 2009, in a second information letter the ANF Minister stresses that whenever innovative measures as tested in pilot projects may not pay-off satisfactorily, a further strengthening of the manure application standards between 2014 and 2017 (for the fifth Nitrates Actions Programme) will be inescapable (Tweede Kamer der Staten-Generaal, 2009a). Given the urgency of eutrophication problems in a number of fresh surface waters the Minister has decided to revise prior agreements with the agricultural sector. A more regionally differentiated system of measures is necessary for improvement of surface and groundwater quality beyond stand-still only. The rules for good agricultural practices in general are sharpened, although for some low cost-effective measures rules become less severe.

This brief historical overview illustrates that before adoption of the WFD, user rights for water and land are preconditioned with regard to environmental externalities. Since the 1970s, environmental externalities have gradually conditioned property and user rights of farmers. However, human development options remain central in Dutch policies and legislation and special financial support arrangements have been designed to overcome (part of the) socio-economic externalities of environmental measures. Van Rijswick and Havekes (2012: 318) stress that ‘Dutch water law and environmental law grant extensive protection to existing rights’. For example, ‘permits are granted on a “first come, first served” base’ (ibid.). The adoption of the WFD, given its ambitious environmental objectives are perceived as strict European obligations, triggers a fear of land owners and users for additional investments and loss of land. This fear should also be understood within the context of a downward trend of land use for agriculture (with less but bigger farms; Boonstra and Frouws, 2005; Milieu en Natuur Planbureau, 2007). Partly due to opposition from the agricultural sector, in 2004, the Dutch Council of Ministers decides to take the then actual land use destinations and spatial planning policy as starting-point for domestic WFD implementation (Tweede Kamer der Staten-Generaal, 2004b).

Van Rijswick (2001) observes a scattered transposition of requirements from the Nitrates Directive since different Dutch statutes cover parts of the arrangements: the Environmental Management Act, the Land Protection Act and the Surface Water Pollution Act. She argues that the Dutch Achilles heel lies in the incomplete transposition of European water quality objectives into sufficiently legally binding standards and the lack of referral to these standards in pieces of legislation from related policy domains (ibid.: 304, 356 and 361). Also the national Space Memorandum (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 2006) witnesses a prudent approach in which voluntary agreements with farmers prevail (most notably with
regard to nature management policy). Expropriation arrangements with regard to environmental objectives are not opted for (ibid.).

**Water and nature**

Generally, Dutch politicians perceive the requirements from the Birds and Habitats Directives as very restrictive. A fear dominates that current prior socio-economic activities and future development plans in and around the Natura 2000 sites may be prohibited to a large extent. As such, these Directives potentially have a huge impact on land and water property and user rights. At the time of adoption of the WFD the AFN Ministry already struggles with the socio-economic impact of the Birds and Habitats Directives for some years. Van Rijswick (2001) argues that inclusion of the Natura 2000 sites in the register of protected areas is one of the most explicit WFD’s arrangements for cross-sector integration. The observations of this research show that implementation of this arrangement is subject to a conflictual interministerial coordination game. In retrospect, in the Netherlands a laborious coordination process has developed between the TPW and ANF Ministries and between the national and regional authorities, in which the WFD and Natura 2000 implementation processes have been coupled and decoupled again (Broekhans, Van der Heijden and Ten Heuvelhof, 2010).

As a remarkable indicator for the coordination struggle, the attempts by the TPW, HSE and ANF Ministries to agree on a draft memorandum about the relations between the WFD and Natura 2000 (Ministerie van Landbouw, Natuurbeheer en Voedselkwaliteit et al., 2006) may serve: the memorandum has never been released, although some elements have been incorporated into the 2006 December Memorandum (Ministerie van Verkeer en Waterstaat, 2006b). Remarkably, the ANF and TPW Ministries agree on the coordination rules spring 2007 but they release individual (interpretation) letters about these rules (respectively in May and November; Van der Zande, 2007; Wouters, 2007). Between December 2007 and April 2008 a special expert team of the ANF Ministry visits the regional and local water managers to get an overview of critical bottlenecks between the Natura 2000 and WFD assignments. In the February 2008 meeting of the Regional Meuse Political Platform the representative of the ANF Ministry apologises explicitly for its ‘untimely and inadequate coordination efforts’. As of March 2008 the coordination game improves when the ANF Ministry initiates the Natura 2000 Bureau and invites the TPW Ministry to join.

At the end of 2009 the TPW and ANF Ministries conclude that the actual number of Natura 2000 sites with substantive water conditions bottlenecks turns out to be limited (Ministerie van Verkeer en Waterstaat, 2009a: 50, translation):

> In most cases the Natura objectives perfectly fit with the WFD’s water quality objectives. In cases of conflicting objectives local tailor made decisions have been made in which one of both directives has been considered leading. Required water conditions have been incorporated in the formulation of desirable ground and surface water regimes (quantity). When specific target habitats or species within Natura 200 sites do require more severe water conditions (both quality and quantity) which go beyond the general WFD objectives, these conditions and related measures will be included in the Natura 2000 management plans.
The regional public actors mention three reasons for incomplete packages of measures for Natura 2000 in the first generation river basin management plans: (1) lack of knowledge on cost-effective measures, (2) difficulties with land acquisition (since voluntary agreement with land owners is a precondition) and (3) local processes for the Natura 2000 management plans still continue. Environmental NGOs ply for a more proactive attitude of the provincial authorities and regional water management authorities in the Meuse River Basin, since in their opinion enough instruments are available for full integration of the Natura 2000 requirements in the WFD’s programme of measures (Heijnen, 2007).

At the end of 2009, the ANF Ministry still struggles with the potential large socio-economic consequences of the Natura 2000 obligations. Partly stimulated by questions in the Lower House of Parliament and advices of special committees, the ministry tries to integrate and simplify legislation and make the implementation rules more transparent, feasible and hence, more acceptable. According to farmers’ interest organisations, farmers may be afraid to invest in nature protection as they fear related future restrictions. To cope with the external pressures the ANF Ministry invites a consultancy firm to study possibilities for continuation of present land and water user and property rights without compromising compliance with the Natura 2000 objectives. According to the consultants the Birds and Habitats Directives mention no deadlines, hence a staged implementation is allowed in which socio-economic considerations may play a role (Huys Adviesgroep, 2009). This offers room for present and future activities. A more balanced, programmatic approach is recommended in which both development of socio-economic activities and ecological objectives are elaborated with relevant stakeholders. The linkage between measures and compliance with ecological objectives should be made clear and monitoring of both development of natural values and ammonia deposition should be part of the package. Activities that do not infringe stand-still should be allowed. However, for the long term, improvements beyond stand-still may be required. The consultants propose to define current activities as these that are formally licensed (ibid.).

The ANF Minister prefers the broad interpretation of the Nature Protection Act which also includes continuation of not licensed current activities. In its annual state of the art report on nature in the Netherlands (Natuurbalans 2009) the Environmental Assessment Agency concludes that uncertainties in the negotiation space around Natura 2000 objectives lead to frustrations, a negative image of nature and may hinder the realisation of objectives (Planbureau voor de Leefomgeving, 2009). The ecological objectives are too strictly formulated and offer little room for other ambitions like agriculture and recreation. This may cause a lack of public acceptance for Natura 2000 measures (ibid.).

The research observations point at ideal-type B IRBM position rules both in the period before and after adoption of the WFD (see Table 6.3). The report of the Advice Committee on Water Management in the 21st Century (Tielrooij et al., 2000) already made clear that, notwithstanding strong emphasis on opportunities for multiple land and water uses, changes in land and water user and property rights may not be prevented. However, given the political delicacy of and public opposition to spatial claims for flood prevention and mitigation (Roth, Warner and Winnubst, 2006), the
national authorities were not much in favour of additional spatial claims for water quality improvement and ecological restoration reasons (Tweede Kamer der Staten-Generaal, 2004b). Consequently, the first Dutch WFD implementation planning cycle until December 2009 did not significantly alter the position of land owners and users.

Table 6.3: Ideal-type collective-choice IRBM position rules (national level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Protection of prior water and land resources use and property rights without preconditions on environmental, social and economic externalities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Conditional maintenance and acquisition of water and land resources use and property rights. Conditions include requirements to consider social, economic and/or environmental externalities.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Reallocation of use and property rights, based on interrelated conditions of ecological, economic and social resilience.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X’.

Given environmental externalities increasingly have put pressures on agricultural entrepreneurs the national authorities remained cautious not to significantly restrict development room for agricultural entrepreneurs (Tweede Kamer der Staten-Generaal, 2004b). On the one hand, the existing licenses system is considered appropriate for pollution prevention in the context of a shift to more generic rules over individual licences (ibid.). On the other hand, as part of the dilemma, the national authorities referred to potentially large socio-economic consequences from implementation of the WFD in combination with the Nitrates Directive (ibid.: 18; translation from Dutch added):

The necessary approach fits into current policies but will lead to additional measures. It is very important that the sector itself establishes sound and sustainable agricultural practices. The Common Agricultural Policy, economic development and the innovation potential of the sector will determine the programmes of measures. The Dutch choice is to go for local, tailor-made solutions. The consequences from implementation of the Nitrates Directive, which is partly leading for the WFD implementation, approximately will not be small. The intention is to limit these consequences as much as possible in order to safeguard room for economically healthy agricultural farms.

6.3.3 Boundary rules

As defined in Subsection 2.2.5, in this research, boundary rules are interpreted as related to who has access to the river basin management planning and decision-making process and who has not? What are conditions for entry and exit? What are the degrees of participation for different stakeholder categories? Three ideal-types of boundary rules have been distinguished (see Table 6.4).
As described in Subsection 6.3.1, since most Dutch are born in polders surrounded by water, organisational structures which concern water management issues are almost as old as the country itself (Van de Ven, 2004; Havekes, 2008). The decentralised unitary state also becomes noticeable from the water policy domain with a national Water Policy Department and a State Waters Management Agency (Rijkswaterstaat; as founded in 1798 by Napoleon Bonaparte) and regional water management authorities that are elected by the inhabitants of their territories. Who has an interest in water management pays for it and has a say in it (Anonymous, 1991; 2009b). Up to February 12, 2004, coordination of the implementation of national water policy took place in the Integrated Water Management Committee, which was chaired by the Royal Prince of Orange (www.helpdeskwater.nl, consulted on March 8, 2011). Representatives from the Association of Regional Water Management Authorities (UrW), the Inter- Provincial Platform (IPO), the Association of Dutch Municipalities (VNG) and director-generals from the TPW, HSE and ANF Ministries participated in the committee, of which the secretariat was covered by the TPW Ministry. The committee had four main tasks with regard to integrated water management: (1) coordination of implementation practices; (2) discussion on policy proposals; (3) advise to the State Secretary for Water Management on implementation issues (on request and by own initiative); and (4) conduct of studies and research (ibid.). Most agenda issues were prepared by five working groups in which also representatives from socio-economic interest groups, environmental NGOs and research institutes participated by invitation (ibid.).

The tasks of the Integrated Water Management Committee have been taken over by the National Political Water Platform, chaired by the State Secretary for Water Management. At the same time the Advice Commission Water, chaired by the Royal Prince of Orange, has been installed (Ministerie van Verkeer en Waterstaat, 2004a). This commission independently advises the State Secretary for Water Management on implementation issues of integrated water management. The State Secretary appoints its members, who are experts on issues of public government, spatial planning, water management and finances. In general they have no political functions in the water management domain (ibid.). Additionally, the independent Advise Committee on Water Policy Legislation (Commissie van Advies Waterstaatswetgeving) exists since 1892 (www.cawsw.nl, consulted on March 8, 2011). This commission provides advice for the Dutch Cabinet and the Upper and Lower Houses of Parliament on the contents and structure of water policy legislation (ibid.). Socio-economic interest groups and environmental NGOs may advice the State Secretary for Water Management on the effectiveness and feasibility of proposed ministerial measures for integrated water management, by participation in the National Water Management Consultation Platform (Overlegorgaan Water en Noordzee; www.helpdeskwater.nl; consulted on March 8, 2011). This platform also serves as the national WFD Consultation Platform.

By participation in national working groups and advisory platforms, non-governmental stakeholders have ample opportunities to (try to) influence national water policy formulation and implementation strategies. The participation degree is conditioned by the public actors and varies for working groups and issues at stake (Wittenhorst and Mak, 2005). However, emphasis is on exchange of information and
expertise and informal consultation (in addition to formal consultation procedures). At the end of the day the public authorities decide. Whenever a stakeholder is dissatisfied, one may turn the face to members of parliament in order to lobby for specific interests. The WFD implementation process does not provoke changes to these Dutch traditions, rather offers additional opportunities for informal information and consultation.

At the national level boundary rules for the WFD implementation process are written down in general terms in the national communication strategy (Projectteam Implementatie Kaderrichtlijn Water, 2001a) and subsequent working programmes (Wittenhorst and Mak, 2005). Information, consultation and acceptance building are keywords in the communication strategy (ibid.). The WFD Implementation Memorandum concludes that the WFD’s requirements on public participation are feasible (Tweede Kamer der Staten-Generaal, 2004b). Formal information and consultation requirements with regard to Article 14 are anchored in the WFD Implementation Act (Implementatiewet Kaderrichtlijn Water; Anonymous, 2005). In addition, societal interest groups are invited to participate actively in all stages of decision-making towards 2009 (river basin management plans), such as by attending thematic sessions of the National Water Management Consultation Platform (Tweede Kamer der Staten-Generaal, 2004b: 23).

The TPW Ministry points at continuation of Dutch traditions and practices in which informal information and consultation precede formal consultation rounds. Co-productions by public actors dominate but the national working groups also allow for (conditioned) co-productions with private and civil actors. According to the TPW Ministry ‘the contributions of societal interest groups contribute to a careful and balanced decision-making over the WDF assignments’ (Tweede Kamer der Sataten-Generaal, 2004b: 23). Although public consultation of certain legislative proposals is not required in Dutch law, due to WFD’s Article 14, national authorities informally will consult environmental NGOs and socio-economic interest groups (ibid.). The national Water Policy Department of the TPW Ministry expects the regional and local authorities to organise a comparable active participation process at their levels, in which WFD consultation platforms (sounding-boards; klankbordgroepen) take a central position (DGW, 2005).

The national evaluation of the WFD implementation process shows that interest groups and environmental NGOs have struggled with the multiplicity of parallel processes, unclear expectations and the time pressure (Ten Heuvelhof et al., 2010: 68, 69). Whereas the majority of respondents in the public sector is positive about the division of contributions among different actor groups, a majority of respondents at environmental NGOs and drinking water companies considers these unbalanced and unequal (ibid.: 70). The interviews and written argumentation survey generally support these observations: especially the environmental NGOs felt too much disconnected from the process and asked for more coherence among and transparency of the implementation processes at different administrative levels. A majority of respondents within all interest group categories is negative about the extent to which one could influence the agenda setting of the WFD implementation process (Ten Heuvelhof et al., 2010: 56).
Remarkably, only 20% of the respondents from interests groups consider continuation of the National Water Management Consultation Platform as necessary for the next implementation stage. On the contrary, the interests groups are much more positive about continuation of the regional and local WFD consultation platforms and the local implementation processes (ibid.). Considerable differences have been observed between the roles of these regional platforms. Whereas in some river basins, the public actors mainly informed the interests groups, in other river basins, discussions about feasible measures took place and members were asked to advice the politicians (Santbergen, 2005; Ovaar, 2007; Ten Heuvelhof et al., 2010). See also the analyses of the regional and local processes in respectively the Chapters 7 and 8.

Table 6.4: Ideal-types collective-choice IRBM boundary rules (national level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Access to the river basin management planning process is restricted to public actors only. Other stakeholders are informed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Non-governmental actors may have access to the river basin management planning process under conditions set by the public actors. Emphasis on co-thinking and consultation.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Ample opportunities for all interested stakeholders to join the river basin management planning process, including co-productions, co-decisions and self-realisation.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X’.

The observations point at ideal-type B IRBM boundary rules in the period before and after adoption of the WFD (see Table 6.4). The national WFD approach fits well in the tradition of informal consultation and information options before formal consultation rounds.

6.3.4 Choice Rules

As introduced in Section 2.2.6, for the aim of this research two indicators for observation of choice rules change have been defined. The first indicator concerns water supply and demand rules. Three ideal-types have been identified for this indicator, ranging from a focus on water supply only to integrated demand and supply management in which a hierarchy of functions may apply, as conditioned by fresh water availability and protection of the ecological life support system (see Table 6.5a). The second indicator expresses the nature of license systems. Ideal-types range from parallel licences for quality and quantity objectives for the use, development and management of water resources, towards integrated licences for interdependent natural resources (including water; see Table 6.5b).

Supply- and demand management

After the Second World War water supply management was supportive to large-scale food production by re-allotment and drainage of agricultural land (Wisserhof, 2000).
Due to a large number of land consolidation projects, a radical physical transformation of rural areas in the Netherlands took place, in order to extensively reorganise and modernise Dutch agriculture (Hoetjes, 1993). Farmers’ incomes were guaranteed by means of a detailed market and price policy, as supported by Europe’s Common Agricultural Policy (Bekke and De Vries, 1994). Since the 1970s ecologists and nature site managers notice lowering groundwater tables and ask attention for the negative, desiccation effects of a too one-sided water supply management (Van Gijsen, 1979; De Molenaar, 1980). In the Second National Water Policy Memorandum, for the first time the national authorities acknowledge the issue of dropping groundwater tables (Ministerie van Verkeer en Waterstaat, 1985). The memorandum triggers additional research which leads to a policy objective of 25% reduction of desiccated area in 2000 (as compared to 1985), as included in both the National Environmental Policy Memorandum (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 1989) and the Third National Water Policy Memorandum (Ministerie van Verkeer en Waterstaat, 1989).

In an information letter to the Lower House of Parliament the State Secretary for Water Management explicitly mentions anti-desiccation measures regarding groundwater management (Tweede Kamer der Staten-Generaal, 1990). The national authorities do not opt for a generic reservation of groundwater resources for protection and restoration of natural values (ibid.: 4; translation from Dutch added): ‘The policy intentions with regard to nature conservation and development should be realised by formulation of desired groundwater situations in the provincial water policy plans and protection of groundwater quality by means of allocation of functions.’ The State Secretary announces that new rural development plans should not substantially influence the state of desiccation sensitive areas or in the absence of alternatives should include compensation measures (ibid.: 29). Furthermore, groundwater abstractions for agricultural purposes near desiccation sensitive areas should be diminished (ibid.: 30), proposed extensions for industrial and drinking water abstractions should be evaluated on their desiccation impacts and long term alternatives for groundwater abstractions should be explored (ibid.: 31). Also notions of demand management become noticeable such as public awareness campaigns on the wise use of freshwater resources and a distinction between high-value and low-value water uses and users as point of departure for a redistribution of groundwater user rights (ibid.: 30, 31).

Van Vliet et al. (2002) summarise the main three causes for desiccation: (1) extensive drainage and discharge of fresh water for agricultural and urban development in combination with water supply from other areas; (2) increase of evapotranspiration due to an increase of crops; and (3) increase of groundwater abstractions for drinking water, industrial processes and agriculture. The first two causes account for 60% of the desiccation issues, whereas the third contributes 30%. Desiccation, acidification and eutrophication are the main reasons for deterioration of natural values (ibid.). The Third National Environmental Policy Memorandum sharpens the desiccation reduction objective to 40% in 2010 (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 1997). The Fourth National Water Policy Memorandum (Ministerie van Verkeer en Waterstaat, 1998) calls for an integrated areal management approach in and around desiccated areas which combines water retention, wetlands conservation,
prevention of rapid discharges and reduction of groundwater abstractions. In 2000, only for 3% of the desiccated areas (as compared to 1985) the hydrological conditions have been fully restored (Van Vliet et al., 2002). The main causes are the lack of clear and measurable water and nature restoration objectives, unclear division of tasks and responsibilities, discontinuities in financial instruments and insufficient monitoring arrangements (ibid.).

The Advice Committee on Water Management in the 21st Century mentions an underestimation of risks from water shortages (Tielrooij et al., 2000). The committee diagnoses that causes for too much and too little water are to be found in both traditional water management practices and the spatial development practices over the past 50 years in combination with an ever increasing land use for agriculture, urbanisation and nature (ibid.: 21). Furthermore, climate change may enforce problems with floods, droughts and water quality (ibid.: 27). The committee concludes that (ground)water user functions are too much guiding and land user functions limit required room for more resilient water systems (Tielrooij et al., 2000). Whenever spatial planning practices will be better tuned to the physical conditions of the water systems, new opportunities for sustainable development may occur (ibid.).

Despite the diagnosis and the recommendations of the committee and the joint approach of the National Water Agreement (Nationaal Bestuursakkoord Water; Anonymous, 2003a and 2008, revised edition), implementation of the water shortages and anti-dessication approach remains laborious. For example, deadlines on the elaboration of the instrument for determining desirable groundwater and surface water regimes (GGOR = Gewenste Grondwater en Oppervlaktewater Regime) are extended several times. In theory this instrument could deliver a sound basis for interrelated conditions on ecological, social and economic resilience. In practice the fear of explicit choices with potentially large socio-economic impact, hinder a smooth and fast-delivering implementation. In this context the notions in the 2005 December Memorandum (Ministerie van Verkeer en Waterstaat, 2006a: 11; translation from Dutch added) may be considered as understatements: ‘The determination of the desired groundwater and surface water regimes is a complicated political assignment, since all user functions will have to be weighed. Determination will also often have spatial consequences.’

Triggered by the dry summer of 2003 there is a sudden increase of political attention to risks of droughts events suddenly increases. After an evaluation process, a remarkable change in collective-choice rules occurs. Until 2003 the instrument to set water distribution priorities in periods of droughts (Verdringingsreeks) does not include protection of the ecological life support system (Ministerie van Verkeer en Waterstaat, 2004b). Based on the evaluation and requests by environmental NGOs the TPW Ministry decides to include protection of nature values which could be subject to irreversible deterioration among the three first priorities category (together with safety against floods and prevention of land subsidence; ibid.). This rule change is anchored in the new Water Act (Anonymous, 2009b). The subsequent national droughts study concludes that the national fresh water distribution rules are robust (Kroon, Klopstra and Versteeg, 2005). Additionally, although the droughts frequency may increase due to climate change, large-scale spatial and/or infrastructural measures are not considered cost-effective for the period until 2015 (ibid.). The national authorities also de
cide not to design a legal standards system for drought events, since the distribution prioritisation instrument will suffice for the relatively low frequency of severe droughts (Ministerie van Verkeer en Waterstaat, 2006a).

The first Dutch WFD implementation planning cycle does not have a rule altering influence on prior supply and demand management rules but it supports the integration tendencies and contributes to a sense of urgency. In the 2005 December Memorandum the anti-desiccation policy is presented as part of the WM21 objectives (Ministerie van Verkeer en Waterstaat, 2006a). The memorandum mentions a reconsideration of the anti-desiccation objectives, since the WFD and Natura 2000 requirements should be included (ibid.). The 2006 December Memorandum adds that options for prevention of water shortages should be incorporated in the spatial planning stage, most notably by means of the water assessment procedure (Ministerie van Verkeer en Waterstaat, 2006b). The national authorities stress an integrated areal programme approach until 2015. Whenever, measures may not be implemented voluntarily, expropriation should be considered as an ultimo instrument. As a minimum requirement, all Natura 2000 sites with groundwater dependent nature values should receive high priority (ibid.).

The observations point at a juxtaposition of ideal-type B and C supply and demand rules both in the studied periods before and after adoption of the WFD (see Table 6.5a).

Table 6.5a: Ideal-type collective-choice IRBM supply and demand rules; national level

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Water supply management determines availability of fresh water for user functions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Mixed supply and demand management determines fresh water availability without a hierarchy in user functions.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Integrated supply and demand management, as expressed by a hierarchy in user functions.</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B and C rules as expressed by the ‘X’.

Before adoption of the WFD an evolution took place from water supply management for the benefit of large scale food production to an approach in which both economic efficiency and social equity condition fresh water distribution to user categories. A shift towards less use of (high quality) deep groundwater resources and more use of surface water resources occurs. Gradually also notions on demand management appear in the subsequent national water policy memoranda. After adoption of the WFD, albeit not triggered by it, a remarkable rule change occurs. Ecological conditions are included in the priority instrument for distribution of available fresh water resources in periods of prolonged droughts. Besides, the instrument for weighing land user functions within the context of hydrological groundwater and surface water conditions receives more attention, as part of the more structural long term WM21
approach. Although conditions for the protection of the ecological life support system are not explicitly defined as water quantity standards, further elaboration of this instrument implicitly supports efforts on the way to more ecological resilient water systems management. As a counterbalance, the fear of dramatic socio-economic consequences hinders a process of setting clear conditions and making difficult choices between user functions. Although not presented as an integrated approach, both supply and demand issues receive attention with regard to wise use of available fresh water resources.

**Nature of the license systems**

Although the Environmental Management Act (Wet Milieubeheer; Anonymous, 1993) marks an important material integration of environmental license systems, full integration with the water policy legislation does not happen. As one important explanation Van Rijswick (2001: 375-376) points at firm opposition from the water quality managers who argue that they need their own license system with regard to formal tasks. In case of integration, they fear a decreased coherence within the water management domain (ibid.). Since measures in one compartment (air, land, or water) could have an impact on other compartments, it would be wise to consider all interrelations within one environmental license system (Drupsteen et al., 1998, Van den Broek, 1997). Van Rijswick (2001: 380-381) argues that, as long as the Environmental Management Act maintains a rather restricted definition that excludes diffuses sources of pollution, integration with the Water Management Act is not to be preferred. In that case, the coordination rules between both statutes should be improved. Furthermore, coordination rules between the Groundwater Act and the Environmental Management Act should be added (ibid.). Remarkably, it is the Environmental Management Act and not the Water Act (Anonymous, 2009a), which includes the arrangements for legal anchorage of the WFD’s environmental objectives (Ministerie van Volkshuisvesting, Ruimtelijke Ordening, en Milieu, 2009 a, b and c).

The Water Management Act (Anonymous, 1989) has been a first integration attempt within the water policy domain with an emphasis on coherence among water policy and management plans at different administrative levels. This statute did not include integration of license systems for water quality and quantity issues. Also groundwater issues were covered by a separate act. The new Water Act (Anonymous, 2009a) further integrates water policy regulations (including both groundwater and surface water issues) and merges six former water-related license systems into a new integrated water one (ibid.; Ministerie van Verkeer en Waterstaat, 2008). Van Rijswick (2001: 382) argues that internal integration will not suffice to comply with the WFD objectives. More explicit cross-sector integration arrangements will be necessary (ibid.). Van Rijswick (2001) plies for explicit referral to water quality standards in legal instruments from other policy domains which have an impact on water quality, like agriculture, spatial planning, nature conservation and traffic and transport. Drupsteen et al. (1998) propose to include generic principles of environmental law (precaution, the polluter pays, stand-still, compensation and prevention at source) in all decisions from other policy domains that may have an impact on the environment. According to Van Rijswick (2001: 383-384) water quality standards should be legally anchored
with sufficient room for a flexible, integrated approach in which the overall good state of a water body is central.

Although it is not the WFD that has triggered drafting of the new Water Act (Anonymous, 2009a), it has contributed to a sense of urgency for a more integrated approach. However, the introduction of one license system for different water-related activities does not necessarily mean that water quality and quantity objectives are approached in a more interrelated way. Despite the integration discourse of the WFD, its Article 4 mainly includes parallel objectives for groundwater and surface water bodies (European Communities, 2000: 9-11). Furthermore, the WFD leaves room for interpretation differences on the interlinkages between water bodies and protected areas. Regarding surface water bodies the emphasis is mainly on chemical and ecological quality objectives without explicit specification of relations with quantitative parameters. Although the WFD may be considered the most comprehensive piece of water legislation in the European history so far, it does not include surface water quantity objectives. Whereas its groundwater objectives include quantitative aspects, the qualitative objectives remain limited to a few parameters. The related Groundwater Directive (European Union, 2006) elaborates more on the linkages between groundwater and surface water objectives (Ministerie van Volkshuisvesting, Ruimtelijke Ordening, en Milieu, 2009c: 40, 41). Based on the Groundwater Directive, whenever chemical threshold values are surpassed at more than 20% of the monitoring locations within a groundwater body, the extent of the (potential) impact on the chemical and ecological quality of related surface water bodies and terrestrial ecosystems and the impact on requirements for drinking water production sites should be explored (ibid.). Furthermore, the Member States shall ensure ‘a balance between abstraction and recharge of groundwater’ which will contribute to the water needs of dependent terrestrial ecosystems (European Communities, 2000: 5, 9).

In the Netherlands the legal anchorage of the WFD’s environmental objectives has provoked arduous debates, mainly triggered by a fear of restrictions from strict legally binding quality standards to individual human development projects. In an attempt to avoid the too restrictive implementation experiences with air quality directives, the national authorities cautiously explored options for maximal flexibility and usage of the interpretation room within the WFD and its guidance documents (Van der Molen, 2009; Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 2009b). For example, environmental objectives for heavily modified and artificial water bodies and related license conditions for water-related activities should be incorporated in the water management plans for state and inland water systems. A waste water discharge license request will not directly refer to the quality objectives in the water management plans but its approval/refusal should be weighed within the context of all the measures which are planned for no deterioration and amelioration of the state of the entire water body (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 2009c). It is the net result of all activities and measures that counts (Van der Molen, 2009).

In many cases the impact of an individual discharge may not be noticeable on the quality of an entire water body, since the source oriented emission approach (which includes best available technology and the emission-imission test) remains valid for all
discharges (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 2009b; Van der Molen, 2009). Furthermore, the story is mainly theoretical in nature since new license requests for substantial point sources are not to be expected in many water bodies (Van Roode, 2009). Whenever a citizen appeals against an individual license request, judges may take arguments from the state and inland water management plans into consideration. As a worst case scenario for the national authorities, a lack of coherence among these plans may provoke direct application of provisions in European directives (and their water quality standards), including the option of license refusal (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 2009b). In order to avoid this worst case scenario, the plans at different administrative levels should be optimally coordinated and packages of measures to fulfil the obligations should be included with sound motivation for the use of the WFD’s exemptions (Van der Molen, 2009). The essence of the Dutch approach is summarised in the explanatory document to the decision (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 2009c: 7; translation from Dutch added):

In this way the approach of the present decision is distinct form the original approach in the Air Quality file. In the latter, each decision on a license request had to be weighed directly against its impact on the environmental quality standard for particulate matter in the air (*fijn stof*). Whenever the required air quality could not be realised, a license could not be granted, even not in the case of proposed adequate measures which would lead to net compliance with the standards in the near future. The present decision follows the revised approach for the Air Quality Directive which allows for negative impacts as long as the entire package of measures leads to a net compliance with quality standards at the end of a planning period.

In its advice the State Council is in favour of the use of (strict obligatory) standards (*grenswaarden*) since they most clearly express the obligatory nature of the WFD requirements (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 2009b; Tweede Kamer der Staten-Generaal, 2009b). Contrary to the advice, in the Water Quality Standards and Monitoring Decision (*Besluit Kwaliteitsseisen en Monitoring Water*, Ministerie van Volkshuisvesting, Ruimtelijke Ordening, en Milieu, 2009a) the Dutch Cabinet legally defines the WFD’s environmental objectives as target values (*richtwaarden*). The Cabinet stresses that these target values should not be considered as intentions, but as obligations which may be subject to exemption options as included in the WFD only (ibid.). Given the WFD’s river basin management approach which concerns all European water resources it is remarkable that the Dutch decision only relates to the WFD water bodies (and not to all other, smaller water systems). In this respect, paradoxically, the water bodies reporting system challenges the river basin management approach and one might question whether a standstill of juridical protection is safeguarded. In the explanatory document to the Water Quality Standards and Monitoring Decision (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 2009c), the national authorities argue that especially the requirements from the emission approach, which apply to all water systems, in practice will provide an equal level of protection for both water bodies and other (smaller) water systems.
Van Rijswick and Havekes (2012: 295) argue that the WFD’s obligations do not only apply to designated water bodies:

> It is apparent from the case law of the Administrative Jurisdiction Division of the Council of State that measures must also be taken in waters which are not designated water bodies under the Directive, if the quality of those waters has a deleterious influence on a designated water body because it is connected to it. Account must also be taken of the cumulation of water pollution coming from various small sources.

In this context it is remarkable that the (independent) National Water Inspection Service (*Inspectie Verkeer en Waterstaat*) concludes that the objectives for other (smaller) water systems lack or are formulated inadequately in the water management plans (Clement, Salihovic and Van Breemen, 2010).

To round up: the analysis shows that parallel licenses for qualitative and quantitative water management issues (before adoption of the WFD) have been brought together into one, integrated license for water-related activities (after adoption of the WFD). The WFD’s discourse has supported this prior integration wish. These observations point at an evolution from ideal-type A choice rules towards ideal-type B choice rules (see Table 6.5b). The evolution seems not to be completed. Although the qualitative and quantitative issues are covered by one water license system, the substantive conditions and objectives are not fully interrelated or integrated.

Table 6.5b: Ideal-type collective-choice IRBM licenses rules (national level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate, parallel licences for quality and quantity objectives related to the use, development and management of water resources.</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>B: Licences that integrate quantity and quality objectives related to the use, development and management of water resources.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>C: Integrated licences for interrelated use, development and management of natural resources (e.g. air, water, land).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’. The ‘x’ points at a reduced resemblance of the observations with ideal-type A rules after adoption of the WFD.

### 6.3.5 Aggregation rules

As defined in Section 2.2.7, a major collective-choice challenge of IRBM concerns the issue as to how arrange decision-making at interrelated political levels within shared river basins with the aim to reach common understanding and broad public support for collective choices. The aggregation rules may appear in different ways, as expressed by identified ideal-types (see Table 6.6). The aggregation question ‘who should make and who should agree with adaptations of prior rules and with new rules?’ shows redundancy with boundary rules. For this research, the question who is involved in planning and decision-making and to which degree (information, consulta-
tion or co-decision), is covered by boundary rules (see Subsection 6.3.3). The aggregation rules concentrate on the coherence between and the nature of decision-making at different administrative levels within a river basin.

**Informal national-regional WFD coordination structures**

In 2001 the national WFD Implementation Project Team concludes that only minor legislative changes are required, i.e. amendments to the Water Management Act (Anonymous, 1989) and the Environment Management Act (Anonymous, 1993). According to the team the strategic planning process currently in use in the Netherlands complies fairly well with the WFD. No specific adaptations are required (Projectteam Implementatie Kaderrichtlijn Water, 2001b). Right from the start of the domestic WFD implementation process continuity of formal organisational structures and aggregation rules is stressed as a precondition (Van Sprundel, 2003; LBOW, 2003b; Tweede Kamer der Staten-Generaal, 2004b; Anonymous, 2005). Only minor shifts in division of tasks and responsibilities are open for discussion (ibid.). The organisational set up for the domestic WFD implementation may be summarised as follows (based on LBOW, 2003a; translation from Dutch added):

Existing political responsibilities will not alter significantly due to the implementation of the WFD. The State remains the authority for policy frameworks, regional authorities remain responsible for implementation, monitoring, evaluation and reporting. Outstanding choices will have to be made within the present political constellation. WFD implementation choices will be prepared in an iterative process between regional and national authorities (bottom up and top-down), in which the regions are supported by national frameworks and methods. These frameworks and methods will be tuned to wishes and possibilities of the regional partners.

The national authorities stress that the new European reporting obligations require transparent coordination rules due to shared responsibilities by the authorities from all administrative levels (LBOW, 2003c). The installation of a national water platform and regional river basin platforms serves the specific WFD’s coordination requirements. These platforms should provide for collective-choice rules that express joint responsibilities. For example, all the water management plans that contribute to the (WFD) river basin management plans should be coherent and consistent with each other (ibid.).

From 1998 to 2003 a special WFD implementation planning structure is established with a national project team and related working groups parallel to prior informal structures in the water policy domain. Gradually, the new WFD structures merge with these parallel structures into a more integrated organisation. The report on the national evaluation of the WFD implementation process in the Netherlands concludes that the river basin management approach and the obligatory nature of the WFD’s objectives required more extensive internal and cross-sector planning and decision-making coordination than before (Ten Heuvelhof et al., 2010; Van der Heijden, Broekhans and Ten Heuvelhof, 2010). They mention the introduction of an informal, additional double pillar steering and coordination structure, i.e. one national and one regional pillar, as expressed by the image of “elevators in Thorbecke’s
House” (ibid.; see Figure 6.3). The decentralised unitary model with the state, provinces and municipalities still is the Dutch constitutional house (Kickert, 2004; Andeweg and Irwin, 2005).

Within this double pillar structure, the National Political Water Platform advises the State Secretary of Water Management on water policy and management issues. In turn the State Secretary informs the platform about political decisions and provides assignments to the platform. The HSE and ANF Ministries participate in the national pillar in order to arrange cross-sectoral coordination issues. A special national WFD coordination bureau (Netherlands River Basins Coordination Office; CSN = Coördinatie Stroomgebieden Nederland), which is run by civil servants at the national Water Policy Department, steers and coordinates all national WFD implementation activities and prepares guidelines, instructions and data formats for actors in the regional pillars. The national Water Management Consultatation Platform (OWN = Overlegorgaan Water en Noordzeeaangelegenheden), i.e. a multi-stakeholder platform with representatives of environmental NGOs and socio-economic interests groups who advise the State Secretary for Water Management, takes on board the WFD implementation issues. National river basin coordinators (i.e. civil servants at and hired consultants by the national Water Policy Department) acts as liaisons between the regional WFD partners and the actors from the national pillar (Interviews 18, 20, 52 and 53, Appendix I).

![Figure 6.3: The WFD double pillar structure (adapted figure from Van der Heijden, Broekhans and Ten Heuvelhof, 2010: 83; translation from Dutch added)](image-url)
Periodically, the State Secretary for Water Management organises meetings with the chairs from the regional political river basin platforms (RBO’s = Regionaal Bestuurlijke Overleggen) in order to discuss progress of and bottlenecks in the WFD implementation activities (the so-called LBOR meetings). These national-regional coordination meetings support the regional and local WFD implementation planning processes more directly and practically than the National Political Water Platform meetings do. Consequently, the UvW fears a loss of influence since it only participates in the national platform. Therefore this association repeatedly stresses decision-making primacy of the national platform. The meetings of the RBO’s are prepared by civil servants at regional and local authorities and water management authorities who coordinate their activities at the meetings of the regional administrative river basin platforms (RAO’s = Regionaal Ambtelijke Overleggen). Some RBO’s and RAO’s are supported by a special project bureau, such as the case in the Meuse River Basin. Regional WFD Consultation Platforms have been initiated for informal information and consultation of environmental NGOs and socio-economic interest groups with working-rules similar to the national equivalent.

The introduction of informal regional river basin coordination platforms is meant to support the national, regional and local water authorities in their joint WFD implementation activities. Van der Heijden, Broekhans and Ten Heuvelhof (2010: 83) mention the double pillar structure as an important success factor in the Dutch national WFD implementation tactics. First of all, the structure offered an answer to the mismatch between hydrological river basins and political territories. Secondly, the structure offered the national Water Policy Department ample opportunities to keep in close contact with both national and regional actors and finally, the structure offered valuable iteration and reconsideration moments for all involved actors. Despite severe critics from many interviewed actors, on a ‘too complicated, hence not transparent process with too many decision-makers’ and on ‘gradual watering down of ambitions’, Van der Heijden, Broekhans and Ten Heuvelhof (2010: 84) conclude that functional redundancy has taken place. They relate the perception of watered down ambitions to political under-attention of water quality issues and uncertainties about division of implementation responsibilities in the early years after adoption of the WFD, high expectations of ecologists and growing Euro-scepticism (ibid.: 84-86).

Although some other ministries warned for the risks of allowing too much room for local and regional initiatives and structures (hence a risk of loosing national steering control), the TPW Ministry stuck to the mixed top-down and bottom-up approach in order to gain support for required measures to be implemented by regional and local (water management) authorities (Interview 18, Appendix I). In the final stages, for reasons of comparability and compliance checking, the TPW Ministry enforced the top-down steering. The ministry also took the lead for a mixed national-regional project group to coordinate the synchronous planning of all new water plans and the related formal consultation procedures (Interviews 52 and 53, Appendix I).

The WFD Implementation Act (Anonymous, 2005) appoints the TPW, HSE and ANF Ministers as competent national WFD authorities. The TPW Ministry takes the lead in the implementation planning process. The inner circle of (co-deciding) members from the National Political Water Platform plays a central role in the national
WFD implementation planning and decision-making process; the other ministries enter this inner circle. The national platform provides for informal guidelines and technical instructions to regional and local authorities. Harmonisation exercises are supposed to correct for inappropriate regional differences, regarding European reporting obligations. Reversely, regional and local authorities may request national guidance documents and guidelines. Uncertainties about interpretations and related (potential) consequences have triggered laborious debates. For example, the TPW Ministry initially resists the regional/local calls for legally approved generic national interpretation lines on multi-interpretable terms, like irreversible alterations, significant damage and disproportionate costs. In the end, this ministry provides generic, non-legally binding argumentation lines on the use of the WFD’s exemption options which may be adapted for specific regional and local conditions. A middle (co-thinking) circle of environmental NGOs and socio-economic interests groups provides informal, no legally binding advice to the inner circle members. Some middle circle members join working group sessions to provide for expertise and co-productions. The outer circle of the general public is not explicitly involved in the national WFD implementation process (see also Subsection 6.3.3 on boundary rules).

The 2009 WFD process evaluation sessions (as organised by the national Water Policy Department) make clear that, although regional and local politicians considered the WFD session and activities too technical and labour intensive, in general they appreciated both the offered room for regional and local initiatives and steering efforts from the national Water Policy Department. They support a more lean, mean and flexible continuation of the regional river basin platforms as of 2010 and mention the regional and local bottom-up processes as good examples for other policy issues, based on a structure follows strategy philosophy. Finally, regional and local authorities ask for more inter-ministerial coordination. Members of the national WFD Consultation Platform (OWN) on the one hand appreciate the thematic sessions and informal consultation opportunities, on the other hand they doubt whether the time and resources demanding network of national, regional and local consultation platforms is the most cost-effective way of organising active participation.

Synchronisation of river basin management and domestic plan figures

Before adoption of the WFD, there has been a clear hierarchy of water management plans. The national water plan provided for the generic rules and principles which had to be implemented at the regional and local levels by provinces and water management authorities (in cooperation with municipalities). The national, provincial and local water management plans were drafted and adopted after one another (“descending the ladder”). Due to the river basin management approach of the WFD, the coherence among the plans at different domestic levels and within the multilateral context asks for special attention. Therefore, the national authorities have opted for a mixed top-down and bottom-up approach in which the plans have been drafted in a symmetric process by “ascending and descending” the ladder. In the end, all the draft plans were subject to a parallel consultation procedure before final adoption.

The synchronicity of the plans (as a new element in the Dutch water policy planning traditions), the multiplicity of detailed technical issues, the obligatory nature of
the WFD requirements and time demanding (and sometimes laborious) cross-level coordination procedures together made the provisioned symmetric process somehow troublesome (Interviews 41, 45, 46, 50, 52 and 53). Time frames proved to be too short for a subsequent ascending and descending of the planning stairs (ibid.). In practice the simultaneous drafting, consultation and decision making processes at the different levels confused many of the involved public actors who faced difficulties in timely delivery and maintaining overview of all relevant interactions at and across administrative levels. Actually, civil servants feared to introduce alterations or new elements due to necessary changes it would provoke in draft plans at other administrative levels. In this pressure cooking context the Dutch public actors mainly focused on the domestic requirements. While the national Water Policy Department took care of the multilateral coordination talks, many regional and local actors were not aware of the progress within the international river basin committees and potential linkages with the multilateral river basin management plans and struggled with their own bilateral coordination attempts with neighbouring states).

In a relatively late stage (soon before the start of the formal consultation round), the national Water Policy Department decides to carry out an independent check on the juridical consistency of a selection of the water plans at all administrative levels. From this check it becomes clear that both the draft river basin management plans and the water management plans from the provinces and water management authorities are not fully in line with the WFD obligations (as expressed by the then draft Water Quality Standards and Monitoring Decision; Sterk Consulting, 2009). The use of the exemption option on a staged implementation has only been motivated in generic, qualitative way, while the WFD requires a more detailed, quantified motivation (ibid.). Given arduous juridical questions, the final Water Quality Standards and Monitoring Decision has only been adopted in November 2009 after the formal consultation round for the draft water and river basin management plans (due to the postponed advice from the State Council). This late adoption prevented the provincial and water management authorities to dramatically alter their draft plans, since significant alterations would have required an additional formal consultation round. A complicating factor in the whole planning synchronisation process has been the national choice not to consider legally binding water plans at the municipal level, although part of the WFD obligations should be filled in by the local authorities. December 2009 at the end of the first drafting round, the national authorities face the conclusion that not all the river basin regions managed to include municipal WFD measures (see also Chapter 7 for a more detailed analysis of involvement of municipal actors in the Meuse River Basin and Chapter 8 for their involvement in the local process in the Brabant-West Region).

After an ex post check of all final water and river basin management plans, the National Water Inspection Service concludes that the actual state and the objectives for the WFD water bodies in general have been worked out conform the legal requirements (Clement, Salihovic and Van Breemen, 2010). Although the measures for the water bodies are described in a transparent way, their effectiveness and contributions towards compliance with the WFD objectives not always become clear and/or are incomplete. Objectives for other (smaller) water systems are often
incomplete or are totally absent. The elaboration of the *no-shift* principle is suboptimal and often incomplete, hence the coherence among the programmes of measures and related risks for non-compliance are not entirely transparent. Finally, the owners of unsolved, remaining implementation issues have not been addressed (ibid.). Despite the critics, both national and regional authorities in general are satisfied with the first results of the pragmatic implementation planning approach. Overall, local authorities have difficulties with the aggregation level of the river basin management plans which does not allow for transparency about measures of individual municipalities (Interviews 19, 22, 23, 24, 25, 26 and 36, Appendix I). Actually, the critics are translated as open endings to be solved in the second implementation planning cycle (planned for the 2012 to 2015 period).

At first glance both the introduction of informal regional river basin management planning and national-regional coordination structures and the synchronisation of all domestic water management plans (except for the municipal level) might seem indicators for radical change of aggregation rules. However, despite the additional coordination options and opportunities for better cross-level linkages, prior formal relations and planning and decision-making rules persist. One should also not overestimate the rule-altering potential of the informal river basin management platforms. In the first river basin management planning cycle the regional and local politicians (and their advisers) predominantly have struggled with the highly technical nature of discussed issues. At best they could provide informal advices to their home boards of governors and parliaments. Furthermore, informal, symmetric, consensus based planning processes in addition to formal procedures are a natural phenomenon in the Netherlands. Notwithstanding enforced informal coordination and formal synchronisation of water management plans, no significant changes have occurred in the formal, top-down interrelations among the involved public administrations/water management authorities. The process national evaluation sessions as organised by the TPW Ministry and the Delft University of Technology have revealed the wish of many public actors to restore the subsequent drafting of national, regional and local water management plans within the new temporal boundaries as set by the WFD.

Finally, emphasis so far has been predominantly on the domestic coordination process. Multilateral coordination efforts have been relatively invisible for the majority of regional and local public actors. This may seem remarkable given the WFD’s special attention to coordination mechanisms for transboundary river basins (see Article 3, Article 11(1) and Article 13(2); European Communities, 2000: 8, 13-14 and 16). Van Rijswick and Havekes (2012: 128) point at the legal novelty of the river basin approach in the European and Dutch context:

The river basin approach is new in European and national water law and a number of questions concerning its legal significance remain unanswered. Though its it is clear that account must be taken within the entire river basin of the interests of other states, local and regional authorities and private users of the water system, it is not clear how to best organise this from a legal point of view. A legal mechanism need to be developed to ensure that fresh water, possibilities of introducing pollutants and flood risks are all allocated fairly. At present there is no such system.
These observations point at a juxtaposition of ideal-type B and C aggregation rules both before and after adoption of the WFD (see Table 6.6).

Table 6.6: Ideal-type collective-choice IRBM aggregation rules (national level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Independent decision-making on water policy and management plans at different administrative levels within a river basin.</td>
</tr>
<tr>
<td>B: Asymmetric, top-down decision-making on water policy and management plans at different administrative levels within a river basin: lower levels have to comply with the rules from the higher levels.</td>
</tr>
<tr>
<td>C: Symmetric, consensus based decision making on water policy and management plans at different administrative levels: mixed top-down and bottom-up rules.</td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B and C rules as expressed by the ‘X’.  

6.3.6 Information rules 
As defined in Section 2.2.8, one major collective-choice challenge of IRBM is to collect, aggregate and present information in such a way that river basin management plans are acknowledged and supported by a majority of interested public, private and civil stakeholders. A critical dimension of this challenge is the types of information that are considered legitimate in combination with the nature of the collection and aggregation process. The focus of this research is on this critical dimension. Three ideal-type information rules have been identified (see Table 6.7).

*Early interactive process calls, technocratic river basins characterisations*
As concluded in Subsection 6.3.3 (boundary rules), the Dutch water policy planning process (before and after adoption of the WFD) is dominated by public actors who set the access conditions for (experts of) non-governmental stakeholders. These boundary rules are echoed by the information rules. In the initial stage of the national WFD implementation planning process from 1998 to 2003 public actors dominate the process. The then national WFD Communication Working Group notifies that (Projectteam Implementatie Kaderrichtlijn Water, 2001a: 13-14; translation from Dutch added):

Due to broad formulations in the WFD’s articles and the appendices that offer room for multiple interpretations, diverse directions of thoughts will develop on the potential consequences of the WFD on the water, environment, nature and spatial planning policy domains.

In its reaction to a draft version of the WFD Communication Plan, the then national Water Communication Team (for all water issues, not only WFD) plies for timely, adequate and unambiguous communication and for early and active involvement of
environmental NGOs and socio-economic interests groups in order to develop shared ownership of the WFD assignment (Hendriksen, 2001: 1, translation from Dutch added):

The approach should reach beyond information to co-thinking options and the mobilisation of creative capital. Hence, it is about interactive process planning. Make clear what the obligations from “Brussels” are and where there is room for domestic implementations and solutions.

The WFD Communication Plan mentions that the tone of voice should be positive and stimulating (‘The WFD offers opportunities’) and there should be ample options for interaction and dialogue (Projectteam Implementatie Kaderrichtlijn Water, 2001a: 9). In 2001 and 2002, the national WFD Implementation Project Team initiates a diversity of interactive communication events at the national and regional level. Important target groups are water managers, provinces, municipalities, diverse socio-economic sectors like inland navigation, professional and recreational fisheries, industry, recreation, agriculture, drinking water production, minerals extraction, nature and environmental protection (Projectteam Implementatie Kaderrichtlijn Water, 2001a). Since Dutch water experts lead the European drafting group for the guidance document on public participation, they also organise a workshop on this issue (prior to a written consultation round). In 2003 a general brochure is released on the WFD implementation in the Netherlands (French, English and German editions; Ministry of Transport, Public Works and Water Management, 2003b).

Remarkably, despite the ambitious participation rhetoric and information and consultation events at the early start, the national and regional authorities do not opt for an interactive process design in conducting the analyses and drafting the first river basin characterisation reports (conform WFD’s Article 5). Joint fact finding remains restricted to involved public actors and is predominantly driven by a technical-scientific rationale. From three pilot projects on the availability of required data and figures for these Article 5 analyses and reports, the national authorities conclude that not all information is available and that available data at different administrations and regions are not easy to compare (Hassoldt and Busch, 2002). Joint aggregation efforts by involved water managers are needed in order to be able to present conclusions at the water body level (as compliance checking unit for the European Commission; ibid.). Interviewees 39 and 40 (Appendix I) point at a laborious process in the initial stage and wake-up insights from the pilot projects (‘much more work to do than estimated earlier’). Notwithstanding a considerable lack of information, the national authorities, due to time restrictions, decide not to initiate additional monitoring and research programmes for the Article 5 requirements. The Article 5 reports are based on available figures only.

National product teams (including regional officials and experts) provide guidance documents and technical instructions. The members of the regional river basin platforms are responsible for timely drafting the Article 5 reports. The national river basin coordinators act as a linking pin between national instructions and recommendations and regional implementation efforts. Summaries of the regionally produced Article 5 reports will be sent to the EC by the TPW Ministry. Members of the
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national WFD Consultation Platform (OWN) are informed and consulted by means of thematic sessions. Finally, the national authorities decide to aggregate the (Article 5) reporting information for clusters of water bodies. A limited list of 10 water quality parameters is included, although some interest groups ask for more parameters. At the stage of the Article 5 reports regional WFD Consultation Platforms with environmental NGOs and socio-economic interest groups had not been established in all river basins. In the Scheldt River Basin controversies between public and private actors arose about facts and figures on the added economic value of agriculture and recreation (Santbergen, 2005; Interviews 3 till 5, Appendix I).

Stable juxtaposition of technical-scientific and socio-economic rationales

After the up-scaling process of the Article 5 reports a process of downscaling to the level of individual water bodies takes place in the 2005 till 2008 period. In the regional and local processes water experts start to define the ecological objectives for all individual water body types, followed by identification and selection of cost-effective measures. Besides monitoring programmes are designed and first results are aggregated and presented to provide for an actual state of the water bodies. See the Chapters 7 and 8 for a more detailed account on the regional and local processes in the Dutch part of the International Meuse River Basin District. The degree of interaction with non-governmental actors differs among the seven Dutch river basin regions, although in all processes public actors inform and consult private and civil stakeholders by means of WFD Consultation Platforms (Ovaa, 2007; Raadgever et al., 2009; Ten Heuvelhof et al., 2010). The national comparison of regional processes in 2007 shows remarkable differences among the programmes of measures in different regions (Haarman and Jansen, 2008). These draft programmes show a generic lack of transparent motivation for the selection of measures and the use of exemption options (ibid.). Based on these conclusions the national Water Policy Department decides to coordinate the regional and local processes more tightly by means of top-down instructions (Interviews 18, 52 and 53, Appendix I). Subsequently, the (WFD) Ex Ante Evaluation report shows that not all differences have disappeared (Ligtvoet et al., 2008).

Mid 2008, the TPW Ministry decides to install a national editing team (with a few regional representatives) for drafting all the river basin management plans in a coordinated and homogeneous way (Interview 52, Appendix I). The strong top-down editing approach contrasts with the more bottom-up Article 5 editing process, although this latter process has also been strongly influenced by national river basin coordinators, national guidelines and an independent audit (for harmonisation reasons). Due to the enforced national coordination in the final drafting stage, the technical and socio-economic motivations have been presented in a more harmonised way. Overall, the influence of non-governmental actors on definition of terms and concepts and the formulation of objectives and measures has been rather limited (Interviews 13 till 17, Appendix I; Raadgever et al., 2009). In the river basin management plans a technical-scientific rationale intermingles with an explicit socio-economic rationale (as triggered by the national WFD mantra of feasible and affordable measures; ibid.). The diversity of regional and local processes has not solved all the knowledge gaps and did
not prevent the persistence of confronting opinions among different interest groups (Raadgever et al., 2009), as expressed by the received opinions and the answers from the national authorities in the formal consultation round (Ministerie van Verkeer en Waterstaat, 2009b), several position papers of interest groups (Hermans, 2005; Waterforum, 2005; LTO, 2006, 2007; VNO-NCW, 2005, 2007; Tobben, 2008) and as confirmed by the interviews and the written argumentation survey of this research.

Initially, the national WFD Internet site contains documents that have been approved by the national WFD Implementation Project Team only. After 2003 the website is extended with specific pages on the implementation processes in the four major Dutch river basins. Reports and other documents that have been approved by the national or regional and local authorities in principle are accessible for the general public. Directly involved actors including consultation platform members may have access to an Intranet part. Not all regions store their archives at the national website. Also regarding the national structures several meeting documents are not centrally stored, hence cannot easily be found afterwards other than in personal archives. Besides, during an interim transmission of documents from the old national WFD Internet site to a new one some documents have been lost. In 2008 and 2009, partly induced by information requests in the context of this dissertation, the national Water Policy Department invests in filling the gaps at the WFD website.

At the end of 2009 the WFD website is integrated within the broader national Helpdesk Water website (www.helpdeskwater.nl). A number of website based databases contain technical data of individual water bodies (ecological objectives, monitoring results, programmes of measures, argumentation lines on application of Article 4’s exemptions and expert estimations of the 2015 state). Up to the end of 2009 only public actors at the water administrations have access codes for these databases. For example, civil servants at municipalities have to ask overviews from their own proposed measures via the WFD coordinators of the regional water management authorities. The national authorities translate and aggregate the information from those databases into the data formats of the Water Information System of Europe (WISE). In 2010 all WFD databases have been integrated into the so-called national WFD Portal.

To conclude this subsection: the analysis shows that the active participation rhetoric from the first national WFD implementation stage and as advocated by Dutch water experts at the European level (read the guidance documents on public participation and the planning process; European Communities, 2003h and k), has not been translated into a corresponding process architecture for drafting the Article 5 and the river basin management plans. Collection and aggregation of data and figures predominantly have been subject to a rather mixed technical-scientific and socio-economic rationale. The large number of WFD Consultation Platforms has been mainly used for information and consultation of private and civil stakeholders and less for making use of their knowledge, expertise and creative capital. Since the offered room for regional and local manoeuvre initially results in diverging Article 5 reports and river basin management plans, the national authorities turn their heads to external audits, harmonisation exercises and they shift to a more top-down control in the final stage of the first WFD implementation planning cycle.
Given the non-obligatory nature of involvement of municipalities and despite a special participation stimulation arrangement, most river basin management plans lack visible contributions by these local authorities. At the end of the day, although the aggregated facts and figures from the river basin management plans are acknowledged by a majority of public actors and non-governmental stakeholder groups, plan ownership is restricted to the direct involved competent water authorities, provinces and national ministries. Different positions about the conclusions in the river basin management plans such as on ambition levels and effectiveness of selected measures, persist among socio-economic interest groups and environmental NGOs. In this respect, the WFD process resembles experiences of former planning processes in the water policy domain with a clear divide in responsibilities between the public authorities on the one side and the informed and consulted environmental NGOs and socio-economic interest groups at the other. These observations point at a juxtaposition of ideal-type B IRBM information rules in the entire studied period from 1990 to 2009 (Table 6.7).

Table 6.7 Ideal-type collective-choice IRBM information rules (national level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>The river basin management planning process (definition of means and ends) is predominantly driven by expert information and knowledge from the natural sciences. Validity and reliability are central criteria for legitimised information and knowledge.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>The river basin management planning process (definition of means and ends) is predominantly driven by expert information and knowledge from the economic sciences. Cost-benefit ratios and economic efficiency are central criteria for legitimised information and knowledge.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>The river basin management planning process (definition of means and ends) is driven by information and knowledge from multiple disciplines and both from experts and lays. Joint fact finding and social robustness are central criteria for legitimised information and knowledge.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’.

### 6.3.7 Pay-off Rules

As defined in Section 2.2.9, pay-off rules point at the incentives and deterrents for action (Ostrom, 2005). In interaction with other rule types pay-off rules affect the net benefits and costs that will be assigned to particular combinations of actions and outcomes (ibid.). In the context of this research three ideal-types of IRBM pay-off rules have been identified (see Table 6.8).

In the case of a Member State which does not fully comply with the formal requirements in time the EC may start a special procedure in which the competent authorities
get the opportunity to fill in omissions. As a last resort the EC may initiate an infringement procedure at the European Court of Justice. Such a procedure may lead to financial fines. In turn the competent national authorities may recover the damage from regional and local authorities when they are able to prove negligence (national WFD Implementation Act; Anonymous, 2005). The WFD’s Article 23 mentions that Member States shall determine penalties applicable to breaches of the national provisions adopted pursuant to the WFD. ‘These penalties provided for shall be effective, proportionate and dissuasive’ (European Communities, 2000: 20). Until 2009 the Dutch national authorities did not elaborate such a penalties system. National and provincial authorities may overrule some decisions by the water management authorities and municipal authorities, however within the Dutch institutional context this is not common practice.

Notwithstanding interpretation differences between the Dutch competent authorities and the EC, cost recovery for water services (based on the user and polluter pays principles) was the current practice already before adoption of the WFD. The Dutch consider themselves among the European forerunners with regard to cost recovery rates. Especially farmers and industrial interest groups often point at the importance of a European level playing field (VNO-NCW, 2005 and 2007; LTO, 2007; Raadgever et al., 2009). Their argument is that Dutch entrepreneurs pay more water related taxes than those in most other European Member States. The Dutch national authorities are reluctant to include flood defence costs in the definition of water services, since flood defence is considered of generic national importance and mainly covered by general taxes.

In the Dutch WFD implementation game emphasis is on continuation of prior land use and current water management policy first. With their pragmatic implementation approach the competent authorities do not aim for broad societal deliberations on trend reversals such as a transition to ecological economics. Cost-effectiveness analyses dominate the process. The historical process reconstruction shows a gradual decrease of estimated implementation costs, while the societal benefits, due to methodological deficiencies, remain quantitatively incomplete. All conducted economic analyses point out that, despite incomplete figures on benefits, the WFD implementation costs may outweigh the socio-economic benefits. Finally, Dutch authorities refer to disproportional costs when applying exemptions from Article 4. Remarkably the term “disproportionate” is not commonly defined and is implicitly interpreted as what is considered politically as feasible and affordable. One might seriously question whether the average 0.7% annual increase of regional water taxes, from which only one third is due to additional WFD measures, may qualify as disproportionate (Ligtvoet et al, 2008). Another critical remark concerns the relatively short time span of the analyses, since societal benefits may increase over time.

The Dutch national focus in the first WFD implementation planning cycle predominantly is on interpretation of the technical terms and requirements from the WFD and on reporting obligations. Edelenbos et al. (2008) compare knowledge production between experts and stakeholders for three Dutch water management cases including the WFD implementation process. From their analysis (which actually connects information rules to pay-off rules) they conclude a predominantly techno-
In the WFD there was hardly interaction between experts and stakeholders; a consultation platform was formed but this group had no intention to ‘fuel’ mutual joint knowledge production. Experts as well as stakeholders withdrew from active cooperation. [...] In the WFD case we see a primacy of the co-production of knowledge between executives and experts, at the expense of interaction and knowledge search and production in cooperation with NGOs and other stakeholders. Experts are constantly inquiring about what executives want, who directs the process and who is responsible for the WFD. The knowledge from stakeholders is perceived as difficult to mobilise and as too simplistic to take into account.

The analysis from this research arrives at a similar conclusion. Although the national and regional authorities stressed that broad support for the river basin management plans was aimed at, the process architecture was not based on a detailed ex ante analysis of which environmental NGOs and socio-economic interest groups to involve with which specific aims at which stages in the first implementation planning cycle. The national WFD Implementation Memorandum (Tweede Kamer der Staten-Generaal, 2004b) stressed that the Article 14 requirements on information and consultation would be feasible, since they perfectly fit into Dutch (consultation) traditions. General stakeholder analyses have been made at the national, regional and local levels in order to inform and consult non-governmental actors, e.g. by means of thematic sessions, workshops and WFD Consultation Platforms. However, experts and civil servants have dominated the process, emphasis has been on information exchange and contributions from other stakeholders are hardly included in the river basin management and related water management plans (Edelenbos et al., 2008; Raadgever et al., 2009; MB Advies, 2009). At the formal consultation round non-governmental stakeholders repeat initial arguments with a clear divide between environmental NGOs on the one side and farmers’ and industrial interest groups on the other side (Ministerie van Verkeer en Waterstaat, 2009b).

In conclusion of this subsection: the focus of the WFD process, as designed by the national, regional and local public actors has been predominantly on an expert-driven identification and selection of feasible and affordable measures, as a joint assignment of competent water policy and management authorities. The technocratic and one-sided nature of the process and the multiplicity of time demanding and parallel operating consultation platforms at the national, regional and local levels caused confusion about aggregated facts and figures. Consequently, trade-off opportunities for (sub-) basin communities have not been actively explored. The chosen process approach has not triggered significant investments by non-governmental actors in collaborative capital for compliance with collective-choice rules. Notwithstanding the tremendous efforts and considerable investments from the national Water Policy Department in a mixed bottom-up and top-down process, the dominance of public actors and the information and consultation arrangements resemble prior traditions in the water policy domain. Also the neo-liberal context in which economic incentives and market forces
accompany formal rewards and sanctions largely remained the same. These observations point at a stable juxtaposition of ideal-type A and B pay-off rules during the 1990 to 2009 period (see Table 6.8).

Table 6.8 Ideal-type collective-choice IRBM pay-off rules (national level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Rewards and sanctions from laws and regulations are major drivers for compliance with collective rules (e.g. as expressed by standards and licence conditions).</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Economic incentives and market forces are major drivers for compliance with collective rules.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: (Sub-) Basin communities voluntarily invest resources (human, financial, expertise) as collaborative capital for compliance with collective-choice rules.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules, expressed by ‘X’.

6.4 National rules in the context of policy discourses, actors and Resources and power

In the previous section observed IRBM collective-choice rules at the national level have been presented, both for the 1990 to 2000 period (before adoption of the WFD) and the 2001 to 2009 period (the first WFD implementation planning cycle). As concluded in Chapter 2, rules development should be best studied in relation to (continuity and changes in) the other three dimensions of a policy arrangement: policy discourses, actors (coalitions and oppositions) and the distribution of resources and power. Observations on these three dimensions may deliver potential explanations for observed changes in rule-types or the lack thereof. Since the WFD has elaborated the IRBM paradigm into a uniform set of rules and principles for all European water resources, one might expect rules changes to occur depending on the extent to which these new arrangements fit into the domestic rules, traditions and practices. By other words: how new are the IRBM discourse and its related rules and principles? To which extent do these trigger changes in actor constellations and the distribution of resources and power? Given the new European policy discourse as a starting-point for this research this section begins with the policy discourses dimension of the PAA (Arts, Van Tatenhove and Leroy, 2000; Leroy and Arts, 2006).

6.4.1 Policy Discourses

As introduced in Subsection 2.3.2, regarding policy discourses, Wiering and Arts (2006) distinguish three layers: (1) world views or paradigms (which are most difficult to influence), (2) policy and governance principles (which are the actors’ utopias) and (3) operational rules and practices (daily water management routines which are relatively easy to alter). As two deeply embedded paradigms, integrated water systems management and decentralised unity dominate the scene in the Dutch water policy domain.
In the 1990s also the *new public management* discourse enters and continues after adoption of the WFD. Decentralised unity is often expressed by the ‘de-central whenever possible, central whenever necessary’ mantra. Furthermore, as of April 2004 the pragmatic *feasibility and affordability* mantra guides the first Dutch WFD implementation planning cycle. Table 6.9 sums the observed governance and policy principles in the Dutch water policy domain (national level) in the 1990 to 2009 period. Although governance principles are interpreted here as mainly organisational in nature and policy principles as mainly substantive, certain redundancy may occur. Besides, some principles may relate to multiple rule-types.

During the studied period the integration discourse gradually gains more ground. In the early drafting years Dutch water experts have been among the strong advocates of designing a WFD in which their integrated water systems approach would be firmly echoed. The closely related IRBM concept challenges administrative boundaries (*organisational scope rules*). The Netherlands opt for maintenance of administrative territories (within the context of ongoing up-scaling of regional water management authorities) in combination with additional informal coordination structures at the river basin and (sub-)basin levels. The tension between European obligations and national intentions hinders the internal integration ambitions, in addition to stage differences between the WM21 process (implementation of measures) and the WFD process (formulation of objectives and selection of measures). Besides, first priority goes to safety against flood measures. Despite wishes from the water policy actors, external, cross-sector incorporation of water objectives proceeds less easily. Gradually, water issues become more noticeable in policy documents and instruments of the spatial planning domain, most notably by the acknowledgement of water as one among the main guiding principles in spatial planning and the water assessment procedure. A persistent principle concerns the protection of historical positions of land owners and users which makes a trend reversal towards more sustainable land use practices in the densely populated low lands of Europe troublesome.

With regard to *boundary, aggregation and information rules*, despite the active participation, joint fact finding and social learning recommendations in the European guidance documents, the Dutch water policy domain remains largely driven by expert knowledge and decisions mainly remain the privilege of public actors. Private and civil stakeholders have conditioned access to the river basin management planning process. The public actors struggle with *encouragement of active stakeholder involvement*, as related process requirements seem not to be settled within their genes. The chosen receipt by the TPW Ministry so far offers ample opportunities for (informal and formal) information and consultation. Furthermore, there is increased emphasis on a European *level playing field* which reduces additional Dutch national environmental ambitions and on synchronisation of water policy and management plans at all administrative levels. The Dutch national approach should pay off in more balanced investments across Member States, more generic rules over individual licences and strict implementation of European obligations by a *staged approach*. In addition to formal rewards and sanctions, the *polluter pays* and *user pays* principles are considered triggers in the search for more *synergy and innovation* (*pay-off rules*).
<table>
<thead>
<tr>
<th>Rule types</th>
<th>Policy discourses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope:</strong></td>
<td>Governance principles: Informal river basin management planning coordination; A mixed bottom-up and top-down implementation planning process; International river basin delineations are leading over domestic ones (for WFD reasons); Internal legislative integration (one water act, one water license system); Speciality of policy domains/ministries. Policy principles: Integrated management of water quality and water quantity issues; Taking into account relations between surface water and groundwater bodies; Water as a guiding principle in spatial planning; Safety first; Room for the rivers.</td>
</tr>
<tr>
<td><strong>Position:</strong></td>
<td>Governance principles: Preconditioned protection of historical land property and user rights; Land acquisition based on voluntary agreements; Maximal room for socio-economic development within the context of European obligations.</td>
</tr>
<tr>
<td><strong>Boundary (entry or exit):</strong></td>
<td>Governance principles: Conditioned access for non governmental actors (with emphasis on information and consultation); Informal consultation in addition to/ prior to formal consultation; It is up to regional authorities to decide whether drinking water companies have access to the river basin management platforms.</td>
</tr>
<tr>
<td><strong>Choice (authority):</strong></td>
<td>Governance principles: Integration towards one water license system; Generic rules over individual licenses; Maximum room for socio-economic development within the context of European obligations. Policy principles: Zoning of user functions and nature protection sites; A combined approach for floods, droughts and water quality; A combined emission-immission approach; Hierarchy of water uses in case of droughts; Prevention of irreversible hydro-morphological alterations/prevention of significant damage; No deterioration of water bodies.</td>
</tr>
<tr>
<td><strong>Aggregation:</strong></td>
<td>Governance principles: Multilateral cross-border coordination by national authorities and bilateral cross-border coordination by regional authorities; Competent public actors decide and private and civil actors are to be informed and consulted (to gain support for the river basin management plans); Synchronisation of river basin management and domestic water management plans (due to the WFD terms). Policy principles: A level playing field for socio-economic sectors in Europe; Strict divide between European obligations and national intentions.</td>
</tr>
<tr>
<td><strong>Information:</strong></td>
<td>Governance principles: Joint fact finding by public actors. Policy principles: Scientific knowledge reduces uncertainties; Costs should not outweigh the benefits.</td>
</tr>
<tr>
<td><strong>Pay-off:</strong></td>
<td>Governance principles: Generic rules over individual licences; Strict implementation of European obligations by a staged approach; The invisible hand of market forces, Policy principles: Polluters and users pay; Cost-effectiveness; Feasible and affordable objectives and measures; Synergy and innovation; A European level playing field.</td>
</tr>
</tbody>
</table>
The analysis of the policy discourse dimension shows an evolution from the Dutch perception of European forerunner in the water policy domain towards a pragmatic compliant of the European obligations. Bad political experiences with other directives (such as restrictions to building licences due to strict legally binding air quality standards) and (a perception of) more Euro-scepticism, have contributed to a less ambitious implementation attitude (do no more than strictly necessary) and more emphasis on a level playing field. Becoming more cautious with potential restrictions from European environmental legislation the Dutch have opted for a more literal incorporation of the WFD’s terms and definitions into the domestic transposition law (Anonymous, 2005). Laborious debates have been triggered on the nature of the WFD’s requirements. Are they intentions or strict obligations? A comparative analysis of the WFD’s implementation process concludes that no other studied Member State (among Germany, France, England and Wales, Denmark and the Flemish Region of Belgium) has been so much troubled by this question as the Netherlands (Van Kempen and Uitenboogaart, 2009). Remarkably, given Dutch public actors have advocated a more integrated framework directive which leaves convenient room for tailor-made domestic implementation practices, they clearly have struggled a lot with transposition of the WFD’s ambiguous ambitions and requirements (Mostert et al., 2010; Van Rijkswick, 2010).

6.4.2 Actors
At the national level the Dutch public actors have chosen a WFD implementation planning approach which fits well in the Dutch tradition of informal information and consultation sessions in addition and prior to formal consultations. This approach does not alter the organisational scope rules substantially, although informal water policy implementation structures are subject to subsequent integration and simplification rounds. From the start of the WFD’s implementation planning process, Thorbecke’s House remains intact as a firm precondition and public actors remain in control of planning and decision-making and condition the boundaries for involvement of private and civil stakeholders (boundary and aggregation rules). Although the public actors embrace the integrated river basin management scope of the WFD (which has been advocated actively by Dutch water experts and officials at the WFD’s drafting stage at the European level), they struggle with its technical prescriptions and the offered interpretation room in relation to expected socio-economic consequences (scope and information rules).

