CHAPTER 3 THE IMPLEMENTATION OF THE WFD IN THE NETHERLANDS

The Meuse River Basin District and the Dommel Catchment

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3.1 Introduction

Characteristics of the Meuse River Basin District and the Dommel Catchment

The river Meuse begins in Northern France, flows through Belgium and ends in the Netherlands. In total, the Meuse River Basin covers about 36,000 km^{2,} with about 7,700 km^2 of this area being in the Netherlands. The position of the Netherlands as a delta is understood to be a disadvantage for both water quality and flooding issues. Above all, the level of change in hydromorphology is extreme in the Netherlands. It is considered extremely difficult and sometimes impossible to bring the water bodies to a natural condition. Other problems such as the agricultural impact on water are considered more similar to other countries.

The Dommel system is characterised by a large number of streams that originate in Belgium Limburg. In fact, 20% of the Dommel catchment is located in Belgium. The Dommel catchment in the Netherlands is in total about 142,000 ha (1,420 km^2). The Dommel River in the Netherlands is 85 km in length. Other streams in the catchment are the Kleine Dommel, the Beerze, the Reusel and the Leij. The Dommel catchment consists of both wet and dry environments. There are various water types: 2% canals, 59% bogs, lakes and ponds, 14% stream headwaters, 19% stream middle or lower waters and 6% rivers (Ministerie van Verkeer en Waterstaat 2004). Land use in the Dommel catchment is as follows: 1% water, 24% nature, 3% infrastructure, 54% agriculture, 3% recreation, 10% housing and 5% industry (Ministerie van Verkeer en Waterstaat 2004). The most common agricultural activity in this area is cattle breeding and other intensive livestock farming.

We used the Dommel as the reference case for the other cases in this research project. We looked for catchments that had similar challenges in implementing the WFD: a combination of a high population density in some areas, intensive land use by the agricultural sector and a severely changed hydromorphology. The Dommel is, however, a relatively green basin area when compared to other Dutch regions.

Challenges identified in the Dommel catchment

The main challenges faced in the Dommel catchment in implementing the WFD and meeting the environmental objectives are summarised as follows (Interview):

1) Nutrient input from the agricultural sector. First and foremost, in the Dommel catchment, agricultural factors play the main role in not meeting the environmental objectives of the WFD, due to nitrate input and hydromorphological pressure.

2) Cadmium and zinc from Belgium (cross-border pollution). No restoration measures can be taken, because a) clean-up is too expensive, and b) pollution would immediately take place again because the input of substances from across the border is not solved. The water board of the Dommel expects the WFD to help in solving this problem, but thus far nothing has changed.

3) Sewage (sewage treatment plants and sewage overflows in cities like Eindhoven).

4) River restoration is increasingly difficult because the total number of parcels of land that need to be purchased for restoration purposes make it an expensive operation, and the land is often hard to purchase.

5) Climate change necessitates even more room for water.

6) Medicine, hormone-like substances and some heavy metals are not effectively filtered, and these substances are expected to cause more problems in the future.

In general it can be stated that hydromorphological measures are expected to improve the ecological quality of surface waters in the Dommel catchment, but only to a certain extent. To reach the objectives of the WFD, it is necessary to also reduce the emissions from agricultural sources, which requires supplementary measures.

River Basin Management and its coordination: The Meuse River Basin District and the Dommel catchment

RBD Meuse

The Dutch part of the Meuse River Basin District (*Stroomgebied Maas*) can be divided into about 50 surface water bodies (*oppervlaktewaterlichamen*) (Ministerie van Verkeer en Waterstaat 2004). In order to simplify the reporting, these bodies were originally clustered into fourteen sub-basins (*deelgebieden*). At a later stage the clusters were based upon the administrative borders of the water boards. The groundwater bodies are identified separately from the surface water bodies, and there are four of them identified within the Meuse River Basin District (Ministerie van Verkeer en Waterstaat 2004).

There are tiers of different responsible institutions having different administrative borders, as is described in the summary of the quick scan. Within the Meuse River Basin District, there are five regional offices of the DG Water (R*ijkswaterstaat* – RWS) that are responsible for managing the national waterways. There are four provinces which delegate the water management tasks to the water boards,[16] and seven water boards which are responsible for setting the environmental goals and implementing the measures on the regional surface waters. Each of the authorities makes its own plans for water management. The RWS prepares the *Beheerplan* RWS, the provinces prepare the *Waterhuishoudingsplan* and the water boards prepare the *Waterbeheerplan*. The RBMP for the Meuse RBD therefore consists of a combination of plans on the national, provincial and regional (water board) level. The municipalities also play a role, but there is no formalised plan based on water legislation wherein their water management tasks are laid down. Municipalities have to make a wastewater plan based on the Environmental Management Act *(Wet milieubeheer)* in which local water management policy regarding waste water, rainwater and urban ground water management will be laid down.

A so-called *Klankbordgroep* (stakeholder group) was set up in 2005 for the Meuse RBD. All major stakeholders in the basin are directly or indirectly represented: drinking water companies, nature-area managers, farmers, sport-fishermen, industry and environmental organisations.

There are two committees operating at the RBD Meuse level: the Regional Administrative Committee for the Meuse (*Het Regionaal Ambtelijk Overleg Maas* – RAOM), and the Regional Executive Committee for the Meuse (*Het Regionaal Bestuurlijk Overleg Maas* – RBOM). The RBOM is the executive platform for all the water authorities, including the administrators/directors of provinces, the water boards, a number of municipalities, as well as the regional directors from the Ministry of Transport, Public Works and Water Management, and the Ministry of Agriculture, Nature Conservation and Food Quality. It is important to point out that the decisions on targets and measures are to be taken by the relevant authorities described above (DGW 2008). The Regional Administrative Committee of the Meuse (RAOM) consists of officials from these same authorities.

At the National level, there is the Coordination Office for the Rhine and Meuse (*Coördinatiebureau Rijn en Maas*) which coordinates the endeavours of the organisations in the basins. The River Basin Coordinator for the Rhine and Meuse (*stroomgebiedcoördinator voor Rijn en Maas*) is responsible for the implementation of the WFD in these two districts. Via the National Directors Group for Water (*Landelijke*

[16] Water boards are organised around a river basin, dividing water systems in the Netherlands into 27 (sub) basins. The water boards are functional decentralised governmental bodies and collect their own taxes. For the purpose of WFD implementation, these sub-basins are clustered into 4 River Basin Districts. This is a new arrangement for the Netherlands.

Regiegroep Water), the reports for the plans for the Meuse RBD, together with the report for the Rhine Delta, are offered to the State Secretary of the Ministry of Transport, Public Works and Water Management. This official also chairs the National Governmental Committee for Water (*Landelijk Bestuurlijk Overleg Water* – LBOW) and is ultimately responsible for the implementation of the WFD (*Ministerie van Verkeer en Waterstaat* 2004).

