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CHAPTER 1 INTRODUCTION

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1.1 Introduction

The Water Framework Directive (WFD) was published in 2000 (2000/60/EC) and functions as a major framework for the protection of water bodies in Europe, both for surface waters (rivers, lakes, transitional waters, coastal waters), and ground waters. It focuses mainly on issues of water quality, the quantity of groundwater and ecology, although the Directive also relates and refers to flooding policies. The promotion of sustainable water use and the improvement of the quality of water systems are its main targets. Besides setting substantial goals for European water quality, the WFD also affects the water policies of EU Member States by prescribing institutional pathways to reach objectives, such as river basin management and participatory approaches (Kaika 2003; Kaika and Page 2005; Meijerink and Wiering 2009). The Directive is considered to be a major agent of change or driving force for integrated water resources management across Europe. It promises to reform the European water sector (Kaika 2003) and aims at harmonisation of policies on water and water quality in EU Member States. The ultimate goal of the WFD is sustainable use of water. The environmental objective as defined in the Directive is to achieve a 'good status'¹ in all European water bodies by 2015.

The WFD is explicitly a *framework* directive. In itself, it does not contain detailed regulations on policy objectives for each water system, nor does it exactly prescribe to take up specific policy measures. It allows Member States a considerable degree of freedom in both the process and outcome of implementation (MNP, Quick Scan 2006), as long as they act within the bounds of pre-existing water directives and other relevant European regulations (i.e. those concerning nature conservation, agricultural sources, etc.). In addition to the new directives (WFD, Groundwater Directive and Directive on Priority Substances), the Member States must also implement the so-called 'basic measures' before 2015. These basic measures stem mainly from the pre-existing European water-related directives, such as the Urban Wastewater Directive, Birds and Habitats Directives, Bathing Water Directive, Nitrates Directive, Directive on Integrated Pollution Prevention and Control (IPPC), etc. (see Van Rijswick et al. 2008 for an overview of the directives).

¹ 'Good status' needs to be achieved for both surface and ground water. 'Good surface water status' is achieved when both its ecological and chemical status are at least 'good'. 'Good ground-water status' is achieved when both its quantitative and chemical status are at least 'good'. When surface water bodies are classified as heavily modified or artificial, good ecological 'potential' is the objective.

Member States must prepare a river basin management plan (RBMP) for each river basin district. In general, the different governmental authorities have to inform and consult the involved market parties, NGOs or other stakeholders within a Member State when river basin management plans are being prepared. River basin management plans include, among other things, characteristics of the river basin districts, a summary of the significant pressures and impact of human activity, a list of environmental objectives and a summary of the programme of measures (Annex VII WFD). The EU provides help for the Member States in fulfilling the WFD requirements by way of guidance documents and working groups, in a process of joint implementation and intercalibration.

The aim of the intercalibration exercise is to harmonise the understanding of 'good ecological status' in all Member States, and to ensure that this common understanding is consistent with the definitions of the Directive. The exercise is referred to in the Directive (Annex V Section 1.4.1) and the results are important in setting the ecological targets for the natural surface water bodies. The process is still not fully completed, and therefore some results will only be ready for the second phase of the RBMPs in 2015 (RWS Waterdienst 2008). The results up to this point were adopted by the European Parliament and the Council in December 2008.

Once Member States have committed themselves to a specific set of objectives and measures laid down in river basin management plans for the defined water bodies, the EU will supervise and enforce achievement of these objectives within the time frames indicated (see Annex 1). Moreover, not all elements of the Directive are left to the policy discretion of Member States: e.g. the chemical status for all water bodies is directly regulated by European directives or daughter directives (see Section 1.2).

As such, the WFD programme in large part seems to reflect 'new modes of governance' on a European scale. In contrast to former European Directives, the WFD is not only oriented towards prescribing standards and norms, but it also prescribes that Member States determine and implement self-imposed objectives and standards to reach a good status of water in Europe. The WFD belongs to the 'new generation' of EU environmental policy instruments (see Knill and Lenschow 2000). The institutional implementation literature (foremost: Knill 2001) suggests that this also causes adaptation pressure amongst Member States, and consequently, implementation problems. It is interesting to see how different Member States deal with the policy discretion that the WFD offers. How do they make their choices when setting objectives and determining packages of measures? What procedures and organisational frameworks do they use?

1.2 Focus of this study

The main goal of this study of the implementation of the WFD in a comparative perspective is to gain insight into the implementation processes and practices in other EU Member States. This informs us about ‘how the Netherlands is doing’ with regard to the implementation of the WFD, how other countries deal with comparable policy problems and how other countries are setting their levels of ambition. The report published earlier by the Ministry, *EU KRW Internationaal* (RWS Waterdienst 2008), also asks the question of where the Netherlands stands among other EU Member States in implementing the WFD. However, this report does not elaborate on the processes of implementation extensively. A secondary goal is to learn from the choices made in other countries. For example, what are interesting policy practices in different countries?

There are different approaches used in analysing the policy practices of Member States when it comes to the implementation of European regulations. The literature is very diverse, and can have various theoretical and empirical perspectives.

The proceedings in the *formal implementation* of EU Directives are usually the subject of legal literature, e.g. the work of Van Rijswick (2001) on the WFD or Vervaele (1999) on comparative studies of formal implementation of EU regulations in general. Studies of the *institutional adaptation* of EU Member States use a political-institutional perspective to point specifically to the institutional consequences of specific directives (i.e. Knill and Lenschow 2000; Knill 2001; Knill and Liefferink 2007). The *Europeanisation* literature deals in a more general sense with the impact of the EU on national policies. One ‘follow-up’ question of Europeanisation studies concerns the issue of *convergence*: to what extent do Europeanisation processes in different Member States lead to convergence? Another might be the *leader-laggard* question, although this also addresses another aspect of European integration – i.e. the behaviour of Member States in putting policy concepts or programmes on the European agenda and thereby influencing *policy-making* in Brussels.

