

# **The Allocation of Tasks and Competencies in Dutch Water Management**

**Discussions, developments and  
present state**

Erik Mostert

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RBA Centre for Research on River Basin  
Administration, Analysis and Management  
Delft University of Technology  
Stevinweg 1  
2628 CN Delft  
The Netherlands  
Tel. +31 15 2787800  
Fax +31 15 2787799  
E-mail: [RBA.Centre@CT.TUdelft.NL](mailto:RBA.Centre@CT.TUdelft.NL)

# PREAMBLE

WATER 21 is a collaborative research project seeking a comprehensive appraisal of water policies in Europe. Five universities and research institutes from France, Germany, the Netherlands, Portugal and the United Kingdom are involved in this project, funded by the Environment Research Programme managed by DG XII of the Commission of the European Union. Additional funds are provided to some teams by national organisations.

The main goal of WATER 21 is to contribute to the evaluation of how current practices in water management in EU countries deviate from a sustainable development goal and to identify required shifts and changes in water policies in order to achieve new practices that are more compatible with this goal.

WATER 21 is based on the assumption that sustainable development must not only be the result of better technologies but also the result of new approaches to policy formulation. Focusing directly on the policy formulation process will provide a better insight into the social, economic and technological factors supporting and conditioning water policies and its dynamics.

The contextual elements of water policy formulation, namely the driving forces of water policy decision-making and the aims that are socially accepted for water policies, are essential elements investigated by WATER 21. Criteria and indicators for sustainability are not explicitly addressed as a topic of research but a critical overview of the literature and results of current research projects will be part of this project.

Although WATER 21 is an entirely new and self-contained research project, it builds on the knowledge and experience acquired with EUROWATER. This project, carried out between 1992 and 1995, provided a systematic comparative analysis of the institutional dimensions of water resources management in the same five European member states. (See Correia 1998.) EUROWATER was rather descriptive while WATER 21 has adopted a prospective approach.

Both projects deal with water in a very comprehensive manner, considering all uses of water and trying to identify how these uses are reconciled in different countries, with different geographic conditions and different legal and institutional backgrounds.

In the first phase of the WATER 21 project five reports have been prepared by the different teams analysing in detail the process of policy formulation in their respective countries. In the second phase three critical dimensions of sustainability are analysed in more detail, namely river basin management and planning, long-term provision of water services and infrastructure, and subsidiarity in water management. This analysis, coupled with the review of criteria and indicators of sustainability, will provide the basis for a comprehensive appraisal of water policies in Europe.

The report you have before you forms the Dutch contribution to the report on subsidiarity in water management and provides the necessary information for this report on the Netherlands. This information will be analysed further and compared with information from the other WATER 21 countries. The present report, however, can be read independently and gives more details concerning

the Netherlands. For this reason it is published as an individual publication in the RBA Series on River Basin Administration.

All teams are grateful for the support of the European Commission in providing funds for this research and to the national organisations contributing to the project. We also appreciate the comments, advice and contributions, received from those representatives of the various institutions and colleagues who were consulted during this project.

We believe that a clear understanding of the water policy formulation processes will assist in the development of more conscious and effective policies, leading to a better and more sustainable Europe.

Francisco Nunes Correia  
WATER 21 Coordinator  
March 1997

## SUMMARY AND CONCLUSIONS

This report discusses subsidiarity in Dutch water management and forms the Dutch contribution to the Water 21 Phase II report on subsidiarity. Rather than discussing the Dutch interpretations of the concept (the concept is used almost exclusively in relation to the European Union), this report discusses the substantive issue to which “subsidiarity” refers: the allocation of tasks and competencies.

The present allocation is the result of discussions on six topics:

- The role of the waterboards as a form of “functional” (specialised) government;
- Centralisation versus decentralisation;
- The role of “intermediary organisations” (NGOs);
- Public participation;
- Public versus private water management, especially with respect to waste water treatment and public water supply; and
- The relation between the Netherlands on the one hand and the EU and international river basin commissions on the other. (Section 2)

Presently, nearly all water management is done by government, but this may change. Central government sets the framework, which is subsequently filled in by the lower level governments, both “general” (provinces and municipalities) and “functional” (waterboards). Water management is institutionally separated from environmental management, land-use planning and agricultural policy, but much co-ordination takes place. Non-governmental organisations participate extensively in water management, but they do not fulfil public functions on their own. Individual water users are less influential, but they too can participate. Privately owned companies play no significant role. Finally, the European Union, river basin treaties and river basin commissions are gaining importance. The Netherlands is not passive in this respect and contributes actively to the development of international water management. (Section 3)

In the future the allocation of tasks and competencies will change. Waterboards managing water quality and waterboards managing water quantity will continue to merge. Furthermore, the waterboards will probably get more competencies in groundwater management. The future of the water supply companies, presently owned by government, is still unclear, but there is a drive towards more competition in water supply. Similarly, more competition may be introduced in wastewater treatment. (Section 4)

The different discussions and developments give much food for thought and suggest several conclusions on the relation between the concept of subsidiarity and the concept of sustainability. It is clear that in practice the allocation of tasks and competencies is not determined solely by the notion of sustainability. Still we can postulate three criteria that the allocation of tasks and competencies should meet in order to promote sustainability:

- The allocation should be such that all aspects of sustainability get due attention;
- The allocation should reflect the scale of the different tasks and facilitate the necessary co-ordination; this implies that the allocation should be simple and transparent; and
- The bodies to which tasks and competencies are allocated should possess the necessary capacity. (Section 5.1)

Dutch water management meets these criteria reasonably well. (Section 5.2)

Several lessons can be drawn from the Dutch experiences. First, the Dutch waterboards show that specialised water authorities can effectively ensure sustainability, provided the relation between water management and other policy sectors is handled well. Furthermore, the Dutch experiences show that decentralised management requires effective co-ordination between the smaller management units and may require concentration if the units are too small. Finally, the Dutch experiences show that the division of powers in practice may differ quite a lot from the formal division of powers. This should be born in mind when studying subsidiarity and sustainability. (Section 5.3)

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## 1: INTRODUCTION

### *Topic and aim*

This report forms the Dutch contribution to the Water 21 Phase II report on subsidiarity in water management (cf. the preamble). It studies the question whether and how the subsidiarity principle is reflected in Dutch water management. It analyses the past developments and discussions in the allocation of tasks and competencies; characterises the present allocation; and identifies future trends.

The aim of the report is to contribute to an understanding of the different national traditions in Europe relating to subsidiarity. Furthermore, using the Dutch material, this report tries to clarify the relation between the subsidiarity principle and the notion of sustainability.

### *“Subsidiarity”*

The meaning of the term “subsidiarity” has been discussed in the Eurowater project (Kraemer 1998) and will be discussed again, albeit more succinctly, in the Water 21 Phase II report. As used in this report, subsidiarity implies “that authority requires democratic legitimation, that authority should be built up from the bottom and cannot be imposed from above, and that authority should be exercised as close to the citizens as possible.” (Brinkhorst 1992: 4) As such, it applies to the relation between the European Union and the member states (cf. footnote 11). The concept is, however, equally relevant for the discussion on the division of tasks and competencies within member states, both between different government levels and between government and non-governmental actors.

Central in this report is the allocation of tasks and competencies in the widest sense. Paradoxically, this report uses the term “subsidiarity” very sparingly. In the Netherlands the term is used almost exclusively in relation to the European Union.<sup>1</sup> Yet, also in a purely national context many topical discussions have been held and still are held.

### *“Sustainability”*

“Sustainability” is used as the main criterion for evaluating the allocation of tasks and competencies. According to the famous definition of the Brundtland report, sustainability refers to a situation in which “the needs of the present (are met) without compromising the ability of future generations to meet their own needs.” (WCED 1987, p. 43) In the Water 21 project “policy indicators” for sustainability are identified: criteria that water policy formulation should meet in order to ensure “sustainable” policy outcomes.

This report intends to help and find policy indicators concerning the allocation of tasks and competencies. It may furthermore shed some light on the issue whether and how “subsidiary” water management actually promotes sustainable development. These issues will be analysed further in the Water 21 Phase II report on subsidiarity.

### *Structure report*

This report consists of a descriptive part (section 2-4) and an analytical part (section 5). The report first describes the main historical developments and discussions concerning the allocation of tasks and competencies. (Section 0) Following, this report characterises the present (01.05.98) allocation of tasks and competencies. (Section 3) Furthermore, it discusses the possible future developments in water management, the major one being a tendency towards more competition in public water supply

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1: The only exception is mentioned in section 2.3.

and waste water treatment, and reports on the current discussions. (Section 0)

The analytical part analyses the relation between subsidiarity and sustainability. Using the Dutch experiences, it relates the two concepts, assesses the sustainability of the present Dutch allocation of tasks and competencies, and draws four generally applicable “lessons.” (Section 0)

#### *Acknowledgements*

The author would like to thank Mr. H. Havekes from the Dutch Association of Waterboards for his valuable comments. However, any omission or mistake and all interpretations contained in this report remain the responsibility of the author.

## 2: HISTORICAL DEVELOPMENTS AND DISCUSSIONS

In the Netherlands several discussions have taken place on the allocation of tasks and competencies, often simultaneously. In a national context the following issues have been discussed:

- The role of the waterboards;
- Centralisation versus decentralisation;
- Intermediary organisations (NGOs);
- Public participation; and
- Private water management

In an international context the relation with the EU has been discussed, as well as the relation with river basin commissions.

### 2.1 THE ROLE OF THE WATERBOARDS

The role of the waterboards is often discussed in terms of “functional government” (*functioneel bestuur*) versus “general government” (*algemeen bestuur*). “Functional government” means government by public bodies with a specific and limited task, whereas the task of “general government” is in principle not limited. (Van den Berg and Van Hal 1995; see on the waterboards in general also Raadschelders and Toonen 1993)

#### *Origin*

The origin of the waterboards is largely lost in the mist of times. Before waterboards were established from 1150 AD onwards, water management was the task of the local governments, in the west of the Netherlands called *ambachten*. These bodies were court, executive and legislative in one and supervised, among others, the maintenance of roads, bridges and waterways.<sup>2</sup>

The origin of the local governments’ powers concerning their territory is not clear. Some argue that these powers were originally held by self-organised communities of the local farmers. In the east of the Netherlands such communities existed until the nineteenth century, the so-called *Markenootschappen*, and some of these developed into (small) waterboards. According to others, however, the powers from the local governments emanated from above, from the feudal lord (e.g. the Count of Holland, Bishop of Utrecht etc.). In the past these lords had executed their judiciary powers in person, and their supervisory powers concerning their territory are already mentioned in ancient laws predating the year 1000 AD. (Fockema Andrea 1934)

A new phase started around 1200. From the ninth century onwards, large peat areas in the northern and western parts of the Netherlands had been drained for agricultural purposes. As drainage in peat areas causes land-subsidence, drainage of excess water and river and sea flooding became problematic. The local governments, had to build dykes and construct drainage canals.<sup>3</sup> Gradually, the

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2: The officials of the local governments were the local judge (*schout*), appointed by the local lord (*ambachtsheer*), and so-called *schepenen*. Sometimes the *schepenen* were also called *heemraad*, *raad* meaning council or councillor and *heem* the area where one lives (related to the German ‘heim’ and English ‘home’). Often a separate council for managing the territory existed, called *heemraad* or *land schepenen*.

<sup>3</sup> Sometimes they dammed rivers in order to minimise the total length of dykes to be constructed and free their area from excess water from upstream. However, it caused very serious flooding problems

scale of the water management problems became so large that the local communities could no longer solve their water management problems on their own or with some neighbouring communities. Thus, regional waterboards were established: regional government bodies that regulated the construction, use and maintenance of a few infrastructural works with regional benefits, such as dams and sluices.

Moreover, from the early 15th century onwards, so-called “polders” were established. The task of these bodies was to improve local drainage, using windmills. Their size could differ greatly, and many transgressed the borders of the *ambachten*. As their activities could influence the regional drainage systems, the regional waterboards gradually began to supervise the polders.

#### *The original relation to “general government”*

In the Middle Ages the relation between the (functional) waterboards and general government was very close. Local water management was the responsibility of the local landowners, supervised by the local government (often the *ambacht*). The construction and maintenance of regional infrastructure was the joint responsibility of the benefiting local governments, supervised by the regional waterboard. In accordance to medieval law, the local governments’ approval was needed whenever the waterboard needed finances, e.g. for repairing storm damage. The feudal lord could establish regional waterboards and appointed its head, the *dijkgraaf* or *watergraaf* (literally: “dyke count” and “water count”), who was often also the main judiciary functionary in the waterboards’ area for civil and penal cases (*baljuw*). Local waterboards needed the regional waterboard’s approval. In many respects, the regional waterboards replaced the lord in matters concerning water (and land); due to old charters, the waterboards’ independence was secured.