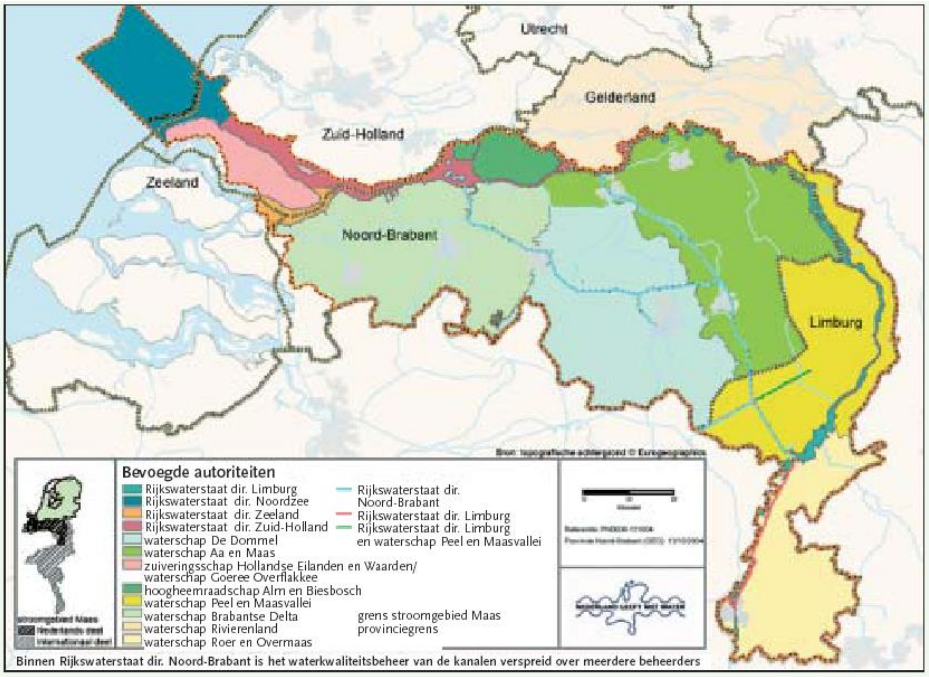

Figure 7: Relevant authorities and their administrative borders in the Dutch Meuse River Basin District (Figure 2.8 p. 34)

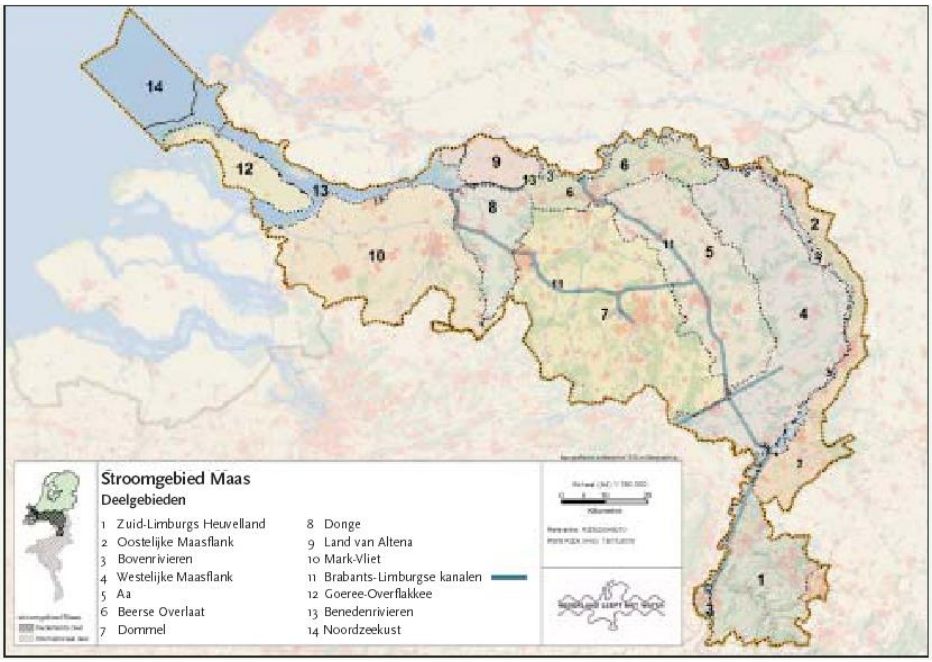

Figure 8: Sub-basins in the Dutch Meuse River Basin District

The Dommel

The Water Board of the Dommel (*Waterschap De Dommel*) is responsible for the Dommel's surface water bodies, except for the national waters, which are looked after by the regional office of the DG Water (*Rijkswaterstaat*). There are two provinces that are part of the catchment: North Brabant and Limburg. North Brabant has 136,000 ha of the catchment, while the other 6,000 ha of the catchment is located in Limburg. This small section of the Dommel catchment falls under the responsibility of the Water Board Peel en Maasvallei. Therefore, the main actors in the Dommel catchment are the Province of North Brabant and the Water Board of the Dommel.

For the management of the Dommel catchment, it is important to look at the so-called 'integrated regional planning processes' (*gebiedsprocessen*), which started in September 2006. In these processes the Water Board of the Dommel works with the municipalities, provinces and the RWS on so-called Water Programmes (*waterprogramma's)* for a specific region or sub-sub river basin. There are four sub-sub river basins identified in the Dommel catchment: they are the 'Boven Dommel', 'Beneden Dommel', 'Beerze en Reusel' and 'Zandleij'. These regional Water Programmes include quantitative water management (e.g. flooding, drought, water levels) and qualitative water management (e.g. WFD, nature conservation, urban water management), or both. The regional Water Programmes themselves do not have an official status. The regional stakeholders participate in a specific stakeholder group (*Klankbordgroep*) for the Dommel river basin.

The participants in the Dommel planning process, especially the Water Board, chose to work with these Water Programmes. This form of organisation is not used in all Dutch water boards.

3.2 Goal-Setting Process

Designation of Water Bodies

Legal establishment of designation

Under the current legislation, which has been revised because of the implementation of the WFD, the Minister of Transport, Public Works and Water management, the Minister of Housing, Physical Planning and Environment and the Minister of Agriculture, Nature Conservation and Food Quality are responsible for establishing the national water plan (called *nota waterhuishouding*) for the main water courses (called *rijkswateren*) (Article 5 (1) Wwh). This plan includes the four Dutch River basin management plans (see www.nationaalwaterplan.nl) and in the national water plan they designate water bodies as artificial, heavily modified or natural (Article 5 (3) Wwh). The provinces are responsible for making a provincial water plan (called *provinciaal plan voor de waterhuishouding*) for regional water courses (Article 7 (1) Wwh). In this plan, they designate water bodies as artificial, heavily modified or natural (Article 7 (4) Wwh).

The water boards are responsible for making a water plan (called *beheerplan*) for the regional water courses for which they are responsible (Article 9 (1) Wwh). In this plan, they can designate water bodies as artificial, heavily modified or natural (Article 9 (3) Wwh), but until now the water boards have not used this competence due to the fact that the first river basin management plans are still to be made. For the first river basin management plans the designation will take place at the provincial and national level. Thereafter – during the second time period of the river basin management plans – the new Waterwet will enter into force (see below).