Due to their perception of critical implementation uncertainties, the HSE and ANF Ministries who have got access to the National Political Water Platform initially doubt whether the proposed process approach by the TPW Ministry, with extensive local bottom-up processes, is a wise choice (Interview 18, Appendix I; aggregation rules). They fear a loss of steering control in this complicated, multi-faceted process (ibid.). The TPW Ministry sticks to its conviction and initiates the informal double pillar co-ordination structures (see Figure 6.3 in Subsection 6.3.5). Regional and local public actors welcome this serious attempt from the national Water Policy Department to go for a mixed top-down and bottom-up WFD implementation planning approach (Interviews, 23 till 26, 28 till 30, 34, 36, 41, 44 and 45, Appendix I). Although the boundary
rules more explicitly allow other ministries to participate in the water policy domain, so far the WFD has not triggered new rules for external, cross-sector integration (see also Subsection 6.3.1 on substantive scope issues). Additionally, the WFD process clearly has triggered a more extensive cooperation between municipalities and inland water management authorities than before (see Chapter 8 of the WFD process in the Brabantse Delta area).

After the second WFD wake-up call in November 2003 some Members of Parliament and industrial and farmers’ interests’ representatives embrace the fear of strict European obligations and related fines for non-compliance (pay-off rules). They stress the considerable prior investments in environmental measures, point at the dependency on upstream Member States and do not accept transposition of European legislation that may prevent further human development plans. The arguments are brought up to protect land property and user rights and water resources user rights. On the contrary, environmental NGOs oppose these protectionist attitudes. They form a coalition with representatives of drinking water and recreational interests. This coalition advocates the added benefits from investments in clean water resources and healthy ecosystems for all water and land users. Notwithstanding the wish of the national actors to obtain broad support for the river basin management plans by means of an extensive network of consultation platforms at the national, regional and local level, the classic divides between interests groups remain unsolved and are even pronounced by means of sectoral position papers. This is not to discount the local cross-interests attempts by farmers, water management and municipal authorities who tested innovative and synergetic solutions in practice. Also the farmers’ interest organisation LTO Nederland and the Association of Regional Water Management Authorities joined forces for an inventory of opportunities for improving water quality by agriculture (LTO-UvW, 2008).

Regarding choice rules material integration of water user licences has taken place, supported by the WFD integration discourse. Due to opposition by the water management authorities, integration of water licences into the environmental licences system did not take place (Van Rijswick, 2001: 375-376). After adoption of the WFD the tendency of more generic national rules instead of individual licences continues. Controversies among different land and water resources users make elaboration of and clear choices by means of instruments for integrated supply and demand management laborious. Although conditions for resilient ecosystems are mentioned and included in some instruments (such as for the diminishment of desiccation of nature reserves) they are not explicitly defined and quantified (for example by means of minimum ecological flow requirements).

This research and other analyses of the Dutch WFD implementation planning process (Edelenbos et al., 2008; Raadgever et al., 2009; Ten Heuvelhof et al., 2010) make clear that experts and public actors have dominated information collection and aggregation and decision-making for both the river basin characterisation and the river basin management plans (boundary and information rules). The majority of representatives from socio-economic interest organisations and environmental NGOs have appreciated the ample information opportunities, but struggled with the complexity and time demanding nature of the chosen process approach (Ovaa, 2007). Furthermore,
they were disappointed with the limited co-thinking, co-production and co-decision opportunities, although some also did not want to be co-opted in the process by responsible public authorities (ibid.; Santbergen, 2005; Edelenbos et al, 2008; Interviews 1, 2, 4 till 10, and 13 till 17, Appendix I). In this respect, the WFD process is no breach with prior traditions within the Dutch water policy domain. In sum, the technocratic WFD implementation planning process has neither dissolved the classic divides between public actors and private and civil actors, nor between nature and agriculture. Despite incidental cooperative initiatives, the WFD process so far did not pay-off in significant investments in the design of collective arrangements by public, private and civil actors together (pay-off rules). Initial positions by socio-economic interests groups and environmental NGOs have remained unaltered and emphasised by means of position papers and formal consultation remarks.

6.4.3 Resources and Power

In the Dutch tradition of searching for compromises, early, voluntarily and informal consultation is often preferred over fundamental organisational change and legally binding arrangements (Kickert, 2004; Andeweg and Irvin, 2005). Wisserhof (2000: 195) points at the ‘consociated’ past, with each consociation (zuil) having its own ideology. The avoidance of politicising ideological differences is central in Dutch policy-making. Since there has always been a need for consensus regarding functional activities, not to the least because of the common threat of the sea, policy-making is pragmatic in nature (ibid.). Within this macro-context, many advice reports on the future organisation of Dutch water policy are cautious not to affect historical organisational paths dramatically (organisational scope rules). For example, one advisory report about the future organisation of regional water management starts from the precondition that reorganisation of political and administrative structures will not be required for the aim of a more integrated approach (Van der Vlies, De Putter and Hötte, 1996). Strategic integration should best take place at the provincial level and could be improved by means of a synchronous drafting and adoption of policy plans from related domains (such as water, environment and spatial planning; ibid.; external integration rules). Integrated environmental policy plans may be helpful but not necessary, as changes of instruments and/or organisational structures do not lead to improvement of the present state by definition. A culture of voluntary cooperation based on a common sense of shared responsibilities, a more integrated political decision-making approach, less time-demanding and less conditioned procedures for amendments in and inclusion of a so-called “wet subsection” (waterparagraaf) in local destination plans could contribute a lot to an integrated approach (ibid.).

The WFD’s implementation planning process echoes the Dutch decision-making traditions and triggers no major shifts in formal power configurations (aggregation rules). The national Water Policy Department seizes the WFD momentum to ask political attention for inclusion of water quality issues into related policy domains. Furthermore, it opts for a mixed top-down and bottom-up process with the aim to actively involve local and regional authorities (who are expected to have the required knowledge, experience and financial and human resources). Some civil servants at other ministries watch this approach with a frown and warn for a loose of steering control
in relation to the European obligations. The water management authorities consider the offered room in the WFD process as an important opportunity to prove their central role and position in the Dutch water management landscape. Despite efforts to involve other ministries more directly power configurations do not remarkably alter and cross-sector integration remains laborious, especially with the ANF Ministry (external integration rules). Similar observations come from Wiering and Crabbé (2006) who, in their comparative analysis of the institutional dynamics of water management in Flanders and the Netherlands, conclude stable resource- and actor constellation as well as power relations over time in the Dutch water policy domain. Based on a detailed analysis, Jordan and Schout (2006: 91-94 and 166-186) argue that although the Dutch have been very active in advocating Environmental Policy Integration at the European level, they have relatively weak domestic cross-sector coordination mechanisms. They point at a system of collegial policy making (in which no one has the authority to take a decision or to overrule others), event-driven coordination for the impact of European policies, informal and flexible relations, the reliance on passive information and an understaffed European affairs unit within the HSE Ministry (ibid.).

Since 2004 periodical meetings take place between the State Secretary for Water Management and the chairs of the regional political river basin platforms in order to monitor progress of the regional and local WFD implementation processes, to compare the consistency among the river basins and to discuss bottlenecks and controversial issues. Initially, the UvW and the IPO were not in favour of these additional meetings and emphasised that decision making primacy would rest with the members of the National Political Water Platform (boundary and aggregation rules). As an equivalent, the chairs of the regional administrative river basin platforms also meet with the national river basin management coordinators periodically (and more frequently). Despite initial opposition from the associations the additional national-regional meetings prove to be high value for coordinators of the regional and local WFD implementation processes. For example, through these meetings the regional chairs and the national coordinators communicate instructions and interpretations more directly to the regional and local WFD implementers than the representatives of the associations in the National Political Water Platform are able to manage. This may be due to the more practical nature of the discussions in the national-regional meetings and the fact that the associations face difficulties in both organising frequent contacts with all individual regional and local coordinators and establishing compromises among all these individual experiences and opinions. Ten Heuvelhof et al. (2010) mention a functional redundancy due to these parallel structures. The 2009 interim evaluation sessions as organised by the TPW Ministry and the 2010 national evaluation of the WFD process as organised by the Delft University of Technology and the TPW Ministry (Ten Heuvelhof et al., 2010) both show that for aggregation efficiency reasons, a majority of respectively participants and interviewees are in favour of continuation of the national-regional meeting structures.

With regard to boundary rules the national Water Policy Department offers ample opportunities for non-governmental stakeholders to get informed and to be consulted in informal and formal consultation rounds. The department provides more
co-decision room for regional and local public actors but maintains the clear divide between public actors and private and civil actors. Besides, in order to reduce uncertainties the department opts for a technical process approach, based on scientific and socio-economic expert knowledge (information rules; Edelenbos et al., 2008; Raadgever et al., 2009). Consequently, the collection and aggregation of information into river basin characterisation and river basin management plans is dominated by the public actors, water sector experts and independent research institutes (ibid.; Interviews 1, 2, 4 till 10 and 13 till 17, Appendix I). According to Edelenbos et al. (2008) socio-economic interest groups and environmental NGOs were seldom invited to participate in national preparation groups and working groups (except for the preparation group on the environment, Cluster Milieu). From the reasons these authors mention it becomes clear that the public authorities fear a loose of control (ibid.: 16):

Reasons for this were a lack of clarity in the assignments of the groups, a lack of idea of who to involve, a low expectation of the surplus value of involving stakeholders, the short time frame for actively involving stakeholders and the juridical status and political character of the subject which made it, in the eyes of the responsible officials, difficult to involve stakeholders.

Another argument often mentioned for not involving NGOs input was the too complex nature of the WFD to be open for societal input (ibid.). Although some environmental NGOs requested financial and human resources for empowerment and capacity building, the national authorities decided not to grant these with referral to own responsibilities of all involved stakeholder categories. This process approach has resulted in river basin characterisation and river basin management plans which have been drafted and supported predominantly by public actors at the national, regional and local levels, whereas socio-economic interests groups and environmental NGOs did not express shared ownership and maintained their initial opinion differences on the chosen ambitions (boundary and pay-off rules). Mainly due to political pressure from the Lower House of Parliament and lobbying by socio-economic interests groups, the “funnel model” (trechtermodel; see Figure 6.1 in Subsection 6.2.2) has lead to a gradual, politically favourable reduction of implementation costs estimations (see Table 6.10). The 2006 December Memorandum mentioned an average 2% annual increase of water management taxes (water management authorities and municipalities together) up to 2027 for the entire national water assignment (WM21 + WFD), both for households and industries (Ministerie van Verkeer en Waterstaat, 2006b). Annual costs for the industrial sector were estimated €40 millions a year, i.e. 0.05% of the national production value (ibid.) Additional measures for the agricultural sector have not been presented, since these were considered very expensive and with low effectiveness rates. To explore potential cost-effective measures pilot projects have been proposed (ibid.) The Ex Ante Evaluation report (Ligtvoet et al., 2008) showed an average 0.7% annual increase of water management authority taxes. One third is due to additional WFD measures. The main percentage of these taxes (75%) will be paid by households (who have not been directly involved in the WFD process so far); the rest by agriculture (1%), industry (7%) and other sectors (17%; ibid.). After publication of the Ex Ante Evaluation, regional
and local politicians have altered their proposed programmes of measures. Consequently, by exclusion of some expensive measures and inclusion of less expensive measures by local and regional authorities, the final costs estimations were a bit lower.

Table 6.10: Estimated WFD (and WM21) costs (investments + exploitation) & benefits

<table>
<thead>
<tr>
<th></th>
<th>2005 December Memorandum:</th>
<th>2006 December Memorandum:</th>
<th>2008 Ex Ante Evaluation:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WFD costs (€):</strong></td>
<td>3.3 to 8.2 billions (2009 to 2015)*</td>
<td>7.3 to 9.2 billions (2009 to 2027)**</td>
<td>2.9 billions (2007 to 2027)</td>
</tr>
<tr>
<td><strong>WM21 costs (€):</strong></td>
<td>9 billions for short term measures (2003 to 2015) and 16 billions for long term measures (2003 to 2050)</td>
<td>6.7 billions for short term measures (2009 to 2015)</td>
<td>4.3 billions (2007 to 2027)***</td>
</tr>
<tr>
<td><strong>WFD benefits (€):</strong></td>
<td>No estimations available</td>
<td>Maximal 6 billions (2009 to 2027)</td>
<td>Only qualitative statements</td>
</tr>
</tbody>
</table>

*) Including water system restoration projects, waste water treatment plants, measures taken by agriculture and industry and (polluted) water sediments. Excluding diffuse pollution sources (still to be estimated), anti-desiccation measures (included in current policies), sewerage systems (still to be estimated). Figures relate to a range from maximal to minimal synergy with WM21 measures. Investments in agriculture exclude decreased revenues due to production limitations. The maximum estimations concern measures that are considered feasible, hence excluding theoretical, not feasible measures.

**) Range depending on maximal to minimal synergy with WM21 measures. Costs account for 70-80% compliance with ecological WFD objectives ultimo 2027.

***) Including present and future policies (WM21 + Natura 2000 + water chain).

****) €1.7 billions for measures in state water bodies and €5.4 billions for measures in inland water bodies. Costs estimations account for 40-60% full compliance with ecological WFD objectives for the inland water bodies and 100% for the state water bodies. Based on practical experience and expert judgement, water management authorities are a bit more optimistic about compliance rates than results from the ex ante analysis show.

6.5 Synthesis: stable collective-choice rules, further internal integration

In this final section observed collective-choice rules at the Dutch national level are linked to observations on the other three policy arrangement dimensions: policy discourses, actors (coalitions and oppositions) and distribution of resources and power (see Table 6.11). Potential explanations for continuation of or changes in observed rules-types are derived from these latter observations and from literature.
Table 6.11: Observed collective-choice rules & potential explanations (national level)

<table>
<thead>
<tr>
<th>Rule-types in the 1990 to 2009 period</th>
<th>Potential explanations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope (organisational): Water policy is implemented by functional water management agencies and actors networks. These agencies are controlled by parliamentary institutions (ideal-type B).</td>
<td>Stable, public actor/expert-driven water policy domain; IRBM paradigm</td>
</tr>
<tr>
<td>Scope (internal integration): Enforcement of the evolution towards more integrated legislation, policy documents and management plans (from ideal-type A towards B).</td>
<td>IRBM paradigm; New Public Management paradigm; Stable, public actor/expert-driven water policy domain</td>
</tr>
<tr>
<td>Scope (external integration): Policy documents and management plans from other policy domains take into account water issues and reversely (ideal-type B).</td>
<td>Speciality Principle; Leapfrog Principle</td>
</tr>
<tr>
<td>Position: Conditional maintenance and acquirement of water and land resources use and property rights. Conditions include requirements to consider social, economic and/or environmental externalities (ideal-type B).</td>
<td>Protection of prior user and property rights; Tradition of voluntary agreements</td>
</tr>
<tr>
<td>Boundary: Non governmental actors may have access to the river basin management planning process under conditions set by the public actors. Emphasis on co-thinking and consultation (ideal-type B).</td>
<td>Stable public actor/expert-driven water policy domain</td>
</tr>
<tr>
<td>Choice (supply and demand management): In general a mixed supply and demand management approach. In case of prolonged droughts, the approach is more integrated in nature as expressed by a hierarchy in user functions (juxtaposition of ideal-types B and C).</td>
<td>IRBM paradigm; Advocacy by environmental NGOs; Speciality Principle</td>
</tr>
<tr>
<td>Choice (nature of the license system): An evolution towards licenses that integrate quantity &amp; quality objectives related to the use, development and management of water resources (from ideal-type A towards B).</td>
<td>IRBM paradigm; New Public Management paradigm; Stable public actor/expert-driven water policy domain</td>
</tr>
<tr>
<td>Aggregation: Both asymmetric, top-down decision-making and symmetric, consensus based decision-making examples on water policy and management plans at interrelated administrative levels (juxtaposition of ideal-types B and C).</td>
<td>Decentralised unitary state; Tradition of informal consensus building; IRBM paradigm</td>
</tr>
<tr>
<td>Information: The river basin management planning process is driven by a mixture of a scientific-technical and a social-economic rationale. Validity, reliability, costs-benefits ratios and economic efficiency are central criteria for legitimised information and knowledge (juxtaposition of ideal-types A and B).</td>
<td>Stable, public actor/expert-driven water policy domain; Dominant scientific-technical and socio-economic rationales</td>
</tr>
<tr>
<td>Pay-off: Both rewards and sanctions from laws and regulations and economic incentives and market forces are major drivers for compliance with collective-choice rules (juxtaposition of ideal-types A and B).</td>
<td>Stable, public actor/expert-driven water policy domain; Neo-liberalism; Polluter pays, affordability, cost-effectiveness</td>
</tr>
</tbody>
</table>

The grey-coloured cells indicate remarkable evolutions.
Overall, the introduction of the governance and policy principles and the WFD’s obligations mainly contributes to a consolidation of prior rules in the national water policy domain. The Directive supports prior integration tendencies. Except for *scope rules* (internal integration) and *choice rules* (nature of the license systems) no rule changes have been observed. The national Water Policy Department has seized the momentum of institutionalising the IRBM discourse at the European level to accelerate internal integration tendencies within the context of a continued new public management discourse (e.g. calls for more transparency, less and more integrated, efficient rules, more accountable and responsive government and active involvement of stakeholders). Institutionalisation of instruments for integrated water systems management and the European river basin management approach are two out of three political arguments for the new integrated Water Act (Anonymous, 2009a).

With this statute, an important material legislative integration step has been made, even though objectives and measures for quantity and quality aspects of water systems have not been integrated entirely (*scope and choice rules*). On the one hand, surface water quality standards include chemical and biological parameters without explicit referral to quantitative standards (such as minimum flow requirements). Scientific uncertainties and conflicting user interests may account for the absence of such quantitative standards. On the other hand, in periods of prolonged droughts surface water abstractions may be temporarily limited or even prohibited such as for reasons of preventing irreversible damage to ecosystems. The more pronounced inclusion of groundwater issues is an important step and one of the most noticeable changes due to the WFD, since it enforces opportunities for translating interdependencies with the state and functioning of both aquatic and terrestrial ecosystems.

Potential explanatory (f)actors for consolidation of *scope* (organisational and external integration), *position*, *boundary*, *choice* (supply and demand management), *aggregation*, *information* and *pay-off rules* have their origin in the period before adoption of the WFD. Summarising, the observations in this research and literature point at: the salient tradition of a decentralised unitary state, new public management discourse, the integrated water systems management approach, limited cross-sector planning practices as rooted in the specificity principle, protection of historical property and user rights in combination with opposition from farmers’ interest groups and some Members of Parliament, persistent expert-driven planning traditions by public actors, a tradition of resistance to strict legally binding quality and quantity standards and the polluter pays and the user pays principles.

One might argue whether change of *aggregation rules* has occurred. The more top-down sequence of drafting and adopting water policy and management plans one after the other, from the national via the provincial to the local level, has been replaced by a mixed level approach in which the plans are drafted and adopted synchronously. Although one might conclude an evolution towards more symmetric, consensus based decision making, the formal hierarchical relations between the water policy and management plans persist. Furthermore, given the fear of legally binding environmental objectives from the WFD (which asks for coherence among all water plans) it remains up to the national authorities to finally decide on the aggregation instructions for the river basin characterisation reports and the river basin management plans.
Actually, the additional river basin management coordination structures may be perceived as natural phenomenon within the Dutch tradition of extensive informal information and consultation prior to formal consultation and decision-making. These observations lead to the conclusion of a stable juxtaposition of ideal-type B and C aggregation rules over the entire 1990 to 2009 period (see Table 6.6 in Subsection 6.3.5).

Given the overall picture of consolidation of prior collective-choice rules, at first glance one might argue that the national water policy actors have succeeded quite well in uploading Dutch traditions and practices to the European level. At the positive side of the WFD drafting and negotiation balance in Brussels the Dutch water experts gained the river basin management approach, inclusion of both quality and quantity issues and interactions between groundwater and surface water bodies, the combined approach of emission reductions and water quality objectives, inclusion of the option of designation of heavily modified and artificial water bodies and a permanent informal network of EU Water Directors (in order to influence further implementation guidance). However, at the negative side, despite the original transparency and integration calls, the text of the Directive might have well become too thick, too confusing and too full of ambiguous ambitions (Mostert et al., 2010). Also, the Dutch water experts have lost their substantive grip during the political negotiation process in Brussels. For example, the WFD’s requirements for water body classification and for ecological objective setting and monitoring have become rather complicated (European Communities, 2000: 23-30 and 33-63). Notwithstanding the major gain of a uniform European wide system of environmental objectives, which holds a promise for the overall quality of Europe’s waters, these instructions do not solve the critical uncertainties in the impact of restoration measures on the desired ecosystem processes, habitats and species (Van der Wal and Waajen, 2010).

The primary and secondary analyses show a stable inner circle of civil servants and experts within the Dutch water policy domain. The TPW Ministry maintains its dominant position over time. Other ministries enter the inner circle more explicitly, while non-governmental stakeholders mainly are informed and consulted. No significant changes in distribution of power and resources occur due to the WFD implementation process although regional and local partners get more opportunities to influence the national planning process, e.g. by means of the informal national-regional coordination structures. The umbrella organisations of provinces, regional water management authorities and municipalities continue struggling with equitable representation of their grass-roots members. Informal instructions and harmonisation attempts guide the national implementation planning process. As will be explained in Chapter 8, one major gain from the WFD process certainly is the active involvement of municipalities. Overall, the inner water policy circle remains locked up within the “water sector box”, floating around in a cosmos in which political and public attention mainly focuses on social issues (such as the multi-cultural society, integration and migration) and economic issues (such as marketisation, privatisation and a level playing field).

In general there is a relative low political attention to water quality and ecological issues. Dramatic changes in land property and user rights for nature restoration
and/or water management purposes are not generic practice in the Netherlands. Given a preferential context of intentional, domestic policy ambitions over strict legally binding European obligations, a still influential agricultural sector and more pronounced (perception of) Euro-scepticism, the launch of the feasibility and affordability mantra apparently is a logic consequence. These national political arguments and stable configurations of resources and power have prevented significant rule changes (with regard to implementation of the WFD) to occur except for further support for already initiated integration efforts within the water policy domain.

Finally, also the analysis of the Dutch national level shows that potential explanations for observed (lack of) rules change are not easily drawn from assessments of individual dimensions of a policy arrangement alone. Observations on policy discourses, actors and the division of resources and power all deliver parts of the entire explanation. This observation supports the argument from the developers of both the Policy Arrangement Approach and the Institutional Analysis and Development framework to respectively consider the four dimensions and rule types as configurations. In the next chapter it will become clear whether this conclusion also holds at the Dutch regional level.
Harry van Huet (Regional WFD Meuse Project Bureau) informs the politicians in the Dutch part of the International Meuse River Basin District about costs and benefits regarding WFD measures (Source: Leo Santbergen, November 20, 2008)

Impression of the outdoor multi-stakeholder WFD conference in the Dutch part of the International Scheldt River Basin District (Source: Leo Santbergen, September 27, 2006)
The regional Meuse Bridge between national desires and local ambitions

‘An arduous bottleneck is the limited number of people that think integrally. Whenever a project serves multiple goals one has to accept that not everything may be perfect in the end. That does not withhold sectoral thinkers to strive for own maximal result only.’ Gerard Daandels, chair of the Dynamic Rural Land Steering Group (Stuurgroep Dynamisch Platteland) in the North-Brabant Province (Provincie Noord-Brabant, 2008: 9; translation from Dutch added).

7.1 Introduction

As presented in the previous chapter, the Dutch national authorities have sincerely wrestled with the ambiguous ambitions from the Water Framework Directive (WFD). When Members of Parliament got entangled in delicate political debates on the nature of the Directive’s requirements (serious intentions or strict obligations?), the national Water Policy Department introduced the feasibility and affordability mantra as a pragmatic exit road to the European capital. Furthermore, as embedded in a strong tradition of a decentralised unitary state and informal consultation prior to decision-making, the national Water Policy Department introduced regional river basin platforms and national-regional coordination structures. Whereas other ministries warned for a loss of steering control, the department initiated a mixed top-down and bottom-up process in order to raise broad support for the river basin management plans.

This chapter turns the spotlights on the regional coordination process within the Dutch part of the International Meuse River Basin District. The regional politicians from this river basin have raised their voices several times during the first WFD implementation planning cycle, for example to emphasise the urgency for additional generic (inter-)national policies. Some interviewees satirically mentioned the relatively high turnover rate of national river basin coordinators for this particular river basin as an indication for the laborious debates. Others emphasised the added value of data formats which have been developed and tested within this region, uploaded to the national level and downloaded again to all the Dutch regional river basins. At the same time, differences of approach among the local processes within this river basin have been noticed. One might question whether the regional Meuse Bridge between national desires and local ambitions is to be considered as an ugly duckling that cries a lot and mainly triggers controversies, or a showpiece of subsidiarity that comes up with multi-stakeholder partnerships for sustainable, tailor-made solutions to persistent environmental issues.

Section 7.2 starts with a chronological overview of the water policy domain in the Dutch part of the International Meuse River Basin District before and after adoption of the WFD. Subsection 7.2.1 describes the headlines of the water policy domain at the provincial level in the 1990 to December 2000 period, as the historical context from which the regional WFD coordination process has been started. Since this
research aims to assess the impact of the WFD on collective-choice rules for IRBM at interrelated administrative levels within one international river basin district (and not to explore differences and similarities among Dutch provinces), a detailed analysis for one province will suffice. Although the decentralised unitary state tradition has invited process differences, all Dutch provinces are embedded in the same domestic context and they all will have to comply with the national policy objectives and implementation requirements. In subsection 7.2.1 the emphasis is on the North-Brabant Province. This province has been selected given the historical analysis of the local level is conducted for the Brabant-West Region, which is entirely situated within its territory (see Chapter 8). The author is part of the actor network for water policy implementation within this province, which provides ample opportunities for inside out observations.

Subsequently, in chronological order four WFD implementation stages at the Dutch regional level are distinguished and described in Subsection 7.2.2. Section 7.3 explores the extent of observed changes in the collective-choice rules for IRBM (as defined in Chapter 2) at the regional level in the 1990 to 2009 period. These rules are one of the four dimensions of the Policy Arrangement Approach (PAA; Arts, Van Tatenhove and Leroy, 2000; Leroy and Arts, 2006). The four dimensions are to be understood as a configuration hence rules should be best studied in interaction with developments in the other three dimensions. Therefore as a next step, Section 7.4 provides an assessment of policy discourses, actors’ coalitions and oppositions and the division of resources and power, in relation to the rules dimension. Finally, Section 7.5 closes this chapter with a synthesis which describes potential explanations for continuities and changes in observed collective-choice rules, as derived from the developments in and interaction with the other three dimensions (and related theoretical concepts) as introduced in Section 2.3.

7.2 The Water Framework Directive and regional coordination

7.2.1 Provincial life before the WFD (1990 to 2000)

An evolution towards integrated water and integrated areal management
In the Netherlands the 1990s show several experiments with interactive water policy making as stimulated by the TPW Ministry (Hendriks et al., 1999). Besides, the tendency towards integrated areal processes, as started with pilot projects early 1990s by the HSE Ministry, further develops (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu, 1998; Janssens and Van Tatenhove, 2000). In the same period the ANF Ministry introduces special Valuable Cultural Landscape areas (Waardevolle Cultuur Landschappen) to promote projects that would combine activities in farming, nature management, landscape protection, cultural heritage and tourism (ibid.). The prior Dutch water systems approach starts to melt with the European river basin management concept towards IRBM.

At the provincial level, the domains of water management, spatial planning, nature conservation and environmental policies gradually come closer in integrated areal processes. The North-Brabant Province and the Limburg Province both seize the
momentum of the rural area reconstruction assignment, which has been triggered by an extensive outbreak of swine fever in 1997, to stimulate integrated areal processes, including water policy objectives (Provincie Noord-Brabant, 2001a; Ploegmakers, 2007; Interviews, 30, 34 and 49, Appendix I). Padt (2007: 167) argues that the pluralistic-liberal approach has been the dominant approach in the Netherlands during the mid-1990s. ‘State-led (authorative) interventions were “out” and regional interactive integrated (pluralistic-liberal) approaches were “in”’ (ibid.). Van Tulder et al. (2004) mention a considerable increase in strategic stakeholders’ dialogues in the Netherlands since the mid-1990s, as triggered by the sustainable development discourse.

An evolution towards integrated river basin management becomes noticeable in the first (integrated) Provincial Water Policy Plan for the 1991 to 1995 period (Provincie Noord-Brabant, 1991a). Before 1991 parallel policy plans have been launched for groundwater and surface water issues (Provincie Noord-Brabant, 1992; Interviews 44, 40 and 47, Appendix I). The (integrated) water policy plan is the provincial translation of the first national Water Management Act (Wet op de Waterhuishouding; Anonymous, 1989) which prescribes integrated water policy plans both at the national and the provincial level. In order to balance different water uses in an equitable way the provinces have to apply the instrument of designation of important water systems functions, which shall be anchored in the provincial water policy plan (Provincie Noord-Brabant, 1992). Important interests that should be weighed include drinking water provision, agriculture, navigation, electricity provision, industry, recreation, fisheries and nature and landscape (Glasbergen and Van Essen, 1992).

Based on an inventory of actual water systems uses, the North-Brabant Province has designated the water system functions which include the Main Ecological Structure (Ecologische Hoofdstructuur; ibid.). The first Water Policy Plan aims at development, well functioning and protection of inland water systems (Provincie Noord-Brabant, 1991a). The Province emphasises that integrated policy formulation and implementation is required since it increasingly becomes clear that quantity and quality management of both surface water and groundwater are closely interrelated (Glasbergen and Van Essen, 1992; Interviews 44, 40 and 47, Appendix I). However, the quality standards for groundwater and surface water are not entirely coherent. For example, values for groundwater are not based on ecotoxicological knowledge and for some parameters values for groundwater are less severe (ibid.).

The North-Brabant Province has been divided into regions that are dominated by either agriculture or nature (conform the spatial planning policy; Glasbergen and Van Essen, 1992). For the division into regions, hydrological river basin boundaries are followed whenever possible. In general there are more ambitious ecological restoration options in regions that are dominated by nature. The objectives for water quantity requirements in relation to different water uses functions are not detailed further, whereas for water quality, numeric standards from national policies have been repeated (ibid.). Emphasis of the first Water Policy Plan is on anti-desiccation (stand-still as policy objective), water quality improvement and ecological connectivity zones (Interview 30, Appendix I). Water quality standards and emission reduction objectives are part of a combined approach (Glasbergen en Van Essen, 1992). Special
focus is on emission reduction of sewage overflows. Given critical uncertainties emission reduction perspectives for agriculture and for upstream, transboundary river basin parts are difficult to prognosticate. The North-Brabant Province will consider buffer zones around areas with high ecological values. In general the Province does not work with compliance terms for the provincial water policy objectives, given critical uncertainties about feasibility and impact of measures (Provincie Noord-Brabant, 1991a; Interview 30, Appendix I).

The former water quantity and water quality management authorities (kwantiteits- en kwaliteitswaterschappen) would have to translate national and provinvial water policy objectives into measures at the local level. These administrations showed limited interest in active participation in the drafting stage of the provincial plan and became more active in the consultation stage (Glasbergen and Van Essen, 1992.). Collective-choice rules for compliance with the provincial water policy objectives are written down in the Provincial Water Regulation (Verordening Waterhuishouding Noord-Brabant; Provincie Noord-Brabant, 1991b). The nature of the rules is different for groundwaters and surface waters (Provincie Noord-Brabant, 1992: 2; translation from Dutch added):

Since the province is the formal groundwater manager it may provide for detailed user rules and conditions. The situation for surface water is rather different. The water management authorities provide the detailed rules and conditions in their water management plans. The province can only provide the generic frames within which these authorities shall operate.

For anti-desiccation reasons, the provincial water policy includes a shift from groundwater abstractions towards surface water abstractions whenever feasible (ibid.). Periodically, new developments and rules changes are included in a revision of the regulation.

In the 1990’s a tendency becomes noticeable to draft policy plans of related sectors in parallel whenever feasible. The North-Brabant province opts for interactive policy revision processes. For example, in 1997 the Province initiates an interactive process with non-governmental stakeholders on revision of its environmental policy. The resulting fifth Provincial Environmental Policy Plan for the 2000 to 2004 period shows that growing welfare, emancipation, labour participation, free time and individualisation all lead to a volume growth of electricity use, consumption, production, mobility and spatial claims (Provincie Noord-Brabant, 2000a). This socio-economic growth surpasses the carrying capacity thresholds of natural resources and ecosystems (including water-related ones). The main challenge of the revised environmental policy is to arrive at sustainable development. More intensive coordination will be required among the province, regional water management authorities, municipalities and the state actors. There is a clear linkage with water policy by means of emission reduction objectives and measures (ibid.).

May 1998, the North-Brabant Province initiates an interactive deliberation process with multiple stakeholders about a common vision on the future spatial planning policy (Provincie Noord-Brabant, 2000b). Important triggers for this process are the national drafting process of the fifth Spatial Policy Memorandum, a revision of the regional spatial plan (streekplan) the dramatic reconstruction of the rural areas and a
revision of the provincial strategic agenda on environment, economy and space. The revision process for the regional spatial plan includes two tracks, i.e. space for space (ruimte voor ruimte) and integrated zoning of uses (zonering van gebruikersfuncties). The former is a special arrangement which allows municipalities to finance demolishing of livestock farms in reconstruction areas with the revenues from extra building plots at other locations. The concept expresses ‘that space being vacate in one place could be exploited elsewhere’ (Padt, 2007: 60). Integrated zoning means a distinction between development zones (with room for controlled expansion of intensive livestock farming), extensification zones (in which intensive livestock farms will be removed) and intermediate zones between these former two (Provincie Noord-Brabant, 2001a: 71-74; Padt, 2007: 147). The Province does not opt for one integrated environmental policy plan but aims to synchronise revision of sector policies (water, environment and traffic and transport) whenever possible, while taking into account the leapfrog principle (ibid). ‘Synchronisation of sector planning procedures has the advantage of coordination of parallel drafting and consultation activities, which might pay off in opportunities for timely integration’ (Provincie Noord-Brabant, 2001a: 3). One integrated policy plan would lead to a too general overview of headlines from different sector policies. Hence, the added value would be limited. Provincial focus is on enforced coordination (Interview 30, Appendix I).

September 1998, the General Assembly of North-Brabant (Provinciale Staten) adopts the (second) Provincial Water Policy Plan for the 1998 to 2002 period (Provincie Noord-Brabant, 1998). This plan includes five central themes which are part of an integrated areal approach: (1) sustainable water supply; (2) improvement of required water conditions for agriculture, nature and urban areas; (3) water quality amelioration; (4) ecological restoration of brooks; and (5) dealing with water in built-up areas (ibid.). A special provincial arrangement is established in December 1999 for financial support of measures by other stakeholders that contribute to the water policy objectives (Provincie Noord-Brabant, 2002a). The 2000 to 2010 policy vision on protection and restoration of natural values in the North-Brabant Province, points at the close relations between water and nature (Provincie Noord-Brabant, 2000c). The vision emphasises the added value of multiple land use, including new combinations of user functions such as nature protection and water management. The scope within agriculture should be enlarged especially in and around nature areas, by including tasks in landscape and nature management and water management and in offering recreation facilities. The vision marks an evolution from sectoral nature policy towards an integrated areal approach and refers to potential linkages with water policy instruments, most notably water as deciding principle for spatial planning, formulation of desired groundwater and surface water regimes, water storage and retention in brooks and rivers and the water systems and the river basin management approach (ibid.).

**Intermezzo: Revitalisation of rural areas and the WFD assignment**

Revitalisation of rural areas is a major assignment of the North-Brabant Province. It is an attempt to combine sector policies by means of an integrated areal process in interaction with several stakeholders (Provincie Noord-Brabant, 1999 and 2001a and b; Ploegmakers, 2007: Interviews 34, 46 and 49, Appendix I). Since the revitalisation
process has started before adoption of the WFD, mainly runs in parallel with the first
WFD implementation planning cycle and includes part of the water policy objectives,
it is considered relevant for the purpose of this research to explore the linkages be-
tween these two processes. For reason of readability the observations on the revitalisa-
tion process have not been scattered over the subsections on the WFD implementa-
tion planning stages, but are summarised in this chronological intermezzo.

The extensive outbreak of swine fever in 1997 has triggered public outrage and
opposition to factory farming. This veterinary crisis created a window of opportunity
for national government to announce a drastic reconstruction of the intensive live-
stock sector in the sandy vulnerable areas in the southern and eastern part of the
Netherlands, including large parts of the International Meuse River Basin District in
the North-Brabant and Limburg Provinces (Padt, 2007; Ploegmakers, 2007). Given
the delicate political negotiation process that followed at the national level, including
both complicated linkages with the manure and ammonia policies and requirements of
the European Nitrates Directive, it took until January 2002 before the Upper House
of Parliament finally accepted legislation to tackle the swine fever crisis (i.e. the
Ammonia Bill and the Reconstruction Bill; see for a sound historical assessment Padt,
2007: 139-170). The national compromise was much in favour of the North-Brabant
Province, since it included 250-meter pig-free zones between sensitive nature areas
and intensive livestock farms and the promise from the ANF Minister to provide for
financial resources for active relocation of intensive livestock farms from these 250
meter zones (Padt, 2007).

In order to prepare its own implementation strategy and given a sense of ur-
gency, the North-Brabant Province did not await the conclusion of the national deci-
sion-making process but established the Political Reconstruction Platform (Bestuurlijk
Platform Reconstructie; in 1999) and lobbied at the national level (Provincie Noord-
Brabant, 2001a; Padt, 2007). The platform with representatives of municipalities,
farming organisations, environmental NGOs, regional water management authorities
and advisers from the ANF and HSE Ministries has drafted the so-called Reconstruc-
tion Umbrella Plan (Koepelplan Reconstructie Concentratiegebieden), which has been adopted
by the General Assembly of North-Brabant in June 2001 (Provincie Noord-Brabant,
2001a). The sense of urgency must be viewed within the context of the politically
perceived negative impact of decreasing numbers of farmers on the liveability of rural
areas and the socio-economic structures within the province, the need for financial
support by the state and the required acceleration of nature restoration and environ-
mental quality policies’ implementation (Provincie Noord-Brabant, 1999).

The North-Brabant Province faces the significant challenge to reconstruct
intensive livestock farming in seven rural areas in the eastern and middle part of the
province (conform the national Reconstruction Bill). For example, about 2,000 live-
stock farms may have to disappear within four years, due to both the Nitrates Direc-
tive and the swine fever crisis (Provincie Noord-Brabant, 1999). In order to cover the
entire territory in a balanced way the Province has decided to perform a similar (but
not obligatory) process in the western part (i.e. the Brabantse Delta region) as well,
(Provincie Noord-Brabant, 2001a and b; Interview 34, Appendix I). The assignment is
covered by the Rural Areas Revitalisation Project, aiming at an integrated areal approach
which includes water-related objectives and steering committees for all areas. The Province prefers the phrase ‘revitalisation’ rather than ‘reconstruction’ to stress that it aims at a balanced and developmental approach (Provincie Noord-Brabant, 2001a and b; Padt, 2007).

In the 2000 to 2004 period seven reconstruction committees (reconstructiecommissies; eastern and middle parts of the province) and two areal committees (gebiedscommissies; western part of the province) draft and negotiate on plans for revitalisation of the rural areas. The processes do not run completely smoothly, since tensions occur between farmers and environmentalists and environmentalists and some small rural municipalities that have close linkages with farmers. At one side, the decision by the North-Brabant Province to prohibit the extension of stables near nature areas evokes strong protests among farmers (Padt, 2007). At the other side, environmentalists perceive a strong emphasis on agricultural development at the expense of nature restoration interests (Ploegmakers, 2007; Interview 49, Appendix I). Given the protests from the grass-roots supporters of the Southern Agriculture and Horticulture Organisation (Zuidelijke Land- en Tuinbouworganisatie; ZLTO) and the threat by the Brabant Environment Federation (Brabantse Milieufederatie; BMF) to withdraw from the process the North-Brabant Province initiates an informal negotiation meeting in Cork (Ireland), in an attempt to bridge the differences (Verboven, 2006; Ploegmakers, 2007; Interviews 28, 34, 46 and 49, Appendix I). At first glance, the compromise of the so-called Cork Agreement (Anonymous, 2003b) seems to have solved the controversies sufficiently. However, the agreement 'caused a schism within the BMF between realists (those who wanted to go on with the reconstruction process) and idealists (those who wanted to resign from the reconstruction process)' (Padt: 2007: 170). The agreement could not prevent the (temporary) withdrawal from the process by the BMF (Ploegmakers, 2007). Finally, in 2005 the General Assembly of North-Brabant formally approves the reconstruction and areal programmes and the implementation process starts.

In 2006 agreement is reached on a national fund for investments in the rural areas (Investeringen Landelijk Gebied (ILG); Provincie Noord-Brabant, 2008). Subsequently, the North-Brabant Province adopts the Multi-annual Rural Areas Programme 2007 to 2013, based on (financial) agreements with respectively the state, regional water management authorities, municipalities and interests groups and supported by European funds. In practice, implementation proves to be laborious. For example, Dick Sonneveld, chair of the meetings of the chairs of the reconstruction committees mentions that low hanging fruit has been picked so far (Provincie Noord-Brabant, 2008: 20; translation from Dutch added):

Now we will have to start with the real work, e.g. to elaborate the agricultural development zones and hydrological restoration of the wet nature peals. The turnaround from small quick win projects towards large integrated areal programmes requires significant efforts and a strong coordination by the provincial authorities.

In 2009 the Province starts an implementation acceleration impulse for so-called priority sites (Provincie Noord-Brabant, 2008).
In the Reconstruction Umbrella Plan (Provincie Noord-Brabant, 2001a) high ambitions become visible. The plan includes obligations, intentions and additional (facultative) options. With regard to water policy, the umbrella plan mentions five themes: (1) room for the rivers (flood prevention); (2) room for inland water systems (inundation prevention); (3) definition and realisation of desired groundwater tables for agriculture, nature and urban areas; (4) quality amelioration of sediment, ground- and surface water; and (5) ecological restoration of brooks with high natural values. The objectives for these five themes are mainly labelled as obligations (ibid.). Notwithstanding the arduous pollution problems and given the laborious implementation of measures so far, the obligations are very ambitious (Provincie Noord-Brabant, 2001a: 97; translation from Dutch added):

In the entire territory measures shall lead to full compliance with the groundwater quality objectives from the Nitrates Directive and with the Dutch and European (WFD) surface water standards respectively ultimately 5 years and 10 years after completion of the reconstruction measures. [...] Implement measures in wet nature pearls in order to comply with the ecological quality objectives from the WFD.

From an ex ante expert point of view these obligations might have been labelled as mission impossible. Also the umbrella plan itself mentions large ecological problems (bad water quality and acidification and desiccation of nature areas), due to large-scale intensification of agriculture (Provincie Noord-Brabant, 2001a: 8). The overview of measures (ibid.: 116-119) does not make clear how the province (and its partners) might comply with the ambitious objectives within the limited time frames. The descriptions remain rather generic and setting objectives, emission ceilings and quality certificates will not suffice without additional drastic measures with spatial consequences. Implicitly, the province is aware of its Achilles heel (Provincie Noord-Brabant, 2001a: 117-118; translation from Dutch added):

The main assignment is to tune the intensity of agricultural land use and the crop choices to the natural land and water conditions, e.g. to the sensitivity of the soil for leaching of substances. [...] In areas where the soil is sensitive to leaching of nitrates, phosphorus and chemical crop protection substances, source oriented measures will have the highest efficiency rates for water quality protection. [...] Spatial planning policy instruments have a limited impact on land uses patterns, while these strongly determine water and soil quality.

Given these expressed relations with European requirements it is remarkable that until December 2009 the WFD and revitalisation planning processes mainly run in parallel without explicit coupling moments. Potential explanations are threefold (Interviews, 28, 34, 46 and 49, Appendix I): (1) emphasis within the revitalisation process is on relocation of livestock farms; (2) stage differences with the first WFD implementation planning cycle; and (3) different process leaders. With regard to argument (2), the regional WFD process have been started up in 2003 and the objectives were formulated in the 2006 to 2008 period, whereas the reconstruction plans initially had been scheduled for adoption in 2002. The linkage between the revitalisation process
and the Water Management in the 21st Century process is easier given the more synchronous time schedule. Argument (3) points at the ambition of the province to coordinate the revitalisation process, whereas the water management authorities seize the WFD momentum to proof their reason of existence (ibid.).

7.2.2 Implementation of the WFD (2002 to 2009)

Four subsequent (and partly overlapping) regional WFD implementation planning process stages have been distinguished (see Table 7.1). For each stage remarkable water-related policies developments in the North-Brabant Province will be sketched briefly (the A sections), followed by a chronological overview of the WFD implementation planning process with the other partners in the Dutch part of the Meuse River Basin (the B sections).

Table 7.1: Stages in the Dutch WFD implementation process (regional level)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Period</th>
<th>Brief characterisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2001 to 2003</td>
<td>Starting up regional coordination structures.</td>
</tr>
<tr>
<td>III</td>
<td>2007, 2008</td>
<td>Harmonising regional and local implementation processes.</td>
</tr>
<tr>
<td>IV</td>
<td>2008, 2009</td>
<td>Drafting provincial and local water plans, formal consultation.</td>
</tr>
</tbody>
</table>

Stage I: Starting up regional WFD coordination structures (2001 to 2003)

A - Policy developments in the North-Brabant Province

In 2001 the North-Brabant Province evaluates the impact of its water policy and concludes that groundwater abstractions exceed the carrying capacity of water systems in several areas within the province (Provincie Noord-Brabant, 2002b). The anti-desiccation objectives for nature areas are not easily established. Generally, the quality of surface water and groundwater does not comply with the standards. Additionally, ecological restoration of brooks and the realisation of ecological connectivity zones run behind schedule. The conclusions of the evaluation are one reason for a partial revision of the second water policy plan. Other reasons are the WFD’s implementation requirements, the (national) Water Management in the 21st Century policy and the (provincial) revitalisation process for the rural areas. Furthermore, water policy should be tuned to the new spatial developments (ibid.). The Provincial Spatial Development Plan for the 2002 to 2006 period aims at a more careful, balanced use of available space (‘Brabant in Balans’; Provincie Noord-Brabant, 2002c). In order to cope with increasing human pressures five principles are considered leading for spatial planning: (1) more attention to the physical layers as fundament under human uses (including water conditions); (2) economical use of space (adaptation of built-up areas prior to new extensions); (3) concentration of compact urban zones; (4) zoning of nature areas and agriculture in rural areas; and (5) transboundary cross-sector planning and implementation practices, both internationally and interprovincial. With regard to zoning (the third principle), the plan distinguishes the Green Main Structure (Groene
Hoofdstructuur; areas with high ecological values of national or regional importance), the Agricultural Main Structure (Agrarische Hoofdstructuur) and the Urban Areas (Stedelijk Gebied). In addition the plan designates Regional Nature and Landscape Units (Regionale Natuur- en Landschapseenheden). These are defined as ‘areas of several thousands hectares, consisting predominantly of woods and nature, surrounded by farmland and functioning as autonomous units’. An integrated areal development approach in which the leading principles are applied is central (ibid.).

December 2002, the General Assembly of the North-Brabant Province adopts the partial revised Second Provincial Water Policy Plan which is valid until September 2006 (Verder met Water; Provincie Noord-Brabant, 2002d). Water conditions are considered one important key for realisation of agricultural and natural values in rural areas. Therefore the designated water-related functions are connected to the rural area units from the new spatial policy plan. A new function is introduced for protection and restoration of so-called wet nature pearls (natte natuurparels), i.e. nature areas which depend much on (restoration of) groundwater tables and water quality amelioration (ibid.). Regarding sustainable water supply the prior policy to diminish deep groundwater abstractions stagnates due to limited rentability of alternatives for drinking water companies. The Province wishes to enlarge the feasibility of alternatives by providing financial support. A stand still for groundwater abstractions by agricultural users has not been met so far. Consequently the Province will sharpen the license conditions.

For the long term the Province aims to arrive at a more sustainable redistribution of available fresh water resources among the different users. In order to improve water quality both diffuse and point sources of pollution will have to be tackled. For diffuse sources the number of problematic substances should be reduced in combination with reduced emissions to surface and groundwater. Waste water and (relatively cleaner) rainwater will be collected separately whenever feasible, especially in urban areas. For rural areas the Province aims to make municipalities responsible for emission reduction from households that are not connected to a sewerage system (ibid.). With regard to the WFD the partial revised plan mentions that national transposition and instructions for its implementation are not entirely available yet. Consequently, additional revision of the provincial water policy plan may be required in a later stage (Provincie Noord-Brabant, 2002d).

April 2003, the Provincial Executive of North-Brabant (Gedeputeerde Staten) adopts the two sub-basin visions (one for Brabant-West and one for Brabant-East), as regional elaboration of the national WM21 policy. The visions translate the integrated water management objectives into spatial requirements until 2050 and present a programme of measures for the short term (i.e. until 2015; Provincie Noord-Brabant, 2003a and b). The proposed programmes of measures are not restricted by financial preconditions but provide an overview of requirements in case of full compliance with the policy objectives. The visions are part of the negotiations with the state actors on final selection of a feasible and affordable package of measures. They have a non-legally binding status. The visions’ measures have already been anchored in both the new spatial policy and the water policy plan as adopted in 2002 and will be further implemented and weighed against other spatial interests in the rural areas revitalisation
processes (ibid.). Although water quality aspects have been considered, adaptations may follow from the parallel WFD implementation planning process (Provincie Noord-Brabant, 2003a). Due to national initiatives, the expectation is that the WM21 and WFD processes will be integrated (Provincie Noord-Brabant, 2003b). April 2003 the Province also launches a communication strategy to raise awareness about water-related issues (Adolfse, Schepers and Cornet, 2003). The Province aims for a partnership approach of public actors, environmental NGOs and socio-economic interest groups. As part of the strategy, the WFD (like other water assignments) will be translated into tangible water management issues for citizens (ibid.).

**B - The regional WFD coordination process in the Meuse River Basin**

Between 1998 and mid 2002 regional and local authorities and water managers are not very active in the WFD implementation planning process. By participation of regional representatives in national working groups and attendance of national information and consultation meetings, a sense of urgency starts to develop on the necessity of a coordinated regional approach. June 28, 2002 may be marked as the starting-point of the regional WFD coordination process, when the State Waters Management Agency (Rijkswaterstaat) and the Limburg and North-Brabant Provinces organise the first (WFD) Meuse River Basin meeting. Local and regional experts and officials ask many questions to the national authorities about which implementation assignment is to be expected. Generally they view the WFD as an opportunity to put water quality and ecological restoration issues high on the political agenda again. In the second half of 2002 the ‘Quartermasters Meeting’ (Kwartiermakersoverleg which is a coalition of regional officials) and the national Rhine-Meuse Coordination Bureau (Coördinatiebureau Rijn-Maas - CRM), design a regional organisation model. After almost one year of laborious negotiations on rules and procedures the Regional Meuse Administrative Platform (Regionaal Ambtelijk Overleg Maas - RAOM) holds its first meeting, on May 15, 2003, followed by its political equivalent (RBOM), on June 1, 2003.

At their first meeting the regional politicians emphasise unaltered continuation of Dutch constitutional structures (Thorbecke’s House). They are intending to link the WFD and WM21 processes without integrating structures. Societal signs will have to be translated to the new generation water plans. The first feat of arms by he regional politicians is a letter to the State Secretary for Water Management in which they ask for transparency about the WFD’s consequences on the regional water policy assignments and the political room for manoeuvre (RBOM, 2003). In the letter the regional politicians stress that they expect the TPW Ministry to organise timely inter-ministerial coordination. They consider a generic, national programme on diffuse pollution sources one important cornerstone for successful regional WFD implementation. The platform decides to initiate WFD pilot projects on exploration of opportunities for staged compliance with the environmental objectives (ibid.). Shortly after the start the regional actors loose overview over the planning and the coherence between regional and national WFD product teams. The process is laborious. The provinces express their worries on the lack of activities by the side of the water quality and quantity management authorities in the North-Brabant Province. Besides, they want to enlarge local involvement by inviting a limited number of aldermen for the platform meetings.
After publication of the *Aquarein* report in November 2003 (Van der Bolt et al., 2003) the positive perception of the WFD as an opportunity for water quality amelioration dampens into a regional fear of dramatic socio-economic consequences.

**Stage II: Setting regional WFD ambitions (2004 to 2006)**

**A - Policy developments in the North-Brabant Province**

Early 2004 the North-Brabant Province decides to start a partial revision process for its Spatial Planning Policy Plan (Provincie Noord-Brabant, 2004). Reasons are societal developments, new insights, the (2003 to 2007) political agreement of the new Provincial Executive, the need to implement the Cork Agreement (Anonymous, 2003b) and a number of technical deficiencies. The five main regulating principles and the integrated areal spatial planning approach are not open for discussion. The provincial authority wants to make a move from spatial planning towards spatial development and towards generic rules which offer more room for political manoeuvre by municipalities and other partners. The partial revision will not affect plans of other policy domains (ibid.).

January 2005, the new Provincial Water Regulation becomes into force (Provincie Noord-Brabant, 2005a). The regulation includes the obligation for the water management authorities to deliver quantifications of the desired groundwater and surface water regimes (*GGOR = Gewenste Grond- en Oppervlaktewater Regimes*) before the end of 2010 and including consultation of municipalities and other stakeholders. The new regulation provides for generic rules for smaller groundwater abstractions since the authorities have noticed that impermeable subsurface layers have been penetrated more frequently with (potential) negative impact on the quality of deeper groundwater layers (Provincie Noord-Brabant, 2005b). Remarkably, the new Provincial Water regulation does not refer to the WFD’s requirements.

Due to adoption of the WFD, a synchronisation of drafting terms for the Dutch water policy and management plans at all administrative levels takes place. Concerning the transition period towards the new generation of water plans and the first river basin management plans the Dutch WFD Implementation Act allows the prolongation of current plans (Anonymous, 2005). Since adoption of the partial revised Second Water Policy Plan in 2002, the national organisational rules of the game for the first WFD implementation planning cycle have been worked out (Provincie Noord-Brabant, 2006). The substantive WFD implementation rules are under construction, as subject to a joint process of national, regional and local actors. At the same time a number of important water themes (mainly as part of the WM21 assignment) have been detailed further in the rural areas revitalisation processes: regional water retention, ecological restoration of brooks and creeks and anti-desiccation of valuable nature areas. Given the progress there are no significant deficiencies which ask for a new, interim water policy plan (ibid.). Based on the advice of its Water Policy Department, the General Assembly of North-Brabant decides to prolong the term of the current water policy plan until December 2009 (Interview 30, Appendix I). A new water policy plan will be drafted later in order to comply with the new national Water Act (which then is in its drafting process), the requirements from the WFD and new
insights from the WM21 process (ibid.). One advantage of the prolongation is that coordination may take place with the drafting process of the Natura 2000 sites management plans, which should include requirements for the water conditions for these sites (as formal linkage with the WFD river basin management plans; Provincie Noord-Brabant, 2006; Interviews 30 and 44, Appendix I).

August 2006, the North-Brabant Province invites the water management authorities, municipalities, socio-economic interests group and environmental NGOs for a kick-off meeting on the drafting process of the new water policy plan (Interview 50, Appendix I). Based on the conclusions of this informal and explorative consultation meeting, the Province drafts the Headlines Memorandum for the new water policy plan in relation the WFD requirements (Provincie Noord-Brabant, 2006). The Province views itself as director of regional areal processes like the revitalisation and as substantive and process coordinator for synchronisation of the new generation of water policy and management plans, including the European requirements. The WFD planning process should be closely coordinated with five other major parallel processes, i.e. Natura 2000, the integrated environmental policy strategy, spatial planning, revitalisation of rural areas and other provincial water policies themes (ibid.).

The memorandum stresses the current provincial policies, objectives, measures and related spatial claims as point of departure for the WFD process (Provincie Noord-Brabant, 2006). However due to a consistency check with the obligatory nature of the WFD requirements, adaptations may not be precluded. The WFD may also lead to a more staged implementation of (parts) of the provincial intentions. Although compliance with the WFD for transboundary water bodies partly depends on investments of upstream neighbour states (such as the Flemish Region of Belgium), the Province has its own responsibility for investments in the Dutch parts of these (sub-)basins. In order to avoid non-compliance procedures by the EC, anti-dessication measures for nature areas that are not included in the Natura 2000 network will not be included in the (WFD) river basin management plans. In general objectives and measures of European legislation (especially with regard to protected areas) will have first priority, followed by water-related objectives and measures of the reconstruction and areal plans. In any case, synergetic measures that combine objectives for different themes will receive the highest provincial priority (ibid.; Interview 30, Appendix I).

In the memorandum the priority setting for WM21 measures has not been made explicit. On the one hand one may argue that, to a large extent, these are part of the reconstruction and areal plans. On the other hand according to the National Water Agreement (Anonymous, 2003a and 2008), flood defence measures will have to be finished before the end of 2015, hence actually have the highest priority. The memorandum emphasises water as part of the integrated areal processes (Provincie Noord-Brabant, 2006). At the same time it mentions that water quality issues (the major topic of the WFD) have been less elaborated in the reconstruction and areal plans as compared to anti-dessication of nature sites and ecological restoration of brooks and creeks. ‘A further specification and integration of water quality issues is required which asks for an intensive and common process, the more since quality issues are the responsibility of all involved partners’ (ibid.: 24; translation from Dutch added). For tackling diffuse pollution sources, the Province points at the primacy of generic
national and European policies (‘adequate manure and chemical crop protection measures’). Additional regional or local measures will only be considered whenever cost-effective and significantly contributing to water quality amelioration. Sustainability, cost-effectiveness and a source-oriented emission reduction approach are important criteria for selection of measures (ibid.). For sustainability the Province refers to equitable positions of the people, planet and profit dimensions, without making clear interconnections and choices. For affordability reasons, the division of financial burden among households, industry and agriculture is more important than the division of costs among initiators of measures (Provincie Noord-Brabant, 2006). For historically polluted sites, a staged approach until ultimo 2027 is chosen (ibid.).

B - The regional WFD coordination process in the Meuse River Basin

In 2004 the regional politicians remain reluctant to integrate the decision-making processes on WFD and WM21 issues within the regional river platform. According to the regional politicians the integration call is due to weak inter-ministerial coordination. Besides, the provinces have their own WM21 implementation approaches. At this stage the WFD coordination process remains laborious. In order to accelerate an external project leader and an editor for the Article 5 report are hired and agreement is reached on division of the coordination costs. April 2004, the water management authorities in the North-Brabant Province enter the regional river basin platform. Discussions are started on installation of a WFD project bureau. According to the regional partners progress on the Article 5 report is hindered by a lack of timely and transparent national guidelines and instructions. November 2004, there is an atmosphere of political crisis (Interviews 11 and 30, Appendix I). National-regional coordination is perceived as poor and there is no common WFD implementation ambition. Since the chair needs time to speak all members individually to discuss views on the future project organisation, the December meeting of the Regional Meuse Political Platform is postponed to March 2005 (ibid.).

With regard to the independent national audit of the Article 5 reports the regional politicians have four major concerns: (1) rules for designation of virtual water bodies; (2) inter-ministerial coordination for transparency about generic manure policy ambitions; (3) arrangements for coordination of WFD implementation planning in transboundary, bilateral water bodies (as shared with respectively Germany and the Walloon and Flemish Regions of Belgium); and (4) rules for the designation of industrial groundwater extractions for human consumption. Finally, the (national) Article 5 report for the Meuse River Basin has been finished in time (Ministerie van Verkeer en Waterstaat, 2005; Interviews 11 and 30, Appendix I).

July 4, 2005: After almost one year of laborious procedural discussionsthe regional politicians decide to start with a WFD project bureau after the summer break. While the organisational preparations continue a study is conducted on the range of objectives and measures, which includes different scenarios on ambitions and compliance rates. The study report presents a number of general conclusions (Arcadis, 2005). Current policies already include effective types of measures for compliance with the WFD’s environmental objectives. The WFD may influence priority setting, locations and realisation terms. Autonomous developments are influential and partly
unpredictable. For diffuse pollution sources, generic policies at the European and national levels are most effective but at the same time may have substantial social-economic consequences. Impact of measures is uncertain given time lags between implementation and observable effects and given restricted knowledge on measure-impact relations (ibid.). The regional politicians welcome the conclusions of the study report, since these may help to reduce the WFD implementation fear. In retrospect, the report did not play a major role in the subsequent implementation stages. Its conclusions confirmed prior perceptions and expert views (Interviews 11 and 30, Appendix I).

The appointed WFD Meuse project director is responsible for the timely design of workable project structures (RBOM, 2005a; Interview 12, Appendix I). He is also in charge for a tailor-made coordination and participation strategy (ibid.). The Project Bureau injects new energy into the regional coordination process. A long term political agenda is drafted and the Regional Meuse WFD Consultation Platform starts (Klankbordgroep KRiW Maas; RBOM, 2005b). A periodical meeting of the regional and local WFD coordinators is organised to discuss technical and practical issues (the so-called B oxtel Deliberations (Boxtel Overleg or KRiW Coördinatorenoverleg Maas), named after the town where the meetings took place). May 2005, the regional politicians decide on the communication and participation strategy. July 2005, the regional politicians conclude that the two municipal RBOM members are not able (and have no mandate) to represent all the 114 municipalities in the Meuse River Basin (Interviews 11, 25, 26 and 28, Appendix I). They ply for a separate process to involve them, for example by organising political meetings for individual sub basins. A political pilot project may be necessary to break through the dominant technical nature of the process so far.

November 2005, the regional politicians decide to conduct a regional ‘Social Acceptable Costs Analysis’ (Maatschappelijke Aanvaardbare Kosten Analyse - MAKA) in addition to the national strategic societal cost-benefit analysis (Interview 28, Appendix I). In the second half of 2005, 17 local WFD pilot projects are formulated, in which two methods for ecological objective setting will be tested, i.e. the formal WFD approach and the informally agreed pragmatic approach. The national Water Policy Department wants to enforce the international coordination strategy. Regional politicians emphasise exchange of knowledge and experiences as trigger for bilateral coordination initiatives. December 2005, regional partners regret the exclusion of water management authorities in the national rules setting process on coordination between the WFD and Natura 2000 files (Interview 20, Appendix I). By means of the 2005 Meuse Memorandum, which is the regional WFD contribution to the (national) 2005 December Memorandum, the regional actors show their first WFD ambition cards (RBOM, 2005c; Interviews 11 and 12, Appendix I). The document includes several messages for the national authorities (see Table 7.2).
Table 7.2 Messages from the Meuse region to the national authorities (RBOM, 2005c)

<table>
<thead>
<tr>
<th>A – Water bodies and aggregation level</th>
<th>B – Objectives and Measures</th>
<th>C – Costs and expenses</th>
<th>D – Remaining remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 Simplify the designation of water bodies in order to reduce the number of water bodies and to optimise for the selection of measures.</td>
<td>B1 Give highest priority to generic, national policies (such as for diffuse emission sources, transportation and building materials) by putting these high on the agendas of Europe and national ministries and by settling arrangements.</td>
<td>C1 Include costs and expenses for citizens and enterprises in the selection frameworks for measures.</td>
<td>D1 Be clear about which considerations will apply in subsequent implementation stages (societal costs, technical feasibility, effects for socio-economic sectors).</td>
</tr>
<tr>
<td>A2 Choose aggregated European reporting units as the level to formulate ecological objectives and selection of measures. This offers room for spatial differentiation of measures, hence opportunities for win-win solutions.</td>
<td>B2 Take the lead in formulation of a strategy on historic pollution such as cadmium, zinc, nickel and phosphorus in surface and groundwater.</td>
<td>C2 Provide a clear definition of the stand still principle on the short term given its relation with room for regional socio-economic development.</td>
<td>D2 We ask the national Water Policy Department to coordinate information streams on relevant national policies for the regional partners (for example by means of a newsletter and a website).</td>
</tr>
<tr>
<td>A3 There is a need for a national strategy for inclusion of ecologically valuable and vulnerable areas outside Natura 2000 areas that are too small for designation as individual water bodies. In the Meuse region, major investments have been and will be made for their protection and restoration that should be made visible to the European Commission.</td>
<td>B3 There is an urgent need for generic guiding principles for selection of regional measures, in order to prevent regional choices to be overruled later on in the process.</td>
<td></td>
<td>D3 Regional partners have got the impression that the national working groups are too much dominated by technical experts while in some cases more strategic choices will have to be made.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>D4 All water managers should advocate the WFD as an opportunity otherwise the Dutch position may be weakened in multilateral negotiations.</td>
</tr>
</tbody>
</table>

Since chemical and ecological objectives are hardly available, the regional partners can not estimate compliance rates for 2015, as asked for by the national Water Policy Department (RBOM, 2005c). Instead, specific issues for the Meuse River Basin are presented and effectiveness of specific measure types is explored in a qualitative way. Emphasis is on the contribution of (continuation of) current policies. By estimation, the water management authorities together will invest €863 millions on water quality amelioration in the 2005 to 2009 period. By means of ecological restoration projects (read: hydro-morphological alterations such as re-meandering of brooks) they may
contribute considerably to the WFD’s ecological objectives. For chemical water quality improvement, these authorities have much less cost-effective options, despite local progress caused by additional waste water treatment infrastructure and nutrient and chemical free buffer stripes along water courses. For tackling diffuse emission sources, (inter)national measures would be required (product regulations and manure policies). Historical pollution (nutrients and heavy metals) from water sediments and groundwater bodies may hinder significant amelioration for decades. In practice, the actual (intentional) policy objectives at the national, regional and local levels are ambitious and not considered feasible within the planned terms. This is due to the low rate of land acquisition on a voluntary basis, historical pollution and other reasons (ibid.).

Within the Meuse region a table format for presenting identified and selected WFD measures is developed. The national Water Policy Department applies this format as best practice in the other river basin regions. The table may be filled in for the range of ambition scenarios which are formulated at the national level. With the format the Meuse region starts to become a forerunner among the Dutch river basin regions. However due to time-consuming deliberations on interpretation differences, diverging political starting-points and local ambitions and differences of opinion on generic national policies, the Meuse partners gradually enter the peloton’s tail. Furthermore, distrust between the regional water management authorities and the ANF Ministry enlarges on the Natura 2000/WFD coordination issues.

The 2006 Meuse Memorandum (named as the Summer Memorandum) presents the regional packages of measures and a regional economic analysis as building blocks for the national strategic societal cost-benefit analysis (RBOM, 2006). The memorandum is subject to a regional and local, informal consultation round. Although the memorandum is sent to all municipalities hardly one of them reacts. The aldermen in the Regional Meuse Political Platform mention that local authorities do not recognise their figures as aggregated in the memorandum (Interviews, 26 and 27, Appendix I). Given the low response and the limited recognition by local actors the regional actors decide to concentrate their efforts on the local WFD processes in 2007 and 2008. The 80-20% rule is mentioned: 80% of the energy will flow to the local processes, 20% to the regional and national harmonisation and reporting exercises (RBOM, 2006; Interview 28, Appendix I). The Meuse Memorandum includes a process warning for the national authorities (RBOM, 2006: 5; translation from Dutch added):

In the planning for stage 3, within the Meuse region final products (draft river basin management plan in December 2008 and its final edition in December 2009) will be leading and not the information need of national authorities (for the 2007 December Memorandum). Consequently, the Meuse region will spend more time on defining the preferred WFD ambition scenario (beginning of 2008) as compared to the time schedule of the national authorities for the 2007 December Memorandum (mid 2007). Unavoidably, this extra time will be needed for making sound choices.

In the 2006 Meuse Memorandum, the regional partners emphasise the indicative nature of presented figures (RBOM, 2006). Packages of measures show the range of possible regional ambitions which are not meant to choose from at this stage. In 2007
and 2008 further selection of measures will take place at the level of individual water bodies. The memorandum includes substantial and organisational attention points for national authorities (see Table 7.3). The regional partners expect national authorities to provide for clear guidance on acceptable costs and expenses, in order to define a regional ambition level (as starting-point for local selection processes; RBOM, 2006). The regional partners mention that the lack of a maximum ambition scenario from the ANF Ministry hinders solution selection for regional bottlenecks. Also the HSE Ministry is not clear yet about its ambition on generic WFD measures (ibid.).

Table 7.3: Messages from the 2006 Meuse Memorandum (RBOM, 2006)

<table>
<thead>
<tr>
<th>A – Substantial issues</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A1</strong> Costs and expenses: The regional partners wish to discuss with the national authorities about acceptable costs and expenses in relation to available national financial means with the national authorities.</td>
</tr>
<tr>
<td><strong>A2</strong> The regional partners expect national authorities to provide insight on the consequences of division of costs and expenses and to provide for frameworks for the regional/local processes.</td>
</tr>
<tr>
<td><strong>A3</strong> The regional partners expect national authorities to provide clear guiding principles for priority setting among potential types of measures.</td>
</tr>
<tr>
<td><strong>A4</strong> National authorities should provide clearness about generic, national measures. Regional partners offer to discuss an optimal mix of generic and regional measures with national authorities.</td>
</tr>
<tr>
<td><strong>A5</strong> Voluntary land acquisition hinders progress with ecological restoration projects. The regional partners wish to discuss with the national authorities all legal possibilities for land acquisition for WFD objectives.</td>
</tr>
<tr>
<td><strong>A6</strong> The regional partners expect national authorities to provide clear definitions of stand still, disproportionate costs, significant damage and irreversibility of physical alterations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B – Organisational issues</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B1</strong> Regional partners ask guidance on how to tune planning procedures of national authorities, provinces, water management authorities and municipalities in order to meet required decision making synchronicity in 2008 and 2009 for the river basin management plan.</td>
</tr>
<tr>
<td><strong>B2</strong> National and regional authorities should strive for starting-up or intensification of bilateral coordination meetings with Germany, Wallonia and Flanders. Additionally, regional attention points should be put on the agenda of the International Meuse Commission and its working groups.</td>
</tr>
</tbody>
</table>

In the memorandum the regional partners have worked out the five nationally defined ambition scenarios on a geographical basis, meaning that with increasing ambition more water bodies will comply with the WFD objectives (RBOM, 2006). Even in the maximum scenario full compliance is not met for priority substances and nutrients. According to the regional partners this is due to incomplete national, generic packages of measures. They argue that generic (inter-)national measures are more effective for these substances and substantial investments should be made by upstream riparian states (ibid.). A range of costs for measures by regional authorities has been presented
from €93 millions a year (reference scenario: current policies + autonomous developments) to €654 millions a year (maximum WFD implementation scenario; RBOM, 2006). Estimated costs for generic measures by national authorities range from zero to €360 millions a year. In the maximum scenario measures are excluded that will have a considerable negative effect on other functions. Limited positive benefits for households and recreational use are expected. WFD measures predominantly will have negative effects on the agricultural sector. Positive benefits for drinking water production and waste water treatment may only pay off on the long term. No benefits are noted so far for navigation and industry (ibid.). According to the regional partners, ‘the translation of costs to expenses for target groups finally is a political question that will have to be answered by means of application of instruments (e.g. subsidies, licences)’. (RBOM, 2006: 25; translation from Dutch added)

Stage III: Harmonising regional & local implementation processes (2007, 2008)

**A - Policy developments in the North-Brabant Province**

In order to improve transparency and accessibility of available information and knowledge about the state of the inland water systems and the impact of its water policy, the North-Brabant Province drafts an evaluation report (Provincie Noord-Brabant, 2009a). Although water related objectives have been incorporated well in the integrated areal approach, water quality issues have been underemphasised so far. Due to the parallel WFD implementation planning process, inclusion will take place in the near future (ibid.). Remarkably, the evaluation report concludes that the extent of desired groundwater abstractions fits into the available capacity of the inland water systems (Provincie Noord-Brabant, 2009a: 19). Due to provincial policy, the total volume of groundwater abstractions has not increased since 2004. At the same time paradoxically, the anti-dessication policy still requires considerable investments (ibid.: 23). The anti-dessication progress stagnates, mainly due to limited land acquisition (ibid.). To understand this paradox the total number and volumes of groundwater abstractions should be understood within the context of the overall balance of abstractions and recharges at the level of the entire province, whereas desiccation problems occur at the local scale due to specific land and water use and management patterns and processes. The policy intention to shift from groundwater abstractions to surface water abstractions has been abandoned due to a lack of (a sense of) urgency and a lack of financial stimuli for actors (Provincie Noord-Brabant, 2009a: 19).

Overall water quality has been slightly improved in the 2004 to 2007 period (Provincie Noord-Brabant, 2009a: 28-37). The challenge remains to pick the “high hanging fruits” such as diffuse sources of pollution (ibid.) From the evaluation report a somehow hesitating, ambiguous provincial attitude towards the issue of diffuse pollution sources becomes noticeable (Provincie Noord-Brabant, 2009a: 32-33). The North-Brabant Province points at the responsibility of the national authorities (‘who seem to take more responsibility by means of an implementation plan’) and at the same time provides financial arrangements for local tailor-made initiatives (such as on selective use of chemical crop protection substances and active management of field margins close to water systems). Also drinking water companies and water
management authorities contribute by means of (pilot) projects (ibid.). Overall, the province has limited formal options to tackle these issues and generic policies are cautious to avoid expensive, large-scale measures. Furthermore, one-shot local (pilot) projects may not make a significant difference (see also Chapter 8 for experiences with local pilot projects in the Brabant-West region). The laborious land acquisition process also hinders quick wins with ecological restoration projects for brooks and creeks (Provincie Noord-Brabant, 2009a: 41). However, in the 2004 to 2007 period, more restoration kilometres have entered the initiation stage. This increase may pay off on the mid till long term (ibid.).