In the sixteenth century several changes took place. First, the regional waterboards started to do more work themselves, the costs of which they recovered from the beneficiaries. Furthermore, the role of the feudal lords and their successors, the provincial governments, increased and the role of the local governments decreased. (Van de Ven 1993, Van der Linden 1982)

After 1798 functional water management and general government separated more. In 1798, municipalities were introduced, but the old local governments often continued to exist. The latter kept their water management tasks and in some parts of the Netherlands they were later turned into local waterboards. Provincial supervision over the waterboards became, however, more intense.

#### *Concentration of waterboards*

In 1953, 2544 waterboards existed. (Sneep 1979) Then, on 1 February of that year, a combination of spring tide and a strong storm raised the water level in the southwest of the Netherlands to a level 0.57 meter higher than the highest level previously recorded. An area of 200,000 hectares was flooded and 1835 people drowned. The maintenance of the dykes in the affected area had been the responsibility of mostly very small waterboards without much technical expertise or financial possibilities. Only their inhabitants contributed to the cost of the dykes, while inhabitants of other areas protected by the dykes did not have to contribute. Consequently, the dykes had been in a bad state of repair. To solve the problems, many waterboards in the southwest of the Netherlands and in other parts merged after 1953. (Van de Ven 1993, Greive 1982)

Concentration was also necessary because the scale and complexity of water management increased. New infrastructure sometimes had the effect of integrating areas that were previously managed separately into one water management unit. More important, the interrelations with other policy sectors with ever bigger scales became ever more important. In addition, water quality became  
(...continued)  
upstream.

a new object for water management. Water quality management required expertise that could not be developed by small waterboards. The solution chosen was to give the responsibility for water quality management to the provinces, which could delegate the task to existing (bigger) waterboards or to newly formed water quality waterboards. (Greive 1982, IJff 1995)

The last stimulus for concentration came from 1985 onwards from the introduction of the concept of “integrated water management.” In this approach water systems (surface and groundwater quality and quantity, banks, waterbed and technical infrastructure) have to be managed as a whole, and nature gets more attention. This increased the demands on the waterboards in terms of required expertise even further. Moreover, the idea became popular that water quantity management and water quality management should be in one hand. (V&W 1985, 1989, 1990) This promoted further mergers between small water quantity waterboards and between water quantity waterboards and water quality waterboards, resulting in only 67 waterboards in May 1997.

#### *The waterboards’ existence at stake*

Despite their prominence and long history, the waterboards did not remain unchallenged. Not only were the waterboards considered old-fashioned and not up to the challenges of modern water management, they were also seen as complicating co-ordination between water management and other policy sectors such as land-use. “General government” (municipalities, provinces, central government), it was argued, is better equipped to co-ordinate and balance the different interests involved.<sup>4</sup> General government was also seen as functioning more democratically. Municipal, provincial and central government are elected by all inhabitants within their area, whereas the waterboards are elected (at least until around 1970) by the real-estate owners only, primarily farmers. (Sneep 1979, Greive 1982, cf. Hagelstein 1995)

Also many arguments have been raised in favour of waterboards. It has been argued that water management should take place at the lowest possible level and that those interested in water management should have a say in it and should pay for it. Furthermore, contrary to municipalities and provinces, the areas of waterboards follow the boundaries of water systems. The limited possibilities to balance interests were seen as positive, as the interests served by water (quantity) management are a precondition for all other interests and are therefore non-negotiable. The vital water management interests could be served best by specialised water management bodies that are isolated from politics and its short-term preoccupations. Moreover, history has proven waterboards to be effective, and the existence of waterboard-like organisations abroad adds further strength to this argument. All this, it is argued, makes the waterboards the “natural” managers of the water system.” (Denktank 1996: 26; Sneep 1979, Greive 1982, Van de Berg 1995, Kluit 1998, cf. Hagelstein 1995)

Discussions on the waterboards started in the different provinces following the 1953 flood. In 1968, the Minister of Transportation, Public Works and Water Management established a study commission with a broad composition to study the functions and structure of the waterboards and their relations to other government bodies. The commission concluded, among others, that also in the future local and regional water management should be the task of specialised bodies: the waterboards. (Studiecommissie Waterschappen 1974) The Minister adopted this conclusion and prepared a

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4: One could also say that general government has more possibilities for bargaining and solving conflicts by issue linkage. General government can potentially solve conflicts in water management by linking the pertinent water management issue with an issue from another policy sector for which the distribution of costs and benefits is the reverse, thus creating a win-win solution. Functional water management can only link water management issues with other water management issues, and this may be too limited (cf. Mostert 1998a).

Waterboard Act, enacted in 1991, which incorporates this conclusion.

#### *The waterboards' justification*

The most recent discussions on the role of waterboards focus on groundwater management and sewage treatment. The dominant theory now is that waterboards are a democratic form of functional government that should manage water systems as a whole. (See for a clear expression of this theory: Denktank 1996) The functional character is justified by three factors:

- The scale and boundaries of water systems differs from that of municipalities and provinces;
- Water management requires specialised skills and is so essential that it should be entrusted to bodies dealing exclusively with water management; and
- Groups of interested persons can be identified; they should be responsible for water management and pay for it.

The functional character implies that waterboards cannot be turned into “environmental boards” managing the whole environment; their task should remain limited. The relation between water management and other aspects of environmental management requires that the waterboards are “embedded” in general government. In practice this is especially the province. (See section 3) Furthermore, the waterboards should have a “broad view”: they should also pay attention to interests other than those traditionally served by water management, e.g. to the interest of nature.

The water system approach seems to imply, first, that waterboards managing water quantity and waterboards managing water quality should merge. Not surprisingly, some smaller waterboards managing water quantity only are against such mergers. They argue that the increased size of the waterboard would decrease the contacts with their inhabitants. The customary counter-argument is that the establishment of “districts” within the new waterboard can help maintain close contacts. (Redactie 1997)

The water system approach may furthermore imply that competencies in groundwater management should go from the provinces to the waterboards. In practice, the waterboards already influence groundwater significantly through its surface water management. (Denktank 1996) Yet some argue that the management of the deep groundwater (regulating abstractions for water supply) should not be the responsibility of the waterboards. This management would affect too many interests (nature, drinking water supply, job creation etc.), the balancing of which is the task of “general government.”

The water system approach also limits the task of the waterboards. With some exceptions (e.g. sewage treatment), water is not the responsibility of the waterboards once it has been taken out of the water system. The waterboards do, however, have to regulate water abstractions and waste water discharges. This requires good co-operation with, among others, municipalities (sewerage system) and water supply companies.

Despite all this, the need for some reform is generally recognised. Apart from the changes discussed, these reforms concern the very complicated financing and the low turnout at the waterboards elections. Moreover, some are against any extension of the waterboards' tasks or even question their justification. They argue that the introduction of integrated water management and the “broad view” have changed the waterboard's character. The waterboards' tasks cannot be isolated from other government tasks anymore. They now serve more interests, and these interests go beyond the traditional categories of interested persons, beyond the waterboards' geographical borders and even beyond water the management sector (e.g. nature management). Thus, groups of interested persons cannot be identified easily anymore. This also makes the financing system highly artificial and complex.

Furthermore, the result of the ongoing concentration of the waterboards is that their areas

increasingly approximate whole provinces. They have become large government bodies like any other, except that they are based on a different theory and have a peculiar governance structure. In theory this governance structure is democratic, but in practice there are several shortcomings (see also section 3.1).

Finally, independent waterboards complicate government by increasing the 'administrative density'. For all these reasons, some argue, the waterboards should be abolished and their tasks should go to the provinces and/or the municipalities (cf. Volkskrant 1997). Others would like to keep them but change their governance and financing structure completely and turn them into intermunicipal technical agencies. This would keep the accumulated water expertise and the geographical scale of water management. At the same time, it would give the municipalities more responsibilities in the field of water, and this could promote the integration of water management issues in municipal land-use planning.

## 2.2 CENTRALISATION AND DECENTRALISATION

### *Waterboard - overlord/province*

The waterboards are not only examples of "functional government," but also of decentralised government. Yet, originally they were a form of centralisation. Their establishment implied a delegation of competencies from the local governments to regional bodies and an increased involvement of the feudal lord/provincial government. Following their establishment, the relation between the lord/province and the waterboard remained stable for centuries. The waterboards were independent and raised their own finances, and the lord/province supervised the waterboards. This is still the situation today, but, facilitated by the concentration and modernisation of the waterboards, supervision has become less detailed.

A new element of centralisation, to a limited extent, is the planning system introduced by the Water Management Act of 1989. This act requires the waterboards to prepare an operational water management plan, which should take the provincial water management plan "into account". The provincial water management plan should in turn take the national policy document on water management "into account."

### *The origin of Rijkswaterstaat*

A more important element of centralisation was introduced in 1798. From around 1600, when The Netherlands provinces revolted against their lord, the king of Spain, until 1795, The Netherlands was a loose confederation of largely autonomous provinces, with no competencies in water management at the national level. The provincial governments consisted of representatives of the cities and the nobility, who could only vote with a specific mandate. Consequently, decision-making and especially interprovincial co-ordination was complex and slow.

The main problem in the 18th century was the distribution of Rhine water over the various tributaries in the Netherlands. Due to natural changes in the river, the northern branch, the Lek, received ever less water under normal circumstances, which caused siltation. In periods of high discharge, however, the Lek still got considerable amounts of water, and this caused the silted river to overflow, especially in the downstream province Holland. To prevent siltation, the Lek should receive more water under normal circumstances. This required very extensive and expensive river training works in the upstream province Gelderland. After years of difficult negotiations, an agreement was reached, and Holland agreed to pay 73% of the costs. (Van de Ven 1993: 139)

In 1795 The Netherlands came under French influence. The Oranges, who had had a semi-

regal status in the Netherlands, were expelled, and the “Batavian Republic” was proclaimed. Three years later, in 1798, the Netherlands became a – very centralised – unitary state. Water management became the sole responsibility of central government and all waterboards would be abolished. Moreover, a national water management agency was established: *Rijkswaterstaat*. At the time, however, there was no alternative for the waterboards, and before long The Netherlands went through even more constitutional changes. Periods of centralism and federalism interchanged, and from 1810 until 1813 The Netherlands were part of France.

In 1814 The Netherlands regained its independence and became a “decentralised unitary state” under the House of Orange. The waterboards, which has survived all changes, would continue to be supervised by the provinces. However, the King would have the final say in water management issues and would supervise the provinces. Moreover, *Rijkswaterstaat* was kept, at first as a technical advisory and supervising body and later as an integral part of the Ministry of Transportation, Infrastructure and Water Management, among others managing the main rivers. (Lintsen 1980, 1998, Van IJsselmuiden 1988)

#### *Recent decentralisation of operational water management*

Recently, the number of water management objects managed by *Rijkswaterstaat* is decreasing. For historical reasons *Rijkswaterstaat* had become responsible for an odd assortment of water management objects, including not only objects of national importance, but also of purely local importance. (Van de Ven 1993) *Rijkswaterstaat* will only continue to manage “objects” if the following criteria are met:

- Their scale is bigger than a province (e.g. the Dutch part of the Rhine, Meuse and Scheldt), and
- Their management requires some “dynamism” (the dynamic process of the flow of water can only be managed if management is not fragmented over many different government bodies).

Independent of these two criteria, *Rijkswaterstaat* will also continue to manage objects if the (financial) risks cannot be born by the waterboards.

Specifically concerning dykes one of the following two criteria has to be met:

- A sufficient financial basis is lacking (e.g. dykes on small islands), or
- The dykes are so-called “projecting dykes” (dykes without a land area behind them from which the costs can be recovered, e.g. dykes closing estuaries). (V&W 1997a)

The management of many other water management objects has already been taken over by the waterboards. The process is not easy as financial arrangements have to be made.

#### *Broader developments*

As shown by the developments around 1800, centralisation and decentralisation in water management are intricately related with general developments in government. Since the Second World War government took up many new tasks, especially at the national level, and several existing tasks were centralised ever more. Paradoxically, this centralising tendency put decentralisation on the political agenda. Subsequently several initiatives have been taken to increase decentralisation, often in combination with a concentration (mergers) of the decentralised governments.

In the sixties and early seventies plans existed to increase the number of provinces and give them more tasks. This would have increased the number of interprovincial waterboards and the co-ordination problems related to this. (Katsburg 1993)

From the end of the eighties onwards “city-provinces” were proposed in order to deal more effectively with the problems in metropolitan areas, particularly the Rotterdam and the Amsterdam



area. (Flierman and Pröpper 1997) These city-provinces would combine all provincial tasks and many tasks previously belonging to the municipalities. As part of their environmental management task they would also deal with water quality. After protests of the waterboards this idea was abandoned. (*Waterschapsbelangen* 1993, p. 473-477, 617, 861) Moreover, the population voted against the creation of the city-provinces, mainly because it would entail splitting up the municipality of Rotterdam and Amsterdam into several new municipalities (Flierman and Pröpper 1997)

### 2.3 INTERMEDIARY ORGANISATIONS

While the previous two discussions concerned the allocation of tasks and competencies within government, the discussion on intermediary organisations concerns the allocation between government and non-governmental organisations. These organisations include “private interests”, such as organisations of employers and employees, but also so-called “idealistic organisations” (*ideële organisaties*), such as environmental organisations. These organisations are often called “intermediary organisations” (*intermediaire organisaties, tussenorganisaties, or maatschappelijk middenveld*) as they are situated between government on the one hand and individual citizens and businesses on the other.