When the new Waterwet comes into force, the three above-mentioned Ministers will be responsible for making a national water plan (called the *nationaal waterplan*) (Article 4.1 (1) Waterwet). This plan also contains the Dutch RBMPs (Article 4.1 (3) (a) Waterwet). In this plan, they designate water bodies in the main water courses as artificial, heavily modified or natural (Article 4.5 (1) (b) *Voorontwerp Waterbesluit*). The provinces are responsible for making a strategic regional water plan (called *regionaal waterplan*) (Article 4.4 (1) Waterwet). In this plan, they designate water bodies in the regional water courses as artificial, heavily modified or natural (Article 4.9 (1) *Voorontwerp Waterbesluit*). Water boards are responsible for establishing an operational management water plan (called *beheerplan*) for the regional water courses for which they are responsible (Article 4.6 (1) Waterwet). However, water boards will no longer be able to designate water bodies as artificial or heavily modified under the new *Waterwet.* This is done because these tasks are strongly connected to the setting of norms and therefore should take place in more strategic documents, according to the legislator (Kamerstukken II, 2006-2007, 30818, no.

3, p. 36-37). It is also in line with the way competences are used under the *Wet op de waterhuishouding* after the implementation of the Water Framework Directive *(Implementatiewet kaderrichtlijn water).*

Designation in practice

For the national waters, the designation is carried out by the DG Water (*Rijkswaterstaat*). For the regional waters, the water boards advise the provinces in designating water bodies. The Netherlands has preliminarily designated a relatively large number of HMWBs and AWBs compared to other countries (EC 2007). In total, the Netherlands has only seventeen water bodies which are designated as natural water bodies, or to put it differently – only seventeen water bodies which are not specifically designated as HMWBs or AWBs. This includes the Wadden Sea. Only a few of the Meuse water bodies in the Province of Limburg are characterised as natural water bodies. The Dommel catchment has no water bodies that are designated as natural.

The main reason for designating most of the water bodies as HMWBs or AWBs is physical; there are many hydromorphological alterations made in river systems in the Netherlands. At the present time, none of the water bodies can achieve the scores for all parameters necessary for the 'natural' status. The main bottleneck is the hydromorphological alterations made to the water bodies, which are difficult to undo and which would require radical measures from the agricultural sector as well as urban areas.

Some believe, however, that it might be possible for a small number of water bodies to reach the targets for all parameters (Interviews), and therefore for those water bodies to be designated as natural water bodies. Also, water bodies with small hydrological changes that do not affect the ecological function (and that therefore potentially come close to fulfilling good ecological status in the future) are still designated as HMWBs (Interview). It is stressed, however, that designation of water bodies can be updated in the future.

Although the WFD does not require Member States to bring water bodies up to the reference condition, or 'high' status, but asks for 'good' status, some believe that responsible actors still fear that designating water bodies as natural (or in fact *not* designating them as HMWB) will force them to set very ambitious goals and national standards, with high risks of failure (Interviews). This is because the term 'natural' is associated with the reference or undisturbed condition.

For the regional water bodies, the water boards make proposals to the provinces on how to designate their water bodies. Although the water boards are not formally responsible for the designation since the designation will be formally laid down in national and

provincial water plans, they provide the information and propose how the water bodies should be designated.

Setting Formal Standards

General Environmental Goal of Good Status

The *Waterwet* has three important general goals, with among others the protection of waters in compliance with the WFD (Article 2.1 *Waterwet)*. The *Waterwet* uses more or less the same wording as the WFD: protection and improvement of the chemical and ecological quality of water systems. The use of all competences of the water managers must be in accordance with these goals (Van Rijswick e.a. 2008)

The general environmental goal of reaching good status as such is not mentioned in the *Waterwet*, nor is the deadline of 2015. This objective and the deadline are laid down in the *AMvB Kwaliteitseisen en monitoring water* (Article 4 (1) & Article 7 (1) *AMvB Kwaliteitseisen en monitoring water).*

Specific Environmental Goals

The actual water quality standards are based on the Environmental Management Act (Article 5.2b Wm) and will be laid down in the *AMvB Kwaliteitseisen en monitoring water* (Article 2.11 *Waterwet*).

Type of Obligations

The goal of reaching the good status/good quality is not formulated as specific as an obligation of result. The reason is that the legal system of the *Waterwet* does not require such a statement. Although there has been a great deal of discussion in the Netherlands concerning the question of whether the WFD provides obligations of result, it can be concluded that at this point in time it is accepted that the environmental objectives of the WFD must be read as an obligation of result.

The *AMvB Kwaliteitseisen en monitoring water* is currently being prepared and so is not yet in force. As far as we can say at this moment, it is foreseen that the environmental quality standards will not be formulated as limit values or intervention values (*grenswaarde*). The Dutch legislator will probably choose for a target value (*richtwaarde*) (see for instance Article 4 (1) of the current proposal) (see Backes, Kruyt and Van Rijswick 2007).

For more information on the way water boards deal with the goals and standards for the good ecological status in practice see Minderhout 2007.

3.3 The Planning Process

Since most of the water bodies in the RBD Meuse or the Dommel sub-basin are designated as HMWBs or AWBs, good ecological potential (GEP) becomes their main ecological objective. When setting the GEP, the 'Prague method' is applied. With this method, first the existing state of the water body is examined, instead of the reference state. This determines what can possibly be done to improve the existing situation. All possible measures are then considered. Goals are usually set after considering the economic feasibility of measures that can be applied. Water boards have a lead in this task (Interview). Measures that are too expensive or that damage the function of water for human use are eliminated, and goals are set in a way that make them attainable with measures that are feasible to implement (mostly set for 2027).

Up and down the staircase – *Trapje op/trapje af*

For setting goals and making plans for the WFD in general, the usual sequential decision-making method for the regional waters (where the process starts at the national level, then moves to the provincial level and then to the water boards and municipalities) is not applied (Interview). Responsibility is given to the lower levels from the beginning. The water authorities argue that the WFD itself also asks for water management at the operational level. According to the *AMvB Kwaliteitseisen en Monitoring Water*, the so-called two-phase approach (up and down the staircase – *trapje op/trapje af*) is applied here. During the first phase, a bottom-up approach is taken, beginning from the water board level (up the staircase/*trapje op*). Water boards propose their plans (*waterbeheerplan*), which are assessed by the provinces, who also make their own plans (*waterhuishoudingsplan*). These are then assessed by the Ministry of Transport, Public Works and Water Management in national planning (*Nota voor de waterhuishouding/ beheerplan voor de rijkswateren*).