As part of the planning cycle for the new provincial water policy plan for the 2010 to 2015 period, the North-Brabant Province asks a consultancy firm to conduct an inventory of the social-cultural, economic and ecological benefits of investments in water policy objectives. The rationale behind the study is (Van der Lei, Terpstra and Hoogewoning, 2007: 7; translation from Dutch added):

The Province expects that when the broad societal added value of water is presented (in an economical, social-cultural and ecological sense) stakeholder target groups may show bigger willingness to invest in water. Perhaps the benefits may be identified sufficiently but specific target groups do not recognise or value these. Valuation of the benefits partly will determine support for water related policy objectives and measures.

The Province acknowledges that the former water policy plans one-sidedly have emphasised ecological benefits. For the new water policy plan the aim is a more integrated, balanced approach for sustainable development (Van der Lei, Terpstra and Hoogewoning, 2007). The inventory identifies several potential benefits from investments in water policy objectives which may sum up to millions of euros annually. Not all benefits are easy to identify. Limits to both available information and methods prevent clear and indisputable definitions. ‘This means that every stakeholder has its own interpretations of water-related benefits (e.g. about definitions, identification level, concreteness). Consequently, the introduction of water-related benefits in the political and societal discussions is impossible and undesirable without proper preparation.’ (ibid.: 34) As one of the closing remarks the authors pose that without a sufficient degree of concreteness of objectives and measures in the new water policy plan, a discussion about the water-related benefits may contribute more to confusion than to clearness (ibid.). This statement has been illustrated by the formal consultation stage during which two opposing reports about the expected socio-economic benefits have caused so much controversy that there was only one conclusion left to the General Assembly of North-Brabant: The truth must be somewhere in the middle (Interviews, 44, 46 and 50, Appendix I).

Due to adoption of the new (national) Spatial Planning Act in October 2006 (Wet Ruimtelijke Ordening, Anonymous, 2006), the North-Brabant Province starts the preparation of a provincial structure vision on spatial development (structuurvisie). In the old regime provinces could draft both a structure vision and a spatial policy plan (streekplan). A spatial policy plan was an obligatory strategic plan by which the provincial authorities had the option to delineate spatial functions (Hidding, 2006; Interviews 45
311 and 50, Appendix I). This plan form aimed to provide for both horizontal integration (spatial aspects of different policy sectors at the provincial level) and vertical integration (of spatial aspects of policies from different administrative levels). The provinces used a spatial policy plan as framework for testing the appropriateness and formal approval/disapproval of municipal zoning plans (bestemmingsplannen; ibid.).

In the new national spatial planning regime the provinces shall conduct a structure vision on spatial development only. Such a vision is only binding for the provinces themselves. The provinces do not formally approve the municipal zoning plans any longer. The municipal plans remain the only legally binding spatial destination plans for citizens (Hidding, 2006; Interviews 45 and 50, Appendix I). The provinces have the legal option to adopt a spatial integration plan (ruimtelijk inpassingsplan) which includes spatial destinations which are of high importance at the provincial level and which should be integrated into the municipal zoning plans concerned (Anonymous, 2006). Besides, the provinces may impose spatial requirements by means of a provincial regulation (Provincie Noord-Brabant, 2011). For the period until the new structure vision will be adopted an interim structure vision has been drafted by the North-Brabant Province (since the in 2006 partial revised Spatial Policy Plan had lost its validity in October 2006). In December 2008 the General Assembly of North-Brabant adopts the start memorandum for drafting the structural vision on spatial development (Provincie Noord-Brabant, 2009b). The General Assembly opts for a limited revision of its spatial policy (ibid.).

B - The regional WFD coordination process in the Meuse River Basin

In 2007 and 2008 emphasis lies on the local WFD processes for formulation of ecological objectives and selection of related measures, as guided by the WFD coordinators at the water management authorities. Read Chapter 8 for a detailed analysis of this local process in the Brabant-West area. The 2006 Meuse Memorandum summarises the political starting-points for this third stage in the WFD implementation planning process (RBOM, 2006; own synthesis from Dutch document):

First of all, current regional policies are leading and the WFD measures should build on these no regret choices, hence proper coordination should take place. Also, there is a need for a more integrated approach with special attention to coherence between surface and groundwater. Affordability is an important criterion, translated as “available financial resources are leading”. Furthermore, feasibility is an important criterion, referring to technical aspects, dependency on other actors, cost-effectiveness and sustainability. Costs and expenses of a staged implementation approach until 2027 will be presented as well as of full compliance by 2015 and will be related to the entire Dutch water assignment (both WFD and WM21). Provinces will take the lead for defining policies on industrial groundwater extractions for human consumption. The regional water management authorities take the lead in the local WFD planning processes. In this third stage municipalities will have to participate actively. The regional partners will take the lead in communication with and participation of environmental NGOs and socio-economic interests groups, especially focusing on additional costs and expenses due to the WFD measures. Local tailor-made process options for active involvement of stakeholders may be chosen.
At all administrative levels the Dutch actors struggle with the detailed technical WFD requirements which are different from the domestic traditions and practices of ecological objectives setting and monitoring. National guidelines arrive relatively late in the regional coordination process and are subject to adaptations and new insights along the way. In addition criteria for the selection of measures remain abstract in nature while there is also a critical knowledge gap about the effectiveness of measures with regard to individual biological quality parameters (Van der Wal and Waaijen, 2010). Consequently, within the Dutch part of the International Meuse River Basin District, formulation of the ecological objectives takes place rather simultaneously with identification and selection of measures (to comply with these objectives). With regard to drafting the new water policy plans the provinces face the challenge to match the WFD requirements with the domestic system of water-related functions.

In order to avoid significant dissimilarities among the local processes the provinces and regional water management authorities define so-called default objectives for the common WFD water body types and pressures from land-based activities (Evers and Van Herpen, 2007). As a main line in the common regional approach, a distinction is made among water body basins in which land use is dominated by respectively agriculture, nature or built-up areas. The restoration ambitions in terms of ecological objectives are closely related to the pressures from land-use processes and patterns (ibid.). A quick scan of formulated WFD objectives in the North-Brabant Province shows that differences among the three regions (Brabant-East, Brabant-Centre and Brabant-West) are limited (Evers and Van Herpen, 2007). In general comparability of the provincial water functions with the quantified WFD objectives is limited. Furthermore, priorly defined provincial target images for brooks did not play an explicit and decisive role at the delineation of WFD water bodies and types (ibid).

Despite the pleasant and friendly atmosphere among the participants, the WFD coordination process in the Meuse River Basin remains laborious of nature. For example, although many discussion hours have been spent, no full agreement is reached on some basic starting-points for filling in the WFD data formats, most notably definitions of investment and maintenance costs and labelling of measure types. Integration of the WM21 and WFD assignments is viewed as a growth process and should especially take place in the local WFD processes. The WFD Meuse Project Bureau attempts to aggregate the data from the local processes into a regional economic analysis. The Project Bureau suffers from a lack of economic expertise at the provinces and regional water management authorities and has to hire a consultancy firm. Due to the lack of uniform instructions and expertise, the economic figures from the local WFD processes show differences which need further explanation and hinder transparent presentation. The WFD process coordinators themselves face difficulties in understanding the aggregated information and cost calculations. Given this context, it may not come as a surprise that also the politicians and non-governmental stakeholders have many questions about the aggregated figures such as about the relation with the national figures. The politicians struggle with the highly technical nature of the Regional Meuse Political Platform meetings (Interviews 25 and 28, Appendix I). The Industrial Water Association (Vereniging Industriewater) distrusts the economic figures of the national and regional authorities and triggered by their differences initiates
its own study on the impact of the WFD on industrial expenses. In turn, this study (conducted by students)annoys the WFD coordinators from the regional water management authorities since the association interprets and presents their figures without ex ante consultation.

In the course of 2007 regional partners get more irritated about recurrent new national deadlines and lately introduced web-based data formats (that are also altered during their application). The WFD process coordinators and their staff increasingly feel that relatively too much time is invested in reporting obligations for the Lower House of Parliament at the expense of the local processes for identification and selection of cost-effective measures. They notice a downward evolution of ambition due to regional and national harmonisation exercises. Because, initially the package of measures from the Meuse region is the most complete and broadest, other regions evolve upwards in the harmonisation process while the Meuse package becomes smaller, to a level that is politically spoken more feasible and affordable. Mid 2008, the national Water Policy Department decides to contact individual WFD process coordinators in the Meuse River Basin given large differences in provided data and incomplete compliance with national instructions (Interviews 20, 52 and 53, Appendix I). September 2008, from the harmonisation process the national Water Policy Department notices downgrading of regional packages of measures (Interviews 18 and 53, Appendix I). The department considers this an undesirable evolution which may hinder full compliance with WFD objectives (such as the too limited number of water bodies that are characterised as natural; ibid.). While most regional politicians and representatives of industrial and agricultural interest groups are satisfied with the harmonised ambitions from the pragmatic approach, some officials and representatives of environmental NGOs increasingly become disappointed with the perceived ‘the watering down of WFD ambitions’ (Interview 18, Appendix I).

Although progress is slow, the WFD coordinators at the regional water management authorities and the municipal water ambassadors manage to involve almost all 114 municipalities actively in the local processes. February 2008, tensions rise between the local aldermen and the provincial deputes in the Regional Meuse Political Platform (Interviews 25, 44, Appendix I). The aldermen ask for a more proactive attitude from the provinces in order to identify bottlenecks and to select cost-effective measures on urban groundwater issues. The provinces mention that it is up to the partners in the local WFD processes to deliver such results (ibid.). In turn, the regional water management authorities, if stung by a wasp, invite the provinces once again to contribute more actively to the local WFD processes, since they formally are in charge of groundwater issues. November 2008, the majority of local authorities have decided on lists of WFD measures to be included in the (draft) river basin management plans (Interview 26, Appendix I).

Tensions also occur between the national and regional authorities. The national Water Policy Department is not in favour of the wording ‘lowest possible societal costs’ which may suggest that the Netherlands opt for the lowest WFD ambition possible (Interview 53, Appendix I). The regional partners are reluctant to quantify the estimated rate of compliance with the ecological objectives by 2015. The regional
decision not to alter the status of some water bodies for the first river basin management plan, is not received with applause from the national department (Interviews 18 and 53, Appendix I). Given the bad image of the Netherlands in European comparisons (‘highest rate of heavily modified water bodies’) the department asks for more natural water bodies whenever possible (ibid.). As the Lower House of Parliament will not accept generic WFD measures for the agricultural sector that would be additional to the basic measures for compliance with the Nitrates Directive, in turn, the regional partners are reluctant to be more ambitious with additional waste water treatment infrastructure investments. The national Water Policy Department mentions proportionality as an argument for such additional investments since countries like Germany have already invested more in waste water treatment infrastructure (Interviews 18 and 51, Appendix I). Regional officials and politicians increasingly get irritated about the reluctant attitude of the ANF Ministry on timely and adequate coordination of the interlinkages between the WFD and the Birds and Habitats Directives linkages.

Finally, bilateral, border-crossing coordination efforts with the Flemish Region of Belgium, both at an official and political level, remain incidental. At the end of the first WFD implementation planning cycle the regional partners conclude that bilateral coordination on objectives and measures did not take place. They expect that differences in standards will remain limited, given the fact that Flanders applies the Dutch working standards as well. Cooperation with Germany runs more smoothly, while with Wallonia hardly any coordination talks have taken place so far. The regional partners expect the national Water Policy Department to invest more in coordination of multilateral and bilateral activities. Whereas the department mainly focuses on the multilateral coordination efforts by the International Meuse Commission (see Chapter 5), the regional partners continue struggling with the ‘missing links between the multilateral and bilateral activities’ (Interviews 28 and 46, Appendix I).

The results of the local WFD processes are summarised in the 2008 Meuse Memorandum, which initially ought to become the central building block of the draft Meuse River Basin Management Plan (RBOM, 2009). However during the process, the national Water Policy Department extracts the data for the Ex Ante Evaluation of costs and benefits and the draft river basin management plan directly from the local processes by means of the national databases. Besides, the regional water management authorities gradually loose attention to the laborious regional coordination process, in which the WFD Meuse Project Bureau is increasingly perceived as an autonomously operating unit. Remarkably, the Project Bureau, in its attempt to produce a final edition of the Meuse Memorandum, also bases its draft final 4.0 version (in February 2009 when the draft water plans and river basin management plans are already subject to the formal consultation) on the figures from the national databases (RBOM, 2009). The Project Bureau, a bit overruled by the parallel activities, asks whether the regional and local partners have based their draft water plans on the same figures in the national databases. Major differences among the figures of the local processes are concluded such as with regard to definitions of actual and additional policies, reporting units, which measure types to be included in the river basin management plan, whether or not to present prior investments in the 2000 to 2009 period, expert
judgement on present state and estimated 2015 state of water bodies and the extent of inclusion of WM21 measures. To the disappointment of the Project Bureau the regional and local partners decide not to invest more time in harmonisation of data. A proposal from the project director to publish a summary of the memorandum for the general public is not supported by the partners. At this final stage the local WFD coordinators are too exhausted by the entire process to invest in common regional harmonised products any longer. Instead they concentrate on finalising their own water plans and coordination of the formal consultation results.

Stage IV: Drafting regional/local water plans, formal consultation (2008, 2009)

A - Policy developments in the North-Brabant Province

From the end of August till the beginning of October 2009 the formal consultation round takes place on the final draft of the Structure Vision on Spatial Development (Voorontwerp Structuurvisie Ruimtelijke Ordening; Provincie Noord-Brabant, 2009c; Interview 45, Appendix I). The central assignment of the Province is to maintain the specific (small-scale) mosaic of the Brabant landscape (with alternation of built-up and rural areas) and to develop it in a sustainable way, in the context of (decreasing) population growth and economic growth (Provincie Noord-Brabant, 2011: 18; Interview 45, Appendix I). Despite considerable investments in ecological restoration measures, the biodiversity in and around nature areas still goes downward (ibid.: 19). The tendency towards less but more intensive and bigger farms continues, as due to more restrictive national legislation on human health and environmental quality. This challenges the aims for a vital and sustainable rural area (ibid.: 20). With the revised spatial policy, the North-Brabant Province aims at a balance between restrictions and stimulation of developments. Actually, close reading of the final structure vision (Provincie Noord-Brabant, 2011) indicates that the provincial authorities wish “to have it all”, a growth of social-cultural, economic and ecological capital, by means of an integrated areal approach which is based on zoning and (whenever feasible) combinations of activities. The authorities aim for sustainable growth of and people and profit and planet as summarised implicitly in the structure vision (Provincie Noord-Brabant, 2011: 30; translation from Dutch added):

In trunk lines, the provincial spatial vision is based on a robust and resilient nature- and water system, with attention to flood protection, droughts and biodiversity. The Province aims for a multiple-functional rural area, in which agriculture, recreation and nature are allocated space in an interrelated fashion. Special attention is paid to historic cultural values and liveability of small-scale built-up centres. The urbanised areas should be varied and attractive, with strong cities, green connectivity zones and outlet areas (intensive recreation, urban agriculture). Special emphasis is on strong regional economic clusters, (inter)national accessibility and junctions of infrastructure.

The spatial choices and interests have been translated into four main spatial structures: (1) the green-blue structure (water and nature); (2) rural areas; (3) urban structure; and (4) infrastructure (Provincie Noord-Brabant, 2011: 41). The core of the blue-green
structure is the Main Ecological Structure which includes robust ecological connectivity zones and brooks and creeks. The water structures are mainly based on the WFD requirements and the water systems with the ‘water nature’ function in the Provincial Water Plan (ibid.: 62; Provincie Noord-Brabant, 2009c; Interviews 45 and 46, Appendix I). The Province aims at effective and efficient realisation of desired spatial development by means of interactive open processes and target-oriented agreements with other stakeholders (Provincie Noord-Brabant, 2011: 50; Interview 50, Appendix I). More room for spatial development should never threaten the basic attitude of careful use of soil, water, nature and historic cultural values (ibid.: 51).

At the end of 2009 the General Assembly of the North-Brabant Province approves the final 2010 to 2015 Water Policy Plan, which includes the WFD objectives and measures (Provincie Noord-Brabant, 2009c). The formal consultation round has predominantly led to minor changes except for changing the heavily modified qualification of one brook system in Brabant-West (’t Merkske) into a natural one. The change is due to opposition from the Brabant Environmental Federation that asked for designation of several brook systems as natural ones (ibid.). On the base of a pilot project status the General Assembly accepts this change for one brook system only, in order to explore whether the related ecological objectives actually will be feasible and affordable. At this stage the Province is cautious to avoid a precedent for other brook systems (Interviews 44 and 46, Appendix I). The new water policy plan mainly builds on a continuation of the current policy, opting for a staged implementation approach with regard to the European obligations (Provincie Noord-Brabant, 2009c).

B - The regional WFD coordination process in the Meuse River Basin

In 2008 the river basin management plans, the national water plan, the national management plan for the state waters, the provincial water plans and the water management plans of the regional water management authorities have been drafted in a simultaneous process. A strategic environmental impact assessment has been conducted for all these plans. At the same time the TPW and HSE Ministries take the lead in designing national regulation for WFD standards for surface and ground water bodies and other, smaller water systems (for a more detailed elaboration read Subsection 6.3.4 on national choice rules). National and regional partners prepare the coordinated consultation procedures in good harmony. At the end of 2008 the formal consultation procedures are presented to the members of the Regional Meuse WFD Consultation Platform. These members express the overkill of information in relation to short consultation periods for the more detailed domestic plan figures (6 weeks) compared to the new, more aggregated river basin management plan (6 months). Some representatives doubt whether a six months waiting period for coordinated answers to regional and local questions qualifies as good governance.

The overview of consultation views, remarks and answers of the competent authorities shows not many surprises (Ministerie van Verkeer en Waterstaat, 2009b; Provincie Noord-Brabant, 2009d; Van den Berg, 2009). Due to the extensive process with informal regional and local WFD consultation platforms, workshops and information sessions for grass-roots supporters, most views and positions have been well known at the start (Interviews, 2011). Consequently there are hardly any substantial
changes in the final versions of the diverse water plans. Although the regional Meuse partners mentioned the formal consultation round as an opportunity for information of the general public, hardly any citizen visit the consultation meetings nor contributes written comments. The process has been locked up for too long among water authorities and organised NGOs and interest groups to invoke the citizens’ attention.

7.3 The WFD and regional rules of IRBM

This section explores to which extent the WFD’s policy and governance principles, environmental objectives and exemption options may have provoked changes in collective-choice rules for IRBM at the regional administrative level in the Netherlands, i.e. the Dutch part of the International Meuse River Basin District. For definition of ideal-type IRBM rules, see the Subsections 2.2.3 till 2.2.9.

7.3.1 Scope rules

As defined in Section 2.2.3, scope rules may concern the geographic area, the type of organisational structures and networks and the issues to be decided on. For the aim of this research, a distinction is made between organisational and substantive scope rules. Concerning the former the focus is on the impact of hydrological boundaries on organisational structures, whereas for the latter the focus is on the levels of integration. For example, are “river basins as the appropriate management units” translated into functional agencies and to which extent may these entities operate autonomously? Which are the collective choices for internal integration (of issues within the water policy domain) and external integration (of issues across policy domains)? To which extent do these choices affect the nature of river basin legislation, policy documents and management plans?

Organisational scope: the impact of hydrological boundaries

Three ideal-types of organisational IRBM scope rules are distinguished (see Table 7.4a). As concluded in Subsection 6.3.1, the Netherlands have a tradition of functional water management structures which follow (man-made) hydrological boundaries and which implement policies as controlled by parliamentary institutions (ideal-type B scope rules). The regional water management authorities are the most pronounced example of these functional entities which implement national and regional policies at the local level. Given the predominant heavily modified nature of the water systems in the Dutch delta and the fact that different rivers intermingle there, river basin delineation involves administrative choices. For example, according to the WFD logics it would be preferable to consider the Meuse River as tributary of the Rhine River. Consequently, to consider the Meuse as part of the international Rhine River Basin District would be the most logic solution. Since this purely hydrological rationale would not be in line with the existing International Meuse and Rhine River Basin Treaties, the national authorities have decided otherwise (Van der Velde et al, 2002; Interview 30, Appendix I).
Already before adoption of the WFD the North-Brabant Province has started analyses for territorial units which are delineated by hydrological boundaries. The province is in favour of a WFD delineation which fits entirely to the prior WM21 division into 17 sub-basins, since this latter division for 100% matches with its territorial borders. However due to the nationally chosen WFD division, the province has territorial parts within the Meuse, Scheldt and Rhine basins. The initial WFD subdivision within the Meuse River basin for the purpose of the Article 5 report has been based on larger hydrological regions which included several water bodies (Ministerie van Verkeer en Waterstaat, 2005). In the final Meuse River Basin Management Plan these hydrological regions have been abandoned for a presentation based on the individual WFD water bodies (Ministerie Verkeer en Waterstaat, 2009a). For the Dutch implementation planning process the water bodies have been clustered within the territorial borders of the regional water management authorities (RBOM, 2009). Besides, the North-Brabant Province also works with sub-river basin units (regionale watersysteemeenheden) which differ from the WFD units. Since the final WFD water bodies easily could be grouped into these provincial units, there has not een a major aggregation problem.

For the first WFD implementation planning cycle the regional actors concentrate on the Dutch part of the International Meuse River Basin District as defined by the 2002 multilateral Meuse Treaty (Anonymous, 2002). Groundwater bodies are identified at the level of the entire (Dutch) part of the Meuse River Basin, whenever possible fitted to the delineation typology of upstream riparian states. Unintendely, the WFD water bodies reporting system has created a Dutch “priority paradox”. Although the aims of Article 1 of the WFD in principle apply to all European surface and groundwater, the distinction between water bodies and remaining, smaller water bodies, such as tributaries or isolated (urban) water systems, has induced a political perception of a prioritisation exercise. This perception is enforced by the feasibility and affordability mantra in combination with the WFD obligation fear. Since resources are limited and the river basin management plans primarily report at the level of water bodies, political attention is driven away from the smaller, often ecologically valuable and/or urban water bodies. The final Meuse Memorandum explicitly deals with this dilemma (RBOM, 2009: 20-21; translation from Dutch added):

A preliminary definition for reporting to the EC has been applied: Measures in upstream water systems that are no part of a water body will only be reported when they effectively contribute to compliance with ecological WFD objectives of a downstream water body. The extent to which a measure contributes to downstream ecological objectives is difficult to determine, since it is part of a larger package of measures and in the same time dependent on local conditions. This requires tailor-made solutions. In addition there are measures that do not contribute (directly) to objectives of a water body but which to a certain extent may contribute to (perception) of water quality amelioration (such as dredging of isolated urban waters or water level management of smaller rural water systems). Especially these measures are visible to citizens and may contribute strongly to a positive public perception of urban waters. As such they are a powerful element in local public support for water management. Therefore, the regional partners have decided that political freedom in dealing with these measures is important, hence regional harmonisation did not take place.
The Regional Meuse Political Platform has been initiated as an additional, informal coordination structure in the WFD implementation planning process. It is functional, water oriented and aims to provide for consensus-based, non-legally binding advice to the provincial, municipal and regional water management authorities (horizontal integration). Furthermore, the platform tries to bridge the national desires with local ambitions (vertical integration). The platform is a new entity in the Dutch organisational water landscape. Such informal (temporary) coordination structures are a well-known phenomenon in the Netherlands. The regional, functional water management authorities take the lead in the local WFD processes by which they wish to enforce their position. The observations point at ideal-type B organisational scope rules at the regional level both before and after adoption of the WFD (see Table 7.4a). The WFD has enforced the focus on hydrological, (sub) river basin boundaries.

Although national and regional politicians have expressed the added value of the Regional Meuse Political Platform and have decided on its continuation, in December 2008 the WFD momentum passes its climax. After publication of the (draft) river basin management plans (as output of an extensive and exhaustive coordination process) many involved actors suffer from a “WFD fatigue”. Besides, the recommendations of the National Delta Committee on anticipating climate change mainly focus on safety against floods and a sustainable fresh water provision (Deltacommissie, 2008). Notwithstanding earlier calls for broadening the scope of the (WFD) regional river basin platforms, the committee’s recommendations are worked out by a completely new, additional, informal organisational structure. The regional river basin platforms will continue in parallel, following a ‘sugar beet factory model’ (*suikerfabriekmodel*), with high activity rates only during the harvest season’ (Interview 28, Appendix I).

Table 7.4a: Ideal-type collective-choice IRBM scope rules (organisation; regional level).

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Water policy is implemented by organisational structures/actor networks as driven by social, economic and political factors which do not follow hydrological (river) basin boundaries. These structures/networks may be multi-purpose or sectoral in nature and are under parliamentary control.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Water policy is implemented by functional water agencies, committees and actor networks which follow hydrological (river basin) boundaries. These functional entities and actor networks are controlled by parliamentary institutions.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Water policy is implemented by autonomous (sub) river basin authorities and/or communities that are organised along hydrological boundaries. These authorities and communities are beyond parliamentary control and do have their own polity rules.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X’.
Substantive scope: level of internal integration

In its first (integrated) water policy plan the North-Brabant Province emphasises the interrelated nature of groundwater and surface water systems (Provincie Noord-Brabant, 1991a; Glasbergen and Van Essen, 1992). Although the plan includes both surface water and groundwater issues, regulations run in parallel and different expert networks operate for surface water and groundwater issues (Interviews 44 and 45, Appendix I). Whereas the Province focuses more on groundwater management strategies, the regional water management authorities further detail surface water management regulations (ibid.). In order to combat desiccation of nature sites and drying up of inland surface waters, groundwater and surface water abstraction regulations are developed. There are no detailed quantified objectives that express quantitative requirements for ecosystem functions (Interview 46, Appendix I). Due to the WFD, interdependencies between surface water and groundwater bodies start to receive more explicit attention (Interviews 44, 48). However, the WFD focus until December 2009 has been predominantly on objectives and measures for individual surface water and groundwater bodies. Interdependencies between upstream, midstream and downstream (surface) water bodies, has been dealt with in a generic, qualitative manner (Provincie Noord-Brabant, 2009c; Ministerie van Verkeer en Waterstaat, 2009a Interviews 46, 50, Appendix I). WFD’s Article 4 might trigger further elaboration of no-shift arrangements for interrelated water bodies in the second WFD implementation planning cycle as of 2010 (Interviews 46 and 52, Appendix I). Similar conclusions may be drawn for the Limburg Province (Interview 41, Appendix I).

Table 7.4b: Ideal-type collective-choice IRBM internal integration rules (regional level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate legislation, policy documents and management plans for both water quality and quantity issues. Surface water and groundwater are dealt with in parallel.</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>B: Legislation, policy documents and management plans which include parallel objectives and measures for both quantitative and qualitative aspects and for groundwater and surface water.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Legislation, policy documents and management plans with integrated objectives and measures for related surface and groundwater bodies, including quantitative and qualitative aspects.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’. The ‘x’ points at a reduced resemblance of the observations with ideal-type A rules after adoption of the WFD.

These observations point at an evolution from a juxtaposition of ideal-type A and B IRBM scope rules (internal integration) before adoption of the WFD towards dominance of ideal-type B rules after adoption of the WFD (see Table 7.4b). For the second and third WFD implementation planning cycles, provincial actors expect a pay-off in terms of more pronounced, interrelated objectives and measures for surface...
water and groundwater bodies (hence, a further evolution towards ideal-type C rules; Interviews 44 and 46, Appendix I).

**Substantive scope: degree of external integration**

In the 1990s an integrated areal policies implementation approach becomes noticeable at the provincial level. In the Limburg and North-Brabant Provinces the outbreak of swine fever in 1997 triggers the reconstruction process for the rural areas. Both provinces seize the momentum to enforce an integrated policies approach in which water related objectives are incorporated (Interviews 41 and 46, Appendix I). Regarding the nature of sector policies plans there is a remarkable difference between the Limburg and North-Brabant Provinces. Whereas the former opts for an integrated environmental policy plan, the latter works with parallel sector policies plans following the *leapfrog principle*. In practice the Limburg Province works with sector policies plans as well: an umbrella plan includes a generic overview of policies objectives and principles which are worked out in subsequent, more detailed sector policies plans with not completely synchronous terms. These sector plans also follow the leapfrog principle (ibid.).

In the North-Brabant Province, despite integration of water-related objectives in the rural areas reconstruction process, the WFD, WM21 and the reconstruction processes mainly run in parallel. Due to differences in implementation stages, the WFD objectives and measures have been less integrated in the reconstruction plans as compared to the WM21 ones. Despite the formal linkage between the Birds and Habitats Directives and the WFD (by means of the WFD register of protected areas), these two implementation processes also mainly have run in parallel. The first WFD implementation planning cycle has not triggered an opening up of the water policy box and (further) integration of its objectives into other policy sectors.

The observations predominantly point at ideal-type B external integration rules at the regional level both before and after adoption of the WFD (see Table 7.4c). Although the Limburg Province works with an integrated environmental policy plan, it brings together policies from different sectors without actually translating these into integrated objectives and measures (Interviews, 2011).

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate policy documents and management plans for water policy and other policy domains without linkages.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Policy documents and management plans for other policy domains take into account water issues and reversely.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Cross-sector, integrative policies and management plans.</td>
<td>(X)</td>
<td></td>
</tr>
</tbody>
</table>

*Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X’. The ‘(X)’ expresses that, although the Limburg Province has opted for an integrated environmental policy plan, far more detailed sector policy plans still dominate the scene. The integrated plan has the nature of a generic umbrella framework.*
7.3.2 Position rules
As introduced in Subsection 2.2.4, within this research position rules relate to the question as to how do collective (inter-)national river basin governance and policy principles affect the positions of owners and users of water and land. Or reversely, which conditions should apply to acquisition, continuation and termination of rights to own and/or use (interrelated) water and land resources, in order to comply with common principles of ecological, social and economic resilience? Three ideal-types of position rules have been distinguished (see Table 7.5). Regarding position rules the WFD explicitly addresses relations between water and agriculture and between water and nature conservation. Protected areas due to both the Nitrates Directive and the Birds- and Habitats Directives are included in the WFD’s register of protected areas (European Communities, 2000: 32).

Notwithstanding the North-Brabant Province stresses a balanced development of the people, planet and profit dimensions of sustainability, it struggles with their translation into conditions for ecological, economical and social resilience. Although property and user rights are preconditioned with regard to environmental, social and economic externalities, the provincial authorities are cautious not to affect historic rights too dramatically. Concerning water policy objectives reallocation of prior rights is limited and subject to sensitive political debates. The expropriation instrument is considered a final resort whenever voluntary measures and land acquisition do not pay off sufficiently (Provincie Noord-Brabant, 2006; Interviews 45 and 46, Appendix I).
Although the shock event of the 1997 swine fever outbreak triggers unavoidable reallocation proposals, actual policies remain restricted to certain zones within rural areas. Furthermore, the reallocation process runs slowly in practice. The instrument to quantify desired groundwater and surface water tables includes the promise of formulation of interrelated conditions of ecological, economical and social resilience. In practice, different interpretations appear as rooted in conflicting interests (such as the classic divide between nature and agriculture) which guide the way to pragmatic compromises (Interview 46, Appendix I). The subsequent delays in implementation terms of the instrument may speak for themselves and point at the laborious nature of this multi-stakeholder negotiation process.

Table 7.5: Ideal-type collective-choice IRBM position rules (regional level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Protection of prior water and land resources use and property rights without preconditions on environmental, social and economic externalities.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>B: Conditional maintenance and acquirement of water and land resources use and property rights. Conditions include requirements to consider social, economic and/or environmental externalities.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>C: Reallocation of use and property rights, based on interrelated conditions of ecological, economical and social resilience.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X’.
The WFD implementation planning process mainly builds on prior water policy choices. Given the tensions between different interests and the dominant political protection of historical property and user rights it may not come as a surprise that the provincial authorities embrace the national WFD implementation rule not to trigger significant additional land use alterations. However, maintenance and acquirement is conditioned by requirements to consider social, economic and environmental externalities. These observations point at ideal-type B position rules before and after adoption of the WFD (see Table 7.5).

7.3.3 Boundary rules
As defined in Subsection 2.2.5, in this research boundary rules are interpreted as the question who have access to the river basin management planning and decision-making process and who have not? What are conditions for entry and exit? What are the degrees of participation for different stakeholder categories? Three ideal-types of boundary rules have been distinguished (see Table 7.6).

Before adoption of the WFD the regional water policy planning process is dominated by the provinces. In North-Brabant the Provincial Executive organises periodical informal information exchange meetings with representatives from environmental NGOs and socio-economic interest groups. In the rural areas reconstruction process the Province initiates areal committees (gebiedscommissies) including public and non-governmental actors. Although the emphasis within these committees is on compliance with provincial policies objectives, the other stakeholders extensively co-think, co-produce and bring in their objectives and interests (Interview 49, Appendix I). These multi-stakeholder platforms offer ample opportunities for negotiated agreements, including water-related objectives and measures, but at the end of the day it is up to the General Assembly of North-Brabant to formally approve and adopt the reconstruction and areal programmes (ibid.). Also in the provincial Natura 2000 implementation planning process, multi-stakeholder platforms offer access to both governmental and non-governmental actors.

Similar to the national level public actors dominate the regional WFD river basin planning and decision-making process. Non-governmental actors have no direct access to the Regional Meuse Political and Administrative Platforms but are informed and consulted informally in the Regional Meuse WFD Consultation Platform (Klankbordgroep KRW Maas). This sounding-board is a new multi-stakeholder platform which initially has been chaired by the North-Brabant Province, but which changed to an independent chair later on in the process. The independent chair attends the Regional Meuse Political Platform meetings and may bring in raised voices from the sounding-board members. In addition the WFD Meuse Project Bureau organises special informal WFD information and consultation sessions for grass-roots supporters of environmental NGOs and socio-economic interest groups that participate in the sounding-board. The “citizen” is not involved in the first WFD implementation planning cycle. At the regional level, entry and access rules for the WFD process are written down implicitly in the 2005 Installation Decision on the WFD Meuse Project Organisation (RBOM, 2005a). Although all relevant ministries in principle have access to
the regional platform meetings, the national Water Policy Department of the TPW Ministry is guides the WFD activities, mostly joined by the AFN Ministry. The HSE Ministry mainly reserves its human resources for the national structures.

Gradually, following the WFD processes in the other Dutch river basins a remarkable evolution occurs from ex post information of sounding-board members to ex ante information and consultation (ex ante = prior to decision-making in the Regional Meuse Political Platform). According to the members of the Meuse sounding-board the platform has been established for two main reasons: (1) to advise the authorities on decisions to be made and (2) to inform the interest groups regarding the progress of the WFD implementation process (Koppers and Ovaa, 2007: 34; Interviews 13 till 17, Appendix I). In practice, the members perceive a broader range of functions of the sounding-board, e.g. platform for exchange of stakeholder positions, input of sector knowledge, information of grass-roots supporters and bringing in societal signals (Koppers and Ovaa, 2007: 36; Interviews 13 till 17, Appendix I). The respondents are more satisfied with the actual information function in comparison with the advisory function (Koppers and Ovaa, 2007: 36, 37). In a 2009 evaluation session the sounding-board members express their satisfaction with the information function of the platform. Some members ply for a future co-production function.

The entry rules for representatives of drinking water companies or their interest organisations differ among the Dutch river basins. In the initial stage the Association of Dutch Drinking Water Companies (Vereniging van Waterbedrijven in Nederland; VEWVN), as supported by the HSE Ministry, is allowed access to the project team that edits the national WFD Implementation Handbook. In the Scheldt basin the Evides drinking water company is member of the Regional Scheldt Platform (both at the political and official level). On the contrary, in the Regional Meuse Political Platform drinking water companies are refused access, instead may attend the Regional Meuse WFD Consultation Platform. In the Scheldt basin, like in some other Dutch basins, the drinking water company was already member of a former political platform. In the Meuse basin there was no pre-existing platform and the drinking water companies are considered as a social interest group (not as a public actor).

Table 7.6: Ideal-type collective-choice IRBM boundary rules (regional level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Access to the river basin management planning process is restricted to public actors only. Other stakeholders are informed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Non-governmental actors may have access to the river basin management planning process under conditions set by the public actors. Emphasis on co-think and consultation.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Ample opportunities for all interested stakeholders to join the river basin management planning process, including co-productions, co-decisions and self-realisation.</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B and C rules as expressed by the ‘X’.
The observations point at a juxtaposition of ideal-type B and C boundary rules in the water policy domain at the regional level before and after adoption of the WFD (see Table 7.6). The WFD implementation planning process is a clear exponent of ideal-type B. The rural areas revitalisation and the site-specific Natura 2000 processes point at higher degrees of active participation of non-governmental stakeholders by offering more opportunities for co-production and joint fact finding under conditions as defined by the public actors. Consequently, these processes may be typified as a mixture of ideal-types B and C boundary rules. In the regional WFD implementation planning process the emphasis is on ex post information and consultation: most documents are prepared by the governmental actors and presented to the other stakeholders afterwards.

7.3.4 Choice rules
As introduced in Section 2.2.6, for the aim of this research two indicators for identification of choice rules change have been defined. The first indicator concerns water supply and demand rules. Three ideal-types have been identified for this indicator, ranging from a focus on water supply only to integrated demand and supply management in which a hierarchy of functions may apply, as conditioned by fresh water availability and protection of the ecological life support system (see Table 7.7a). The second indicator expresses the nature of license system. Ideal-types range from separate, parallel licenses for quality and quantity objectives for the use, development and management of water resources, towards integrated licenses for interdependent natural resources (including water; see Table 7.7b).

Supply and demand management
In general the provincial spatial development and water management policies aim at a balanced fresh water supply for different land use categories. Although arguments on economic efficiency, social equity and ecosystem protection all play a role in precondition setting for the abstraction, use and discharge (after usage) of fresh water, monitoring figures still show a significant anti-desiccation assignment for valuable nature sites. Under average hydrological conditions there is no clear hierarchy between these arguments. Implicit choices are made by means of zoning of land and designation of water user functions. For example, in agriculture dominated areas, the options for anti-desiccation measures are more limited. For economic efficiency and social reasons, high quality deep groundwater resources are reserved for drinking water production. In periods of prolonged droughts the national priority instrument for the distribution of available fresh water applies which includes a hierarchy of user functions. Functions for protection of human life and prevention of irreversible deterioration of natural values are among the first category priorities.

The provincial water policy objectives are mainly expressed in generic water balance terms such as an intention to shift from groundwater to surface water abstractions. Groundwater abstractions are subject to a license and tax system. Although larger amounts of abstractions from both surface water and groundwater resources are subject to legislation, a large number of small abstractions add to the critical desiccation issue. In the Dutch legislative system there are no standards for water supply
service levels. As an unwritten rule, user categories are used to a strong governmental apparatus that provides for fresh water supply whenever needed. Despite the policy discourse on water as a guiding principle for spatial development, influential land user categories dominate the scene. The slow, conflictuous process for definition of the desired groundwater and surface water tables for several (sub-)basins (with the classic dive between farmers and environmentalists), is a clear indicator for the provincial struggle to make significant political choices.

In addition to supply management also demand management receives considerable attention. Demand management measures include public awareness campaigns by drinking water companies and development of water saving technology by agriculture and industry. In the regional WFD implementation planning process demand and supply management issues do not receive much attention. The main focus is on diffuse sources of water pollution, ecological restoration of brooks and creeks and water-dependent terrestrial nature sites. With regard to the supply and demand indicator, the WFD does not influence the regional water policy development significantly. These observations point at a juxtaposition of ideal-type B and C IRBM choice rules (see Table 7.7.a).

Table 7.7a: Ideal-type choice rules for IRBM (supply and demand rules; regional level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Water supply management determines availability of fresh water for user functions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Mixed supply and demand management determines fresh water availability without a hierarchy in user functions.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Integrated supply and demand management, as expressed by a hierarchy in user functions.</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B and C rules as expressed by the ‘X’.

**Nature of the license system**

Before adoption of the WFD, in North-Brabant the Provincial Water Regulation includes license rules for both groundwater and surface water abstractions (Provincie Noord-Brabant, 1992). The former were elaborated more in detail by the Province, whereas the latter were the concern of the water quantity and water quality management authorities (ibid.). Emissions of point sources of pollution were regulated by means of the national Surface Water Pollution Act (Anonymus, 1970). Regulations for diffuse sources of pollution were more diffuse in nature and partly covered by the Surface Water Pollution Act and the Manure Substances Act (Anonymous, 1986b). As described in Subsection 6.3.4, the river basin management approach from the WFD has been among the main three reasons for establishing an integrated water policy act at the national level which includes one coordination system that brings together all water related licenses. For the sake of deregulation and simplification the general philosophy of the Water Act (Anonymous, 2009b) is to arrange as much as water-related activities as possible by generic, national rules. For some specific activities a license remains obligatory. Six licences for water-related activities have been replaced
by one integrated one, which is supposed to reduce administrative burden for companies and citizens. Municipalities will serve as the central water license application offices for companies and citizens and will take care of coordination with procedures for other environmental licenses (ibid.).

The new Dutch license system includes groundwater and surface water issues which as a result of the integration exercise are expected to be considered more coherently (Interviews 44 and 45, Appendix I; Van Rijkswick and Havekes, 2012). As argued in Chapter 6, bringing together activities within one license system does not necessarily mean that interdependencies between quality and quantity and between groundwater and surface water are translated into interrelated and quantified objectives and measures. At the time of writing in 2012 it is too early to fully analyse the impact of the integration exercise in which case law may play an important clarifying role (Van Rijswick and Havekes, 2012). Since the division of legal tasks between provinces and regional water management authorities largely remains unaltered (with exception of part of the operational groundwater tasks), one interesting question is how far the actual impact of the legislative integration between groundwater and surface water related activities will stretch. The research observations point at an evolution from dominance of ideal-type A IRBM choice rules before the WFD’s adoption towards ideal-type B IRBM choice rules afterwards (see Table 7.7b).

Table 7.7b: Ideal-type IRBM choice rules (nature of the license system; regional level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate, parallel licences for quality and quantity objectives related to the use, development and management and use of water resources.</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>B: Licenses that integrate quantity and quality objectives related to use, development and management of water resources.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>C: Integrated licenses for the interrelated use, development and management of natural resources (e.g. air, water, land).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’. The ‘x’ points at a reduced resemblance of the observations with ideal-type A rules after adoption of the WFD.

7.3.5 Aggregation Rules

As defined in Section 2.2.7, a major collective-choice challenge of IRBM concerns the issue as to how arrange decision-making at interrelated political levels within shared (inter-) national river basins with the aim to reach common understanding and broad public support for collective choices. The aggregation rules may appear in different ways, as expressed by identified ideal-types (see Table 7.8). The aggregation question, ‘who should make and who should agree with adaptations of prior rules and with new rules?’ shows redundancy with boundary rules. For this research, the question who is involved in planning and decision-making and to which degree (information, consultation or co-decision), is covered by boundary rules (see Subsection 7.3.3).
The aggregation rules concentrate on the coherence between and the nature of decision-making at different administrative levels within a river basin.

In the decentralised unitary state tradition of the Netherlands provinces play the role of regional coordinators and integrators of national sectoral policies. They translate national instructions and guidelines within the context of specific regional and local physical, social, economical and political conditions. Actually, top-down instructions intermingle with regional and local bottom-up practices. National instructions should be considered within the context of extensive, informal, consensus-based drafting and negotiation processes in the corridors of the formal democratic decision-making venues. At the provincial level, water experts from the province and the regional water management authorities dominate the water policy implementation scene. Environmental NGOs and socio-economic interests groups try to influence decision-making on the implementation rules by lobbying or participating within the general assemblies of both the province and the regional water management authorities, by informal and formal consultations and by setting-up local projects in co-production with the authorities. Furthermore, the North-Brabant Province offers ample opportunities for co-productions and negotiated agreements in its areal processes (such as the rural areas revitalisation approach and the Natura 2000 processes). Within the room offered by provincial instructions and guidelines the regional water management authorities develop their own tailor-made operational rules and practices. Aggregation procedures within the Dutch water policy domain circle around policy ambitions and objectives which are predominantly intentional in nature.

As expressed in Chapter 6, the Dutch actors struggle with the obligatory nature of the WFD requirements. The national Water Policy Department emphasises the importance of local tailor-made initiatives for compliance with the Directive's objectives. The domestic implementation planning approach reaffirms the coordination role of the provincial authorities in bridging national wishes and local practices. Given the large number of actors within the Dutch part of the river basin and different cultures and practices among the involved provinces and regional water management authorities, a functional project bureau is considered a valuable, supportive process coordination structure. The WFD Meuse Project Bureau plays a central role in translating the national instructions and guidelines on the one hand and harmonising the results from the local areal processes on the other hand (Interviews 11, 12 and 18, Appendix I). Figure 7.1 provides an overview of the regional WFD implementation planning coordination structure (translation from Dutch figure in RBOM, 2005a).

The politicians in the Regional Meuse Political Platform (RBO Meuse; project unit A) provide the assignments for the WFD Meuse Project Bureau (project unit B), which should organise its own working-force (in cooperation with the participating governmental administrations). Representatives of national ministries, provinces, state and inland water management authorities and two (out of 114) municipalities tune their WFD implementation planning activities within the new platform. The platform has an informal status since it provides non- legally binding advices on harmonisation of the interdependent WFD processes at the national, regional and local levels (RBOM, 2005a). Regional and local authorities may relatively autonomously translate
the national WFD implementation guidelines and instructions, as long as deviations are supported by legitimate arguments. As being informal in nature, decisions from the National Political Water Platform generally are accepted as best possible consensus. The WFD coordination process is considered as a project, in which the RBO chair acts as principal and the director of the Project Bureau as contractor (RBOM, 2005a; Interview 12, Appendix I). The chair and the Management Group (project unit C) jointly decide on the financial and human resources for the Project Bureau. The Project Bureau shall provide the products as requested by the RBO and the Management Group and shall prepare political decision making. Participating administrations may detach employees at the Project Bureau who should work at regional Meuse interests, hence not represent the interests from the parent organisations. The Project Bureau may install permanent and temporary thematic working groups and shall coordinate the WFD activities in the local processes (which are steered by the regional water management authorities; ibid.).

Figure 7.1: WFD coordination structure in the Meuse River Basin (2005 to 2009)

The official equivalent of the political platform (RAO Meuse; project unit D) has two central tasks (RBOM, 2005a; Interview 12, Appendix I). The first one is to advice the project director on documents for the political meetings. In the end, the project director who also runs the secretariat and chairs the official platform meetings is accountable to the politicians. Secondly, the RAO members shall organise the required human and financial resources and political decision making within their home organisations. Preferably, the RAO members are managers. The Regional Meuse WFD Consultation Platform (project unit E) includes representatives from environmental NGOs and socio-economic interest groups. The consultation platform may advise the RBO members on products and attention points both on request and own initiative. The project director selects relevant documents for discussion with the platform members (ibid.).
The final Meuse Memorandum (RBOM, 2009: 2) clearly summarises the regional WFD aggregation rules (translation from Dutch added):

1. Results from the local WFD processes are summarised in (draft) Meuse Memoranda and discussed in the Regional Meuse River Basin Platform.
2. The platform members take care of coherence and regional consistency and provide advises to the individual authorities.
3. Individual authorities may incorporate the regional advises into the local implementation processes.
4. The results from the local implementation processes will be incorporated in own water management plans.
5. The WFD parts from the regional and local water management plans will be provided to the national authorities for inclusion in the (draft) river basin management plan.
6. The Regional Meuse Political Platform will provide the final Meuse Memorandum as background document to national, regional and local authorities.

Remarkably, the memorandum does not mention the role of the Regional Meuse WFD Consultation Platform within this aggregation process (ibid.).

Table 7.8: Ideal-type collective-choice aggregation rules of IRBM (regional level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Independent decision-making on water policy and management plans at different administrative levels within a river basin.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Asymmetric, top-down decision-making on water policy and management plans at different administrative levels within a river basin: lower levels have to comply with the rules from the higher levels.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Symmetric, consensus based decision making on water policy and management plans at different administrative levels: mixed top-down and bottom-up rules.</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B and C rules as expressed by the ‘X’.

The observations of this research point at a juxtaposition of ideal-types B and C both before and after adoption of the WFD (see Table 7.8). Given European obligations, top-down instructions should prevent non-compliance fines from the EC. At the same time the national Water Policy Department emphasises the importance of enough room for regional and local tailor made implementation proposals in order to generate support for the river basin management plans. The regional river basin coordination structures are pronounced exponents of a mixed top-down and bottom-up approach. Its informal nature fits well in the Dutch traditions, whereas the extensiveness of the working-structures is remarkable. Although non-governmental actors are allowed to raise advisory voices, emphasis within the Meuse River Basin is on their
ex post information and consultation. Gradually, as partially influenced by experiences from other river basins (such as the Scheldt), the non-governmental actors are consulted earlier, i.e. before adoption of documents by the governmental authorities.

7.3.6 Information rules
As defined in Section 2.2.8, one major collective-choice challenge of IRBM is to collect, aggregate and present information in such a way that river basin management plans are acknowledged and supported by a majority of interested public and non-governmental stakeholders. A critical dimension of this challenge is the types of information that are considered legitimate in combination with the nature of the collection and aggregation process. The focus of this research is on this critical dimension. Three ideal-type information rules have been identified (see Table 6.7).

As concluded in Subsection 7.3.3 (boundary rules), at the regional level before adoption of the WFD the water policy planning process is dominated by the provinces. In North-Brabant the Provincial Executive organises periodical informal information exchange meetings with representatives from environmental NGOs and socio-economic interest groups. Emphasis is on extensive informal consultation and negotiation prior to formal consultation and decision-making. Negotiated agreements dominate the scene with the rural areas revitalisation process as one striking example. In general common agreement is reached on information as aggregated in policy and management documents and the chosen objectives and measures reflect political compromises. However, differences of interpretation may persist such as expressed by representatives of agricultural interest organisations and environmental NGOs after the Cork agreement (Ploegmakers, 2007; Interviews 28 and 49, Appendix I).

In the regional WFD implementation planning process in the Meuse River Basin, predominantly, water experts and policy officials have collected, interpreted and aggregated technical-scientific and socio-economic information for the Article 5 and subsequent river basin management plan. At the stage of drafting the Article 5 report the Regional Meuse WFD Consultation Platform did not exist. Joint fact finding took place among the state and regional water management authorities and the provinces. The municipalities have not been involved actively at this stage (Ministerie van Verkeer en Waterstaat, 2005; Interviews 11 and 30; Appendix I). In the adjacent Scheldt River Basin the WFD Consultation Platform has been involved in the Article 5 drafting stage. In this basin representatives of the recreation and agricultural sector differed of opinion with officials at the State Waters Management Agency regarding included socio-economic figures (Santbergen, 2005; Interviews 3 till 5, Appendix I). Furthermore, the interviewees 1 till 10 (Appendix I) explicitly stated that the Article 5 report is the responsibility of the governmental and water management authorities. The Article 5 reports in the four Dutch river basins have not been subject to a formal consultation procedure. Based on the reports four significant water management issues have been identified at the national level and not per individual river basin (Ministerie van Verkeer en Waterstaat, 2006d). The significant water management issues have been subject to a formal consultation procedure which triggered six reactions only.
(Ministerie van Verkeer en Waterstaat, 2007c). The reactions were generic and did not specifically concern issues in the International Meuse River Basin District (ibid.).

In the stages of formulating objectives and measures and drafting the Meuse River Basin Management plan environmental NGOs and socio-economic interests groups are informed and consulted informally at meetings of the WFD Consultation Platform. Many questions relate to cost-effectiveness and societal costs and benefits of investments. Despite national guidelines and harmonisation efforts regional and national economic analyses mainly run in parallel. The state actors collect and aggregate regional information to perform national analyses. At the same time the WFD Meuse Project Bureau conducts its own analyses with the same figures. Remarkably, the figures of the national and regional analyses are difficult to compare, partly due to different ways of aggregation and presentation. Consequently, environment NGOs and agricultural and industrial interest groups in the Meuse region express a lack of transparency and coherence between the national and regional analyses and debates develop about interpretation of the apparently different economic figures. The lack of common definitions of multi-interpretable terms like disproportionate costs adds to the confusion.

Some interests groups initiate contra (sector) analyses. As a striking example, the Industrial Water Association (Vereniging Industrie Water) asks a student to inventory the potential impact of the WFD on investment costs by industry, based on waste water treatment costs figures of the regional water management authorities. The conclusions are not discussed with these authorities prior to lobbying by the association within the political networks in The Hague. The water authorities do not fully support the conclusions. Remarkably, not all regional water management authorities could provide for financial experts to participate in the regional project group on economic issues. Consequently, a consultancy firm has been hired to fill this gap but memoranda by the working-group often did not receive much attention at meetings of the WFD coordinators and the official and political platform meetings, mainly due to their highly technical nature.

Within both the Article 5 report and the Meuse River Basin Management Plan, contributions by municipalities are hardly noticeable, although the latter includes more indications. There are no explicit contributions from NGOs or socio-economic interest groups which make the state and provincial authorities and the state and regional water management authorities the predominant owners of the plans. Both documents express a mixture of a technical-scientific and a socio-economic rationale. Technical measures, cost-efficacy analyses and feasibility and affordability arguments have dominated the first WFD implementation planning cycle. The formal consultation round shows that opinions on the chosen ambitions (the objectives and measures) in the Meuse River Basin Management Plan differ considerably among the interests groups. For example a classic divide between agriculture and nature becomes noticeable. With regard to the new Water Plan of the North-Brabant Province two opposing advise reports on the socio-economic costs and benefits of the WFD investments have been conducted. These reports illustrate the controversial issue of economic valuation of water-related costs and benefits.
The observations from this research point at a juxtaposition of ideal-type A and B IRBM information rules both before and after adoption of the WFD (see Table 7.9).

Table 7.9 Ideal-type collective-choice information rules of IRBM (regional level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>The river basin management planning process (definition of means and ends) is predominately driven by expert information and knowledge from the natural sciences. Validity and reliability are central criteria for legitimised information and knowledge.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>The river basin management planning process (definition of means and ends) is predominately driven by expert information and knowledge from the economic sciences. Costs-benefits ratios and economic efficiency are central criteria for legitimised information and knowledge.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>The river basin management planning process (definition of means and ends) is driven by information and knowledge from multiple disciplines and both from experts and lays. Joint fact finding and social robustness are central criteria for legitimised information and knowledge.</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’.

7.3.7 Pay-off rules

As defined in Section 2.2.9, pay-off rules point at the incentives and deterrents for action (Ostrom, 2005). In interaction with other rule types pay-off rules affect the net benefits and costs that will be assigned to particular combinations of actions and outcomes (ibid.). In the context of this research, three ideal-types of IRBM pay-off rules have been identified (see Table 7.10).

Before and after adoption of the WFD a juxtaposition of ideal-type A and B IRBM pay-off rules dominates the regional water policy domain. Legal regulations which include water user license systems are supported by economic incentives, such as provincial subsidies for the implementation of measures and financial contributions to interest groups (for generic capacity building of critical counter voices). The polluter pays and the user pays principles have been translated into water tax systems for groundwater and surface water protection, waste water collection and treatment and drinking water production. Provinces formally may overrule contradictory practices of the regional water management authorities and municipalities, although within the Dutch institutional context this is not common practice (Van Rijswick and Havekes, 2012; Interviews 45 and 46, Appendix I). One might argue whether negotiated agreements from the integrated areal processes in the North-Brabant Province point at ideal-type C pay-off rules. Based on the observations this research concludes that the integrated areal processes are mainly oriented at the objectives from provincial policies. Although
multiple stakeholders have direct access to areal committees, it is up to the General Assembly of the Province to finally approve the proposed programmes of measures. There are no strong indications for decentralised communitarian initiatives or local self-organisation in which public and non-governmental actors voluntarily invest resources in a search for collective arrangements.

The regional WFD coordination process builds on these provincial traditions. The competent authorities orchestrate the planning and decision-making process. Non-governmental stakeholders are mainly invited as audience without being subsidised for taking their seats. At the end of the play they applaud politely and take their opinions home. Some may feel relieved either because the governmental players did not live up to the initially high WFD ambitions, or since the consequences are milder than feared for. The majority is glad not to have become co-opted. At the end of the first WFD implementation planning cycle, a large part of measures from prior water policy is labelled as WFD proof contributions and as such perceived as more firmly anchored (indicating a shift from national intentions to European obligations). Despite requests from interests groups, no additional funds are raised for capacity building of stakeholders for active participation. Joint fact finding is a game for the governmental officials and water experts mainly. Although initially, provincial deputies chair and attend the consultation platform meetings, their enthusiasm leaves by horse. Despite incidental attempts by some interests groups to join forces in order to trigger a joint search for trade-off opportunities (e.g. the initiative by the Limburg Environment Federation (Limburgse Milieu Federatie; LMF) and the Limburg Agriculture and Horticulture Organisation (Limburgse Land- en Tuinbouw Organisatie; LLTO) to discuss feasible WFD measures in the agricultural sector at grass-roots level) collaborative capital does not flourish at the WFD sessions. The competent authorities remain within their comfort zones of technical and economical assessments and information and consultation rituals. In their struggle with the technical WFD requirements, less energy remains for encouragement of active stakeholders’ involvement.

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Rewards and sanctions from laws and regulations are major drivers for compliance with collective rules (e.g. as expressed by standards and license conditions).</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Economic incentives and market forces are major drivers for compliance with collective rules.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: (Sub-) Basin communities voluntarily invest resources (human, financial, expertise) as collaborative capital for compliance with collective-choice rules.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’.
7.4 Regional rules in the context of policy discourses, actors and resources and power

In the previous section observed collective-choice IRBM rules types at the regional level have been presented both for the 1990 to 2000 period (before adoption of the WFD) and the 2001 to 2009 period (the first WFD implementation planning cycle). As argued in Chapter 2, rules development over time should be best studied in relation to (changes in) the other three dimensions of a policy arrangement: policy discourses, actors (coalitions and oppositions) and the distribution of resources and power. Observations from these three dimensions may deliver potential explanations for observed (changes in) rules types or the lack thereof. Since the WFD has elaborated the IRBM paradigm into a uniform set of rules and principles for all European water resources, one may expect rules changes to occur depending on the extent to which the new rules fit into the domestic rules, traditions and practices. In other words, how new are the (integrated) river basin management discourse and its related rules and principles? To which extent do these trigger changes in actor constellations and the distribution of resources and power? Given the new European policy discourse as a starting-point for this research this section begins with the policy discourse dimension of the policy arrangement approach.

7.4.1 Policy discourses

As explained in Subsection 2.3.2 regarding policy discourses, Wiering and Arts (2006) distinguish three layers: (1) world views or paradigms (which are most difficult to influence), (2) policy and governance principles (which are the actors’ utopias) and (3) operational rules and practices (e.g. daily water management routines which are relatively easy to alter). In the 1990 to 2009 period at the regional level three paradigms become noticeable with regard to the water policy domain. First of all, the decentralised unitary state pops up again, in which the provinces are the translators and integrators of national sector policies into regional policies and regulations. Secondly, in order to implement these policies and regulations, an integrated areal management approach is advocated. Thirdly, more specific for the water policy domain, the provincial authorities embrace the integrated water systems management approach. Table 7.1 summarises the observed governance and policy principles in the Dutch regional water policy domain in the 1990 to 2009 period. Although governance principles are interpreted here as mainly organisational in nature and policy principles as substantive, certain redundancy may occur. Furthermore, some principles may relate to multiple rules types. To a considerable extent these principles resemble the ones at the national level.

At the regional level the public actors struggle with the democratic legitimacy of the activities in the Regional Meuse Political Platform and the roles and positions of the individual authorities in the regional coordination of diverse local WFD implementation planning processes. Specific discussions concern the tasks and competences of the Meuse WFD Project Bureau and its independent director. A special Installation Decision (Instellingbesluit) has been signed which has provided the project director a central position in bridging local practices and national instructions (RBOM, 2005a).
Table 7.11: Policy discourses and rules (Dutch regional level; 1990 to 2009 period)

<table>
<thead>
<tr>
<th>Type of rule</th>
<th>Policy discourses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope:</strong></td>
<td>Governance principles: Informal river basin management planning coordination; Strategic multilateral and bilateral coordination by national authorities and bilateral implementation by provinces and inland water management authorities; Parallel regional WM21, WFD and Natura 2000 implementation processes; Integration of measures in the local WFD processes. Policy principles: Integrated management of water quality and quantity issues; Taking into account relations between surface water and groundwater bodies; Water as a guiding principle in spatial planning.</td>
</tr>
<tr>
<td><strong>Position:</strong></td>
<td>Governance principles: Preconditioned protection of historical land property and user rights; Land acquisition based on voluntary agreements; Blue-green services contracts with farmers. Policy principles: Zoning of user functions and nature protection sites.</td>
</tr>
<tr>
<td><strong>Boundary (entry or exit):</strong></td>
<td>Governance principles: Conditioned access for non-governmental actors (with emphasis on information and consultation); Informal consultation in addition to, prior to formal consultation; Drinking water companies are considered as private actors.</td>
</tr>
<tr>
<td><strong>Choice (authority):</strong></td>
<td>Governance principles: Generic rules over individual licenses; People, Planet and Profit; Generic national policies required for diffuse emission sources of pollution. Policy principles: Zoning of user functions; Staged reallocation of groundwater abstractions (for drinking water production); Setting limits to abstractions from discharges to groundwater &amp; surface water bodies combined with water saving pilot projects; Combined emission-immission approach; Hierarchy of water uses in case of droughts; Prevention of irreversible hydro-morphological alterations/prevention of significant damage; No deterioration (water bodies).</td>
</tr>
<tr>
<td><strong>Aggregation:</strong></td>
<td>Governance principles: Mixed local implementation planning and regional coordination; National authorities should provide for generic diffuse emission sources policies; The national Water Policy Department should take care of inter-ministerial integration of water policies objectives; Competent public actors decide, non-governmental actors are to be informed and consulted (to gain support for the river basin management plans); Synchronisation of water policies and management plans (due to the WFD). Policy principles: A level playing field for socio-economic sectors across Europe; A strict divide between European obligations and regional/local intentions.</td>
</tr>
<tr>
<td><strong>Information:</strong></td>
<td>Governance principles: Joint fact finding by public actors; Regional water management authorities should integrate all the WFD (and WM21) measures at the local level (including groundwater and water-related Natura 2000 issues). Policy principles: Scientific knowledge reduces uncertainties; Costs should not outweigh the benefits.</td>
</tr>
<tr>
<td><strong>Pay-off:</strong></td>
<td>Governance principles: Generic rules over individual licenses; Strict implementation of European obligations by a staged approach; Joint implementation by co-financing of measures. Policy principles: Polluters and users pay; Cost-effectiveness; Feasible and affordable objectives and measures; Synergy and innovation; A level playing field for socio-economic sectors across Europe.</td>
</tr>
</tbody>
</table>
Tensions have been noticeable between the WFD coordinators of the regional water management authorities and the project director (and his staff), since the former considered their own politicians as primary clients, whereas the director stressed their reporting obligations to him (as mentioned in the Installation Decision).

The national WFD deadlines are perceived as tight and time spans for organising consultation of the elected parliaments/councils and the governing boards of the participating administrations often are limited. Another issue that bothers the politicians is the regional and local room for manoeuvre within the context of national WFD implementation instructions and guidelines. The regional actors share the national dilemma of how to comply with the WFD obligations without formally altering organisational structures and without losing too much room for socio-economic development. Although the regional actors embrace the national feasibility and affordability mantra, controversies persist around the balance between national, generic measures and additional, regional and local investments. The provincial authorities (especially from Limburg) periodically stress the necessity of additional, generic policies to combat diffuse emission sources of pollution. The decentralised unitary state tradition apparently has made a full harmonisation process somehow troublesome, for example with regard to technical starting-points for coherent reporting purposes. The regional water management authorities seized the WFD momentum for image building by performing as local WFD process coordinators. However, they failed (the one more than the other) in organising adequate integration of parallel running water assignments, as asked for by the provinces. Relatively much time has been spent on selection of types of measures to be labelled as part of the WFD assignment or not.

Representatives of industry and agriculture often share arguments and positions and repeatedly ask for feasible and affordable objectives and measures. On the opposite side they often found the nature and environment NGOs and managers of specific nature conservation sites, who periodically express disappointment with the gradually eroding ambitions. Sector position papers dominate the process over cross-sector coalition building. At the meetings of the Regional Meuse WFD Consultation Platform, representatives of industry and agriculture often group on the one side, whereas environmental NGOs and nature site managers gather on the other side. Also drinking water companies often sit next to each other and express shared argumentation lines.

Overall, the WFD implementation planning discourse has not triggered dramatic changes in neither prior organisational structures nor planning and decision making traditions at the regional level. In this respect the first planning cycle delivers to the domestic starting-point not to alter Thorbecke’s House. The WFD’s paradigms, governance and policy principles have supported the Dutch integration and river basin management tendencies as of the 1990s. As a major gain, due to the regional river basin coordination process, cooperation efforts between regional water management authorities, between provinces and between provinces and regional water management authorities have been enforced. Furthermore, inclusion of municipalities has triggered local political attention to urban water management issues (see Chapter 8 for a further elaboration of the active involvement of municipalities).
7.4.2 Actors

During the entire WFD implementation planning process tensions between the regional and the national partners are noticeable (scope and aggregation rules). The national Water Policy Department struggles with inter-ministerial coordination and the mismatch of regional wishes and national political ambitions. Some regional partners do not take for granted political reasons for restricted ambitions with additional generic national policies on diffuse water pollution sources. The tensions may be part of traditional rituals in the Dutch decentralised unitary system by which the authorities continuously search for compromises. Despite these tensions, both the regional and national partners positively value the new WFD regional coordination structures for coalition building among public actors and do wish to continue with them in the second WFD implementation planning cycle as of 2010. The regional WFD implementation planning structures trigger extensive contacts and information exchange among officials and politicians of national, regional and local governmental administrations and regional water management authorities. Other areal processes, such as WM21, Natura 2000 and rural areas reconstruction continue in parallel and cross-actor network linkages are limited.

Regarding position rules, provincial authorities and farmers interests’ organisations find each other in the cautiousness not to trigger dramatic, additional spatial claims for WFD-related objectives and measures. Given the consequences of the rural areas reconstruction process on the position of land owners additional WFD claims are not broadly supported by the agricultural sector. The North-Brabant Province prudently opens the discussion on land expropriation as ultimate instrument for cases where one single land owner may hinder compliance with nature protection policies. However, the emphasis remains on voluntary land acquisition and environmental management contracts with farmers (for so-called blue-green services). Environmental NGOs and some officials at regional water management authorities view obligatory land acquisition as necessary to (fully) comply with the WFD requirements. Concerning supply and demand management (choice rules) provincial authorities and drinking water companies agree on conditioned and staged reallocation of deep groundwater abstractions in order to combat desiccation of nature sites. As best practice for protection of groundwater extraction areas (for drinking water production), the Clean Water Approach has been advocated as cost-effective WFD measure. This approach includes a broad coalition of the North-Brabant Province, six municipalities, Brabant Water (i.e. a drinking water company), ZLTO (i.e. one major farmer interests’ organisation) and a number of individual farmers (named as the Duinboeren) who jointly take preventive and protective measures.

With regard to boundary and aggregation rules, there is a remarkable sharp distinction between public actors (who have access to the river basin management platform) and other stakeholders (who may attend information and consultations meetings). Provincial authorities, regional water management authorities and some municipalities join forces in the informal WFD river basin coordination structures. Finally, it is up to these public actors to decide on objectives, measures and disproportionality. Municipal actors struggle with representation on behalf of the 114 municipalities within the Meuse River Basin. Although regional divisions of the State Waters Management
Agency (Rijkswaterstaat) participate at the regional coordination structures, they mainly concentrate on their internal and national harmonisation processes. Since also the regional water management authorities have their main focus on the local areal processes, limited time is left on discussing no-shift principle issues regarding these regional and state managed water bodies. Intensive coordination takes place in the WFD implementation planning process between the Limburg Province, the regional water management authorities and municipalities. In the North-Brabant Province, initially, this coordination is less intensive and harmonious. For example, late in the first WFD implementation planning cycle (in 2008) laborious discussions arise on ground water management issues among municipal and provincial actors and the regional water management authorities.

The chosen WFD process coordination approach in the Meuse River Basin (with emphasis on information and consultation of non-governmental stakeholders) has triggered polarised debates (pay-off rules). Traditional differences of opinion between both environmental NGOs and socio-economic interest groups remain dominant, despite incidental cross-sector initiatives. Although the conclusions from the aforementioned joint project by the LMF and the LLTO on identification of feasible and affordable measures sounded promising (since both grass-roots supporters arrived at common agreement on preferable WFD measures), these did not trigger subsequent initiatives within the North-Brabant Province and at the level of the entire Dutch territory of the Meuse River Basin. Position papers from sector organisations (agriculture, nature, industry and drinking water) kept dominating the scene, while the public actors concentrated on their mixed technical-scientific and socio-economic information gathering and interpretation process (information rules). Within the North-Brabant Province, distrust between the environmental NGOs and the farmers’ interest organisations, as developed within the rural areas revitalisation process, may have contributed to a limited coalition-building attitude in the WFD process.

### 7.4.3 Resources and power

Around 2005 the North-Brabant Province views itself as natural director of the regional WFD process but mentions that ‘the water management authorities refuse to accept to be directed’ (Bos and De Smit, 2005b: page 7 in appendix 4; aggregation rules). The province stresses the opportunity for the regional water management authorities to act as leaders of the local WFD processes given they are the primary technical water experts. The Province emphasises the shared assignment of the state and regional water management authorities and provinces and advises the water authorities to join forces with the province (in order to negotiate with the state and municipalities).

Remarkably, in a 2005 interview a representative of the Inter-Provincial Platform (IPO), argues that ‘although provinces mention that they want to direct the regional processes they walk away from the consequences in terms of human and financial resources’ (Bos and De Smit: page 4 in appendix 4). These citations must be interpreted in the context of the starting-up stage of the regional WFD coordination process in the Meuse River Basin at which the regional water management authorities were not very active with the WFD assignment. At the stage of the local, areal WFD processes in 2007 and 2008 the reverse occurs when the regional water management
authorities criticise the North-Brabant Province for a lack of human resources. The then provincial authority concentrates its human resources at the parallel rural areas revitalisation and the local Natura 2000 processes (scope rules). In the Limburg Province the WFD coordination process with the regional water management authorities runs more smoothly.

With regard to position rules in both provinces historic land property rights are respected as much as possible (Interviews 30 and 41, Appendix I). Emphasis is on land acquisition on a voluntary basis with expropriation as the final resort for a limited number of cases. Europe’s water policy obligations trigger the explicit demarcation of spatial claims hence point the finger at classic tensions between environmentalists and farmers, as triggered by limited progress with voluntary land acquisition. The largest farmers’ interest organisation (ZLTO) shows a cooperative attitude but, for obvious reasons, prefers voluntary environmental contracts with farmers over land acquisition. Smaller cattle breeding interests groups frequently raise voices at the Regional Meuse WFD Consultation Platform meetings, opposing or at least challenging common conclusions by quoting controversial websites and citations (which were denied by cited researchers and experts when confronted with these quotes by the author). These representatives do not receive much support from other platform members, provoke controversies with the WFD Meuse Project Bureau and mostly take an isolated stance.

As stimulated by the national water ambassadors’ arrangement, the WFD process triggers a significant mobilisation of municipal actors. Municipalities that house one ambassador are more active than many others without (boundary rules). National authorities have granted €25 millions for WFD synergy projects in the Meuse basin which include cooperation efforts of regional water management authorities and municipalities and WFD and WM21 integration measures (scope rules). Laborious discussions have been provoked by the Hollandse Delta Water Management Authority since it asked a larger part of the synergy cake as compared to its financial share to the project bureau working costs. This discussion caused irritation among the officials at other regional water management authorities whereas their politicians decided to maintain peace and approved the additional claim (at the expense of lower shares; pay-off rules).

Regarding water supply and demand (choice rules) the international drinking water interests umbrella organisation (RIWA Maas) acts as a persistent ambassador. Often its representatives are supported by individual drinking water companies both from the Limburg and North-Brabant Provinces. Due to dissatisfaction on the way that drinking water issues are dealt with in the regional and local WFD processes, the drinking water sector in the Meuse River Basin organises its own workshops and lobbying activities. The conclusions and recommendations are offered to involved authorities. By repetition the drinking water companies ask for more attention to interactions between groundwater and surface water bodies and offer expertise and text proposals to the water management authorities (scope rules).

As described in the previous Chapter, the Dutch WFD “funnel model”, mainly due to political pressure by the Lower House of Parliament and lobbying by interests groups leads to a gradual, political favourable reduction of implementation cost estimations (information rules). Not surprisingly, since national figures are based on regional
inventories, also cost figures for proposed WFD measures in the Meuse region gradually decrease. Table 7.12 presents the regional figures on costs and benefits in the subsequent Meuse memoranda. Due to the estimated investments on the entire water assignment in the 2007 to 2027 period, annual costs for all authorities together will increase to about €142 million (which means an average 0.9% annual increase of water management related expenses). This average is lower than the historical 2000 to 2006 trend, although differences may occur between subbasins in the Meuse region.