#### *Pillarization and its ideology*

Intermediary organisations have been so important that the Netherlands have sometimes been qualified as a “neo-corporatist state.” (Van Noort and Lammers 1995) The main organising principle was that of “pillarization”. Pillarization describes the structure of Dutch society, which until the sixties consisted of three to four separate and coherent groups or “pillars”: the Catholic pillar, the (orthodox) Protestant pillar, and the neutral or socialist/liberal pillar. Each pillar had its own political party and its own social organisations. As each pillar individually was a minority, the political parties of the pillars could never get a majority and were more-or-less forced to co-operate with each other.<sup>5</sup> Conflicts between employers and employees were mitigated because the separate catholic and Protestant trade unions and employers organisations were part of the same pillar. Furthermore, trade unions and employers organisation from different denominations co-operated in “umbrella organisations” such as the “High Council for Labour” (*Hoge Raad van Arbeid*, established in 1919), its successor, the “Foundation for Labour” (*Stichting van de Arbeid*, established 1945) and the “Social-Economic Council” (*Sociaal-Economische Raad*, established in 1945). These umbrella organisations, and especially the Social-Economic Council, became the most important source for socio-economic policy. (Andeweg and Irwin 1993, Lijphart 1984, Oud 1982)

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5: Clearly distinguishable pillars also existed in other countries, such as Belgium, Italy and Austria. The main difference is that Dutch democracy was very stable. This can be attributed to rules that were applied in politics, such as “pragmatic tolerance” and “proportional representation” as opposed to the rule “the winner(s) take(s) it all” (Lijphart 1984). An additional explanation, partly overlapping with the first, is the Dutch national culture. Dutch culture is very “feminine,” which means that “managers [...] strive for consensus” and “conflicts are solved through compromises and negotiations”. In countries with a “masculine” culture “managers are supposed to be resolute and assertive” and “conflicts are solved by fighting out”. (Hofstede 1995: 125) In addition, “power inequality” in the Netherlands is relatively low. Power inequality refers to the degree in which the less powerful members of society expect and accept (or, as a reaction, totally reject) that power is distributed unevenly. A consensus culture may only be possible in countries that score low on this dimension. (Hofstede 1995, Table 2.1: 41)

The delegation of tasks to the different pillars and umbrella organisations can be seen in different ways. Firstly, it can be seen as a pragmatic way for preventing conflicts by leaving the different groups as much freedom as possible and by co-operating where this is necessary. Secondly, one can see the pillarization as a method of social control. By organising most aspects of life in “pillars”, the (religious and economic) elite of the pillars could control their members better. Thirdly, the role of social organisations can be defended for ideological reasons.

The Protestants and Catholics were most in favour of a large role for social organisations. The Catholics referred explicitly to the concept of subsidiarity, which, after all is originally a catholic concept.<sup>6</sup> They saw society as an organic whole, consisting of communities. Each community has a different and complementary role. Responsibilities should be located primarily at the lowest level, the family, and higher levels and in the end the state should only involved if the lower levels are not sufficient. The Protestants used a somewhat different term: “sovereignty in one’s own circle”, but the meaning was the same.<sup>7</sup> (Leenknecht and Bekkers 1993: 11; Van Doorn 1996) Both offered an alternative to liberalism (individual freedom and self-reliance) and socialism (a large role for the state).

### *The controversial legacy*

Due to secularisation and increasing individualism since the sixties, pillarization has largely disappeared. Yet the Netherlands remain a country of many intermediary organisations. While some Catholic, Protestant and “neutral” organisations have merged, new organisations have sprung up, such as environmental organisations. They participate in policy making, including water policy making. As discussed in the Water 21 report on water policy formulation in the Netherlands (Mostert 1997), most

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6: According to the Dutch prime minister from 1982-1994, Ruud Lubbers, it was he who took the initiative to promote the concept of sustainability at the EU level, supported by the chairman of the Commission, Delors (Leenknecht and Bekkers 1993: 11).

7: ‘[...] sovereignty, which people execute by attribution (from God), (is) split. It spreads itself over many diverse fields and has in each field a different character. There is the field of the Family, the field of the Church, the field of Science and Arts, the field of Technology and Inventions, the field of Trade and Industry, of Agriculture, Hunting and Fisheries, and finally the field of the voluntary social Organisations. In all these circles the authority of God is paramount, which is executed instrumentally by humans. In all these fields the sovereignty *in one’s own circle* should be respected and defended by those executing this sovereignty. Besides this, and partially below this, is the *Magisterial Sovereignty of Law and Order*, which expresses itself in the State. Although this magisterial sovereignty is to some extent competent to guard the relations between the different fields, and in this way make an orderly society possible, the Government may never pretend to possess a sovereignty from which all other sovereignties follow. This is never the case. The sovereign competence of the family, the church etc. emanate as much directly from God as the sovereign authority of Government. The Government does not *create* the other sovereignties in their own circles, she should limit herself to *recognising* them and, where in the public domain they ask for support or conflict with each other, do policing, to facilitate their flourishing or prevent collisions. Not more.’ (Kuypers 1916: 265-266)

The Catholics followed the teachings from Rome, especially the encyclical letters *Rerum Novarum* and *Quadragesimo Anno*: ‘It is indeed true, as history clearly proves, that owing to the change in social conditions, much that was formerly done by small bodies can nowadays be accomplished only by large corporations. None the less, just as it is wrong to withdraw from the individual and commit to the community at large what private enterprise and industry can accomplish, so, too, it is an injustice, a grave evil and a disturbance of right order for a larger and higher organisation to arrogate to itself functions which can be performed efficiently by smaller and lower bodies.’ (*Quadragesimo Anno*, II. 5).

water policy is formulated by public administration in consultation with the different economic interests and NGOs.<sup>8</sup> Also the consensus-orientation characteristic for the period of pillarization has not diminished much.

Despite their influence, the intermediary organisations and the consensus decision-making they stand for are not very popular any more. Politicians see the involvement of intermediary organisations in the policy process as cumbersome and “corporatistic.” (Zijdeveld 1997) Intermediary organisations make compromises which the politicians then cannot change any more, and their involvement causes delays. Increasingly popular is the notion of the “supremacy of politics”. In this notion politicians are ultimately responsible for policy and are accountable to the voters only and not to intermediary organisations, who represent only partial interests and pose obstacles to change. Consequently, the politicians should not be fettered by intermediary organisation.<sup>9</sup>

Recently, attempts have been made to reduce the influence of intermediary organisations, e.g. by reducing interest group representation in advisory councils and by reducing the possibilities for these councils to issue advice at their own initiative. (Van der Sluijs 1998) Informally, however, the different intermediary will continue to play an important role. (Schendelen 1996)

The main protagonists of the intermediary organisations are presently the Christian Democrats. Their 1994 political programme mentioned “subsidiarity” explicitly, and their concept 1998 programme discusses extensively the “supremacy of society” (as opposed to the “government;” or “the market”). They also have the strongest links with intermediary organisations as many are still based on religious grounds, despite the secularisation since the sixties. Since 1994, however, the Christian Democrats are for the first time in more than 70 years not in the Cabinet anymore.

#### 2.4 PUBLIC PARTICIPATION AND LEGAL REDRESS

The discussion on intermediary organisations partly overlaps with the discussion on public participation, but there are some notable differences. Whereas the former discussion focuses on the autonomous role of non-governmental organisations in society *next to* government, the latter focuses on the role of organisations *and* individuals *in* government.

##### *“Inspraak”*

Public participation in the Netherlands is at least as old as the waterboards, although originally only the landowners participated. In the sixties public participation got much attention, due to the modernisation and democratisation of Dutch society. Increasingly, individualism replaced pillarization, and authority was questioned, both in government and in intermediary organisations.

In the seventies public participation became institutionalised, starting in land-use planning. (Oosting 1985) Typically, draft plans had to be put on public display, written comments could be sent in, and hearings had to be organised, often in several rounds. This type of public participation, known

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8: The waterboards could also be seen as an association of the water users, albeit a compulsory association that is part of government. Many water users have little affinity with waterboards, as witnessed by the low turnout at waterboards elections, but the same can be said of many other intermediary organisations (Van Noort and Lammers 1995).

9: In effect the “supremacy of politics” is an expression of one interpretation of democracy, viz. parliamentary democracy à la Rousseau. In a more pluralist type of democracy, intermediary organisations do have a role to play.

as *inspraak*, became ever more criticised. On the one hand, it was seen as too little too late. Hearings were held only after completion of the drafts and after many crucial decisions had already been taken, interventions got a kind nod from the civil servants or politicians present but no serious follow-up, and only semi-professional participants (*insprekers*) read the voluminous drafts, sent in written comments and showed up at the hearings. On the other hand, *inspraak* was seen as too much too often. Together with the increasing possibilities for administrative appeal and redress to a judge, decision-making procedures became very long and also very risky for the government bodies involved. Furthermore, many thought the public, and especially the semi-professional participants, got too much influence. The public were seen as sometimes ill-informed or too emotional and often interested in their own “backyard” only and not in the “public good” (the “NIMBY-syndrome”). Moreover, *inspraak* sometimes interfered with the agreements concluded between the different government bodies and (one or several) organised interest groups involved.

#### *Open planning and interactive decision-making*

The result of the last set of criticism has been some streamlining of decision-making procedures. From 1990 onwards, however, public participation got positive attention again, but now it was called “interactive decision making” and “open planning.” The difference with *inspraak* is that the public gets a chance to influence policy formulation at an early stage, before drafts are finalised. Furthermore, government is more active, organising many discussion meetings, establishing for example “citizen advisory boards” and distributing several materials free of charge to whoever is interested. (Pröpper and Ter Braak 1996) An example is the preparation of the Fourth Policy Document on water management, described in Mostert (1997).

#### *Administrative appeal and legal redress*

One of the oldest forms of public participation is legal redress against administrative decisions and administrative appeal. Discussions on this started already in the second half of the 19th century as legal redress fitted very well with the then prevalent liberal notion of the relation between the state and its citizens. From 1910 onwards, however, there was much discussion on the choice between appeal to a higher administrative body and redress to an independent judge: the latter could only judge legal issues, whereas the former could fully consider all pertinent issues and furthermore was also democratically legitimised. The result of the discussions was that the first possibilities for legal redress and administrative appeal were established only in 1964. Since 1976 the possibilities are truly general, and not only for individuals, but also for NGOs. (Van der Burg and Cartigny 1980)

## 2.5 PRIVATE WATER MANAGEMENT

Dutch water management has for years stayed immune to privatisation. Recently, ever more water management tasks are contracted out, e.g. execution of specific studies. Contracting out is by no means a new phenomenon, however. (See section 2.1)

Private companies have only in public water supply performed water management tasks independently. Until around 1400 people drank groundwater from wells and surface water from rivers and canals. Due to industries such as leather tanning and woollen cloth production, however, the quality of surface water in towns deteriorated, and increasingly people had to buy water, for instance from brewers, who imported clean water by boat for producing beer and also sold water to individual citizens. The first public water supply company, established in 1851 in Amsterdam, was a private initiative and privately financed; the liberal government at the time did not consider drinking water

supply to be a government task. (Wijmen 1992)

From around 1910 onwards drinking water supply was seen as a government task. Still, presently most public water supply companies are private law companies, albeit owned by public authorities. (See section 03) From 1976 onwards, many mergers took place to strengthen the public water supply companies, unite drinking water production and distribution, and facilitate the appointment of specialised staff. Presently, discussions are taking place on the introduction of more competition in water supply. (See section 02)

## 2.6 THE EUROPEAN UNION AND RIVER BASIN ORGANISATIONS

The Netherlands are one of the founding members of the European Union (to be more precise: the European Economic Community, the European Coal and Steel Community and Euratom) and have generally been supportive. (Nugent 1994) The benefits for the Netherlands were clear. Being relatively small, the Netherlands had limited possibilities to exert any significant international influence on their own. Furthermore, Dutch exports were relatively large, and consequently economic integration within the EU was clearly beneficial. Already before the war a customs union had been established between Belgium, the Netherlands, and Luxembourg (the Benelux Union). Moreover, the Netherlands has a strong agricultural sector. As for years most of the EU's budget was spent on agriculture, the Netherlands benefited greatly, and for years the money received from the EU exceeded the financial contribution made to the EU.

Recently enthusiasm for the EU has decreased somewhat, but it is difficult to say why exactly. One of the factors is probably financial. Due to increased subsidies for the less affluent member states from the structural funds, the financial contribution of the Netherlands now exceeds the financial benefits. The Netherlands recently raised this issue in Brussels.