This study will focus on a detailed description of the implementation of important elements of the Directive in different countries. ‘Implementation’ is understood as both the formal implementation (transposition, legal framework, formalisation of norms and standards) and the practical organisation and realisation of the goals, principles and prescriptions of EU directives. The study is therefore a collaboration of legally-oriented scholars from the Department of Law at Utrecht University, and policy-oriented scholars from the Department of Political Sciences of the Environment at Radboud University Nijmegen.

Formal implementation and legal perspective

In the legal parts of this study, we focus on the obligations following from the Water Framework Directive itself and on the formal legal implementation in the national law of the several selected countries. Not all aspects of the implementation are researched. The focus lies on the attribution of powers in the field of water management; the legal implementation of ambitions and goal setting; the designation of water bodies; the way norms and standards are legally formulated and regulated in national law; the way exemptions are regulated and the legal meaning of the no-deterioration principle in the national law of the Member States. Finally, we will look at the way in which the integration of water objectives, norms and standards play a role in decision making in the field of water management and other policy fields. For the legal literature on the implementation of the WFD in several Member States see the literature in the references.

Practical implementation and institutional perspective

In the part on practical implementation in this study, we will look at both the 'substantive' aspect of the implementation process (setting levels of ambition, dealing with principles, reaching good status), and the organisational-institutional aspect of implementing the WFD (e.g. the general organisational framework, centralised/decentralised institutions, locus of decision making and external integration).

Before we address our research questions, case-selection and the methodology of this study, it is necessary to provide more information on the Directive itself.

1.3 *Relevant content of the WFD*

'Water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such.' This statement in the preamble to the WFD is not just a symbol of the importance of water, but also has a legal meaning. The protection of common heritage requires the strict implementation of EC directives, as became clear from EC Court decisions concerning the implementation of the Habitats Directive. Together with the new approach in EC environmental legislation as mentioned above, this leads to many questions concerning the implementation of the WFD. How does one deal with a strict protection regime that at the same moment is based on a new governance approach that leaves room for policy discretion and the involvement of governments and stakeholders and which have to fit within the legal system of the individual Member States? A great deal of discussion has been taking place during the last decade, each participant in the discussion focusing on his or her own interests, background, and scientific approach. Due to the fact that EC Environmental law has a strong focus on the correct implementation of obligations

following from directives, because that it is the only way in which the European Commission can fulfil its role as the watchdog of EC law, it is of great importance to take a close look at the exact wording of not only the WFD Directive, but also the system of the directive as a whole and the case law on older environmental directives so as to be able to obtain a proper understanding of the obligations following from the WFD. Environmental objectives worded as norms instead of standards seem vague and unfocused, but they form the backdrop for the explanation of the other obligations and instruments.

It is argued that these vague and normative norms are a result of a development towards governance and more proceduralisation and flexibility in environmental law. It is now not only the European institutions that create legal norms and standards, in particular concerning the good ecological status, but also the Member States together with the other parties involved (Krämer 2007; Scott 2000; Scott and Trubeck 2002; Pallemarts et al. 2006). As far as the Water Framework Directive is concerned, norms and standards are elaborated within the Common Implementation Strategy for the Water Framework Directive.

The main problems of the governance concept are a diminishing ability to enforce regulations because there are less uniform and concrete standards that must be met. Furthermore, there is the possibility of a lack of democratic legitimacy and responsibility in political and legal forums, because legislation is partly made by executive powers and third parties. The controlling role of parliaments is diminishing (Van Trigt, 2007).

Although this all seems quite severe and worrying, a solution for this tension between the more classic government approach and the new governance approaches can be found by using a rights-based approach following from water rights which are provided in European and national legislation (Van Rijswijk 2008).

At first sight, the wording of vague objectives and goals appears not to be unconditional and sufficiently clear, as a result of which these provisions do not meet the requirements for having direct effect. The latter is of importance for private parties as it enables them to enforce their rights arising from the directives before the courts. After all, Member States must elaborate the details of the normative goals in river basin management plans and programmes of measures and it is beyond the competence of the courts to make a choice from different instruments because it will restrict the legislator's discretion in this respect. Nevertheless, there are still protective instruments for NGOs, private parties and other Member States within the same river basin district.

A system with normative objectives is not new; we have seen it before in other environmental directives, such as the 'significant effects on the environment' of the EIA Directive, and the 'favourable conservation status' and 'significant effect' of the Habitats Directive. The European Court of Justice's case law shows that these provisions may

have direct effect as far as they touch upon the limits of a Member State's discretionary powers. This requirement must be elaborated by the Member States.²

The more generally drafted environmental objectives in directives provide, as it were, policy restrictions (depending on what is granted by the directive) which the Member States must bear in mind when implementing the obligations arising from the directive. The general – or ultimate – objective must eventually determine the scope of all the obligations, and not just the scope of the provisions that have direct effect. This approach can also be found in the case law of the European Court of Justice.³

Finally, we must also be able to trust the legislator's loyal commitment to the transposition of the obligations arising from the directive which does justice, as far as substantive law and procedural law are concerned, to the protection of water systems within the EC. If this fails to occur, the European Commission can act in its capacity as the European law watchdog and start an infringement procedure. The direct protection of water interests for private parties or interested third parties before the European courts (the Court of First Instance and the European Court of Justice) is practically impossible. After all, it requires a direct and individual interest, which is often difficult to prove (Jans and Vedder 2008). Private parties do have the possibility to ask the national courts to request a preliminary ruling from the European Court of Justice. More specifically, national courts must guarantee water rights arising from European law.

General purpose and environmental objectives

Regarding the WFD there are several levels of goals, standards and more concrete requirements. Member States have to comply with all these obligations and especially the general obligations, for example the obligation that all waters ## should be protected and member states should prevent further deterioration (see article 1 and 4) have an impact on all the obligations following from the WFD and on all water bodies.

As previously stated, we will focus on the obligations concerning the legal establishment of goals and the qualification of these goals as obligations of result or obligations of best efforts; the designation of water bodies; the legal establishment of the exemptions; the legal establishment of the no-deterioration principle and the integration of water management goals, standards and measures in other policy fields.