Table 7.12: Estimated costs and benefits for WFD measures in the Meuse region

<table>
<thead>
<tr>
<th></th>
<th>2005 Meuse Memorandum</th>
<th>2006 Meuse Memorandum</th>
<th>2009 Meuse Memorandum (4.0 edition)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WFD costs (€):</strong></td>
<td>863 millions (2005 to 2009) by regional water management authorities only.</td>
<td>Range from 93 to 654 millions a year (mainly by regional water management authorities between 2002 and 2015). Range from 0 to 360 millions a year for national, generic measures (incomplete package; 2002 to 2015). Range from 1 to 100 millions a year (Rijkswaterstaat) (2007 to 2015).</td>
<td>1.3 billions for the 2007 to 2027 period; including measures of regional water management authorities and municipalities *).</td>
</tr>
<tr>
<td><strong>WM21 costs (€):</strong></td>
<td>Not identified.</td>
<td>Not identified.</td>
<td>0.3 billions (2007 to 2027; measures of regional water management authorities and municipalities).</td>
</tr>
<tr>
<td><strong>Total costs (€):</strong></td>
<td>Not identified.</td>
<td>Not identified.</td>
<td>2.5 billions (2007 to 2027)**)</td>
</tr>
<tr>
<td><strong>Benefits (€):</strong></td>
<td>Not identified.</td>
<td>24 to 119 millions a year for households; -0.3 to -9.5 for agriculture; other functions/uses: qualitative estimations.</td>
<td>Only qualitatively since quantification is not considered feasible (lack of reliable methods).</td>
</tr>
</tbody>
</table>

*) €0.9 billions of measures for quality amelioration of regional water bodies are included in the draft Meuse River Basin management plan; €0.4 billions of regional measures are excluded due to uncertainties of financial resources and/or technical feasibility. €0.5 billions (out of 0.9) will be invested before the end of 2015; the remaining €0.4 billions will be invested before the end of 2027. **) April 2008 (3.1 edition), total investment costs were estimated to be €3.4 billions, so a further reduction has taken place since then. There are differences in the figures on WM21 measures. Not all regional water management authorities have included the entire WM21 assignment. Also costs for the (water-related) Natura 2000 assignments are incomplete. €0.9 billions relate to measures from Rijkswaterstaat, groundwater measures by provinces account for €30 millions; remaining €1.6 billions are for measures by regional water management authorities and municipalities (including €0.4 billions additional to current policies due to the WFD).
In their final memorandum, the regional authorities conclude that a sufficient reliable translation of expected annual investment costs to their distribution among different target groups like households and industries has not been possible (RBOM, 2009; information and pay-off rules). For both insiders and outsiders the different economic figures were difficult to compare. Causes are the differences in applied unities and cost figures for measure types, implicit notions on cost-effectiveness and political choices, the very technically written financial memoranda and the aggregation differences between regional and national economic analyses (see also Subsection 6.4.3).

7.5 Synthesis: regional coordination, ugly duckling or showpiece?

In this final section observed collective-choice rules at the Dutch regional level are linked to observations from the other three policy arrangement dimensions: policy discourses (Subsection 7.4.1), actors (coalitions and oppositions; Subsection 7.4.2) and distribution of resources and power (Subsection 7.4.3). Potential explanations for continuation of or changes in observed rules-types are derived from observations on these three dimensions and from literature. Table 7.13 brings together the observations from the analyses of all four dimensions. The grey-coloured cells indicate remarkable evolutions.

Regarding organisational scope rules the Netherlands show a strong tradition of a decentralised unitary state in which provinces coordinate the translation of national water policy within the context of specific regional conditions and in which functional water management authorities maintain a central position in implementation. The IRBM discourse from the 1990s has been firmly incorporated within the WFD and supports a further merging of the water management authorities into bigger organisations. The WFD also triggers the initiation of river basin management planning structures at the regional level, which are functional and informal in nature and should be understood as additional to generic, parliamentary institutions. These new platforms fit well in the Dutch tradition of informal deliberations and consultations prior to formal consultation and decision-making procedures.

During the 1990 to 2009 period an internal integration evolution becomes noticeable which may be explained from a combination of the Dutch water systems approach, the WFD’s integrated river basin management discourse and the new public management discourse (substantive scope rules). The WFD triggers more explicit attention to groundwater issues and (quantitative) interactions between groundwater and respectively surface water bodies and terrestrial ecosystems. Although both quality and quantity issues are increasingly incorporated into water legislation, policy documents and management plans, they are elaborated for individual groundwater and surface water bodies mainly. Furthermore, surface water quantity thresholds implicitly relate to water user functions and basic ecological requirements. Fully integrated objectives and measures for related surface and groundwater bodies are a bridge too far. Their formulation is hindered by a combination of knowledge gaps and tensions between land user sectors, most notably nature site managers and farmers, which hinder fast progress with quantifying desirable ground- and surface water tables.
Table 7.13: Observed collective-choice rules and potential explanations (regional level)

<table>
<thead>
<tr>
<th>Rules-types in the 1990 - 2009 period</th>
<th>Potential explanations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope (organisational): Water policy is implemented by functional water management agencies and actors networks. These agencies are controlled by parliamentary institutions (ideal-type B).</td>
<td>Stable, public actor/expert-driven water policy domain; Integrated River Basin Management paradigm</td>
</tr>
<tr>
<td>Scope (internal integration): Enforcement of the evolution towards more integrated legislation, policy documents and management plans (from ideal-type A towards B).</td>
<td>Integrated River Basin Management paradigm; New Public Management paradigm; Tensions between land user sectors</td>
</tr>
<tr>
<td>Scope (external integration): Policy documents and management plans from other policy domains take into account water issues and reversely (ideal-type B).</td>
<td>Speciality Principle; Leapfrog Principle</td>
</tr>
<tr>
<td>Position: Conditional maintenance and acquirement of water and land resources use and property rights. Conditions include requirements to consider social, economic and/or environmental externalities (ideal-type B).</td>
<td>Political influence of farmers’ interest organisations; Tradition of voluntary agreements; Multiple interpretations of sustainable development</td>
</tr>
<tr>
<td>Boundary: Non-governmental actors may have access to the river basin management planning process under conditions set by the public actors. Emphasis on co-thinking and consultation (ideal-type B).</td>
<td>Stable public actor/expert-driven water policy domain; Provinces are eager to proof their reason of existence</td>
</tr>
<tr>
<td>Choice (supply and demand management): In general a mixed supply and demand management approach. In case of prolonged droughts, the approach is more integrated in nature as expressed by a hierarchy in user functions (juxtaposition of ideal-types B and C).</td>
<td>Integrated River Basin Management paradigm; Advocacy by environmental NGOs</td>
</tr>
<tr>
<td>Choice (nature of the license system): An evolution towards licenses that integrate quantity and quality objectives related to development, management and use of water resources (from ideal-type A towards B).</td>
<td>Integrated River Basin Management paradigm; New Public Management paradigm; Stable public actor/expert-driven water policy domain</td>
</tr>
<tr>
<td>Aggregation: Both asymmetric, top-down decision-making and symmetric, consensus based decision-making examples on water policy and management plans at interrelated administrative levels (mix of ideal-types B/C).</td>
<td>A decentralised unitary state; Subsidiarity; Integrated River Basin Management paradigm; Tradition of informal consensus building</td>
</tr>
<tr>
<td>Information: The river basin management planning process is driven by a mixture of a scientific-technical and social-economic rationale. Validity, reliability, cost-benefit ratios and economic efficiency are central criteria for legitimised information/knowledge (juxtaposition of ideal-types A and B).</td>
<td>Stable, public actor/expert-driven water policy domain; Neo-liberalism</td>
</tr>
<tr>
<td>Pay-off: Both rewards and sanctions from laws and regulations and economic incentives and market forces are major drivers for compliance with collective-choice rules (juxtaposition of ideal-types A and B).</td>
<td>Stable, public actor/expert-driven water policy domain; Neo-liberalism; Polluter pays, affordability, cost-effectiveness</td>
</tr>
</tbody>
</table>

The grey-coloured cells indicate remarkable evolutions.
The WFD implementation planning process does not trigger changes in prior cross-
sector integration rules. The leapfrog principle remains dominant at the provincial
level. Plans of other policy domains have to take into account water-related objectives
and reversely. A stable configuration of power and resources with the specification
principle as one fundament may account for the lack of rules changes. Besides, the
WFD text itself does not include either strong legally binding cross-sector
arrangements or strong informal triggers.

The WFD does not trigger a dramatic reallocation of land user and property
rights and water resources user rights at the regional river basin level. Prior Dutch
rules for maintenance and acquirement of property and user rights persist without
significant alterations. The strong political influence of farmers’ interest organi-
sations; multiple interpretations of sustainable human development and activities and the pref-
erence of provincial authorities for voluntary agreements over land expropriation may
account for protection of the status quo. Persistent Dutch water policy planning tradi-
tions with a strong position of both experts and public actors and including informal
information and consultation of non-governmental actors may explain for the ob-
served stability of boundary and aggregation rules at the regional level. In the regional
WFD coordination process, a new platform has been initiated for informal informa-
tion and consultation of non-state actors (including drinking water companies). The
juxtaposition of asymmetric, top-down and symmetric, consensus based decision-
making on water-related issues is reconfirmed by the chosen WFD implementation
planning approach, with a mixture of top-down and bottom-up rules.

A juxtaposition of parallel and more integrated supply and demand management
rules is noticeable in the Dutch regional water policy landscape (choice rules). Argu-
ments of economic efficiency, social equity and ecosystem protection all implicitly
influence water distribution decisions without transparent interconnections. Protec-
tion of natural values has been included among the hierarchy of water demanding
functions in case of prolonged droughts. The WFD does not affect these choice rules
directly, but due to its attention to interactions between surface water and ground-
water bodies and to both quality and quantity issues, the Directive includes the poten-
tial for future changes. Albeit not caused by the WFD directly, the license systems on
water-related activities have evolved into a more integrated nature in the 1990 to 2009
period. This change of choice rules may be explained by the continued IRBM and new
public management discourses. Further integration into the environmental licences
system did not take place, partly due to opposition of the regional water management
authorities (see also Section 6.5).

Concerning information rules, generally the predominant technical and socio-
economic figures as collected and aggregated in water policy documents and manage-
ment plans is acknowledged by the directly involved public actors. Due to extensive
information and consultation procedures, a majority of non-governmental stakeholder
groups generally also accepts expert facts and figures. Significant differences of opin-
ions mostly concern the related political ambitions (too low or too high) and conclu-
sions on objectives, measures and socio-economic consequences. The informal and
formal information and consultation procedures for the WFD river basin manage-
ment plans and related water policy and management documents at the regional level
have shown that the WFD has not triggered a process of joint fact finding and joint river basin management planning by public and non-governmental stakeholders.

The analysis of this research shows a stable mixture of a technical-scientific and a socio-economic rationale. Technical measures, cost-efficacy analyses and feasibility and affordability argumentation lines have dominated the first WFD implementation planning cycle at the regional level. The WFD implementation planning approach builds on the tradition of expert-driven water policy making in which information collection and aggregation and decision-making is dominated by public actors. Pay-off rules in the water policy domain are dominated by a mixture of economic incentives and market forces, formal rewards and sanctions and negotiated informal agreements. The boundary, aggregation and information rules (and underlying explanations from historical, stable resources and power configurations) may account for a limited joint search of public, private and civil stakeholders for collaborative capital.

In synthesis: the observations from the regional level resemble these for the national level. Within the Dutch water policy domain, a context of stable actor and power configurations, as developed in the past, and the IRBM and new public management discourses may explain for limited change of (ideal-type) collective-choice IRBM rules. The WFD has not triggered significant rules changes but has been implemented in a way that both confirms and supports water policy planning traditions and prior initiated tendencies of integration and river basin management. Finally, also the analysis of the Dutch regional level shows that potential explanations for observed (lack of) rules change are not easily drawn from assessments of individual dimensions of a policy arrangement alone. Observations from actors, the division of resources and power and policy discourses all deliver parts of the entire explanation. This observation supports the argument from the developers of both the Policy Arrangement Approach (PAA) and the Institutional Analysis and Development (IAD) framework to respectively consider the four dimensions and rule types as configurations. In the next chapter, it will become clear whether this conclusion also holds at the Dutch local level.

This chapter started with the question whether the regional WFD coordination structure (for the Dutch part of the International Meuse River Basin District) has to be considered as an ugly duckling that cries a lot and mainly triggers controversies or a showpiece of subsidiarity. The answer lies somewhere in the middle. On the one hand the regional politicians periodically weened like Calimero who felt disadvantaged by the angry outside world full of national interests. On the other hand the regional actors changed colours into David, who conquered Goliath with unbeatable regional proposals (which the national authorities have applied in other regions). The new informal river basin management network has increased coordination efforts among regional and local public actors but the process remained locked up in the water policy domain. Active involvement of non-governmental actors has been limited in the predominant technocratic implementation planning process. The regional public actors also struggled with an adequate harmonisation of local processes as guided by the regional water management authorities. Chapter 8 will continue with an analysis of rules changes in the Dutch water policy domain at the local level, the Brabant-West Region which is the territory of the Brabantse Delta Water Management Authority.
Parallel local processes and voluntary agreements in Brabant-West

‘A major dilemma in local cooperation processes is to transcend core competences and cost-efficiency arguments of individual organisations for the benefit of collective sustainable solutions. In a prolonged period of a global financial crisis this is an arduous but inspiring challenge.’ Quote from an interview with Joseph Vos, Chair of the Daily Board and General Assembly of the Brabantse Delta Water Management Authority (July 14, 2009).

8.1 Introduction

As presented in the previous chapter, the provincial authorities in the Dutch territory of the International Meuse River Basin District have tried to match national desires and local ambitions in the regional WFD implementation planning coordination process. The WFD has offered these provinces a new platform for enforcement of informal contacts with both national and local public actors. However, due to stable actor constellations and power configurations in the water policy domain as developed over time, the WFD has not triggered dramatic changes in collective-choice rules at the regional level. Although the Directive’s integration discourse has supported the observed incremental changes in part of the regional scope and choice rules (see Table 7.13 in Section 7.5), it did not trigger them. The internal integration evolution in the Netherlands has its roots in the mid 1980s when the integrated water systems approach has been introduced.

Given recurrent parliamentarian debates on a potential simplification of Dutch institutions which include doubts on the added value of provinces and regional water management authorities, both authorities could gain a lot from a proactive role in the WFD’s implementation planning process. Whereas the provinces chaired the regional coordination process, the regional water management authorities seized the WFD momentum for underlining their reason of existence. They explicitly wished to take the lead in local WFD implementation planning processes. The previous chapter has shown mixed feelings about the connective capacities of the provincial authorities. This chapter turns the spotlights on the local WFD process in relation to other local, areal water-related processes within Brabant-West, i.e. the territory of the Brabantse Delta Water Management Authority (Waterschap Brabantse Delta). It will explore to which extent the national desire for the bottom-up development of tailor-made, integrative, synergetic and innovative water management solutions has been satisfied at the local level. This chapter also includes observations on the impact of the WFD on bilateral cross-border cooperation efforts by the water management authority and actors in the Flemish Region of Belgium.

Section 8.2 starts with a brief historical overview of the water policy domain at the local level in the Dutch part of the International Meuse River Basin District before and after adoption of the WFD. Subsection 8.2.1 describes the headlines of the water
policy domain in the Brabant-West area in the 1990 to December 2000 period, as the historical context in which the local WFD implementation planning process has been started. This subsection sketches the historical path from water quantity via water quality towards all-in water management. Subsequently, in chronological order, four WFD implementation planning stages at the Dutch local level are distinguished and described in Subsection 8.2.2. The impact of the WFD on transboundary Flemish-Dutch coordination structures is presented in Subsection 8.2.3.

Section 8.3 explores the extent of changes in the identified ideal-type collective-choice rule-types regarding IRBM (as defined in Chapter 2). The observed rule-types are compared for the period in which the WFD has been drafted, negotiated and adopted (1990 to December 2000) and the period in which the first WFD implementation planning cycle took place (from 2001 to December 2009). These rules are one among the four dimensions of the Policy Arrangement Approach (PAA; Arts, Van Tatenhove and Leroy, 2000; Leroy and Arts, 2006). The four dimensions are to be understood as a configuration hence rules should be best studied in interaction with developments in the other three dimensions. Therefore as a next step, Section 8.4 provides an assessment of respectively policy discourses, actors (coalitions and oppositions) and the division of resources and power, all three in relation to the rules dimension. Finally, Section 8.5 closes this chapter with a synthesis, which summarises the potential explanations for continuities and changes in observed collective-choice rules, as derived from the developments in and interaction with the other three dimensions (and related theoretical concepts as introduced in Section 2.3).

8.2 The WFD and local policy implementation planning

8.2.1 Local life before the WFD (1990 to 2000)

_A road from water quantity…_

Before plunging into the 1990s the historical context of water management in the Brabant-West area is sketched briefly. Brabant-West is situated in the transition zone of the Meuse and Scheldt River Basins (the so-called South-Western Delta). It includes higher sandy parts in the south (at the border with the Flemish Region of Belgium) and lower clay dominated parts in the north (read Subsection 3.3.2 for a geographical introduction). In the Middle Ages large parts of the region have been covered with peat layers (both under dominant influence of salt or fresh water; Leenders, 1989). Flemish entrepreneurs started exploitation of the peat layers in the 13th Century, which ran for several ages until profitable reclamation was not possible any longer (ibid.). The large-scale peat reclamation and subsequent salt mining have invited land subsidence and inland movement of the North Sea (Van den Noort, 2009). Consequently, in the 15th Century the lower parts were under permanent tidal influence and the built-up area of the Zevenbergen Town turned into an island surrounded by the sea (ibid.).

Since 1877 national storm water reports have been drafted. These reports show that the North-Brabant Province has suffered from almost every flood event since
then (Van de Ven, 2001). For example, in 1953 about 45,000 hectares of land have been inundated, more than half of which concerned the lower clay areas in Brabant-West (ibid.). Dykes construction works became necessary to reclaim and protect the fertile clay soils and built-up areas which offered opportunities for agriculture (Van den Noort, 2009). In turn, agricultural development required drainage and discharge works, inviting controversies among adjacent areas, administrations and user functions (such as navigation, agriculture and urban life). Together with investments for agriculture and navigation, coordinated water quantity management developed (ibid.).

Several plans for drainage and navigation channels have been drawn for the Brabant-West area (Van den Noort, 2009). Mostly for disproportionate cost reasons the majority of these plans did not leave the drawing tables. For example, due to sedimentation problems the Breda City periodically had to concentrate on maintenance works for the Mark and Dintel Rivers, instead of dreaming about a water connection with Holland in the north (ibid.). Although bends in the river had been cut of in order to increase stream velocity and to limit sedimentation, the measure evoked additional measures given the sedimentation issue repeated itself more downstream (Van Bree, 1969). By the land reclamation activities the mouths of the inland rivers moved westwards and the accessibility of more inland, eastward harbours (like at Breda) decreased (Van den Noort, 2009). The limited discharge capacity of the upstream parts of the Mark and Aa of Weerijs Rivers also contributed to the sedimentation problems in the midstream and downstream parts (Van Bree, 1969).

Water quantity management requirements for navigation and agriculture differed (Van den Noort, 2009). For a natural drainage of water from the polders water levels in the rivers should be as low as possible. Due to sedimentation, the river beds rose until even water levels during the lowest tides became too high. On the contrary, for navigation higher water levels are preferable. Persistent sedimentation triggered the need for artificial drainage in the lower clay polders by means of pumps, for example driven by windmills. Finally a more sustainable solution was chosen by building navigation and discharge locks in the mouths of the Vliet and Dintel Rivers (respectively in 1823 and 1828). By means of the locks a stable water level could be maintained which was (more or less) acceptable for both navigation and agriculture in the lower parts of the Brabant-West area. The locks did not help to solve the accessibility problems of the higher inland parts and in periods of high river discharges, the locks had a negative impact on the discharge capacity as well. Additionally, due to sand banks in the upstream river parts, local water inundations also occurred in built-up areas north to Breda.

The Mark Canal (1815) in the eastern part brought a solution for navigation from and to the Breda harbour. Besides, it offered an alternative route for supply and discharge of fresh water to and from Brabant-West, respectively in periods of droughts and high river discharges or for dilution of pollution. In the 1950s the Mark River has been broadened and deepened substantially in order to discharge more water when necessary (Witter, Van Stokkom and Hendriksen, 2006; Van den Noort, 2009). Additionally, three storage basins have been created downstream Breda. Finally, the Mark-Vliet Canal (1983) brought some relieve for water quantity management in the areas around the Roosendaal and Steenbergen Cities (ibid.).
From the start of the 20th Century water pollution issues have been discussed incidentally. Since the 1940s they became subject of more serious political debates. Pollution of water systems had been forbidden by provincial rule since 1943 but the intrinsic escape options were used frequently (Van den Noort, 2009). Before the 1953 flood disaster one management option dominated the scene: transportation of polluted water elsewhere (prefereably downstream) for dilution and making use of biological degradation processes within the water systems (ibid.). Van den Noort (2009: 119) sketches the then mentality and perceived dilemma of socio-economic development in a touching way (translation from Dutch added):

As long as the water quality suffices, poets get inspired. But, whenever the quality deteriorates rapidly, complainers will grow in numbers and municipal politicians will get trapped in a split. Every municipality that dignifies itself will opt for a part of the profit cake that has been baked by industrialisation. With the inextricably related water pollution, many local politicians do not know how to deal with it, particularly when problems are caused by their own activities.
In the 1960s and 1970s cost-effective options for dealing with municipal and industrial waste water were studied. Transportation of waste water to the Western-Scheldt is among the central solutions chosen. Gradually more attention has been paid to waste water treatment infrastructure in combination with transportation elsewhere. A fear for financial claims and juridical procedures triggered waste water treatment initiatives by some municipalities (Van den Noort, 2009). Controversies between water quality management authorities and municipalities about investment costs and protection of industrial interests hindered fast decisions on waste water treatment infrastructure. For example, water quality management often was tuned to the wishes and interests of sugar beet factories and farmers did not want to pay for the pollution caused by urban areas and industries (ibid.). The adoption of the national Surface Water Pollution Act (Anonymous, 1970) within the context of international anti water pollution conventions has been an important turning-point. Discharges of untreated waste water were not longer accepted by the national authorities and became subject to a license and taxation system (to cover treatment infrastructure costs; ibid.).

During centuries the creation of new water management authorities mostly was related to financing opportunities for new infrastructural works, since these entities received the legal opportunity to raise water-related taxes (Van den Noort, 2009). The extensive use of water and land resources for diverse purposes with different quantity and quality demands triggered the need for a more coordinated and integrated water management approach (Havekes, 2008). Actually, one might say an internal integration tendency has been started already as of the beginning of the 20th Century, at least in an organisational sense. Gradually so-called polders and water quantity management authorities merged into larger administrative units (Havekes, 2008). For water quality management a limited number of water authorities were present (Van den Noort, 2009). Besides, municipalities performed waste water collection and treatment tasks. In the 1960s the North-Brabant Province launched its idea for the creation of one inland water management authority for Brabant-West both for water quantity and quality issues. In the period 1970 to 1977 this idea partly became reality with the gradual establishment of the (predominantly water quality oriented) Brabant-West Water Management Authority (Hoogheemraadschap van West-Brabant; ibid.).

A major challenge of the new water management authority was the building and operation of waste water treatment infrastructure which involved laborious negotiations and/or juridical procedures with some municipalities (Van den Noort, 2009). These negotiations concerned the question where does the municipal task in water management end and the responsibility of the regional water management authority start. It took ten years to reach an agreement with all municipalities within the territory of the regional water management authority. Since 1983 the waste water from the majority of municipalities is transported to the waste water treatment plant of Bath (in the Zeeland Province; ibid.). After treatment the water is discharged into the Western-Scheldt, in order to unburden the Lake Volkerak-Zoom (which is sensitive to nutrients loads that may cause toxic algae blooms). The new water management authority strongly focused on water quality; whereas the water quantity management authorities survived (Interview 34, Appendix I).
towards all-in water management

Around 1990, despite a significant merging process since the start from the 20th Century, there was still a patchwork of administrations involved in water quality and quantity management in the Brabant-West area. The Brabant-West Water Management Authority coordinated water quality management issues whereas nine smaller water management authorities and five cities (Waalwijk, Breda, Moerdijk, Oosterhout and Bergen op Zoom) took care of water quantity management (Van den Noort, 2009). Three out of these nine quantity management authorities crossed the borders between the Zeeland and North-Brabant Provinces. Under pressure from the provincial authority, which aimed at a more integrated water management organisation, in 1995, an important next step in the merging process took place: the nine water quantity authorities merged into four (Schelde-kwartier, Land van Nassau, Mark en Weerijs and Dongestroorn; ibid.; Interview 34, Appendix I). Subsequently, it would take until the beginning of 2004 before these four water quantity authorities merged with the Brabant-West Water Management Authority into one integrated, all-in water management authority (i.e. the Brabantse Delta Water Management Authority; Postma and Laracker, 2005; Interview 34, Appendix I).

8.2.2 Implementation of the WFD (2001 to 2009)

In the Brabant-West area, four subsequent (and partly overlapping) local WFD implementation planning stages have been distinguished (see Table 8.1).

Table 8.1: Stages in the Dutch WFD implementation process (local level)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Period</th>
<th>Brief characterisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2000 to 2004</td>
<td>Minor WFD activities. Merging of four water quantity management authorities and one water quality management authority into the Brabantse Delta Water Management Authority.</td>
</tr>
<tr>
<td>II</td>
<td>2005, 2006</td>
<td>Implementing no regret measures while exploring WFD ambitions and consequences by means of pilot projects.</td>
</tr>
<tr>
<td>III</td>
<td>2007, 2008</td>
<td>Definition of objectives and selection of measures, proposals for synergy and innovation projects.</td>
</tr>
</tbody>
</table>

Stage I: Minor WFD activities, merging of five water management authorities

Between 2000 and 2004 the water management authorities in the North-Brabant Province have not been very active with WFD implementation issues. The second Brabant-West Integrated Water Management Plan (for the period 2000 to 2004; Waterschap De Dongestroorn/Hoogheemraadschap van West-Brabant, 2000) builds on the principles from the Fourth National Water Policy Memorandum (Ministerie van Verkeer en Waterstaat, 1998) and the Second Water Policy Plan of the North-Brabant Province (Provincie Noord-Brabant, 1998). Remarkably, the plan only includes one small paragraph on the WFD which states that its consequences for the water management authorities are not clear yet. Furthermore it mentions that probably current administrative structures and plan figures will remain intact. The second
plan does not refer to the WFD environmental objectives (Article 4) or terms for compliance with objectives, instead mentions both a mid term (2018) and a long term perspective (2040). Compared to the first plan (which covered period the 1993 to 1999), the second plan emphasises the importance of an integrated areal approach in which water is linked with other policy domains (most notably nature conservation, environmental protection and spatial planning). Water is mentioned as one among guiding principles for spatial planning. The river basin management approach is mentioned indirectly by the water systems approach (ibid.) The second plan applies the 5 central themes of the North-Brabant Province: (1) establishing a sustainable fresh water provision; (2) amelioration of the quantitative conditions for different functions/uses; (3) water quality amelioration; (4) arrangement/restoration of water systems in rural areas; and (5) urban water management (Provincie Noord-Brabant, 1998).

In the 2000 to 2003 period the Brabant-West Water Management Authority prepares the merging with the four water quantity management authorities within its territory. The new, all-in Brabantse Delta Water Management Authority starts its activities on January 1, 2004 (Postma and Laracker, 2005; Interview 34, Appendix I). All-in refers to organisational integration of water quality and water quantity management issues with emphasis on surface waters. By then strategic and operational groundwater management issues are mainly covered by the North-Brabant Province. Within one century, the patchwork of more than 200 water management authorities has been replaced by one inland water management authority (Van den Noort, 2009). After the first elections for the Brabantse Delta General Assembly in November 2004, the 2005-2008 Political Programme is presented in 2005 (Postma and Laracker, 2005). The programme explicitly pays attention to WFD implementation issues.

Stage II: No regret measures while exploring WFD ambitions & consequences

Strategic reflections by the regional water management authorities
Early 2005, the three major inland water management authorities in the North-Brabant Province (Aa and Maas, De Dommel and Brabantse Delta) initiate a joint project to explore both potential minimum and maximum consequences of the WFD’s implementation and possible strategies to participate in the implementation planning processes at different political levels. Starting-point is the Article 5 river basin characterisation report. Estimations of effectiveness and costs of measures are based on available data and expert knowledge. Emphasis lies on measures of the inland water management authorities themselves (Bos, 2005 and Bos and De Smit, 2005). A generic conclusion is that ecological restoration projects of water systems are amongst the most cost-effective measures (Bos, 2005). Emission reduction investments in general are less cost-effective, notwithstanding local and specific exceptions. As a first indication, additional investments costs for WFD measures per inland water management authority in the 2005 to 2015 period might range from €40 millions (minimum package of measures) to €652 millions (maximum package of measures). These costs do not include additional human resources for implementation of measures which are estimated from 2 (minimum) to 10 (maximum) persons per involved authority (ibid.).
The Brabantse Delta and the Aa and Maas Water Management Authority distinguish water systems with high ecological potential (25% of the territory), water systems with medium ecological potential (25% of the territory) and water systems with low ecological potential (50% of the area). In the minimum scenario WFD objectives are met for all water systems with high ecological potential and for 10% of each of the other two categories (in total: WFD compliance for 1/3 of the territory). In the maximum scenario, full WFD compliance is established for 75% of the territory (Bos, 2005a).

Experts at the Brabantse Delta Water Management Authority mention stand still as an absolute minimum WFD requirement. Given that at that moment hardly any quality objective has been met, these experts expect that the WFD’s Article 4’s exemption options will have to be applied as a generic rule if the politicians choose no further deterioration as their ambition only (ibid.). For priority and other chemical substances additional measures will be required, since generic national policies are insufficient. According to the experts also for protected areas additional measures will be necessary, since derogation is not allowed for these areas. The Dommel Water Management Authority has elaborated four emission reduction scenario’s and concludes that even by means of a maximum package of local and national measures not all the WFD’s objectives may be fully met (especially not for heavy metals and nutrients; Bos, 2005a).

In the same period the Association of Regional Water Management Authorities (UvW) mentions that 80% of the WFD measures will have to be come from generic, national policies and only 20% from local measures in and around water systems (ibid.).

The consultancy firm that guides the strategic exploration observes an unclear coordination of the WFD process by the national Water Policy Department, provinces and the UvW so far. Consequently, officials and experts at the three water management authorities are uncertain about their roles and positions and show a defensive attitude (Bos and De Smit, 2005). The consultants argue that if the water management authorities manage to become more proactive, by identifying cost-effective measures in combination with agenda-setting, co-thinking with the province and national authorities on workable guidelines and instructions and alliances building (with local authorities and other stakeholders), then uncertainty may alter into a spirit of cooperation and enthusiasm. Officials at the Dommel Water Management Authority ply for strategy development on transboundary cooperation with Belgium in combination with announcing transboundary issues at the European Commission. More direct contacts with Belgian colleagues are considered desirable (Bos and De Smit, 2005). Furthermore, in their opinion the water management authority should take the lead in the local WFD implementation process (ibid.).

Whereas the Dommel Water Management Authority stresses an integrated implementation of the WFD with other assignments (such as rural areas revitalisation), experts and managers at the Brabantse Delta Water Management Authority emphasise the importance ‘to set clear priorities among the Water Management in the 21st Century (WM21), WFD and rural areas revitalisation assignments’ (Bos and De Smit, 2005: annex 3, page 9). They consider coalition building with regional and local partners very important and stress that local and regional politicians should be involved more in the WFD implementation planning choices. At present the authority has an unpleasant feeling as ‘player in an in-transparent, complex process which is
PARALLEL PROCESSES IN BRABANT-WEST

characterised by lots of input without proper knowledge, many co-talkers and co-deciders, lots of paperwork and no action’ (ibid.: 10). This water management authority asks the question whether the process perhaps has too much the character of a bottom-up process. The Aa and Maas Water Management Authority opts for a proactive attitude as opportunity to enforce its position as the water authority in cooperation with national authorities, provinces and municipalities (Bos and De Smit, 2005).

In the synthesis workshop of the strategic exploration project, managers and experts of the three regional water management authorities conclude a three-step strategy (Bos and De Smit, 2005, annex 5, page 3; translation from Dutch added):

The regional water management authorities have three major roles in the WFD implementation process:

1. Agenda formulator: to present water management within the right societal context, announce important issues for the director’s agenda by means of vision building based on areal and water system knowledge;
2. Pro-active implementer of physical projects (ecological restoration, waste water treatment) and licenses provider;
3. Alliance builder at the local level.

The overall direction of the WFD process concerns societal costs and benefits considerations hence belongs to the generic democracy (state, provinces) and not to the functional democracy (regional water management authorities).

No regret measures and pilot projects

The results of the strategic exploration have been discussed with the political chairs of the regional water management authorities. The choice for a proactive attitude in the WFD process is noticeable in the 2005-2008 Political Programme of the Brabantse Delta General Assembly (Postma and Laracker, 2005). In his preface to this programme the chair mentions ‘The European Commission will severely check whether we will comply with the anchored WFD results in time’ (ibid.: 5). The programme mentions an obligation to comply with the objectives, as compared to the intentional nature of domestic objectives. European penalties may result from non-compliance. Within this context, the programme announces additional investments to be required in the forthcoming years. Although the majority of the WFD objectives still have to be formulated, the General Assembly decides to anticipate these new requirements by selection and implementation of no regret measures which undoubtedly will be necessary for compliance. The intention is to spread additional investments till 2015 well-balanced in order to avoid disproportionate water tax rises. Measures with uncertain cost-effectiveness rates will not be implemented yet. The programme mentions interdependencies with other partners, among them the Flemish authorities, hence the importance of alliance building, coordination and cooperation (Postma and Laracker, 2005).

In 2005, the Brabantse Delta Water Management Authority also launches its first Emission Management Programme which has the character of a “living document” (Waterschap Brabantse Delta, 2005). The programme is tuned to the time schedule of the WFD implementation planning process and may serve as important building block for the new water management plan. The programme includes measures to reduce both point and diffuse pollution emission sources. The water management authority
initiates two local water quality amelioration pilot projects (which are named after the involved water systems Chaamse Beken and Rietkreek) with the aim to test implementation of potential cost-effective measures (together with stakeholders; Van den Berg and Van Lamoen, 2008). In 2006 these projects are labelled as WFD pilot projects. The General Assembly decides that the 2000 to 2004 water management plans from the former water management authorities will be valid until the new water management plan regarding the 2010 to 2015 period (conform the WFD’s requirements) will be adopted.

*Lessons from the Roosendaal Pilot WFD Implementation project*

In the second half of 2005 the Brabantse Delta Water Management Authority, the Roosendaal Municipality and the North-Brabant Province initiate the project ‘WFD consequences in urban areas – pilot Roosendaal’. Initially, a pilot project was planned with the Oosterhout Municipality. This project did not make it due to a lack of financial resources by the side of the municipality. The Roosendaal Municipality who appointed a new ambitious alderman on water management issues was eager to fill the gap. Within the first stage of the pilot project all steps of the first implementation planning cycle till the end of 2009 have been analysed for one urban area within half a year (Vroege et al., 2005a). The conclusions have been discussed with regional and local politicians at a workshop in November 2005. Lessons learned and views of the politicians have been summarised in a brochure (Vroege et al., 2005b). The second stage of the project included three interactive sessions about experiences and views on stakeholder participation at the local level (Leeuwis and Vroege, 2006). Lessons and conclusions of the pilot project have been presented at a series of information sessions for municipal experts and politicians in the first half of 2006.

The pilot project has shown that, although compliance with all WFD objectives before the end of 2015 may lead to a considerable rise of investments costs (for example due to the *one out, all out principle*), measures of current urban policies already may contribute a lot. In practice, the WFD does not introduce a complete new water assignment rather is considered as a new, European label to prior (integrated) water management practices (Vroege et al., 2005b). The participants conclude that the WFD will require more coordination and cooperation between different policy departments within local authorities such as for sewerage management, spatial planning and environment. Local authorities may need to incorporate (and/or hire) more local expertise in the organisation. The pilot project has shown major implementation dilemmas (Interviews 25 and 26, Appendix I). For example, on the one hand, in theory definition of environmental objectives for heavily modified water bodies provides political room for manoeuvre. On the other hand, in practice the technical specifications require expert knowledge which is very difficult to understand and reproduce by local officials and politicians. Hence, the approach should be simplified in order to actively involve them (ibid.).

Another dilemma is the discrepancy between water bodies as the aggregation units for European reporting purposes and smaller urban water systems which are the visible and legitimisation units for local politicians (ibid.). Local authorities may need more detailed (and expensive) monitoring and research data to defend increase of investments costs and related expenses rates (Backx, 2005). Finally, in decisions on a
staged implementation of WFD measures until 2021 or 2027, the *disproportionate costs* argument plays an important role. Local politicians have an important say in defining acceptable socio-economic costs, benefits and expenses rates (Vroeg et al., 2005b). Participants in the second stage of the pilot project concluded that the nature of the WFD assignment in principle perfectly fits into the aims of and conditions for social learning approaches. However, this requires adaptations of the present implementation process approach in which governmental authorities and technical issues dominate the scene (Leeuwis and Vroege, 2006).

**A first generic exploration of objectives and measures**

In 2006 a generic exploration of bottlenecks and potential measures takes place at the level of 6 sub-basins within the Brabantse Delta territory. The exploration is guided by the Brabant-West WFD Project Team in which 6 major municipalities, the North-Brabant Province and the WFD Scheldt and Meuse Project Bureaus participate and which is chaired by the WFD coordinator at the Brabantse Delta Water Management Authority. In practice, this exploration marks the start of the local areal process with all 21 municipalities, environmental NGOs, private terrain managers and owners, drinking water companies and socio-economic interest groups. At this stage, since not all environmental objectives have been formulated, selection and identification of measures at the level of individual water bodies may not take place. By means of expert judgement and interactive workshops in six subbasins, the national range of five WFD ambition scenarios, as translated for local application by the WFD Meuse Project Bureau, are discussed. First indications of minimum and maximum additional WFD investments costs per sub-basin are obtained (as part of the strategic national and regional societal costs benefits analyses).

Figures, conclusions and recommendations of the local areal process are summarised in the final report (with the status of official working-document; Bertens, Santbergen and Stark, 2006). Although the report brings together basic information of the Brabantse Delta territory, including a first attempt to compare *cost-effectiveness of measures*, involved stakeholders struggle with the general and abstract character of the process so far. Officials from municipalities cannot easily translate these first facts and figures into local WFD assignments (Interviews 23, 26 and 36, Appendix I). Other stakeholders ask for more direct participation at the level of individual water systems in their neighbourhood (Leeuwis and Vroege, 2006). Drinking water companies ask for better integration of groundwater issues and special attention to interactions between groundwater and surface water bodies. In retrospect, the generic exploration at this stage seems to have served more the regional and national aggregation objectives of public officials than local needs, expectations and a joint search for tailor-made solutions.

As part of the local areal process structures, the Brabantse Delta Water Management Authority decides to install the Brabant-West WFD Consultation Platform (in Dutch: *Klankbordgroep KRW Brabant-West*) with representatives of environmental NGOs and socio-economic interest groups. Notwithstanding a proposal of the WFD coordinator, the political chair and his communication strategy adviser are not in favour of ex ante written down rules of the game. Both stress the informal nature of the
platform, which mainly serves as medium for information exchange about progress of the implementation process. In general, the meetings are well visited. Besides bringing in expert remarks, the participants frequently ask questions about the mandate of the platform, linkages with other local, regional and national WFD consultation platforms and ply for more input by the provincial authorities (especially concerning groundwater issues). Substantial, organisational and political attention-points in the explorative report (Bertens, Santbergen and Stark, 2006) have been discussed with the platform members. According to the WFD Meuse project director the process within the territory of the Brabantse Delta Water Management Authority is the most interactive one. However, a number of platform members have the feeling that their stakes and local knowledge do not play a big role in the process. They ply for more direct participation methods instead of ex post information and consultation only (Bertens, Santbergen and Stark, 2006).

The exploration report concludes that roles and positions of different stakeholders in the WFD processes at all political levels are insufficiently clear (Bertens, Santbergen and Stark, 2006). Deadlines and expectations should be communicated earlier. Consultation platform members are not able yet to translate the potential WFD’s consequences to their grass-roots supporters. An open and target groups oriented communication strategy will be required to involve individual citizens and enlarge final public support for the programmes of measures. Ecological objectives should be coordinated for upstream and downstream sub-basins. Reconsideration should take place on role and position of the transboundary basin committees between the Netherlands and the Flemish Region of Belgium. There is a need for clear criteria for identification and selection of measures per individual water bodies. The WFD assignment should be integrated with other policy assignments in a smart way. For example, restoration measures, as part of present rural areas revitalisation processes, could be extended with water quality improvement investments. Integration with the WM21 assignment should take place in the subsequent stage (ibid.).

At the end of 2006, the North-Brabant Province presents its memorandum on the main starting points for preparation of the new provincial water policy plan which includes including a decision support framework for the WFD’s implementation (Provincie Noord-Brabant, 2006). Although the province asks the regional water management authorities to apply these “rules of the game” for the local WFD processes, the Brabantse Delta Daily Board considers the memorandum too general and approves the process proposal from its own WFD coordinator (which is not in contradiction with the memorandum; March 2007). The Daily Board worries about the lack of sufficient human and financial resources by the side of the province and again plies for higher priority for the WFD assignment (which is denied by the province).

**Stage III: Definition of objectives, selection of measures and synergy projects**

After an interim progress evaluation, the Brabantse Delta Water Management Authority decides to concentrate on three parallel tracks: (1) the formulation of ecological objectives for the heavily modified and artificial water bodies; (2) identification and selection of measures per individual water body; and (3) the design of the WFD monitoring programme. In track 1, the WFD Project Team does not succeed in solving the
dilemma of simplifying the technical process steps. Notwithstanding a joint attempt of the WFD Meuse Project Bureau and ecological experts at the regional water management authorities to present examples of ecological objectives for a broad audience (Barten, Voorn and Visser, 2007), the formulation predominantly remains a process of these ecologists. Harmonisation exercises by the province do not deliver major alterations. Since the process is too technical for regional and local politicians and also difficult to understand for many officials and non-governmental actors, there is low pressure from the side of the politicians to make the draft objectives an explicit part of the decision-making process. In March 2007, for example, the Brabantse Delta Daily Board approves the subsequent steps and starting-points for defining the objectives. The secretary-general concludes: ‘Since we trust your technical expertise, we approve the approach. We do not need to judge the outcome per individual water body later in the process.’ (Quote taken from a joint meeting of the Management Team and the Daily Board of the Brabantse Delta Water Management Authority at Breda, on March 6, 2007) At the 2005 political workshop on the Roosendaal pilot the municipal water ambassador stressed that ‘the present method on determining the ecological objectives (MEP and GEP) is too complicated for local politicians as a tool for making clear choices between different measure options’ (Backx, 2005). Implicitly, in their perception the politicians have already influenced the ambitions by preliminary delineation of as many heavily modified and artificial water bodies as possible. At this stage, political focus is more concentrated on identification and selection of cost-effective packages of measures (and the room for political manoeuvre these offer).

In track 2, the WFD Project Team proposes an extensive process approach in which each individual municipality, as supported by the two municipal water ambassadors, is asked to deliver both an overview of past investments between 2000 and the end of 2006 and to propose packages of measures for the 2007 to 2009 and the 2010 to 2015 periods. In the Brabant-West area two municipalities house a water ambassador. Pierre Backx (Roosendaal Municipality) has been the water ambassador for the Meuse part of the territory, whereas René van de Sande (Bergen op Zoom Municipality) has been the water ambassador for the Scheldt part of the territory. A consultancy firm is hired to design supportive formats for compliance with regional and national aggregation requirements. Together with the regional water management authority criteria for selection of WFD measures are defined and a special WFD checklist for municipalities is drafted (Santbergen, Backx and Van den Berg, 2008). The checklist and a proposal for coordinated ambitions is discussed and approved in a meeting with aldermen of all 21 municipalities. Although the fear for European obligations persists at the background, the feasibility and affordability mantra helps to focus on familiar measure types. At the end of the selection process (November 2008), almost all municipalities have taken daily board and/or council decisions on the WFD ambition. The approved lists of measures show limited local ambitions, hence will not alter the state of the urban waters significantly until the end of 2015. During the same period, the Brabantse Delta Water Management Authority preselects its own measures and asks the North-Brabant Province and the State Waters Management Agency (Rijkswaterstaat) to do the same. The WFD coordinator periodically emphasises own responsibilities and competences of these partners who, in his perception, fail to deliver in time
(e.g. on groundwater, Natura 2000 and no-shift principle issues). Support comes from municipalities and some consultation platform members who ask for more active participation of these officials. Reversely, the Province expects the regional water management authority to include their issues more pronounced in the local WFD areal process (Interviews 44 and 46, Appendix I).

The proposed measures are discussed for clusters of water bodies in a series of interactive workshops with a broad range of stakeholders. For communication purposes, the consultancy firm drafts WFD facts sheets that cover objectives, monitoring results and proposed measures per individual water body (Vroege and Hoijtink, 2007). Although the regional water management authority intends to cover the whole range of measure types in section B of WFD’s Annex VI (i.e. supplementary measures to present policies and other European guidelines; European Communities, 2000: 64-65), finally the emphasis is on physical water system restoration projects. September 2007, the regional water management authority releases the second draft version of the report that proposes a preferred scenario of WFD measures for the Brabantse Delta territory, as synthesis of the interactive process with involved interested stakeholders (Santbergen, 2007a) The tables with proposed measures per individual water body include names of involved stakeholder groups. The title of the report, ‘Together Strong for Healthy Water’ (Samen Sterk voor Gezond Water), becomes the slogan for the WFD assignment in this part of the Meuse basin. At the same time the WFD Project Team launches a brief brochure on the WFD assignment, including stakeholder views (Waterschap Brabantse Delta et al., 2007).

Although the draft report and brochure generally are well received, the preferred scenario is far from complete. Most municipalities still have to deliver their WFD measure lists, drinking water companies ask for more attention to drinking water issues and inclusion of interaction between surface water and groundwater bodies. At request of the WFD coordinator, the drinking water companies provide an additional document on drinking water issues (Verheijden and Van Griensven, 2007; Rijk, 2007). The North-Brabant Province adds a special document on groundwater issues and relations with surface water bodies (Buijze, 2008). Environmental NGOs ask for inclusion of Natura 2000 issues, which are linked with the WFD assignment by means of the water conditions and the WFD register of protected areas. December 2007, based on the report and additional documents, the Brabantse Delta General Assembly approves the preferred scenario with regard to its own measures and asks the WFD coordinator to elaborate it in a final programme of measures for a staged WFD implementation until the end of 2027 (Santbergen, 2007b).

In 2008, the overview of WFD measures in the West-Brabant region becomes clear. Municipalities deliver their final lists and the WFD coordinator starts filling the final national databases (which are the basis for the Scheldt and Meuse River Basin management plans). The draft report (with the preferred scenario) has never been finished, although an attempt was made to split the report in 6 sub-basin reports. Due to an overkill of deadlines and activities, the coordinators for the WFD and the new water management plan decided to draft final WFD facts sheets per individual water body only. Furthermore, the regional water management authority and some municipalities
have drafted proposals on WFD synergy projects rather successfully, since about €7.2 million of national subsidy is gained with them.

In track 3 the design of the WFD monitoring programme has been delivered by an almost autonomously operating project group of experts at the water management authorities, as chaired by the North-Brabant Province and operating under the umbrella of the WFD Meuse Project Bureau. At the end of 2008, when the draft regional and local water management plans are prepared for consultation, national WFD quality objectives and monitoring rules (and their regional and local translation) are still not final. In general there are two stages within this track. First, under the lead of the director-general of the Brabantse Delta Water Management Authority, the national project group on monitoring and reporting provides guidelines on a minimised, cost-effective WFD monitoring programme. Inspired by the national feasibility and affordability mantra, all water management authorities would have to cluster water bodies for monitoring purposes, provoking critics by experts about under-representation and unreliability. In the second stage, as proposed by both WFD coordinators and water management plan editors, for reasons of representability the national WFD monitoring guidelines are altered in order to provide room for inclusion of more monitoring sites. In the International Meuse River Basin District the regional water management authorities finally decide to select at least one monitoring location within every individual water body (for example as elaborated for the Brabantse Delta territory by Oosthoek, 2009).

IV: Drafting and formal consultation of the new Water Management Plan
In 2008, parallel to the finalisation of WFD activities, the water management authority starts to draft its 2010-2015 Water Management Plan. The plan includes all water management issues. The figures for all the water bodies are aggregated in special WFD appendix (Van Den Berg and Postma, 2009). As the General Assembly has decided in December 2007, the plan includes two scenarios: one basic to fulfil minimum European (WFD) obligations and one maximum scenario for full compliance with both the European obligations and additional, intentional domestic water policy objectives. Both scenarios aim at a staged compliance with all objectives before the end of ultimo 2027. Required land will only be acquired by voluntary agreements with land owners. Current land use functions (and approved alterations) are leading. The minimum scenario is based on historic implementation rates for physical measures, the feasibility criterion. The maximum scenario is based on both the feasibility and the affordability criterion, thus excluding measures which are politically considered as unrealistic.

In November 2008, prior to the start of the formal consultation round on the draft water plan, elections take place for a new General Assembly which means that the new assembly will have to approve the final plan after incorporation of the received consultation remarks. Before formal consultation, a consultancy firm conducts a juridical check, to analyse whether the plan complies with all the requirements in the new national water legislation, WFD requirements and the strategic environmental impact procedures. The consultancy firm’s overall conclusion is positive but recommends to make the WFD assignment more consistent with regard to required references to the provincial water plan (such as motivation for exemptions),
a quantification of measures per individual water body and further clarification of monitoring requirements (Sterk Consulting, 2009). Concerning the WFD assignment a remarkable question is posed, which points the finger at a sensitive domestic discussion (Sterk Consulting, 2009; translation from Dutch and italics added):

The plan mentions an obligation to implement the WFD measures in time. However, it is important to mention that there is also an obligation for timely compliance with the WFD objectives. Does the regional water management authority comply with these objectives by implementation of the obligatory measures?

This question has not been answered in the final plan given critical uncertainties on the precise impact of different measure types on ecological target groups (e.g. Van der Wal and Waajen, 2010).

In the 2009 formal consultation round, prior viewpoints and remarks from interested stakeholders are reconfirmed. Although the formal consultation triggers a large number of editorial improvements, it does not lead to major changes in objectives and measures. One exception is the proposal by the regional water management authority to change the status of the Merkske water body from *heavily modified* to *natural*, induced by the viewpoint of environmental NGOs and accepted by the North-Brabant Province on a pilot project basis (in order to avoid any precedent for similar brook systems). Although the new 2009 General Assembly of the Brabantse Delta Water Management Authority decides to reduce investments costs and expenses dramatically, it does not opt for lowering the 2015 ambitions of the minimum and maximum scenarios in the water management plan.

Table 8.2 shows the percentages of the 2010 to 2015 assignment (in terms of measures) that may be accomplished by the water management authority between 2009 and the end of 2013 (based on figures in Postma and Laracker, 2009). The assignment should be understood in terms of planned measures of the first WFD package in the staged approach until 2027. The table makes clear that it is doubtful whether the 2010 to 2015 WFD ambitions may be fully met before the end of 2015. The General Assembly stresses the need for **synergy**, **integration** and **innovation** in order to reduce the total assignment investments and to implement measures more **cost-effectively and coherently** (Postma and Laracker, 2009).

In retrospect, the local WFD implementation planning process in the Brabant-West area has boosted cooperation efforts between the regional water management authority and the municipalities. These public actors did not opt for opening up their windows towards more active participation of non-governmental stakeholders. Furthermore the process predominantly focussed on the Dutch part of the assignment for the transboundary inland water bodies which are shared with the Flemish Region of Belgium. Until December 2009, the WFD’s policy and governance principles did not trigger strong coordination mechanisms with the upstream neighbours. As will be explained in the next subsection, the momentum for transboundary coordination committees with the Flemish partners seems to have passed away after adoption of the WFD.
Table 8.2: Expected 2015 targets accomplishment between 2009 and 2013 (in %)

<table>
<thead>
<tr>
<th>Measure type</th>
<th>% of 2015 WFD assignment</th>
<th>% of total 2015 water assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water storage rural areas:</td>
<td>not applicable</td>
<td>?</td>
</tr>
<tr>
<td>Hydrological restoration of water-related nature sites (“wet nature pearls”):</td>
<td>170-180%</td>
<td>40-50%</td>
</tr>
<tr>
<td>Ecological restoration of brooks and creeks:</td>
<td>55-65%</td>
<td>40-50%</td>
</tr>
<tr>
<td>Habitats for fish species:</td>
<td>25-35%</td>
<td>25-35%</td>
</tr>
<tr>
<td>Ecological connectivity zones:</td>
<td>100-110%</td>
<td>100%</td>
</tr>
<tr>
<td>Removal of fish migration barriers:</td>
<td>130-140%</td>
<td>85-95%</td>
</tr>
</tbody>
</table>

The WFD assignment (in terms of planned measures) is considered as minimum scenario, at least to comply with European obligations. The total water assignment is more ambitious, including also additional local intentions.

8.2.3 A rise and fall of transboundary Flemish-Dutch coordination

Before the Water Framework Directive

In the years before adoption of the WFD rising Flemish-Dutch coordination and cooperation initiatives are promising. September 1990, Flemish and Dutch water management authorities sign a political agreement in order to reduce nutrients inflow (phosphates in particular) from upstream brooks to the (Dutch) Lake Volkerak-Zoom (Stroomgebiedcomité Mark, 1997). In 1997 the agreed measures (mainly waste water treatment infrastructure) have been completed. However, due to continued diffuse pollution emission sources from agriculture, water quality has only slightly improved (ibid.). November 17, 1993, the Belgian-Dutch Committee on the Transboundary Unnavigable Watercourses and the Benelux Groundwater Working Group take the decision to install bilateral, transboundary river basin committees at the local level. Major objective of the new platforms is better coordination of water management planning and implementation activities within the basins of transboundary watercourses. As one of these five committees, in 1994 the Transboundary Mark Basin Committee (TMBC; Stroomgebiedcomité Mark) has been initiated. The platform (which is a network of experts and officials, mainly of water management authorities and drinking water companies) meets twice a year and does not have a political equivalent (Jansen, Schreuders and Haverkamp, 2002). The bilateral Dutch-Flemish Integrated Water Management Platform (Nederlands Vlaams Integraal Waterbeheer Overleg; NVIWO) which is an informal gathering of high-ranking water officials at the national political level (once a year) acts as umbrella platform for all the bilateral basin committees of the Flemish Region of Belgium and the Netherlands (ibid.).

Supported by a European subsidy, in 1994 and 1995 Flemish and Dutch water management authorities conduct an joint inventory of pollution sources in the (transboundary) Mark-Vliet River Basin (Stroomgebiedcomité Mark, 1997). In addition attempts are made for a transboundary groundwater monitoring programme in the Merkske Brook Basin. Ecological and hydrological studies take place in preparation of
future restoration measures. Both Flemish and Dutch authorities buy land in the brook valley. Important milestone is the adoption of the 1997 Transboundary Management Vision on the Mark Basin (Stroomgebiedcomité Mark, 1997), including recommendations that have been translated into policies and management plans at both sides of the frontier. The TMBC concludes that the transboundary vision is a first step and should be revised every four years. The first vision mainly focuses on an inventory of bottlenecks and process recommendations to arrive at future shared solutions.

In 1997 a working group of the Belgian-Dutch Committee on the Transboundary Unnavigable Watercourses explores relations between regional transboundary watercourses and the Meuse and Scheldt Treaties and studies desirable coordination structures. Finally, the Benelux Economic Union initiates a special committee on drafting a transboundary restoration and management plan for the transboundary Kalmthoutse Heide-De Zoom nature reserve (ibid.). Although the TMBC has provided overviews of individual projects at both sides of the frontier, attempts to establish additional transboundary water system restoration plans (such as for the Mark River and the Merkske Brook) have failed so far. More successful has been a joint European project to improve fish migration (between 1997 and 2000; Jansen, Schreuders and Haverkamp, 2002). As part of this project, a number of fish ladders in both the Aa of Weerrijs and the Boven Mark Rivers have been realised (ibid.).

The second Mark Basin Water System Report (1996-2000), drafted under the wings of the TMBC, refers to the WFD requirements. Its introduction mentions that the report includes ‘recommendations in order to arrive at coordinated, transboundary monitoring, reporting and, whenever possible also evaluation according to the WFD requirements’ (Jansen, Schreuders and Haverkamp, 2002: 5; translation from Dutch added). The report concludes that the present ground water monitoring programmes will be almost sufficient for WFD compliance. Water quantity parameters in relation to ecological quality of surface waters should deserve more attention such as stream velocities. Also some biological parameters such as diatoms, fish and phytoplankton are not sufficiently covered yet. The WFD offers opportunities to bridge differences between Flemish and Dutch water quality standards: ‘Harmonisation of water quality standards, for example within the context of WFD implementation for the [transboundary Mark] river basin, could stimulate common problem acknowledgement and policy formulation’ (ibid.: 60).

**After adoption of the Water Framework Directive**

The rise of the transboundary Flemish-Dutch cooperation efforts in the 1990 to 2000 period kept promises for a further institutionalisation of the European river basin management approach, as aimed for in the WFD. Remarkably, the observations of this research show an opposite evolution. From a 2002 inquiry it becomes clear that the Dutch provinces and regional water management authorities at the frontiers with other countries consider the WFD as an opportunity to enforce transboundary cooperation (Arcadis, 2002: 25-26; translation from Dutch added):
Especially consultations with Belgium do need an impulse, given different political relations. In Belgium, many water policy responsibilities belong to the Flemish Regional Authority, while in the Netherlands many tasks are decentralised to the provinces. The WFD offers opportunities to break down barriers, if good agreements are reached at the transboundary river basin level.

In 2004 the Dutch national Water Policy Department initiates a quick scan on WFD implementation efforts by Flanders and the Netherlands in the Meuse River Basin District (Arcadis, 2004). The Flemish Environment Agency (Vlaamse Milieu Maatschappij) is consulted by means of a joint workshop. One major conclusion is that, due to differences in water body typology, assessment of irreversible hydro-morphological alterations and chemical and ecological quality standards, coordination problems may grow (ibid.).

Both the Flemish and Dutch water authorities decide to mainly focus on domestic issues within the first WFD implementation planning cycle, in order to get familiar with the technical implications of the directive. Although the Dutch regional and local partners ask attention for transboundary coordination activities more frequently, domestic strategic and tactical sessions hardly take place. The Flemish Environment Agency periodically emphasises too limited financial and human resources for frequent bilateral coordination talks with individual Dutch actors. Remarkably, living in a downstream position from France and the Brussels and Walloon Regions, the Flemish authorities are in a similar position as transboundary coordination demander. Although in the opinion of the Dutch water management authorities, the bilateral, transboundary river basin committees could play a pragmatic role in WFD coordination and harmonisation efforts for individual water bodies, the Flemish and Dutch national water policy authorities decide otherwise. Actually, the lack of a clear political mandate and insufficient financial and human resources hinders effective continuation of the coordination activities by the Transboundary Mark Basin Committee. Besides, the fact that Dutch and Flemish authorities do not provide the committee with WFD implementation planning tasks weakens its position. Despite successful initiatives between 1994 and 2000, the TMBC increasingly becomes a toothless tiger. Although the Committee agreed to publish a water system state of the art report once every five years, no such reports have been drafted after the second edition (for the 1996 to 2000 period). In 2010, unilaterally (without ex ante consultation of Dutch regional and local authorities), the Flemish Integrated Water Policy Coordination Committee (Commissie Integraal Waterbeleid) proposes to explore possibilities for termination of the bilateral, transboundary committees, as part of a new strategy for cost-efficient bilateral coordination talks (CIW, 2010).

At an irregular basis bilateral WFD information exchange meetings take place at the level of the Meuse River Basin. For example, at a 2006 meeting (in Breda) with Flemish and Dutch actors, the WFD coordinator at the Brabantse Delta Water Management Authority presents emission figures for the transboundary water courses (as aggregated by a Dutch consultancy firm). The Flemish partners do not consider those figures representative and ply for a common exercise. At the same meeting they
express not to have the human and financial resources available for conducting such transboundary inventories. According to the Flemish Environment Agency and the Dutch national Water Policy Department, as of 2010 (in the second WFD implementation planning cycle), there should be more opportunities for enforced bilateral coordination efforts. The Flemish attitude provokes irritation at some of the Dutch regional participants. Reversely, the sudden presentation of a transboundary basin map by the WFD Meuse Project Bureau (which is based on Dutch figures only, since the Flemish authorities did not deliver data) causes frowned eyebrows of some Flemish colleagues.

Parallel to the dissatisfactory WFD coordination talks, the Brabantse Delta Water Management Authority seeks alliance with the Water Policy Department from the Antwerp Province. The start of the Flemish Mark and Weerijs Water Management Authority (February 2007), as coordinated by this province, should offer new opportunities for pragmatic, local, transboundary coordination and cooperation efforts (Santbergen and Soens, 2010). First important milestone, after an arduous drafting and negotiation process with multiple Flemish stakeholders (including the Flemish Environment Agency), is the signing of a bilateral cooperation agreement on the management and maintenance of border-forming and border-crossing water courses (Waterschaps Brabantse Delta et al., 2010). At the regional level, political cooperation also gradually develops by the Flemish invitation of Dutch politicians in their Meuse River Basin Committee (Bekkenbestuur Maas). In return, first Dutch invitations follow in 2009. After publication of the draft (Dutch) Meuse River Basin Management Plan (December 2008), the national Water Policy Department concludes that the number of urgent multilateral coordination issues is limited (Interviews 5, 52 and 53, Appendix I). The department’s focus on the main Meuse River itself does not help to increase attention for the bilateral efforts by the regional and local authorities. On the other hand, despite repeating calls from the side of the national Water Policy Department, the provinces and regional water management authorities do not manage to deliver a sound overview of high priority issues to be solved with the Flemish counterparts (Interview 51, Appendix I).

To conclude the chronology of this subsection: during the first WFD implementation planning period both the Flemish and Dutch water management authorities mainly focused on their domestic requirements. The momentum of the Transboundary Mark River Basin Committee has dampened, especially when this committee did not receive any formal mandate with regard to the WFD’s implementation. For the Brabantse Delta Water Management Authority informal contacts with Flemish actors at the local level, coalition building with the Antwerp Province and participation in European projects for regional development and transboundary cooperation has payed off in a more pragmatic and alternative way. Whether the second WFD implementation planning period as of 2010 will trigger a rise of bilateral coordination structures and/or actor networks again is difficult to predict. In this respect, the reciprocal opening up of water management structures for actors of the neighbouring riparian states is a promising sign.
8.3 The WFD and local rules on IRBM

This section explores to which extent the WFD’s policy and governance principles, environmental objectives and exemption options may have provoked changes in collective-choice rules for integrated river basin management at the local administrative level in the Netherlands, i.e. the Brabant-West part of the International Meuse River Basin District. For definition of ideal-type IRBM rules, see the Subsections 2.2.3 till 2.2.9.

8.3.1 Scope rules
As defined in Section 2.2.3, scope rules may concern the geographic area, the nature of organisational structures and networks and the issues to be decided on. For the aim of this research, a distinction is made between organisational and substantive scope rules. Concerning the former, the focus is on the impact of hydrological boundaries on organisational structures, whereas for the latter the focus is on the levels of integration. For example, are “river basins as the appropriate management units” translated into functional agencies and to which extent may these entities operate autonomously? What are collective choices for internal integration (of issues within the water policy domain) and external integration (of issues across policy domains)? To what extent do these choices affect the nature of river basin legislation, policy documents and management plans?

Organisational scope: the impact of hydrological boundaries
Three ideal-types of organisational IRBM scope rules are distinguished (see Table 8.3a). As concluded in Subsection 6.3.1, the Netherlands have a tradition of functional water management authorities which follow hydrological boundaries and which have their own elected general assemblies (ideal-type B). In the 1990s several smaller water quantity authorities in the Brabant-West area merge into four larger ones. January 1, 2004, the Brabantse Delta Water Management Authority starts its activities, after completion of the merging process from the four water quantity authorities with the Brabant-West Water Management Authority (Postma and Laracker, 2005; Van den Noort, 2009). The local WFD implementation planning process triggers additional, informal network structures which run in parallel with existing structures from other areal processes. The Brabantse Delta Water Management Authority seizes the momentum of the WFD to present itself as the inland water management authority in Brabant-West. The authority appoints a WFD process coordinator who initiates the Brabant-West WFD Implementation Project Team (including municipal water experts and officials) and the Brabant-West WFD Consultation Platform (including representatives of environmental NGOs and socio-economic interests groups). Periodical WFD information and consultation sessions are organised with officials and aldermen of involved municipalities. After release of the draft water management plan of the water management authority and the draft municipal lists of WFD measures, the energy gradually flows out of the WFD process structures. The observations point at ideal-type B organisational scope rules at the local level, both before and after
adoption of the WFD (see Table 8.3a). The WFD has enforced the focus on hydro-
logical, (sub) river basin boundaries.

Table 8.3a: Ideal-type collective-choice IRBM scope rules (organisation; local level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Water policy is implemented by organisational structures and actor networks which are driven by social, economic and political factors that do not follow hydrological (river) basin boundaries. These structures/networks may be multi-purpose or sectoral in nature and are under parliamentary control.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>B: Water policy is implemented by functional water agencies, committees and actor networks which follow hydrological (river basin) boundaries. These functional entities and actor networks are controlled by parliamentary institutions.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Water policy is implemented by autonomous (sub) river basin authorities and/or communities that are organised along hydrological boundaries. These authorities and communities are beyond parliamentary control and do have their own polity rules.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: the research observations come closest to ideal-type B rules before and after adoption of the WFD, as expressed by the ‘X’.

**Substantive scope: degree of internal integration**

In 1995 a start has been made with integrated water management planning in Brabant-West (Waterschap De Dongestroom and Hoogheemraadschap van West-Brabant, 2000). The then four water quantity management authorities adopted the first generation integrated water management plans for the 1995 to 1999 period, in coproduction with the Brabant-West Water Management Authority. In the second generation integrated water management plans for the 2000 to 2004 period, the integration approach has been elaborated further with special emphasis on both water systems and water chains (ibid.). The water chain refers to the process from abstraction and production of drinking water to waste water treatment and discharge of effluent towards water systems. The integrated water systems approach aims at restoring the balance between requirements for land use and conditions for healthy functioning water systems. ‘Sustainable water systems are the fundament for spatial quality of an area, an approach which has been incorporated into the Fourth National Water Policy Memorandum and the Second Provincial Water Policy Plan.’ (Waterschap De Dongestroom, 2000: 1; translation from Dutch added).

The regional water management authorities focus on four major issues: (1) to foster water management based on specific local, natural conditions; (2) clean surface and groundwater for healthy and resilient ecosystems; (3) safety against floods; and (4) attention to landscape features (ibid.). A distinction is made between requirements for agriculture, nature areas and built-up areas. Although the term ‘integrated’ refers to the
coherence between water quantity and quality issues and their relations with other environmental factors and functions (Waterschap De Dongestroom and Hoogheemraadschap van West-Brabant, 2000: 3), in the 2000 to 2004 water management plans water quantity and water quality issues are mainly formulated and dealt with as parallel key themes. Furthermore, whereas the plans of the water quantity management authorities mainly focus on quantitative issues, the plan of the Brabant-West Water Management Authority mainly deals with quality issues (including waste water treatment).

In generic terms the water management plans mention that restoration of more natural retention and discharge patterns will benefit survival of flora and fauna (Waterschap De Dongestroom and Hoogheemraadschap van West-Brabant, 2000). Interdependencies between individual water systems are not translated into integrated, quantified objectives, but covered qualitatively by the implicit notion of the no-shift principle: ‘The term “sustainability” (in a generic sense) means that one should prevent a shift of (environmental) problems towards other environmental compartments (water, soil and air), towards other areas, or towards the future.’ (ibid.: 22) Given the overall aim of sustainable, healthy and resilient water systems, it is remarkable that the quantified management objectives in the 2000 to 2000 plans are not explicitly related to interdependent surface water and groundwater bodies, but primarily both to water quality and quantity requirements for different land and water resources uses (water for agriculture, water for built-up areas, water for nature (including fish) and water for swimming). The focus of regional and local water management strongly remains on balancing different user functions and is embedded in the provincial policy for a gradual evolution towards sustainable water use. As expressed yet in the previous chapter, the North-Brabant Province aims at a growth of both people and profit, while at the same time the planet should be recovered in a sustainable way.

With the organisational integration of the five regional water authorities into one, all-in, inland water management authority, the tendency of bringing together water quality and quantity issues consolidates. The context of the National Water Agreement (Anonymous, 2003) triggers continued and enforced attention towards an integrated water systems approach and the maintenance of a distinction into water chain and water systems management. The WFD brings in the need for a river basin management approach and more explicit attention to quantified water quality and ecosystem restoration objectives (Postma and Laracker, 2005). However the parallelism in coping with quality and quantity issues survives and the division of tasks between the province and the Brabantse Delta Water Management Authority on groundwater issues may account for a limited focus on relating groundwater and surface water management issues by the latter. In the first local WFD implementation planning process until 2009, groundwater issues have hardly been covered, to dissatisfaction of drinking water companies. Interaction issues of groundwater and surface water issues have received little attention so far (Santbergen 2007a and b).

The observations of this research point at a juxtaposition of ideal-type A and B scope rules in the period before adoption of the WFD. The WFD supports the
internal integration tendency, although at the local level, emphasis remains on surface water issues. Overall, there is an incremental evolution towards dominance of ideal-type B scope rules in the 2001 to 2009 period (see Table 8.3b).

Table 8.3b: Ideal-type collective-choice IRBM internal integration rules (local level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate legislation, policy documents and management plans for both water quality and quantity issues. Surface water and groundwater are dealt with in parallel.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Legislation, policy documents and management plans which includes objectives and measures for both quantitative and qualitative aspects and for groundwater and surface water.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Legislation, policy documents and management plans with integrated objectives and measures for related surface and groundwater bodies.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’. The ‘x’ points at a reduced resemblance of the observations with ideal-type A rules after adoption of the WFD.

**Substantive scope: degree of external integration**

In the 1990s the water systems approach gradually gets embedded in a more integrated areal approach. In line with national and provincial water policy tendencies, the second generation integrated water management plans show more attention to coherence with spatial planning and objectives for nature protection and environmental quality (Waterschap De Dongestroom and Hoogheemraadschap van West-Brabant, 2000). The 2000 to 2004 water management plans include a vision on sustainable water systems (ibid.: 22, translation from Dutch added):

> Water increasingly is considered as one ordering principle within spatial planning. Water management and spatial planning should walk hand in hand in order to arrive at sustainable water systems that may optimally fulfil the wishes and requirements from user functions and land uses, as accepted by generic democratic governmental administrations.

The degree to which the regional water management authority may proceed with its assignment considerably depends on the rate of success for integration of water-related objectives into the assignments of other policy domains. The first General Assembly of the Brabantse Delta Water Management Authority points at a reciprocal relationship with governmental and other stakeholders (Postma and Laracker, 2005). Whereas the water authority delivers a substantial contribution to the rural areas revitalisation plans by means of its action programme for implementation of the National Water Agreement, other partners contribute to the water-related objectives by their investments in the rural areas revitalisation measures (ibid.). Notwithstanding its explicit focus on integrated areal projects and partnerships, the regional water management
authority struggles with the spatial claims for its water-related assignments. Within a territory which is dominated by agricultural land uses (circa 63%, Bertens, Santbergen and Stark, 2006) the translation of water-related objectives into quantified and localised spatial claims remains a political sensitive issue. Given the predominant voluntary nature of land acquisition, progress takes much time and depends on cooperation with individual entrepreneurs hence the final results often are critically uncertain (Postma and Laracker, 2005).

In the Dutch context, the functional water management authorities have limited options to impose their spatial claims. Although the water assessment procedure for spatial plans and human activities (\textit{watertoets}) has been legally anchored by the Spatial Planning Act (Anonymous, 2006), the advice by the regional water management authority is not legally binding. Water-related objectives may not optimally survive within the broad array of considerations by state, provincial and municipal actors. The laborious implementation of the instrument to define desired groundwater and surface water tables may serve as another example of the relatively weak position of a regional water management authority. The original 2002 deadline for definition of these tables has not been fully met at the end of 2009. The periodically heated debates in the general assembly between representatives of environmental NGOs and farmers illustrate the different definitions, perceptions and interests related to the hydrological instrument.

On a voluntary basis, the five regional water management authorities in Brabant-West have drafted a spatial vision with regard to the sustainable water management objectives in the 2000 to 2004 Integrated Water Management Plan (Arcadis, 2000). This informal vision presents the spatial consequences of implementation of principles for sustainable water management. The vision for the 2030 to 2050 period includes water opportunities maps (\textit{waterkansenkaarten}) which the regional water management authorities will bring in the revision processes of the provincial spatial policy plan and in the rural areas revitalisation processes. The vision and the maps are the departure point for the regional water management authorities in testing of the (potential) impact of spatial developments, e.g. by means of the water assessment procedure. The water management authorities acknowledge that final spatial development choices will be made by municipal and provincial authorities; the choices of these latter may not be consistent with the water opportunities maps entirely (ibid.).