However, with this method, there could be the problem of provincial governments and water boards applying standards that are not in line with the central government's intentions. Therefore, if necessary, in the second phase the process could be reversed (down the staircase/*trapje af*). The Minister gives instructions to the provinces to change their plans, and the provinces in turn give instructions to the water boards before the plans are definitively adopted. When the plans are all adjusted and harmonised in this way, standards (and the environmental objectives) become legally binding as part of the provincial water management plan (*provinciaal waterhuishoudingsplan*) or the water management plan (*waterbeheerplan)* of the water boards. Some refer to this as a 'contracting method', where each level of government has the maximum legitimacy (Interview).

This method is considered valuable, as it is believed to lead to maximum legitimacy and accountability as well as good working 'spirit' (Interview). This in turn is believed to

lead to better, well-prepared decisions and, leads therefore to better execution of the measures, mainly due to ensured support for these measures at the lower levels. Therefore, it is believed that there is less effort needed from the national government to create extra incentives or to 'push' other authorities.

River Basin Management Plans (RBMPs)

At the level of the Meuse river basin, the Regional Executive Committee for the Meuse (RBOM) is a crucial committee. It makes the proposal for the Meuse part of the River Basin Management Plan (RBMP). This proposal has to be connected and adjusted to both the national part of the RBMP, as well as the international part of the RBMP. The proposal is produced as follows. Firstly, the so-called 'basic document' (*Basis document KRW Meuse*) is prepared, based on the integrated regional planning processes (*gebiedsprocessen)* (see Section 1.1 as well as section below) that formulate goals, measures, costs/benefits and the underlying considerations that were brought in by several authorities and stakeholders for every specific sub-sub-river basin (regional Water Programmes). This information is brought together in the basic document 'WFD Meuse', containing a list of goals, measures, an overview of costs and benefits, and the considerations (*afwegingen*) for the entirety of the Dutch part of the Meuse river basin. The water boards play an important role in collecting and evaluating these data and considerations. Subsequently, the Regional Executive Committee (RBOM) advises the different governmental authorities (municipalities, national agencies, provinces, water boards), and they discuss this information again in the regional planning processes and use it as a basis and guideline for their own formal planning documents.

After different versions are discussed, the drafts of the formal planning documents of the municipalities, water boards, provinces and national agencies are, together with the foundation of the basic document, finally delivered to the national level as input for the RBMP. The national level combines these drafts and proposals with the proposals for other river basins in the Netherlands and lays down the goals per water body, as well as the measures (summarised) and considerations. This is also combined with the ex-ante analysis of the Netherlands Environmental Assessment Agency (recently renamed the *Planbureau voor de Leefomgeving*), which contains the evaluation of costs and efficiency of measures.

Integrated regional planning

Considering the setting of the ecological goals in the Dommel area, the Water Board determined goals in the integrated regional planning processes through the use of so-called defaults (*standaardafleidingen*), categorised by common types of water bodies in its river basin. According to the basic document 'WFD_Meuse' (version 3.1/ April 2008, pp. 11 and 13) the goals are presented in two ways:

1) The goals compared to the natural reference for four groups of indicators (*maatlatten*), which shows how far the goals are set from the good ecological status (distance to target from the natural reference) and
2) On the basis of a specific goal for 2027, (normally the good ecological potential) that is set through the Prague Method of packages of proposed measures. Information is given on the current situation (2008), the end-goal in 2027 and an internal intermediate policy goal for 2015 (Basic Document WFD_Meuse, version 3.1/ April 2008, p. 13).

During the process of setting the standards in the Dommel river basin, there was discussion on how to set ecological goals and goals for related chemical substances in a situation where water bodies are modified or heavily modified and where the ideal ecological situation is hard to reach. Part of the ecological goal setting is about the chemical conditions of water bodies needed to reach GEP, especially when dealing with nitrates and phosphorus. The water board was involved in the working group 'physical-chemical conditions', which was trying to determine goals and standards for toxic substances (nitrite and ammonium) in the context of HMWB. This was a form of regional derivation (*regionaal afleiden*). Normally, for chemical substances, goals and standards are derived from an 'ideal' situation comparable to a natural water body (good ecological status).

However, with regard to HMWB or AWB and reaching GEP, there are clearly circumstances – such as hydromorphological recovery and improvements in streaming – where improvements are very limited. These circumstances should also be considered when deriving the goals for related substances such as nitrates and phosphorus, which are important for the ecology of water bodies. Why strive for a high standard for some of the chemical elements for ecological status (concerning nitrates and phosphorus) that belong to an ideal ecological situation that will not be reached anyway? It turned out, however, that it was impossible to define these derived goals for specific chemical substances due to a lack of knowledge and experience. For nitrates and phosphorus, it was decided to use the national standards that belong to good ecological status, although they are considered to be very stringent (Interview, see also basic document WFD Meuse, p. 11).

In addition to the integrated regional planning processes, stakeholders were also involved at the Meuse River Basin District level through a sounding board group on this level (*Klankbordgroep)*. They remained outsiders, however, confronted with the complicated and technically detailed process of goal setting and planning (Interview). Working with a *Klankbordgroep* was not considered suitable for discussing all of the steps taken in the implementation process, since it was considered to be very time consuming. The *Klankbordgroup* was involved when it came to general plans and outcomes. They were consulted on processes and decisions, but transparency was difficult.

Reflection

As described earlier, water boards suggest goals and design measures which must be assessed by the provinces and the national government. Once the goals and measures are laid down by the provinces in their plans as well as in the plans for the water boards, water boards are bound to implement these measures for the regional surface water bodies. It should be noted that water boards are not responsible - nor do they have the authority - for other sectors that affect the quality of water, such as the agricultural sector. This means that the goals and measures of water boards are designed within their competences. As far as the agricultural sector is concerned, no actions can be expected. The agricultural sector in the Netherlands does not explicitly need to contribute to realising the WFD objectives. This can be considered as highly problematic, especially because such a decision at the national level is not in compliance with Article 9 of the Directive: the polluter pays principle and full recovery of costs.

3.4 Programme of Measures

In the Netherlands a programme of measures can be found in all the existing water plans (strategic plans as well as management plans) of the central government, the provinces and the water boards.

In 2007, the RWS and the regional water managers (water boards) listed measures (RWS regional measures package) to reach the environmental goals in 2015 and 2027. Most of the regional water managers listed the measures that are to be implemented in the period 2010 to 2027. There was not always a distinction made between the already existing or already planned measures and the extra WFD measures. However, according to the RWS regional measures package, about one-third of the investments expected in the years up to 2027 are thought to be related to the 'extra' WFD measures, and the majority of the investments for these measures is to be invested before 2015 (see next section: Resources) (Ligtvoet, Beugelink et al. 2008). This means, that in the Netherlands many measures are to be implemented in the first WFD planning cycle.