European water directives often show general goals and environmental objectives drafted as general and qualitative provisions. An example is the Water Framework Directive whose ultimate general goal can be found in Article 1:

² ECJ case C-72/95 (Kraaijeveld), ECJ case C-127/02 (Wadden Sea), ABRvS 13 November 2002, *Milieu en Recht* 2003, no. 39.

³ ECJ case C-213/03 (preliminary ruling) and ECJ C-239/03, *Commission vs France on (L'étang de Berre)*.

Article 1

Purpose

The purpose of this Directive is to establish a framework for the **protection of inland surface waters**, transitional waters, coastal waters and groundwater which:

- (a) **prevents further deterioration** and **protects and enhances the status of aquatic ecosystems** and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems;
- (b) promotes **sustainable water use** based on a long-term protection of available water resources;
- (c) aims at enhanced **protection and improvement** of the aquatic environment, inter alia, through specific measures for the progressive reduction of discharges, emissions and losses of priority substances and the cessation or phasing-out of discharges, emissions and losses of the priority hazardous substances;
- (d) ensures the **progressive reduction of pollution of groundwater** and prevents its further pollution, and
- (e) contributes to **mitigating the effects of floods and droughts** and 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,
 - a significant **reduction in pollution of groundwater**,
 - the **protection of territorial and marine waters**, and
 - achieving the objectives of relevant international agreements, including those which aim to prevent and eliminate pollution of the marine environment, by Community action under Article 16(3) to cease or phase out discharges, emissions and losses of priority hazardous substances, with the ultimate aim of achieving concentrations in the marine environment near background values for naturally occurring substances and close to zero for man-made synthetic substances.

It is very important to realise that the general goal of the WFD, which colours all obligations from the directive, is to protect all waters, and all aquatic water systems. The purpose of the WFD is not limited to designated water bodies and their chemical or ecological status.

The ultimate *environmental* goal of the WFD is to ensure that all European waters are in 'a good status'. This differs from the general objectives of the Water Framework Directive laid down in Article 1, while the environmental objectives are laid down in Article 4. General objectives do not have direct effect and private parties cannot rely on them before the courts (Jans and Vedder 2008).

Several parts of the environmental objectives will be examined more closely. Beforehand it must be said that the exemptions and general obligations are also laid down in Article 4, which means that they are an integral part of the environmental objectives.

First of all, a distinction is made between the objectives for surface waters and ground water:

Article 4

Environmental objectives

1. In making operational the programmes of measures specified in the river basin management plans:

(a) for surface waters

(i) Member States shall implement the necessary measures to **prevent deterioration** of the status of **all** bodies of surface water, subject to the application of paragraphs 6 and 7 and without prejudice to paragraph 8;

(ii) Member States shall **protect, enhance and restore all bodies of surface water**, subject to the application of subparagraph (iii) for artificial and heavily modified bodies of water, **with the aim of achieving good surface water status** at the latest 15 years after the date of entry into force of this Directive, in accordance with the provisions laid down in Annex V, subject to the application of extensions determined in accordance with paragraph 4 and to the application of paragraphs 5, 6 and 7 without prejudice to paragraph 8;

(iii) Member States shall **protect and enhance all artificial and heavily modified bodies of water, with the aim of achieving good ecological potential and good surface water chemical status** at the latest 15 years from the date of entry into force of this Directive, in accordance with the provisions laid down in Annex V, subject to the application of extensions determined in accordance with paragraph 4 and to the application of paragraphs 5, 6 and 7 without prejudice to paragraph 8;

(iv) Member States shall implement the necessary measures in accordance with Article 16(1) and (8), with the aim of progressively reducing pollution from priority substances and ceasing or phasing out emissions, discharges and losses of priority hazardous substances without prejudice to the relevant international agreements referred to in Article 1 for the parties concerned;

(b) for groundwater

(i) Member States shall implement the measures necessary to **prevent or limit the input of pollutants into groundwater and to prevent the deterioration of the status of all bodies of groundwater**, subject to the application of paragraphs 6 and 7 and without prejudice to paragraph 8 of this Article and subject to the application of Article 11(3)(j);

(ii) Member States shall **protect, enhance and restore all bodies of groundwater, ensure a balance between abstraction and recharge of groundwater, with the aim of achieving good groundwater status** at the latest 15 years after the date of entry into force of this Directive, in accordance with the provisions laid down in Annex V, subject to the application of extensions determined in accordance with paragraph 4 and to the application of paragraphs 5, 6 and 7 without prejudice to paragraph 8 of this Article and subject to the application of Article 11(3)(j);

(iii) Member States shall implement the measures necessary to **reverse any significant and sustained upward trend in the concentration of any pollutant resulting from the impact of human activity** in order progressively to reduce pollution of groundwater.

Measures to achieve trend reversal shall be implemented in accordance with paragraphs 2, 4 and 5 of Article 17, taking into account the applicable standards set out in relevant Community legislation, subject to the application of paragraphs 6 and 7 and without prejudice to paragraph 8;

(c) for protected areas

Member States **shall achieve compliance with any standards and objectives** at the latest 15 years after the date of entry into force of this Directive, unless otherwise specified in the Community legislation under which the individual protected areas have been established.

2. Where more than one of the objectives under paragraph 1 relates to a given body of water, the most stringent shall apply.

Definitions

To understand these environmental goals properly, Article 2 of the WFD provides several definitions. Looking at these definitions it becomes clear that the environmental status of a water system must be seen as a general expression of the status of a body of surface water or groundwater. This only becomes relevant when it comes to defining whether a water body is in a 'good' status classification in accordance with Annex V. This is important in the discussion concerning the no-deterioration principle.

Furthermore, a distinction is made between the good chemical status of surface water and ground water, on the one hand, and the good ecological status of surface waters and the good quantitative status of ground water, on the other.