Also in water management enthusiasm has decreased, without disappearing totally, however. Some waterboards for instance have doubts on the cost-effectiveness of the investments necessitated by the Urban Wastewater Directive (91/271/EEC) for nitrate and phosphate removal from sewage treatment plants. Part of the problem is also that they have the impression that they cannot influence the directives.<sup>10</sup> (Cf. Kluit 1997) Still, being located downstream in four international river basins, the Dutch water managers generally recognise the importance of binding directives. The subsidiarity principle has not been invoked to promote the "repatriation" of water directives. (Cf. Brinkhorst 1992, cf. Jans 1994)<sup>11</sup> Some elements of the proposal for a Framework Directive Water ("Council Directive

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10: It is unclear whether the communication between the national government, represented in Brussels, and the waterboards leaves something to be desired, whether the waterboards show too little interest in proposals from the Commission, or whether it is a combination of the two.

11: Explicit discussions of the concept in relation to the EU include two legal discussions (Jans 1994 and Brinkhorst 1992) and one more politically oriented (Leenknecht and Bekkers 1993). Jans 1994 doubts whether in practice the subsidiarity principle adds anything to the principle of proportionality. The present EU-policy complies with the subsidiarity (and proportionality) principle because 1: environmental issues are often transboundary in character; 2: environmental measures often affect competition, 3: environmental measures of the EU usually take the form of directives with a framework character rather than ordinances and often set minimum standards rather than uniform standards, thus leaving the member states as much freedom as possible.

Brinkhorst (former director-general of DG XI) interprets subsidiarity as a principle implying 'that authority requires democratic legitimation, that authority should be built up from the bottom and cannot be imposed from above, and that authority should be exercised as close to the citizens as possible.' (Brinkhorst 1992:

establishing a framework for a Community action in the field of water policy”: Commission 1997), however, have been considered to conflict with the subsidiarity principle. (See section 0, Mostert et al. 1997 and Mostert et al. 1998a)

The Framework Directive Water brings us to the management of the Dutch international rivers and the organisational structures set up for this. The Netherlands has always been a staunch supporter of more competencies and independence for the International Commission for the Protection of the Rhine against Pollution, and one may sometimes hear calls for “international river basin authorities” or “international waterboards”).<sup>12</sup> (Dieperink 1997; De Jong and Smit 1989, Heemskerk 1997, Saeijs and Turkstra 1994, Martijn in Lammers and Lucassen 1997, Van Ast 1998) It is, however, not always clear what the tasks of such an authority or such a waterboard should be. Faced with the Commission’s proposal for an EU Framework Directive Water (section 0), most water managers do not favour a really independent authority that can take binding decisions. Some, however, are not totally against a river basin entity that can take binding decisions. (Mostert *et al.* 1997 and 1998a)

(...continued)

4) According to the EU-treaty, two criteria should be met before the EU could take up a task in environmental (and water) management: the member states cannot perform the task satisfactorily, and the EU can be more effective. Applying the subsidiarity principle can sometimes mean that the EU cannot take action, but it may also mean that the EU should take action. Brinkhorst sees the interpretation and application of the subsidiarity principle as, in the end, political. Still, according to him the present EU environmental policy conforms to the principle. Competencies are rather shared between national government and EU institutions. In addition to the arguments mentioned by Jans (1994), he mentions: 1: the fact that EU environmental policy is based on multi-annual environmental programmes, approved by the Council; 2: EU environmental policy according to the fifth environmental programme explicitly involves the different national and lower-level governments as well as industry; 3: many directives have been adopted by unanimity. EU-policy has ensured that a regulatory framework is in place in all member states, although implementation is a problem. In conclusion, Brinkhorst sees the subsidiarity principle as valuable, provided member states do not use it as an excuse for hindering the development of the EU.

As Brinkhorst (1992), Leenknecht and Bekkers (1993) see the interpretation and application of subsidiarity as political. They go much further, however, and doubt the usefulness in practice of the principle.

12: ‘(Still,) true international management of an important river as the river Rhine calls for a strong body, such as an international water authority, with sufficient back-up from the responsible governments to take the necessary decisions.’ (De Jong and Smit 1989: 390)

### 3: THE PRESENT ALLOCATION OF TASKS AND COMPETENCIES

The Netherlands are usually described as a “decentralised unitary state”, and this is certainly true for water management. Central government sets the framework, which is subsequently filled in by the lower level governments, both “general governments” (provinces and municipalities) and “functional governments” (waterboards). Non-governmental organisations participate, but they do not fulfil government functions independently. Individual water users can participate too in several ways. Privately owned companies still play a very minor role. The European Union and other international organisations and agreements play an ever-increasing role.

#### 3.1 GOVERNMENTAL ACTORS

Central government establishes the institutional framework for water management, prepares water policies and other relevant policies, and does nearly all operational water management (except the maintenance of some of the smallest streams and public water supply). The most important tasks and competencies of the different government bodies are presented in table 1. (See also Mostert 1997 and Perdok 1998)

Table 1 shows that in water management there is a mix of “general government” and “functional government” (cf. section 0). “General government” typically has strategic tasks and develops the institutional structure and general policies, especially at the national and provincial level. Functional government typically has more operational tasks and implements the policies. The distinction is not absolute, however. *Rijkswaterstaat* also does the operational management of the state waters, and the waterboards have quite a lot of freedom in implementing the provincial and national policies and developing their own.

Table 1 furthermore shows the sectoral character of water management. Unlike in many other countries, water management is institutionally not a part of environmental management. (Betlem 1998) Also land-use planning and nature management are largely separate. The different sectors are, however, co-ordinated. At the national level co-ordination is primarily horizontal between the different ministries involved. At the provincial level the different policy sectors are the responsibility of one government body: the province. Sometimes, however, internal co-ordination problems between the different provincial departments occur. Co-ordination at the local and regional level is primarily vertical. The waterboards have to take the provincial water management plan into account, which is co-ordinated with the other provincial plans, and the municipal land-use planning has to be approved by the province. Waterboards and municipalities, however, also communicate directly. (See also Mostert *et al.* 1998b)

Government body	Water management tasks and competencies	Interrelations
<b>Central government</b>		
a) Legislative (Parliament, Cabinet and Queen)	<ul style="list-style-type: none"> <li>- Enacts water management acts and other acts. Cabinet enacts executive orders</li> <li>- Concludes/ratifies treaties</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for organisation of Dutch government; enacts organic laws</li> <li>- Determines budget of ministers and influences, through lump-sum and earmarked transfers, the provincial and municipal budgets; enacts national budget</li> <li>- Parliament controls ministers</li> </ul>
b) Minister of Transport, Public Works and Water Management/ <i>Rijkswaterstaat</i> (part of ministry)	<ul style="list-style-type: none"> <li>- Formulates and adopts strategic national water policy (together with Minister/ministry of Spatial Planning, Housing and the Environment and Minister/ministry of Agriculture, Nature and Fisheries)</li> <li>- Formulates, adopts and implements operational management plan for the main rivers and the North Sea</li> <li>- Prepares water management acts and executive orders; enacts some executive orders</li> <li>- Represents the Netherlands in international fora (IRC, etc.) (together with Minister/ministry of Spatial Planning, Housing and the Environment)</li> </ul>	<ul style="list-style-type: none"> <li>- Prepares organic acts and national budget related to water</li> <li>- Supervision of provinces; approval of provincial decisions to establish or dissolve waterboards and possibility to issue binding guidance concerning individual provincial water management plans and provincial regulations</li> <li>- Subsidises to a limited extent lower level government</li> </ul>
c) Minister/ministry of Housing, Spatial Planning and the Environment	<ul style="list-style-type: none"> <li>- Responsible for public water supply, environmental standards and many other aspects of environmental management relevant for water</li> <li>- Prepares pertinent acts and executive orders; enacts some executive orders</li> <li>- Represents the Netherlands in international fora (EU, etc.) (together with Minister of Transport, Public Works and Water Management/ <i>Rijkswaterstaat</i>)</li> <li>- Formulates and adopts national environmental policy and national spatial policy</li> </ul>	<ul style="list-style-type: none"> <li>- Prepares national budget related to its tasks</li> <li>- Subsidises to a limited extent lower level government</li> </ul>
d) Other ministers/ministries	<ul style="list-style-type: none"> <li>- Different ministers/ministries are responsible for agricultural policy, industrial policy, fiscal policy, foreign policy, etc., all with important overlaps with water management</li> </ul>	



<b>Government body</b>	<b>Water management tasks and competencies</b>	<b>Interrelations</b>
<b>Provinces (12)</b>	<ul style="list-style-type: none"> <li>- Formulate and adopt strategic provincial water management policy, “taking into account” the national water policy</li> <li>- Responsible for operational groundwater management</li> <li>- Co-ordinate and finance dyke reinforcements</li> <li>- Draw up reorganisation plans for public water supply companies (mergers); usually are the shareholders, alone or together with the municipalities</li> <li>- Formulate and adopt strategic policies on land-use planning, environmental management and nature; issue permits</li> </ul>	<ul style="list-style-type: none"> <li>- Establish and dissolve waterboards and issue regulations for their functioning, pursuant to the Waterboards Act</li> <li>- Have to approve several types of decisions by waterboards and municipalities and are the body for appeal against some decisions</li> </ul>
<b>Waterboards (66)</b>	<ul style="list-style-type: none"> <li>- Operational surface water management, “taking into account” the provincial water management policy (water quantity and/or quality: sewage treatment, permitting, maintenance and operation of infrastructure such as canals, pumps, sluices, dykes, etc.)</li> </ul>	
<b>Municipalities (625)</b>	<ul style="list-style-type: none"> <li>- Manage sewerage system</li> <li>- Usually are the shareholders of the water supply companies, alone or together with the municipalities</li> <li>- Adopt binding land-use plans, issue environmental permits</li> </ul>	

**Table 1:** Allocation of important water management tasks and competencies (to be read from top to bottom)

Another noteworthy feature is the fact that tasks and competencies are not so much attributed to different bodies, but rather shared. For instance, permits for waste water discharges on all waters but the biggest are issued by the pertinent waterboard, so by functional government at the regional level. However, the waterboards have to comply with the national emission and water quality standards, several of which have been introduced to comply with the pertinent EU directives. Furthermore, the waterboards have to take their own water management plan “into account”. This plan has to take the provincial water management plan “into account” and which has to be approved by the province. The provincial water management plan in turn has to take the national policy document on water management “into account”.

The relatively high degree of decentralisation is also reflected in the financing system for Dutch water management and in the “policy style”. Around 80% of Dutch water management is financed by taxes, charges, levies and prices raised or imposed by the managing body itself, and some 20% (e.g. flood protection by the waterboards) by financial transfers from central governments to

lower level governments. Yet these taxes etc. can only be raised within the framework set by national acts, and also the financial transfers are set within a legislative framework. More importantly, the costs these taxes, charges, levies and prices have to cover are significantly influenced by national standards. (Hijum 1998) More details on the financing system can be found in Mostert (1998b).

The policy style of Dutch government can be characterised as one of consensus seeking. Especially between government bodies, but also between government and NGOs, there is a strong urge to appease, reach agreement and prevent conflicts. Consequently, consultation and co-ordination is very popular, and even if there are possibilities to impose decisions on others against opposition, this is often not done.<sup>13</sup> Whatever its historical origin (see section 0 and Mostert 1997: section 1), the consensus style is both a pragmatic reaction to the present distribution of tasks and competencies and an important factor preventing drastic changes. Obviously, a consensus style does not exclude the possibility of conflicts or political wheeling and dealing. Furthermore, as discussed in section 0, the consensus culture has come under attack.

The relatively high degree of decentralisation does not automatically mean a closer relation between government and citizens and more democratic control. Turnout at local elections is lower than at the national elections (in March 1998 only 56%, compared to 73% for the national elections in May 1998). Furthermore, around 90% vote for the same party as during the national elections. (Veldboer 1996) At the waterboard elections the turnout is usually very low. (Katsburg 1996) The First Chamber of Parliament is elected by the provincial representatives, which reduces the provincial character of the elections for the provincial legislative body. On the other hand, the image of local government is generally positive and there is much interest in the local affairs. The interest in local affairs just does not translate into interest in local government. To improve this situation, several initiatives have been taken to get the citizens more involved (conferences, scenario-workshops etc.: Veldboer 1996).

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13: The policy style also makes it quite difficult to speak about 'powers of final instance'. If one looks only at the formal institutions, the situation is relatively clear. Ultimately, the written constitution is paramount, and therefore the constitutional body (the second and First Chamber of Parliament combined, following a procedure laid down in the constitution). The constitution establishes the main government bodies (Parliament, ministers, government) and the judiciary structure; outlines their competencies and their interrelations; determines to what extent these arrangements have to be specified by acts of Parliament (the so-called organic acts: municipal act etc.); and sets general rules for the relation between national law and international law. The constitution follows the principle of the 'trias politica' or 'division of powers' (executive, legislative and judiciary powers), albeit that the executive powers and legislative powers are not neatly separated. As the Netherlands are a unitary state, the highest legislative and executive powers are at the national level (Parliament, ministers). Lower level governments have, however, important independent competencies, determined by the constitution and national laws. Conflicts between governments are settled by the Council of State, department of Administrative Conflicts. Another Department of the Council of State, Administrative Adjudication, is usually the highest judiciary authority concerning administrative law. The highest judiciary authority concerning civil and penal law is the High Court (e.g. Bellekom 1994, Chorus 1993).