Within the Brabant-West region, the calls for an integrated areal approach has triggered a bloom of parallel processes with diverse objectives, focuses, deadlines and stages which not all by definition contribute to synergetic integration of assignments from different policy domains. However, the \textit{leapfrog principle} is central in the Dutch cross-sectoral policy planning procedures (as explained in Subsection 6.3.1). As concluded in Chapter 7, the WFD assignment has not been integrated into the rural areas revitalisation process. Furthermore, even at the Brabantse Delta Water Management Authority, the WFD implementation planning process has run mainly in parallel with other water-related processes. For example, a proposal from the WFD coordinator to incorporate the WFD assignment within the process architecture of the integrated sub-basin analyses (\textit{integrale gebiedsanalyses}) which are studies on cost-effective measure
combinations for all water-related objectives, was turned down by the management team. The managers considered the new European requirements, especially related technical procedures and assessment schemes, too complicated for integration in the domestic analyses that where already partly lagging behind schedule. Besides, the WFD’s numeric objectives were still not available at the beginning of 2006. Explicit integration also not took place with the processes for flood and droughts issues. Due to stage differences and distinct formal responsibilities, also integration of the local Natura 2000 and WFD processes did not take place.

Despite the strong desire of the national Water Policy Department to integrate both processes, the column in the national WFD database that expresses the percentage of synergy between WM21 and WFD measures has been abandoned. Not all the regional water management authorities filled in this column and the differences between figures for certain measure types were too diverse as well for an easy harmonisation process. On the contrary, there is an explicit linkage between the rural areas revitalisation process and the WM21 process. The regional water management authorities in the North-Brabant Province have agreed on a common approach for defining water retention programmes (Team Waterberging Brabantse Delta, 2005). Reserved areas for future water retention may be incorporated into the second generation rural areas revitalisation plans as definitive water retention areas. A stakeholders consultation process is part of the process, since both ecological objectives and socio-economic interests are to be taken into account in the decision making process (ibid.). These observations on the local level point at ideal-type B IRBM scope rules (see Table 8.3c).

Table 8.3c: Ideal-type collective-choice IRBM external integration rules (local level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate policy documents and management plans for water policy and other policy domains without linkages.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Policy documents and management plans for other policy domains take into account water issues and reversely.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Cross-sector, integrative policies and management plans.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X’.

8.3.2 Position rules
As introduced in Subsection 2.2.4, within this research, position rules relate to the question as to how do collective (inter-)national river basin governance and policy principles affect the positions of owners and users of water and land. Or reversely, which conditions should apply to acquisition, continuation and termination of rights to own and/or use (interrelated) water and land resources, in order to comply with common principles of ecological, social and economic resilience? Three ideal-types of position rules have been distinguished (see Table 8.4). With regard to position rules, the WFD explicitly addresses relations between water and agriculture and between water and nature conservation. Protected areas from both the Nitrates Directive and
the Birds- and Habitats Directives are included in the WFD’s register of protected areas (European Communities, 2000: 32).

In the Dutch history of water management, requirements that enable desired land uses dominate over limitations for protection of natural processes and ecosystem conditions. In theory, the integrated water systems approach aims at a trend reversal: a substantial move towards protection of natural processes and ecosystem conditions as foundation for sustainable human development (Saeijs, 2006). In practice, at the local level, water management authorities and municipalities try to solve the negative consequences from land and water use activities in a coherent and integrated way. They do not aim to substantially alter the historic rights of land owners and users. The second integrated water management plans of the regional water management authorities in Brabant-West struggle with the provincial dilemma of sustainable restoration of natural values, while at the same time offering sufficient room for economic growth, housing, working and recreation (Waterschap De Dongestroom and Hoogheemraadschap van West-Brabant, 2000). The water management plans subtly point at a fragile relationship with land owners and users (ibid.: 5; translation from Dutch added): ‘The development of sustainable water systems and sustainable water management may not happen without the support of and cooperation with land owners and users.’

Like all Dutch regional water management authorities, the Brabantse Delta Water Management Authority distinguishes between water chain and water systems management. The water chain part relates to collection, transportation and treatment of urban and industrial waste water, whereas the water systems part covers fresh water flows to and from inland water systems, ecological restoration and flood prevention and mitigation issues. The tax system reflects the distinction in tasks for water chain and water systems management by relating these to water users’ categories. Until 2008, different water users’ categories paid taxes and were represented in the elected General Assembly, according to the long-standing principle one that has an interest pays and has a voice in management decisions. The 45 seats of the assembly were divided among land owners, companies and inhabitants. After a change of national law, since 2009 also political parties and water-related interests’ parties may join the elections (Anonymous, 2009a; Rijswick and Havekes, 2012). A limited number of nine seats (out of 30) have been reserved for land owners, companies and nature site managers (Postma and Laracker, 2009). The tax system has been changed into a mixture of solidarity and interests payments (Lievens Communicatie, 2009). In the water management history of Brabant-West the establishment of regional water management authorities in most cases related to the geographical level of the issues at stake and the organisation of required financial resources (Van den Noort, 2009). In general farmers in Brabant-West organise themselves well and manage to dominate the decision-making process within the General Assembly, whereas environmental NGOs by far are in the minority.

In its elaboration of the WFD obligations the Brabantse Delta Water Management Authority continues the position rules tradition. Although the authority does not exclude the expropriation option, it stresses that land acquisition often should happen on the basis of voluntary agreements with land owners and users (Postma and Laracker, 2005). Its programme of measures for the first generation WFD river basin manage-
ment plans is based on prior land acquisition rates, in order to limit non-compliance risks (Santbergen, 2008; Postma and Van den Berg, 2009). The authority views voluntary management contracts with farmers for so-called blue-green services as an additional option to comply with WFD objectives (ibid.). In general the first WFD implementation planning cycle has not altered the formal position of land owners and users. Preconditions, e.g. as laid down in license systems, continue and may be slightly revised due to changes in water quality and emission standards. Informally, the WFD has triggered renewed discussions on the extent of expropriation conditions, albeit prudently and without a significant change of rules. These observations point at ideal-type B IRBM position rules at the local level, both before and after adoption of the WFD (see Table 8.4).

Table 8.4: Ideal-type collective-choice IRBM position rules (local level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Protection of prior water and land resources use and property rights without preconditions on environmental, social and economic externalities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Conditional maintenance and acquirement of water and land resources use and property rights. Conditions include requirements to consider social, economic and/or environmental externalities.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Reallocation of use and property rights, based on interrelated conditions of ecological, economical and social resilience.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X’.

8.3.3 Boundary rules

As defined in Subsection 2.2.5, in this research boundary rules are interpreted as related to who have access to the river basin management planning and decision-making process and who have not? What are conditions for entry and exit? What are the degrees of participation for different stakeholder categories? Three ideal-types of boundary rules have been distinguished (see Table 8.5).

In the Dutch water policy planning tradition informal consultation often takes place prior to formal procedures. For example, in drafting the second integrated water management plans the regional water management authorities have consulted municipalities, the province and other groups of interests by means of both multi-stakeholder platforms and bilateral meetings (Waterschap De Dongestroom and Hoogheemraad-schap van West-Brabant, 2000). Additionally, during an 8 weeks period, anyone was allowed to raise voices. In case of final disagreement one could appeal at the Court of Justice against adoption of the plan (ibid.). Remarkably the second integrated water management plans do not refer to received remarks and objections and the ways they are dealt with. The plans of the regional water management authorities are subject to formal approval by the Executive Board of the North-Brabant Province.

Within the International Meuse River Basin District the regional water management authorities, supported by municipal water ambassadors, take the lead in local
areal processes on defining ecological objectives and identifying and selecting cost-effective WFD measures. These relatively autonomous local WFD planning processes differ in terms of degree of integration with other policy domains and active involvement of environmental NGOs and socio-economic interest groups (with information sessions, consultation platforms and/or interactive workshops). In the Brabant-West area, there is poor integration with other local processes, such as WM21, Natura 2000 and rural area revitalisation. In the Limburg Province, the officials mention a close cooperation between provinces and regional water management authorities in the local WFD processes.

For the 2005 to 2008 period the then new Brabantse Delta Water Management Authority explicitly provides people (customers, voters and partners) a central position in its mission (Postma and Laracker, 2005: 15, 17; translation from Dutch added):

The water management authority chooses to leave behind the old-fashioned image of a technically oriented, autistic organisation. Contemporary society desires a customer-oriented attitude and transparent, well balancing of interests. The inland water management authority opts for dialogues, alliances building and partnerships with European, national, provincial and local stakeholders. [...] Since available land is limited, water management measures almost always “touch” other interests. Consequently, at present, it is hardly impossible to implement those measures without cooperation from citizens, local authorities and other parties.

Given this mission statement, the ambition of the regional water management authority for an interactive and participative WFD approach fits well. The degree of participation is a mixture of information, consultation and co-thinking. Although the areal process in Brabant-West is mentioned in the WFD Meuse documents as the most participative one, at the end of the first implementation planning cycle they are the water authority and the municipalities who decide on the WFD objectives and measures. In retrospect, this local WFD process has been less interactive and participatory as initially perceived by or hoped for by some actors.

As concluded in Chapter 6, the Dutch national Water Policy Department considers the Dutch information and consultation traditions fully in line with the WFD’s requirements of Article 14. At the local level, the Brabantse Delta Water Management Authority initiates the Brabant-West WFD Consultation Platform with drinking water companies, environmental NGOs, estate owners and other interest groups (for agriculture, industry, navigation and (water) recreation). The dike-reef of the regional water management authority chairs the consultation platform meetings. There are no written down rules of the game. A process evaluation shows that in general the platform participants have appreciated the information as provided by the water authority. Although the platform meetings have provided for a valuable overview of viewpoints and interests, the discussed information has been predominantly provided by the public actors. In the opinion of the participants, the process could have been more interactive in order to trigger creativity.

The Brabant Environmental Federation (BMF) criticises the lack of financial resources from the side of the governments for capacity building of interests groups. Almost all participants mention a lack of human and financial resources for participa-
ting at the large number of consultation platforms in the Brabant-West Region. For example, the WFD platform runs in parallel with the over 20 consultation platforms for every sub-basin in which an integrated assessment study is conducted. Also, for the WM21 assignment, separate consultation rounds take place. Finally, the regional water management authority periodically organises bilateral relation management talks with non-governmental stakeholder categories. Additionally, the North-Brabant Province organises areal advisory committees for individual Natura 2000 sites and chairs the Rural Areas Revitalisation Committees in which both governmental and non-governmental stakeholders participate.

These observations point at a continuation of Dutch traditions in the period after adoption of WFD. A strong divide remains between the governments and regional water management authorities who take decisions and non-governmental stakeholders who are informed and consulted. In the water management planning processes at the local level, ideal-type B IRBM boundary rules are dominant (Table 8.5).

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Access to the river basin management planning process is restricted to public actors only. Other stakeholders are informed.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Non-governmental actors may have access to the river basin management planning process under conditions set by the public actors. Emphasis on co-thinking and consultation.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Ample opportunities for all interested stakeholders to join the river basin management planning process, including co-productions, co-decisions and self-realisation.</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B rules as expressed by the ‘X’.

8.3.4 Choice rules
As introduced in Section 2.2.6, for the aim of this research, two indicators for identification of choice rules change have been defined. The first indicator concerns water supply and demand rules. Three ideal-types have been identified for this indicator, ranging from a focus on water supply only to integrated demand and supply management in which a hierarchy of functions may apply, as conditioned by fresh water availability and protection of the ecological life support system (see Table 8.6a). The second indicator expresses the nature of the license system. Ideal-types range from separate, parallel licenses for quality and quantity objectives for the development, management and use of water resources, towards integrated licenses for interdependent natural resources (including water; see Table 8.6b).

Supply and demand management
In the Brabant-West area, the Brabantse Delta Water Management Authority pays attention to both supply and demand management, even though the linkages are
rather implicit and there are more instruments available for supply management (www.brabantsedelta.nl as consulted on June, 20, 2011). In supply management, arguments on economic efficiency, social equity and ecosystem protection all play a role. Under average hydrological conditions, there is no explicit written down hierarchy between these arguments. Implicit choices are made by means of zoning of land and water user functions, such as in areas which are dominated by agricultural land use options for anti-desiccation measures are considered more limited. In the history of Brabant-West, provincial policies have stimulated the development of large-scale agricultural production, for example as triggered by the creation of the fresh water Volkerak-Zoom Lake. Land use within the majority of water systems basins is dominated by agriculture. However, the total volume of groundwater to be abstracted annually by farmers in the North-Brabant Province is restricted to 40,000 m$^3$ (Interviews 44 and 48, Interviews).

Regarding fresh water demand the region is not self-sufficient. Figure 8.2 shows a scheme of the water system in the Brabant-West area, including the present external water inlet options (Douben, 2010). The grey-coloured dots mark the fresh water inlet and/or outlet points. In the higher sandy parts in the south, the three inlet points indicate the (natural) inflow from the upstream parts in the Flemish region of Belgium. The grey-coloured dot in the eastern part indicates the inlet point at Oosterhout, which may also be used as an outlet in case of calamities (most notably when large discharge quantities occur, e.g. after periods of heavy and prolonged rainfall).

Figure 8.2: scheme of the water systems connections in West-Brabant (Source: Douben, 2010)

The two inlet points at the western part (Dintelsas and Benedensas) may function both as inlets for water from the Volkerak-Zoom Lake (in dry periods) and as outlets to the lake (in Autumn and Winter, normally the wet seasons). Annually, whenever water volumes from the upstream brook systems (Mark, Aa of Weerijs and Molenbeek) are insufficient, fresh water is imported from the downstream Volkerak-Zoom Lake (Douben, 2010). In cases of blooms of toxic blue-green algae, the inlet from the lake
stops and fresh water supplies comes from the alternative inlet at Oosterhout (at the eastern side of the territory; ibid.).

The Brabant-West area is sensitive for fresh water shortages and for its water demand, significantly depends on external resources. From March until September, the average need for external fresh water ranges between 0.7 and 6.2 m$^3$/s (Witteveen + Bos, 2010). The maximum demand for external water (based on a dry year with a probability chance of once every 10 years) is 8.7 m$^3$ per second (ibid.). The demand relates to agriculture, navigation and water quality/ecology requirements. In the clay parts in the north of the region, water level decisions include conditions and restrictions for water users. The water systems management and uses regulation of the Brabantse Delta Water Management Authority includes generic and specific rules for fresh surface water abstractions from and discharges to the inland water systems (Waterschap Brabantse Delta, 2009). According to Article 4.8, one needs a license for abstractions from or discharges to a surface water system of 100 m$^3$ per second or more. Within protected areas, any discharges and abstractions are not allowed without a license (Article 4.10). For amounts between 50 and 100 m$^3$ per second, one shall announce the regional water management authority (Article 4.11; ibid.). Rules for groundwater abstractions and infiltrations are covered by both the North-Brabant Province (deep groundwater layers) and the Brabantse Delta Water Management Authority (shallow groundwater layers). A license is required for shallow groundwater abstractions of more than 10 m$^3$ per second (Waterschap Brabantse Delta, 2009; Article 4.15). For specific cases (related to temporary activities with limited amounts) an announcement duty applies (Article 4.17 and 4.18; ibid.).

Notwithstanding the presence of quantitative limits for abstractions from and discharges to surface water and groundwater bodies, there is no explicit overall vision on an integrated demand and supply management approach. Human activities as well as ecosystem functions are served without explicit definition of conditions for their sustainable interrelations. Partly due to both critical uncertainties in available knowledge on these interdependencies and controversies among user interests, the desired groundwater and surface water tables have still not been defined for all the sub-basins in the territory of the Brabantse Delta Water Management Authority. For practical reasons, there is also no overview available of the (large) number of actors who abstract or discharge of smaller amounts of surface water (less than 50 m$^3$ per second) and groundwater (less than 10 m$^3$ per second). Consequently, their impact on the state and functioning of the aquatic and related terrestrial ecosystems is not well known. In periods of prolonged droughts the national priority instrument for the distribution of available fresh water is applied which includes a hierarchy of user functions. Functions for protection of human life and prevention of irreversible deterioration of natural processes are among first priorities. In cases of extreme droughts, too much water and/or severe water quality conditions, the regional water management authority may limit or prohibit water abstractions and/or discharges/infiltrations (Waterschap Brabantse Delta, 2009; Article 4.22).

With regard to the WFD, the water systems management and uses regulation includes an empty Section 2 which is reserved for future rules with regard to ecological
quality requirements (Waterschap Brabantse Delta, 2009). The explanation to this section does not provide clues for the nature and extent of potential future rules (ibid.). The authority struggled with specification of this section. Although detailed national water quality standards have been provided (Ministerie van Volkshuisvesting, Ruimtelijke Ordening, en Milieu (2009a), this national regulation leaves open critical questions for smaller water systems which have not been delineated as WFD water bodies. Another reason for not written down preferences or rules may be the structural need for water supply from extraterritorial sources. An explicit quantification of requirements for ecosystem protection (if ever fully scientifically manageable) might not be feasible when knowing that water demand exceeds available sources. And although water saving investments certainly may contribute, they won’t be able to fully fill the gap. This observation does not discount the joint efforts by the regional water management authority (and its predecessors), drinking water companies and the agricultural sector for demand-side management since the early 1990s. In the local WFD implementation planning process up to 2009, demand and supply management issues did not receive much attention. The main focus has been on waste water treatment, emission reduction from diffuse water pollution sources and ecological restoration of brooks and creeks (including fish migration) and water-dependent terrestrial nature sites.

In summary: under average hydrological circumstances, a mixture of economic efficiency, social equity and ecosystem protection arguments condition the choice rules. The interrelations between these conditions are not explicitly made clear. For periods of prolonged droughts, a hierarchy of user functions applies, based on the limited availability of fresh water and emphasising prevention of irreversible changes to natural processes. With regard to the supply and demand indicator, until December 2009, the WFD did not influence the local water management practices substantially. These observations point at a juxtaposition of (elements from) ideal-type B and C IRBM choice rules (see Table 8.6a).

Table 8.6a: Ideal-type collective-choice IRBM supply and demand rules (local level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Water supply management determines availability of fresh water for user functions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Mixed supply and demand management determines fresh water availability without a hierarchy in user functions.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Integrated supply and demand management, as expressed by a hierarchy in user functions.</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B and C rules as expressed by the ‘X’.
Nature of the license system

Before adoption of the WFD the Provincial Water Regulation of North-Brabant included license rules for both groundwater and surface water abstractions (Provincie Noord-Brabant, 1992). The former were elaborated more in detail by the Province, whereas the latter were the concern of the regional water quantity authorities (ibid.). Emissions of point sources of pollution were regulated by means of the national Surface Water Pollution Act (Anonymous, 1970). Regulations for diffuse sources of pollution were more diffuse in nature, as partly covered by the Surface Water Pollution Act and the Manure Act (Anonymous, 1986b). As described in Chapter 6, the WFD’s river basin management approach has been among the main three reasons for establishing an integrated water policy act at the national level, including one coordination system that brings together licenses for water related activities. The general philosophy of the Water Act (Anonymous, 2009b) is to arrange as much as water-related activities as possible by generic, national rules. However, for some specific activities a license remains obligatory (ibid.). The water management and uses regulation of the Brabantse Delta Water Management Authority refers to the national Water Act (Waterschap Brabantse Delta, 2009). The license system for water related activities in Brabant-West includes water quality and water quantity and relates to the management and use of both surface water and ground water sources. The water license system has not been integrated into the environmental license system. Part of the groundwater licenses remains under the responsibility of the North-Brabant Province.

The observations of this research point at an evolution from dominance of ideal-type A IRBM choice rules before adoption of the WFD towards dominance of ideal-type B rules after adoption (see Table 8.6b). The WFD has been one of the three main reasons for a more integrated water licenses system in the Netherlands.

Table 8.6b: Ideal-type collective-choice IRBM licences rules (local level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Separate, parallel licenses for quality and quantity objectives related to the use, development and management of water resources.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Licences that integrate quantity and quality objectives related to the use, development and management of water resources.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>C: Integrated licenses for interrelated use, development and management of natural resources (e.g. air, water, land).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’. The ‘x’ points at a reduced resemblance of the observations with ideal-type A rules after adoption of the WFD.

8.3.5 Aggregation Rules

As defined in Section 2.2.7, a major collective-choice challenge of IRBM concerns the issue as to how arrange decision-making at interrelated political levels within shared (inter)national river basins with the aim to reach common understanding and broad public support for collective choices. The aggregation rules may appear in different
ways, as expressed by identified ideal-types (see Table 8.7). The aggregation question ‘who should make and who should agree with adaptations of prior rules and with new rules?’ shows redundancy with boundary rules. For the purpose of this research the question who is involved in planning and decision-making and to which degree (such as information, consultation and co-decision) is covered by boundary rules (see Subsection 8.3.3). The aggregation rules concentrate on the coherence between and the nature of decision-making at different administrative levels within a river basin.

Within the International Meuse River Basin District there is a clear aggregation border between the Limburg and North-Brabant Provinces. Before adoption of the WFD the regional water management authorities within each province coordinate their activities with the province. Coordination between both provinces does not take place at a regular basis. The WFD implementation planning process triggers interprovincial coordination although own planning traditions and practices remain dominant (Interviews 41, 44, 46, Appendix I). Despite incidental information exchange meetings with the Flemish authorities, no transboundary coordination of the WFD assignment takes place. The decision-making processes at the multilateral and the local level take place rather independently. This may be explained by the differences in focus level (the entire international Meuse River and inland water systems respectively) and the level of abstractness of issues at stake. European guidance documents have not been discussed at the local level. Their impact flows mainly indirectly through the translation into national instructions and guidance documents.

In the decentralised unitary state tradition of the Netherlands, it is up to the functional regional water management authorities and the municipalities to translate national and provincial water policies into local management practices. Given the diversity of water user categories and significant tensions between water demands for agriculture and nature protection within Brabant-West, the General Assembly of the Brabantse Delta Water Management Authority continuously has to strive for compromises. Consensus oriented, coalition seeking behaviour dominates in this area which is well-known for its history of implicit, not written down rules and large number of covenants (Interviews 28, 30 and 34, Appendix I). Within the General Assembly, representatives of environmental NGOs and nature site managers are the minority, whereas farmers’ interests are far more dominant and join the governing coalition. See also Subsection 8.4.3 on distribution of resources and power.

Notwithstanding a series of interactive workshops, the local WFD implementation planning process has been dominated by experts at municipalities and the water management authority. Non-governmental actors have been mainly informed and consulted by meetings of the Brabant-West WFD Consultation Platform. The creation of a special multi-stakeholder platform for the WFD perfectly fits in the local tradition of informal information and consultation practices. In addition to the platform meetings and workshops, grass-roots information sessions have been organised for agricultural interest groups and environmental NGOs. Local WFD pilot projects have been initiated in the search for synergetic and innovative WFD measures (especially with farmers and municipal actors).
Due to a focus on larger water systems for delineation of WFD water bodies, smaller water systems (including isolated urban ones) have been excluded. This distinction has triggered a difference in priority setting which is not intended by the WFD and may have hindered active involvement of some municipal actors. Another barrier may have been the national decision not to prescribe a legally binding municipal plan figure for anchorage of the WFD requirements. However, generally municipal actors have valued the offered room for manoeuvre positive. Within Brabant-West, the fear of European obligations in combination with the benchmarking approach by the regional water management authority and the municipal water ambassadors have played a more dominant role than the lack of a uniform plan figure. Overall, the local WFD implementation planning process has boosted cooperation efforts between the regional water management authority and municipalities, for example as expressed by one of the municipal water ambassadors (Interview 26, Appendix I; translation from Dutch added):

The strongest benefit from the WFD implementation planning process has been the creation of a network for exchange of experiences among municipal water colleagues. Furthermore, the relationship between the regional water management authority and municipalities has been improved due to increased acknowledgement of a common interest for water quality amelioration. Compared to other areal processes, the WFD has been much more focused on deliberations among relevant (and equivalent) partners and less on technical aspects only.

The research observations point at a juxtaposition of ideal-types B and C both before and after adoption of the WFD (see Table 8.7). Given European obligations, top-down instructions should prevent non-compliance fines from the EC. At the same time, the national Water Policy Department emphasises the importance of enough room for regional and local tailor made implementation proposals, in order to generate support for the river basin management plans. The regional water management authorities are pronounced exponents of a mixed top-down and bottom-up approach. Although the authorities will have to comply with national water rules, it is up to their general assemblies to decide on local implementation measures. One might argue whether ideal-type A rules also apply with regard to the linkages between the multilateral and the local level. Since local actors participate at the multilateral level (e.g. in working-groups of the International Meuse River Commission), the argument here is that decision-making does not take place independently. It is rather the differences in focus and level that may cause a perception of independent processes. Remarkably, the Second Integrated Water Management Plan for Brabant-West refers to European, national and provincial policies as guiding, whereas the International Meuse River Commission has not been mentioned (Waterschap De Dongestroom and Hoogheemraadschap West-Brabant, 2000).
Table 8.7: Ideal-type collective-choice IRBM aggregation rules (local level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Independent decision-making on water policy and management plans at different administrative levels within a river basin.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Asymmetric, top-down decision-making on water policy and management plans at different administrative levels within a river basin: lower levels have to comply with the rules from the higher levels.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: Symmetric, consensus based decision making on water policy and management plans at different administrative levels: mixed top-down and bottom-up rules.</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type B and C rules as expressed by the ‘X’.

8.3.6 Information rules

As defined in Section 2.2.8, one major collective-choice challenge of IRBM is to collect, aggregate and present information in such a way that river basin management plans are acknowledged and supported by a majority of interested public and non-governmental stakeholders. A critical dimension of this challenge is the types of information that are considered legitimate in combination with the nature of the collection and aggregation process. The focus of this research is on this critical dimension. Three ideal-type information rules have been identified (see Table 8.8).

In general before the WFD’s adoption the water quantity and water quality management authorities in Brabant-West collect and aggregate information into their own water management plans. Since 1995, these authorities coordinate their activities to draft an integrated water management plan. By means of bilateral talks and multi-stakeholder platform meetings the authorities informally consult municipalities, the province and non-governmental interests groups, conform provincial rules (Waterschap De Dongestroom and Hoogheemraadschap West-Brabant, 2000). After the drafting stage the integrated water management plan is subject to a formal consultation procedure (ibid.). In general, differences of opinion do not concern the aggregated facts and figures but rather the chosen ambitions in terms of objectives and measures. Emphasis is on technical-scientific and socio-economic arguments.

In the WFD implementation planning process the complexity of the information aggregation challenge increases since the local choices are explicitly subject to regional coordination and national harmonisation. In Brabant-West, the areal WFD coordinator at the Brabantse Delta Water Management Authority, inspired by the European guidance documents, proposed to broaden the new water management plan to a shared sub-basin plan of water authorities, municipalities and whenever possible which includes contributions from environmental NGOs and socio-economic interests groups. Both within and outside the regional water management authority there has been insufficient support for this proposal. The final 2010-2015 Water Management Plan (Van Den Berg and Postma, 2009) only includes aggregated information.
related to the formal obligations of the regional water management authority itself. The plan is mainly available as Internet application which makes cross-references with other websites possible and enlarges public access of information which may also be updated anytime (ibid.). The formal consultation procedure makes clear that the aggregated facts and figures as aggregated by the regional water management authority generally are acknowledged by the other stakeholders. Differences of opinion mainly occur about the chosen objectives and implementation rates of measures (Van Den Berg, 2009). Emphasis within the plan is on technical-scientific and socio-economic arguments.

In summary, the observations of this research point at a juxtaposition of ideal-type A and B rules before and after adoption of the WFD (see Table 8.8). In general, information as aggregated in the water management documents is supported by a majority of stakeholder categories. Differences of opinion mostly refer to stances on conclusions about formulated objectives, selected measures and related socio-economic consequences.

Table 8.8 Ideal-type collective-choice IRBM information rules at (local level)

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>The river basin management planning process (definition of means and ends)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>is predominantly driven by expert information and knowledge from the natural</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sciences. Validity and reliability are central criteria for legitimised information and knowledge.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The river basin management planning process (definition of means and ends)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>is predominantly driven by expert information and knowledge from the economic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sciences. Costs-benefits ratios and economic efficiency are central criteria for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>legitimised information and knowledge.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The river basin management planning process (definition of means and ends)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>is driven by information and knowledge from multiple disciplines and both from</td>
<td></td>
<td></td>
</tr>
<tr>
<td>experts and lays. Joint fact finding and social robustness are central criteria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>for legitimised information and knowledge.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’.

8.3.7 Pay-off rules
As defined in Section 2.2.9, pay-off rules point at the incentives and deterrents for action (Ostrom, 2005). In interaction with other rule types pay-off rules affect the net benefits and costs that will be assigned to particular combinations of actions and outcomes (ibid.). In the context of this research, three ideal-types IRBM pay-off rules have been identified (see Table 8.9).

In addition to legislative rewards and sanctions the polluter pays and the user pays are central principles in the local water management domain. In general one pays for drinking
water consumption and waste water treatment by means of user prices and taxes. Cost recovery for water-related services is not 100%, since for example farmers do not fully pay for individual surface water and shallow ground water abstractions (indirectly, by means of the water system management tax, they pay part of these costs). To a certain extent water abstractions and discharges are subject to a license system. The first WFD implementation planning cycle does not alter the pay-off rules significantly. The leading principles remain the same and the chosen process architecture resembles Dutch planning traditions with a clear divide between governmental authorities (who decide) and other actors (who are to be informed and consulted).

The chosen WFD process approach in Brabant-West does not trigger an active multiple stakeholder search for trade-off opportunities by (sub-) basin communities. Inspired by the feasibility and affordability mantra the governmental actors rethink their ambitions, opt for a staged implementation and label prior objectives and measures as WFD proof. Notwithstanding some promising results of local pilot projects to test new techniques with farmers (Waterschap Brabantse Delta, 2007), the positive spirit easily dampens without a follow-up and without continuous financial support of the governments. In general different interests groups seem to stick to the well-known heaven of raising opinions for defending own interests. The WFD process so far does not trigger their willingness to invest in collaborative capital for collective arrangements that may benefit all (at the expense of initial investments by all).

The observations of this research point at a juxtaposition of ideal-type A and B IRBM pay-off rules both before and after adoption of the WFD (see Table 8.9).

<table>
<thead>
<tr>
<th>Ideal-type rules</th>
<th>1990 to 2000</th>
<th>2001 to 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Rewards and sanctions from laws and regulations are major drivers for compliance with collective rules (e.g. as expressed by standards and license conditions).</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B: Economic incentives and market forces are major drivers for compliance with collective rules.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C: (Sub-) basin communities voluntarily invest resources (human, financial, expertise) as collaborative capital for compliance with collective-choice rules.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: The research observations come closest to ideal-type A and B rules as expressed by the ‘X’.

8.4 Local rules in the context of policy discourses, actors and resources and power

In the previous section, observed IRBM rules types at the local level (within the Brabant-West part of the international Meuse River Basin District) have been presented, both for the period 1990 to 2000 (before adoption of the WFD) and the period 2001 to 2009 period (the first WFD implementation planning cycle). As described in
Chapter 2, rules development over time should be best studied in relation to (changes in) the other three dimensions of a policy arrangement: policy discourses, actors (coalitions and oppositions) and the distribution of resources and power. Observations on these three dimensions may deliver potential explanations for observed (changes in) rules types. Since the WFD has elaborated the IRBM paradigm into a uniform set of rules and principles for all European water resources, one may expect rules changes to occur depending on the extent to which the new rules fit into the domestic rules, traditions and practices. In other words: how new are the IRBM discourse and its related rules? To which extent do these trigger changes in the distribution of resources and power and actors constellations? Given the new European policy discourse as a starting-point for this research, this section begins with the policy discourses dimension of the policy arrangement approach.

8.4.1 Policy discourses
As explained in Subsection 2.3.2, with regard to policy discourses, Wiering and Arts (2006) distinguish three layers: (1) world views or paradigms (which are most difficult to influence), (2) policy and governance principles (which are the actors’ utopias) and (3) operational rules and practices (e.g. daily water management routines which are relatively easy to alter). Table 8.10 summarises the observed governance and policy principles in the Dutch local water policy domain in the period 1990 to 2009. Although governance principles are interpreted here as mainly organisational in nature and policy principles as substantive, certain redundancy may occur. Furthermore, some principles may relate to multiple rules types. To a considerable extent the local paradigms and principles resemble the ones at the national and regional level (see the Subsections 6.4.1 and 7.4.1 respectively).

Although the WFD institutionalises IRBM at the European level, the paradigm is not new in the Dutch water policy domain. The WFD enters the Dutch water policy domain in an era in which the integrated water systems approach already grained both substantive and organisational ground (scope rules). Yet in the second half of the 1980s, the integrated water systems approach appears in the Dutch water policy landscape, followed by interactive policy making and incorporation of water issues into local areal processes in the 1990s. As concluded in Chapter 6, the IRBM approach from the WFD is among the three main reasons for a national integrated water act. In the 1990s the merging process in Brabant-West continues, with four water quantity management and a water quality management authority as the outcome. The integrated water systems approach triggers a cooperation process among the five authorities for drafting one integrated water management plan for the entire territory. In 2004, a new regional water management authority opens its door, after merging of the five water authorities (Postma and Laracker, 2005). The newborn administration takes both water quantity and water quality issues on board. In general, the WFD has provided supporters of an integrated water management approach with an additional argument.
Table 8.10: Policy discourses and rules at the Dutch local level (periode 1990 tol 2009)

<table>
<thead>
<tr>
<th>Type of rule</th>
<th>Policy discourses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope:</td>
<td>Governance principles: Informal river basin management planning coordination; Mixed local implementation planning and regional coordination; Parallel local WM21, WFD and Natura 20000 implementation processes; Pragmatic coalition building with upstream Flemish actors. Policy principles: Integrated management of water quality and quantity issues; Taking into account relations between surface water and groundwater bodies; Water as a guiding principle in spatial planning.</td>
</tr>
<tr>
<td>Position:</td>
<td>Governance principles: Protection of historical land property and user rights; Land acquisition based on voluntary agreements; Blue-green services contracts with farmers Policy principles: Zoning of user functions and nature protection sites.</td>
</tr>
<tr>
<td>Boundary (entry or exit):</td>
<td>Governance principles: Conditioned access for non governmental actors (with emphasis on information and consultation); Informal consultation of interest groups in addition to, prior to formal consultation; Drinking water companies are considered private actors.</td>
</tr>
<tr>
<td>Choice (authority):</td>
<td>Governance principles: Maximal room for socio-economic development within the context of European obligations; Generic rules over individual licenses; Those who have an interest pay and have a say in supply and demand management. Policy principles: Zoning of user functions; Combined emission-immission approach; Hierarchy of water uses in case of droughts; Prevention of irreversible hydro-morphological alterations/prevention of significant damage; No deterioration at the level of water bodies.</td>
</tr>
<tr>
<td>Aggregation:</td>
<td>Governance principles: A mixed bottom-up and top-down WFD implementation process; National authorities should provide for generic diffuse emission sources policies; Interest groups have a say in local WFD implementation decisions by their representatives in the General Assembly of the regional water management authority; Informal consultation of interest groups prior to formal consultation; Synchronisation of water policy/management plans (due to the WFD). Policy principles: A level playing field for socio-economic sectors across Europe; A strict divide between European obligations &amp; regional/local intentions; Tailor-made local WFD implementation.</td>
</tr>
<tr>
<td>Information:</td>
<td>Governance principles: Joint fact finding by public actors. Policy principles: Scientific knowledge reduces uncertainties; Costs should not outweigh the benefits.</td>
</tr>
<tr>
<td>Pay-off:</td>
<td>Governance principles: Generic rules over individual licences; Strict implementation of European obligations by a staged approach; Joint implementation by co-financing of measures. Policy principles: Polluters and users pay; Cost-effectiveness; Feasible and affordable objectives and measures; Synergetic and innovative packages of measures; A level playing field for socio-economic sectors across Europe.</td>
</tr>
</tbody>
</table>
At the turn into the 21st Century, the five water management authorities did not expect major changes due to the implementation of the WFD (Waterschap De Dongerroom and Hoogheemraadschap van West-Brabant, 2000). They expected that, although the consequences for the regional water management authorities were not entirely clear, the current organisational structures and planning system would survive (ibid.). November 2003, when the national actors are actively involved in a delicate political debate on the potentially severe socio-economic consequences of the new directive, the regional water management authorities in Brabant-West are busy with their merging process. In 2005 the then regional water management authorities in the North-Brabant Province have their own WFD wake-up call together when they consider its financial and strategic consequences (Bos, 2005; Bos and De Smit, 2005). Although the feasibility and affordability arguments from the national level are incorporated in the local strategic considerations, the regional water management authorities opt for exploring an ambitious implementation approach. They consider the WFD as supportive argument for enforced implementation of domestic packages of measures for compliance with the provincial water policy objectives.

The General Assembly of the Brabantse Delta Water Management Authority acknowledges that the WFD assignment will bring along significant additional investment costs (with a range from €65 to €450 millions; Postma and Laracker, 2005). In order to anticipate the European obligation terms, the assembly decides to start implementing no regret measures while actively participating in the WFD implementation planning process (ibid.). At the same time, at local WFD information sessions in Brabant-West, it becomes clear that the majority of municipalities fear the socio-economic consequences of the new European obligations. With the results of the local WFD pilot project the officials and politicians at the Roosendaal Municipality become aware of the significant financial consequences (Vroege et al., 2005a and 2005b). They stress the need to optimally make use of the offered room for manoeuvre in setting the ecological objectives for heavily modified water bodies (ibid.). In the local WFD areal process that follows, the feasibility and affordability mantra increasingly gains ground. The initial high ambitions of the new regional water management authority gradually dampen into a maximally staged WFD implementation until 2027.

The observed policy and governance principles at the local level mainly resemble these at the regional level (see Table 8.10 as compared to Table 7.11 in Subsection 7.4.1). The WFD discourse does not affect the organisational scope of the Netherlands as a decentralised unitary state in which the importance of local tailor-made solutions is emphasised (scope rules). The Dutch water systems approach may be considered both a predecessor and an exponent of the European river basin management approach. Cross-sector integration is aimed by incorporation of the water management objectives into local areal processes, such as the rural areas revitalisation approach. The new regional water management authority in Brabant-West starts with high ambitions and views the WFD as an opportunity to position the administration as the local water management coordinator and integrator. However, in Brabant-West, agriculture remains a dominant and influential factor. The local WFD process does not significantly alter historical land use and property rights (position rules). Voluntary agreements on
land acquisition remain leading with management contracts for blue-green services by farmers as best alternative.

Zoning of land use types and water-related functions in which restoration of ecosystem values is weighed against human development activities is a central choice in local supply and demand management (choice rules). The WFD does not substantially alter this choice but adds more explicit incorporation of protection of fish species, for example by removal of migration barriers. At the local level the evolution towards one integrated license system for water-related activities is expressed, amongst others, by the one counter philosophy. According to this philosophy, a citizen may apply for one license for all water-related activities at the municipal administration (i.e. the front office) which takes care of a timely response by all involved authorities (i.e. the back office). Furthermore generic rules over individual licenses aim at a reduction of unnecessary administrative burden. Although the advantage is that all aspects are brought together in one license, it does not automatically mean that this license is more integrated in nature (Interview 45, Appendix I). The WFD’s policy discourse supports the prior integration tendencies at the local level.

Although the new Brabantse Delta Water Management Authority expresses the wish to open up its window to society, local boundary and aggregation rules remain unaltered by the WFD. The Dutch tradition of informal information and consultation prior to formal consultation rounds survives. Despite experiments with interactive policies making in the 1990s and calls for more interactive planning and decision-making processes in the European guidance documents, the local areal WFD process does not trigger such an evolution. Although the Brabant-West WFD Project Team aims for interactive workshops and incorporation of measures taken by multiple actors (Santbergen, 2007a), local politicians decide to stick to formal requirements in the new generation water management plans (Van Den Berg and Postma, 2009). Given this focus on formal requirements, it may not come as a surprise that the information procedures are dominated by public actors.

At the local level the Brabantse Delta Water Management Authority is considered the central water systems information aggregator. Joint fact finding mainly takes place between this water authority and the municipal actors and with a strong focus on technical and socio-economic arguments (information rules). The participants of the WFD pilot project with the Roosendaal Municipality conclude that the distinction between WFD water bodies and smaller, urban water systems might hinder active involvement of municipal actors (Vroege, 2005a and 2005b; Interviews 25 and 26, Appendix I). Furthermore, the new WFD’s goal setting and monitoring requirements require additional information collection and aggregation. Several knowledge gaps will have to be bridged for identification cost-effective measures (ibid.).

Although the first General Assembly of the Brabantse Delta Water Management Authority initially considers the WFD as opportunity for enforced implementation of provincial water policy objectives, gradually the fear of non-compliance fines tempers the expectations and ambitions. The national feasibility and affordability mantra offers a convenient escape towards a staged implementation approach. Consequently, pay-off rules remain focused on a strict interpretation of the European obligations in order to prevent the local tax payers from disproportionate costs. Cost-effectiveness, synergy and
innovation arguments start to dominate the local WFD implementation process, which continue largely running in parallel with other local areal processes. The complicated technical nature of the WFD requirements in combination with the uncertainties of the directive’s consequences has hindered a more integrated approach with these other areal processes. Similar to the observations from the national and provincial levels, at the local level, representatives of industry and agriculture often share arguments and repeatedly ask for feasible and affordable objectives and measures. On the opposite side they often found the environmental NGOs and managers of nature areas who periodically express disappointment with gradual eroding ambitions. Sector position papers have dominated the process over arguments that express cross-sector coalition building attempts.

8.4.2 Actors
In general the WFD does not influence actor constellations in Brabant-West dramatically. Classic interests’ divides remain unsolved and sector position papers dominate the implementation planning discourse. Within the General Assembly of the Brabantse Delta Water Management Authority, agricultural stakeholders join forces to prevent land expropriation for compliance with WFD objectives (position rules). On the opposite side they meet environmental NGOs who consider low land acquisition rates as major obstacle for a timely and adequate compliance. Remarkably, they share the view that, for a level playing field, also municipalities should invest more, for example in solving critical sewage spillovers to valuable water systems. Both the Brabantse Delta Water Management Authority and the State Waters Management Agency concentrate their scope on issues within own territories (scope rules). Although drinking water companies (Evides and Brabant Water) and the North-Brabant Province ask for more attention to interactions between surface water and groundwater bodies, the main focus within the local WFD process remains on surface water issues.

With regard to boundary and aggregation rules, the sharp distinction between (planning and decision-making) public actors and other stakeholders (who are to be informed and consulted) is noticeable in the entire 1990 to 2009 period. The local WFD implementation planning process provides a cooperation boost between the Brabantse Delta Water Management Authority and the municipalities in its territory. A coalition of the WFD coordinator at the authority and officials at six major municipalities (Woensdrecht, Bergen op Zoom, Roosendaal, Etten-Leur, Breda and Oosterhout), including two municipal water ambassadors, guide the way towards joint political conferences and decisions on harmonised lists of WFD measures for the 2010 to 2015 period. The coalition criticises the limited visibility of the North-Brabant Province in the areal WFD process. In turn, the province expects the coalition to include municipal groundwater and Natura 2000 issues as well in the programme of measures.

Between 1995 and 2000, the Transboundary Mark Basin Committee (TMBC) serves the Dutch regional water management authorities well in their pragmatic coalition seeking behaviour with the upstream Flemish actors. Remarkably, the adoption of the WFD does not trigger an enforcement of the committee’s activities. Actors in both riparian states struggle with the complicated technical nature of the directive and preliminarily focus on domestic coordination issues. The momentum of the trans
boundary committee seems to have faded away. On the other hand, the establishment of the Flemish Mark and Weerijs Water Management Authority (Waterschap Mark en Weerijs) has triggered cooperation attempts by the Antwerp Province and the Brabantse Delta Water Management Authority.

The local WFD implementation planning process does not have a significant influence on supply and demand management (choice rules). In a parallel process, the Brabantse Delta Water Management Authority, the North-Brabant Province and municipalities join forces to reduce administrative burden of water-related licenses (as part of the evolution towards an integrated water license system). In the Brabant-West WFD Consultation Platform environmental NGOs not only get involved in polarised choice debates with farmers organisations but also face opposition from recreational fishermen. The latter consider the WFD as a threat to their preferred composition of fish stocks and to accessibility of river banks.

Over the entire 1990 to 2009 period the water management authorities have a central position in collection and aggregation of technical and socio-economic figures on the state and functioning of the inland water systems (information rules). In the areal WFD process municipalities join the forces but suffer from sufficient financial and human resources to maintain data on urban sewage systems up to date (Santbergen, 2010). Despite initial attempts for joint fact finding with multiple stakeholders such as by means of workshops and written stakeholders contributions, the final WFD fact sheets and the 2010 to 2015 Brabantse Delta Water Management Plan only include information from the public actors. With regard to pay-off rules the WFD does not alter the dominant preference of the local actors of informal cooperation agreements on a voluntary basis over legally binding rewards and sanctions. In general, the WFD supports the polluter and user pays principles of the Dutch water-related tax system, in addition to rewards and sanctions from laws and regulations.

8.4.3 Resources and power
In the period 1990 to 2000 while the North-Brabant Province turns its scope towards integrated areal processes, the regional water management authorities in Brabant-West concentrate their resources on integrated water resources management activities (scope rules). While the WFD is drafted and adopted at the European level the regional water management authorities succeed well in integrating water-related policy objectives and measures in the rural areas revitalisation process. In the first three years after adoption of the WFD, the water authorities focus on their merging process. Remarkably, whereas the North-Brabant Province in 2005 blames the regional water management authorities to be too inactive in the WFD implementation planning process, it decides to concentrate its own human resources at the rural areas revitalisation and the local Natura 2000 processes. In 2005 the first General Assembly of the Brabantse Delta Water Management Authority picks up the WFD challenge and, after strategic sessions with the other two major water management authorities in the province, formulates an ambitious and anticipatory WFD implementation strategy. Around 2007, the regional water management authority who considers the WFD as an opportunity to prove its reason of existence blames the province to be invisible in the local areal WFD process.
Subsequently, the elections for the second General Assembly coincide with the global financial crisis. A political shift of focus takes place: from strong emphasis on anticipation and cooperation with municipalities (2005 to 2008) to both affordability and disproportionate costs as arguments for a staged implementation and a strong focus on own formal responsibilities (since 2009). The new General Assembly decides to stop the preparation and implementation of 16 projects in order to avoid disproportionate tax increases (Postma and Laracker, 2009). With regard to position rules, the new General Assembly acknowledges the risk of a low land acquisition rate (Postma and Laracker, 2009: 29; translation from Dutch added):

Land acquisition may take a long time, hence may cause delays in project implementation. The regional water management authority tries to accelerate this process. Furthermore, the authority will look for alternatives for acquisition, such as by means of combinations with new estates, lease constructions and contracts with landowners for blue-green services management.

Analysis of the boundary rules shows an enforcement of cooperation and coordination by governmental authorities in the local WFD implementation process. Stimulated by the national municipal water ambassadors’ agreement, the WFD process triggers a considerable mobilisation of municipal experts and officials, although municipalities that house one ambassador are more active than many others without. National authorities have provided €7.2 millions for WFD synergy projects in Brabant-West, including cooperation between regional water management authorities and municipalities and including WFD and WM21 integration measures. The Brabantse Delta Water Management Authority turns down a request from the Brabant Environmental Federation for financial support for capacity building in the local WFD process. The drinking water companies persistently ask for more attention to interactions between groundwater and surface water bodies and offer expertise and text proposals to the regional water management authority. Parallel to the WFD process, the drinking water companies invest in partnerships with the regional and local governmental authorities, the regional water management authority and non-governmental stakeholders, in order to collectively protect drinking water abstraction and production sites. The regional water management authority invests in WFD pilot projects with farmers and municipalities to test measures that might deliver both environmental and economic gains (Van den Berg and Van Lamoen, 2008).

Evolutions in choice rules at the national and provincial levels (supply and demand management, nature of the license system) also become noticeable at the local level. The first WFD implementation planning cycle does not trigger significant changes in the distribution of resources and power. Although interactions between surface and ground water systems are acknowledged as an important attention issue, emphasis within the local process remains at surface water bodies. As part of the Dutch integrated water management evolution, the provincial and municipal authorities and the regional water management authority jointly invest in simplifying license procedures for water-related activities. The WFD is not the trigger for these investments, but an additional argument for support.
Within the first implementation planning cycle, the WFD does not trigger significant investments in transboundary coordination efforts with actors from the Flemish Region of Belgium (aggregation rules). Both Dutch and Flemish actors predominantly focus on their domestic coordination processes. Furthermore, for the Dutch local actors, linkages with the coordination process of the International Meuse Commission are not very visible (Interview 28, Appendix I). The Brabantse Delta Water Management Authority participates in one of the multilateral working-groups but due to the abstractness of the multilateral process decides to stop its active participation (Interview 34, Appendix I). Guidance documents of the European Common Implementation Strategy (CIS) are not directly incorporated in the local WFD implementation process but rather indirectly via national instructions and guidance documents. The ecological objectives for heavily modified water bodies have been formulated by the ecologists of the regional water management authority and approved by the provincial authority as part of its water policy plan. Although initially the provincial and local politicians emphasised the room for manoeuvre in defining these objectives, the technical prescriptions were too complicated for active involvement of the politicians. Moreover, ecologists seized the moment to enforce their position and to incorporate their wishes into the aggregation process.

The local information collection and aggregation process is dominated by the public actors and by technical and scoop-economic arguments (information rules). On the one hand non-governmental actors express their wish to get more actively involved, while on the other hand they do not want to get formally co-opted. The local WFD implementation planning process especially pays off in closer cooperation by the regional water management authority and the majority of municipalities in Brabant-West. Similar to the national and regional political levels, technical-scientific and socio-economic arguments dominate the local water policy domain before and after adoption of the WFD. Overall, the WFD process does not provoke significant changes in pay-off rules. Formal rewards and sanctions in combination with the polluters and users pay principles remain the dominant pay-off rules.

8.5 Synthesis: Parallel processes and voluntary agreements

In this final section observed collective-choice rules at the Dutch local level are linked to observations on the other three policy arrangement dimensions: policy discourses (see Subsection 8.4.1), actors (see Subsection 8.4.2) and distribution of resources and power (see Subsection 8.4.3). Table 8.11 brings together the observations on all four dimensions. The grey-coloured cells indicate remarkable evolutions. The observations on the Dutch domestic levels are largely similar.

The WFD supports the prior started Dutch evolution of internal integration (scope rules) and changes in the choice rules (nature of the license system). At the local level, the internal integration evolution is hindered by stage differences of parallel areal processes and a persistent fear of the obligatory nature of the WFD’s environmental objectives. Furthermore, there is a remarkable tradition of unwritten, informal rules, as expressed by a strong preference for voluntary agreements.
Table 8.11 Observed collective-choice rule-types & potential explanations (local level)

<table>
<thead>
<tr>
<th>Rules-types in the 1990 to 2009 period ↓</th>
<th>Potential explanations ↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope (organisational): Water policy is implemented by functional water management agencies and actors networks which are controlled by parliamentary institutions (ideal-type B).</td>
<td>Functional water management authorities; Stable, public actor/expert-driven water policy domain; Integrated River Basin Management paradigm</td>
</tr>
<tr>
<td>Scope (internal integration): Enforcement of the evolution towards more integrated legislation, policy documents and management plans (from ideal-type A towards B).</td>
<td>Integrated River Basin Management paradigm; New Public Management paradigm; Tensions between land user sectors</td>
</tr>
<tr>
<td>Scope (external integration): Policy documents and management plans from other policy domains take into account water issues and reversely (ideal-type B).</td>
<td>Lack of spatial planning competences of the regional water management authorities; Functional water management authorities</td>
</tr>
<tr>
<td>Position: Conditional maintenance and acquirement of water and land resources use and property rights. Conditions include requirements to consider social, economic and/or environmental externalities (ideal-type B).</td>
<td>Dominance of agricultural interests in the regional water management authorities; Tradition of voluntary agreements</td>
</tr>
<tr>
<td>Boundary: Non-governmental actors may have access to the river basin management planning process under conditions set by the public actors. Emphasis on co-thinking and consultation (ideal-type B).</td>
<td>Stable public actor/expert-driven water policy domain; Water management authorities are eager to prove their reason of existence.</td>
</tr>
<tr>
<td>Choice (supply and demand management): In general a mixed supply and demand management approach. In case of prolonged droughts, the approach is more integrated in nature as expressed by a hierarchy in user functions (juxtaposition of ideal-types B and C).</td>
<td>Dominance of agricultural interests in the water management authority; Integrated River Basin Management paradigm; Advocacy by environmental NGOs</td>
</tr>
<tr>
<td>Choice (nature of the license system): An evolution towards a license system that integrates quantity and quality objectives related to the use, development and management of water resources (from ideal-type A towards B).</td>
<td>Integrated River Basin Management paradigm; New Public Management paradigm; Stable public actor/expert-driven water policy domain</td>
</tr>
<tr>
<td>Aggregation: Both asymmetric, top-down decision-making and symmetric, consensus based decision-making examples on water policy and management plans at interrelated administrative levels (juxtaposition of ideal-types B and C).</td>
<td>The Netherlands as decentralised unitary state; Subsidiarity; Interests representation in the General Assembly of a water management authority; Integrated River Basin Management paradigm; Tradition of informal consensus building</td>
</tr>
</tbody>
</table>
### Rules-types in the 1990 to 2009 period ↓

<table>
<thead>
<tr>
<th>Information: The river basin management planning process is driven by a mixture of a scientific-technical and social-economic rationale. Validity, reliability, costs-benefits ratios and economic efficiency are central criteria for legitimised information/knowledge (juxtaposition of ideal-types A and B).</th>
<th>Potential explanations ↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable, public actor/expert-driven water policy domain; Neo-liberalism</td>
<td>Pay-off: Both rewards and sanctions from laws and regulations and economic incentives and market forces are major drivers for compliance with collective-choice rules (juxtaposition of ideal-types A and B).</td>
</tr>
<tr>
<td>Stable, public actor/expert-driven water policy domain; Neo-liberalism; Polluter pays, affordability, cost-effectiveness</td>
<td></td>
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</table>

The grey-coloured cells indicate remarkable evolutions.

Despite strong IRBM rhetoric, the national wish for integrated areal WFD implementation planning processes did not blossom in Brabant-West (scope rules). Part of the explanation is the historical path of a decentralised unitary state organisation in the Netherlands, which accounts for a continuous consciousness not to interfere too much with the authoritative autonomy at each subsequent political level. Furthermore, differences in both the focus and distribution of resources and power at the provincial and local level in combination with a mismatch of life cycle stages of different water-related policy files guide the way to parallel local areal processes for WM21, Natura 2000 and WFD issues. Whereas the North-Brabant Province guides the earlier started rural areas revitalisation processes (as triggered in 1997 by a severe outbreak of swine fever), in which the water management authorities actively succeed to integrate the WM21 issues, the Brabantse Delta Water Management Authority leads the subsequent and parallel WFD implementation planning process (as started at the end of 2005).

Given the initial fear for the European obligations and the intentional nature of domestic WM21 objectives, the regional water management authority and the municipalities hesitate to integrate the WFD and WM21 assignments. Furthermore, despite its integrated river basin management discourse, the integrated areal analyses for sub-basins, which have been initiated by the regional water management authority prior to the WFD areal process, predominantly focus on hydrological issues. The WFD’s ecological objectives arrive rather too late to be substantially incorporated within these sub-basin analyses. Furthermore, whereas the WFD process mainly concentrates on water system management issues, the areal water chain optimisation processes run in parallel (Interviews 19, 22 and 26, Appendix I). Linkages between the two are only made in the final stage of the WFD process (Sanbergen, Backx and Van den Berg, 2008; Sanbergen, 2010). The areal Natura 2000 processes, which are initiated by the province while the WFD process is running to its final stage, comes up rather too late for a sound incorporation of water-related conditions for the Natura 2000 objectives.

Given this brief sketch of areal processes one may argue whether Brabant-West benefits from a functional redundancy or suffers from an integration deficit of parallel areal processes. Since the early 1990s, a general integration evolution becomes noticeable both in a substantive and organisational sense. Quantity and quality authorities
merge into one integrated regional water management authority, both provincial integrated water policy and related local integrated water management plans are drafted and the WFD brings in a more explicit and legally binding attention to ecological objectives and interactions between groundwater and surface water issues (choice rules). The continuous struggle of the provinces and water management authority for survival within the Dutch institutional landscape (although partly ritual in nature given a strong emphasis at maintaining Thorbeckes’ House) seems to invite a redundancy which may not be optimally from the substantive perspective of an integrated river basin management approach. The struggle also invites parallel processes to be steered by the one or the other.

Limited financial and human resources from the side of the municipalities hinder their active participation in all the parallel running processes. For example, although the municipal actors generally participate actively in the extensive WFD areal process, they complain about the multiplicity of parallel processes. Non-governmental actors also complain about the multiplicity of information and consultation related to all the parallel processes. With regard to boundary and aggregation rules, the strict divide between public actors, who collect and aggregate information and who decide and private and civil actors, who are to be informed and consulted, does not trigger joint fact finding nor active participation for multi-stakeholder partnerships. With regard to information rules, technical-scientific and socio-economic argumentation lines intermingle in a persistent manner.

Overall, the local Dutch public actors struggle with the generic intentional nature of Dutch policies. The perception of strict European obligations initially has created a fear which at the end of the day might proof to be counterproductive. Although the Dutch public actors acknowledge (well-known) critical bottlenecks and risks for timely compliance with the WFD’s requirements, they wish to avoid direct legally binding ecological objectives. Moreover, they warmly embrace the intrinsic escape options for a staged implementation until 2027. Although the fear for European obligations clearly demonstrated to be a barrier for a more integrated areal WFD process, iteration may happen from a diversity of parallel running processes which are at different stages of the policy life cycle. Such iteration might be a virtue for integrated river basin management which points at functional redundancy, whenever actors from the parallel process networks manage to provide for timely and effective linkages. Although not the principal focus of this research, the observations show limited indications for such functional linkages in the 1990 to 2009 period.
Higher quality crop per drop: this farmer in the Dutch territory of the Scheldt River Basin District applies innovative technology for cost-efficient irrigation (Source: Leo Santbergen, June 24, 2010)

The municipal water ambassadors such as Pierre Backx have boosted the cooperation between regional water management authorities and local experts and politicians (Source: Leo Santbergen, May 9, 2007)
Reflections: ambiguous ambitions support incremental rule change

‘Some or all parties will probably have to revise, enlarge or reframe the way they relate to the issues and to each other, in order to create a vocabulary that can support mutual understanding and common action, which is crucial for reaching an effective collaborative management of natural resources.’
Art Dewulf et al. (2005: 115)

9.1 Introduction

As introduced in Chapter 1, the IRBM paradigm, in its contemporary interpretation, aims at collective-choice rules for the sustainable use, development and management of interrelated water and land resources within transboundary river basins (Molle, 2009). As with sustainable development the paradigms is intrinsically ambiguous. Depending on the particular institutional context IRBM may trigger or hinder changes in collective-choice rules. As described in Chapter 2 (theoretical framework), a wide range of actors may embrace the IRBM paradigm but interpret its meaning and implementation in diverse ways. Consequently, the WFD, which has provided for a set of European wide governance rules and policy principles for implementation of the IRBM paradigm, may be subject to ambiguous ambitions at all involved political levels within an international river basin. As introduced in Section 3.1, ambiguous concepts may trigger instrumental implementation attempts to protect the status quo or may facilitate a search for compromise and cooperation. In the latter case incremental rules change may be expected. Whenever ambiguous claims trigger sharp polarisation (for example among political parties), radical rules change may arise due to a significant change of those in power.

This final chapter discusses the empirical findings of the research findings and presents the author’s conclusions and recommendations. To start with, Subsection 9.2.1 compares and discusses the observations of the Chapters 4 to 8 regarding collective-choice rules in the 1990 to 2009 period for the interrelated European, multilateral and Dutch national, regional and local administrative levels in the International Meuse River Basin District. Potential explanations for continuity or change of collective-choice rules are derived from observations on developments in policy discourses (as expressed by paradigms, governance rules and policy principles), actors (coalitions and oppositions) and distribution of resources and power. Based on a discussion of the empirical data and comparison with findings of peer researchers, this subsection explores to which extent the WFD has triggered or hindered collective-choice rules changes. Subsection 9.2.2 continues with a brief discussion on how the studied WFD’s implementation planning process copes with deals with the challenge of multi-level governance for sustainable development. Subsequently, Subsection 9.2.3 presents a critical methodological reflection on the combination of the Institutional Analysis and Development framework and the Policy Arrangement Approach. To which extent does this “marriage” provide
for a powerful analytical framework for assessing and explaining continuity or change of collective-choice rules? Furthermore, the challenges of a participative and interpretative analysis will be discussed, based on personal experiences of the author. Section 9.3 presents the overall conclusions of the research by returning to the hypotheses, the scientific aim and the central question. Finally, Subsection 9.4 closes the dissertation by presenting recommendations for both further research and multi-stakeholder dialogues in the second WFD implementation planning round.

9.2 Discussion

9.2.1 Limited incremental rule changes

**Overall: continuity over change**

Table 9.1 presents an overview of observed collective-choice rules at the five studied political levels in the International Meuse River Basin District in the 1990 to 2009 period. The observations have been benchmarked by means of ideal-type collective-choice rules for IRBM as identified in Section 2.2. The grey coloured cells point at observed rule changes. In the context of this research, as defined by Weber, ideal-types should be understood as analytical constructs (of the researcher) for observing and comparing phenomena in society. The observed rules may never match the ideal-types for 100%. The ideal-types are neither normative pictures of the world, nor moral ideals (see also Coser, 1977: 223-224). They describe possible outlooks of organising the water policy domain. As such the formulated ideal-types act as benchmarks to track rule changes over time. The researcher’s interpretations are based on an extensive literature review, interviews with involved actors, a written argumentation survey and (non-)participative observations. These interpretations have been discussed with peer researchers and actors in the water policy domain by means of reflexive mirror sessions and the editing of a bundle of essays (Van der Arend et al., 2010). Furthermore they have been compared with WFD process analysis publications of other scholars (Edelenbos et al., 2008; Raadgever et al., 2009; Uitenboogaart et al., 2009; Ten Heuvelhof et al., 2010).

For all studied political levels the observations mainly point at continuation of prior collective-choice rules and incremental changes that have become noticeable before adoption of the WFD. Notwithstanding the ambitious wording in the WFD and some of the informal guidance documents, the Directive’s implementation so far mainly confirms prior tendencies and contributes to their formal institutionalisation. At all political levels internal integration rules show most salient change, as expressed by observations on scope rules and (except for the multilateral level) choice rules (nature of the license system). More limited changes have been observed for boundary rules (at the multilateral level only) and choice rules (supply and demand management; at the European and multilateral levels). For the majority of rule types (organisational scope, external integration, position, aggregation, information and pay-off) continuity of collective-choice rules dominates over change, which means no substantial changes have been observed. The multilateral level shows most dissimilarity with the other
levels. The observed rules configurations for the Dutch domestic levels (national, regional and local) are the same. The assessment of the other three policy arrangement dimensions (policy discourses, distribution of resources and power and actor constellations) accounts for potential explanations. Let us discuss these for continuity first before focussing on the incremental changes.

The stable organisational scope rules in the water policy sub-domain reflect a similar policy discourse at all studied political levels, i.e. a preference for functional water agencies, committees and actor networks which follow hydrological (river basin) boundaries. These functional entities and networks are controlled by parliamentary institutions. At the European level, despite the WFD’s call for a further dialogue with other policy sectors, officials in the water policy domain dominate the informal meetings of both the Strategic Coordination Group and the EU Water Directors (as chaired by DG Environment). These river basins oriented actor networks may be characterised as informal and functional in nature. Although the WFD stresses the importance of multilateral (and bilateral) coordination, it does not provide for legally binding transboundary instructions. By pointing at ‘existing structures stemming from international agreements’ (European Communities, 2000: 8) the WFD implicitly supports functional river basin management coordination structures without supranational authority. Under the principles of sovereignty and subsidiarity, individual Member States remain the competent authorities for timely compliance with the WFD’s requirements. In the Dutch institutional context, informal structures and networks provide non-legally binding assessments and advise the parliamentary institutions.

The observations on information rules point at a strong expert-driven water policy domain at all political levels. Its actors work relatively isolated from other, often politically more salient policy sectors. Furthermore, integration of water-related policy objectives into other policy sectors generally brings along investment offers from the latter without ex ante tangible and quantifiable socio-economic benefits. At all political levels these expected additional investments trigger opposition by agricultural and industrial entrepreneurs who are expected to pay for a substantial part of the additional WFD measures. Consequently, cross-sector integration attempts remain laborious and the level playing field rhetoric paves the way for identification and selection of cost-effective measures that are feasible and affordable. Given the delicate cross-sector political context, initially high WFD implementation ambitions and expert expectations, were soon to be tempered. This context may also explain why public actors shelter in the safe, familiar and functional oriented heaven of river basin management planning and coordination structures. Their efforts concentrate on internal integration arrangements without being able to develop strong triggers for cross-sector integration of water policy objectives.
Table 9.1: Observed IRBM rules in the 1990 to 2009 period (expressed as ideal-types)

<table>
<thead>
<tr>
<th>Rule type</th>
<th>Europe, Meuse, National, Regional, Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope (organisational):</td>
<td>Ideal-type B: Continuation and enforcement of functional water agencies, committees and actor networks which follow hydrological (river basin) boundaries. These functional entities and actor networks are controlled by parliamentary institutions.</td>
</tr>
<tr>
<td>Scope (internal integration):</td>
<td>From ideal-type A to B: An evolution towards legislation, policy documents and management plans which include objectives and measures for both quantitative and qualitative aspects and for groundwater and surface water.</td>
</tr>
<tr>
<td>Information:</td>
<td>A juxtaposition of ideal-types A and B: The river basin management planning process is driven by a mixture of a scientific-technical and social-economic rationale. Validity, reliability, costs-benefits ratios and economic efficiency are central criteria for legitimised information/knowledge.</td>
</tr>
<tr>
<td>Pay-off:</td>
<td>A juxtaposition of ideal-types A and B: Both rewards and sanctions from laws and regulations and economic incentives and market forces are major drivers for compliance with collective rules.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rule type</th>
<th>Europe &amp; Meuse</th>
<th>National, Regional &amp; Local</th>
</tr>
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<tbody>
<tr>
<td>Choice (supply and demand management):</td>
<td>From ideal-type A to B: An evolution from supply management only to a mixed supply and demand management approach. A juxtaposition of ideal-types B and C: In general a mixed supply and demand management approach (B). In case of prolonged droughts the approach is more integrated as expressed by a hierarchy in user functions (C).</td>
<td></td>
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<table>
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<tr>
<th>Rule type</th>
<th>Meuse</th>
<th>Europe, National, Regional &amp; Local</th>
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<tbody>
<tr>
<td>Scope (external integration):</td>
<td>Ideal-type A: Separate legislation and plans for water policy and other policy domains without linkages. Ideal-type B: Legislation/plans for other policy domains take into account water issues and reversely. Regional level: also integrative, cross-sector environmental policy plans (ideal-type C).</td>
<td></td>
</tr>
<tr>
<td>Position:</td>
<td>Ideal-type A: Protection of prior water and land resources user and property rights without preconditions on environmental, social and economic externalities. Ideal-type B: Conditional maintenance and acquirement of water &amp; land resources user and property rights. Conditions include requirements to consider social, economic and/or environmental externalities</td>
<td></td>
</tr>
</tbody>
</table>
Table 9.1: continuation

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<thead>
<tr>
<th>Rule type ↓</th>
<th>Meuse ↓</th>
<th>Europe, National, Regional &amp; Local ↓</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Choice (nature of the license system):</strong></td>
<td>Ideal-type A: Separate, parallel licenses for quality and quantity objectives related to the use, development and management of water resources.</td>
<td>From ideal-type A towards B: An evolution towards licenses that integrate quantity and quality objectives related to the use, development and management of water resources.</td>
</tr>
<tr>
<td><strong>Boundary:</strong></td>
<td>From ideal-type A towards B: Enlarged access for non governmental actors to the water resources policy planning process under conditions set by the public actors. Emphasis on co-thinking and consultation.</td>
<td>Ideal-type B: Non-governmental actors may have access to the water resources policies planning process under conditions set by the public actors. Emphasis on co-thinking and consultation. At the regional level also ideal-type C rules have been observed: Ample opportunities for all interested stakeholders to join the water resources policies planning process, including co-productions, co-decisions and self-realisation.</td>
</tr>
<tr>
<td><strong>Aggregation:</strong></td>
<td>A juxtaposition of ideal-types A and C: Both independent decision-making by riparian states and regions and symmetric, consensus based decision-making.</td>
<td>A juxtaposition of ideal-types B and C: Both asymmetric, top-down decision-making and symmetric, consensus based decision-making examples on water policy and management plans at different administrative levels within the river basin.</td>
</tr>
</tbody>
</table>

Legend: For definitions of all the A, B and C ideal-types see the Subsections 2.2.2 till 2.2.8). The grey colour indicates observed rule changes.

The sovereignty and subsidiarity principles invite a juxtaposition of ideal-type aggregation rules. Top-down (predominantly technical-scientific) regulations and instructions intermingle with bottom-up knowledge, practices and initiatives for selection of synergetic, innovative and above all cost-effective measures. In the supranational void of multilateral coordination, actors of the involved riparian states and regions may not have a mandate to discuss potential alterations of domestic rules with regard to their transboundary externalities. Whereas the European institutions provide for both legally binding directives and informal guidance documents, the International Meuse Commission predominantly sums the rules of its independent public actors in the so-called multilateral roof reports. The similar collective-choice rules patterns for the three Dutch domestic levels (national, regional and local) may be explained by the historical path of a decentralised unitary state. The actors of all domestic levels, as a matter of saying almost by genetic codification, acknowledge the importance of a balanced mixture of top-down instructions and bottom-up room for manoeuvre and tailor-made compromises. The stable, expert-driven water community and the early decision in the
WFD’s implementation planning process not to alter Thorbecke’s House significantly are no exceptions that prove the rule.

In the broader mixed authoritative and neo-liberal European context, economic incentives and market forces which work in addition to rewards and sanctions from laws and regulations are expected to pay-off compliance with collective-choice rules. In the studied period a strong politically driven socio-economic rationale is noticeable in the water policy domain which intermingles with critical scientific uncertainties, most notably on causal relations between measures and ecological objectives. In the first WFD’s implementation planning cycle the politicians warmly welcome affordability and cost-effectiveness criteria for protection of human development activities. Despite the common IRBM interpretation by the global water sector community, which links the state and functioning of water systems to pressures and impacts of diverse human activities, the public actors in the water policy domain are cautious not to affect the functional water dominated organisational scope and the historic positions of land owners and water users too dramatically. As a striking example, WFD’s Article 4 implicitly labels a broad array of land-based and water-dependent activities, which pressures on the state and function of Europe’s water resources are part of the reason of existence of the directive, as ‘important sustainable human development activities’ (European Communities: 2000: 9).

**Scope and choice rules (A): the persistent water quality and quantity divide**

At all studied political levels, since the 1990s the integration discourse clearly has triggered an evolution towards more internal coherence, as expressed by legislation, policy and management documents that bring together qualitative and quantitative aspects of both groundwater and surface water systems. The WFD may be viewed both as a reflection of the integration discourse and an instrument that provides rules and principles for its enforced implementation. The directive has been formulated and adopted in an era in which the IRBM paradigm has been explicitly institutionalised internationally, most notably by the Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UN-ECE, 1992). Both international Meuse treaties (Anonymous, 1994; 2002a) depart from the Helsinki Convention. In the Netherlands the water systems approach has been introduced in the 1980s with the aim to stimulate a more integrated policy and management approach. The Dutch integration tendencies also link with more generic notions of new public management discourse which includes calls for more simplicity, transparency and accountability.

In the initial stage of the WFD drafting process a coalition of public actors from five Member States (United Kingdom, France, Germany, Netherlands and Spain) has been very active at the European level in order to ply for a more integrated, water policy directive (Melis and Boudewijn, 2002; Interview 43, Appendix I). Dutch position papers (Ministry of Housing, Spatial Planning and the Environment, 1995; Ministry of Transport, Public Works and Water Management, 1995a and b) and a joint coalition discussion paper (Summerton, 1995a), among calls from the European Parliament and non-governmental actors, have urged the European Commission to come forward with a proposal for the WFD. In the subsequent downloading process the European river basin management approach of the WFD has been one of the
three main arguments for conducting a new, Dutch integrated Water Act (Anonymous, 2009a).

Notwithstanding broad discursive support for integration efforts within the water policy domain, rule changes for full incorporation of water quantity issues are challenged, especially at the European and multilateral levels. This is illustrated by the observations on the two identified dimensions of choice rules, respectively the nature of the license system and supply and demand management. At the European level, given the delicate political nature of water quantity issues, the ambitious wording in the WFD on the importance of an integrated approach is remarkable (see the Statements 18, 19, 20 and 23 of the Preamble and Article 1: European Communities, 2000: 2, 3, 5 and 6). The message of the WFD’s Preamble is that, without common principles and a coherent, integrative approach, effective coordination of Member States’ efforts to improve the protection of Community waters in terms of quantity and quality will not be feasible (European Communities, 2000: 3). Without stating it explicitly, it is considered evident that both a more integrated license system for water-related activities and a mixed supply and demand management approach fit well in the European spirit as expressed by the referred statements of the WFD’s Preamble.