As far as the good chemical status is concerned, Member States do not have much room for their own policy decisions regarding ambitions; goal setting; the designation of relevant waters including artificial and heavily modified waters and the use of exemptions. For the good chemical status environmental quality standards are or will be regulated in the near future at the EC level, continuing a long tradition in EC water law. Looking at the definitions, the obligations are clear: see Article 2 Section 24 above: environmental quality standards must be met. Environmental quality standards relate to substances, not only 'priority hazardous substances', but all substances that may be harmful and the environmental quality substances relate to almost all cases concerning all waters (not only designated water bodies and including artificial and heavily modified waters). It means that also part of the good ecological status will be regulated by environmental quality standards. Quality standards are based on older EC water directives, in the proposal for a daughter directive with quality standards for surface waters, in the daughter directive on groundwater and in national regulations.

Article 2

Definitions

For the purposes of this Directive the following definitions shall apply:

1. "Surface water" means inland waters, except groundwater; transitional waters and coastal waters, except in respect of chemical status for which it shall also include territorial waters.

2. "Groundwater" means all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

(...)

8. "Artificial water body" means a body of surface water created by human activity.

9. "Heavily modified water body" means a body of surface water which as a result of physical alterations by human activity is substantially changed in character, as designated by the Member State in accordance with the provisions of Annex II.

10. "Body of surface water" means a discrete and significant element of surface water such as a lake, a reservoir, a stream, river or canal, part of a stream, river or canal, a transitional water or a stretch of coastal water.

(...)

12. "Body of groundwater" means a distinct volume of groundwater within an aquifer or aquifers.

13. "River basin" means the area of land from which all surface run-off flows through a sequence of streams, rivers and, possibly, lakes into the sea at a single river mouth, estuary or delta.

14. "Sub-basin" means the area of land from which all surface run-off flows through a series of streams, rivers and, possibly, lakes to a particular point in a water course (normally a lake or a river confluence).

15. "River basin district" means 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.

16. "Competent Authority" means an authority or authorities identified under Article 3(2) or 3(3).

17. "Surface water status" is the **general expression of the status of a body of surface water**, determined by the poorer of its ecological status and its chemical status.

18. "Good surface water status" means the status achieved by a surface water body when both its ecological status and its chemical status are at least "good".

19. "Groundwater status" is the **general expression of the status of a body of groundwater**, determined by the poorer of its quantitative status and its chemical status.

20. "Good groundwater status" means the status achieved by a groundwater body when both its quantitative status and its chemical status are at least "good".

21. "Ecological status" is an **expression of the quality of the structure and functioning of aquatic ecosystems** associated with surface waters, **classified in accordance with Annex V**.

22. "Good ecological status" is the status of a body of surface water, so classified **in accordance with Annex V**.

23. "Good ecological potential" is the status of a heavily modified or an artificial body of water, so **classified in accordance with the relevant provisions of Annex V**.

24. "Good surface water chemical status" means **the chemical status required to meet the environmental objectives for surface waters established in Article 4(1)(a), that is the chemical status achieved by a body of surface water in which concentrations of pollutants do not exceed the environmental quality standards** established in Annex IX and under Article 16(7), and under other relevant Community legislation setting environmental quality standards at Community level.

25. "Good groundwater chemical status" is **the chemical status of a body of groundwater, which meets all the conditions set out in table 2.3.2 of Annex V**.

26. "Quantitative status" is an expression of the degree to which a body of groundwater is affected by direct and indirect abstractions.

27. "Available groundwater resource" means the long-term annual average rate of overall recharge of the body of groundwater less the long-term annual rate of flow required to achieve the ecological quality objectives for associated surface waters specified under Article 4, to avoid any significant diminution in the ecological status of such waters and to avoid any significant damage to associated terrestrial ecosystems.

28. "Good quantitative status" is the status defined in table 2.1.2 of Annex V.
29. "Hazardous substances" means **substances or groups of substances that are toxic, persistent and liable to bio-accumulate, and other substances or groups of substances which give rise to an equivalent level of concern.**
30. "Priority substances" means substances identified in accordance with Article 16(2) and listed in Annex X. Among these substances there are "priority hazardous substances" which means substances identified in accordance with Article 16(3) and (6) for which measures have to be taken in accordance with Article 16(1) and (8).
31. "Pollutant" means **any** substance liable to cause pollution, in particular those listed in Annex VIII.
(...)
33. "Pollution" means the direct or indirect introduction, as a result of human activity, of substances or heat into the air, water or land which may be harmful to human health or the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems, which result in damage to material property, or which impair or interfere with amenities and other legitimate uses of the environment.
34. "Environmental objectives" means the objectives set out in Article 4.
35. "Environmental quality standard" means the concentration of a particular pollutant or group of pollutants in water, sediment or biota which should not be exceeded in order to protect human health and the environment.
36. "Combined approach" means the control of discharges and emissions into surface waters according to the approach set out in Article 10.
(...)

In this research project we mainly focus on the ecological status of surface waters due to the reason that Member States have most policy discretion concerning the objective of good ecological status. We have also not researched the implementation of the ground water protection regime in several Member States.

Artificial and heavily modified waters

The good ecological status depends on the type of water and the situation and status of specific water bodies. 'A good ecological potential' is useful for artificial and heavily modified waters. The designation of artificial and heavily modified waters is subject to strict conditions.

3. Member States may designate a body of surface water as artificial or heavily modified, when:

- (a) the changes to the hydromorphological characteristics of that body which would be necessary for achieving good ecological status would have significant adverse effects on:
 - (i) the wider environment;
 - (ii) navigation, including port facilities, or recreation;
 - (iii) activities for the purposes of which water is stored, such as drinking-water supply, power generation or irrigation;
 - (iv) water regulation, flood protection, land drainage, or
 - (v) other equally important sustainable human development activities;
- (b) the beneficial objectives served by the artificial or modified characteristics of the water body cannot, for reasons of technical feasibility or disproportionate costs, reasonably be achieved by other means, which are a significantly better environmental option.

Such designation and the reasons for it shall be specifically mentioned in the river basin management plans required under Article 13 and reviewed every six years.

The classification of several water bodies has to take place in accordance with Annex V of the WFD. The ecological status is mainly an expression of the quality of the structure and functioning of aquatic ecosystems.