At the national level we can refer to this RWS regional measures package. For surface water bodies, spatial and hydromorphological measures are predominant, such as nature-friendly banks and shores, re-meandering of small streams or canals, fish-passages, by-passes of rivers or side channels of rivers. With the introduction of the WFD, water management in the Netherlands changed from focusing on removing polluting substances to looking at ways of creating the desired ecosystem (Interview). Substantial ecological improvements are expected, especially for the regional water bodies (Ligtvoet, Beugelink et al. 2008). However, as described earlier, ecological targets for many water bodies will most likely not be reached, even in 2027. There are only a few measures that are source-oriented, such as sewer water treatment and improvement of sewer overflows for phosphorus and nitrates. Source-oriented measures where diffuse pollution from the agricultural sector can be reduced are not listed in the RWS

regional measures package. Again, these measures do not fall under the responsibility of water boards, but are to be taken care of by the national manure policy (Ligtvoet, Beugelink et al. 2008). Also, water boards cannot interfere with spatial planning policy to improve the ecological quality of their water bodies.

This picture holds true for the Meuse river basin and Dommel catchment: spatial measures and measures concerning fish population, fish migration and the wastewater chain are considered most important for the Meuse. When it comes to diffuse sources stemming from agriculture (nitrates and phosphorus, fertilisers) the regional water managers are predominantly looking to the national government to propose measures or extra measures and new policy programmes. The Meuse river basin is planning new research activities (e.g. nitrates research in the *Mergelland* area, industrial use of water and new measures for point sources) to investigate and anticipate future measures.

For the Dommel catchment, the WFD did not lead significantly to new or extra measures, but only to an increase in research and an increase in the integration of plans and measures. Nor did it lead to extra expenditure, apart from a small increase in the subsidy from the central government (Interview). The feasibility of meeting the quality standards is very low in the catchment, not only because of budgetary issues, but mainly because of the international nature of some of the substances as well as the fact that the water boards cannot demand agriculture to reduce pollution (Interview). Therefore, goals are to be attained mainly through use of the already existing measures in the Dommel catchment.

Reflection

For surface water bodies in the Netherlands, the measures suggested by the water boards (for regional waters) and the RWS (for national waters), which are to be taken for the WFD, are mainly spatial and hydromorphological measures. There are only a few measures that are source-oriented. Agricultural policy is under the authority of the national government and the spatial planning of the provinces. However, as we have seen previously, the national government will not impose extra measures on the agricultural sector.

Because water managers are afraid of not reaching self-set ambitious targets and to be accountable for these goals and ambitions - as they are considered as obligations of result - this might lead to a situation in which more ambitious goals will *not* be laid down in their water plans. In the Dommel catchment as well, there has been an adjustment of the pace of implementing measures because of the WFD, and sometimes this means that the pace is set lower in the official water plan document (Interview). Because of the WFD, more realistic goals are being set. For example, formerly the goal for the river restoration programme was to complete the restoration of 80 km in six

years. Today, the goal is formally stated as 50 to 60 km. But in practice, the efforts in restoration might achieve more than the formally stated goal.

3.5 Resources

It is difficult to see what measures are actually implemented due to the WFD, and therefore it is difficult to estimate the cost involved in the implementation of the WFD in the Netherlands. The estimation (Ligtvoet, Beugelink et al. 2008) shows that during the period 2007 to 2027, investments in the complete RWS regional package of measures will amount to a total of approximately 7.1 billion euros. Of this total investment, it is calculated that about two-thirds is based on the already proposed or existing measures and policies and so one-third is associated with extra measures for WFD implementation. This means extra measures in the Netherlands for WFD implementation will amount to approximately 2.9 billion euros. About 65% to 70% of these WFD related investments are to be invested during the period prior to 2015.

Of the total costs mentioned above, the water boards are accountable for 5.4 billion euros and RWS for 1.7 billion euros (Ligtvoet, Beugelink et al. 2008). The annual cost of the total RWS regional package of measures for society is estimated to be 390 million euros per year. It is estimated that about 60% of these costs will be covered by the water boards, 15% by the municipalities, another 15% by the RWS and 3% by the provinces. Extra increase of charges by water boards is expected to be about 0.7% per year. About 75% of the increase in charges will be paid by households and the rest by businesses. Again, these are the costs which will be covered by taxpayers for the entire water management programme until 2027, one-third of which is believed to be related to WFD (extra) -measures. This means that the cost increase related to the WFD is considerably lower than 0.7% per year.

For the Dutch part of the Meuse river catchment, the estimated costs of the total integrated water management programme (including flooding policies, drought, etc.) are 3.4 billion euros in total, of which 0.9 billion euros involve new and additional policy. Approximately 1.3 billion euros of the total costs are WFD related.

Reflection

The Netherlands has a history of securing budgetary funding for water and separating it from other taxes. Because the water boards exist solely for the purpose of water management, the funds they raise from their taxes do not have to compete with other policy areas, as is mostly the case in other countries. As a result, it is believed that the Netherlands spends a lot more on water management (and reaching the WFD objectives) than do other countries, such as Germany, for example (Interview). Still, the Water Board of the Dommel does not recognise significant increases in budget related to the

WFD process (Interview). The Water Board of the Dommel was already taking measures before the WFD and had partly anticipated the new Directive. The cost of water management has increased slightly, and this will indeed be subsidised by the national government. However, this amount is said to be rather insignificant.

3.6 No Deterioration Principle

Legal establishment

The WFD Implementation Act formulated the principle of no deterioration in the wording of the former stand-still principle and this means that no deterioration should occur concerning the quality of all waters, unless it is caused by one of the reasons mentioned in the exemptions laid down in Article 4 WFD (Article 5.2b (4) Wm). Due to the fact that this could mean that this is a stricter obligation than required by the WFD, the law will be amended in such a way that no deterioration will refer to the status of a water body, so the principle is interpreted as a deterioration of status class. The WFD Implementation Act also states that the Wm needs to ensure that the status of water bodies does not deteriorate where environmental quality norms are in force. Since it is not yet clear whether the WFD will require no further deterioration at all, or just no deterioration of status class, the law may be the same whatever interpretation is given by the Court of Justice.

The AMvB *Kwaliteitseisen en monitoring water* gives a more detailed interpretation of the principle. According to the AMvB, deterioration is assessed across the status class and per water body (Article 16 (1) and (2) AMvB *Kwaliteitseisen en monitoring water* in conjunction with Article 5.2 (4) Wm). Also, a deterioration is not assessed at any moment in time, but only between planning periods of six years. In 2015 it will be assessed whether there is a deterioration. The first planning period will be compared to the situation at the beginning of the planning period on December 22, 2009. In 2021, the second status classes of the second planning period will be compared to those of the first, and so on (Explanatory note of the AMvB *Kwaliteitseisen en monitoring water,* p. 31).

An exception to the rule that deterioration in a water body is not allowed is described on page 31 of the Explanatory note of the AMvB *Kwaliteitseisen en monitoring water*: deterioration of the status class of a single water body is (under special circumstances) allowed if it would lead to a significant improvement in the water quality of the RBD as a whole. According to the explanatory note, this is in line with Article 4 (1) (a) (i) and appendix V.1.3 of the WFD.