This rough sketch also applies to water management. Yet, the situation with respect to different tasks differs significantly, depending on the exact attribution (or 'sharing'), the discretion given to the executive, the clarity of the different regulations and consequently the role of the different courts. More importantly, however, the formal institutions only constitute the framework within which water management takes place. What happens within this framework depends not only on the formal rules, but also on for instance the 'policy style' (cf. Mostert 1997). This style is one in which 'powers of final instance' are often not used.

### 3.2 INTERMEDIARY ORGANISATIONS AND PUBLIC PARTICIPATION

Despite their decreased popularity among politicians (see section 0), intermediary organisations play a significant role in water management. The phase I report on the Netherlands (Mostert 1997) sketched the main arena's and the main ways in which they are active:

- The waterboards (especially farmer organisations and to a lesser extent industrial associations and environmental NGOs)<sup>14</sup>
- The so-called *CIW* (Commission Integrated Water Management)
- The different formal planning and permitting procedures
- In earlier phases in policy preparation in the framework of so-called "open planning processes" or "interactive decision making"
- As plaintiffs in legal actions.

Individual citizens can use these possibilities as well, except for participation in the *CIW*. In addition they can vote for the different representative bodies (Parliament, the municipal council etc.). However, they may have to overcome some difficulties, such as the technically complicated nature of water management and the near impossibility to become elected as an individual citizen in a waterboard without the backing of organised groups. In practice, therefore, individual citizens usually exert influence only through elections and through the non-governmental organisations.

Individual companies and farmers have a somewhat stronger position, as in the absence of full-proof enforcement mechanisms government often needs their support for implementing its policies. Farmers also execute some small water management tasks: they maintain the small drainage canals. Both farmers and industry have organised themselves very well.

It is very difficult to assess the exact influence of intermediary organisations and individual citizens and companies. On the one hand, the importance of for instance the *CIW* is great. Furthermore, when enforcing the regulations, the economic interests of the pertinent companies and their past good behaviour are often taken into account. (Huitema and Snellenberg 1997) On the other hand, the experiences with open planning processes are mixed. Some open planning processes have not really been open, either because the public was only involved in a late stage, or because the public input did not get due attention. (Cf. Pröpper and Ter Braak 1996) Sometimes, the civil servants dealing with open planning processes fear to loose control or only want to present finalised products, sometimes there is too little support from management, and sometimes the problem lies at the political level and is related to the notion of the "supremacy of politics".<sup>15</sup> (See section 0; TNO 1997) Still,

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14: Elections for the legislatures of the waterboards are based on the principle 'unity of pay, say and interest'. This means that those with an interest in the tasks of the waterboards should pay for these tasks (through taxes and levies), but should also be represented in the waterboard. Five, partly overlapping, categories of interested persons can elect or appoint representatives: the owners of unbuilt areas (primarily farmers), the renters of unbuilt areas (also primarily farmers), the owners of buildings, the users of buildings for commercial purposes (industry) and, since 1992, the inhabitants of the area. The exact distribution of seats among the categories and the election procedure are regulated by the province in which the waterboard lies (Verburg 1992). On average the owners of 'unbuilt' occupy 34% of the seats, the renters 1%, the owners of buildings 25%, the users of buildings for commercial purposes 7%, and the inhabitants 31% (Katsburg 1996). The percentages for 'unbuilt' are higher in the traditional waterboards dealing only with water quantity and lower in waterboards dealing only with water quality. In case of the category 'inhabitants' this is exactly the other way around (IJff 1995).

15: Research on the support for interactive decision making within *Rijkswaterstaat* indicated that 'The role for environmental NGOs in decision making, especially in the phases of problem definition and development of alternatives, is clearly very limited.[...] The conclusion seems to be that, in practice, decision-making by

there are also several positive examples of open planning.

### 3.3 WATER SUPPLY COMPANIES

Water supply companies produce and supply water for households, industry and sometimes farmers within their service area, determined by the provinces. They have a duty to supply water and operate and own the necessary infrastructure. In practice they have a monopoly on public water supply within their area, but some industries and many farmers take care of their own water supply.

Presently (11.1996), there are 33 public water supply companies. (VEWIN 1996) Some are government companies but most are private companies owned by municipalities, the province or both. Some water supply companies are public utilities and also produce and/or distribute gas and electricity (9 out of 33: VEWIN 1996). The water supply companies have organised themselves nationally in the *VEWIN* (Netherlands Waterworks Association). Internationally, they are active in *Eureau* (the European association of water supply and wastewater treatment companies), the *RIWA* (Co-operating Drinking Water Companies in the Rhine and Meuse Basin) and the *IAWR* (the International Working group of the Water Works in the Rhine Basin).

The water supply companies and their organisations influence water policy formulation in several ways. They lobby and their co-operation is needed in the implementation phase. If they deem this necessary, they also go to court (the *VEWIN* in 1995 against a new act imposing taxes on groundwater withdrawals).

### 3.4 THE EUROPEAN UNION AND RIVER BASIN ORGANISATIONS

Dutch water management takes place in an international context, which consists primarily of the European Union and river basin commissions. The oldest and best-known river basin commission is the International Commission for the Protection of the Rhine or in short the IRC (see the phase III report on river basin management). The IRC has prepared the Rhine Action Plan, which resulted in several new obligations on the Netherlands. In March 1998 also Commissions for the Meuse and Scheldt were officially installed and action plans for these two rivers were adopted. These action plans are, however, far less specific than the Rhine Action Plan.

The different commissions are not independent authorities, but rather platforms where the civil servants from the different member states meet, exchange information, co-ordinate monitoring and research, and prepare new policy. The decisions of the commissions are merely advices and have to be adopted by the different countries unanimously (e.g. the Rhine Action Plan was adopted by the Rhine Ministers Conference, a conference of the water-ministers from the six IRC-countries). Also implementation is in the hand of the countries; the commissions have no regulatory powers and do not execute works themselves.

The situation with respect to the European Union is somewhat different. The water policy of the European Union primarily takes the form of directives, which are binding (with respect to the results to be achieved) on the member states. Furthermore, some directives can be adopted by qualified majority, which means that the Netherlands can be overruled. Finally, the European Union does not deal with water management only. If no agreement can be reached on water-related

(...continued)

*Rijkswaterstaat* is not yet affected significantly by groups in society.' (TNO 1997: 11)

directives, these issues might be linked to policy issues in other fields (“tactical issue linkage”). This could result in directives that conflict with Dutch water policy.

## 4: FUTURE DEVELOPMENTS

Predicting the future is a skill mastered by few researchers. We can, however, sketch the outlines of the possible future by extrapolating from past developments and studying the different discussions that may curb these developments. Doing so, we can clearly see an ongoing concentration of waterboards. We can suspect more privatisation, a smaller role for intermediary organisations, and possibly some degree of centralisation. Certainty, however, we cannot give, as this requires for instance that we can predict the outcome of the next elections and the composition of the resulting Cabinet.

### 4.1 THE WATERBOARDS

Following the discussions in the past, the waterboards now have a secure position and will continue to play an important role. They may even get an additional task: the operational superficial groundwater quantity management, which is however, less than they asked for. (V&W 1997b; see section 0) Recently, there were some discussions in the newspapers arguing that the principles on which waterboards are based, are not valid any more, and consequently its tasks could be taken over by the province. (See section 0 and footnote 4) This kind of criticism, however, does not seem strong enough to pose any real threat.

The concentration of waterboards (from 2544 in 1953 to 67 now) is likely to continue. Preparations are under way for several mergers until the year 2000, but also after this year further mergers may take place, and for several reasons: to bring water quantity and quality management in one hand, to get a sufficient basis for hiring specialised staff, and to limit overhead costs.

Furthermore, research is under way on simplifying the representation of interests and the financing system of the waterboards, while leaving the basis for the waterboards intact. (V&W 1997b) It is not yet clear how far-reaching the proposals will be and what will happen with them.

Possible changes in the waterboards' activities in wastewater treatment are discussed in the next section.

### 4.2 INCREASING COMPETITION IN PUBLIC WATER SUPPLY AND WASTEWATER TREATMENT?

#### *Public water supply*

Presently the most prominent issue concerning the allocation of tasks and competencies is water supply. The point of discussion is whether and, if so, how more competition should be introduced. The main argument in favour of more competition is simply that this would increase efficiency and thereby lower social cost (but not necessarily lower prices for the consumer). According to research done by the Erasmus University of Rotterdam, the quality of which is heavily debated, efficiency could even increase by 15%.<sup>16</sup> (Dijkgraaf et al. 1997; Achttienribbe 1997, Havekes 1997) An additional argument

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16: The figures were calculated by comparing the costs per m<sup>3</sup> supplied of the different drinking water companies and compensating for some exogenous factors affecting costs (percentage groundwater used, connections/m<sup>3</sup> supplied, and, overlapping largely, the percentage smaller users). The company/waterboard that turned out most efficient set the standard for all companies/waterboards. Also comparisons are made with England and Wales and

is that already now there is competition in water supply for industry. Because of technological advances such as membrane technology, industry can increasingly treat and reuse its own wastewater or supply it to other industries. Moreover, for years industry has been able to choose its own public water supply company, which is especially relevant for industries located near the boundary between water supply companies.

The main arguments against more competition are that the water supply companies are presently functioning well, that efficiency can be improved without liberalisation (e.g. through benchmarking), and that drinking water supply is a natural monopoly, which requires either provision or supervision by government. Furthermore, concerns have been expressed whether commercial water supply companies would pay enough attention to quality control and environmental issues (e.g. desiccation caused by water abstractions, water demand management) and whether co-operation in urban water management would not become more difficult. (E.g. Waterkring 1998, Tuijn 1998a, Vinke 1998)

In January 1998 the Cabinet adopted a memo containing the main points for the planned new drinking water act. (Cabinet 1998) This memo shows clear signs of being a compromise. It distinguishes between three types of water:

- Drinking water (small users)
- Household water (small users, for non-consumptive use)
- Industrial water supply

The Cabinet is against privatisation of the infrastructure for drinking water supply, but it is in favour of instruments promoting efficiency, such as benchmarking.<sup>17</sup> Furthermore, research will start on the advantages and disadvantages of more competition in the exploitation of the infrastructure. To facilitate competition in the future, the present water supply companies will get two concessions for a limited period: one for the exploitation for a maximum of 10 years, and one for the “property and management” of the infrastructure for at least 20 years. It is unclear how a concession for property can ( . . continued )

France. The description is quite positive. In England and Wales efficiency losses are calculated as only 9.0%. Data on France are lacking, but efficiency is higher as “contracts to operate the infrastructure are usually granted to those offering the service requested at the lowest price” (Dijkgraaf et al. 1997: 2). (However, the recent report of the French Auditors Office on the French public water supply and wastewater treatment gives a quite different picture: Cour des Comptes 1997.)

The main criticism on the research is that far too few factors have been taken into account. The report itself already notes two such relevant factors for drinking water companies: differences in the (ground or surface) water quality and the age of infrastructure. Furthermore, differences in production technology (bank infiltration, infiltration in dunes etc.) are not taken into account. The report itself notes that, contrary to what is common in this type of research, the water sector itself has not been involved in the identification of the relevant factors, but factors used are ‘to a large extent’ the same as those used in England (Dijkgraaf 1997: 18). On close inspection, only two factors are presented as ‘endogenous’, explaining the differences in efficiency: average salary and capital cost/ unit of capital assets (see the formula on p. 34: the other factors in the formula have been compensated for). Lower salaries, however, just imply a shift of surplus from employees to shareholders and/or consumers, and capital costs are determined largely by historical factors, such as subsidies received and the interest rate at the time of big investments (cf. Achttienribbe 1997).

17: According to an opinion poll by telephone, commissioned by the Dutch Association of Drinking Water Companies (VEWIN), also the Dutch population seems to be against privatisation. Seventy-one percent of all respondents (510 in total) agreed with the statement that “Drinking water companies should remain the property of municipalities and provinces”, only 6% disagreed, 17% was neutral, and 6% had no opinion on the matter. (Hovenier 1997)

be issued, what the position of the present shareholders (municipalities and provinces) will be, where “management of the infrastructure” ends and “exploitation” begins, and who will be responsible for drinking water quality.

Also for household water the public water supply companies will get a monopoly, at least for the time being. For new housing developments, however, third parties can supply household water together with the water supply companies.