Despite the WFD’s ambitious integration discourse, the different decision-making rules on water quality and quantity issues (read: qualified majority voting versus unanimity) witness resistance by some water scarce Member States. So far, sovereignty and subsidiarity have prevented too much loss of control on water quantity issues towards supranational European institutions. However, the internal integration discourse continues to gain firmer ground, such as expressed by the water scarcity and droughts initiative of the European Commission (Commission of the European Communities, 2007c). The observations for the European level point at an evolution from ideal-type A towards ideal-type B choice rules, both with regard to the license system and supply and demand management (see Table 9.1). Also at the multilateral level, discursive notions express the importance of a mixed supply and demand management approach. Remarkably, screening of the IMC documents did not deliver wording which points at the nature of license systems for water-related activities with transboundary effects. So far, the IMC’s respect for the sovereignty of the riparian states and regions has “overruled’’ those specific integration notions in the WFD’s Preamble and the directive’s call for transboundary coordination (see Article 3, European Communities, 2000: 8).

Regarding the license system for water-related activities, the assessments for the three Dutch domestic levels show a clear evolution from ideal-type A rules (separate water quantity and quality licenses) towards ideal-type B rules (one water license that brings together both water quantity and quality objectives). Furthermore, the Dutch collective choices for supply and demand management show a stable juxtaposition of ideal-type B and C rules. The former point at attention to both supply and demand management, whereas the latter point at a more integrated nature of the approach, as expressed by a hierarchy in user functions, albeit in cases of prolonged droughts only. Triggered by drought-related problems in 2003 environmental NGOs have managed to include prevention of irreversible alterations to ecosystems among high priority water uses (national level). On the other hand, due to controversies between
agricultural interest groups and environmental NGOs, the process for definition of
desired surface and groundwater tables in the Brabant-West area has been delayed
significantly (local level).

The assessment of the related policy arrangement dimensions shows that espe-
cially the interaction between policy discourses and the distribution of power and
resources may account for observed resistance to further changes in choice rules. The
question remains whether the integration discourse will be advocated strong enough
to pay-off in future rules change or will not overgrow the stage of lip-service. From
the ‘Conclusions of the Ministerial Seminar on the future community water policy
held in Frankfurt on 27 and 28 June 88’ (Commission of the European Communities,
1988), it may be concluded that the DG Environment of the European Commission
has seized the momentum of the Single European Act to try to enforce the European
water policy sub-domain. The WFD’s wording on integration of water quantity and
quality issues and discursive notions on the importance of supply and demand man-
agement date back to this seminar (as referred to in Statement 2 of the WFD’s Pre-
amble; European Communities, 2000: 1). The participants of the seminar agreed on
the need for an integrated water management approach in which ‘control of water quality
cannot be separated from water quantity problems’ and which includes ‘development
data of a policy for rational use of water resources’ (Commission of the European
Communities, 1988: 1-2). The seminar’s report lists several measures that should be con-
sidered in relation to quantity management, such as differentiated water prices, educa-
tion of consumers of water and water conservation (ibid.: 5-6). Another attempt by
DG Environment is noticeable in the ‘Discussion Document on European Commu-
nity Water Policy’ as presented at the second informal meeting of the European
Commission with the Water Directors (DG Environment, 1995: 2; italics added):

This link between water quality and water quantity has become alarmingly clear in re-
cent years. The situation of chronic lack of water which exists in certain parts of the
Community raises questions of quantity management which can be tackled at a Community level.

Despite persistent integration rhetoric by a broad array of water policy and manage-
ment related actors, actual configurations of power and resources at the European
level make a breakthrough of the water quantity and quality divide (in terms of aggre-
gation rules) a long and troublesome journey. In general upstream Member States in
water scarce river basins seem to be more reluctant to change the status quo than
downstream Member States. On the other hand, the prognosticated negative impact
of climate change on the availability of water resources (Commission of the European
Communities, 2007c) may trigger broader societal and political calls for stronger
European rules and principles in the near future. Given the downstream position of
the Netherlands and its dependence on fresh water inflow from the transboundary
Rhine, Meuse and Scheldt rivers (Saeijs and Van Berkel, 1995; Saeijs, 2006), it is re-
markable that the Dutch public actors did not emphasise the inclusion of (integrated)
water supply and demand management issues in the WFD drafting stage (read the
Dutch position papers: Ministry of Transport, Public Works and Water Management,
1995a and b and Ministry of Housing, Spatial Planning and the Environment, 1995).
Potential explanations may be the relatively limited overall problems with water availability, the floods issues driven political (water) agenda since the mid 1990s and the parallel international agreements on quality and quantity issues in the international Meuse River Basin. Since the latter have been agreed on in the 1990s after long and delicate negotiations (Meijerink, 1999), the Dutch may have been cautious to reopen these by new discussions at the European and multilateral tables.

**Scope and choice rules (B): a cross-sector integration struggle**

At all studied political levels the actors remain struggling with external, cross-sector integration. Notwithstanding continuous attempts from Europe’s DG Environment to stimulate incorporation of water policy objectives into other policy domains, both implementation of the cross-compliance procedures and the environmental policy integration initiatives remain laborious. At the multilateral table, although the multi-functionality of the Meuse River has been emphasised in the second Meuse Treaty (Anonymous, 2002), the IMC strictly focuses on water management issues. In the Netherlands the leapfrog principle dominates which means that whenever a new national or provincial policy document is drafted it should incorporate relevant relations with and requirements of other policy domains, at least at the ambition level as expressed by earlier policy documents. In the studied period provincial authorities were free to opt for parallel sector policy plans or integrated cross-sector plans. Actors from the North-Brabant Province and the Limburg Province express the limited actual difference between these two planning options (Interviews 41 and 46, Appendix I). The integrated plan in the Limburg Province functions as a generic umbrella under which all relevant policy domains shelter. At the same time far more detailed documents (including a water policy plan) are drafted for individual domains (ibid.). At the local level, the WFD does not change the barriers that water managers face with integrating water issues into other policy sectors. The regional water management authorities do not have many options to influence spatial development beyond the non-legally binding advises of the water assessment procedure. For environmental policy integration they largely depend on the political willingness of provinces and municipalities.

The assessment of the related policy arrangement dimensions shows that sector wise organisation of policy issues acts like a fierce barrier for cross-sector integration of water-related objectives at all studied political levels. The interviews and written argumentation survey indicate that, due to a fear for dramatic limitations to socioeconomic development initiatives, influential actor coalitions of other policy domains resist substantial rule-changes for compliance with the WFD’s environmental objectives. The influence of the division of resources and power is implicitly expressed by the WFD’s wording, which shows a difference between internal and cross-sector integration. Whereas detailed articles provide explicit requirements for internal integration issues (such as environmental objectives for surface water and groundwater bodies, a combined approach for point and diffuse sources of pollution, cost-recovery for all water services; European Communities, 2000: 9-13), the importance of cross-sector integration is more cautiously supported by calls for ‘continued dialogue’ and ‘the development of strategies towards a further integration of policy areas’ (ibid.: 2).
Despite the legal anchorage of the *environmental policy integration principle* in the Single European Act and the empowerment of the European Parliament with the *co-decision procedure* for a number of environmental issues, the relatively weaker DG Environment depends on the willingness and efforts by other DGs and the Member States for actual implementation. At the multilateral table trust relations are fragile and the common acknowledgement of the *multi-functionality* of the Meuse River and its tributaries for human activities so far is insufficient for triggering a strong cross-sector focus of the riparian states and regions. At the Dutch national, regional and local levels, the *leapfrog principle* is too weak to overcome strong barriers as the *speciality principle*. Socio-economic interests often act as counter forces for integration of water policy objectives into other policy domains, as clearly expressed by the national WFD implementation mantra of pragmatic implementation by means of feasible and affordable measures. The widening of the opportunities within European funds for integration of environmental objectives into infrastructural development, regional cohesion and agriculture may trigger cross-sector integration tendencies. However, the available financial means are relatively limited and the success stories largely depend on the political willingness of actors within Member States to make use of these opportunities.

**Boundary and aggregation rules: conditioned information and consultation**

The WFD has been drafted and negotiated in the period when the European institutions acknowledged that many Europeans were losing confidence in the ‘poorly understood and complex system to deliver policies that they want’ (Commission of the European Communities, 2001: 3). As a medicine, five principles of good governance have been formulated: openness, participation, accountability, effectiveness and coherence (Commission on the European Communities, 2001: 10). The WFD’s Article 14 can be understood as expression of the *participation principle*. Notwithstanding widespread discursive notions of the importance of encouragement of active involvement of diverse stakeholders beyond information and consultation only, stable inner circles of public actors at all studied political levels draw clear division lines with non-governmental actors. In this respect the title of WFD’s Article 14, ‘Public information and consultation’ perfectly catches the essence of observed practices in the water policy domain. Although the informal Guidance Document n° 8 on Public Participation (European Communities, 2003h) suggests larger active involvement ambitions, European policy makers, adhering to the *subsidiarity and sovereignty principles*, are very cautious not to affect any domestic arrangements. They stay close to Article 14 but also offer room for implementation differences by stressing that the public participation process shall be organised and adapted to national, regional and local circumstances (European Communities, 2003h: 26).

The assessment of the related policy arrangement dimensions shows that both the good governance discourse and a significant change in the power configuration at the European level (i.e. the empowerment of the EP by the co-decision procedure) accounts for observed changes in boundary rules. At the European level the water policy planning process has become more accessible yet to non-governmental stakeholders at the WFD drafting and negotiation stage. Furthermore, ample co-thinking
opportunities are offered to multiple stakeholders in the Common Implementation Strategy (CIS). However, like at all studied political levels, public actors in the water policy domain continue conditioning the degrees of active involvement of non-governmental actors. The emphasis is on controlled co-thinking and informal consultation prior to formal consultation procedures.

At the multilateral level, before embracing the WFD the International Meuse Commission (IMC) resembled a closed oyster. It only opened up its shells whenever it decided to inform the outside world on laboriously reached compromises between the involved public actors. Supported by WFD’s Article 14 and the related guidance document on Public Participation, non-governmental actors have attempted to open up the multilateral coordination process. However the public actors remained cautious not to lose control and hesitatingly offered limited, strictly conditioned co-thinking opportunities. Consequently, the observed evolution from ideal-type A towards B rules is in its embryonic stage. The Meuse States and Regions also strongly emphasised that implementation of the Article 14 requirements is up to them individually. They argued that the IMC has no formal role to play and does not wish to interfere in the domestic participation traditions and procedures (read: sovereignty and subsidiarity rule the world).

In the Netherlands, prior informal information and consultation traditions are continued and remarkably are labelled as encouragement of active involvement. Notwithstanding a proliferation of WFD consultation platforms at the national, regional and local levels, boundary rules in the Dutch water policy domain have not been substantially altered. With regard to public actors, the first WFD implementation planning process has boosted active involvement of Dutch municipal actors. Without discounting the importance of local pilot projects for testing measures with municipal officials, farmers and drinking water companies, the Dutch competent authorities did not opt for the most ambitious options of the Guidance Document on Public Participation such as shared decision-making and self-determination.

9.2.2 Multi-level governance for sustainable development

As introduced in Chapter 1, IRBM may be characterised as a multi-level governance challenge for the sustainable use, development and management of common water pool resources. In this Subsection theoretical reflections on IRBM (see Chapter 2), multi-level governance (Bache and Flinders, 2004), sustainability in general (Dryzek, 2005; Blewitt, 2008) and in the context of the European institutions (Baker et al., 1997) and governing sustainability (Adger and Jordan, 2009) are confronted with observations of this research.

Stirling (2009: 194) argues that ‘the language of sustainability as deployed in governance debates displays a series of significant ambiguities and tensions’. He distinguishes three quite distinct ways in which the concept of sustainability can be understood (ibid.: 193): ‘substantively – as a set of publicly deliberated goals; normatively – as a social process; and instrumentally – as a means discursively to support and justify narrow sectional interests’. From a substantive perspective, the sustainability
challenge includes connecting the people, planet and profit dimensions, by means of
defining a coherent set of cross-sector goals. A common definition of sustainability is required which might have significant impact on historical property and user rights (position rules). Viewed normatively, sustainable development may be viewed as a multi-stakeholder process of change that, in the case of international rivers basins, asks for principles and rules for good, multi-level governance. To avoid a predominantly instrumental use of the sustainability concept the challenge is to provide for a coherent configuration of collective-choice rules that includes strong barriers for free-rider behaviour. The observations of this research show both a pragmatic approach towards weak sustainability and limited cross-level linkages. The combination of both may explain a predominantly instrumental use of the sustainability language, as expressed by the continuation of prior position rules.

A pragmatic approach towards weak sustainability
Since pressures from land-based human development activities have a negative impact on the state and functioning of Europe’s groundwater and surface water resources, one would expect explicit multi-stakeholder deliberations for common definition of the ‘sustainable human development activities’ phrase of WFD’s Article 4 (European Communities, 2000: 9). Furthermore, integration of conditions for compliance with the WFD’s environmental objectives into objectives and measures of other policy domains is necessary in order to significantly diminish the pressures and impacts. A comparison of the implementation process of the WFD in five Member States (France, Germany, Netherlands, United Kingdom and Denmark) shows that a process for common definition of sustainable human development activities has not been triggered by the WFD so far (Uitenboogaart et al., 2009a; Wiering, Van Rijswick and Uitenboogaart, 2009). The competent authorities of these five Member States take the ambiguous definitions and requirements from WFD’s Article 4 for granted and, except for the Netherlands, consider the environmental objectives as a legal obligation of results with intervention values for specific parameters. Furthermore, since these competent authorities struggle with the cross-sector and socio-economic implications, they all opt for regular use of the Article 4’s exemption options (ibid.).

A screening of draft river basin management plans by environmental NGOs in 15 Member States also points at regular use of the Article 4’s exemption options (Scheuer, 2009). Although the significant impact of diffuse emission sources from agriculture (for nutrients and pesticides) is broadly acknowledged, the competent WFD authorities are cautious not to challenge the powerful actors in this sector too much (Uitenboogaart et al., 2009a). Despite DG Environment’s call for full implementation of the Nitrates Directive and its portrait of the reform of the Common Agricultural Policy as a (co-financing) window of opportunity (Commission of the European Communities, 2007a), emphasis in the studied Member States (except for Denmark) remains on voluntary agreements with the agricultural sector (Uitenboogaart et al., 2009a). All studied Member States prove to be cautious not to affect historical land use and property rights substantially (ibid.).

In the designation of water bodies, the formulation of objectives and the selection of measures, the Dutch competent authorities have opted for a pragmatic
approach, as driven by both physical and political reasons (Uitenboogaart et al., 2009a and b; Ten Heuvelhof et al., 2010). Physically spoken, in the densely populated delta area of four European rivers (Rhine, Meuse, Scheldt and Ems) the hydromorphological changes made in river systems are considered to be exceptionally significant. From a political perspective, the regional water management authorities who had the lead in the first WFD implementation planning cycle have been cautious not be held accountable for too ambitious objectives. For compliance with the WFD’s objectives, these water-related authorities are dependent on actors in other policy domains such as spatial planning and agriculture (ibid.). Both observations of this research and Ten Heuvelhof et al. (2010) point at a pragmatic approach in which, due to the national harmonisation process, initially high regional and local ambitions have been downsized gradually. Ten Heuvelhof et al. (2010) positively conclude that the functional redundant planning process has delivered broad political commitment for the harmonised programmes of measures. This research adds that perhaps the national Water Policy Department who, in the “battlefield” with other, powerful ministries, could (or would) not enforce more challenging, additional WFD regulations for the agricultural sector, may have felt relieved to delegate part of the arduous implementation planning tasks to the provincial water policy and regional water management authorities. As part of such a strategy, not only bottom-up support for the river basin management plans could be organised but part of the delicate cross-sector challenge could also be shared with others.

Given the discursive context of the European institutions in which sustainability generally is expressed by terms of well-balanced economic growth (Baker, 1997), the observed protection of prior land use and property rights may not come as a surprise. The ecological modernisation discourse is predominant, as acknowledged by the ‘Fourth Programme of Action on the Environment’ (which covers the 1987-1992 period; European Communities, 1987 as interpreted by Baker, 1997). This anthropocentric ideology holds that environmental protection is not in competition with, but rather an essential precondition for, growth and development (Weale and Williams, 1992). Baker (1997: 96; original italics) argues that the adoption of the ideology is logical:

as it fits with the overall economic raison d’être of the Union. Its importance lies in the fact it allows the Union to justify its simultaneous pursuit of a rigorous programme of economic growth based on the completion of the internal market and of an ever-expanding environmental protection policy.

According to environmentalists the ideology of ecological modernisation has serious limitations since environmental protection policy is not grounded in the intrinsic worth of the environment and the limits that protection of life-sustaining natural processes and resources include for economic growth. It is an expression of weak sustainability since it puts no limits to economic growth (Kostermann, 2003). Although the Fifth Action Programme for the Environment (which covers the 1992 to 1997 period; European Communities, 1993) explicitly links environmental protection with sustainable economic development, anthropocentric interpretations (with a focus
on reducing environmental damage and risks to human health as much as feasible) remain dominant within the European institutions (Baker, 1997).

Liberatore (1997) argues that for a new model of development that can be environmentally and socially sustained in the long term, environmental factors explicitly will have to be taken into consideration in the formulation and implementation of social and economic policies. Cross-sector integration of environmental factors may be both supported and challenged by the subsidiarity principle (ibid.). The interpretation of this principle is ambiguous (Dehousse, 1992). On the one hand, Member States may use the principle to prevent the European institutions from affecting domestic traditions and practices. On the other hand, subsidiarity may trigger European institutions to act when supranational action is considered necessary (ibid.). The observations of this research point at a Dutch struggle with the ambiguous European ambitions. In implementing the WFD the Dutch opt for limited accommodation of domestic policies and management practices, to prevent dramatic alterations of prior land use practices. In this domestic game, the Article 4’s multi-interpretable wording on sustainable human development activities offers convenient political room for manoeuvre, as illustrated by the Dutch pragmatic approach for a feasible and affordable implementation.

Limited cross-level linkages

The answer to the questions to which extent cross-level linkages are required and who preferably should take care of establishing cross-level actor networks, largely depends on the normative stance one departs from. For example, if one considers IRBM predominantly as a game in which public actors should take the lead, a nested hierarchy of governmental decisions at involved political levels within an international river basin district could suffice. In this view, whenever uploading and downloading processes among the involved political levels are organised efficiently by a stable community of public actors, there would be no need for a large multi-stakeholder population of policy entrepreneurs that work across political levels and policy domains. Viewed differently, if one considers IRBM as a multi-level, multi-sector and multi-stakeholder process of change, one would expect more (calls for) extensive across-level networks of policy entrepreneurs and opening up the public windows to non-governmental actors.

The observations of this research show a central position of the public actors at all studied political levels in interpreting and planning the first implementation term of the WFD. The public actors determine the boundary rules with strong emphasis on consultation of and preconditioned co-thinking by non governmental actors. They are cautious not to loose steering control in the mixed technical-scientific and socio-economic aggregation process, especially at the multilateral level. Within the population of interviewees and participants of the written argumentation survey and the mirror sessions, there are only a few actors who operate at and across different political levels. Although some Dutch national stakeholder groups appoint special lobbying officers in Brussels, personal contacts of these liaisons with diverse actors at the regional and local levels are scarce. The interviews and written argumentation surveys show a broad concensus that the WFD’s implementation planning process as the
formal task of public actors. Although non-governmental actors frequently express a wish to be allowed to participate more actively, at the same time they are cautious not to be formally co-opted by the coordination structures of the competent authorities. Furthermore, since there are hardly any calls for deliberations on the decisions and activities of the European and multilateral levels, they seem to be taken for granted by the Dutch actors. They predominantly invest their limited financial and human resources for exploring the implications of the WFD and its technically complicated and detailed requirements and annexes on the regional or local level at which they are directly involved.

Stable configurations of resources and power, including *upstream-downstream asymmetries*, may account for a barrier for rule changes towards both more transboundary and cross-sector integration of water policy objectives. Despite the rhetoric of the integration principle and the related cross-compliance procedure, the strongly specialised and sector organisation of the European institutions is part of the barrier (Baker, 1997; Jordan and Schout, 2006). Jessop (2004: 72; italics added) points at the ‘key metagovernance role’ of the European Commission ‘in organising parallel power networks, providing expertise and recommendations, developing benchmarks, monitoring progress, exchanging best practice, promoting mutual learning and ensuring continuity and coherence across presidencies’. The EC’s harmonisation ambitions such as expressed by its intercallibration exercise may act as a trigger for further internal integration, i.e. more coherence in the water policy domain across Member States. So far the coordination efforts by public actors mainly remain locked up in this sub-domain of European environmental policy. They do not trigger strong cross-sector integration initiatives.

Both at the multilateral and the Dutch regional and local levels the informal guidance documents for WFD implementation are taken for granted. No discussions take place on open endings in these documents. The Dutch national Water Policy Department translates the guidance documents into national instructions and recommendations and takes the lead in the preparation of instructions for performances in the European and multilateral theatres. Some regional water management authorities participate in working groups of the International Meuse Commission. In general, regional and local politicians and officials in the Brabant-West Region are not aware of the decisions taken at the multilateral level and their implications for the domestic processes. The multilateral process is predominantly considered as too abstract and invisible (Interviews 28 and 34, Appendix I). Although the International Meuse Commission is supposed to closely monitor the bilateral coordination efforts, the regional and local actors do not notice such activity (ibid.). Whereas the national Water Policy Department takes the lead in preparing the multilateral and high-level bilateral negotiations, the provincial authorities and the regional water management authorities guide the local bilateral coordination attempts. Success stories are predominantly incidental and often related to available European subsidies and personal relations. Some Dutch environmental NGOs and the drinking water sector are active at different political levels. However, in general, regional and local based NGOs and interest groups predominantly focus on their own levels.
With regard to the transboundary inland waters bodies Dutch regional and local actors in the International Meuse River Basin District struggle with the bilateral coordination processes with their upstream German, Walloon and Flemish neighbours. The priority of the national Water Policy Department towards these bilateral coordination processes has been limited during the 1990 to 2009 period. For example, the strategic Flemish-Dutch Integrated Water Management Coordination Platform has entered a silent hibernation period, whereas the subordinate local transboundary river basin management committees have suffered from a lack of a political mandate and tasks in the first WFD implementation planning cycle. November 2011, at an explorative meeting in Antwerp on options for a restart of transboundary coordination, the Dutch and Flemish water management authorities (national, regional and local) agree to transform or replace the transboundary river basin management committees by informal and flexible bilateral coordination structures (as related to the level of a specific issue to be solved). The Flemish authorities acknowledge that, as a downstream state, the Netherlands may ask more ambitious investments than the upstream partner is able or willing to offer. Consequently, expectation management is an important feature of the transboundary coordination efforts.

There are no indications of a weakening of the state actors in the water policy domain. The Dutch national Water Policy Department has seized the momentum of increased political attention to water quality issues. The department explicitly takes the lead in an extensive informal domestic coordination exercise with regional and local actors. While officials at other ministries frown their eyebrows and warn the Water Policy Department for a loss of steering control in a legally binding European implementation file, the latter opts for an explicit mixed top-down and bottom-up process approach. As supported by financial triggers, many municipalities become actively involved in the search for synergy and innovation. The focus remains predominantly domestic and water sector oriented. There are no indications of Dutch municipalities who join forces to influence the European and multilateral water policy planning process or to influence the European drafting process of implementation guidance documents. For example, the municipalities in the Brabant-West Region have not been involved in the WFD process until the autumn of 2005. A series of information sessions and a local WFD pilot project (in 2005 and 2006) have triggered a gradual change of attitude from passive towards actively selecting feasible and affordable measures at the local level.

Given the multi-actor and multi-level nature of European politics, no one, not even the most powerful state executive, is capable of predicting fully what will eventually emerge when a new policy is pitched into a dynamic diversity of actor alliances (Marks, 1993). Consequently, Member States cannot know exactly what they are agreeing to when they sign on to particular policies (ibid.). The WFD is not an exception that proves the rule. This research shows early uploading attempts of domestic water policy by high-ranking Dutch national water officials and experts. However, these actors have lost their substantive grip on the European negotiation process and partly became disappointed of the final result (Interviews 39, 40 and 43, Appendix I; Ten Heuvelhof et al., 2010). Due to expected dramatic socio-economic consequences
of a strict implementation, the Dutch politicians have opted for accommodation tactics, including a staged implementation until 2027. In the Netherlands, a generic underestimation of the directive’s rule-altering consequences has been apparent in the first three years after its adoption (Interviews 18, 30, 39, 40, 43; Ten Heuvelhof et al., 2010). There has been a dominant domestic perception of the Dutch as a forerunner state in the European water policy sub-domain which rapidly dampened with the heated political discussion on the WFD’s socio-economic consequences after the 2003 wake-up calls (ibid.).

9.2.3 The research approach

**Strengths and pitfalls of the hybrid analytical framework**

The theoretical novelty of this research approach is the “marriage” between the IAD framework and the PAA. The expected added value of this combination is the explanatory potential from the interactions of Ostrom’s rule types with the other three dimensions of a policy arrangement (policy discourses, division of resources and power and actor constellations). By formulating ideal-types of collective-choice rules for IRBM as a benchmark, the idea is to assess continuity and change in the water policy domain at interrelated political levels within the International Meuse River Basin District. Whereas the strength of the IAD framework is the detailed elaboration of the rule types, incorporation of these within the PAA as the rules dimension may enforce the latter’s analytical power. The morning after the exciting wedding ceremonies the evaluation question rests, to which extent this hybrid analytical framework has delivered the expected added value. Table 9.2 sums the strengths and pitfalls of the hybrid PAA/IAD framework as experienced within this research.

The “confrontation” between observations on the seven rule types of the IAD framework and observations on the other three dimensions of the PAA offers enlarged opportunities for discovering potential explanations for continuity or incremental changes in collective-choice rules. From subsequent observations on the seven, partly overlapping rule types, potential explanations may be detected more easily. Furthermore, intrinsic notions in the rule types’ definitions of the IAD framework on actors, policy discourses and the distribution of resources and power are made more explicit by a categorical assessment of these dimensions of the PAA. On the other hand, given the explicit and detailed attention to one of the four dimensions (the rules), imbalance waits around every corner which may provoke unbalanced explanations from observations on the less elaborated dimensions. Furthermore, given the diversity of theoretical concepts beyond all four dimensions of a policy arrangement, there is a pitfall of theoretical overdose (such as inclusion of incomparable theoretical concepts) hence limited or contradictory explanatory potential. Ostrom (1999: 36) translates these pitfalls as a research challenge for a coherent institutional framework:
[1] To develop a coherent approach to studying diverse types of institutional arrangements, including markets, hierarchies, firms, families, voluntary associations, national governments and international regimes, one needs multiple inputs from diverse disciplines. [2] Given the multiple languages across disciplines, a coherent institutional framework is needed to allow for expression and comparison of diverse theories and models of theories applied to particular puzzles and problem settings.

Table 9.2: Strengths and pitfalls of the hybrid PAA/IAD framework in this research

<table>
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<th>Strengths</th>
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<tr>
<td>• By the categorical assessment of ideal-type rules (as a benchmark) in the context of developments within the other three dimensions of a policy arrangement (policy discourses, actors, resources and power), incremental rule changes may be detected.</td>
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<tr>
<td>• The PAA may enforce the explanatory power for observed continuities and changes of collective-choice rules due to the richness of related theories. The elaboration of the dimensions of the PAA makes the intrinsic notions on actors, policy discourses and resources and power within the definition of the seven IAD’s rule types more explicit.</td>
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<th>Pitfalls</th>
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<td>o Imbalance in level of detail for the four dimensions of the PAA may provoke unbalanced explanations for observations on the less elaborated dimensions. Given the diversity of theoretical concepts beyond all four dimensions of a policy arrangement, there is a pitfall of theoretical overdose (e.g. inclusion of incomparable theoretical concepts) hence limited or contradictory explanatory potential.</td>
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<tr>
<td>o The combined analytical framework does not provide for deep insight in the interlinkages between/across political levels within an international river basin district. Although the IAD framework may be applied to several political levels, its design and application (so far) mainly derives from local level cases of CPRM.</td>
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Although the hybrid approach allowed for a detailed assessment of each individual political level and a comparison of observed continuities and changes of collective-choice rules at all these levels, it did not provide for deep insight in the interlinkages between/across the studied levels. Ostrom (2007) concludes that many studies on common pool resources management so far have focused on local settings, whereas a critical area of research is to understand the governance of larger level settings by analysing relationships among multiple levels of these complex systems. Heikkila, Schlager and Davis (2011: 122) argue that cross-level institutional linkages connect actors or collective bodies that function at different levels of social organisation or political jurisdiction:

For common pool resources management, such linkages are thought to enhance the capacity of actors with distinct jurisdictional or organisational boundaries to simultaneously address problems or dilemmas in managing the common pool resources that may cross or overlap those boundaries.
Departing from Ostrom’s normative design principles of robust and enduring management of common pool resources (Ostrom, 1990: 88-102), Heikkila, Schlager and Davis (2011) assess and evaluate cross-level linkages of 14 interstate river basin compacts in the western United States. Although these design principles seem to be intrinsically linked to the seven rule types of the IAD framework, they are formulated in partly different terms. These differences enlarge the interpretation complexity for researchers who wish to apply the rule types for studying multilateral settings. In order to bridge the analytical gap of assessing and evaluating the impact of interlinkages between/across political levels, the extension of the hybrid PAA/IAD framework with additional indicators for these linkages is strongly recommended.

Notwithstanding the added value of the seven rule types of the IAD framework, their translation into ideal-type collective-choice rules for IRBM has been somehow troublesome in two ways. Firstly, the definitions and descriptions of Ostrom’s rule types are mainly oriented to studying operational action situations, e.g. governing of common pool resources by local communities. By ascending the abstraction ladder from operational choices to collective choices, the distinction between some of the rule types becomes less clear. This goes for aggregation and boundary rules and, to a lesser extent, for scope and choice rules. As long as the subsequent redundancy remains functional, there is not a critical methodological problem to be solved. Secondly, the aforementioned design principles for robust governance of common pool resources (Ostrom, 1990 and 2005) should not be confused with the seven rule types of the IAD framework. Whereas the former are more normative in nature, the latter’s definitions aim to provide for a value-free analytical framework beyond common pool resources management only. However, the overlap between the two may cause misunderstandings and confusion. An additional methodological scrutiny would contribute to a further elaboration and strengthening of the framework, the potential range for its application and generic methodological innovation as required for multidisciplinary research on sustainable development, management and use of social-ecological systems.

**The added value of participatory analysis**

The experience of this research shows the added value of participatory research for easy access to inside information with interpersonal trust relationship building as an important precondition. It partly deals with the major challenge as repeatedly posed by Ostrom (1990, 1999, 2005 and 2011) to get a clear picture of the rules in use which often may not be written down or which the actors may not even be aware of. Extensive interviews/conversations may be useful to discover these unwritten rules (Ostrom, 2011). The combination of participatory action and non-participatory attendance of meetings has delivered a rich array of empirical data and observations. The numerous in-between conversations and additional interviews with both governmental and non-governmental stakeholders have provided valuable insight in their interests, policy strategies and negotiation tactics. Furthermore a questionnaire (as filled in by several actors) and mirror sessions with a selected number of key-players in the water policy domain have helped to get a clear picture of the range of dominant and opposing arguments. However, emphasis of the participatory research activities has been
predominantly on the regional, local and bilateral transboundary political levels. This has caused a (foreseen) imbalance in assessment detail for the studied political levels. Consequently, the assessments for the European and multilateral levels and, to a lesser extent, for the national domestic level have been based predominantly on document analysis, explorative interviews with a limited numbers of actors and analyses by peer researchers. This experience points at a major challenge of a mixed participatory and observational research approach within a multi-level governance context to meet a sufficient level of comparability for all studied levels.

Notwithstanding the aforementioned added value of the mixed approach, one obvious pitfall is the intrinsic bias in the researcher’s observations and the methodological difficulty of assessing one’s own impact on the studied process. Additionally one may get caught by the norms, values and rituals of one’s own organisation, which makes a bird eye’s view troublesome. Whenever one is full-time involved at a given political level and from a particular disciplinary angle, it may be very difficult both to obtain deep insight in other levels and to profit from a multi-disciplinary perspective. Ostrom (1999: 37) emphasises that ‘decisions made about rules at any one level are usually made within a structure of rules existing at different levels’. Kiser and Ostrom (1982) distinguish a nested hierarchy of three tiers of rules, i.e. operational rules, collective-choice rules and constitutional-choice rules. Ostrom (1999: 37, 38) stresses that institutional studies need to encompass multiple levels of analysis, although she admits that the nested structure of rules’ is a particularly difficult analytical problem to solve for those interested in the study of institutions’. Additionally, ‘finding ways to communicate across these levels is a key challenge for all institutional theorists’ (ibid.: 39).

Although this research includes notions on constitutional-choice rules, mainly as derived from secondary analysis, the emphasis is on an in-depth analysis of collective-choice rules in the water policy domain. Operational rules have not been included. An all encompassing assessment of all three tiers of rules at all included political levels for the chosen twenty years period would have been a mission impossible for one researcher within the given requirements and restrictions of job fulfillment, time and resources for a PhD project.

9.3 Conclusions

The first hypothesis of this research is that policy-making and implementation in the context of the European environmental policy domain predominantly is subject to ambiguous concepts which invite incremental rules changes. In addition the particular history full of conflicts, upstream-downstream asymmetries and cultural diversity in combination with emphasis on the sovereignty and subsidiarity principles, has lead to the second hypothesis that one may not expect revolutionary changes in collective-choice rules at the multilateral political level within the International Meuse River Basin District. As the third hypothesis, given both the active uploading attempts of Dutch national water policy officials and experts at the early WFD drafting stage and their perception of European forerunners, one may expect limited changes in the domestic rules configuration of the water policy domain. As introduced in Chapter 3,
ambiguous meanings have important political functions (Stone, 2002; Fischer, 2009). ‘Ambiguous meanings often facilitate cooperation and compromise.’ (Fischer, 2009: 175) Whenever they do so, incremental changes of collective-choice rules may be expected over radical shifts.

The observed overall limited changes in collective-choice rules and cautious evolutions at all studied political levels (see Table 9.1) support the three hypotheses. The complicated constellation of actor networks with a diversity of policy strategies, tactics and interests at the European level obviously has fed ambiguous formulations in order to hold everybody on board in the search for cooperation and compromise (see also Kaika, 2003; Kaika and Page, 2003). At the same time, at the multilateral level discussions and negotiations remained laborious, although the WFD clearly has triggered progress in the coordination and internal integration efforts (most notably by the entrance of new actors and taking a flood issues working group on board). The IMC’s public actors kept struggling with opening up the windows to non-governmental stakeholders such as with regard to information and consultation procedures (by referring to the riparian states’ own responsibilities for such procedures).

This research also shows limited changes at the level of collective-choice rules within the Dutch water policy domain. As contrary to the third hypothesis, these are not due to the perception of a forerunner state but related to European political compromises that reflect deviations from initial Dutch uploading ambitions. The uncertainty about the socio-economic impact of these deviations has contributed to a political domestic atmosphere of both resistance towards (too much) legally binding requirements and emphasis on continuation of current institutions (see also Edelenbos et al., 2008 and Raadgever et al., 2009, Ten Heuvelhof et al., 2010). After the two political wake-up calls in 2003 the Dutch have opted for regularised application of the WFD’s exemption options. Although major shifts in the seven collective-choice rule types have not been observed, the Dutch had to transform their water quality objectives setting and monitoring systems dramatically. This has led to an ambiguous mixed system which includes a new methodology for the WFD water bodies and survival of the domestic methodology for smaller tributaries, ditches and isolated urban waters.

In the early WFD drafting stage Dutch water official and experts feared a loss of the ambitious Dutch system of water quality objectives setting. Therefore, these Dutch actors tried to upload their system of setting (intentional) water quality objectives in three ways: (1) by early position papers; (2) by coalition building with four other Member States; and (3) by informal conversations with the officials at Europe’s DG Environment. Adoption of this Dutch system would have urged midstream and upstream riparian states to accelerate their investments in water quality amelioration, hence could have contributed to a substantial reduction of the “transboundary no-shift assignment” of these neighbouring states. Furthermore, the Dutch plied for simplification of the European corpus of water legislation by means of integration into a more generic framework directive. The observations of this research have made clear that these Dutch public actors lost their grip on the process. At the end of the European negotiation game, some expressed disappointment about the limited integrated nature of the Directive and deviations from the initial Dutch proposals.
Besides, uncertainty around the impact of the diverse, sometimes detailed Articles and annexes triggered explicit Dutch calls for written down juridical statements about the intentional nature of the WFD's environmental objectives. The ANF Ministry opposed any suggestions of obligations for the agricultural sector additional to those from the Nitrates Directive. Given the agreed intentional nature of Article 4 (e.g. as written down by Europe’s legal service) in combination with the extensive and intrinsic exemption options and the expressed Dutch satisfaction soon after adoption, it has been quite remarkable that in 2003 and 2004 a political fear of obligations of result has triggered extensive domestic discussions.

As concluded in Subsection 9.2.1., overall, change of collective-choice rules has been rather limited. Continuity rules the water policy domain. The most pronounced rule changes concern internal integration tendencies, which have their roots in the era before adoption of the WFD. The directive supports the internal integration evolution by means of its integration discourse and its further explanation in the related guidance documents. The actor networks of the water policy domain at all levels remained dominated by governments and experts and kept rather isolated from surrounding networks of other policy domains. Although not analysed in detail in this research power and actor configurations of parallel operating policy domains which are supported by the specificity principle of sector institutions, are among the barriers for cross-sector integration attempts. In addition, the relatively modest financial resources for integration of environmental/water policy objectives into plans and programmes of other policy domains do not act as strong triggers as well.

Part of the explanation for continuity of collective-choice rules lies in the ambiguous wording of the WFD’s core Article 4 on environmental objectives. Until the final hours of the conciliation procedure, amendments have been subject to delicate political negotiation. Given that this Article protects a number of human activities which are one of the main reasons for existence of the WFD, an important potential trigger for more sustainable interferences has been paralysed from the onset. Furthermore, persistent domestic confusion about both the juridical interpretation and socio-economic impact of the intrinsic exemption options and conditions has triggered a cautious implementation approach. The early decision of the European Water Directors to interpret the exemption provisions as a regular instrument for prioritisation and a staged implementation of measures until the end of 2027 has supported the prudent Dutch approach. In this sense, the ambiguity of Article 4 predominantly has invited an instrumental use of the Directive for continuation of prior policies and practices. Until December 2009, it did not trigger extensive multi-stakeholder deliberations on the driving forces behind human pressures and impacts.

The limited connections across political levels, as observed in this research, may be explained by the WFD’s intrinsic acknowledgement of the inconsistencies between social, economic and political territories on the one hand and hydrological (river basin) units at the other. Protection of sovereignty and a call for subsidiarity, as expressed by the choice to appoint legally accountable, competent authorities at the level of Member States and not at the multilateral river basin level, has triggered first priority to domestic implementation planning processes. Consequently, the International Meuse Commission remains swimming in the misty atmosphere between the partly
supranational European institutions and national jurisdictions. Instead of guiding multilateral documents, summaries of national reports had to be brought together in the final hours of the first implementation planning cycle. To dissolve barriers to transboundary coordination and cooperation, political willingness of involved competent authorities remains a decisive factor, especially in a context of upstream-downstream asymmetries and a history of international conflicts and distrust. Additionally, the rather complicated technical nature of the WFD’s annexes so far have triggered a scientific-rational search for uncertainty reduction by individual Member States over the formulation of shared transboundary objectives and measures. The diminished role of the bilateral, transboundary river basin committees between the Flemish Region of Belgium and the Netherlands may be interpreted as an indicator for that.

To summarise: the main conclusion of this research is that, until December 2009, the ambiguities around the central governance rules, policy principles, environmental objectives and exemptions options of the WFD have triggered limited changes in collective-choice rules within the International Meuse River Basin District. These ambiguities have offered convenient political room for manoeuvre and accommodation efforts by stable, powerful actor coalitions who aim to avoid (too) dramatic alterations of prior position rules. Whereas the IRBM discourse has supported earlier started internal integration tendencies at all studied political levels, cross-sector integration attempts have remained too weak to trigger a significant change of the rules configuration. The observations of this research point at a relatively isolated water policy domain which is strongly steered by public actors, who are cautious not to lose decision-making privileges. Especially in the supranational void at the multilateral level, the state actors emphasise their sovereignty. They mention the subsidiarity principle to stress limited opportunities for the International Meuse Commission to open up the multilateral arena for private and civil actors. At the Dutch domestic level, the national Water Policy Department has opted for an extensive mixed top-down and bottom-up WFD implementation planning process. This approach fits perfectly well in prior informal information and consultation procedures which are controlled by the public actors.

Notwithstanding the limited changes so far, one might not rule out the rule-altering potential of the diverse statements in the WFD and its related guidance documents on the importance of cross-sector integration of environmental policy objectives and sustainable human development activities. The offered integration discourse and range of options for (experiments with) more interactive and participatory policy planning and implementation processes could trigger (further) collective-choice rules changes in the second and third WFD’s implementation planning cycles up to December 2027.
9.4 Recommendations

This final section closes the story of this dissertation by offering recommendations for future research and multi-stakeholder processes in the second WFD implementation planning cycle.

Options for future research

The hybrid analytical framework has provided potential explanations for observed continuity and incremental change of collective-choice rules at the five studied, interrelated political levels within the International Meuse River Basin District. A first option for future research is to conduct a similar analysis for other European river basin districts in order to explore to which extent the observed continuity and changes of collective-choice rules (and the potential explanations) are more generic in nature. Additionally, the research scope could be enlarged towards IRBM processes outside Europe in a search for triggers and barriers for collective-choice rules changes within different physical, socio-economic and political contexts. As a second option, similar analyses could be conducted for the implementation planning processes of other European directives. To which extent are the observed rules configurations typical for the water policy sub-domain? Thirdly, in order to detect triggers and barriers for external integration a cross-sector analysis of policy arrangements is another option. The analytical framework as developed by Jordan and Schout (2006), which pays explicit attention to cross-sector integration of Europe’s environmental objectives, may serve as a departure platform.

Whereas the hybrid analytical framework has proven to be an appropriate tool for identifying incremental changes in collective-rules at individual political levels, its potential for assessing across-level linkages has not been explored by this research. Given the emphasis of the IRBM’s paradigm on coherent coordination within the context of transboundary river basins, a fourth option for future research is to define additional analytical indicators for covering this border-crossing lacuna. For example, the actors’ dimension might offer an interesting perspective by the concept of policy entrepreneurs. An in-depth analysis of policy entrepreneurs at and across political levels within an international river basin could provide for an identification of triggers and barriers in crossing borders and building collective-choice rules bridges. The five possible strategies that policy entrepreneurs can apply as identified by Huitema and Meijerink (2009: 12), may be a promising starting point for defining across-level analytical indicators: ‘the development of new ideas; building coalitions and selling ideas; the recognition and exploitation of windows of opportunity; the use of multiple venues; and the orchestration and management of networks’.

The principal focus of this research has been on a detailed elaboration of the rules of the game dimension, by means of defining ideal-types as a benchmark. The subsequent assessment of developments over time for the other three dimensions (resources and power, policy discourses and actor constellations) has shown redundancy in providing explanations for observed continuity and changes in collective-choice rules. The question is whether a more detailed elaboration of these three dimensions would add to a disentangling the impact of each individually. Therefore, a
fifth option for future research is to explore whether a definition of ideal-type benchmarks for the other three dimensions (resources and power, policy discourses and actor constellations) would enforce the explanatory potential of the hybrid analytical framework. Additionally, further elaboration of the relationships between all four dimensions of the PAA could be considered, for example by taking the relationships between the dimensions as named by Liefferink (2006; see Figure 2.1 in Section 2.1) as a starting point.

As demonstrated by this research, triangulation of methods and sources and comparison with findings from other researchers adds to the richness of the analysis. The mixed participative and non-participative observations have proven their added value for an inside out assessment of a policy development and implementation process. Interviews, mirror sessions (with peer scholars and actors in a studied process), surveys on actor's arguments and analysis of documents all contribute to sufficiently counterbalance personal biases in interpretations. Such an assessment may be enriched in detail and insight when conducted by a pool of involved actors with different professional backgrounds and interests who periodically reflect on and learn from their observations. Therefore, as a final option for future research, a multi-disciplinary pool of reflexive scholars and actors is recommended. If the research focus is on across-level linkages within an international river basin district, a network of actors and scholars who cover all involved political levels may be considered.

**Multi-stakeholder dialogues in the next WFD implementation planning cycle**

As promised in Subsection 3.2.2, by combining practical experiences as a senior water policy adviser with theoretical insights, the societal research aim of this dissertation is to contribute to deliberations on how to efficaciously organise multi-stakeholder processes for IRBM. Since the mid 1990s, IRBM has become a dominant paradigm in the European water policy discourse. The ambiguous concept is both defined and interpreted differently by actors at multiple political levels, who represent a diversity of world views, policy Utopias and operational practices. Consequently, the IRBM paradigm is considered both a hybridisation of life philosophies as well as an instrument to arrive at collective-choice rules for the sustainable use, development and management of shared water and other related natural resources. The configurations of collective-choice rules at different, interrelated political levels within an international river basin district depends on the interplay among prior rules, actors, policy discourses and the division of resources and power on the one hand and the specific (historical) context of physical, social, economic and political characteristics, norms, values and driving forces on the other.

The observations of this research have shown that the WFD's ambiguities so far have both supported incremental internal integration tendencies and have prevented dramatic changes of position rules. The deliberations predominantly focussed on pressures and impacts of priory accepted human development activities and cost-efficient options for mitigation and compensation over options for influencing underlying driving forces. The WFD has not triggered changes in cross-sector integration rules. The choice rules are partly subject to incremental changes, whereas organisational scope, information and pay-off rules were similar and remained unaltered at all studied
political levels. Observations on the boundary and aggregation rules show that, although the WFD has triggered extensive coordination talks among the competent governmental authorities and experts at all studied political levels, limited and preconditioned co-production and co-decision room has been offered to non-governmental stakeholders. The authorities remained within the save, well-known heaven of inner-circle actors and mainly continued prior conditional information, co-thinking and consultation procedures. For example, the Dutch national Water Policy Department has opted for an extensive, mixed constellation of informal national coordination and regional river basin management planning platforms. On the one hand, these networks of officials, experts and water managers have delivered a politically acceptable, feasible and payable, WFD programme of measures for the 2010 to 2015 period. On the other hand, the traditional approach of informal information and consultation of non-governmental stakeholders has neither delivered common frames nor a shared ownership of the new generation water and river basin management plans beyond the involved governmental actors.

Whereas some stakeholder groups expressed their perception of too little change and too much business as usual scenarios, others were more satisfied with the accommodation tactics in order to prevent too severe socio-economic consequences. The question to which extent the multi-stakeholder processes in the first WFD implementation planning cycle in the International Meuse River Basin District have been organised efficaciously, may not be answered in a straightforward way. There is not one blueprint recipe such as more active participation of non-governmental stakeholders will automatically deliver a better process and its outcome. The core observation of this dissertation is that no explicit, systematic deliberation has taken place on the desirability of changing the collective-choice rules. Instead, the ambiguities around the WFD’s principles and exemption options predominantly have been used in an instrumental sense to continue prior traditions and practices. Consciously or unconsciously, as such the competent authorities and inner-circle experts may have blocked changes in collective-choice rules.

For the second WFD implementation planning cycle, this author recommends that if the public actors wish to go beyond a predominant instrumental use of the WFD’s ambiguous terms and definitions, they should open the floor for a strategic multi-stakeholder dialogue on the desireability of changing the collective-choice rules. Explicitly, such a dialogue should take into account the interdependencies of different political levels within an international river basin district. As a basic precondition for such a dialogue, it is important that the involved stakeholders are willing to invest in understanding and acknowledgement of the diverse frames on issues at stake. As argued by Dewulf et al. (2005: 115), ‘Some or all parties will probably have to revise, enlarge or reframe the way they relate to the issues and to each other, in order to create a vocabulary that can support mutual understanding and common action, which is crucial for reaching an effective collaborative management of natural resources.’ Essentially, all defined ideal-type collective-choice rules may occur and may function satisfactory, depending on the particular historical context and the institutional setting.
of a given river basin district at a certain moment in time. There is not one generic best option.

As a water policy adviser, the author considers the observed internal integration evolution towards legislation, policy documents and management plans which include objectives and measures for both quantitative and qualitative aspects and for groundwater and surface water bodies (at all studied political levels; substantive scope rules) as positive. He recommends to invest more in interlinking the parallel actors networks for groundwater and surface water management in order to define the interdependencies of objectives for the state and functioning of both and connected terrestrial ecosystems. Given the persistent influence of the speciality principle, the integration of environmental objectives into other policy domains may be the hardest challenge of IRBM. This external integration challenge closely relates to position rules for land owners and water users. To the opinion of the author, in a multi-level, multi-sector and multi-stakeholder dialogue for common (re)framing of sustainable land- and water-related human activities, driving forces behind negative pressures and impacts should be seriously explored. Driving forces may be external and internal to the river (sub-) basin at stake. External driving forces (as defined by Swartz, 1991) are political, physical, social and economic developments that take place outside the river (sub-) basin that may influence the state and functioning of common pool resources and related institutions. Some of these external developments are obvious, others are not. Some of these might be predetermined, others might be more uncertain to predict. The most uncertain are the most difficult to anticipate (ibid.).

With regard to organisational scope, boundary and aggregation rules, opening up the windows for more active contributions by non-governmental actors does not necessarily asks for dramatic alteration of the functional river basin management coordination structures. Platforms that provide informal, non-legally binding advises to the competent authorities seem to fit well in the political traditions and cultures within the International Meuse River Basin District. However, the public actors could benefit from discussing more active involvement options with private and civil stakeholders, who may bring in relevant knowledge, resources and creative capital. Furthermore, linkages among the processes at interrelated political levels could be enforced. In the first WFD implementation planning cycle, the predominant focus of public actors has been on domestic issues and arrangements over upstream-downstream interdependencies. For the long term, a parsimonious attitude for investments in spotting developments and driving forces at other, related political levels within a shared river basin would be a tactical misconception.

Given the multi-level interdependencies, the author recommends to make relations among developments and decisions at the involved political levels more explicit in the implementation planning processes. For example, these interdependencies could be a permanent agenda item of the coordination structures. Additionally, to ensure that policy implementation strategies at the multilateral level make sense at the local level and reversely best local practices are uploaded, actors that serve as liaisons across political levels may prove their added value. These river basin ambassadors could actively invest in building personal trust relations across political levels and policy domains and in the announcement of relevant developments and activities. For
example the Dutch municipal water ambassadors may become part of such a multi-
level liaisons network. In the author’s view, the liaison function could be fulfilled by
public, civil and/or private actors. In the Netherlands, actors of the regional river
basin management platforms could increase their efforts in uploading best local and
regional practices to the multilateral and European levels. Reversely, they could be
more actively involved in downloading agreements and guidance documents of these
levels. Given their water-related expertise and human and financial resources, con-
tinuation of the coordination role of the Dutch regional water management authorities
in the local WFD implementation planning processes is strongly recommended.

Watson (2007: 45) argues that ‘the success of collaboration will ultimately depend
on the willingness of officials in government departments and agencies to engage and
share decision-making power with private sector organisations, voluntary groups,
communities and other stakeholders with legitimate interests in the integrated man-
agement of land and water resources’. Verhallen, Warner and Santbergen (2007) pre-
sent IRBM as a mixed mode process in which both values and facts guide the substan-
tive process and in which learning and fighting alternate. Within their mixed mode
model, both conflict and cooperation are acknowledged as basic features of a multi-
stakeholder process (ibid). The mixed mode model neither plies for an automatically
and maximal stretching up of the boundary rules or ascending of the participation
ladder. For example, depending on the types of issues at stake and the stage in policy
implementation process, the chosen boundary rules may vary. When focussing on
structured issues for which there is broad consensus on norms, values and required
knowledge and methods, a relatively simple planning approach may suffice. Given the
often unstructured nature of issues related to sustainable management of transbound-
ary water resources, a mixed mode process with multiple stakeholders is often advo-
cated (Hendriks et al., 1999; Verhallen, Warner and Santbergen, 2007).

The author advises to continue with the Dutch informal river basin management
coordination structures in which the competent public authorities take the lead. At the
same time, the advisory function of the WFD consultation platforms could be en-
forced by offering the nongovernmental actors more opportunities for active contribu-
tions. In addition to information and consultation, more time and resources (e.g. by
using European funds) could be invested in building public-private partnerships and
cross-sector networks that explore options for innovative and synergetic implementa-
tion strategies, e.g. for reduction of arduous pressures. At the multilateral level the
public actors could consider best practices with active contributions from other stake-
holders at the European level. The author advises the public actors to reconsider the
options for widening up the multilateral participation windows in an open dialogue
with the other stakeholders.

With regard to choice rules, the Dutch actors involved in the WFD implementation
planning process may benefit from cross-connections with the domestic process of
the Deltaprogramme. Within this parallel process, long-term strategies for linking up
fresh water supply and demand management in the context of expected climate
change are explored. Given the predominant focus of the Deltaprogramme at quanti-
tative issues in relation to protection and stimulation of socio-economic development
options, linking up its regional areal processes (which are scheduled for 2012 and
2013) with the second local WFD implementation planning processes (which will start in 2013), might offer opportunities for both maintaining political attention to issues of water quality and ecological restoration and integration with quantitative issues. The author advises to link up the multilateral coordination process and the Dutch domestic processes with Europe’s Blueprint process. This process aims for ensuring good water quality in sufficient quantities for all legitimate uses, by means of an integrated, long-term demand- and supply management strategy in the context of climate change (www.ec.europa.eu/environment/water/blueprint).

The author advises the competent authorities to make more use of the information offers by other stakeholders and to include relevant sector information sources in the joint fact finding processes for periodical actualisation of the river basin characterisations (information rules). As expressed by the European guidance documents joint fact finding by multiple stakeholders can be useful to develop a sense of ownership over the river basin management plans, with the river basins characterisation reports as a first important step. For example, local stakeholders may possess information sources and expertise of direct use for the pressures and impact analysis for individual water bodies. With regard to pay-off rules, the author recommends a distinction between the reporting obligations for compliance checking by the EC and the development of multi-stakeholder partnerships for shared ownership of river basin management plans and collaborative capital for their successful implementation. For the reporting obligations, stricter national instructions and less diffuse local and regional deliberations on technical details could pay off the Dutch. The informal regional river basin platforms may remain useful for continuous political attention to issues of water quality and ecological restoration. At the local level, a selection of water bodies could be considered for experiments with building shared visions and definition of common policy and research strategies, related management approaches and indicators implementation progress. Finally, active involvement of local communities and schools could help to overcome the easy argument that issues of the Water Framework Directive are too complicated to discuss with lay people.

Finally, political willingness, courage and leadership are required to reconsider the generic sustainability label for all prior human development activities that are mentioned in WFD’s Article 4. The option of a dramatic alteration of prior position rules for the benefit of the Earth’s intrinsic natural values and dependent present and future human generations should be seriously acknowledged. Without a healthy planet and people living on it, it will make no sense to talk about profit any longer.
Summary

‘But whatever one’s assessment, a type of policy analysis that does not make room for the centrality of ambiguity in politics can be of little use in the real world.’ Deborah Stone (2002: 157)

Introduction: ambiguous ambitions in the international Meuse theatre

This research is inspired by a desire to understand how interpretation diversity of an ambiguous policy concept may trigger or hinder changes in collective-choice rules. The focus is on an in-depth analysis of the Dutch water policy domain within the European context of transboundary river basins. The departure platform is the Integrated River Basin Management paradigm (IRBM). As introduced in Chapter 1 IRBM, in its contemporary interpretation by the global water management community, aims at collective-choice rules for the sustainable use, development and management of interrelated water and land resources within (inter-) national river basins (Molle, 2009). The paradigm, as with sustainable development, is intrinsically ambiguous. Ambiguous interpretations may lead both to a predominant instrumental use to protect the status quo and to a search for common ground and collective action (Stone, 2002; Fischer, 2009). Whenever ambiguous meanings facilitate cooperation and compromise, incremental changes of collective-choice rules may be expected over radical shifts. The opposite may also be true: whenever ambiguous claims trigger sharp polarisation (for example among political parties), radical rules change may arise due to a significant change of those in power (such as after parliamentary elections; ibid.).

As adopted in October 2000, the Water Framework Directive (WFD; European Communities, 2000) offers a set of governance and policy principles for a harmonised implementation of IRBM across Europe. Including several multi-interpretable terms and conditions, the WFD is circumvented by ambiguity. Most notably, the Directive’s core Article 4 on environmental objectives implicitly acknowledges a broad range of human development activities as sustainable, while at the same time the pressures and impacts of these activities are among the reasons for the WFD’s existence. Furthermore the Directive offers detailed exemption options for a staged implementation and lowering of objectives. The rule-altering potential of the WFD depends on how stakeholders in different policy domains at and across political levels within an (inter)national river basin (district) will translate the Directive’s governance rules, policy principles, environmental objectives and exemption options.

As elaborated in Chapter 2 (theoretical framework), a wide range of actors may embrace the IRBM paradigm, but interpret its meaning and implementation in diverse ways. Depending on the specific physical, social, economic and political conditions within a river basin, IRBM may trigger or hinder changes in rules-in-law and rules-in-use. The scientific aim of the research is to explore the triggers and barriers for changes in collective-choice rules on the sustainable use, development and management of water resources. This shall be shown by analysing the impact of the policy and governance principles, the environmental objectives and the exemption options of
the WFD at interrelated political levels within the International Meuse River Basin District (see Chapter 3 for a brief geographical characterisation). The central question is how continuity or change of collective-choice rules after adoption of the WFD may be explained. As the societal research aim, by combining practical experiences as water policy adviser with the theoretical insights resulting from scientific research, this dissertation wishes to contribute to deliberations on how to efficaciously organise multi-stakeholder dialogues for complicated issues in contemporary river basin management.

The theoretical fundament: a hybrid analytical framework

Since this research is inspired by an interest in triggers and barriers for collective-choice rule changes, there is a need for an analytical framework that includes a rules typology which, by the aid of related theories, describes potential explanations for observed (resistance to) changes. As a first clue, the Policy Arrangement Approach (PAA; Arts, Van Tatenhove and Leroy, 2000; Leroy and Arts, 2006) offers such a framework, linking four dimensions within a tetrahedron, i.e. rules of the game with policy discourses, actor constellations (oppositions and coalitions) and division of resources and power (Liefferink, 2006: 60; see Figure 1).

![Figure 1: The tetrahedron of a policy arrangement (in: Liefferink, 2006: 60).](image)

Due to the indissoluble interrelatedness of the four dimensions of a PAA, in principle a researcher should address the entire tetrahedron (ibid.: 48). According to Liefferink (2006), the four-dimensional analysis of a given policy domain allows for different analytical perspectives, dependent on the research question. The challenge within any research that departs from the PAA is to avoid becoming swamped (the curiosity that kills the cat), for example by choosing a principal corner to enter the tetrahedron, without losing sight on the interrelations with the other corners. The principal entrance of this research is the rules of the game corner. Prior rules may be reconfirmed or challenged by continuous interaction between the four dimensions on the one hand
and driving forces in the broader physical, social, economic and political context on the other.

A second clue lies in the Institutional Analysis and Development framework (IAD framework; Kiser and Ostrom, 1982; Ostrom, 1999, 2005). The framework has its roots in studies on rules and games in governing common pool resources, hence providing the opportunity to further elaborate the rules of the game dimension. Ostrom (1990: 51) defines institutions as ‘the sets of [seven] working rules [types] that are used to determine who is eligible to make decisions in some arenas, which actions are allowed or constrained, which aggregation rules will be used, which procedures must be followed, which information must or must not be provided and which pay-offs will be assigned to individuals dependent on their actions’. Ostrom, Gardner and Walker (1994: 37) denote that choices on collective action may not be studied in isolation, but as a configuration. A change in one rule type may affect the others. Additionally, these rules result from interactions among actors in action situations which are influenced by exogenous variables, i.e. biophysical/material conditions, attributes of a community and rules-in-use (Ostrom, 2011).

The theoretical novelty of this research is the incorporation of the seven rule types from the IAD framework with the PAA as elaboration of the latter’s rules of the game dimension. Based on a review of IRBM literature, the seven rule types of the IAD framework have been translated into three ideal-types (as defined by Weber, 1922; see Table A for an overview of constructed ideal-type collective-choice rules which are explained in detail in the Subsections 2.2.3 till 2.2.9). These ideal-types serve as a valuefree analytical benchmark to track incremental rule changes over time. By comparing the observations on rules in the era before and after adoption of the WFD (respectively 1990 to 2000 and 2001 to 2009), the degree of change may become traceable. Subsequently, analysis of developments within the other three dimensions of a policy arrangement may account for potential explanations for (triggers and barriers) of observed rules changes. Since the WFD’s river basin management approach focuses on shared river basins within the European environmental domain, its implementation depends on coherence among policy arrangements at all involved, interdependent governance levels. Therefore, for the aim of this research the degrees of rules changes are assessed for both the European level and the interdependent political levels within the International Meuse River Basin District (multilateral, national, regional and local). Figure 2 provides for a synthesis of the analytical framework as applied in this research.
<table>
<thead>
<tr>
<th>Ideal-type A</th>
<th>Ideal-type B</th>
<th>Ideal-type C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1a. Scope rules (organisational):</strong></td>
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<td></td>
</tr>
<tr>
<td>Water policy is implemented by organisational structures and actor networks which are driven by social, economic and political factors that do not follow hydrological (river basin) boundaries. These structures/networks may be multi-purpose or sectoral in nature and are under parliamentary control.</td>
<td>Water policy is implemented by functional water agencies, committees and actor networks which follow hydrological (river basin) boundaries. These functional entities and actor networks are controlled by parliamentary institutions.</td>
<td>Water policy is implemented by autonomous (sub) river basin authorities and/or communities that are organised along hydrological boundaries. These authorities and communities are beyond parliamentary control and do have their own polity rules.</td>
</tr>
<tr>
<td><strong>1b. Scope rules (internal integration):</strong></td>
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<tr>
<td>Separate legislation, policy documents and management plans for both water quality and quantity issues. Surface water and groundwater are dealt with in parallel.</td>
<td>Legislation, policy documents and management plans which includes parallel objectives and measures for both quantitative and qualitative aspects and for groundwater and surface water.</td>
<td>Water legislation, policy documents and management plans with integrated objectives and measures for interrelated surface and groundwater bodies, including quantitative and qualitative aspects.</td>
</tr>
<tr>
<td><strong>1c. Scope rules (external integration):</strong></td>
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</tr>
<tr>
<td>Separate legislation, policy documents and management plans from water policy and other policy domains without linkages.</td>
<td>Legislation, policy documents and management plans from other policy domains take into account water issues and reversely.</td>
<td>Cross-sector, integrative legislation, policies and management plans.</td>
</tr>
<tr>
<td><strong>2. Position rules:</strong></td>
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<tr>
<td>Separate policy documents and management plans from water policy and other policy domains without linkages.</td>
<td>Policy documents and management plans from other policy domains take into account water issues and reversely.</td>
<td>Cross-sector, integrative policies and management plans.</td>
</tr>
<tr>
<td><strong>3. Boundary rules:</strong></td>
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<tr>
<td>Access to the river basin management planning process is restricted to public actors only. Other stakeholders are informed.</td>
<td>Non-governmental actors may have access to the river basin management planning process under conditions set by the public actors. Emphasis on co-thinking and consultation.</td>
<td>Ample opportunities for all interested stakeholders to join the river basin management planning process, including co-production, co-decision and self-realisation.</td>
</tr>
<tr>
<td>Table A: continuation</td>
<td></td>
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<td>------------------------</td>
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<tr>
<td><strong>Ideal-type A</strong></td>
<td><strong>Ideal-type B</strong></td>
<td><strong>Ideal-type C</strong></td>
</tr>
<tr>
<td><strong>4a. Choice rules (supply and demand management):</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water supply management determines availability of fresh water for user functions.</td>
<td>Mixed supply and demand management determines fresh water availability without a hierarchy in user functions.</td>
<td>Integrated supply and demand management, as expressed by a hierarchy in user functions.</td>
</tr>
<tr>
<td><strong>4b. Choice (the nature of the license system):</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separate, parallel licences for quality and quantity objectives related to development, management and use of water resources.</td>
<td>Licenses that integrate quantity and quality objectives related to development, management and use of water resources.</td>
<td>Integrated licences for interrelated development, management and use of related natural resources (e.g. air, water, land).</td>
</tr>
<tr>
<td><strong>5. Aggregation rules:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent decision-making on water policy and management plans at different administrative levels within a river basin.</td>
<td>Asymmetric, top-down decision-making on water policy and management plans at different administrative levels within a river basin: lower levels have to comply with the rules from the higher levels.</td>
<td>Symmetric, consensus based decision making on water policy and management plans at different administrative levels: mixed top-down and bottom-up rules.</td>
</tr>
<tr>
<td><strong>6. Information rules:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The river basin management planning process (definition of means and ends) is predominantly driven by expert information and knowledge from the natural sciences. Validity and reliability are central criteria for legitimised information and knowledge.</td>
<td>The river basin management planning process (definition of means and ends) is predominantly driven by expert information and knowledge from the economic sciences. Costs-benefits ratios and economic efficiency are central criteria for legitimised information and knowledge.</td>
<td>The river basin management planning process (definition of means and ends) is driven by multidisciplinary information and knowledge from experts and lays. Joint fact finding and social robustness are central criteria for legitimised information and knowledge.</td>
</tr>
<tr>
<td><strong>7. Pay-off rules:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rewards and sanctions from laws and regulations are major drivers for compliance with collective rules (e.g. as expressed by standards and license conditions).</td>
<td>Economic incentives and market forces are major drivers for compliance with collective rules.</td>
<td>(Sub-)Basin communities voluntarily invest resources (human, financial, expertise) as collaborative capital for compliance with collective-choice rules.</td>
</tr>
</tbody>
</table>
The research approach: participative analysis by means of triangulation

This research can be characterised as a participative, interpretative analysis, in which the researcher aims to take advantage of his privileged position as one of the inner circle, local governmental actors in the WFD implementation process. This position offers direct access to first-hand information sources, ample opportunities for conversations and interviews with a diversity of stakeholders and options for both participatory and non-participatory observations. The principal aim of the chosen approach is to reconstruct a complicated transboundary policy implementation process, as value-free as possible, in order to detect triggers and barriers for change of collective-choice rules over time. Given the dual role of the author in the studied process, both as researcher and local governmental stakeholder, there is a challenge of dealing with the undeniable personal bias and impact of his own actions.

The main advantage of a participative, interpretative approach is the potential for an inside-out, in-depth analysis of a (politicised) policy formulation, negotiation and implementation process, which may point the finger at informal, unwritten rules-in-use in addition to and interacting with formal, written down rules (as emphasised by Ostrom, 1999, 2005). Or, as Fischer (2003: 141, 142) puts it, ‘In the world of politics, the “real” reasons and motives for an action – as opposed to those officially offered - are as important as the action itself.’ The main pitfall is that, the more the researcher
gets involved with his subject, the easier it may become to lose the required distance or helicopter view. The expected added value of this research is the synergy between the researcher as a policy implementation adviser and his role as an analyst of the process in which he is involved. Both roles require an insight into arguments and strategies of different stakeholders involved. Furthermore, the role of adviser necessitates that the researcher does not allow his own preferences and expectations to unduly influence the presentation of information (including the pro’s and con’s for a range of options) to be acted upon by the politicians of the daily board and the interests’ representatives in the general assembly of the regional water management authority.

In order to overcome too much bias and entrapment by the studied subject, triangulation of information sources, methods and researchers is considered adequate. As a first step to arrive at sufficient credibility of the analysis and its conclusions, own observations and reconstructions are compared with findings of other peer researchers who have studied the WFD implementation process (both in the Netherlands and in other European Member States). As a second step, so-called mirror sessions with multiple stakeholders have been organised to present and discuss the research findings. Thirdly, by means of interviews and a written survey, perceptions, argumentation lines and strategies of diverse stakeholders have been registered and interpreted. Finally, group meeting observations have been discussed with those stakeholders observed.

Conclusions

**Ambiguous European ambitions support incremental rule changes**

The first hypothesis of this research is that policy-making and implementation in the context of the European environmental policy domain predominantly is subject to ambiguous concepts which invite incremental rules changes. In addition, the particular history is full of conflicts, upstream-downstream asymmetries and cultural diversity in combination with emphasis on the sovereignty and subsidiarity principles which has lead to the second hypothesis that one may not expect revolutionary changes in collective-choice rules from the multilateral coordination game by the International Meuse Commission (IMC). As the third hypothesis, given both the active uploading attempts of Dutch national water policy officials and experts at the early WFD drafting stage and their perception of European forerunners, one may expect limited changes in the domestic rules configuration of the water policy domain.

Table B summarises the observations of this research. For all studied political levels, the observations mainly point at continuation of prior collective-choice rules and incremental changes. Notwithstanding the ambitious wording in the WFD and some of the informal guidance documents, the Directive's implementation until December 2009 does not trigger rule changes. It mainly confirms and supports earlier started evolutions and contributes to their further institutionalisation. At all political levels, internal integration rules show most pronounced change, as expressed by observations on scope rules and, except for the multilateral level, choice rules (nature of the license system). More limited changes have been observed for boundary rules (at
the multilateral level only) and choice rules (supply and demand management; at the European and multilateral levels).

Table B: Observed IRBM rules in the 1990 to 2009 period (expressed as ideal-types)

<table>
<thead>
<tr>
<th>Rule type</th>
<th>Europe, Meuse, National, Regional, Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope (organisational):</td>
<td>Ideal-type B: Continuation and enforcement of functional water agencies, committees and actor networks which follow hydrological (river basin) boundaries. These functional entities and actor networks are controlled by parliamentary institutions.</td>
</tr>
<tr>
<td>Scope (internal integration):</td>
<td>From ideal-type A to B: An evolution towards legislation, policy documents and management plans which include objectives and measures for both quantitative and qualitative aspects and for groundwater and surface water.</td>
</tr>
<tr>
<td>Information:</td>
<td>A juxtaposition of ideal-types A and B: The river basin management planning process is driven by a mixture of a scientific-technical and social-economic rationale. Validity, reliability, costs-benefit ratios and economic efficiency are central criteria for legitimised information/knowledge.</td>
</tr>
<tr>
<td>Pay-off:</td>
<td>A juxtaposition of ideal-types A and B: Both rewards and sanctions from laws and regulations and economic incentives and market forces are major drivers for compliance with collective rules.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Rule type</th>
<th>Europe &amp; Meuse</th>
<th>National, Regional &amp; Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choice (supply and demand management):</td>
<td>From ideal-type A to B: An evolution from supply management only to a mixed supply and demand management approach. A juxtaposition of ideal-types B and C: In general a mixed supply and demand management approach (B). In case of prolonged droughts, the approach is more integrated as expressed by a hierarchy in user functions (C).</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Rule type</th>
<th>Meuse</th>
<th>Europe, National, Regional &amp; Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope (external integration):</td>
<td>Ideal-type A: Separate legislation and plans for water policy and other policy domains without linkages. Ideal-type B: Legislation/plans for other policy domains take into account water issues and reversely. Regional level: also integrative, cross-sector environmental policy plans (ideal-type C).</td>
<td></td>
</tr>
<tr>
<td>Position:</td>
<td>Ideal-type A: Protection of prior water and land resources user and property rights without preconditions on environmental, social and economic externalities. Ideal-type B: Conditional maintenance and acquirement of water &amp; land resources user and property rights. Conditions include requirements to consider social, economic and/or environmental externalities.</td>
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</tbody>
</table>

Legend: For definitions of all the A, B and C ideal-types see the Subsections 2.2.2 till 2.2.8. The grey colour indicates observed rule changes.
### Table B: continuation

<table>
<thead>
<tr>
<th>Rule type ↓</th>
<th>Meuse ↓</th>
<th>Europe, National, Regional &amp; Local ↓</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Choice (nature of the license system):</strong></td>
<td>Ideal-type A: Separate, parallel licenses for quality and quantity objectives related to development, management and use of water resources.</td>
<td>From ideal-type A towards B: An evolution towards licenses that integrate quantity and quality objectives related to development, management and use of water resources.</td>
</tr>
<tr>
<td><strong>Boundary:</strong></td>
<td>From ideal-type A towards B: Enlarged access for non-governmental actors to the water resources policy planning process under conditions set by the public actors. Emphasis on co-thinking and consultation.</td>
<td>Ideal-type B: Non-governmental actors may have access to the water resources policies planning process under conditions set by the public actors. Emphasis on co-thinking and consultation. At the regional level also ideal-type C rules have been observed: Ample opportunities for all interested stakeholders to join the water resources policies planning process, including co-productions, co-decisions and self-realisation.</td>
</tr>
<tr>
<td><strong>Aggregation:</strong></td>
<td>A juxtaposition of ideal-types A and C: Both independent decision-making by riparian states and regions and symmetric, consensus based decision-making.</td>
<td>A juxtaposition of ideal-types B and C: Both asymmetric, top-down decision-making and symmetric, consensus based decision-making examples on water policy and management plans at different administrative levels within the river basin.</td>
</tr>
</tbody>
</table>

Legend: For definitions of all the A, B and C ideal-types see the Subsections 2.2.2 till 2.2.8). The grey colour indicates observed rule changes.