Practical interpretation

It is also said that the principle of no deterioration is already widely accepted by society (Interview). The main message is to not obstruct good environmental developments, and that it is useless to interpret this concept too strictly because then nothing can be

achieved. The concept of no deterioration can be very helpful in achieving the goals of the WFD, as became clear in the past when the principle was also used for granting licenses based on the Pollution of Surface Waters Act (*Wet verontreiniging oppervlaktewateren, emissie-immissietoets*) and in the water assessment process *(watertoets)* (Interview). Although the *AMvB Kwaliteitseisen en Monitoring Water* indicates that the principle is in effect as of 2009, the reference date is sometimes considered to be 2000, since this was the deadline for transposing the Directive (Interview).

In the Dommel catchment, pollution that originates in Belgium is of relevant concern (Interview). No restoration measures can be taken against this pollution; not only would it be extremely expensive to remove the pollution which is already present in water and soil systems, but also because the water body would be immediately re-polluted since the input of substances has not been addressed.

Monitoring and check points

The national government decided to use only data which were collected from WFD-specific check points for the purpose of monitoring designated water bodies and determining deterioration, as well as for the other purposes involved in the implementation of the WFD. In the Dommel, there are 26 water bodies identified, but there are only fifteen WFD-specific check points (Interview). These check points can represent other water bodies (or parts of water bodies) that are similar and have no check points. It has been questioned whether the fifteen WFD-specific check points are representative for other water bodies. It is argued by the national government that using additional data from other existing check points will be too expensive. However, it seems that there are political reasons behind the strategic placement of the monitoring points (Interview).

3.7 Use of Exemptions

Legal Establishment

The only exemptions from reaching the specific goals of the *AMvB Kwaliteitseisen en monitoring water* that can be made will be those mentioned in Article 4 of the WFD. The exemptions in this AMvB are the same as those in the WFD (Article 2 of the current proposal). Moreover, the use of exemptions must be justified in the RBMPs (Article 2 *AMvB Kwaliteitseisen en monitoring water*)(Syncera Water e.a. 2005 and Zijp e.a. 2007).

Practical use of exemptions

In general, it has been informally agreed that the goal of meeting the 'good' status is 2027, not 2015. Most water bodies will not meet the good status/potential by 2015. The measures will be implemented in phases (Ligtvoet, Beugelink et al. 2008). Extension of deadlines will therefore be extensively used for the water bodies that are unlikely to

meet the goals in 2015. This will mainly mean a change in the time schedule (Art. 4.4) and not (as of yet) a change in the actual objectives (Art. 4.5) (Interview). The ex-ante evaluation speculates that it would be difficult, even in 2027, to reach the ecological targets. Even with the maximum possible use of measures, about 50% of regional waters will not reach the ecological objectives (GEP) even in 2027. The Dommel catchment hardly has specific goals for 2015 (Interview). It is expected that even in 2027, some substances, such as cadmium, will not be reduced to an acceptable level.

There is discussion in the Netherlands about the reason behind this image of a substantial number of water bodies not meeting the environmental objectives, even in 2027 (Interview). It is still uncertain whether the estimation of the expected cost involved for implementation is considered disproportionate and could therefore be sufficient reason for legitimising the phases of implementation (Ligtvoet, Beugelink et al. 2008). The extension possibility of the WFD is perhaps being overly used (Interview).

The reason why Article 4.5 (lowering of objectives) is not used at the moment is because: 1) it is better to keep the ambition high, 2) the government does not have enough knowledge and does not know the impact of the instruments that are to be implemented and 3) even though it is known that the Netherlands will not achieve the goals in 2027, it is very difficult to say what standard *will* be reached (Interview). This is impossible at this stage. The use of Article 4.5 will need clearly defined alternative goals. In 2021, the Netherlands can decide whether to lower the objectives for 2027 or not.

3.8 Integration

General integration

In the Netherlands, no form of general integration with other policy fields has been established. There will be no formal legal obligation regarding competences in other policy fields to take the water quality standards into account.

Because the national water plan (RBMP) is made by more than one Minister (Minister of TPW, together with the Minister of Agriculture, Nature Conservation and Food Quality and the Minister of Housing, Physical Planning and Environment), all these Ministers have to take the water quality standards into account when decisions are taken at a national level. Other governmental bodies have no explicit obligation to take water quality standards into account.

The *AMvB Kwaliteitseisen en monitoring water* has chosen for a link between the competence to make water plans (at each governmental level) and the water quality standards. This means that whenever a water plan is made, the water quality standards must be taken into account.

When water authorities take specific decisions (like granting a licence), they have to take their own water plans into account. In this way water quality standards will have an influence in more specific decision making. All activities in the field of water management, however, as well as legal decisions such as practical measures, may not lead to non-compliance with the goals of the Water Act.

The forthcoming *Waterwet* will integrate nine existing water acts and will introduce an integrated water permit, thus improving the objective of internal integration.

Nature and Water

Legal establishment

As already stated in 3.1, the Ministry of Agriculture, Nature, and Food Quality also signs the national water plan in which the river basin management plans are incorporated. By doing this a political agreement with the RBMPs is established, which legally means that the Minister of Agriculture, Nature, and Food Quality should take the RBMPs into account when taking decisions in the field of Nature Conservation (Van Rijswick 2007). More in general, most – but not all – protection measures taken in the field of nature conservation will have a positive effect on the good ecological status of surface waters and the other way around. By means of the obligations following from the WFD for the protected areas (registered due to Article 6 of the WFD) a strict use of exemptions is obligatory.
Furthermore, most provinces make integrated environmental plans dealing with water, the environment, spatial planning and nature conservation (*Omgevingsplannen*).

In Practice

Natura 2000 is understood to be a completely different process in terms of organisation, objectives and time frames etc., and is therefore difficult to integrate (Interview). While the WFD sets a deadline of 2015 with two possible extensions of six years each, the Birds and Habitat Directives set no deadlines for reaching final goals. At the same time, ensuring no deterioration and improvement of ecological conditions carrying out the Birds and Habitats Directives are ongoing obligations (Keessen and Van Rijswick 2008).

At the beginning there was tension between the WFD and Natura 2000 obligations, since actors from both Natura 2000 and the WFD expected each other to do the task. Natura 2000 actors expected part of their responsibilities to be covered by the WFD, since it had authority over the protected areas. WFD actors expected Natura 2000 to implement its protected area provision. Moreover, at the level of the ministries and the provinces there was a lack of coordination; it was not clear to the water boards what was expected of them, and measures related to Natura 2000 were not clearly defined. At the same time, it was felt that water boards were not waiting for extra obligations from Natura 2000.

However, in the end, water boards are responsible for all uses of water, including those related to Natura 2000 (Interviews).

In the 2007 policy document 'Policy Vision for Nature Management' (*Beleidsvisie Natuurbeheer*), from the Ministry of Agriculture, Nature Conservation and Food Quality, it was stated that coordination is needed. The idea was that for areas with high urgency according to the Natura 2000 conservation standards, the water quality conditions should be ensured under the WFD before 2015 (Ligtvoet, Beugelink et al. 2008).