Industrial water supply, which is presently usually free, will be free from a certain limit upwards, and will become a monopoly below this limit. The proposed limit is 100,000 m<sup>3</sup>/year, but as experiences with competition increase, the limit could drop.

To facilitate the necessary supervision, benchmarking will become obligatory. After five year, the system of benchmarking, as well as the experiments with competition, will be evaluated.

#### *Concentration, or: conflicting notions of efficiency*

The Cabinet’s memo concerning the new drinking water act constitutes an abrupt if ambiguous change in policy. From 1976 until at least April 1997 the official Cabinet’s policy concerning water supply had been one of concentration and vertical integration. (Cabinet 1995, 1997) Concentration was seen as necessary because of the required investments, especially for drinking water production using surface water, because of the level of expertise required (e.g. laboratories), and generally to strengthen the companies.<sup>18</sup> Vertical integration (production and distribution of water in one hand) is seen as promoting quality control. Local public utilities companies were often split up, and the water supply section merged with other water supply companies to form regional companies producing and distributing water. In some people’s eyes, the result should be only six to ten companies for the whole of the Netherlands instead of the present twenty-six companies now or the twenty companies in the year 2000 if all mergers presently planned are successful.

The introduction of more competition may conflict with the policy of concentration and vertical integration. On the one hand, water supply companies should be healthy to attract investors and big and strong to prevent take-overs by foreign water industry. For this reason central government has already tried to merge the four Dutch electricity producers. On the other hand, small companies may facilitate competition by making entry into the market easier. In the memo on the new drinking water act (Cabinet 1998) the Cabinet mentions the regional scale of water supply several times. Still, it seems to abandon further mergers, leaving all freedom to the companies. Furthermore, it mentions membrane technology as facilitating decentralised water supply and expediting competition.

#### *Waste water treatment*

Presently, there are also ideas to increase competition in wastewater treatment. Although this is not laid down in any act, the waterboards are in practice responsible for treating wastewater from households and smaller companies discharging onto the municipal sewers. Big companies often treat their own wastewater.

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18: The research done by the Erasmus University of Rotterdam could not find any proof of economies of scale (Dijkgraaf et al. 1997; see note **Error! Bookmark not defined.**). The research considered total production as an exogenous variable determining differences in cost, but concluded that the total production was not a significant factor. Critics of the research hold that economies of scale do not occur at the level of total production, but they do occur for individual projects, such as the construction of pipelines for transporting river water to the dunes for infiltration. The research could not find any relation because this applies equally to all drinking water companies using surface water (Achtienribbe 1997).



According to the research done by the Erasmus University (see *supra*), efficiency could increase by 30% if more competition would be introduced. Recently, one drinking water company has started to offer wastewater treatment services to companies and others are planning to do so (*NV Delta Nutsbedrijven*; V&W 1997b, Havekes and Leenen 1996). This has been opposed for several reasons:

- It may create excess capacity in the waterboards' sewage treatment plants, may affect the plant's effectiveness, and would reduce their income from the pollution of surface water act charge. (Havekes and Leenen 1996)
- Wastewater treatment task is not a part of "water system management", which waterboards see as their primary task. (Cf. section 0) There are, however, strong links between wastewater treatment and the waterboards' water quality tasks. (Denktank 1996)
- Competition between the waterboards and the water supply companies would not be fair: the waterboards' charges have to finance all water quality management by the waterboards, including for instance nature management, whereas the fees of the water supply companies only have to finance waste water treatment. (Havekes and Leenen 1996)
- If waterboards and water supply companies are going to compete with each other, they are less likely to co-operate. (Waterkring 1998: see the next subsection)

The government draft of the Fourth Policy Document on Water Management, which contains the national water policy, mentions the treatment of wastewater from households and small companies as the responsibility of the waterboards. Yet the draft also announces research on the question "whether the efficiency of waste water treatment can be increased if waterboards would issue concessions for waste water treatment to third parties." (V&W 1997b: 84) This would open the way to co-operation with water supply companies, which is discussed in the next subsection.

#### *Water chain management*

The discussions on waste water treatment and water supply touch upon a sometimes neglected issue: "water chain management" and its relation with integrated water system management. Integrated water system management lies at the root of the waterboards' conception of their tasks and has already been described in section 0. The water chain, internationally more commonly known as the "small water cycle", refers to the water "in pipes", out of the water system. The chain consists of seven links: water abstraction, water production (purification), water distribution, water use, waste water collection and transport (sewerage system and pressure pipes), waste water treatment, and waste water discharge. This chain is linked to the water system in several ways: through water abstractions, combined sewers, stormwater overflows, direct discharges of (treated or untreated) wastewater, and discharges of the effluent of sewage treatment plants.

Also for water chains integrated management is seen as desirable. This requires co-operation between the different actors in the water chain:

- Water supply companies (water abstractions, water supply);
- Waterboards (sewage treatment, permitting for stormwater overflows);
- Municipalities (surface water within towns, maintenance of the sewerage system, disconnecting paved areas from the sewerage system, stormwater overflows, permitting for infrastructure);
- Households (water use, pollution); and
- Industry (water use, pollution).

Presently, co-operation between the actors is not always perfect (Jonker 1998, cf. Tuijn 1998b), but several initiatives for improvement are taken. A recurring idea is to integrate the charge for water pollution (waterboard) in the drinking water price, which would make water use more expensive and might reduce water use (the "water track": Mostert 1998b). Furthermore, one water

supply company (*DZH*) will take over the management of the sewerage system in one Dutch city (*Zoetermeer*), and experiments are proposed to let waterboards manage the sewerage system in rural areas. A very recent idea is to establish “regional water companies” that would be involved in water supply and sewage treatment (Van der Vlist 1997), in sewage treatment and waste water collection (Jonker 1998), or in water supply, sewage treatment and waste water collection (Jonker 1998). These companies should be publicly owned (Van der Vlist 1997) or could also be privately owned (Jonker 1998).

Several of these initiatives conflict or may conflict with increased competition in water supply and sewage treatment. Firstly, increased competition might lead to further mergers between water supply companies, resulting in huge companies with a bigger than regional scale.<sup>19</sup> Moreover, increased competition can turn the actors in the water chain into competitors, and this clearly complicates co-operation. (Waterkring 1998)

### *Purple politics*

The discussions on the public water supply companies cannot be understood simply as discussions on how to improve efficiency. In addition, the present political atmosphere is important. The present political atmosphere can be characterised objectively as liberal. The present “purple” Cabinet is a coalition cabinet with one ostensibly liberal party (*VVD*), one programmatic party (*D66*), which purports to be without ideology, and the “Labour party” (*PvdA*). At least since ten years, however, all three parties are liberal, including the labour party.<sup>20</sup> (De Rooy 1996) The Christian Democrats, since 1994 not in government, pay more attention to (traditional) communities (cf. section 0), but in an economic sense they are certainly not anti-liberal.

The present political atmosphere does not express itself solely in the discussions on the public water supply companies. In addition there are many initiatives for liberalisation of the market and privatisation, e.g. in telecommunication, energy supply, and public transport. These initiatives influence each other, as arguments are borrowed and success (or failure) in one sector is often translated to another issue. Sometimes the issues are also directly related, as in the case of water supply and waste water treatment.

### *The future*

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19: Water chain management overlaps largely, but not totally, with urban water management. In the past there were some tensions between urban water management and other water management. Until recently, new housing developments got a totally new drainage system and water management became solely the responsibility of the municipality (‘de-poldering’). Recently, however, there is a tendency to leave the existing drainage system as much as possible intact, and many built-up areas are brought again under the jurisdiction of the regional waterboard. There were also some tensions in water quality management, especially in Amsterdam, which in practice acted as a water quality waterboard. These have now been solved.

20: The name purple derives from the traditional colours of the two major parties in the cabinet: the liberals (blue) and the social democrats (red), which if mixed make purple. The name purple also indicates that there is something special about this cabinet, as cabinets usually do not get the name of colours. Traditionally, there were three main political parties: the social democrats at the left, the christian democrats in the middle, and the liberals at the right of the political spectrum. This used to ensure the christian democrats a place in the cabinet (due to the system of proportional representation, no political party ever got the majority in Parliament, and all cabinets have to be coalition cabinets). As the social democrats moved further away from traditional socialist issues, however, it became possible for them and the liberals to co-operate with each other in a cabinet.

The outcome of the discussions is difficult to foresee. The process until now is summarised in box 1. Support for more competition is strong, but so is the opposition. Generally, the public water supply companies are somewhat divided. (Waterkring 1998 vs. Tuijn 1998b) The arguments used in the discussions sometimes leave something to be desired. Some people are unaware - or pretend to be unaware - of the difference between the costs-effectiveness, which refers to minimising the costs of public water supply and waste water treatment, and (Pareto) efficiency, which is broader and also takes other goals into account. Others seem to be unaware of the difference between social costs and tariffs: even if tariffs would rise, the costs for society as a whole could decrease.

Presently, there seems to be a temporary standstill. The last development has been the discussion in April of the Cabinet's memo in parliament. Parliament criticised among others the idea of introducing two different concessions for public water supply because the division of responsibilities between the concession holders would be unclear and because of the need to promote co-operation and integration. Moreover, a motion was passed in parliament, requesting the cabinet not to introduce more competition in public water supply because of the opposition of many involved in public water supply and because of possible price rise for small consumers, who - unlike some big industries - are unable to choose their water supplier. Motions of this kind are, however, not binding for the cabinet. Moreover, since the motion was passed, national elections have taken place, resulting in a partially renewed parliament and a new cabinet.

Before 1997	Discussion on privatisation in, among others, telecommunication, energy supply, and public transport
April 1997	The official government policy is still to keep the water supply companies in government hands and to promote further mergers between companies. (Cabinet 1997)
May 1997	A report of the Erasmus University of Rotterdam is published on the efficiency in public water supply and waste water treatment. The report, prepared on a contract from the Ministry of Economic Affairs, without consulting the other Ministries involved or the Dutch Association of Water Supply Companies, argues that very substantial efficiency gains can be achieved by increasing competition. (Dijkgraaf et al. 1997) The quality of the report is heavily criticised. (e.g. Achttienribbe 1997, Havekes 1997)
September 1997	The government draft of the Fourth Policy Document on Water Management is published. It mentions the treatment of waste water from households and small companies as the responsibility of the waterboards but also mentions the possibility that waterboards would contract waste water treatment (V&W 1997b)
September 1997	The idea of “regional water companies” is launched, in which water supply companies, water boards and/or municipalities would co-operate. They would be government owned. (Van der Vlist 1997)
March 1998	The Cabinet adopted a memo containing the main points for the planned new drinking water act, which bears a compromise character. For the short term it does not propose radical changes, but it opens the possibility for more radical changes for the medium and long term. (Cabinet 1998)
March 1998	The <i>Waterkring</i> , an informal group of three directors of water supply companies, four directors of waterboards and the head of the department “Integrated water Management” of the Ministry of Transportation, Telecommunication and Public Works, publish the manifest “The values of Water.” (Waterkring 1998) They oppose the initiatives to increase competition, casting doubt on the efficiency gains that can be achieved and emphasising the non-economic aspects of water management.
April 1998	Motion passed in parliament not to introduce competition in public water supply. However, such a motion is not binding for the cabinet, and furthermore national elections have taken place since then, resulting in a partially renewed parliament.
1999	Publication of the draft new drinking water act planned

**Box 1:** The policy formulation process concerning increased competition in public water supply and waste water treatment thus far

#### 4.3 INTERMEDIARY ORGANISATIONS AND CENTRALISATION

Concurrent with the increasing role for the market, the role of intermediary organisations may decrease. Despite the abolition of many advisory boards with representatives from intermediary organisations, and despite the theory of the “supremacy of politics” (see section 0), intermediary organisations and, to a lesser extent, individual citizens still play a significant role in management, through open planning processes and informally. Yet, if ever more government tasks are privatised, their influence may diminish.

To some extent also the role of lower level governments may decrease. From the point of view of competition nation-wide regulation and supervision may be better than local and regional supervision. Illustrative in this respect is the idea that concessions for water supply companies should in the future be issued by central government rather than the provinces, as is presently the case. (Cf.

section 4.2)

#### 4.4 *THE EUROPEAN UNION AND RIVER BASIN ORGANISATIONS*

The main development at the international level is the proposal for a “Council Directive establishing a framework for a Community action in the field of water policy” (in short: Framework Directive), which may be adopted in one or two years time. (Commission 1997) The Framework Directive requires member states to identify their river basins and assign them to so-called “river basin districts.” For each river basin district the member states have to set up “appropriate administrative structures”, which includes the designation of “competent authorities”. Furthermore, a river basin management plan has to be prepared for each river basin district. The core of the rbm plans is a programme of measures, which will be binding on the operational water managers (in the Netherlands primarily the waterboards).

For the Netherlands the provisions concerning international river basins are especially important. According to the latest version of the proposal (March 1998), the basin countries in such basins should jointly establish a river basin district, but each basin country should individually ensure the appropriate administrative structures and designate competent authorities for its part of the river basin district. Similarly, the programme of measures would not have to be adopted for the whole river basin district, but could be adopted for each national part of the district separately. The different programmes of measures do, however, have to be co-ordinated.