Exemptions

Exemptions are an integral part of the environmental objectives. There are several possible exemptions to the obligation to attain a good status for all water bodies in 2015. Some of the exemptions have to be used beforehand like an extension of the deadlines (Article 4 (4)) and achieving less stringent objectives (Article 4 (5)) and some subsequently when there is a question of '*force majeure*' (Article 4 (6)) or sustainable human activities (Article 4 (7)). All exemptions have their own strict conditions that have to be met and are in any case only temporary. It must be remembered that the ultimate goal of the directive – as laid down in Article 1 – is in all cases the framework within which the Member States have to work. It sets the boundaries for all policy discretion.

4. The deadlines established under paragraph 1 may be extended for the purposes of phased achievement of the objectives for bodies of water, provided **that no further deterioration occurs in the status of the affected body of water** when all of the following conditions are met:

(a) Member States determine that all necessary improvements in the status of bodies of water cannot reasonably be achieved within the timescales set out in that paragraph for at least one of the following reasons:

(i) the scale of improvements required can only be achieved in phases exceeding the timescale, for reasons of technical feasibility;

(ii) completing the improvements within the timescale would be disproportionately expensive;

(iii) natural conditions do not allow timely improvement in the status of the body of water.

(b) Extension of the deadline, and the reasons for it, are specifically set out and explained in the river basin management plan required under Article 13.

(c) Extensions shall be limited to a maximum of two further updates of the river basin management plan except in cases where the natural conditions are such that the objectives cannot be achieved within this period.

(d) A summary of the measures required under Article 11 which are envisaged as necessary to bring the bodies of water progressively to the required status by the extended deadline, the reasons for any significant delay in making these measures operational, and the expected timetable for their implementation are set out in the river basin management plan. A review of the implementation of these measures and a summary of any additional measures shall be included in updates of the river basin management plan.

5. Member States may aim to achieve less stringent environmental objectives than those required under paragraph 1 for specific bodies of water when they are so affected by human activity, as determined in accordance with Article 5(1), or their natural condition is such that the achievement of these objectives would be infeasible or disproportionately expensive, and all the following conditions are met:

(a) the environmental and socioeconomic needs served by such human activity cannot be achieved by other means, which are a significantly better environmental option not entailing disproportionate costs;

(b) Member States ensure,

- for surface water, the highest ecological and chemical status possible is achieved, given impacts that could not reasonably have been avoided due to the nature of the human activity or pollution,

- for groundwater, the least possible changes to good groundwater status, given impacts that could not reasonably have been avoided due to the nature of the human activity or pollution;

(c) **no further deterioration occurs in the status of the affected body of water;**

(d) the establishment of less stringent environmental objectives, and the reasons for it, are specifically mentioned in the river basin management plan required under Article 13 and those objectives are reviewed every six years.

6. Temporary deterioration in the status of bodies of water shall not be in breach of the requirements of this Directive if this is the result of circumstances of natural cause or force majeure which are exceptional or could not reasonably have been foreseen, in particular extreme floods and prolonged droughts, or the result of circumstances due to accidents which could not reasonably have been foreseen, when all of the following conditions have been met:

(a) all practicable steps are taken to **prevent further deterioration in status** and in order not to compromise the achievement of the objectives of this Directive in other bodies of water not affected by those circumstances;

(b) the conditions under which circumstances that are exceptional or that could not reasonably have been foreseen may be declared, including the adoption of the appropriate indicators, are stated in the river basin management plan;

(c) the measures to be taken under such exceptional circumstances are included in the programme of measures and will not compromise the recovery of the quality of the body of water once the circumstances are over;

(d) the effects of the circumstances that are exceptional or that could not reasonably have been foreseen are reviewed annually and, subject to the reasons set out in paragraph 4(a), all practicable measures are taken with the aim of restoring the body of water to its status prior to the effects of those circumstances as soon as reasonably practicable, and

(e) a summary of the effects of the circumstances and of such measures taken or to be taken in accordance with paragraphs (a) and (d) are included in the next update of the river basin management plan.

7. 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 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 all 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 specifically 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 those 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.

Important obligations can be found in Article 4 Sections 8 and 9. These provisions ensure that the use of exemptions will not harm – at least not permanently – the achievement of the goals and objectives in the whole river basin and that the level of protection will be at least at the same level as before the WFD entered into force. There are provisions that have often been forgotten in the discussion concerning the WFD, but they make clear that not all investments that have to be taken to fulfil the obligations of the WFD – in particular reaching good status – follow directly from the WFD itself but in many cases from older or other EC environmental directives, such as, for example, the Nitrates Directive (91/676/EEC), the Urban Wastewater Directive (91/271/EEC) or Directive 2006/11/EC. That is the reason why there is a great deal of discussion concerning measures to be taken and investments to be made. One could argue that all measures are a result of the WFD, on the other hand one could argue that only those measures and costs that will be taken in addition to measures and costs based on obligations following from older directives are a direct result of the WFD. This distinction is important when comparing ambitions, measures and resources with regard to the WFD. In this respect it is also important whether Member States already comply with the obligations following from older environmental or water directives.

8. 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.

9. Steps must be taken to ensure that the application of the new provisions, including the application of paragraphs 3, 4, 5, 6 and 7, guarantees at least the same level of protection as the existing Community legislation.

Combined approach for point sources and diffuse sources

There are several reasons why the good status of waters can be in danger or cannot be attained. Pollution comes from point sources and diffuse sources. The ecological status can be influenced by hydromorphological quality elements, physico-chemical quality elements, biological quality elements and chemical and physico-chemical elements supporting the biological elements (Annex V). To protect all waters from pollution from point or diffuse sources a combined approach is introduced in Article 10. This combined approach gives some discretion to the Member States to choose the most appropriate instruments although many possible instruments follow from existing directives. If there are relevant environmental quality standards – also those regarding the good ecological status - there is some policy discretion in choosing the instruments, but the quality standards must be met in any case (see Article 10 Section 3).

Article 10

The combined approach for point and diffuse sources

1. Member States shall ensure that all discharges referred to in paragraph 2 into surface waters are controlled according to the combined approach set out in this Article.