Water quality measures for Natura 2000 sites are now put in the regional water management plans and management plans related to national waterways (Interview). In this case, the Ministry of Agriculture, Nature Conservation and Food Quality or the national water authority pay for these measures. For regional surface waters the integration is less clear. Water boards pay for the measures that contribute to the implementation of Natura 2000 and measures which have a direct relationship with water system management. For some nature management plans, completion is speeded up to be able to add to the WFD river basin management plans. Nature management plans fall under the responsibility of the provinces, the *Rijkswaterstaat*, the *Staatsbosbeheer* and the Ministry of Defence. Since the provinces are responsible for both groundwater management as well as the Natura 2000 site, integration at this level can be expected. However, after the *Waterwet* comes into force, the provinces will no longer be the competent authority for groundwater management. Coordination, however, is still known to be poor (Interview).

Agriculture and Water

Legal establishment

The first legal instrument for integration between water and agriculture is – again - the signing of the National Water plan, which includes the RBMPs by the Minister of Agriculture, Nature, and Food Quality (see under integration of water and nature conservation). Furthermore, a system is being developed which should lead to water quality standards being taken into account in the authorization process for pesticides, the so-called *Beslisboom water* (Van Rijswick and Vogelezang-Stoute 2007 & 2008).

Furthermore, most provinces make integrated environmental plans dealing with water, the environment, spatial planning and nature conservation (*Omgevingsplannen*)

Finally, Dutch water legislation has its own instrument to protect the quality of surface waters and ground water by pollution from manure and pesticides (*Wet verontreiniging oppervlaktewateren, Wet bodembescherming, Waterwet*). This water legislation is a consequence of obligations following from the Nitrates Directive, the Groundwater Directive and Directive 76/464/EEC (now 2006/11/EC). It must be said that even EC law

devotes special attention to agriculture when the protection of waters is concerned (Van Rijswick 2007b).

In Practice

Concerning the integration with the agricultural sector, measures to reduce nitrates and phosphorus are expected to be derived from the Nitrates Directive (Interview). Measures taken because of the Nitrates Directive will slowly increase the water quality, and therefore contribute to achieving the WFD goals, though probably not enough to meet the WFD objectives. By 2027, the nutrient load of regional surface water bodies will be 16% less for phosphorus and 24% less for nitrogen (ex-ante). Such reductions will be made mainly through expected improvements in sewerage treatment and by existing and proposed manure policy, and not through extra WFD measures. About 50% of regional surface water bodies are not expected to meet the nutrients standards even in 2027 (Ligtvoet, Beugelink et al. 2008).

Next to the hydromorphological alterations, agricultural activities and their impact on water are the largest threat to WFD implementation, and the relative importance of the agricultural sector will only continue to increase. After all the water management measures (RWS regional measures package) are taken in 2027, it is expected that 75% of the nutrient load in regional water bodies will originate from the agricultural sector (Ligtvoet, Beugelink et al. 2008). Reducing the nutrient load is considered difficult, not only because water boards have no power to change agricultural practices, but also because of the severe accumulation of nutrients in agricultural soils, which will be released to the water in coming decades. Some measures can be taken for the sector, such as the creation of manure-free zones. However, such measures will only be carried out through negotiations with farmers on a voluntary basis, where such changes in activities by farmers need to be subsidised. Moreover, the impact of such measures is questioned, since the leaching of nitrates from soils will be considerable.

Integration between the WFD and the agricultural sector is considered difficult within the country. Actors in the water sector are asking the government to address nutrient-related problems to be able to meet the WFD objectives. At the same time, parliament has asked that no measures or extra measures be imposed on agriculture (Interview and parliamentary motion Van der Vlist). There has probably been strong lobbying by the agricultural sector to prevent extra pressure being imposed on the sector in addition to the already existing manure policy, which is a match to the political economic interests. A 'level playing field' must be maintained among the farmers across Europe as well. The Netherlands will not apply stricter rules to farmers than other countries do.

Secondly, nitrates also come into the Netherlands from Germany and Belgium. It is difficult for the Dutch government to impose strict measures on its own farmers in this situation. The national government is seeking coordination at the European level to

support reduction of nitrate input into water by farmers by integrating the Common Agricultural Policy, Nitrates Directive and the WFD. The revised Common Agricultural Policy is still not fully used to improve the performance of farmers in reducing environmental problems.

In the Dommel catchment, the product-value of the agricultural sector is still growing, and this holds true for agricultural land as well. This means that it is only becoming more difficult for the water board to buy land alongside water bodies for restoration purposes (Interview). To improve water quality, the water board can make use of stimulus measures, such as subsidies or pilot projects. In addition, the water board can prevent leaching or discharges by placing filters, which does not affect agricultural activities. However, such measures are expensive and considered to be infeasible. They also do not meet the WFD requirement of Article 9, which states that costs for water services should be recovered.

Spatial Planning and Water

Legal establishment

The integration between water management and spatial planning takes place in several ways and will be improved after the entry into force of the *Waterwet* (Groothuijse and Van Rijswick 2005). External integration between water policy and spatial planning takes place at the planning level, except for the municipal spatial plan (*bestemmingsplan*). It is important to realise that plans (except for the local *bestemmingsplan*) in the Netherlands are not legally binding. External integration by way of coordinating several plans is therefore more a policy instrument than a legal instrument.

First, there is the signing of the national water plan and the RBMPs by the Minister of Housing, Spatial Planning and the Environment. This will lead to water interests being taken into account in decision making in the field of spatial planning.

Furthermore, most provinces make integrated environmental plans dealing with water, the environment, spatial planning and nature conservation (*Omgevingsplannen*)

The national and regional water plans of the new *Waterwet* are both so-called *structuurvisies* as meant by the Law on spatial planning (Art. 4.1 (1) and Art. 4.4 (1) *Waterwet*). This means that the authority that makes the water plans explicitly indicates what part of the water plan will have spatial impact. This implies that the water quality norms will only effect spatial planning if one of the water plans (either the national or regional plan) demands that measures be taken that involve spatial changes to achieve the quality standards. Moreover, these measures must also be transformed into general rules based on the Spatial Planning Act by the central government or the province. It is by means of these general rules that policy decisions laid down in plans will have legal

effect and ensure that water interests can be given special attention in the decision making in the field of spatial planning (*AMvB Ruimte, provinciale verordeningen*).

Apart from the instrument of coordinated planning, there is also the *watertoets* (water assessment), which already existed before the adoption of the WFD. Through this instrument, water boards can advise authorities that take spatial planning decisions on the consequences of those decisions for water management (Article 3.1.1 *Besluit ruimtelijke ordening*). In their advice, they will take the quality standards of the *AMvB Kwaliteitseisen en monitoring water* into account. The authority taking the spatial decision must justify any derogation from this advice in its decision (Article 3.1.6 (b) *Besluit ruimtelijke ordening*). In this way, the quality standards might influence (albeit in a non-binding way) the decisions in spatial planning.