For the majority of rule types (organisational scope, external integration, position, aggregation, information and pay-off) continuity of collective-choice rules dominates over change, which means no substantial changes have been observed. The multilateral level shows most dissimilarity with the other levels. The observed rules configurations for the three Dutch domestic levels are similar.

The observations support the first two hypotheses. The complicated constellation of actor networks with a diversity of policy strategies, tactics and interests at the European level obviously has fed ambiguous formulations in order to hold everybody on board in the search for cooperation and compromise (see also Kaika, 2003; Kaika and Page, 2003). At the same time, at the multilateral level, discussions and negotiations remained laborious, although the WFD clearly has triggered progress in the coordination and internal integration efforts (most notably by the entrance of new actors and taking a flood issues working group on board). The IMC’s public actors kept struggling with opening up the windows to other stakeholders, emphasising sovereignty and subsidiarity. The similar collective-choice rules patterns for the three Dutch domestic levels (national, regional and local) may be explained by the historical path of
a decentralised unitary state. The public actors of all three domestic levels, as a matter of saying almost by genetic codification, acknowledge the importance of a balanced mixture of top-down instructions and bottom-up room for manoeuvre and tailor-made compromises.

With regard to the third hypothesis, the WFD’s implementation process so far indeed has not triggered significant rules changes in the Netherlands. But the explanation does not lie in the Dutch forerunner perception, but relates to the European political compromise text of the WFD that reflects deviations from the initial Dutch uploading ambitions. In the early WFD drafting stage Dutch water officials and experts feared a loss of the Dutch system of ambitious intentional water quality objectives. Since adoption of this Dutch system would have urged midstream and upstream riparian states to accelerate their investments in water quality amelioration, the Dutch tried to upload it. Furthermore, they plied for simplification of the European corpus of water legislation by means of integration into a more generic framework directive. During the European negotiation game, these Dutch public actors have lost their grip on the process. They expressed disappointment about the limited integrated nature of the Directive and deviations from the initial Dutch proposals. The uncertainty about the socio-economic impact of these deviations has contributed to a domestic political atmosphere of both resistance towards (too much) legally binding requirements and emphasis on continuation of present institutions as precondition for the WFD’s implementation planning process (see also Edelenbos et al., 2008 and Raadgever et al., 2009, Ten Heuvelhof et al., 2010).

Continuity rules the water policy domain. The most pronounced rule changes concern internal integration tendencies, which have at least been supported by the integration discourse in the WFD and related guidance documents. The actor networks of the water policy domain at all levels remained dominated by governments and experts and kept rather isolated from networks of adjacent policy domains. Although not analysed in detail in this research stable power and actor configurations of parallel operating policy domains which are supported by the specificity principle of sector institutions are a strong barrier for cross-sector integration attempts. In addition, the relatively modest financial resources for integration of environmental/water policy objectives into plans and programmes of other policy domains act as a weak trigger.

Part of the explanation for continuity of collective-choice rules lies in the ambiguous wording of the WFD’s core Article 4 on environmental objectives (European Communities, 2000: 9-11). Until the final hours of the conciliation procedure, amendments have been subject to delicate political negotiation. Given that this Article protects a number of human activities which are one of the main reasons for existence of the WFD, an important potential trigger for more sustainable interference has been paralysed from the onset. Furthermore, persistent domestic confusion about the juridical interpretation and hence socio-economic impact of the intrinsic exemption options and conditions has triggered a cautious implementation approach. The early decision of the European Water Directors to accept the exemption provisions as a regular instrument for prioritisation and a staged implementation of measures until the end of 2027 has supported the prudent Dutch approach. In this sense, the ambiguity
of Article 4 has invited a predominant instrumental use of the Directive in order to protect prior policies and practices. Until December 2009, the ambiguous ambitions did not trigger multi-stakeholder deliberations on the driving forces behind human pressures and impacts.

**Limited cross-level linkages**

The observations of this research show a central position of the public actors at all studied political levels in interpreting and planning the first implementation term of the WFD. The public actors determine the boundary rules with strong emphasis on consultation of and to a lesser extent the co-thinking by non-governmental actors. They are cautious not to lose steering control in the mixed technical-scientific and socio-economic aggregation process, especially at the multilateral level. There are only a few actors who operate at and across different political levels. Although some Dutch national stakeholder groups appoint special lobbying officers in Brussels, personal contacts of these liaisons with diverse actors at the regional and local levels are scarce. Most interviewees take the decisions and activities of the European and multilateral levels for granted. They predominantly invest their (limited) financial and human resources for exploring the implications of the WFD and its technically complicated and detailed requirements and annexes on the regional or local level at which they are directly involved.

Both at the multilateral and the Dutch regional and local levels, the informal guidance documents for WFD implementation are taken for granted. No discussions take place on open endings in these documents. The Dutch national Water Policy Department translates the guidance documents into national instructions and recommendations and takes the lead in the preparation of instructions for meetings at the European and multilateral levels. Some regional water management authorities participate in working groups of the International Meuse Commission. In general, regional and local politicians and officials in the Brabant-West Region are not aware of the decisions taken at the multilateral level and their implications for the domestic processes. The plays at the international Meuse Theatre are considered too abstract or remain unnoticed. Although the IMC is supposed to closely monitor the bilateral coordination efforts, the regional and local actors do not notice such activity. Whereas the Dutch national Water Policy Department takes the lead in preparing the multilateral and high-level bilateral negotiations, the provincial authorities and the regional water management authorities guide the local bilateral coordination attempts. Success stories are predominantly incidental and often related to available European subsidies and personal relations. Some Dutch environmental NGOs and the drinking water sector are active at different political levels. However, in general, regional and local based NGOs and interests groups predominantly focus on their own levels.

With regard to transboundary, inland waters bodies Dutch regional and local actors in the International Meuse River Basin District struggle with the bilateral coordination processes with their upstream German, Walloon and Flemish neighbours. The priority of the national Water Policy Department towards these bilateral coordination processes has been limited over the 1990 to 2009 period. For example, the Flemish-Dutch Integrated Water Management Coordination Platform has entered a silent
hibernation period whereas the subordinate local transboundary river basin management committees have suffered from a lack of a political mandate and tasks in the first WFD implementation planning cycle. In November 2011 at an explorative meeting at Antwerp on options for a restart of transboundary coordination, the Dutch and Flemish water management authorities (national, regional and local) agreed to transform or replace the transboundary river basin management committees by informal and flexible bilateral coordination structures (as related to the level of a specific issue to be solved). The Flemish authorities acknowledged that, as a downstream state, the Netherlands may ask for more ambitious investments than the upstream partner is able or willing to offer. Consequently, expectation management is an important feature of the transboundary coordination efforts.

The limited connections across political levels may be explained by the WFD’s intrinsic acknowledgement of the inconsistencies between social, economic and political territories on the one hand and hydrological (river basin) units at the other. Protection of sovereignty and a call for subsidiarity, as expressed by the choice to appoint legally accountable, competent authorities at the level of Member States and not at the multilateral river basin level, has triggered first priority to domestic implementation planning processes. Consequently, the IMC remains swimming in the misty atmosphere between the (partly) supranational European institutions and national jurisdictions. Instead of guiding multilateral documents, summaries of national reports had to be brought together in the final hours of the first implementation planning cycle. To dissolve barriers to transboundary coordination and cooperation, political willingness of involved competent authorities remains a decisive factor, especially in a context of upstream-downstream asymmetries and a history of international conflicts and distrust. Additionally, the rather complicated technical nature of the WFD’s annexes has so far triggered a scientific-rational search for uncertainty reduction by individual Member States over the formulation of shared transboundary objectives and measures. The diminished role of the bilateral, transboundary river basin committees between the Flemish Region of Belgium and the Netherlands may be interpreted as an indicator for that.

To summarise: the main conclusion from this research is that the ambiguities around the central governance rules, policy principles, environmental objectives and exemptions options of the WFD have not triggered substantial collective-choice rules changes for IRBM. Until the end of the first WFD implementation planning cycle, the ambiguities have served accommodation efforts of stable, powerful actor coalitions who aim to prevent dramatic alterations of prior position rules. Whereas the integration dimension of the IRBM and sustainable development discourse have supported incremental internal integration tendencies at all studied political levels, cross-sector integration forces have remained too weak to trigger a significant change of the rules configuration. Despite the rhetoric of the integration principle and the related cross-compliance procedure, the strongly specialised and sector organisation of the European institutions is part of the barrier (Baker, 1997; Jessop, 2004; Jordan and Schout, 2006). Furthermore, this research points at a relatively isolated water policy subdomain which is strongly steered by public actors, who are cautious not to loose
decision-making privileges. Especially in the supranational void at the multilateral level, the state actors emphasise their sovereignty. They mention the subsidiarity principle to stress limited opportunities for the International Meuse Commission to open up the multilateral arena for non-governmental actors. The Dutch national Water Policy Department has opted for an extensive mixed top-down and bottom-up WFD implementation process, which fits well in the tradition of informal information and consultation procedures (which are controlled by the public actors).

Notwithstanding the limited changes so far, one should not underestimate the rule-altering potential of the diverse statements in the WFD and its related guidance documents on the importance of cross-sector integration of environmental policy objectives and sustainable human development activities. The offered integration discourse and range of options for (experiments with) more interactive and participatory policy planning and implementation processes could trigger (further) collective-choice rules changes in the second and third WFD’s implementation planning rounds up to December 2027.

Recommendations

Options for future research

The hybrid analytical framework has provided potential explanations for observed continuity and incremental change of collective-choice rules at the studied, interrelated political levels within the International Meuse River Basin District. A first option for future research is to conduct a similar analysis for other European river basin districts in order to explore to which extent the observed continuity and changes of collective-choice rules (and the potential explanations) are more generic in nature. Additionally, the research scope could be enlarged towards IRBM processes outside Europe in a search for triggers and barriers for collective-choice rules changes within different physical, socio-economic and political contexts. As a second option, similar analyses could be conducted for the implementation planning processes of other European directives. To which extent are the observed rules configurations typical for the water policy sub-domain? Thirdly, in order to detect triggers and barriers for external integration a cross-sector analysis of policy arrangements is another option. The analytical framework as developed by Jordan and Schout (2006), which pays explicit attention to cross-sector integration of Europe’s environmental objectives, may serve as a departure platform.

 Whereas the hybrid analytical framework has proven to be a convenient tool for identifying incremental changes in collective-rules at individual political levels, its potential for assessing across-level linkages has not been explored by this research. Given the emphasis of the IRBM’s paradigm on coherent coordination within the context of transboundary river basins, a fourth option for future research is to define additional analytical indicators for covering this border-crossing lacuna. For example, the actors’ dimension might offer an interesting perspective by exploring the concept of policy entrepreneurs. An in-depth analysis of policy entrepreneurs at and across political levels within an international river basin could provide for an identification of
triggers and barriers in crossing borders and building collective-choice rules bridges. The five possible strategies that policy entrepreneurs can apply as identified by Huitema and Meijerink (2009: 12), may be a promising starting point for defining across-level analytical indicators: ‘the development of new ideas; building coalitions and selling ideas; the recognition and exploitation of windows of opportunity; the use of multiple venues; and the orchestration and management of networks’.

The principal focus of this research has been on a detailed elaboration of the rules of the game dimension, by means of defining ideal-types as a benchmark. The subsequent assessment of developments over time for the other three dimensions (policy discourses, actor constellations and resources and power) has shown redundancy in providing explanations for observed continuity and changes in collective-choice rules. The question is whether a more detailed elaboration of these three dimensions would add to a disentangling the impact of each individually. Therefore, a fifth option for future research is to explore whether a definition of ideal-type benchmarks for the other three dimensions would enforce the explanatory potential of the hybrid analytical framework. Additionally, further elaboration of the relationships between all four dimensions of the PAA could be considered, for example by taking the relationships between the dimensions as named by Liefferink (2006) as a starting point.

As demonstrated by this research, triangulation of methods, sources and comparison with findings from other researchers adds to the richness of the analysis. The mixed participative and non-participative observations have proven their added value for an inside out assessment of a policy development and implementation process. Interviews, mirror sessions (with peer scholars and actors in a studied process), surveys on actor’s argumentation lines and analysis of documents all contribute to sufficiently counterbalance personal biases in interpretations. Such an assessment may be enriched in detail and insight when conducted by a pool of involved actors with different professional backgrounds and interests who periodically reflect on and learn from their observations. Therefore, as a final option for future research, a multi-disciplinary pool of reflexive scholars and actors is recommended. Whenever the research focus is on across-level linkages within an international river basin district, a network of actors and scholars who cover all involved political levels may be considered.

**Multi-stakeholder dialogues in the next WFD implementation planning cycle**

The question to which extent the multi-stakeholder processes in the first WFD implementation planning cycle in the International Meuse River Basin District have been organised efficaciously, may not be answered in a straightforward way. There is not one blueprint recipe such as more active participation of non-governmental stakeholders will automatically deliver a better process and its outcome. The core observation of this dissertation is that no explicit, systematic deliberation has taken place on the desirability of changing the collective-choice rules, e.g. with regard to definition of sustainable human development activities. The deliberations predominantly focussed on pressures and impacts of priory accepted human development activities and cost-efficient options for mitigation and compensation over options for influencing under
lying driving forces. The informal information and consultation of non-governmental stakeholders has neither delivered common frames nor a shared ownership of the new generation water and river basin management plans beyond the involved governmental actors. The ambiguities around the WFD’s principles and exemption options predominantly have been used in an instrumental sense to continue prior traditions and practices. Whereas some stakeholder groups expressed their perception of too little change and too many business as usual scenarios, others were more satisfied with the accommodation tactics in order to prevent too severe socio-economic consequences. Consciously or unconsciously, as such the competent authorities and inner-circle experts may have blocked changes in collective-choice rules.

For the second WFD implementation planning cycle, this author recommends that if the public actors wish to go beyond a predominant instrumental use of the directive’s ambiguous terms and definitions, they should open the floor for a strategic multi-stakeholder dialogue on the desirability of changing the collective-choice rules. Explicitly, such a dialogue should take into account the interdependencies of different political levels within an international river basin district. As a basic precondition for such a dialogue, it is important that the involved stakeholders are willing to invest in understanding and acknowledgement of the diverse frames on issues at stake. As argued by Dewulf et al. (2005: 115), ‘Some or all parties will probably have to revise, enlarge or reframe the way they relate to the issues and to each other, in order to create a vocabulary that can support mutual understanding and common action, which is crucial for reaching an effective collaborative management of natural resources.’ Essentially, all defined ideal-type collective-choice rules may occur and may function satisfactorily, depending on the particular historical context and the institutional setting of a given river basin district at a certain moment in time. There is not one generic best option.

As a water policy adviser, the author considers the observed internal integration evolution towards legislation, policy documents and management plans which include objectives and measures for both quantitative and qualitative aspects and for groundwater and surface water bodies (at all studied political levels; substantive scope rules) as positive. He recommends more investments for interlinking the parallel actor networks for groundwater and surface water management in order to define the interdependencies of objectives for the state and functioning of these water systems and including interconnected terrestrial ecosystems. Given the persistent influence of the speciality principle, the integration of environmental objectives into other policy domains may remain the hardest challenge of IRBM. This external integration challenge closely relates to position rules for land owners and water users. The author is of the opinion that in a multi-level and multi-stakeholder dialogue for common (re)framing of sustainable land- and water-related human activities, driving forces behind negative pressures and impacts should be seriously explored. Driving forces may be external and internal to the river (sub-) basin at stake. External driving forces (as defined by Swartz, 1991) are political, physical, social and economic developments that take place outside the river (sub-) basin that may influence the state and functioning of common pool resources and related institutions. Some of these external developments are
obvious, others are not. Some of these might be predetermined, others might be more uncertain to predict. The most uncertain are the most difficult to anticipate (ibid.).

With regard to *organisational scope, boundary and aggregation rules*, opening up the window for more active contributions by non-governmental actors does not necessarily asks for dramatic alteration of the functional river basin management coordination structures. Platforms that provide informal, non-legally binding advice to the competent authorities seem to fit well in the political traditions and cultures within the International Meuse River Basin District. However, the public actors could benefit from discussing more active involvement options with non-governmental stakeholders, who may bring in relevant knowledge, resources and creative capital. Furthermore, linkages among the processes at interrelated political levels could be enforced. In the first WFD implementation planning cycle, the predominant focus of public actors has been on domestic issues and arrangements over upstream-downstream interdependencies. For the long term, a parsimonious attitude for investments in spotting developments and driving forces at other, related political levels within a shared river basin would be a tactical misconception.

Given the multi-level interdependencies, the author recommends to make relations among developments and decisions at the involved political levels more explicit in the implementation planning processes. For example, these interdependencies could be a permanent agenda item of the coordination structures. Additionally, to ensure that policy implementation strategies at the multilateral level make sense at the local level and reversely best local practices are uploaded, actors that serve as liaisons across political levels may prove their added value. These river basin ambassadors could actively invest in building personal trust relations across political levels and policy domains and in the announcement of relevant developments and activities. For example the Dutch municipal water ambassadors may become part of such a multi-level liaisons network. In the author’s view, the liaison function could be fulfilled by both public actors and non-governmental actors. In the Netherlands, actors of the regional river basin management platforms could increase their efforts in uploading best local and regional practices to the multilateral and European levels. Reversely, they could be more actively involved in downloading agreements and guidance documents of these levels. Given their water-related expertise and human and financial resources, continuation of the coordination role of the Dutch regional water management authorities in the local WFD implementation planning processes is strongly recommended.

Watson (2007: 45) argues that ‘the success of collaboration will ultimately depend on the willingness of officials in government departments and agencies to engage and share decision-making power with private sector organisations, voluntary groups, communities and other stakeholders with legitimate interests in the integrated management of land and water resources’. Verhallen, Warner and Santbergen (2007) present IRBM as a mixed mode process in which both values and facts guide the substantive process in which learning and fighting alternate. Within their mixed mode model, both conflict and cooperation are acknowledged as basic features of a multi-stakeholder process (ibid). The mixed mode model neither plies for an automatically
and maximal stretching up of the boundary rules or ascending of the participation ladder. For example, depending on the types of issues at stake and the stage in policy implementation process, the chosen boundary and aggregation rules may vary. When focussing on structured issues for which there is broad consensus on norms, values and required knowledge and methods, a relatively simple planning approach may suffice. Given the often unstructured nature of issues related to sustainable management of transboundary water resources, a mixed mode process with multiple stakeholders is often advocated (Hendriks et al., 1999; Verhallen, Warner and Santbergen, 2007).

The author advises to continue with the Dutch informal river basin management coordination structures in which the competent public authorities take the lead. At the same time, the advisory function of the WFD consultation platforms could be enforced by offering the non-governmental actors more opportunities for active contributions. In addition to information and consultation, more time and resources (e.g. by using European funds) could be invested in building public-private partnerships and cross-sector networks that explore options for innovative and synergetic implementation strategies, e.g. for reduction of arduous pressures. At the multilateral level, together with other actors the public actors could explore and consider best practices with active participation in other (European) river basins. The author advises the public actors to reconsider the options for widening up the multilateral participation windows in an open dialogue with the other stakeholders.

With regard to choice rules, the Dutch actors involved in the WFD implementation planning process may benefit from cross-connections with the domestic process of the Deltaprogramme. Within this parallel process, long-term strategies for linking up fresh water supply and demand management in the context of expected climate change are explored. Given the predominant focus of the Deltaprogramme at quantitative issues in relation to protection and stimulation of socio-economic development options, linking up its regional areal processes (which are scheduled for 2012 and 2013) with the second local WFD implementation planning processes (which will start in 2013), might offer opportunities for both maintaining political attention to issues of water quality and ecological restoration and integration with quantitative issues. The author advises to link up the multilateral coordination process and the Dutch domestic processes with Europe’s Blueprint process. This process aims for ensuring good water quality in sufficient quantities for all legitimate uses, by means of an integrated, long-term supply and demand management strategy in the context of climate change (www.ec.europa.eu/environment/water/blueprint).

The author advises the competent authorities to make more use of the information offered by other stakeholders and to include relevant sector information sources in the joint fact finding processes for periodical actualisation of the river basin characterisations (information rules). As expressed by the European guidance documents, joint fact finding by multiple stakeholders can be useful to develop a sense of ownership over the river basin management plans, with the river basins characterisation reports as a first important step. For example, local stakeholders may possess information sources and expertise of direct use for the pressures and impact analysis for individual water bodies. With regard to pay-off rules, the author recommends a distinction between the reporting obligations for compliance checking by the EC and the develop
ment of multi-stakeholder partnerships for shared ownership of river basin management plans and collaborative capital for their successful implementation. For the reporting obligations, stricter national instructions and less diffuse local and regional deliberations on technical details could pay off the Dutch. The informal regional river basin platforms may remain useful for continuous political attention to issues of water quality and ecological restoration. At the local level, a selection of water bodies could be considered for experiments with building shared visions and definition of common policy and research strategies, related management approaches and indicators for implementation progress. Finally, active involvement of local communities and schools could help to overcome the uneasy argument that issues of the Water Framework Directive are too complicated to discuss with lay people.

Finally, political willingness, courage and leadership are required to reconsider the generic sustainability label for all prior human development activities that are mentioned in WFD’s Article 4. The option of a dramatic alteration of prior position rules for the benefit of the Earth’s intrinsic natural values and dependent present and future human generations should be seriously acknowledged. Without a healthy planet and people being able to survive on it, it will make no sense to talk about profit any longer.
Samenvatting (Summary in Dutch)

‘Ongeacht welk onderwerp, een type beleidsanalyse dat geen ruimte biedt aan de centrale rol die ambiguïteit speelt in de politiek zal weinig toegevoegde waarde hebben in de werkelijke wereld.’
Deborah Stone (2002: 157; vertaald uit het Engels)

Inleiding: ambivalente ambities in het internationaal Maas theater

Dit onderzoek is gedreven door nieuwsgierigheid naar de wijze waarop diverse interpretabiel beleidsconcept veranderingen in gemeenschappelijke spelregels (collective-choice rules) stimuleren of hinderen. Het vizier is gericht op een analyse van het Nederlandse waterbeleid in de context van grensoverschrijdende Europese rivierstroomgebieden. Het vertrekplatform voor de reis is het integraal stroomgebiedbeheer paradigm. Zoals geïntroduceerd in Hoofdstuk 1, heeft integraal stroomgebiedbeheer, in zijn dominante hedendaagse interpretatie door de mondiale waternaamenschap, als doel om gemeenschappelijke spelregels overeen te komen voor duurzame ontwikkeling, beheer en gebruik van met elkaar samenhangende water- en landsystemen binnen (inter-) nationale rivierstroomgebieden (Molle, 2009). Vergelijkbaar met ‘duurzame ontwikkeling’ is het paradigma intrinsiek ambivalent. Ambivalente interpretaties kunnen zowel leiden tot overwegend instrumentele praktijken ter bescherming van de status quo als tot een gezamenlijke zoektocht naar gemeenschappelijke kaders en acties (Stone, 2002; Fischer, 2009). Indien ambivalente betekenis compromisvorming en samenwerking stimuleren, dan mogen er overwegend geleidelijke veranderingen in gemeenschappelijke spelregels worden verwacht in plaats van radicale wijzigingen. Het omgekeerde kan zich ook voordoen: wanneer ambivalent claims een scherpe polarisatie uitlokken (bijvoorbeeld tussen politieke partijen) en een aardverschuiving veroorzaken in de verdeling van politieke macht (zoals mogelijk na parlementsverkiezingen), dan kunnen er zich radicale spelregelwijzigingen voordoen (idem).

Zoals uitgewerkt in Hoofdstuk 2 (theoretisch kader) kan een brede range aan actoren het integraal stroomgebiedbeheer paradigma omarmen, maar het vervolgens op uit- eenlopende manieren interpreteren en implementeren. Afhankelijk van de specifieke fysische, sociale, economische en politieke karakteristieken van een rivierstroomgebied zal het paradigma veranderingen in formeel verankerde spelregels \((\textit{rules-in-law})\) en ongeschreven gewoonteregels \((\textit{rules-in-use})\) stimuleren of belemmeren. Het wetenschappelijke doel van het onderzoek is het verkennen van stimulatoren en barrières voor veranderingen in gemeenschappelijke spelregels voor duurzame ontwikkeling, beheer en gebruik van watervoorraden, door een analyse van de impact van bestuursmatige en beleidsprincipes, de milieudoelstellingen en de uitzonderingsbepalingen van de KRW op met elkaar samenhangende administratieve schaalniveaus binnen het internationale Maas stroomgebieddistrict. Zie Hoofdstuk 3 voor een korte geografische karakterisering van dit onderzoeksgebied. De centrale onderzoeksvraag is hoe kunnen continuïteit en/of verandering van gemeenschappelijke spelregels, in de periode waarin de KRW van kracht is geworden, worden verklaard. Het maatschappelijke onderzoeksdoeel van dit proefschrift is het formuleren van aanbevelingen voor effectief en efficiënt organiseren van multi-stakeholder dialogen voor complexe onderwerpen in het hedendaagse stroomgebiedbeheer. Hiervoor zijn de praktijkovervingen van de auteur gepiepgeld aan theoretische inzichten van dit onderzoek.

**Het theoretisch fundament: een hybride analytisch kader**

Gegeven de focus op stimulatoren en barrières voor gemeenschappelijke spelregelveranderingen is er behoefte aan een analytisch kader dat zowel een spelregeltypologie bevat als, met behulp van gerelateerde theorieën, informeert over mogelijke verklarende \((f)\)actoren voor geobserveerde veranderingen (of weerstand daartegen). De beleidsarrangementenbenadering \((\text{Arts, Van Tatenhove and Leroy, 2000; Leroy and Arts, 2006})\) biedt een eerste handvat. Deze benadering presenteert vier dimensies van een beleiddomein als een samenhangend tetrahedron, namelijk \((\text{inhoudelijke en organisatorische})\) spelregels, discours, actorenconstellaties \((\text{coalities en opposities})\) en de verdeling \((\text{van macht en middelen})\) \((\text{zie Figuur 1, Liefferink, 2006: 60})\). Vanwege de onlosmakelijke verbondenheid van de vier dimensies moet elke onderzoeker in principe het gehele tetrahedron in beschouwing nemen. Volgens Liefferink laat de vierdimensionale analyse van een gegeven beleiddomenein het toe verschillende analytische perspectieven te kiezen, afhankelijk van de gestelde onderzoeksvraag \((\text{idem: 48})\). De uitdaging voor elke onderzoeker die werkt met de beleidsarrangementenbenadering is voorkomen dat nieuwsgierigheid het onderzochtsunderwerp doet verdwijnen in een overdosis perspectieven en observaties. Het verdient bijvoorbeeld aanbeveling om een dimensie te kiezen als hoofdingang tot het tetrahedron, zonder de relaties met de andere drie dimensies uit het beeld te verliezen. De hoofdingang voor dit onderzoek is de dimensie van de gemeenschappelijke spelregels. Aanname daarbij is dat bestaande spelregels herbevestigd of uitgedaagd kunnen worden door continue interacties tussen de vier dimensies onderling en tussen het tetrahedron en drijvende krachten in de bredere fysische, sociale, economische en politieke context.

De theoretische vernieuwing van dit onderzoek is het incorporeren van de zeven regeltypen van het Institutionele Analyse- en Ontwikkelingskader in het tetrahedron van de beleidsarrangementenbenadering, als nadere operationalisering van de spelregel-dimensie. Gebaseerd op een brede screening van literatuur over integraal stroomgebiedbeheer zijn de zeven spelregeltypen elk vertaald naar drie ideaaltypische verschijningsvormen (zoals bedoeld door Weber, 1922; zie Tabel A voor een overzicht van alle geconstrueerde ideaaltypen welke in detail zijn toegelicht in de paragrafen 2.2.3 tot en met 2.2.9). Deze ideaaltypen dienen als waardevrije indicatoren voor het kunnen waarnemen van spelregelveranderingen in een bepaalde periode.
Tabel A: Geconstrueerde ideaaltypische gemeenschappelijke spelregels (dit onderzoek)

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<tr>
<th>Ideaaltype A</th>
<th>Ideaaltype B</th>
<th>Ideaaltype C</th>
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<tr>
<td><strong>1a. Scoop regels (organisatie):</strong></td>
<td></td>
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<tr>
<td>Waterbeleid wordt uitgeoord door organisatorische structuren/actornetwerken die gedreven worden door sociale, economische en politieke factoren die niet bepaald worden door hydrologische grenzen (stroomgebieden). Deze structuren/netwerken kunnen multifunctioneel of sectoraal van karakter zijn en zijn onderhevig aan parlementaire controle.</td>
<td>Waterbeleid wordt uitgeoord door functionele wateragentschappen, comités en actornetwerken die georganiseerd zijn conform hydrologische grenzen (stroomgebieden). Deze structuren/netwerken zijn onderhevig aan parlementaire controle.</td>
<td>Waterbeleid wordt uitgeoord door autonome, (deel)stroomgebied autoriteiten en actornetwerken die georganiseerd zijn conform hydrologische grenzen (stroomgebieden). Deze autoriteiten en gemeenschappen kennen hun eigen constitutionele spelregels.</td>
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<td><strong>1b. Scoop regels (interne integratie):</strong></td>
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<td><strong>1c. Scoop regels (externe integratie):</strong></td>
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<td>Aparte wetgeving, beleidsdocumenten en beheerplannen voor water and andere beleidsoverdromen zonder aangebrachte dwarsverbanden.</td>
<td>Wetgeving, beleidsdocumenten en beheerplannen voor andere beleidsoverdromen nemen relaties met watergerelateerde onderwerpen in beschouwing en omgekeerd.</td>
<td>Integrale wetgeving, beleidsdocumenten en beheerplannen waarin water en andere beleidsonderwerpen in samenhang worden beschouwd.</td>
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<td><strong>2. Positieregels:</strong></td>
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<td><strong>3. Toegangsregels:</strong></td>
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### Tabel A: vervolg

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<td><strong>Ideaaltype A</strong></td>
<td>Wateraanvoer beheer bepaalt de beschikbaarheid van zoetwater voor gebruiksfuncties.</td>
<td>Een combinatie van wateraanvoerbeheer en maatregelen om de vraag naar water te beperken bepaalt de beschikbaarheid van zoetwater zonder een hiërarchie aan te brengen in gebruiksoelen.</td>
<td>Asymmetrische, hiërarchische besluitvorming over waterbeleid en waterbeheerplannen op verschillende administratieve schaalniveaus binnen een rivierstroomgebied.</td>
<td>Het rivierbeheer planningproces (definitie van doelen en maatregelen) wordt voornamelijk gedreven door natuurwetenschappelijke kennis en informatie van experts.</td>
<td>Wettelijk geregelde beloningen en sancties zijn de belangrijkste drijfveren om aan gemeenschappelijke spelregels te voldoen (zoals uitgedrukt door normen en vergunning-voorschriften).</td>
</tr>
<tr>
<td><strong>Ideaaltype B</strong></td>
<td></td>
<td>Een geïntegreerd vraag- en aanbodbeheer bepaalt de beschikbaarheid van zoetwater, waarbij zonodig een hiërarchie in gebruiksoelen wordt aangebracht.</td>
<td>Symmetrische, op consensus gebaseerde besluitvorming over waterbeleid en waterbeheerplannen op verschillende administratieve schaalniveaus binnen een rivierstroomgebied: gemengde topl down en bottomup spelregels.</td>
<td>Economische prikkels en marktwerking zijn de belangrijkste drijfveren om aan gemeenschappelijke spelregels te voldoen.</td>
<td></td>
</tr>
<tr>
<td><strong>Ideaaltype C</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Deel)Stroomgebiedgemeenschappen investeren vrijwillig middelen (mensen, financiën, expertise) als samenwerkingskapitaal voor het voldoen aan gemeenschappelijke spelregels.</td>
</tr>
</tbody>
</table>
Door de observaties voor de spelregeltypen te vergelijken voor twee periodes, voor en na vaststelling van de KRW (respectievelijk van 1990 tot eind 2000 en van 2001 tot eind 2009), kan de mate van spelregelverandering worden vastgesteld. Vervolgens kunnen via een analyse van ontwikkelingen van de andere drie dimensies van een beleidsarrangement mogelijke verklaringen worden gegeven voor geobserveerde continuïteit en verandering van de spelregels. Omdat de KRW’s stroomgebiedbenadering betrekking heeft op gedeelde, grensoverschrijdende rivieren in de politieke context van de Europese Unie, is de vertaling ervan naar de dagelijkse praktijk afhankelijk van samenhang tussen beleidsarrangementen op alle betrokken, administratieve schaalniveaus. Voor het doel van dit onderzoek is de mate van spelregelverandering geanalyseerd voor vijf administratieve schaalniveaus in het internationale Maas stroomgebieddistrict: Europa (lees: het Europese Waterdirecteuren Overleg), multilateraal (lees: de Internationale Maas Commissie) en Nederland (nationaal, regionaal en lokaal). Figuur 2 vat het analytisch kader van dit onderzoek samen.

Figuur 2: Analytisch kader van dit onderzoek
De onderzoeksaanpak: participatieve analyse door triangulatie

Dit onderzoek kan gekarakteriseerd worden als een participatieve, interpretatieve analyse, waarbij de onderzoeker het voordeel benut van zijn positie als een van de direct betrokken, lokale actoren in het Nederlandse implementatieproces voor de Kaderrichtlijn Water. Deze positie zorgt voor eenvoudige toegang tot informatie van primaire bronnen en biedt veel mogelijkheden voor informele gesprekken en interviews met diverse belanghebbenden. Tevens kunnen participatieve (lees: de onderzoeker als deelnemer) en niet-participatieve (lees: de onderzoeker als waarnemer) observaties worden gecombineerd. De hoofddoelstelling van de gekozen benadering is het reconstrueren van een gecompliceerd grensoverschrijdend beleidimplementatieproces, zo waardevrij als mogelijk, waarbij het vizier gericht is op het onttrekken van stimulatoren en barrières voor veranderingen in gemeenschappelijke spelregels door de tijd heen. Gezien de duale rol van de auteur in het bestudeerde proces, zowel onderzoeker als lokale belanghebbende, ligt er de uitdaging om de onvermijdelijke persoonlijke bias en impact van de eigen acties te onthullen.

Het belangrijkste voordeel van een participatieve, interpretatieve benadering is de kans voor een diepgaande, van binnen naar buiten gerichte analyse van een beleidsfomulering, -onderhandelings en -implementatieproces. Hierbij kan de vinger worden gelegd op informele, ongeschreven gewoonteregels in aanvulling op en in interactie met formele verankerde spelregels (waarvan het belang is benadrukt door Ostrom, 1999, 2005). Of, zoals Fischer (2003: 141, 142) het uitdrukt: “In de wereld van de politiek zijn de ‘echte’ redenen en motieven voor een actie – tegenover de formeel aangeboden – even belangrijk als de actie zelf.” De gevaarlijkste valkuil is dat, hoe meer de onderzoeker verbonden raakt met zijn onderwerp, hoe gemakkelijker het wordt om de benodigde afstand of helikopterkijk te verliezen. De verwachte meerwaarde van dit onderzoek is de synergie tussen de onderzoeker als een beleidsinformeermaker en zijn rol als analyticus van het proces waarvan hij onderdeel uitmaakt. Beide rollen vragen namelijk om inzicht in argumentatielijnen en strategieën van de verschillende betrokken actoren. De rol van adviseur dwingt de onderzoeker om voldoende afstand te nemen van zijn eigen voorkeuren en verwachtingen ten behoeve van het evenwichtig presenteren van de mogelijke voor- en nadelen van een range aan opties waaruit de besluitvormers in zowel het dagelijks als het algemeen bestuur van het waterschap kunnen kiezen.

Om teveel persoonlijke bias en vergroeiing raken met het bestudeerde onderwerp te voorkomen is gekozen voor een triangulatie van informatiebronnen, onderzoeks-methoeden en onderzoekers. Een eerste stap om te komen tot een voldoende geloofwaardige analyse en gerelateerde conclusies is het vergelijken van de eigen observaties en reconstructies met die van andere onderzoekers die de implementatie van de Kaderrichtlijn Water hebben geanalyseerd (zowel in Nederland als andere Europese lidstaten). Als een tweede stap zijn zogeheten spiegelsessies georganiseerd met verschillende belanghebbende actoren en onderzoekers waarin de onderzoekresultaten zijn gepresenteerd en besproken. Als derde stap zijn met behulp van een geschreven argumentatie survey en interviews argumentatielijnen en strategieën van diverse
belanghebbende actoren geregistreerd en geïnterpreteerd. Als vierde stap zijn ook observaties van vergaderingen gepresenteerd aan en besproken met de geobserveerden.

**Conclusies**

*Ambivalente Europese ambities triggeren incrementele spelregelveranderingen*

De eerste hypothese van dit onderzoek is dat maken en implementeren van milieubeleid in de Europese context onderwerp is van ambivalente concepten die voornamelijk incrementele spelregelveranderingen in de hand werken. De tweede hypothese heeft betrekking op het multilaterale administratieve schaalniveau: De specifieke historie vol conflicten, asymmetrieën tussen bovenstrooms en benedenstrooms gelegen staten en culturele diversiteit, in combinatie met de principes van soevereiniteit en subsidiariteit, zorgt ervoor dat men geen revolutionaire spelregelveranderingen mag verwachten van de grensoverschrijdende coördinatie door de Internationale Maas Commissie. De derde hypothese is dat, gegeven zowel de actieve pogingen van Nederlandse ambtenaren en experts om Nederlandse tradities en praktijken in de Kaderrichtlijn Water te verankeren en hun perceptie van Europese voorlopers op het gebied van integraal stroomgebiedbeheer, men beperkte veranderingen zou mogen verwachten in de gemeenschappelijke spelregels van het Nederlandse waterbeleid domein.


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Tegelijkertijd bleven de multilaterale discussies en onderhandelingen moeizaam van karakter, ofschoon de KRW duidelijk voortgang heeft gestimuleerd in de coördinatie en interne integratie inspanningen. Dit is het best zichtbaar in de toetreding van nieuwe actoren zoals overheidsdienaren uit Duitsland en Luxemburg en het incorporeren van de bestaande hoogwaterwerkgroep. De overheidsactoren van de Internationale Maas Commissie blijven worstelen met het openen van de participatieramen naar andere actoren, waarbij sterk de nadruk wordt gelegd op soevereiniteit en subsidiariteit. Met andere woorden: elke deelnemend land en gewest kan dit het beste zelf naar eigen inzichten regelen. De gelijke gemeenschappelijke spelregelpatronen voor de drie Nederlandse administratieve schaalniveaus kunnen grotendeels worden verklaard door het stabiele, historische pad van een gedecentraliseerde eenheidstaat. Al de betrokken overheden, bij wijze van spreken bijna aangestuurd door een genetische codering, erkennen het belang van een gemengde toptdown en bottomup benadering met voldoende beweegruimte voor maatwerkoplossingen en compromissen.

Wat betreft de derde hypothese kan worden geconcludeerd dat het KRW implementatieplanningproces (nog) niet heeft geleid tot significante spelregelveranderingen in Nederland. Maar anders dan de hypothese stelt ligt de verklaring hiervoor niet in de Nederlandse perceptie van Europese voorloper. Deze moet eerder worden gezocht in de Europese compromistekst die afwijkt van de oorspronkelijke voorstellen van de Nederlandse wateroverheden en experts. In de vroege ontwerpfase van de KRW vreesden de Nederlandse ambtenaren en experts het inleveren van het nationale systeem voor het formuleren van ambitieuze, intentionele waterkwaliteitsdoelstellingen. De gedachte was dat hetovernemen van het Nederlandse model op Europees niveau bovenstrooms gelegen landen ervan zou overtuigen om investeringen ter verbetering van de waterkwaliteit te versnellen. Daarnaast pleitten de Nederlanders voor een vereenvoudiging van het Europese arsenaal aan waterwetgeving door integratie van een aantal richtlijnen in een meer generiek kader. Gedurende het delicate Europees onderhandelingsspel verloren de Nederlandse wateractoren echter de inhoudelijke grip op het proces. Uiteindelijk waren zij teleurgesteld over het beperkte integrale karakter van de KRW en de afwijkingen daarin van de Nederlandse voorstellen. Samen met de onzekerheid over de sociaaleconomische consequenties van deze afwijkingen heeft de teleurstelling bijgedragen aan een nationaal politiek klimaat van zowel weerstand tegen teveel juridisch beperkende voorschriften als nadruk op het behoud van formele organisatiestructuren (zie ook Edelenbos e.a., 2008; Raadgever e.a., 2009; Ten Heuvelhof e.a., 2010).
### Tabel B: Waargenomen spelregels in de periode van 1990 t/m 2009 (ideaaltypen)

<table>
<thead>
<tr>
<th>Spelregeltype ↓</th>
<th>Europa, Maas, Nationaal, Regionaal en Lokaal ↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scoop (organisatorisch):</td>
<td>Ideaaltype B: Voortzetting en versterking van functionele wateragentschappen, comités en actornetwerken die hydrologische (stroomgebied) grenzen volgen. Deze functionele entiteiten en netwerken staan onder parlementaire controle.</td>
</tr>
<tr>
<td>Scoop (interne integratie):</td>
<td>Van ideaaltype A naar B: Een evolutie richting wetgeving, beleidsdocumenten en beheerplannen die doelstellingen en maatregelen bevatten voor zowel kwantitatieve als kwalitatieve aspecten, en van grondwater en oppervlaktewater.</td>
</tr>
<tr>
<td>Informatie:</td>
<td>Een mengeling van ideaaltypes A en B: Het rivierbeheerplanning-proces wordt gedreven door een mix van een wetenschappelijk-technische en een sociaaleconomische rationale. Validiteit, betrouwbaarheid, kostenbaten ratios en economische efficiëntie zijn centrale criteria voor legitieme kennis en informatie.</td>
</tr>
<tr>
<td>Opbrengst &amp; naleving:</td>
<td>Een mengeling van ideaaltypen A en B: Zowel wettelijk verankerde beloningen als sancties, economische prikkels en marktwerking zijn belangrijke drijfveren om aan gemeenschappelijke spelregels te voldoen.</td>
</tr>
</tbody>
</table>

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<tr>
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<th>Nationaal, Regionaal en Lokaal ↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autorisatie (vraag-en aanbodbeheer):</td>
<td>Van ideaaltype A naar B: Een evolutie van aanbodbeheer naar een gemengd vraag- en aanbodbeheer.</td>
<td>Een mengeling van ideaaltypen B en C: over het algemeen een gemengd vraag- en aanbodbeheer (B). In geval van aanhoudende droogte is de aanpak geïntegreerd van karakter zoals uitgedrukt door een dan geldende hiërarchie van gebruikersdoeleinden (C).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<th>Maas ↓</th>
<th>Europa, Nationaal, Regionaal en Lokaal ↓</th>
</tr>
</thead>
</table>

Legenda: Zie Tabel A en Hoofdstuk 2 (de paragrafen 2.2.3 t/m 2.2.9) voor definities van alle A, B en C ideaaltypen. De lichtgrijs gekleurde cellen markeren spelregelveranderingen.
Lees deze natuurlijke tekst als een assistent die deze pagina natuurlijk doorleest.

<table>
<thead>
<tr>
<th>Spelregeltype ↓</th>
<th>Maas ↓</th>
<th>Europa, Nationaal, Regionaal en Lokaal ↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Besluitvorming:</td>
<td>Een mix van ideaaltypen A en C: Zowel onafhankelijke besluitvorming door landen en gewesten als symmetrische, consensus gebaseerde besluitvorming.</td>
<td>Een mix van ideaaltypen B en C: Zowel asymmetrische, hiërarchische besluitvorming als voorbeelden van symmetrische consensusbegameerde besluitvorming over waterbeleid- en beheerplannen op verschillende administratieve schaalniveaus binnen het riviertoomgebied.</td>
</tr>
</tbody>
</table>

Legenda: Zie Tabel A en Hoofdstuk 2 (de paragrafen 2.2.3 t/m 2.2.9) voor definities van alle A, B en C ideaaltypen. De lichtgrijze gekleurde cellen markeren spelregelveranderingen.

Continuïteit heerst in het waterbeleid domein. De meest uitgesproken spelregelveranderingen betreffen interne integratietendensen, die zijn versterkt door de integratie discours in de KRW en de gerelateerde informele handreikingen. De actornetwerken van het waterbeleid domein op alle bestudeerde administratieve schaalniveaus worden gedomineerd door overheden en experts en zijn grotendeels geïsoleerd van actornetwerken in aangrenzende beleidsdomeinen. Ofschoon niet in detail geanalyseerd in dit onderzoek, zijn er indicaties voor stabiele macht en actoren configuraties van parallel opererende beleidsdomeinen die ondersteund worden door het specialiteitbeginsel. Dit beginsel vormt een sterke barrière voor externe integratie pogingen. Daar tegenover werken de relatief bescheiden financiële middelen die vrijgemaakt worden voor integratie van waterbeleidsdoelstellingen in de plannen en beheerprogramma’s van andere beleidsdomeinen als een zwakke stimulator.
Een deel van de verklaring voor continuïteit van gemeenschappelijke spelregels ligt in de ambivalente formuleringen van het kernartikel van de KRW over milieudoelstellingen (Artikel 4). Tot in de laatste seconden van de conciliatieprocedure is er onderhandeld over gevoelige amendementvoorstellen. Gegeven dat Artikel 4 een aantal menselijke activiteiten beschermt die mede de reden zijn van de noodzaak voor het opstellen van de KRW, is een belangrijke potentiële stimulator voor spelregelverandering afgezwakt vanaf het begin. Bovendien heeft een hardnekkige verwarring in Nederland over de juridische status van de KRW doelstellingen en de uitzonderingsbepalingen in combinatie met een vrees voor de mogelijke sociaaleconomische gevolgen geleid tot een voorzichtige implementatiebenadering. De vroege overeenstemming van de Europese waterdirecteuren om de uitzonderingsbepalingen te beschouwen als een regulier instrument voor het stellen van prioriteiten en een gefaseerde uitvoering van maatregelen in drie periodes van elk 6 jaar (tot uiterlijk 2027), heeft de voorzichtige Nederlandse aanpak ondersteund. Zo geïnterpreteerd heeft de ambivalentie van Artikel 4 een overwegend instrumentele toepassing van de richtlijn in de hand gewerkt om bestaande beleid- en beheerpraktijken zoveel mogelijk te kunnen voortzetten. In elk geval hebben de Europese ambivalenten ambities (nog) geen expliciete multi-stakeholder dialoog op gang gebracht over de drijvende krachten achter menselijke belastingen en hun impact op de milieudoelstellingen.

**Beperkte grensoverschrijdende connecties**


Op zowel het multilaterale als het Nederlandse regionale en lokale schaalniveau worden de informele Europese handreikingen niet expliciet besproken. Er vinden geen discussies plaats over de open eindjes en interpretatieruimte in deze documenten. De Nederlandse nationale overheid vertaalt de handreikingen naar nationale instructies en aanbevelingen en voert tevens de regie in de voorbereiding van nationale delegatie-instructies voor vergaderingen op het Europese en multilaterale schaalniveau.


De beperkte connecties tussen de bestudeerde administratieve schaalniveaus kunnen gedeeltelijk worden verklaard door de intrinsieke erkenning in de KRW van de verschillende grenzen van sociale, economische en politieke systemen en op hydrologische grenzen gebaseerde eenheden voor het beheer van rivierstroomgebieden. Het beschermen van de soevereiniteit en de roep om subsidiariteit, zoals uitgedrukt in de keuze om juridisch verantwoordelijke, op de resultaten afrekenbare competente autoriteiten aan te duiden op het niveau van de lidstaten, en bijvoorbeeld niet op het multilaterale niveau, heeft een eerste prioriteit voor nationale implementatieprocessen gestimuleerd. Het gevolg is dat de Internationale Maas Commissie zwemt in de mistige atmosfeer tussen de (gedeeltelijk) supranationale Europese instituties en nationale jurisdicties. In plaats van richtingbepalende multilaterale documenten moesten samenvattingen van nationale rapportages op het laatste moment van de eerste implementatieplanningtermijn worden samengebracht. Om barrières voor multilaterale en
bilaterale coördinatie en samenwerking af te breken, blijft politieke wil van de betrokken competentie van autoriteiten een doorlopende factor, vooral in een context van bovenstrooms-benedenstrooms asymmetriën en een historie van internationale conflicten en wantrouwen. Het tamelijk ingewikkelde technische karakter van de KRW bijlagen heeft eerder een wetenschappelijk-rationele zoektocht van de individuele lidstaten op gang gebracht om onzekerheden te reduceren, dan een gezamenlijke formulering van grensoverschrijdende doelstellingen en maatregelen. De geringere rol die de bilaterale stroomgebiedcomités tussen Vlaanderen en Nederland zijn gaan spelen mag worden geïnterpreteerd als een indicator hiervoor.

Samenvattend is de belangrijkste conclusie van dit onderzoek dat de ambivalente ambities rond de Europese bestuurs- en beleidsmatige principes, milieudoelstellingen en uitzonderingsbepalingen van de KRW niet hebben geleid tot een substantiële verandering van de gemeenschappelijke spelregels voor integraal stroomgebiedbeheer. Tot het einde van de eerste implementatieplanningronde hebben de ambiguïteiten de geringe aanpassingswensen gediend van machtige actorcoalities die ernaar streven significante veranderingen van historische gebruiks- en bezitregelingen voor natuurlijke hulpbronnen als water en land zoveel mogelijk te voorkomen. Daar waar het KRW-discours eerder ingezette interne integratietendensen op alle administratieve schaalniveaus heeft versterkt, zijn de externe integratie krachten te zwak gebleven om een significante verandering van de spelregelconfiguraties in gang te zetten. Ondanks de retoriek van het integratieprincipe en de eraan gerelateerde cross-compliance procedure, vormt de sterk gespecialiseerde en sectorale organisatie van de Europese instituties een belangrijke barrière (Baker, 1997; Jessop, 2004; Jordan and Schout, 2006). Verder wijst dit onderzoek op een relatief geïsoleerd waterbeleiddomein dat sterk wordt gestuurd door overheden die voorzichtig zijn om hun besluitvormende primaat te behouden. Vooral in het supranationale vacuüm van het multilaterale schaalniveau benadrukken de overheidsactoren hun soevereiniteit. Onder de noemer van subsidiariteit benadrukken zij de beperkte mogelijkheden voor de Internationale Maas Commissie om de multilaterale arena verder open te stellen voor andere belanghebbende actoren. De Nederlandse nationale overheid heeft geopteerd voor een grootschalig, gemengd topdown en bottomup KRW implementatieproces dat goed past in de traditie van informele, door de overheid georganiseerde informatie en consultatieprocedures.

Ondanks de geringe waargenomen veranderingen in gemeenschappelijke spelregels tot eind 2009, bieden diverse statements in de KRW and de informele handreikingen over het belang van externe integratie en duurzame menselijke activiteiten een niet te onderschatten veranderingspotentieel. Het aangeboden integratiediscours en de range aan opties voor (experimenten met) meer interactieve en participatieve beleidsplanning- en implementatieprocessen sluiten verdergaande spelregelveranderingen in de tweede en derde implementatietermijn (respectievelijk van 2016 t/m 2021 en van 2022 t/m 2027) niet uit.
Aanbevelingen

Opties voor toekomstig onderzoek


Hoewel het hybride analytische kader van dit onderzoek zijn waarde voor het identificeren van incrementele veranderingen bewezen heeft, is zijn potentieel voor het analyseren van connecties tussen verschillende administratieve schaalniveaus nog niet verkend. Gegeven de nadruk van het integraal stroomgebiedbeheer paradigma op coherente coördinatie in de context van grensoverschrijdende rivierstroomgebieden, is een vierde optie voor toekomstig onderzoek het definiëren van bijkomende analytische indicatoren voor dwarsverbanden tussen schaalniveaus. Zo kan de actordimensie een interessant aanknopingspunt vormen via het concept van beleidsontnemers (policy entrepreneurs). Een diepteanalyse van dergelijke actoren die op bepaalde schaalniveaus actief zijn en welke verbanden zij al dan niet leggen tussen de verschillende niveaus binnen een (inter-)nationale stroomgebied kan inzicht verschaffen in mogelijke stimulatoren en barrières voor grensoverschrijdende gemeenschappelijke spelregels. Huitema en Meijerink (2009: 12) hebben vijf mogelijke strategieën geïdentificeerd die beleidsontnemers kunnen toepassen: “(1) het ontwikkelen van nieuwe ideeën, (2) het smeden van coalities en het verkopen van ideeën, (3) de herkenning en exploitatie van windows of opportunity, (4) het gebruik van diverse evenementen en bijeenkomsten, en (5) het orchestreren en managen van netwerken”. Deze strategieën kunnen een basis vormen voor het definiëren van voornoemde, bijkomende indicatoren.

De primaire focus in dit onderzoek is een operationalisering van de spelregeldimensie, door het definiëren van ideaaltypen als incrementele veranderingsindicatoren. De achtereenvolgende analyses van ontwikkelingen in de andere drie dimensies door de tijd (beleidsdiscours, actorenconstellaties en verdeling van macht en middelen) heeft redundantie laten zien in de mogelijke verklaringen voor de waargenomen spelregelpatronen. De vraag stelt zich in hoeverre een meer gedetailleerde operationalisering van deze drie dimensies bij zou dragen aan het ontrafelen van de impact van elke
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individuele dimensie. Daarom is een *vijfde* optie voor toekomstig onderzoek het verkennen of een definieëring van idealtypen voor de andere drie dimensies de verklarende kracht van het hybride analytisch kader zou versterken. Aanvullend kan een verdere uitwerking van de relaties tussen de vier dimensies van de beleidsarrangementenbenadering overwogen worden, bijvoorbeeld door de definities van Liefferink (2006) als vertrekpunt te nemen.

Zoals dit onderzoek heeft laten zien draagt triangulatie van methoden, informatiebronnen en het spiegelen aan onderzoeksresultaten van andere onderzoekers bij aan de rijkdom van de analyse. De gecombineerde participatieve en non-participatieve observaties hebben hun toegevoegde waarde bewezen voor een van binnen naar buiten gerichte reconstructie van een beleidsontekening en -implementatieproces. Interviews, spiegelsessies (met collega onderzoekers en de actoren in het bestudeerde proces), surveys naar de argumentatielijnen van actoren en documentenanalyse dragen allemaal bij aan het afdoende neutraliseren van persoonlijke bias in de analyses. Een dergelijke aanpak kan verder worden verrijkt in reikwijdte en diepgang indien uitgevoerd door een pool van betrokken actoren met verschillende disciplinaire achtergronden en belangen die periodiek reflecteren op en leren van hun observaties. Daarom is een *zesde* en laatste optie voor toekomstig onderzoek een multidisciplinaire pool van reflexieve onderzoekers en actoren aanbevolen. Indien de onderzoeksfocus ligt op connecties tussen administratieve schaalniveaus binnen een internationaal rivierstroomgebieddistrict, dan kan een netwerk van actoren en onderzoekers die actief zijn op de verschillende niveaus worden overwogen.

**Multi-stakeholder dialogen in de tweede KRW implementatieplanningsronde**

De vraag in hoeverre de multi-stakeholder processen in het internationale Maas stroomgebieddistrict in de eerste KRW implementatieplanning cyclus efficiënt zijn georganiseerd, kan niet eenvoudig worden beantwoord. Er is niet een blauwdruk recept voorhanden zoals meer actieve participatie van niet-gouvernementele organisaties zal automatisch leiden tot een beter proces en de opbrengst ervan. De kernobservatie van deze dissertatie is dat er geen expliciete, systematische gesprekken hebben plaatsgevonden over de wenselijkheid van het al dan niet veranderen van de gemeenschappelijke spelregels, bijvoorbeeld in relatie tot een nader definiëren van duurzame menselijke activiteiten. De focus van het proces lag vooral op het in beeld brengen van belastingen van watersystemen door eerder toegestane menselijke activiteiten, en het selecteren van kosteneffectieve opties voor mitigatie en compensatie van de nadelige gevolgen van die belastingen. De informele informatie en consultatie van niet-gouvernementele actoren heeft niet geleid tot gemeenschappelijke beelden als basis voor een gedeeld eigenaarschap van de nieuwe generatie waterbeheer en stroomgebiedbeheerplannen. De ambivalenties rondom de KRW’s principes, milieudoelstellingen en uitzonderingsbepalingen zijn vooral instrumenteel aangewend om eerdere tradities en praktijken zoveel mogelijk te kunnen voortzetten. Sommige belangenorganisaties hebben hun teleurstelling geuit over de in hun beleving te geringe veranderingen en teveel business as usual scenario’s. Anderen zijn meer tevreden met de gekozen accommodatietactiek om te nadelige sociaaleconomische gevolgen te voorkomen.
Bewust of onbewust hebben de competentie autoriteiten en waterexperts op deze manier substantiële veranderingen in gemeenschappelijke spelregels geblokkeerd.

Voor de tweede KRW implementatieplanningcyclus beveelt de auteur aan dat, indien de overheden verder wensen te gaan dan een voornamelijk instrumentele uitwerking van de ambivalente termen en condities in de richtlijn, zij ruimte organiseren voor een multi-stakeholder dialoog over een gezamenlijke definitie van duurzame menselijke activiteiten en de wenselijkheid van het aanpassen van de gemeenschappelijke spelregels. Een dergelijke dialoog zou expliciet de onderlinge afhankelijkheden van de administratieve schaalniveaus binnen een (inter-)nationaal rivierstroomgebied in beschouwing moeten nemen. Als een basisvooorwaarde voor een dergelijke dialoog is het belangrijk dat de deelnemende actoren bereid zijn te investeren in het begrijpen en (h)erkennen van diverse frames voor onderwerpen die onderdeel van de discussie zijn. Zoals Dewulf en andere auteurs stellen (2005: 115; vertaald uit het Engels): “Sommige of alle partijen zullen mogelijk de manier waarop zij in relatie staan tot de kwesties en tot elkaar moeten herzien, vergroten of reframen, met als doel om een vocabulaire te creëren dat wederzijds begrip en collectieve actie kan ondersteunen, wat cruciaal is voor de toestandbrenging van een effectief, gezamenlijk beheer van natuurlijke hulpbronnen.” In essentie geldt dat alle idealthypische gemeenschappelijke spelregels zoals geconstrueerd voor het doel van dit onderzoek in werkelijkheid zouden kunnen voorkomen en naar tevredenheid kunnen functioneren, afhankelijk van de specifieke historische context en de institutionele setting van een rivierstroomgebied-district op een bepaald moment. Er bestaat niet een generieke beste optie.


Wat de organisatorische scoop-, toegangs- en besluitvormingsregels betreft zal het bieden van meer ruimte voor meer actieve bijdragen van niet-gouvernementele
actoren niet noodzakelijkerwijs vragen om substantiële verandering van de functionele coördinatiestructuren voor stroomgebiedbeheer. Platforms die informele, niet juridisch bindende adviezen geven aan de competentie autoriteiten lijken goed te passen in de politiek tradities en culturen binnen het internationale Maas stroomgebied-district. In elk geval kunnen de overheden hun voordeel doen met het bespreken van opties voor meer actieve betrokkenheid met belangenorganisaties, omdat deze relevante informatie en kennis, middelen en creatief kapitaal kunnen inbrengen. Voorts zouden dwarsverbanden tussen de wederzijds afhankelijke processen op verschillende administratieve schaalniveaus versterkt kunnen worden. In de eerste KRW implementatieplanningcyclus heeft de focus van de overheden vooral gelegen op het eigen proces en minder op de onderlinge afhankelijkheden. Voor de lange termijn zou een terughoudende houding om te investeren in het volgen van ontwikkelingen en drijvende krachten op andere administratieve schaalniveaus binnen een gedeeld rivierstroomgebied een tactische misvatting zijn.

Gegeven de diverse wederzijdse afhankelijkheden beveelt de auteur aan om relaties tussen ontwikkelingen en besluiten op de verschillende administratieve schaalniveaus explicieter te bespreken in de implementatieplanningprocessen. Zo zouden deze een permanent agendadochterdeel kunnen worden van de informele coördinatiestructuren. Aanvullend, om te waarborgen dat aanbevelingen op het multilaterale schaalniveau praktisch relevant zijn op het lokale schaalniveau, en omgekeerd dat goede lokale praktijkvoorbeelden succesvol worden meegenomen, zouden actoren die vrijgemaakt worden om verbindingen te leggen tussen de diverse schaalniveaus hun meerwaarde kunnen bewijzen. Dergelijke ‘integrale stroomgebiedambassadeurs’ zouden actief kunnen investeren in het bouwen van persoonlijke vertrouwensrelaties tussen administratieve schaalniveaus en beleidsdomeinen en in het onder de aandacht brengen van relevante ontwikkelingen en activiteiten. De Nederlandse gemeentelijke waterambassadeurs zouden bijvoorbeeld deel kunnen gaan uitmaken van een dergelijk multi-level netwerk van ‘verbindingsofficieren’. Naar de mening van de auteur zou die functie vervuld kunnen worden door verschillende typen actoren. In Nederland zouden de actoren van de regionale stroomgebiedbeheerplatforms hun inspanningen kunnen vergroten om goede lokale en regionale praktijkvoorbeelden te ‘uploaden’ naar het Europese en het multilaterale schaalniveau. Omgekeerd zouden ze actiever betrokken kunnen worden in het ‘downloaden’ van afspraken en handreikingen van deze internationale schaalniveaus. Gegeven hun watergerelateerde expertise en beschikbare personele en financiële middelen, wordt voorzetting van de coördinerende rol van de Nederlandse waterschappen in de lokale KRW implementatieplanning processen sterk aanbevolen.


De auteur adviseert om de informele Nederlandse coördinatiestructuren voor stroomgebiedbeheer voort te zetten onder leiding van de competentie autoriteiten voor de KRW. Tegelijkertijd zou de adviserende functie van de maatschappelijke klankbordgroepen kunnen worden verstrekt door de non-gouvernementale actoren meer mogelijkheden te bieden voor actieve, eigen bijdragen en coproducties. Aanvullend op wederzijdse informatieverstrekking en consultatie zou meer tijd en geld geïnvesteerd kunnen worden in het ontwikkelen van publiekprivate samenwerkingsverbanden die de grenzen van beleidsdomeinen kunnen doorbreken. Deze samenwerkingsverbanden zouden opties kunnen verkennen voor innovatie en synergie, bijvoorbeeld gericht op het reduceren van hardnekkige diffuse bronnen van verontreiniging. Op het multilaterale schaalniveau zouden de overheden samen met andere actoren goede voorbeelden van actieve participatie in andere (Europese) stroomgebieden kunnen verkennen. De auteur adviseert de overheden om in een open dialoog met andere actoren opties voor het verbreden van de toegangsregels te verkennen.

De auteur adviseert de bevoegde autoriteiten om meer gebruik te maken van de informatie en expertise die andere actoren tot hun beschikking hebben. Relevante informatiebronnen kunnen worden benut in een periodiek ‘joint fact finding’ proces voor actualisatie van de stroomgebiedkarakteriseringen (de Artikel 5 rapportages; informatieregels). Zoals verwoord in de Europese handreikingen kan ‘joint fact finding’ door diverse belanghebbende actoren nuttig zijn voor het ontwikkelen van een gevoel van gedeeld eigenaarschap voor de stroomgebiedbeheerplannen, met de stroomgebiedkarakteriseringen als een belangrijke eerste stap. Zo kunnen bijvoorbeeld lokale actoren belangrijke kennis en informatie bezitten voor de analyse van drijvende krachten, belastingen en de impact ervan op de toestand en het functioneren van landwatersystemen.


Tenslotte: Politieke wil, moed en leiderschap zijn nodig om het generieke duurzaamheidslabel voor typen menselijke activiteiten zoals opgenomen in Artikel 4 van de KRW te heroverwegen. De optie van een substantiële, geleidelijke verandering van bestaande positieregels zou daarbij serieus in overweging moeten worden genomen. Immers, zonder een gezonde planeet en mensen die er op kunnen overleven zal het geen zin meer hebben om over winst te spreken.
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# Appendix I: Interviewees

<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Interviewee(s) (organisation and role(s) in the WFD process)</th>
<th>Political Level(s)</th>
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<tbody>
<tr>
<td>1</td>
<td>2004/11/15</td>
<td>Mr. Frans van Pelt (Zeeland Province; secretary of the Eastern Scheldt National Park; member of the Regional Scheldt WFD Consultation Platform)</td>
<td>Reg-Scheldt</td>
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<td>2</td>
<td>2004/11/15</td>
<td>Mr. Christian Dees (Chair of the Zeeland Agricultural Youth Contact)</td>
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<td>3</td>
<td>2004/11/15</td>
<td>Mrs. Loes de Jong (Rijkswaterstaat Zeeland; WFD implementation project leader)</td>
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<td>2004/11/17</td>
<td>Mrs. Carla Michielse (Zeeland Agriculture and Horticulture Organisation – ZLTO; member of the Regional Scheldt WFD Consultation Platform)</td>
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<td>5</td>
<td>2004/11/19</td>
<td>Mr. Wieger de Vries (<em>HISWA</em> – Dutch umbrella association for water-related recreation entrepreneurs)</td>
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<td>Mr. Jan Bruurs (Chamber of Commerce; vice-chair of the Regional Scheldt WFD Consultation Platform)</td>
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<td>Mr. Erik Buijnck (State Forestry Agency; Regional Scheldt WFD Consultation Platform)</td>
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<td>2004/12/02</td>
<td>Mr. Maarten Velthoen (<em>BOD</em> – umbrella organisation for regional water-related recreation in Zeeland; Regional Scheldt WFD Consultation Platform)</td>
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<td>Mrs. Marion Hommels (<em>BOD</em> – umbrella organisation for regional water-related recreation in Zeeland; Regional Scheldt WFD Consultation Platform)</td>
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<td>Mr. Harry van Huet (WFD Meuse Project Bureau &amp; policy advisor at the Limburg Province)</td>
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<td>Mr. Jan Bovendeur (project director of the WFD Meuse Project Bureau)</td>
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<td>Mr. Sluiter (Brabant Private Landowners; Regional Meuse WFD Consultation Platform)</td>
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<td>Mr. Jacques Hendriks (State Forestry Agency; Regional Meuse WFD Consultation Platform)</td>
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<td>2008/09/05</td>
<td>Mr. Jaap Verhulst (WFD programme manager/Water Policy Department/TPW Ministry; from Jan 2004 to July 2010)</td>
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<td>Mr. Ad Sweere (programme manager at the Brabantse Delta Water Management Authority)</td>
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<td>Mr. Henk van Wezel (Consultant at the National WFD Coordination Office for the Dutch River Basins between 2003 and 2010)</td>
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<td>Mrs. Henny Bron (waste water treatment adviser at the Brabantse Delta Water Management Authority)</td>
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<td>Mr. René van Bedaf (Rucphen Municipality; water policy adviser)</td>
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<td>2009/06/25</td>
<td>Mr. Cees Meulman (alderman of Zundert Municipality) and Ronald Rombouts (project leader at Zundert Municipality)</td>
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<td>Mr. Steven Adriaanse (alderman of Roosendaal Municipality)</td>
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<td>Mr. Pierre Backx (senior water policy adviser at Roosendaal Municipality)</td>
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<td>Mr. Wouter Stapel (project leader at DHV Consultancy)</td>
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<td>Mr. Piet Blom (water management consultant at Oosterhout Municipality)</td>
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<td>2009/08/10</td>
<td>Mr. Jack Jonk (Manager of the Waste Water Treatment Unit at the Brabantse Delta Water Management Authority)</td>
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<td>Mr. Peter van Tilburg (sewerage system expert at the Oosterhout Municipality)</td>
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<td>Mr. Fred Wagemaker (senior water policy adviser at the National Water Service; involved in the Dutch WFD implementation activities as of 2001)</td>
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<td>Mr. Paul Latour (senior water policy adviser, involved in the European and national WFD processes since 1995)</td>
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<td>Mr. Harry ter Heegde (senior policy advisor at the Limburg Province)</td>
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<td>Mr. Mario Cerutti (secretary-general of the IMC from Feb. 1, 2003 to Feb. 1, 2010)</td>
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<td>Mrs. Sarie Buijze (water and nature policy adviser at the North-Brabant Province)</td>
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<td>Mrs. Desirée van Zwieten (juridical water expert at the North-Brabant Province)</td>
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<td>2011/02/11</td>
<td>Mr. Ad Mol (senior water policy adviser/WFD coordinator at the North-Brabant Province)</td>
<td>Nat-Reg Reg-Meuse Reg-Scheldt</td>
</tr>
<tr>
<td>47</td>
<td>2011/02/11</td>
<td>Mr. Adrie Geerts (agricultural and water policy adviser at the North-Brabant Province)</td>
<td>Nat-Reg Reg-Meuse</td>
</tr>
<tr>
<td>48</td>
<td>2011/02/11</td>
<td>Mr. Clemens Kraemer (groundwater expert at the North-Brabant Province)</td>
<td>Reg-Meuse</td>
</tr>
<tr>
<td>49</td>
<td>2011/02/14</td>
<td>Mr. Fred Schippers (secretary of the Baronie Reconstruction Committee; North-Brabant Province)</td>
<td>Local-Meuse</td>
</tr>
<tr>
<td>50</td>
<td>2011/02/14</td>
<td>Mrs. Karla Niggebrugge (Provincial Water Plan project leader)</td>
<td>Nat-Reg Reg-Meuse Reg-Scheldt</td>
</tr>
<tr>
<td>51</td>
<td>2011/02/17</td>
<td>Mr. Marc de Rooij (senior policy adviser at the National Water Policy Department of the TPW Ministry)</td>
<td>European National Mult-Meuse</td>
</tr>
<tr>
<td>52</td>
<td>2011/02/17</td>
<td>Mr. Willem-Jan Goossen (national coordinator of the WFD river basin management plans at the National Water Policy Department of the TPW Ministry)</td>
<td>European Nat-Reg Mult-Meuse Reg-Meuse</td>
</tr>
<tr>
<td>53</td>
<td>2011/02/11</td>
<td>Mr. Willem Mak (national WFD programma manager at the Water Policy Department of the TPW Ministry as of August 2010)</td>
<td>European National Mult-Meuse Reg-Meuse</td>
</tr>
</tbody>
</table>

Legend: Nat-Reg = National-Regional; Reg-Meuse = Regional Meuse; Reg-Scheldt = Regional Scheldt; Mult-Meuse = Multilateral Meuse; Mult-Scheldt = Multilateral Scheldt
## Appendix II-A: Written argumentation survey - participants

<table>
<thead>
<tr>
<th>No.</th>
<th>Participant (Organisation/Role(s) in the WFD process)</th>
<th>Involved political Level(s) ↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mrs. Gerda van Roode (De Dommel Water Management Authority/Implementation coordinator in the Brabant-Centre Region)</td>
<td>Nat-Reg; Reg-Local; Bilat-Meuse; Reg-Meuse; Local-Meuse</td>
</tr>
<tr>
<td>2</td>
<td>Mrs. Karla Niggebrugge (North-Brabant Province/water policy plan project leader)</td>
<td>Nat-Reg; Reg-Meuse; Reg-Scheldt</td>
</tr>
<tr>
<td>3</td>
<td>Mr. Harold Sofner (Bernheze Municipality/Local water ambassador in the Brabant-East Region)</td>
<td>Nat-Local; Reg-Local; Local-Meuse</td>
</tr>
<tr>
<td>4</td>
<td>Mr. Carlos Ceelaert (Overall WFD Coordinator for the Regional Water Management Authorities in North-Brabant/Chair of the WFD Meuse Coordinators Platform)</td>
<td>Reg-Meuse; Reg-Local</td>
</tr>
<tr>
<td>5</td>
<td>Mr. Harry van Buggenum (Roer and Overmaas Water Management Authority; Implementation coordinator in the Limburg-South Region)</td>
<td>Nat-Reg; Reg-Local; Bilat-Meuse; Reg-Meuse; Local-Meuse</td>
</tr>
<tr>
<td>6</td>
<td>Mrs. Desiree Rijnders-Huisman (Tilburg Municipality/Local water ambassador in the Brabant-Centre Region)</td>
<td>Nat-Local; Reg-Local; Local-Meuse</td>
</tr>
<tr>
<td>7</td>
<td>Mr. Harry van Huet (Limburg Province/ WFD Meuse Project Bureau; Project leader)</td>
<td>Bilat-Meuse; Nat-Reg; Reg-Local; Reg-Meuse</td>
</tr>
<tr>
<td>8</td>
<td>Mr. Marcel Tonkes (Overijssel Province/Chair RAO Rhine-East; Secretary RBO Rhine-East; project leader Rhine-East)</td>
<td>Nat-Reg; Reg-Rhine</td>
</tr>
<tr>
<td>9</td>
<td>Mr. Victor Witter (Brabantse Delta Water Management Authority/Participant IMC; Participant RAO-Meuse)</td>
<td>Mult-Meuse; Reg-Local; Local-Meuse</td>
</tr>
<tr>
<td>10</td>
<td>Mr. Guido Waajen (Brabantse Delta Water Management Authority/Ecological expert)</td>
<td>Nat-Local; Local-Meuse; Local-Scheldt</td>
</tr>
<tr>
<td>11</td>
<td>Mr. Ton Ruigrok (Rivierenland Water Management Authority/Implementation coordinator in Rivierenland)</td>
<td>Nat-Reg; Nat-Local; Reg-Rhine; Reg-Meuse</td>
</tr>
<tr>
<td>12</td>
<td>Mr. André van der Straat (Zeeland Province/ WFD Scheldt Project Office; Regional implementation coordinator)</td>
<td>Mult-Scheldt; Bilat-Scheldt; Nat-Reg; Reg-Local; Reg-Scheldt</td>
</tr>
<tr>
<td>13</td>
<td>Mr. Rolf Koops (Rolf Advice and Coaching BV/Chair RAO –Rhine-Centre; process manager)</td>
<td>Nat-Reg; Reg-Rhine</td>
</tr>
<tr>
<td>14</td>
<td>Mr. Henk van Wezel (Private consultant at the National WFD Coordination Office for the Dutch River Basins; Process manager)</td>
<td>Nat-Reg; Reg-Meuse; Reg-Rhine</td>
</tr>
<tr>
<td>15</td>
<td>Mr. Reinier van Nispen (Zeeland Province/ WFD Scheldt Project Office; Chair RAO – Scheldt; Ecological expert)</td>
<td>Mult-Scheldt; Bilat-Scheldt; Nat-Reg; Reg-Local; Reg-Scheldt; Local-Meuse</td>
</tr>
<tr>
<td>16</td>
<td>Mr. Hans Thewissen (Maastricht Municipality/Local water ambassador in the Limburg-South Region)</td>
<td>Nat-Local; Reg-Local; Local-Meuse</td>
</tr>
<tr>
<td>17</td>
<td>Mr. Pierre Backx (Roosendaal Municipality/Local water ambassador in the Brabant-West Region)</td>
<td>Nat-Local; Reg-Local; Local-Meuse</td>
</tr>
<tr>
<td>No.</td>
<td>Participant (Organisation/Role(s) in the WFD process) ↓</td>
<td>Involved political Level(s) ↓</td>
</tr>
<tr>
<td>-----</td>
<td>------------------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>18</td>
<td>Mr. Wim van der Pennen (Brabant-North Province and private consultant/ WFD Meuse Project Bureau; Project leader)</td>
<td>Reg-Local; Reg-Meuse</td>
</tr>
<tr>
<td>19</td>
<td>Mrs. Plonie van Campen (Brabant Environmental Federation and De Dommel Water Management Authority - General Assembly/Member of the WFD Brabant-West Consultation Platform)</td>
<td>Local-Meuse</td>
</tr>
<tr>
<td>20</td>
<td>Mr. Twan Tiebosch (Esplanada Advise BV/WFD Meuse Project Bureau; National WFD Coordination Office for the Dutch River Basins; Communication &amp; process manager)</td>
<td>Nat-Reg; Reg-Meuse</td>
</tr>
<tr>
<td>21</td>
<td>Mr. Nol Verdaasdonk (Brabant Environmental Federation and Brabantse Delta Water Management Authority - General Assembly; Member of the Regional WFD Meuse Consultation Platform)</td>
<td>Reg-Meuse; Local-Meuse</td>
</tr>
<tr>
<td>22</td>
<td>Mr. Sef Philips (Brabant Water/Member of the Regional Meuse WFD Consultation Platform)</td>
<td>Reg-Meuse</td>
</tr>
<tr>
<td>23</td>
<td>Mr. E. Rokx (Zeeland Agriculture and Horticulture Organisation/Member of the WFD Brabant-West Consultation Platform)</td>
<td>Local-Meuse</td>
</tr>
<tr>
<td>24</td>
<td>Mrs. Carla Michielsen (Zeeland Agriculture and Horticulture Organisation/Member of the WFD Brabant-West Consultation Platform and the Brabant-West WFD Consultation Platform)</td>
<td>Mult-Scheldt; Reg-Scheldt; Local-Meuse</td>
</tr>
<tr>
<td>25</td>
<td>Mr. Jan Weterings (IVN Mark and Donge/Member of the Brabant-West WFD Consultation Platform)</td>
<td>Local-Meuse</td>
</tr>
<tr>
<td>26</td>
<td>Mr. Ruud Scheffer (Loon op Zand Municipality/Water policy adviser)</td>
<td>Local-Meuse</td>
</tr>
<tr>
<td>27</td>
<td>Mr. Frans Wessels (Breda Municipality/Water policy adviser)</td>
<td>Local-Meuse</td>
</tr>
<tr>
<td>28</td>
<td>Mr. Marty Braat (Moerdijk Municipality/Water policy adviser)</td>
<td>Local-Meuse</td>
</tr>
<tr>
<td>29</td>
<td>Mr. René van der Sande (Bergen op Zoom Municipality/Local Water ambassador Scheldt Region)</td>
<td>Local-Scheldt</td>
</tr>
<tr>
<td>30</td>
<td>Mr. René van Bedaf (Rucphen Municipality/Water policy adviser)</td>
<td>Local-Meuse</td>
</tr>
<tr>
<td>31</td>
<td>Mrs. Ineke Barten (Dommel Water Management Authority/ecological expert)</td>
<td>Reg-Meuse; Local – Meuse</td>
</tr>
</tbody>
</table>

Legend: Nat-Reg = National-Regional; Reg-Meuse = Regional Meuse; Reg-Scheldt = Regional Scheldt; Reg-Rhine = Regional Rhine; Mult-Meuse = Multilateral Meuse; Mult-Scheldt = Multilateral Scheldt; Bilat-Meuse = Bilateral Meuse; Bilat-Scheldt = Bilateral Scheldt
Appendix II-B:
Written Argumentation Survey -Questionnaire

Name:
Organisation:
Role(s) in the WFD process:

1. Levels of integration
1a The National Water Platform has decided to integrate the implementation of measures for water quality amelioration/ecological restoration with these for flood prevention/control and droughts prevention/mitigation. This should be realised in a staged way. In your opinion, which (f)actors so far have stimulated or hindered such an integrated approach?
1b To your opinion, in addition to the Water Framework Directive, which issues should be or should not be discussed and decided on in the Regional Political River Basin Platforms in the near future? For example, consider topics like Water Management in the 21st Century, water availability, the Floods Directive, the National Deltaprogramme, Natura 2000 and water chain cooperation.