2. Member States shall ensure the establishment and/or implementation of:

(a) the emission controls based on best available techniques, or

(b) the relevant emission limit values, or

(c) in the case of diffuse impacts the controls including, as appropriate, best environmental practices set out in:

- Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control(19),

- Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment(20),

- Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources(21),

- the Directives adopted pursuant to Article 16 of this Directive,

- the Directives listed in Annex IX,

- any other relevant Community legislation

at the latest 12 years after the date of entry into force of this Directive, unless otherwise specified in the legislation concerned.

3. Where a quality objective or quality standard, whether established pursuant to this Directive, in the Directives listed in Annex IX, or pursuant to any other Community legislation, requires stricter conditions than those which would result from the application of paragraph 2, more stringent emission controls shall be set accordingly.

The tool-box in Article 11: the programme of measures

Member States are rather free to choose the appropriate measures by which to fulfil their obligations, although there are many basic measures which are obligatory and are qualified as minimum requirements. They exist anyway if all the obligatory measures are based on other EC legislation mentioned in Article 11 Section 3. All necessary measures have to be laid down in a programme of measures, according to Article 11. A

summary of this programme of measures has to be part of the river basin management plan. If problems cannot be solved by individual Member States, the Member State can ask the Commission for assistance (Article 12).

Integration with other policy fields

It is because of the general goal and the broad quantitative and normatively described obligations of the WFD that this combined approach and the tool-box available in the programme of measures is necessary and useful. Pollution and other impacts with effects on the good status are not only regulated by water legislation and not only caused by direct discharges into waters. That is one of the reasons why the Member States have the obligation to make an assessment of the impacts on the water systems (Article 5 WFD). Many of the activities with an impact on the status of waters are also regulated in other policy fields. It is therefore necessary to take a look at the regulation and instruments in these other policy fields to see in which way and to what level they take impacts on the water status or the environmental quality standards into account in the decision-making process. We call this the external integration of water objectives in decision making in other policy fields like spatial planning, agriculture and nature conservation.

As far as the WFD itself is concerned, we can see that there are many links between the water objectives and instruments of the WFD and the regulation in other policy fields. To a certain degree the EC leaves it to the Member States how they integrate water interests in decision making in other policy fields.

The river basin approach and competent authorities

The essence of river basin management is that the responsibility for problems is not shifted on to others, not to the upstream areas nor to the downstream areas of the river basin (Keessen, Van Kempen and Van Rijswijk, 2008). These aspects are also called good neighbourliness. The principle of not shifting responsibilities is elaborated in principles and points of departure based on customary international law treaties, directives and national legislation. The parties involved (both governments and private parties) in a river basin bear joint responsibility for its management. The aim of integrated water management is to make water systems meet their objectives and to distribute the related advantages and burdens as justly and as fairly as possible over all the parties involved in the river basin. It also distributes the responsibilities over several policy areas. Modern European water management is based on river basins as a management unit. River basins ignore state boundaries or a country's administrative regions (the national state, provinces and municipalities). A major distribution issue is the distribution of powers, rights and duties between different states in a transboundary river basin area and, following that, the distribution of these powers, rights and duties in the parts of this

river basin in one state. The WFD requires the assignment of river basins and river basin districts within their territory and Member States must ensure appropriate administrative arrangements including the identification of a appropriate competent authority that oversees the application of the rules of the WFD within each river basin district (Article 3). It is not necessary to create a specific authority which is responsible for water management, because institutional organization is a power that lies with the Member States, although as far as responsibilities are concerned, there are good reasons to create an authority with special powers, a functional government like the Dutch water boards. The choice for the river basin approach, including the appropriate authorities, also has its disadvantages. Firstly, a major disadvantage lies in the distribution of responsibilities and powers in policy areas other than water (integration principle). Secondly, the European tier of the river basin approach is not compatible with the general system of individual Member States having obligations to reach the objectives in their part of the river basin instead of joint Member States within a transboundary river basin. At the moment this can only be solved by cooperation between states and administrative bodies, which for this reason is obligatory (Article 3, Sections 4 and 5).

1.4. Research Design

Our comparative study of the implementation of the WFD is composed of different phases. The first phase took place in 2008 when the Radboud University Nijmegen wrote a 'Kick off' document to introduce the research project and to explain the empirical and theoretical perspectives that were relevant to the study. Thereafter, Utrecht University joint the research project to do a supplementary research on legal questions that was fully integrated in all reporting activities. From then on it was a joint project. In the following stage, we wrote so-called 'quick scans' for six countries: the Netherlands, Germany/North Rhine-Westphalia, France, England and Wales, Denmark and Belgium/Flanders. These quick scans are available at www.centrumvoormgevingrecht.nl. Chapter 2 of this report is based on these quick scans and describes the main structures and essential background information of the implementation process in a selection of countries on the basis of then available literature. After this stage, we focused on the case studies, which we designed based upon the information gathered during the quick scan -part of this study. The case studies - and the results derived from them - form the main part of this report.

Quick scans

During the quick scan period, we selected five countries in addition to the Netherlands. These countries (France, Denmark, Germany, Belgium and the UK), were chosen mainly for the degree of comparability and learning potential they offered.

With regard to comparability, we looked for Member States that faced problems similar to and comparable with the Netherlands. From the EU Commission Staff Working Document on WFD implementation we learned that the

[...] impact of agriculture is considered as the 'crucial issue' for almost every water category regarding pollution and has the highest priority. In a great majority of the countries, agriculture is the cause of severe problems. In some parts of Europe agriculture has an impact on the reduction of flows of rivers and groundwater (COM 2007)

Other problems which we considered were morphology, the affects of hydropower, flood defence, reservoirs and (once again) agriculture, as well as household and municipal wastewater and 'other sources of pollution' such as diffuse sources and transport. Although all countries were expected to have problems with agricultural pollution, the Member States which were expected to be most similar to the Netherlands would be those with intensive livestock farming and intensive fertilisation, as is found in Germany, France, the UK, Denmark and Belgium.