The AMvB *Kwaliteitseisen en monitoring water* does not say much about spatial planning. According to the explanatory note of this AMvB (p. 19), the quality standards set in the AMvB will only have a very limited effect on decision making in the spatial planning process (De Gier et al. 2007 and Van den Broek, Nijmeijer and Van Rijswick 2008).

Finally, water boards have their own legislation including a licensing system (*keur* and *ontheffing* based on the *Waterschapswet*) which makes it possible to regulate undesirable activities that could harm the water system.

Other integration aspects

Apart from the integration with policy domains above, there are various other policies and developments relevant for WFD implementation. We will only mention them briefly:

- the integration with existing wastewater management, sewage and purification policies;
- the ambitions and policies concerning ground and surface water levels and drought issues (*Gewenst Grond- en Oppervlaktewater Regime*);
- reconstruction areas. These are integrated, area-specific policies for reconstructing and developing agriculture. The policies were initiated due to the problems of animal diseases and environmental pollution, and gradually evolved towards an integrated policy including issues of landscape, nature conservation, spatial planning, sustainability, rural communities and water management.

3.9 Conclusions

In the Netherlands, the WFD is implemented through a decentralised system, where water boards play a central role. Although formal standards and norms for good status are set at the national level through the AMvB *Kwaliteitseisen en monitoring water*, the

goal setting for regional water bodies that are HMWBs and AWBs are conducted at the sub-basin level in river basin management plans led by the water boards. While the Ministry is eventually responsible for the implementation of the WFD in the Netherlands, the water boards take the lead in not only setting the targets, but also designing appropriate measures, mobilizing resources and implementing measures. Of course, the water boards already played a vital role in water management in the Netherlands long before the implementation of the WFD. However, what is different is that the Netherlands has now opted even more for a bottom-up sequence of decision-making methods for its regional waters (*trapje op/trapje af*) in implementing the WFD. Earlier, the process started at the national level, which then cascaded down to the provincial and then to the water boards and municipalities.

For the implementation of the WFD, the process starts at the water boards, although the framework and methods are pointed out by the national level. The water board of the Dommel in turn proceeded with the implementation of the WFD through so-called 'water programmes' which are organised around smaller basins. In setting goals and measures for the Dommel catchment area, the water board works with four of those water programmes, involving related municipalities and stakeholders. It is not only a very decentralised, but also an integrated process, as the programmes deal with a variety of water-related policy implementations, of which only one is the WFD. This decentralised process (integrated regional planning processes; *gebiedsprocessen*) is considered valuable as it is believed to maximise legitimacy and accountability as well as creating a good working spirit, leading to well prepared decisions and resulting in a better execution of the measures.

It is well known that the Netherlands has designated most of its water bodies as HMWBs and AWBs. The main reason for this outcome is most probably physical: the hydromorphological changes made in river systems in the Netherlands is considered to be exceptionally severe. However, there is still room for considerations other than physical-scientific arguments to play a role in the designation process. The Netherlands (at the national level) has chosen a pragmatic approach from the start. From the various interviews it was understood that the authorities directly involved had problems with the use of the word 'natural' and the category of 'natural water bodies'. They feared that once a water body was designated as natural that it would have to be brought back to an undisturbed state. Although this is not exactly what the WFD asks for, there are different consequences related to designating a water body as either natural or heavily modified. An additional reason for pragmatism could be that water boards are concerned about the consequences of accountability towards the EU if certain ambitions are very manifest. They do not want to be held responsible for high standards on paper, when they are dependent on others and might not be able to meet the demands. Some targets are already difficult enough to reach with the existing policy.

In the Netherlands, the water boards play an important role in the designation process, although they do not make the final decision. It is important to point out here that the water boards have no authority on issues beyond water management (such as spatial planning and agricultural activities), and are dependent on other authorities and stakeholders when it comes to attaining good status/potential of water bodies. Without being able to foresee exactly what are 'significant adverse effects' or 'disproportionate costs' with relation to the required hydromorphological changes for sectors other than water, they are assigned the task of proposing designation.

From the study by the *Planbureau voor de Leefomgeving* (PBL – Netherlands Environmental Assessment Agency) on the RWS - regional measures package, the Netherlands expects an increase in the total budget for water management due to the implementation of the WFD. It should be noted, when discussing the extent of WFD related measures, that the Netherlands complies with the obligations in many other water-related EU regulations (such as the Urban Wastewater Directive, and in large part the Nitrates Directive). For some countries, effort is still needed to meet the requirements of other directives, and they are classifying related measures as WFD measures, which is not the case in the Netherlands.

The measures to meet the WFD requirements are predominantly spatial and hydro-morphological measures. Therefore, with the introduction of the WFD, substantial ecological improvements are expected especially for the regional water bodies. However, ecological targets for many water bodies will most likely not be reached even in 2027. The extensive use of the WFD extension clause is therefore intended.

While one of the main challenges for the Netherlands in meeting the WFD objectives is diffuse pollution from the agricultural sector, the water boards do not have the power or the responsibility to deal with that sector. They refer to the national level and indeed put pressure on the national government to address the problems related to intensive agriculture, fertilisers and pesticides. However, the national government is not taking – and partly is not able to take – measures itself to further address the diffuse pollution problem. More importantly, it partly explains why the Netherlands is struggling to reach the environmental objectives even in 2027, being unable to tackle the core problem of diffuse pollution from the agricultural sector. According to some, it seems as if it has been forgotten that it is the Member State, the national government, which is responsible for achieving the requirements of the WFD in good time. This means that the responsibility for taking the necessary measures at the national level, for example for diffuse pollution from nitrates and pesticides, is at least as important as all the measures that are proposed and will be taken by the water boards. Shared responsibility for reaching the WFD directives means that all governmental authorities should live up to their responsibility.

At the same time, the national government seems to claim extensive changes and efforts related to the WFD and that the WFD has had great impact, while the catchment level (the Dommel area) gives the impression that 'not much has changed'. In the Dommel catchment area, the water actors do not experience substantial changes because of the WFD. They claim that the goals are not new. This is different from what the national government claims. But here it could be that the WFD is not a big incentive for the Dommel to do this in another way because they were planning the same measures before the WFD came into force. In other words; the high level of ambitions is continued. Maybe it is different for other water boards. For some other water boards, the WFD might have provided an impulse for ecological restoration.

The concern, however, is that WFD implementation is subject to an arrangement which is too informal. The Dutch policy culture is not considered to be as legalistic as in France or Germany or the UK. The availability of legal instruments is not a problem because legislation in several policy fields offers enough instruments to influence decision making in all policy fields. The fear, however, is that the national and the provincial levels will be reluctant to use these supervisory and enforcement instruments, because they do not fit very well in the Dutch policy culture of negotiating and looking for compromises. This might cause problems at the European level. To avoid this, clear obligations and responsibilities are necessary.

The external integration of the WFD with other policy sectors is not equally legally established for all policy fields. The central government is reluctant to increase the pressure on or the regulations for the agricultural sector to reduce its nutrients inputs into water as its main concern is to ensure fair competition with the other countries concerning this sector.

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