The consequences for the allocation of tasks and competencies in the Netherlands are not yet clear. The present proposal may still change and it could be implemented in several ways. (Mostert et al. 1998a) If the national programmes of measures would become strictly binding, the waterboards may lose some of their independence. If, however, they become closely involved in the planning process, they could also gain influence.

The international co-ordination of the programmes of measures does not seem to require major changes, as co-ordination already takes place in the different river basin commissions. However, participation in the International Rhine Commission should be broadened to include all basin countries. Furthermore, the different treaties may have to be adapted to give the different commissions a broad enough geographical and “policy” scope.

## 5: ANALYSIS

The description thus far has provided us with an overview of the allocation of tasks and competencies in Dutch water management. This overview gives us much “food for thought” on the possible relation between subsidiarity and sustainability. Furthermore, it allows us to make a first assessment of the Dutch allocation in terms of sustainability. Finally, it allows us to draw four general “lessons” concerning subsidiarity and its relation to sustainability.

### 5.1 SUBSIDIARITY AND SUSTAINABILITY

#### *A descriptive approach*

Due to conceptual vagueness and methodological complications, the relation between subsidiarity and sustainable development is difficult to assess. Subsidiarity, whatever the exact interpretation, refers to the allocation of tasks and competencies in society. As changes in the allocation are difficult and usually slow, the allocation at any given time is primarily historically determined. Changes in the distribution seem to be determined by three sets of factors:

- Functional (or instrumental) factors,
- Political factors, and
- Ethical (or ideological) factors.

Functional factors refer to the best distribution of tasks and competencies for reaching certain goals and to practicalities such as the minimisation of transaction costs. Political factors refer to issues such as power, prestige, influence and institutional interests. Ethical factors refer to notions of state, democracy, citizenship and market.

Sustainability comes in only partially. Sustainability is only one of the goals strived for. Furthermore, the actors promoting sustainability are often less influential than actors promoting other goals. Finally, the ethical factors of subsidiarity do not equal the ethical side of sustainability. For instance, there is no obvious reason why lower level governments and intermediary organisations can ensure the provision of essential water services to the underprivileged better than higher level governments.<sup>21</sup>

#### *A normative approach*

A somewhat clearer picture emerges if we focus not on how the allocation of tasks and competencies actually takes place, but on what the allocation should be. We can propose three criteria that the distribution of tasks and competencies should meet in order to promote sustainability. Firstly, the allocation should be such that all aspects of sustainability get due attention. Tasks and competencies could be attributed either to individuals and organisations that wholeheartedly accept the notion of sustainability, or to different individuals and organisations representing partial interests. In the last case all relevant interests should be represented and an accurate system of checks and balances should be in place.

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21: Too much decentralisation can result in large differences in the tax base. In richer areas, with higher average income and higher property value, the tax rate can be low, whereas in poorer areas the tax rate should be much higher to provide the same level of service. In extreme cases it may be impossible to maintain a basic level of services.

Secondly, the allocation should be such that water management tasks are managed at the right scale. This does not necessarily require river basin authorities, but it always requires effective co-ordination between the different managing bodies.<sup>22</sup> Effective co-ordination in turn requires a simple and transparent allocation of tasks and competencies: if tasks and competencies are spread over too many bodies and if they are ill-defined, the resulting uncertainties may paralyse management, competencies struggles will occur regularly, and accountability of management is problematic.

Thirdly, tasks and competencies should be attributed to individuals and organisations that have the necessary staff and expertise. This may require capacity building.<sup>23</sup>

## 5.2 ASSESSMENT OF THE DUTCH ALLOCATION OF TASKS AND COMPETENCIES

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22: In an ideal world each task should be the responsibility of an organisation with the same scale as this task. Due to three complications, however, this is impossible in practice, and even if it were possible, it would not automatically imply river basin authorities. The first complication is that different water management tasks have different scales. Matching the scale of organisations and tasks exactly would require that for each task a separate organisation be set up.

Secondly, water management tasks are often related to each other and related to tasks outside of water management (e.g. land-use planning). It is unlikely that all related tasks have the same scale. This means that water management tasks usually involve different scales simultaneously, the river basin scale being only one of them (cf. Mostert 1998a).

Thirdly, tasks really have two different scales: the geographical scale and the 'economic scale' (Derksen 1996). The geographical scale of a task is the geographical area that benefits from or is affected by the execution of the task, e.g. in case of national defence this is the country as a whole (Derksen 1996). Allocation of tasks at a too large scale would result in too much uniformity, too little consideration of local natural circumstances, too little responsiveness to the preferences of the population, and an unnecessarily big distance between management and citizens. Allocation at a too small scale would result in geographical externalities, which in case of negative externalities can result in an over-provision of goods services and in case of positive externalities in under-provision. Sometimes tasks may not be executed due to a sheer lack of space. Furthermore, allocation at a too small scale has little or no benefits in terms of consideration of natural local circumstances (they are not relevant below a certain level) and responsiveness to the preferences of the population (conditions for democratic control are better, but due to geographical externalities management is either less effective or has to bargain with the management in adjacent areas, thus digressing from the local preferences).

The economic scale refers to the efficient provision of goods and services. Due to economies of scale up to a certain point, and diseconomies of scale from this point onwards, somewhere there is an optimum amount of goods and services to be provided by a single organisation. From this an optimal service area for the organisation follows, but the optimal service area may differ from the geographical scale. If the service area is too small in economic terms, it may even be practically impossible to provide technically complex goods and services. In case of significant discrepancies between the geographical and the economic scale, one could split decision making on a task from the production of the pertinent goods and services. Decision-making could take place at the right geographical scale, and for the production the different organisations could co-operate (e.g. set up a joint laboratory), split up internally, or hire specialised contractors. (see on scales also the theory of fiscal federalism: Oates 1972, Musgrave and Musgrave 1984)

The conclusion of this discussion can only be that a perfect allocation in terms of scale is impossible. There will always be a need for co-ordination. This does not mean, however, that the allocation is irrelevant: effective co-ordination requires a simple and transparent allocation. River basin authorities such as the Dutch waterboards could play a role in this.

23: Capacity is closely related to the 'economic scale' of a task: see footnote 22.

Functional, political and ethical factors have all played a role in the Dutch discussions on the allocation of tasks and competencies, sometimes explicitly and sometimes implicitly, and with a differing emphasis on the three factors. Changes in the allocation of tasks and competencies have sometimes reflected the increasing attention given to sustainability, even though the term used in the discussions has been “integrated water management” rather than sustainability.

Presently, the allocation of tasks and competencies meets the three criteria presented in section 0 rather well. Since the introduction of integrated water management, waterboards have been encouraged to adopt a “broad view” and pay attention to other interests than those traditionally served by water management, e.g. nature. Furthermore, environmental NGOs have some access to the different arenas. (See also Mostert 1997) Co-ordination between different geographical areas and between policy sectors gets ample attention. Finally, facilitated by the huge concentration of waterboards, the staff of the different water managers is generally sufficient and their expertise is very high.

### 5.3 *IMPLICATIONS FOR OTHER COUNTRIES*

The Dutch experiences on their own do not allow us to test whether subsidiarity actually promotes sustainability or whether the three criteria presented in section 5.1 are necessary and/or sufficient for ensuring sustainability.<sup>24</sup> They do, however, suggest some conclusions with wider applicability than only the Netherlands.

#### *Functional government*

First, functional government by the people concerned can be very “sustainable”. Self-government (including financing) by the landowners in the waterboards has ensured the maintenance of the water infrastructure (dykes, drainage canals etc.) for centuries. As water management cannot be seen in isolation from other government tasks, functional government should be embedded in “general government”. In the Netherlands this is achieved primarily through the planning system, but other alternatives are imaginable as well.

#### *Decentralisation and co-operation*

Secondly, decentralised government requires good co-operation between the lower level governments: if they do not co-operate well, centralisation may be necessary. Problematic co-operation between the provinces was one of the reasons why *Rijkswaterstaat* was established. (See section 2.2)

#### *Decentralisation and concentration*

Thirdly, and paradoxically, decentralisation may require concentration. The waterboards could face up to the new water management challenges only because their number was reduced (from 2544 in 1953 to 67 now) and their size increased. This relation poses interesting dilemmas. Should more technically demanding tasks be centralised so that lower level governments can remain small and close to the individual citizens? Can lower level governments be abolished if their scale approximates the scale of higher level governments? (Cf. footnote 4) Can the relation with individual citizens remain close by

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24: Testing would require a) an exact, preferably quantitative assessment of the sustainability of water management, b) an exact, preferably quantitative assessment of either the degree of subsidiarity, or the degree in which the three criteria for allocation are met, and c) a comparison of several countries on these points.



establishing “districts”, and if so, why cannot districts be established within the higher level governments? Is the disparity between the areas of higher level governments and water systems (river basins) in itself already enough justification for keeping lower level government bodies that correspond to water systems?

#### *Institutions vs. practice*

Fourthly, not only the formal institutions should get attention when studying subsidiarity, but also their functioning in practice. For instance, whereas elections for local municipalities in theory give many opportunities for local involvement, in practice they are, at least partly, an extension of national politics. (See section 0) This does not mean that formal institutions are of no consequence or that centralisation is justified. On the contrary, formal institutions are one of the factors determining the actual distribution of tasks and competencies, and if the practice differs from the formal institutions, the practice may have to be brought in line with the formal structure rather than the formal structure in line with the practice. The difference between formal institutions and the practice does, however, imply that effects of formal institutions (in terms of sustainability or otherwise) cannot be assessed without looking at their functioning in practice.

#### *Unresolved issues*

It is difficult to draw conclusions on either the sustainability of privatisation or the sustainability of a big role for intermediary organisations and public participation. There is very limited experience with privatisation, and a big role for intermediary organisations and public participation has both advantages and disadvantages. As concluded in the phase I report on the Netherlands (Mostert 1997), involvement may increase support for the policy and thereby improve implementation. These effects will only occur if the water managers take the involvement seriously and if the participants do not have unrealistic expectations concerning their role in decision making. If not, involvement may result in disillusion and less support for policy. Involvement may furthermore result in less ambitious environmental goals, for instance if economic interest groups have more resources than environmental NGOs to prepare themselves and are listened to more.

## REFERENCES

- Achtthienribbe, G.E. 1997: "Onwijs over water; bespreking van het rapport "Mogelijkheden tot marktwerking in de Nederlandse watersector" (Mad about water; review of the report "Possibilities for competition in Dutch water management"). *H2O*, nr. 18, 546-550.
- Andeweg, R.B.; G.I. Irwin 1993: *Dutch Government and Politics*. Basinstoke/ London: Macmillan.
- Ast, J.A. 1998: "Interactief Waterbeheer; Ontwikkelingen naar internationaal beheer van riviersystemen" (Interactive water management; Towards international management of river systems). *H2O*, nr. 1, 31-34.
- Bellekom, Th.L. et al. 1994: *Koopmans' Compendium van het Staatsrecht* (Koopmans' Compendium of constitutional law). 7th impr. Kluwer: Deventer.
- Berg, J.T. van den 1982: *Waterschap en functionele decentralisatie* (Waterboard and functional decentralisation). Alphen aan den Rijn: Samsom.
- Berg, J.T. van den; A. van Hall 1995: *Waterstaat- en waterschapsrecht* (Water and waterboards' law). Zwolle: W.E.J. Tjeenk Willink.
- Betlem, I. 1998: "Relationships between water policy and environmental policy." in: F.N. Correia (ed.): *Water Resources Management in Europe: Institutions, Issues and Dilemmas. Volume 2*. Balkema, Rotterdam./ Also published in: idem 1997: "Wasserwirtschaft im Verhältnis zur Umweltpolitik" in: R.A. Kraemer; F.N. Correia (eds.): *Eurowater; Institutionen der Wasserwirtschaft in Europa. Band II*. Springer Verlag: Berlin etc.
- Brinkhorst, L.J. 1992: *Subsidiariteit en Milieu in de Europese Gemeenschap* (Subsidiarity and Environment in the European Community). Inaugural speech State University Leiden, 23 October 1992. Rijksuniversiteit Leiden: Leiden.
- Burg, F.H. van der; G.J.M. Cartigny 1985: *Rechtsbescherming tegen de Overheid* (Legal protection against government). Ars Aequi Libri: Nijmegen.
- Cabinet 1995: *Beleidsplan Drink- en Industriewatervoorziening; Deel 3: Kabinetsstandpunt*. (Policy plan supply of drinking water and water for industrial purposes. Part 3: version adopted by the Cabinet after public participation and advice). Tweede Kamer, vergaderjaar 1995-1996, 23168, nr 4-5.
- Cabinet 1997: *Beleidsplan Drink- en Industriewatervoorziening; Brife van de Minister van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer*. (Policy plan supply of drinking water and water for industrial purposes. Letter from the Minister of Spatial Planning, Housing and the Environment). Tweede Kamer, vergaderjaar 1995-1996, 23168, nr 13.
- Cabinet 1998: *Hoofddlijnennotitie; De hoofddlijnen voor een nieuwe Waterleidingwet* (Main points memo; the main points for the new drinking water act). Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer: The Hague.
- Chorus, J.M.J. et al. (ed.) 1993: *Introduction to Dutch Law for Foreign Lawyers*. Kluwer: Deventer.
- Commission of the European Communities 1997: *Proposal for a Council Directive establishing a Framework for Community Action in the field of water policy*. COM(97) 49 def.
- Correia, F.N. (ed.) 1998: *Water Resources Management in Europe: Institutions, Issues and Dilemmas*. Two volumes. Balkema: Rotterdam.
- Cour des comptes 1997: *La gestion des services publics locaux d'eau et d'assainissement* (The provision of local water supply and wastewater treatment services). Cour des Comptes: Paris.
- Denktank 1996: *Water centraal; Waterbeheer in de volgende eeuw*. (translated in English under the title "Focus on Water"). Unie van Waterschappen: The Hague.
- Derksen, W. 1996: "De schaal en het binnenlands bestuur" (Scale and national public administration). *Bestuurswetenschappen* nr. 6, 353-362.
- Dieperink, C. 1997: *Tussen zout en zalm; Lessen uit de ontwikkeling van het regime inzake de Rijnvervuiling*. PhD thesis University of Utrecht. Thesis Publishers: Amsterdam.
- Dijkgraaf, E. et al. 1997: *Mogelijkheden tot marktwerking in de Nederlandse watersector* (Possibilities for competition in Dutch water management). Onderzoeksreeks directie Marktwerking. Ministerie van Economische Zaken: The Hague.
- Doorn, J. van. 1996: "Schets van de Nederlandse politieke traditie" (Sketch of the Dutch political tradition). in: J.