From the viewpoint of 'learning potential', we first sought countries that showed interesting, smart and creative solutions to water quality problems. Second, we wanted to include countries that were environmentally ambitious in general, such as the Scandinavian countries (including Denmark). Third, we selected for organisational features: here, again Denmark was interesting because of a decentralised political system and France was interesting because of river basin oriented organisations.

Furthermore, the selection was determined by the availability of information on the implementation process and a certain variety in methods of implementation (e.g. integrated river basin management, integrated legislation, or the lack thereof).

The quick scans focused mainly on: 1) the water policy arrangement before WFD implementation; 2) how WFD principles were treated before implementation; 3) identifying the main challenges; 4) transposition of the WFD; and 5) the implementation of the WFD principles in practice to date.

The quick scans answered the following questions:

- What, in a nutshell, are the main organisational and legal frameworks used by Member States to implement the WFD?
- How do Member States deal with the obligation to respond to the main principles of the WFD?
- What are the steps in implementation they have taken place thus far?
- How do Member States organise river basin management?
- Is it already possible to draw some preliminary conclusions on the changing water policy domains and their institutional arrangements?

- What are the next steps in the research project, in terms of further focusing questions, expectations and suggestions for case selection?

The quick scans were useful for painting an up-to-date picture of the implementation process on broad canvasses, and the conclusions were used to ask questions and discuss hypotheses which could be tested in the case studies in the next phase of the research project.

Case studies

In the following stage we selected four countries for a more detailed description in the case studies, focusing on a specific basin or sub-basin in each country and on more specific topics and questions. We chose the Dommel catchment in the Meuse River Basin District in the Netherlands as the reference sub-basin. In Denmark, we decided to look at the Odense Fjord basin specifically, and in France at the Loire-Brittany River Basin District and its sub-basin Baie de St Brieuc. In England our focus was the Anglian River Basin District and Wensum catchment. The Meuse River Basin District in North Rhine-Westphalia was also selected for our study, and the Rur catchment was specifically looked at as our case study focus area.

We recognised that some aspects (e.g. how the goals and standards for meeting the WFD are developed) would only become clearer when we studied the process of preparing the river basin management plans (RBMPs) more closely. The case studies would provide more understanding in this area. This report consists mainly of the case studies and the results derived from these case studies.

Research methodology

For the legal research, we use primary sources as legislation and policy documents as well as legal literature from the various countries (Neuray 2005; Bohne 2005; Czychowski and Reinhardt 2007; Howart and McGillivry 2001; Dobrenko and Sironneau 2008; Van Rijswick 2001, Van Rijswick et al. 2008). Furthermore, questionnaires are sent to and answered by national legal experts in the field of environmental and water law. Visits to the various sub-river basins have been organised so as to conduct interviews with experts in the field of implementing the Water Framework Directive in several sub-river basins and regions. For Denmark the legal research is based on literature, questionnaires and interviews only, because legal documents such as legislation were not available in English, German or French.

For the study into the practical implementation of the WFD in the selected countries, we primarily used sources such as policy documents, and where possible, Article 5 reports⁴ and information relevant for the draft RBMPs. In the case of Denmark, we looked at reports of the second phase Pilot River Basin projects as part of the Common Implementation Strategy. We conducted interviews with relevant authorities in the selected countries at various levels (central and decentral), such as relevant ministries, municipalities and water boards. We also interviewed relevant stakeholders, mainly environmental NGOs and agricultural organisations. Before and after the interviews we corresponded with some of the interviewees to gather additional information and to verify our findings. We ceased the gathering of materials for all case studies at the beginning of December 2008, just before the publication of the draft River Basin Management Plans. We did not systematically compare our own findings with these drafts, but did look at the process of preparing them.

It should, of course, be noted that this report reflects the authors' interpretations and does not represent the opinions of Member States.

Selection of topics

Because it was not possible or useful to describe and discuss all elements and principles of the Directive, the research team discussed a selection of principles with the Advisory Committee of the research project (*begeleidingscommissie*).

In the case studies we looked at the process of WFD implementation in the selected countries by focusing on two themes: 1) the process of goal setting and, 2) the integration of WFD objectives in the decision-making process regarding water management and especially other policy fields. The process of goal setting can be seen as the substantial 'core' of the Directive, and this was the process which the countries were involved in and preoccupied with at this stage (2007-2008) of the implementation process (see Annex 1 for WFD timetable). The integration of water management with other policy fields is an important aspect of the WFD implementation since the WFD aims to contribute to integrated resources management and integrated river basin management. Within the goal-setting process, we focused specifically on some key issues which included: the designation of water bodies, the setting of goals, standards, the planning processes, the designing of the programme of measures, the use of exemptions, and the application of principle of no deterioration. Under the theme of integration, we investigated the activities, rules and ideas regarding integration. We focused on the integration of WFD implementation with other policy fields, namely nature, agriculture and spatial planning.

⁴ In 2004, Member States were obliged to submit summary reports of the analysis according to Article 5 WFD. Article 5 consists of obligations to complete an analysis of the characteristics of the River Basin District, a review of the impact of human activity and an economic analysis of water use (see Annex 1).

1.5 *Research questions*

The comparative perspective is useful for gaining insight into the implementation processes and practises in other EU Member States. This gives us information on how to position the Netherlands in implementing the WFD and how other countries deal with comparable policy problems, and how they are setting their levels of ambition (are we leaders or laggards?). In addition, the comparative perspective makes it possible to learn from the solutions used by other countries: for example, what are some of the interesting policy practices used in other countries?

From a policy science point of view, a derived goal is to learn more about the styles of regulation and political cultures in different Member States, and the general impact of 'Europe' in daily water and environmental policy practices.

From a legal point of view we hoped to find solutions to existing problems in the Netherlands regarding the implementation of European environmental law, more specifically the implementation of directives on air quality and nature conservation. These problems, which had a great impact on decision making and economic activities of all kinds, were caused by the way in which the Dutch government implemented the European directives together with the Dutch system of access to justice. These factors led to an enormous amount of court cases and severe delays in economic activities. It became clear that other countries did not have these problems or, at least, they were not so serious. For the implementation of the WFD it seems more than useful, therefore, to see whether we can learn from the way other countries legally establish implementation.