2. Water and agriculture
2a To your opinion, has the Water Framework Directive triggered a tightening or a weakening of the environmental requirements in Dutch agricultural policy? Or does the WFD have no impact? For example, consider manure and chemical crop protection issues.
2b To your opinion, which (f)actors so far have stimulated or hindered best practices in Dutch agriculture? Please exemplify your answer.

3. Water and spatial planning
3a To your opinion, so far, has the Water Framework Directive enforced or weakened the role of water as a guiding principle in Dutch spatial planning? What have been stimulating or hindering (f)actors? Please exemplify your answer.
3b In Article 4, the Water Framework Directive speaks about ‘important sustainable human development activities’. To your opinion, how have these activities been defined in the Dutch WFD implementation process?
3c To your opinion, to which extent does the Water Framework Directive contribute to sustainable human activities/sustainable land use? What are stimulating and hindering (f)actors?

4. Implementation planning coordination
4a How do you value the coordination role by the Regional River Political Platform in the first WFD implementation planning cycle? Please exemplify your answer.
4b How do you value the influence of the Regional River WFD Consultation Platform in the first WFD implementation planning cycle? Please exemplify your answer.
4c How do you value the balance between top-down steering by the national authorities and autonomy of regional/local implementation processes? Please exemplify your answer.
4d How do you value the inter-ministerial coordination? To your opinion, what has been the strongest element? What should be improved? Please exemplify your answer.

5. Domestic translation of European requirements
5a What is your opinion on the Dutch translation of the level playing field principle in the first WFD implementation planning cycle? Please exemplify your answer.
5b How do you value the way the societal costs and benefits have been conducted in the first WFD implementation planning cycle? Please exemplify your answer.
5c What is your opinion on the way that the environmental objectives of Article 4 for water bodies and other water systems have been incorporated into Dutch legislation? Please exemplify your answer.
5d What is your opinion on the Dutch translation of the principle of no-shift of environmental problems to other areas and/or future generations? Which (f)actors do stimulate or hinder best practices with regard to this principle? Please exemplify your answer.

6a How do you value the way objectives and measures of the WFD and Natura 2000 have been interconnected? Please exemplify your answer.
6b To your opinion, so far, what have been stimulating and hindering (f)actors for an integrated implementation approach for the WFD and Natura 2000? Please exemplify your answer.

7. Stakeholder participation
7a How do you value the way local, municipal measures have been selected for incorporation in the WFD river basin management plans? Please exemplify your answer.
7b What is your opinion on the way socio-economic and environmental interests groups have been involved in the first WFD implementation planning cycle? Please exemplify your answer.
7c Have you been part of certain coalitions and/or oppositions in the WFD process so far? If yes, which ones and with which aim(s)? If no, how did you try to influence the outcome of the process?
7d What is your opinion on the chosen procedures for the formal consultation on WFD documents? Please exemplify your answer.

8. Information aggregation and presentation
8a How do you value the way information has been collected, aggregated and presented in the first WFD implementation planning cycle?
8b To your opinion, to which extent have facts and figures been agreed upon in a joint process (‘joint fact finding’)? What have been stimulating and/or hindering (f)actors?
8c How do you value the coherence among the WFD river basin management plans and the Dutch water management plans? Please exemplify your answer.

9 Which question did you expect but did not come? Please ask this question and answer it.
Appendix III:
Mirror sessions (issues and participants)

<table>
<thead>
<tr>
<th>Title: Evaluation of the role, position and functioning of the Regional Scheldt WFD Consultation Platform – Session 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date &amp; Place:</strong> February 4, 2005 at Rijkswaterstaat Zeeland in Middelburg (Netherlands)</td>
</tr>
<tr>
<td><strong>Issues:</strong> The author has observed a number of meetings of the Regional Scheldt WFD Consultation Platform in a no-participatory way. He presents his findings in this meeting of the platform. An advisory report will be finished for the next meeting. Reflection on the observations: the participants recognise the major findings and decide to discuss the process recommendations in the next meeting. One participant (agriculture) asks to simplify the presentation in order to make it understandable for individual farmers. Some members (chamber of commerce and environmental federation) ask whether the platform formally may go beyond transmitting societal signals to the politicians only by providing advices and contributing to public support. The politicians will be asked how they view the role and position of the platform. Another question is how to deal with fundamental differences of opinion within the platform. The Scheldt WFD Project Office will prepare a reaction at the process recommendations from the author. Furthermore a special meeting will be arranged about the method for ecological objectives setting.</td>
</tr>
<tr>
<td><strong>Participants:</strong> Mr. Nico Oskam (vice-chair; Zeeland Province); Mrs. Loes de Jong (WFD Scheldt Project Office; Rijkswaterstaat Zeeland); Mr. Jan Bruurs (Chamber of Commerce); Mr. Erik Buijnck (State Forestry Agency); Mr. Edwin de Feijter (Rijkswaterstaat Zeeland); Mr. Hans Hamelink (Zeeland Province); Mrs. Carola Helmendach (Zeeland Agricultural Youth Contact); Mrs. Carla Michielsen (Zeeland Agriculture and Horticulture Organisation); Mr. Frans van Pelt (Eastern-Scheldt National Park); Mr. Leo Santbergen (Wageningen University); Mrs. Annemiek Verhallen (Wageningen University); Mr. Gijs van Zonneveld (Zeeland Environmental Federation); Mrs. J. Blom-Hummel (Zeeland Province; secretary).</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Title: Evaluation of the role, position and functioning of the Regional Scheldt WFD Consultation Platform – Session 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date &amp; Place:</strong> March 31, 2005 at Rijkswaterstaat Zeeland (Middelburg; Netherlands)</td>
</tr>
<tr>
<td><strong>Issues:</strong> The members of the Regional Scheldt WFD Consultation Platform discuss the process recommendations of the authors. They decide to propose the politicians to widen the role of the platform towards an explicit advisory function. The platform intends to provide for advices based on consensus, although minority views/opinions will always made visible for the politicians. Another proposal is to enlarge the opportunities for exchange/interaction between the members of the platform and the politicians.</td>
</tr>
<tr>
<td><strong>Participants:</strong> Mr. John Lilipaly (independent chair); Mr. Nico Oskam (vice-chair; Zeeland Province); Mrs. Loes de Jong (WFD Scheldt Project Office; Rijkswaterstaat Zeeland); Mr. Jan Bruurs (Chamber of Commerce); Mr. Gert-Jan Buth (Zeeland Landscape); Mr. Edwin de Feijter (Rijkswaterstaat Zeeland); Mrs. Carola Helmendach (Zeeland Agricultural Youth Contact); Mrs. Carla Michielsen (Zeeland Agriculture and Horticulture Organisation); Mr. Frans van Pelt (Eastern-Scheldt National Park); Mr. Leo Santbergen (Wageningen University); Mrs. J. Blom-Hummel (Zeeland Province; secretary); Mr. Quirin Smeele (Nature Monuments); Mr. Ton Wegman (Recron).</td>
</tr>
<tr>
<td><strong>Title:</strong> Evaluation of the role, position and functioning of the Regional Scheldt WFD Consultation Platform – Session 3</td>
</tr>
<tr>
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<tr>
<td><strong>Date &amp; Place:</strong> April 6, 2005 at the Zeeland Province (Middelburg; Netherlands)</td>
</tr>
<tr>
<td><strong>Issues:</strong> The politicians of the Regional Scheldt Political Platform discuss the author’s findings and recommendations on the functioning of the Regional Scheldt WFD Consultation Platform. They decide to extend the role of the platform with an advisory function. The chair of the platform is invited to attend the meetings of the political platform in order to bring in the societal voices and advises more explicitly.</td>
</tr>
<tr>
<td><strong>Participants:</strong> Mr. Thijs Kramer (chair Zeeland Province); Mr. Sjef Jabos and Mrs. Loes de Jong (Rijkswaterstaat Zeeland); Mr. T. Wemaer (Zeeuws-Vlaanderen Water Management Authority); Mr. Wim Gosselaar (Zeeuwse Eilanden Water Management Board); Mr. Jan Bostelaar (Veere Municipality); Nr. E. De Deckere (Hulst Municipality); Mr. J. Biek (Reimerswaal Municipality); Mr. Henk Ketelaars (Evides Drinking Water Company); Mr. Nico Oskam, Mr. Harry Benschop and Mrs. W. Bezuyen (Zeeland Province).</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th><strong>Title:</strong> Workshop: Critical (f)actors in Flemish-Dutch cooperation for integrated river basin management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date &amp; Place:</strong> July 2, 2007 at the Brabantse Delta Water Management Authority (Breda, Netherlands)</td>
</tr>
<tr>
<td><strong>Issues:</strong> Dilemmas in integrated river basin management in general and the Flemish-Dutch coordination in specific are presented and discussed. The policy arrangement approach is applied as an instrument for formulating recommendations for dealing with the identified dilemmas in terms of actors, policy discourses, rules and configuration of resources and power.</td>
</tr>
<tr>
<td><strong>Participants:</strong> Victor Witter, Edwin Arens, Joseph Vos, Anton Merks, Jolanda Nooijens, Yvonne de Hond, Leo Santbergen (all of the Brabantse Delta Water Management Authority); Huub Ploegmakers (Msc. Student Radboud University Nijmegen); Sander Meijerink, Pieter Leroy and Gabi Steentjes (all from Radboud University Nijmegen); Ann Crabbé and Jan Staes (Antwerp University); Jeroen Warner, Annemiek Verhallen (Wageningen University and Research Centre); Erik Matla (Brabantse Delta Water Management Authority); Luc van Craen and Henk Mackelberghe (Flemish Environmental Agency); Freek Willems and Gerda van Roode (De Dommel Water Management Authority); Jac Slikker, Ad Mol and Arja Span (North-Brabant Province); Iris Bajjens (DHV Consultancy); Marco Vroege (Arcadis Consultancy); Wim Boonen (N.V. De Scheepvaart); Bert van Eck (Rijkswaterstaat RIKZ); Marco Visser (WFD Meuse Project Bureau); Pierre Backx (Roosendaal Municipality); Gabi Steentjes.</td>
</tr>
</tbody>
</table>
**Title:** Panel and Discussion Session as part of the *Freude am Fluss* Final Conference: The European Water Framework Directive, Holy Grail of Integrated River Basin Management?

**Date & Place:** August 22, 2008 in Nijmegen (Netherlands)

**Issues:** The aim of the session is to exchange experiences and observations of both practitioners and researchers on the WFD’s implementation processes in different institutional and hydro-geographic circumstances. Central question is to which extent the WFD helps to translate the principles of sovereignty, subsidiarity, no-shift of problems to other areas and/or future generations and active stakeholder involvement into effective management solutions and daily practices. What are best practices considered? More specifically:

1. **How to translate the sovereignty and subsidiarity principles into effective coordination and collaboration processes in a nested hierarchy of scales within (inter-)national river basins?** By other means, how to divide and balance competences of (inter-)national, regional and local authorities with those of water management agencies, in order to avoid “grey-zones” in which nobody feels responsible and does not provide answers?

2. **How to translate the no-shift principle into effective collective arrangements within and between related upstream and downstream social-ecological sub-basins within the same river basin or across river basins?** For example, how to apply economic principles (e.g. polluters pay, user pays and cost-recovery principle) in order to meet equitable and ethical sharing of societal costs and benefits? Or, how to apply the precautionary principle in relation with the mitigation and compensation principles for the sake of healthy ecosystems (biodiversity) without limiting human activities (socio-economic development)?

3. **What are desirable process conditions for active stakeholder involvement and how can competent authorities steer/guide multiple stakeholder challenges in a transparent way?** For example, what are experiences with top-down and bottom-up process constellations? And, what about social legitimacy? By other means, to which extent do existing or emerging multi-stakeholder coalitions from institutionalised platforms receive grass-roots support and to which extent are those coalitions supported by actor networks at interconnected political levels? And how to deal with no-represented interests? By other words, do the no-represented stakeholder groups, both powerful and powerless, ignore, hinder or support a multi-stakeholder process? Do they interact informally with platform participants, or go around a platform/network to access those in power to get what they want?

**Participants:** Presentations by: Leo Santbergen (Brabantse Delta Water Management Authority); Prof. dr. Wim van Leussen (Twente University); dr. Ann Crabbé (Antwerp University); Prof. mr. Marleen van Rijswick (Utrecht University); Erik Matla (Oranjewoud Consultancy); Jelle Behagel (Wageningen University). Circa 40 participants from different disciplines and countries.
**Title:** Presentation by the author and discussion on findings of observations on the WFD implementation process in the Dutch part of the Scheldt and Meuse River Basins. Part of the meeting of the Regional Scheldt Political Platform.

**Date & Place:** April 1, 2009 at Zeeland Province (Middelburg, Netherlands)

**Issues:** Comparison of the role, position and functioning of the WFD Consultation Platforms in the Meuse and Scheldt River Basins.

**Participants:** Mr. Frans Hamelink (chair); Mr. Wim Gosselaar (chair of the Daily Board and General Assembly of the Zeeuwse Eilanden Water Management Authority); Mr. Ad Verseput (Zeeland Association of Municipalities); Mr. Clen de Kraker (Zeeland Association of Municipalities), Mr. Jan Dees (Zeeuws-Vlaanderen Water Management Authority); Mr. Hans Hamelink (Zeeland Province; secretary); Mr. John Lilipaly (chair of the Regional Scheldt WFD Consultation Platform); Mr. Joseph Vos (chair of the Daily Board and General Assembly of the Brabantse Delta Water Management Authority); Mr. René van de Sande (water ambassador; Bergen op Zoom Municipality); Mr. Jaap Verhulst (Ministry of Transport, Public Works and Water Management; national WFD programme manager); Mr. Cor Berrevoets (WFD Scheldt River Basin Coordinator at the Ministry of Transport, Public Works and Water Management); Mr. Hans van de Zwan (Rijkswaterstaat Zeeland); Mr. Willy Oorthuijssen (Rijkswaterstaat Zeeland); Mr. Nico Oskam (Zeeland Province); Mr. Reinier van Nispen (Zeeland Province).

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**Date & Place:** August 29, 2009 at Brabantse Delta Water Management Authority (Breda)

**Issues:** European Directives and success and failure (f)actors in Integrated River Basin Management. What may Flemish and Dutch stakeholders learn from the implementation process of the Water Framework Directive (WFD) so far? What are best practices so far to build on in the implementation of the Floods Directive? Which opportunities do the Floods Directive and the second WFD implementation planning cycle offer for enforcement of bilateral, transboundary coordination efforts?

**Participants:** Mr. Joseph Vos (chair of the Daily Board and General Assembly of the Brabantse Delta Water Management Authority); Mr. Pieter Leroy (professor in environmental policies at Radboud University Nijmegen); Mr. René van de Sande (water ambassador; Bergen op Zoom Municipality); Mr. Jaap Verhulst (Ministry of Transport, Public Works and Water Management; national WFD programme manager); Mr. Piet van Iersel (ecological expert at Brabantse Delta Water Management Authority); Mr. Mark Wiering (WFD researcher at Radboud university Nijmegen); Mrs. Sonja van den Arend (WFD researcher at Delft University of Technology); Mr. Ronald van Heeswijk (North-Brabant Province); Mr. Wim van der Pennen (WFD Meuse Project Bureau); Mr. Marc de Rooij (National Water Department at the Ministry of Transport, Public Works and Water Management), Mr. Wim van Leussen (professor in integrated river basin management at Twente University); Mr. Wouter Vanneuville (Water Hydraulics Laboratory of the Flemish Region of Belgium), Mr. Didier Soens (water policies director at Antwerp Province); Mr. Sjoerd Hoornstra (national Floods Directive project leader at the Ministry of Transport, Public Works and Water Management).
### Title: i-Five International Workshop: Innovative Instruments and Institutions in Implementing the Water Framework Directive – Comparing experiences from actors in France, Germany and the Netherlands

**Date & Place:** January 18 and 19, 2010 at Brabantse Delta Water Management Authority (Breda, Netherlands)

**Issues:** WFD implementation experiences from three European river basins have been presented and discussed, i.e. the Thau River Basin (France), the Weser (Germany) and the Brabant-West Region in the Meuse River Basin (Netherlands). Since Germany and France both are involved Member States in the International Meuse River Basin District, their experiences are of importance for the analysis of this research.

**Participants:** Sylvain Barone and Gabriëlle Bouleau (CEMAGREF), Ilke Borowski and Edi Interwies (SEECON), Pieter Bots, Sandra Junier and Erik Mostert (Delft University of Technology), Marie Cugny-Seguin (French Ministry of Ecology), Marie-Perrine Durot (ONEMA), Simon Henneberg (Weser River Basin Commission), Flore Lafaye de Micheaux (Regional State Environmental Office), Julian Maijers, Victor van den Berg, Piet van Iersel and Leo Santbergen (Brabantse Delta Water Management Authority).

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### Title: i-Five Dutch Reflection Session: Innovative Instruments and Institutions in Implementing the Water Framework Directive – What can the Dutch water managers learn from the WFD implementation in Germany and France?

**Date & Place:** November, 24th, 2010 at Brabantse Delta Water Management Authority in Breda (Netherlands)

**Issues:** Dutch water managers and WFD researchers have presented and discussed their experiences with the first WFD implementation planning cycle. Researchers from Delft University of Technology have presented experiences from France and Germany. The meeting participants have concluded lessons to be learned from abroad.

**Participants:** Victor van der Berg, Piet van Iersel and Leo Santbergen (all from Brabantse Delta Water Management Authority), Ronald van Dokkum, Anton Gerritsen and Hannie Maas (National Centre for Water Management), Jan Lemkes (Hollandse Delta Water Management Authority), Harrie Menning (Aa and Maas Water Management Authority), Reinier van Nispen (Zeeland Province), Ilse Posch (Hollandsch Noorderkwartier Water Management Authority), Annelien Ronda (Rijkswaterstaat), Marielle Tietz-Groenenberg (Rijkswaterstaat Limburg), Erik Mostert and Sandra Junier (Delft University of Technology).
Appendix IV: Analysed multi-stakeholder platform meetings

<table>
<thead>
<tr>
<th>Political level</th>
<th>Multi-Stakeholder Platforms and information sources</th>
<th>Covered Period</th>
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<tbody>
<tr>
<td><strong>European:</strong></td>
<td>Water policy before the Water Framework Directive:</td>
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<tr>
<td></td>
<td>o Reports of Council of Environmental Ministers</td>
<td>1988 to 2000</td>
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<td></td>
<td>o Conference declarations and international conventions/treaties</td>
<td>1988 to 2000</td>
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<tr>
<td>Strategic Co-ordination Group and European Water Directors:</td>
<td>1995 to 2009</td>
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<tr>
<td></td>
<td>o Instructions and meeting reports of the Dutch delegation</td>
<td>1995 to 2009</td>
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<td></td>
<td>o Formal meeting reports, documents and presentations</td>
<td>1995 to 2009</td>
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<td></td>
<td>o Attendance of conferences</td>
<td>2006 to 2009</td>
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<td></td>
<td>o Interviews and stakeholders’ position papers</td>
<td>1995 to 2009</td>
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<tr>
<td><strong>Multi-lateral:</strong></td>
<td>Life before the International Meuse Commission:</td>
<td>1990 to 1994</td>
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<tr>
<td></td>
<td>o Secondary analysis</td>
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<tr>
<td>International Meuse Commission (IMC):</td>
<td>1995 to 2009</td>
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<tr>
<td></td>
<td>o Instructions and meeting reports of the Dutch delegation</td>
<td>1995 to 2009</td>
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<td>o Formal meeting reports, documents and presentations</td>
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<td>o Interviews and stakeholders’ position papers</td>
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<td>o Attendance of conferences</td>
<td>2006 to 2009</td>
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<td></td>
<td>o Meeting reports, documents and presentations</td>
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<td></td>
<td>o Participatory observations</td>
<td>1991 to 1994</td>
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<tr>
<td></td>
<td>o Instructions and meeting reports of the Dutch delegation</td>
<td>1995 to 2009</td>
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<td>o Formal meeting reports, documents and presentations</td>
<td>1995 to 2009</td>
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<td>o Attendance of conferences</td>
<td>1995 to 2009</td>
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<tr>
<td></td>
<td>o Interviews and stakeholders’ position papers</td>
<td>1995 to 2009</td>
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<tr>
<td><strong>Bilateral:</strong></td>
<td>Flemish-Dutch coordination before the Mark River Basin Committee:</td>
<td>1990 to 1994</td>
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<tr>
<td></td>
<td>o Interviews; policy and management documents</td>
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<td>Mark River Basin Committee:</td>
<td>1995 to 2004</td>
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<td></td>
<td>o River basin analysis reports</td>
<td>2005 to 2009</td>
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<td></td>
<td>o Participatory observations</td>
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<td></td>
<td>o Formal meeting reports, documents and presentations</td>
<td>1995 to 2009</td>
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<td></td>
<td>o Interviews and process evaluation sessions (mirror sessions)</td>
<td>1995 to 2009</td>
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<tr>
<td>Political level</td>
<td>Multi-Stakeholder Platforms and information sources</td>
<td>Covered Period</td>
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</table>
| Dutch domestic-national: | Life before the Water Framework Directive:  
- Policy and management documents; research and advisory reports  
- Documents of the WFD Project Implementation Team  
- Interviews  
- Formal/informal meeting reports, documents and presentations  
- Interviews and stakeholders’ position papers  
- Attendance of workshops and conferences  
- Process evaluation sessions (mirror sessions) | 1990 to 1999  
1998 to 2003  
1998 to 2003 |
| | National-Regional Political Water Platform (in Dutch: Landelijk Bestuurlijk Overleg Water met RBO voorzitters - LBOR) and Regional Administrative Chairmen Committee (in Dutch: Regionaal Ambtelijk Overleg Voorzitters):  
- Meeting instructions and documents, formal/informal meeting reports, documents and presentations  
- Interviews and process evaluation sessions (mirror sessions) | 2003 to 2009 |
| | Life before the Water Framework Directive:  
- Secondary analysis, documents and interviews  
Regional Meuse Political Platform (in Dutch: Regionaal Bestuurlijk Overleg Maas -RBOM); Regional Meuse Administrative Platform (in Dutch: Regionaal Ambtelijk Overleg Maas – RAOM); Regional Meuse WFD Consultation Platform (in Dutch: Klankbordgroep KRW Maas):  
- (Non-)participatory observations  
- Meeting instructions and documents, formal/informal meeting reports, documents and presentations  
- Attendance of workshops and conferences  
- Interviews and stakeholders’ position papers  
- Written argumentation survey  
- Process evaluation sessions (mirror sessions)  
Regional Scheldt Political Platform (in Dutch: Regionaal Bestuurlijk Overleg Schelde - RBOS); Regional Scheldt Administrative Platform (in Dutch: Regionaal Ambtelijk Overleg Schelde – RAOS); Regional Scheldt WFD Consultation Platform (in Dutch: Klankbordgroep KRW Schelde):  
- (Non-)participatory observations  
- Meeting instructions and documents, formal/informal meeting reports, documents and presentations | 1990 to 2000  
2005 to 2009  
2002 to 2009  
2005 to 2009  
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<th>Political level</th>
<th>Multi-Stakeholder Platforms and information sources</th>
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<td></td>
<td>o Attendance of workshops and conferences</td>
<td>2003 to 2009</td>
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<tr>
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<td>o Interviews and stakeholders’ position papers</td>
<td>2003 to 2009</td>
</tr>
<tr>
<td></td>
<td>o Process evaluation sessions (mirror sessions)</td>
<td>2003 to 2009</td>
</tr>
<tr>
<td>Dutch domestic - local</td>
<td>Life before the Water Framework Directive:</td>
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</tr>
<tr>
<td></td>
<td>o Secondary analysis, documents and interviews</td>
<td>1990 to 2004</td>
</tr>
<tr>
<td></td>
<td>Brabantse Delta Water Management Authority (Daily Board and General Assembly); Brabant-West WFD Project Team; the Brabant-West WFD Consultation Platform; WFD meetings with municipalities; the Roosendaal WFD Pilot Team:</td>
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<tr>
<td></td>
<td>o (Non-)participatory observations</td>
<td>2005 to 2009</td>
</tr>
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<td></td>
<td>o Meeting instructions and documents, formal/informal meeting reports, documents and presentations</td>
<td>2005 to 2009</td>
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<tr>
<td></td>
<td>o Attendance of workshops and conferences</td>
<td>2005 to 2009</td>
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<tr>
<td></td>
<td>o Interviews and written argumentation survey</td>
<td>2005 to 2009</td>
</tr>
<tr>
<td></td>
<td>o Process evaluation sessions (mirror sessions)</td>
<td>2005 to 2009</td>
</tr>
</tbody>
</table>

*) Between 2003 and 2008: *Landelijk Bestuurlijk Overleg Water (LBOW)* and since 2009: *Nationaal Water Overleg (NWO)*
Appendix V: Chronology of the drafting and negotiation process of the Water Framework Directive

Information sources: Kaika (2003); Kaika and Page (2003); documents of the informal meetings between the EU Water Directors of the Member States and the European Commission; memoranda and position papers of Member States; meeting and negotiation instructions of the Netherlands; Interviews with Dutch actors (see Appendix II-A); documents of the European Commission, the European Parliament and the Council of Environmental Ministers.

<table>
<thead>
<tr>
<th>Date</th>
<th>Remarkable event(s), meeting(s), or decision(s)</th>
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<tbody>
<tr>
<td>1988/06/27</td>
<td>Ministerial Seminar on the future community water policy held in Frankfurt. Water is declared ‘a precious resource which must be carefully managed and priced accordingly’ (European Communities, 2000: 1). The conclusions include statements on the importance of guidelines for integrated water management (water quantity and quality), development of a policy for rational use of water resources, ‘general support for Community legislation covering ecological quality of surface water’, the need for a combined approach of quality objectives and emission standards, the importance of adequate waste water treatment infrastructure, the need for measures to reduce pollution from diffuse sources and in particular nutrients and pesticides from agriculture and integration of water policy (as part of an overall environmental policy) with industrial, agricultural and regional policy (ibid.).</td>
</tr>
<tr>
<td>1988/06/28</td>
<td>The Council of Ministers asks the European Commission to submit proposals on improvement of ecological quality in the Community’s surface waters (European Communities, 2000: 1)</td>
</tr>
<tr>
<td>1991</td>
<td>Ministerial Seminar on groundwater held at The Hague. The Ministers ‘recognised the need for action to avoid long-term deterioration of freshwater quality and quantity and called for a programme of actions to be implemented by the year 2000 aiming at sustainable management and protection of freshwater resources’ (European Communities, 2000: 1).</td>
</tr>
<tr>
<td>1992</td>
<td>The UN-ECE Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UN-ECE, 1992). This convention stresses the importance of integrated river basin management.</td>
</tr>
<tr>
<td>1992</td>
<td>Treaty on the European Union (“Maastricht Treaty”): The European Union consists of three pillars, the European Community being one of them (European Communities, 1992a). Strictly speaking, environmental policy is part of the EC pillar. Environmental policy measures, on the basis of Article 100a, are now to be decided by Qualified Majority Voting (QMV), although some issues that fall under Article 130s have to be decided on by unanimity (e.g. water quantity issues). Introduction of ‘sustainable growth’ as key EU objective. Creation of the Cohesion Fund which is intended to support transport infrastructure and environmental improvements in the poorest Member States of the EU (then Greece, Portugal, Spain and Ireland). One of the priorities of the Treaty is to integrate environmental protection aspects into all EU policies (including the Common Agricultural Policy).</td>
</tr>
<tr>
<td>1994</td>
<td>The European Commission launches a proposal on a ecological water quality directive.</td>
</tr>
<tr>
<td>Date</td>
<td>Remarkable event(s), meeting(s), or decision(s)</td>
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<tr>
<td>1995/02/15</td>
<td>Informal meeting of the EU water Directors from France (Jean Luc Laurent) and the Netherlands (Jan Hoogland). Both directors are not in favour of the idea from the European Commission to arrive at a sectoral directive on a basic European ecological water quality. Instead they opt for a more integrated approach of European water policy legislation in order to increase transparency and with sufficient implementation room for the Member States (subsidiarity).</td>
</tr>
<tr>
<td>1995/04/07</td>
<td>As an initiative of the French, an informal meeting of five EU Water Directors (“Gang of Five”) takes place at Paris: France (Jean Luc Laurent), Germany (Hans Möbs), United Kingdom (Neil Summerton), the Netherlands (Bob Dekker) and Spain (Francisco Gil Garcia). After discussion of the Dutch position paper (Ministry of Transport, Public Works and Water Management, 1995a), they decide to draft a common discussion paper on EU water policy. Summerton will draft a first proposal and Laurent will try to urge the European Commission to organise an informal meeting with all 15 Member States (letter of April, 4th).</td>
</tr>
<tr>
<td>1995/06/19</td>
<td>DG Environment invites the first informal meeting with the EU Water Directors (Brussels). The DG agrees to prepare a strategic document on future EU water policy. The Water Directors are asked to provide for examples of inconsistencies within the present corpus of EU water legislation.</td>
</tr>
<tr>
<td>1995/06/23</td>
<td>The Council of Environmental Ministers concludes that the EU water legislation should be revised fundamentally.</td>
</tr>
<tr>
<td>Date</td>
<td>Remarkable event(s), meeting(s), or decision(s)</td>
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<tr>
<td>1995/10/18</td>
<td>Environment Commissioner Bjerregaard presents DG Environment’s discussion document on European Community Water Policy (DG Environment, 1995) at the second informal meeting with the EU Water Directors (Brussels). Also, the British memorandum with examples of a lack of coherence in EU water policy (Summerton, 1995b) is discussed.</td>
</tr>
<tr>
<td>1995/10/20, 21 and 22</td>
<td>Informal Council of Europe’s Environment Ministers to discuss the EU water policy legislation. According to the Dutch minutes, all Ministers wish a not too ambitious framework directive that structures the existing obligation. Integrated water resources management should be the central point of departure (but with emphasis on water quality) and responsibilities should be divided in an equitable way.</td>
</tr>
<tr>
<td>1995/12/18</td>
<td>The Council of Environmental Ministers concludes that there is a need for a new framework directive in which the principles for sustainable water resources management in the European Union are anchored. The ecological water quality proposal may serve as the starting point.</td>
</tr>
<tr>
<td>1996/01/31</td>
<td>The Dutch and British EU Water Directors (i.e. Jan Hoogland and Neil Summerton) hold an informal meeting at London. Both share the opinion that the DG Environment’s ambition for restoration of the natural state of all water systems is not realistic (An internal Dutch communication points at the influence of Danish environmentalists within the DG and a subsequent replacement of those by British officials). Together they will propose the need for a (more realistic) good ecological state and a combined, complementary approach of water quality objectives and emission limit values. Both Water Directors are no supporter of a generic license obligation for all water abstractions.</td>
</tr>
<tr>
<td>1996/02/21</td>
<td>The European Commission releases a Communication on European Community Water Policy setting out the leading principles for a water framework directive (COM(96)59 final; Commission of the European Communities, 1996). The EC starts an open consultation round and invites specific interests groups and organisations to participate.</td>
</tr>
<tr>
<td>1996/03/29</td>
<td>Third meeting of DG Environment with the EU Water Directors of the Member States (Brussels).</td>
</tr>
<tr>
<td>1996/06/25</td>
<td>The Council of Environmental Ministers ‘urges the Commission to come forward as soon as possible and at the latest by the end of the year, with a proposal for a Water Resources Framework Directive. The Council considers this communication to constitute one useful basis to develop a new Community water policy.’ (Council conclusions on a European Community Water Policy).</td>
</tr>
<tr>
<td>1996/07/12</td>
<td>Informal meeting of the Water Directors from France, Germany, United Kingdom and the Netherlands and subsequent lunch with the most involved (British) officials of DG Environment (Paris). At the meeting Informal (non-) papers of France and the Netherlands and a suggestions letter of the United Kingdom on the set-up of a water framework directive have been discussed.</td>
</tr>
<tr>
<td>July 1996</td>
<td>In reaction to the Commission’s Communication, the EU Water Directors of France, United Kingdom, Germany and the Netherlands release a joint document: ‘Summary of Discussions about Guidelines for a Water Policy of the Union’ (Roussel et al., 1996).</td>
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<tr>
<td>Date</td>
<td>Remarkable event(s), meeting(s), or decision(s)</td>
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<tr>
<td>1996/09</td>
<td>Subsequently, the Committee of the Regions, the Economic and Social Committee and the European Parliament all request the EC to come forward with a proposal for a Council Directive establishing a framework for a European water policy.</td>
</tr>
<tr>
<td>1996/10</td>
<td>The EC releases its first draft proposal for the Water Framework Directive. The draft proposal will be developed further in informal meetings with technical experts and the EU Water Directors. A working group of technical experts, as chaired by Luxembourg, will elaborate proposals for the technical definitions and requirements of good ecological status of water bodies.</td>
</tr>
<tr>
<td>1996/12/20</td>
<td>DG Environment organises a meeting (Brussels) to consult national experts on the draft proposal for the Water Framework Directive.</td>
</tr>
<tr>
<td>1997/01/14</td>
<td>At the fourth meeting of DG Environment with the EU Water Directors of the Member States (Brussels), the draft proposal for the Water Framework Directive is discussed.</td>
</tr>
<tr>
<td>1997/01/20</td>
<td>The Dutch EU Water Director sends a letter to DG Environment with written remarks on the first draft proposal for the Water Framework Directive (letter HW/AI 97/1501).</td>
</tr>
<tr>
<td>1997/03/19</td>
<td>The Dutch EU Water Director invites his colleagues from the United Kingdom, France, Germany, Denmark, Spain and Luxembourg for an informal meeting (The Hague) to prepare the discussions on the draft Water Framework Directive in the Council of Environmental Ministers (under Dutch EU Presidency). Also DG Environment is present. This may be considered the fifth meeting of the EU Water Directors and DG Environment, although not all Member States have been invited.</td>
</tr>
<tr>
<td>1997/07/16</td>
<td>Sixth informal meeting of DG Environment with the EU Water Directors of the Member States (Luxembourg). The Luxembourg Presidency announces that the discussion on the WFD in the Council of Environmental Ministers will be postponed till October, since revision of the Drinking Water Directive will receive first priority. Text proposals by DG Environment on economic analysis and full cost recovery for water services, on the combined approach and on the role and status of the Article 21 Committee (in the then draft text Article 24 and 25).</td>
</tr>
<tr>
<td>1997/09/12, 13 and 14</td>
<td>The Dutch Ministry of Housing, Spatial Planning and the Environment invites the Environment Committee of the EP for a visit to the Netherlands. The proposal for a WFD is one of the agenda items. [Then the Dutch chair the Council of Ministers].</td>
</tr>
<tr>
<td>1997/10</td>
<td>First meeting of the (Dutch) inter-ministerial WFD platform (KARVO = Kaderrichtlijn Water Vooroverleg; October, 9th; The Hague). This is an informal forum that prepares the Dutch position and strategy for the European negotiations on the WFD.</td>
</tr>
<tr>
<td>1997/10/01</td>
<td>Letter from the Dutch Water Director to DG Environment on his opinion about the ‘draft modification to the Commission Proposal for a Council Directive establishing a framework for Community action in the field of water policy (COM(97)49)’ (document HW/AI/97/10581).</td>
</tr>
<tr>
<td>Date</td>
<td>Remarkable event(s), meeting(s), or decision(s)</td>
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<tr>
<td>1997/10/14</td>
<td>Seventh informal meeting of DG Environment with the EU Water Directors of the Member States (Bonn). Germany presents its ideas on the river basin management approach as rooted in experiences with the International Rhine Commission. The EC presents its ideas on incorporation of the Dangerous Substances Directive (76/464/EEC; under revision) into the Water Framework Directive. The Dutch minutes mentions progress with the expert group on good ecological status despite the lack of a task description.</td>
</tr>
<tr>
<td>1997/10/15</td>
<td></td>
</tr>
<tr>
<td>1997/11/18</td>
<td>Eight informal meeting of DG Environment with the EU Water Directors of the Member States (Brussels). The draft modification to the Commission’s proposal for the WFD is mentioned. The Fraunhofer study paper on development of a pollution prioritisation system in the context of the WFD is presented and discussed. According to the Dutch minutes ‘only four EU Water Directors were present and discussion on important new developments in the WFD file hardly took place’.</td>
</tr>
<tr>
<td>1998/01</td>
<td>DG Environment involves environmental NGOs in amending Annex V of the proposed WFD (ecological status qualification).</td>
</tr>
<tr>
<td>1998/02/17</td>
<td>The European Commission adopts the second modified WFD proposal following consultation (COM(98)76 final; Commission of the European Communities, 1998a).</td>
</tr>
<tr>
<td>1998/04</td>
<td>Dutch inter-ministerial workshop on ecological quality assessment systems in relation to the (draft) WFD. The workshop is organised to provide for a clear instruction for the Dutch delegation that negotiates about the WFD proposals in Brussels (April, 8th).</td>
</tr>
<tr>
<td>1998/06/16</td>
<td>The Council of Environmental Ministers (under British EU Presidency) adopts a provisional common position on the draft WFD. To satisfaction of the Dutch, this position includes intentional objectives. The EP is not amused since it did not finish its first reading yet. The United Kingdom is among the Member States that favours WFD adoption before the 1997 Amsterdam Treaty will come into force.</td>
</tr>
<tr>
<td>1998/06/17</td>
<td></td>
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<tr>
<td>1998/07</td>
<td>The Environment Committee of the EP formulates about 230 amendments to the WFD proposal and reveals substantial differences between the EP and the Council of Environmental Ministers. The Environmental Committee tries to reach informal compromises with the then Austrian chair of the Council about major issues (i.e. a selection from the 230 amendments) in the draft WFD text.</td>
</tr>
<tr>
<td>1998/10</td>
<td>A conversation between the EP and the Council in order to better understand the different opinions.</td>
</tr>
<tr>
<td>1998/11/24</td>
<td>Ninth informal meeting of DG Environment with the EU Water Directors of the Member States (Wien).</td>
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<tr>
<td>1998/11/25</td>
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<tr>
<td>1998/12</td>
<td>Informal conciliation talks (under German EU Presidency) between EP, the Council and the EC as an attempt to reach agreement before the first formal reading by the EP. The wish of the EP is to agree on a final WFD text before Summer 1999 (European elections). From the informal talks it becomes clear that the differences may be too large to arrive at an early compromise.</td>
</tr>
<tr>
<td>1999/01</td>
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<tr>
<td>1998/1999</td>
<td>Autumn/Winter: The EP deliberately delays the first formal WFD proposal in order to achieve co-decision position (after completed ratification under the 1997 Amsterdam Treaty).</td>
</tr>
<tr>
<td>1999/02/10</td>
<td>In its first reading of the proposed WFD, the EP (by voting) adopts 133 of the 230 amendments as proposed by its Environment Committee. Agreement with the Council only concerns minor issues from the proposed WFD text. Expectation: main differences may not be solved before Summer 1999.</td>
</tr>
<tr>
<td>1999/02/11</td>
<td>The Council of Environmental Ministers reaches political agreement on its common position towards the proposal for the WFD.</td>
</tr>
<tr>
<td>1999/03/11</td>
<td>The Amsterdam Treaty enters into force. The WFD falls under the co-decision procedure, which means that both the Council and the EP will have to decide on adoption of the WFD.</td>
</tr>
<tr>
<td>1999/05/01</td>
<td>Tenth informal meeting of DG Environment with the EU Water Directors of the Member States (Friedrichshafen).</td>
</tr>
<tr>
<td>1999/05/03</td>
<td>The elections for a new EP cause a delay of the legislative process. The EC accepts many of the EP's amendments, but the Council does not and reverts to its (provisional) common position of June 1998.</td>
</tr>
<tr>
<td>1999/08</td>
<td>By unanimity, the Council of Environmental Ministers decides on its common position with regard to the proposed (modified) WFD text. Within four months the second formal reading of the EP should take place.</td>
</tr>
<tr>
<td>1999/10/22</td>
<td>The Environment Committee of the new elected EP revises proposed amendments, knowing the WFD will have co-decision status.</td>
</tr>
<tr>
<td>2000/02/16</td>
<td>Second formal reading: The EP accepts the majority (74) of the revised amendments from its Environment Committee. The EP challenges the common position by the Council.</td>
</tr>
<tr>
<td>2000/02/28</td>
<td>11th informal meeting of the EU Water Directors and DG Environment (Lisbon). The EU Water Directors attempt to bridge the differences of opinions between the EP and the Council. They formulate advises at the 60 amendments in order to arrive at a final compromise. They call the Council to be more flexible in order to prevent formal conciliation talks.</td>
</tr>
<tr>
<td>2000/03/30</td>
<td>The Council of Environmental Ministers (Brussels) does not reach agreement on the advises from the EU Water Directors on the EP amendments.</td>
</tr>
<tr>
<td>2000/05/11</td>
<td>The first dialogue of the EC, the chair of the Council and the reporter from the EP. The negotiations on compromise text proposals for some of the Articles do not lead to a full agreement.</td>
</tr>
<tr>
<td>2000/05/11</td>
<td>Start of the first round of formal conciliation talks between the European institutions. This first round does not lead to a common agreement.</td>
</tr>
<tr>
<td>2000/06/28</td>
<td>Second round of conciliation talks: compromise on the WFD text.</td>
</tr>
<tr>
<td>2000/10/23</td>
<td>12th meeting of DG Environment with the EU Water Directors of the Member States (Paris).</td>
</tr>
<tr>
<td>2000/12/22</td>
<td>The WFD enters into force by publication in the Official Journal of the European Communities (European Communities, 2000).</td>
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Appendix VI: Guidance documents of the Common Implementation Strategy (CIS)

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<tr>
<th>No</th>
<th>CIS guidance document</th>
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<tr>
<td>1</td>
<td>Economics and the Environment (European Communities, 2003a).</td>
</tr>
<tr>
<td>2</td>
<td>Identification of water bodies (European Communities, 2003b).</td>
</tr>
<tr>
<td>3</td>
<td>Analysis of Pressures and Impacts (European Communities, 2003c).</td>
</tr>
<tr>
<td>4</td>
<td>Identification and Designation of Heavily Modified and Artificial Water Bodies (European Communities, 2003d).</td>
</tr>
<tr>
<td>5</td>
<td>Characterisation of Coastal Waters (European Communities, 2003e).</td>
</tr>
<tr>
<td>6</td>
<td>Intercalibration (European Communities, 2003f).</td>
</tr>
<tr>
<td>7</td>
<td>Monitoring (European Communities, 2003g).</td>
</tr>
<tr>
<td>8</td>
<td>Public participation (European Communities, 2003h).</td>
</tr>
<tr>
<td>11</td>
<td>Planning Process (European Communities, 2003k).</td>
</tr>
<tr>
<td>13</td>
<td>Strategic Guidance on the principles and communication of the first analysis under the WFD (European Communities, 2005a).</td>
</tr>
<tr>
<td>15</td>
<td>Overall Approach to the Classification of Ecological Status and Ecological Potential (European Communities, 2005c).</td>
</tr>
<tr>
<td>17</td>
<td>Groundwater Monitoring (European Communities, 2007a).</td>
</tr>
<tr>
<td>18</td>
<td>Groundwater in Drinking Water Protected Areas (European Communities, 2007b).</td>
</tr>
<tr>
<td>19</td>
<td>Preventing or Limiting Direct and Indirect Inputs in the Context of the 2006/118/EC Directive (European Communities, 2007c).</td>
</tr>
<tr>
<td>20</td>
<td>Ground Water Status and Trend Assessment (European Communities, 2009a).</td>
</tr>
<tr>
<td>21</td>
<td>Surface Water Chemical Monitoring (European Communities, 2009b).</td>
</tr>
<tr>
<td>22</td>
<td>Exemptions to the Environmental Objectives (European Communities, 2009c).</td>
</tr>
<tr>
<td>23</td>
<td>Reporting under the WFD (European Communities, 2009d).</td>
</tr>
<tr>
<td>24</td>
<td>Updated guidance document 9: Implementing the Geographical Information System Elements (GIS) of the EU Water Policy (European Communities, 2009e).</td>
</tr>
<tr>
<td>25</td>
<td>Eutrophication Assessment in the Context of the European Water Policies (European Communities, 2009f).</td>
</tr>
<tr>
<td>26</td>
<td>River Basin Management in a Changing Climate (European Communities, 2009g).</td>
</tr>
<tr>
<td>27</td>
<td>Intercalibration Process 2008-2011 (revision of 16, European Communities, 2005d; including first results) (European Communities, 2011).</td>
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## Appendix VII: Stakeholders in the Common Implementation Strategy (CIS)

<table>
<thead>
<tr>
<th>Interest cluster</th>
<th>Stakeholder groups and NGO’s ↓</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agriculture</strong></td>
<td>Strategic Coordination Group:</td>
</tr>
<tr>
<td>(maximum of 3 seats in the SGC)</td>
<td>o COPA-COGECA = Committee of Agricultural Organisations in the European Community – General Committee for Agricultural Co- operation</td>
</tr>
<tr>
<td></td>
<td>o ECPA = European Crop Protection Association</td>
</tr>
<tr>
<td></td>
<td>o EIC – FENACORE = Euromediterranean Irrigators Community</td>
</tr>
<tr>
<td><strong>Energy</strong></td>
<td>Strategic Coordination Group:</td>
</tr>
<tr>
<td>(maximum of 3 seats in the SGC)</td>
<td>o EREF = European Renewable Energies Federation</td>
</tr>
<tr>
<td></td>
<td>o ESHA = European Small Hydropower Association</td>
</tr>
<tr>
<td></td>
<td>o EURELECTRIC = Union of the Electricity Industry</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td>Strategic Coordination Group:</td>
</tr>
<tr>
<td>(maximum of 3 seats in the SGC)</td>
<td>o CEFIC = European Chemical Industry Council</td>
</tr>
<tr>
<td></td>
<td>o UNICE = Union of Industrial and Employer’s Confederations in Europe</td>
</tr>
<tr>
<td></td>
<td>Not represented in the Strategic Coordination Group:</td>
</tr>
<tr>
<td></td>
<td>o EUROGYPSUM – Association of European Gypsum Industries (WG only)</td>
</tr>
<tr>
<td></td>
<td>o EFMA – European Fertilizer Manufacturers Associations (WG only)</td>
</tr>
<tr>
<td></td>
<td>o CONCAWE – Oil Companies European Association (WG only)</td>
</tr>
<tr>
<td></td>
<td>o EUROMETAUX – European Association of Metals (WG only)</td>
</tr>
<tr>
<td></td>
<td>o CEPI – Confederation of European Paper Industry (EAF only)</td>
</tr>
<tr>
<td></td>
<td>o EUROCHLOR – European chlorine industry (EAF only)</td>
</tr>
<tr>
<td></td>
<td>o EUROMINES – European Association of Mining Industries (EAF only)</td>
</tr>
<tr>
<td></td>
<td>o CEPI – Confederation of European Paper Industry (EAF only)</td>
</tr>
<tr>
<td><strong>Navigation</strong></td>
<td>Strategic Coordination Group:</td>
</tr>
<tr>
<td>(maximum of 3 seats in the SGC)</td>
<td>o CEDA – Central Dredging Association</td>
</tr>
<tr>
<td></td>
<td>o ESPO – European Sea Ports Organisation</td>
</tr>
<tr>
<td></td>
<td>o EURMIG = European Union Recreational Marine Industry Group</td>
</tr>
<tr>
<td></td>
<td>Not represented in the Strategic Coordination Group:</td>
</tr>
<tr>
<td></td>
<td>o PIANC – International Navigation Association (WG only)</td>
</tr>
<tr>
<td></td>
<td>o CCNR – Central Commission for Navigation on the Rhine (WG only)</td>
</tr>
<tr>
<td><strong>Water supply and waste water</strong></td>
<td>Strategic Coordination Group:</td>
</tr>
<tr>
<td>(maximum of 3 seats in the SGC)</td>
<td>o EUREAU – European Union of National Associations of Water Suppliers and Waste Water Services</td>
</tr>
<tr>
<td></td>
<td>o EWA (European Water Association)</td>
</tr>
<tr>
<td>Interest cluster</td>
<td>Stakeholder groups and NGO's ↓</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------------------</td>
</tr>
</tbody>
</table>
| NGOs (maximum of 10 seats in the SCG) | Strategic Coordination Group:  
   - EAA – European Anglers Alliance  
   - EBU – European Barge Union  
   - EEB – European Environmental Bureau  
   - ELO – European Landowners Organisation  
   - UNICE – Union of Industrial and Employer’s Confederations in Europe  
   - WWF – World Wide fund for Nature  
   Not represented in the Strategic Coordination Group:  
   - EUPC – European Union of House Builders and Developers  
   - Grüne Liga  
   - SAR – Seas at Risk |

| International Governmental Organisations (maximum of 10 seats in the SCG) | Strategic Coordination Group:  
   - CEMR – Council of European Municipalities and Regions  
   - CEE NBO – Central and Eastern European Network of Basin Organisation  
   - CEN – European Committee for Standardization  
   - EPRO – Environmental Platform of Regional Offices in Brussels  
   - ICPDR – International Commission for the Protection of the Danube River  
   - INBO – International Network of Basin Organisations  
   - WMO – World Meteorological Organisation  
   Not represented in the Strategic Coordination Group:  
   - CEA – Comité Européen des Assurances  
   - EFG – European Federation of Geologist  
   - EUCETSA – European Committee of Environmental Technology Suppliers Associations  
   - IMC – International Commission on Meuse  
   - ISC – International Scheldt Commission |

SCG = Strategic Coordination Group; WG = Working Groups; EAF = Expert Advisory Forums
Appendix VIII: Stages in the Dutch water policy domain (national level) before and after adoption of the Water Framework Directive

<table>
<thead>
<tr>
<th>Stage 0: Dutch water policy life before the Water Framework Directive (from 1960 to 2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No.</strong></td>
</tr>
<tr>
<td>(a)</td>
</tr>
<tr>
<td>(b)</td>
</tr>
<tr>
<td>(c)</td>
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<tr>
<td>(d)</td>
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<tr>
<td>(e)</td>
</tr>
<tr>
<td>(f)</td>
</tr>
<tr>
<td>(g)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage I: Low political priority until two late wake-up calls (from 1998 to 2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No.</strong></td>
</tr>
<tr>
<td>(h)</td>
</tr>
<tr>
<td>(i)</td>
</tr>
<tr>
<td>(j)</td>
</tr>
<tr>
<td>(k)</td>
</tr>
</tbody>
</table>
Publication of the *Aquarein* study report (November 2003) causes a late political WFD wake-up call and triggers pragmatic WFD implementation ambitions. Parliamentarians delay the legal transposition of the WFD.

### Stage II: Realistic ambitions, first river basins characterisations and iteration (2004, 2005)

<table>
<thead>
<tr>
<th>No</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>(m)</td>
<td>The EC starts a juridical procedure for non-timely Dutch compliance with WFD’s Article 24.</td>
</tr>
<tr>
<td>(n)</td>
<td>The new (integrated) Water Act will be based on three major arguments, i.e. less and more simple regulation, the European river basin management approach and ‘better legal anchorage and instrumentation of contemporary integrated water management’.</td>
</tr>
<tr>
<td>(o)</td>
<td>April 2004, the Dutch Council of Ministers approves the WFD Ambition Memorandum which emphasises a staged, pragmatic, feasible and affordable implementation until the end of 2027. The National Water Platform interprets the WFD’s environmental objectives as staged obligations. Historical land use rights and spatial planning policy are leading. Despite the national interpretation, the discussion on the juridical nature of the WFD requirements pops up at several moments till December 2009. The EC suspects the Dutch competent authorities of lowering the ambitions for WFD implementation, an image which proves to be very hard to dismantle.</td>
</tr>
<tr>
<td>(p)</td>
<td>November 2004, the National Political Water Platform discusses an informal interpretation document about the differences between intentional and obligatory requirements in the WFD (Ministerie van Verkeer en Waterstaat, 2004c).</td>
</tr>
<tr>
<td>(q)</td>
<td>After cautious scrutiny by an independent audit committee, the Dutch Article 5 reports are sent to the EC in time (March 2005). For the majority of Dutch water bodies full compliance with the environmental objectives in 2015 will be improbable. Parliamentarian worries about the WFD’s consequences remain.</td>
</tr>
<tr>
<td>(r)</td>
<td>The WFD process will have the nature of a “funnel model” (<em>trechtermodel</em>), i.e. the process will evolve from a general inventory of the range of (potential) objectives and measures (between a maximum and a minimum ambition level) towards final programmes of measures per individual water body (based on feasibility and affordability criteria). The Lower House of Parliament will be informed annually by means of (December) memoranda. The approach includes regional and local WFD pilot projects to get a better grip on potential measures and their implications.</td>
</tr>
<tr>
<td>(s)</td>
<td>Periodically, the Water Policy Department plies for an integrated WM21/WFD approach at the regional and local levels. In turn, the chairs of the regional river basin platforms ask for transparent inter-ministerial coordination, especially for the WFD and Natura 2000.</td>
</tr>
<tr>
<td>(t)</td>
<td>November 2005, the National Political Water Platform approves the pragmatic, alternative approach for formulation of ecological objectives for heavily modified water bodies (as proposed by Dutch bureaucrats at a European workshop on the WFD and hydro-morphology in Prague).</td>
</tr>
<tr>
<td>(u)</td>
<td>December 2005, the Water Policy Department and the V/NG agree to initiate a stimulation programme on active participation of local experts, politicians and bureaucrats (the so-called ‘Water-ambassadors Agreement’). Environmental NGOs and socio-economic interests groups are informed and consulted by means of one (existing) national and seven (new) regional sounding-boards.</td>
</tr>
</tbody>
</table>
The 2005 December Memorandum sums the chosen organisational and substantive process rules for the subsequent WFD implementation planning stages. It reconfirms the headlines of the 2004 WFD Implementation Memorandum. Objectives and measures for the WFD and the Birds- and Habitats Directives (Natura 2000 sites) will only be coupled whenever necessary given interdependencies. Rules on a level playing field, water quality standards for (transboundary) problematic substances and the no-shift principle (Article 4(8) of the WFD) should be agreed on multilaterally (in the international river basin committees). The WFD monitoring programmes (both surface water and groundwater) should be designed in a cost-effective manner. Article 14 is interpreted as information and consultation of NGOs and socio-economic interests groups by means of WFD Sounding-boards at the national, regional and local level.

Environmental NGOs and socio-economic interests groups subscribe the main starting-points, but consider the 2005 December Memorandum too generic. Parliamentarians ask for a further reduction of the estimated WFD implementation costs.

<table>
<thead>
<tr>
<th>Stage III:</th>
<th>Harmonised objectives and measures, acceptable costs-benefits ratios (2006 to 2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No↓</td>
<td>Observations↓</td>
</tr>
<tr>
<td>(x)</td>
<td>A major steering dilemma continuously bothers the Dutch national public actors: How to sufficiently harmonise processes of autonomous (regional and local) authorities for comparable (national) river basin management plans/programmes of measures? How to translate the pragmatic implementation mantra by means of feasible and affordable measures in a comparable way across the country?</td>
</tr>
<tr>
<td>(y)</td>
<td>The (independent) February 2006 WFD quick scan from the Environmental Assessment Agency (Ligtvoet et al., 2006; with similar conclusions as the 2003 Aquarein report) receives limited attention. According to the quick scan, the WFD requirements are far from fulfilled and continuation of running policies will lead to no further deterioration of (physical-) chemical and ecological quality only. Expensive additional measures will be necessary to comply with the environmental objectives of the WFD. Also, the September 2007 National Water Vision, an informal document of the then new Council of Ministers is not discussed by the WFD actors and does not play a significant role in the process on selection of cost-effective measures.</td>
</tr>
<tr>
<td>(z)</td>
<td>Compared with draft editions, the final 2006 December Memorandum shows a remarkable strategic move. Instead of stressing additional State investments for WFD measures, the national authorities “cash” a potential cost reduction of €1.9 billions by implementing WFD and WM21 measures in an integrated way (i.e. by means of combined measures that deliver synergy and innovation). The final memorandum is based on the national strategic societal costs benefits analysis and regional economic analyses as presented in so-called (regional river basin) Summer Memoranda.</td>
</tr>
<tr>
<td>(aa)</td>
<td>First priority is given to (almost) full implementation of WM21 measures before the end of 2015, while for the WFD assignment a staged approach till 2027 is mentioned. However, WM21 measures should be WFD proof and wherever possible contribute to WFD objectives. Considerable additional investments will have to be made in order to conduct 70-80% compliance with the WFD objectives in 2027. Despite the national integration desire, most regions hardly include WM21 measures for the river basin management programmes.</td>
</tr>
</tbody>
</table>
Due to time restrictions and delays in national formats and guidelines, processes of formulating objectives and selecting cost-effective measures run in parallel instead of one after the other (as a logical order to define “distances to targets”).

The WFD/Natura 2000 coordination process is laborious. Distrust develops between the regional water management authorities (who feel excluded) and the ANF Ministry. The national authorities advocate a pragmatic approach: only coupling of both processes whenever water conditions may hinder compliance with objectives.

National and regional costs-benefits analyses mainly run in parallel. The Meuse partners are irritated about the lack of data on generic measures from the ANF Ministry. The Water Steering Group, a number of parliamentarians and representatives from farmers and industrial interests groups expresses worries about both, the comparability of the regional figures and the unbalance between societal costs and benefits. Due to different starting-points, hypotheses, prepositions and methodological difficulties, the (national) strategic societal costs-benefits analysis does not yet answer questions about the most cost-effective measures and which measures may lead to disproportionate costs.

After consultation of an independent committee of economic experts, the National Political Water Platform decides to conduct an ex ante evaluation in the first half of 2008 instead of a societal costs-benefits analysis. Most actors (national, regional, local; governmental and non-governmental) agree that, due to methodological deficiencies, a sufficient reliable societal costs-benefits analysis is impossible.

| Stage IV: Drafting of river basin management plans and formal consultation (2008, 2009) |
| No | Observations |
| (af) | For harmonisation reasons, the national Water Policy Department decides to initiate a national editing team (instead of regional ones) for the river basin management plans. In parallel, provinces and regional water management authorities write their own water policies and management plans. |
| (ag) | Notwithstanding the national calls for integrated WM21 and WFD implementation at the regional and local scale, the TPW Ministry chooses a WFD limited reporting obligation (related to strict compliance with the WFD’s legally binding requirements). |
| (ah) | National, regional and local governmental actors generally are satisfied with the well coordinated formal consultation procedure for all related new water policies and management plans. Environmental NGOs and socio-economic interests groups suffer from the large amount of documents. |
| (ai) | In answer to all the received views only minor amendments have been made in the final river basin management programmes and related national, regional and local programmes. At the end of 2009, green NGOs express their disappointed about ‘a lack of ambition, too much business as usual’, while the industrial and agricultural representatives are more satisfied with the chosen pragmatic approach. |
## List of abbreviations

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<th>Abbreviation</th>
<th>Explanation</th>
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</thead>
<tbody>
<tr>
<td>ACW</td>
<td>Advice Commission for Water (Advies Commissie Water)</td>
</tr>
<tr>
<td>ANF Ministry</td>
<td>Ministry of Agriculture, Nature management and Food Quality (Ministerie van Landbouw, Natuurbeheer en Voedselveiligheid = LNV); name of the Ministry since July, 1st, 2003. Since October 14th, 2010, the Ministry has merged with the former Ministry of Economic Affairs into the new Ministry of Economic Affairs, Agriculture and Innovation.</td>
</tr>
<tr>
<td>BAT</td>
<td>Best Available Technology</td>
</tr>
<tr>
<td>BMF</td>
<td>Brabant Environment Federation (Brabantse Milieu Federatie)</td>
</tr>
<tr>
<td>CIRCA</td>
<td>Communication and Information Resources Centre Administrator (<a href="http://circa.europe.eu">http://circa.europe.eu</a>)</td>
</tr>
<tr>
<td>CIS</td>
<td>Common Implementation Strategy</td>
</tr>
<tr>
<td>CPRM</td>
<td>Common Pool Resources Management</td>
</tr>
<tr>
<td>CRM</td>
<td>The (Dutch) Rhine-Meuse Coordination Bureau (Coördinatiebureau Rijn-Maas)</td>
</tr>
<tr>
<td>EAF</td>
<td>Expert Advisory Forum</td>
</tr>
<tr>
<td>EC</td>
<td>European Commission (= Commission of the European Communities)</td>
</tr>
<tr>
<td>ECJ</td>
<td>European Court of Justice</td>
</tr>
<tr>
<td>EEB</td>
<td>European Environmental Bureau</td>
</tr>
<tr>
<td>EEC</td>
<td>European Economic Communities</td>
</tr>
<tr>
<td>EP</td>
<td>European Parliament</td>
</tr>
<tr>
<td>EPI</td>
<td>Environmental Policy Integration</td>
</tr>
<tr>
<td>GGOR</td>
<td>Instrument for determining desirable groundwater and surface water regimes (GGOR = Gewenste Grondwater en Oppervlaktewater Regime)</td>
</tr>
<tr>
<td>GWP-TAC</td>
<td>Global Water Partnership – Technical Advisory Committee</td>
</tr>
<tr>
<td>HSE Ministry</td>
<td>Ministry of Housing, Spatial Planning and Environment (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu = VROM). Since October 14th, 2010, the Ministry has merged with the former Ministry of Transport, Public Works and Water Management into the new Ministry of Environment and Infrastructure.</td>
</tr>
<tr>
<td>IAD framework</td>
<td>Institutional Analysis and Development framework</td>
</tr>
<tr>
<td>ICPM</td>
<td>International Commission for Protection of the Meuse River against pollution</td>
</tr>
<tr>
<td>IMC</td>
<td>International Meuse Commission</td>
</tr>
<tr>
<td>IPO</td>
<td>Inter-Provincial Platform (Interprovinciaal Overleg)</td>
</tr>
<tr>
<td>IRBM</td>
<td>Integrated River Basin Management</td>
</tr>
<tr>
<td>IWRM</td>
<td>Integrated Water Resources Management</td>
</tr>
<tr>
<td>LLTO</td>
<td>Limburg Agriculture and Horticulture Organisation (Limburgse Land- en Tuinbouw Organisatie)</td>
</tr>
<tr>
<td>LMF</td>
<td>Limburg Environment Federation (Limburgse Milieu Federatie)</td>
</tr>
<tr>
<td>MSP</td>
<td>Multi-Stakeholder Platform</td>
</tr>
<tr>
<td>NGO</td>
<td>Non Governmental Organisation</td>
</tr>
<tr>
<td>PAA</td>
<td>Policy Arrangement Approach</td>
</tr>
<tr>
<td>RAOM</td>
<td>Regional Meuse Administrative Platform (Regionaal Ambtelijk Overleg Maas)</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Explanation</td>
</tr>
<tr>
<td>--------------</td>
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</tr>
<tr>
<td>RBOM</td>
<td>Regional Meuse Political Platform (Regionaal Bestuurlijk Overleg Maas)</td>
</tr>
<tr>
<td>SCG</td>
<td>Strategic Coordination Group</td>
</tr>
<tr>
<td>SEA</td>
<td>Single European Act</td>
</tr>
<tr>
<td>SIWI</td>
<td>Stockholm International Water Institute</td>
</tr>
<tr>
<td>TMBC</td>
<td>Transboundary Mark Basin Committee (Stroomgebiedcomité Mark)</td>
</tr>
<tr>
<td>TPW Ministry</td>
<td>Ministry of Transport Public Works and Water Management (Ministerie van Verkeer en Waterstaat = VenW). Since October 14th, 2010, the Ministry has merged with the former Ministry of Housing, Spatial Planning and Environment into the new Ministry of Environment and Infrastructure.</td>
</tr>
<tr>
<td>UN-CED</td>
<td>United Nations - Conference on Environment and Development</td>
</tr>
<tr>
<td>UN-ECE</td>
<td>United Nations – Economic Commission for Europe</td>
</tr>
<tr>
<td>UrW</td>
<td>Association of Regional Water Management Authorities (Unie van Waterschappen)</td>
</tr>
<tr>
<td>VEWIN</td>
<td>The Association of Dutch Drinking Water Companies (Vereeniging van Waterbedrijven in Nederland)</td>
</tr>
<tr>
<td>VNG</td>
<td>Association of Dutch Municipalities (Vereeniging van Nederlandse Gemeenten)</td>
</tr>
<tr>
<td>VROM</td>
<td>Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu (see also HSE Ministry)</td>
</tr>
<tr>
<td>WASM</td>
<td>International Warning and Alarming System on accidental pollution of the Meuse River.</td>
</tr>
<tr>
<td>WFD</td>
<td>Water Framework Directive</td>
</tr>
<tr>
<td>WM21</td>
<td>Water Management in the 21st Century approach (Waterbeheer 21e Eeuw)</td>
</tr>
<tr>
<td>ZLTO</td>
<td>Southern Agriculture and Horticulture Organisation (Zuidelijke Land- en Tuinbouworganisatie)</td>
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Zenne River 1
Impression of the “Ashgate Session” at Wageningen (August 17, 2006) for conducting a book on multi-stakeholder platforms for integrated water management From left to right: Annemiek Verhallen, Leo Santbergen and Jeroen Warner
(Source:the author)
Author Biography

Leo Santbergen (1967) graduated in biology (orientation C: population and ecosystem) at Wageningen University and Research Centre in August 1991. Due to conscientious objection to armed conflicts, he fulfilled his military service as an alternate social service at the Zeeland Directorate of the State Waters Management Agency (part of the former Ministry of Transport, Public Works and Water Management). Together with colleagues of the Flemish Region of Belgium, Leo started up the International Study Group for the Scheldt River Basin, with the aim to draft a river basin characterisation report. Given the multilateral negotiations on the Meuse and Scheldt Rivers were expected to deliver international treaties within a few years, the idea was to prepare informally for a quick start up of formal structures. Between 1992 and September 2002, he worked as policy advisor and coordinator at the Zeeland Directorate for the Dutch part of the River Scheldt Estuary. At this position he was involved in the establishment of the secretariat of and the contributions of the Dutch delegation in the International Commission for Protection of the River Scheldt against Pollution and the debates on the deepening of the navigation channel between the North Sea and the Antwerp Harbour. Until today, especially the related nature compensation plans invoke laborious political negotiations and public polarisation.

Based on a proposal by Annemiek Verhallen the ministry offered the author the opportunity to go for a three-year sabbatical at Wageningen University and Research Centre. Leo assisted Annemiek as teacher in Integrated River Basin Management, for example by reforming the Dutch courses into English editions for students International Land and Water Development, Hydrology and Environmental Systems Analysis. He contributed to the research project on Multi-Stakeholder Platforms for Integrated Water Management and participated in the development of a curriculum on Integrated River Basin Management at Sanaa’s University in Yemen. Leo also co-taught the River 21 course, which is a special course for a group of international, multidisciplinary students on envisioning the future policy, management and life in the Scheldt River Basin. During the sabbatical Leo continued working as a policy adviser for the Zeeland Directorate, especially by conducting non-participative observations on the Water Framework Directive’s implementation process in the International Scheldt River basin District. These observations have inspired the author to initiate this PhD research.

Since October 2005, Leo works as a senior policy advisor at the Brabantse Delta Water Management Authority (Breda, Netherlands). He is the coordinator for the areal implementation planning process of the Water Framework Directive and cross-border cooperation with the Flemish Region of Belgium. Furthermore he advises the Daily Board of Governors and the General Assembly about integrated river basin management issues in general, the national Delta-Programme (for climate change proof safety against floods and sustainable fresh water resources management) and participatory multi-stakeholder processes in particular. Furthermore, Leo likes to write, both fiction and non-fiction (especially poetry), to read and to travel.