The first theme (see 'Selection of topics' in the previous section) was to see how the goals and ambitions reflected in the WFD were implemented by the Member States and how they influenced the level of ambition in the water policy arrangements. This was not an easy task because the WFD, as far as the ecological goal setting process is concerned, did not prescribe strict standards and norms, but mainly prescribed procedures and process criteria (although in addition to references to pre-existing and new EU standards and norms). The main question here was how the Member States had dealt with the ambitions and goals of the WFD and what the possible arguments were for doing things in a specific way. This was done by looking at both the different procedural steps that were taken and by reflecting on the expected end results (as far as this was possible to detect). From this information, we tried to derive general rationales (as a line of reasoning or set of arguments), which we typified as an 'environmental-science rationale', a 'legal rationale', an 'economic rationale' or a 'political rationale'.

Related questions are:

- How are the objectives (in general) set legally and practically?

- How are the water bodies designated (in natural, heavily modified and artificial water bodies)?
- How are the norms and standards legally established?
- How are the goal setting and planning processes organised in practice?
- What legal bases do the Programmes of Measures have and how are the Programmes of Measures developed in practice?
- Is the budget for water management expected to be increased due to the WFD?
- How is the use of exemptions legally established and how are the exemptions practically utilised?
- How is the principle of no deterioration legally established and implemented in practice?

For the second theme, integration is the focus of our research. Questions asked in this section of the case study are:

- How is the integration legally ensured in general?
- How is the integration between the WFD and other policy sectors (agriculture, nature and spatial planning) legally ensured and what does such integration look like in practice?

We will address these questions in the following chapters. Chapter 2 summarises the information of the quick scans in six countries and gives the general problem context and organisational features of each country. Chapters 3 through 7 present the case studies of the Netherlands, France, Germany, England/Wales and Denmark. We finish in Chapter 8 with the comparison of the cases and our general conclusions in Chapter 9.

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Annex 1

| Activities | Activities | Relevant article and documents | Completion deadline | Submission to EC deadline |
|---|--|---|---|--|
| Transposition | Transposition of the WFD into national legislation: a reference to the Directive must be made in relevant laws, regulations and administrative provisions. Member States must communicate adopted provisions to the Commission. | Art. 24 | | 22 December 2003. (Art. 24.1) For the ten Member States that joined the European Union later than 2003, the date of accession was the deadline for transposition of the Directive. |
| Identification of river basin districts and competent authorities | Identify river basins lying within their national territory and assign them to River Basin Districts. Identify competent authorities. Submit to the Commission a list of all international and national competent authorities with whom they participate. | Art. 3 Art. 24 Annex I | 22 December 2003 (Art 3.7) | 22. 06. 2004 (Art. 3.8) |
| Characteristics of the river basin district | Prepare a detailed analysis of the characteristics of their river basin districts, including a review of the pressures and impacts of human activity on surface and groundwater, and an economic analysis of the use of water. Register protected areas lying within the river basin district. | Art. 5 Art. 6 Annex II Annex III Annex IV | 22 December 2004 ⁵ (Art 5.1) | The Commission expects summaries of reports within three months of completion, at the latest therefore by 22 March 2005 ⁶ (Art. 15.2). |
| Monitoring programmes | Member States must establish monitoring programmes and make them operational. | Art. 8 | 22 December 2006 (Art. 8.2) | Submit summary of the reports within three months of completion, at the latest by 22 March 2007 (Art. 15.2). |
| Programme of measures | Based on the results of the analysis required by Art. 5, identify a programme of measures for achieving the environmental objectives under Art. 4. | Art. 11 Art. 4 Art. 5 Annex VI | 22 December 2009 (Art. 11.7) | |
| River basin management plans | Produce and publish a River Basin Management Plan for each RBD including the designation of heavily modified water bodies and the planned steps towards recovery of costs for water services. | Art. 13 Art 4 Annex VII | 22 December 2009 (Art.13.6) | Send copies of the river basin management plans to the Commission within three months of completion, at the latest therefore by 22 March 2010 (Art. 15.1). |

⁵ The Directive entered into force on the day of its publication (Art. 25), which was 22 December 2000. This is why when the provision states ‘four years after the date of entry into force of this Directive’ the deadline for completing the report becomes 22 December 2004.

⁶ Article 15 obligates Member States to submit the reports within three months of completion, which adds three more months to 22 December 2004.

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|---|---|----------|---|---|
| | A summary of programmes of measures should also be included. | | | |
| Water Pricing Policies | Implement water pricing policies that enhance the sustainability of water resources. | Art. 9 | 2010 | |
| Operationalisation of programme of measures | All the measures must be made operational. | Art 11 | 22 December 2012 (Art.11.7) | |
| Interim report programme of measures | Submit an interim report describing progress in the implementation of the planned programme of measures. | Art 15 | | 22 December 2012 (Art. 15.3), 2018 and 2024 (within three years of the publication of each RBMP). |
| Review and update of analyses and reviews | The analyses and reviews for each river basin district of its characteristics, the impact of human activity and an economic analysis of water use should be reviewed, and if necessary updated, at least thirteen years after the date of entry into force of the Directive and every six years thereafter. | Art 5 | | 22 December 2013 (Art.5.2) and 2019 and 2025 |
| Environmental objectives to be achieved | Good surface water status, good ecological potential and good surface water chemical status for heavily modified waters, good groundwater status and compliance with any standards and objectives for protected areas. | Art. 4 | 22 December 2015 (Art. 4.1(a) (ii) and (iii)) | |
| Review and update of RBMPs | RBMPs must be reviewed and updated at the latest fifteen years after the date of entry into force of the Directive and every six years thereafter. | Art. 13 | | 22 December 2015 (Art.13.7) and 2021 |
| Extensions for achieving environmental objectives | Extensions are limited to a maximum of two further updates of the RBMP except in cases where the natural conditions are such that the objectives cannot be achieved within this period. | Art. 4.4 | | 22 December 2021 and 2027 |