- de Beuse; J. van Doorn; P. de Rooy: *De ideologische driehoek; Nederlandse politiek in historisch perspectief*. Boom: Amsterdam/Meppel.
- Flierman, A.H.; I.M.A.M. Pröpper 1997: "Bestuurlijke structuur voor grootstedelijke gebieden" (Government structure for metropolitan areas). *Bestuurskunde* nr. 5, 196-200.
- Fockema Andrea, S.J. 1934: *Het Hoogheemraadschap van Rijnland; Zijn recht en zijn bestuur van den vroegsten tijd tot 1857* (The Regional Waterboard Rijnland; Its law and its management from the earliest times until 1857). Ijdo: Leiden.
- Greive, J.M. 1982: "De stadia van het waterschapsbestaan" (stages in the life of a waterboard). in: B. de Goede et al.: *Het Waterschap; recht en werking* (The waterboard; law and functioning). Deventer: Kluwer, 97-131.
- Hagelstein, G.H. 1995: "Functioneel bestuur in verandering" (Changing functional government). in: D.J. Elzinga (ed.): *Regionaal Bestuur in Nederland*. Samson/ Tjeenk Willink: Alphen a/d Rijn, 265-277.
- Havekes, H.J.M.; J.M.J. Leenen 1996: "Zuivering van afvalwater: publiek of privaat domein?" (Purification of waste water: public or private domain?). *Het Waterschap* Vol. 81, No. 14, 467-473.
- Havekes, H.M.J. 1997: "Markt en waterbeheer?" (Market and water management). *Het Waterschap* Vol. 82, No. 17, 590-596.
- Heemskerk, W.F.A. 1997: *Waterbeheer in de grensprovincie Limburg; kritische beschouwingen* (Water management in the border province Limburg; critical considerations). Dr. W.F.A. Heemskerk: Echt.
- Hijum, E. 1998: "Financiële verantwoordelijkheid in het waterbeheer" (Financial responsibility in water management). *Het Waterschap* Vol. 83, No. xx, xx, xx.
- Hofstede, G. 1995: *Allemaal andersdenkenden; Omgaan met cultuurverschillen*. 5th impression. Uitgeverij Contact: Amsterdam (translation by the author of: *Cultures and Organisations, Software of the Mind*. McGraw-Hill: London etc., 1991).
- Hovenier, C. 1997: "Imago-onderzoek waterleidingbedrijven; Wat wil de klant?" (Research on the image of the water supply companies; What does the consumer want?). *H<sub>2</sub>O* nr 10, 310-313.
- Huitema, D.; A.H.M.L. Snellenberg 1997: "Beleid in stijl" (Policy in style). *Beleidswetenschap*. nr. 1, 55-72.
- IJff, J. 1995: "De bestuurlijke organisatie van het waterkwaliteitsbeheer." (The administrative organisation of water quality management). in: A.P. Van den Berge et al. (eds.): *Bestrijding van de watervervuiling; Vijftig jaar WVO* (Fighting water pollution; 25 years Act on Surface Water Pollution). Ministerie van Verkeer en Waterstaat/Unie van Waterschappen: Den Haag.
- IJsselmuiden, P.G. van 1988: *Binnenlandse Zaken; en het ontstaan van de moderne bureaucratie in Nederland 1813 - 1940* (Internal Affairs; and the formation of the modern bureaucracy in the Netherlands 1813- 1940). Kok: Kampen.
- Jans, J.H. 1994: *Europees Milieurecht in Nederland* (European Environmental Law in the Netherlands). 2nd impression. Woltersgroep: Groningen.
- Jong, J. de; H. Smit 1989: "The Rhine: Two Centuries of International River Management" in: W.D. Verwey (ed.): *Nature management and sustainable development*. IOS: Amsterdam etc.
- Jonker, L. 1998: "Overheidstaak en marktwerking in de afvalwaterbehandeling" (Government task and markets in waste water treatment). *Het Waterschap* Vol. 83, No. 4, 131-136.
- Katsburg, P.R.A. 1993: "Over de reorganisatie van het binnenlandse bestuur" (On the reorganisation of internal administration). *Waterschapsbelangen*, nr. 3, 98-102.
- Katsburg, P.R.A. 1996: "De verkiezing verkozen." (The election elected). *Het Waterschap* Vol. 81, No. 4, 122-128.
- Kluit, R. van der 1997: "Europa" (Europe). editorial comment. *Het Waterschap*, nr. 11, 1.
- Kluit, R. van der 1998: "Waterschap wereldwijd?" (The waterboards all over the world?). editorial comment. *Het Waterschap*, nr. 2, 1.
- Kraemer, R.A. 1998: "Subsidiarity and water policy." in: F.N. Correia (ed.): *Water Resources Management in Europe: Institutions, Issues and Dilemmas. Volume 2*. Balkema: Rotterdam./ Also published in: idem 1997: "Subsidiarität und Wasserpolitik" in: R.A. Kraemer; F.N. Correia (eds.): *Eurowater; Institutionen der Wasserwirtschaft in Europa. Band II*. Springer Verlag: Berlin etc.
- Kuyper, A. 1916: *Antirevolutionaire Staatskunde; Met nadere toelichting op ons programma door Dr. A. Kuyper* (Antirevolutionary political philosophy; with explanation of our programme by dr. A. Kuyper). J.H. Kok:

- Kampen.
- Lammers, O.; W. Lucassen 1997: "Rondetafelgesprek: De waterschappen en Europees waterbeheer" (Round table discussion: the waterboards and European water management). *Het Waterschap*, nr. 11, 382-387.
- Leenknecht, G.J.; V.J.J.M. Bekkers 1993: "Subsidiariteit en Europese Integratie; Over de betekenis van een bezweringsformule" (Subsidiarity and European Integration; On the origin and meaning of an incantation). *Bestuurswetenschappen*, 1993, nr. 1, 5-18.
- Lijphart, A. 1984: *Verzuiling, Pacificatie en Kentering in de Nederlandse Politiek*. 5th. revised edition. Amsterdam: J.H. de Bussy. (revised Dutch edition of: idem. 1975: *The Politics of Accommodation: Pluralism and Democracy in the Netherlands*. 2nd impr. Berkeley.)
- Linden, H. van der 1982: "Geschiedenis van het waterschap als instituut van waterstaatsbestuur" (History of the waterboard as an institution for water management) in: B. de Goede et al.: *Het Waterschap; recht en werking* (The waterboard; law and functioning). Deventer: Kluwer, 9-34.
- Lintsen, H. 1980: *Ingenieurs in Nederland in de Negentiende Eeuw; Een Streven naar Erkenning en Macht* (Engineers in the Netherlands in the 19th century; Striving for recognition and power). Martinus Nijhoff: The Hague.
- Lintsen, H. (ed.) 1998: *Rijkswaterstaat 200 jaar* (State Water Management Agency 200 years). Europese Bibliotheek: Zaltbommel.
- Mostert, E. 1997: *Water policy formulation in the Netherlands*. Water 21 phase I report. RBA Series on River Basin Administration, Research Report no. 6. RBA Centre: Delft.
- Mostert, E. 1998a: "River basin management in the European Union; How it is done and how it should be done" in: *European Water Management*, June 1998.
- Mostert, E. 1998b: *Long term provision of water services and infrastructure; Dutch internal report Water 21 project*. In preparation.
- Mostert, E. et al. 1997: *Onderzoek rond de Kaderrichtlijn Water; Inventarisatie* (Research on the Framework Directive Water; Inventory). Delft Hydraulics/ RBA Centre: Delft.
- Mostert, E. et al. 1998a: *De Kaderrichtlijn Water en het Nederlandse stroomgebiedbeheer; Meningen over en alternatieven voor de invoering* (The Framework Directive Water and Dutch river basin management; Opinions and alternatives for the implementation). Delft Hydraulics/ RBA Centre: Delft.
- Mostert, E. et al. 1998b: *River basin management and planning*. Water 21 report, in preparation.
- Musgrave, R.A.; P.B. Musgrave 1984: *Public Finance in Theory and Practice*. Fourth ed. McGraw-Hill: New York etc.
- Noort, W.J. van; C.J. Lammers 1995: "Introductie" (Introduction) in: idem (eds.) *De tussenorganisatie; Verkenningen in het maatschappelijk middenveld der interorganisatorische betrekkingen* (The intermediary organisations; Explorations in the intermediary space of the inter-organisational relations). DSWO Press: Leiden, 1-19.
- Nugent, N. 1994: *The Government and Politics of the European Union*. 3rd edition. Basingstoke and London: Macmillan.
- Oates, W.E. 1972: *Fiscal Federalism*. Harbourt-Brace: New York.
- Oosting, M. 1985: "Inspraak en overheidsbeleid" (Public participation and government policy). in: A. Hoogerwerf (ed.): *Overheidsbeleid*. Samsom: Alphen aan den Rijn, 224-246.
- Oud, P.J. 1982: *Honderd Jaren; een eeuw van staatkundige vormgeving 1840-1940*. (Hundred years; a century of constitutional design 1840-1940). 8th impr., revised and completed for the period after 1940 by J. Bosmans. Assen: Van Gorcum.
- Perdok, P. 1998: "The Netherlands." in: F.N. Correia (ed.): *Water Resources Management in Europe: Institutions, Issues and Dilemmas. Volume 1*. Balkema: Rotterdam./ Also published as: idem 1997: "Die Niederlande" in: R.A. Kraemer; F.N. Correia (eds.): *Eurowater; Institutionen der Wasserwirtschaft in Europa. Band II*. Springer Verlag: Berlin etc.
- Pröpper, I.M.A.M.; H.J.M. ter Braak 1996: "Interactie in Ontwikkeling; Nieuwe impulsen voor publiek debat." (Interaction under development; New impulses for public debate). *Bestuurskunde* No. 8, 356-368.
- Raadschelders, J.C.N.; Th.A.J. Toonen (eds.). 1993: *Waterschappen in Nederland; Een bestuurskundige verkenning van de institutionele ontwikkeling* (Waterboards in the Netherlands; a policy science review of the

- institutional development). Verloren: Hilversum.
- Redactie 1997: "Sommige elementen nader uitwerken: Waterschappen in grote lijnen akkoord met rapport Denktank" (Some elements should be developed more: Waterboards agree with main points of the report from the "Think Tank"). *Het Waterschap*. nr. 5: 192-194.
- Rooy, P. de. 1996: "De sociaal-democratische passie voor politiek" (The social democrats' passion for politics). in: J. de Beuse; J. van Doorn; P. de Rooy: *De ideologische driehoek; Nederlandse politiek in historisch perspectief*. Boom: Amsterdam/Meppel.
- Saeijs, H.L.F.; E. Turkstra 1994: "Towards a Pan-European integrated river basin approach: plea for sustainable development of European river basins." *European Water Pollution Control*. Vol. 4, nr. 3, 16-28.
- Schendelen, M.P.C.M. van 1996: "Een republiek van belangengroepen". (A republic of interest groups). *Intermediair* Vol. 44, No. 44, 35-37.
- Sluijs, H. van der 1998: "Het nieuwe adviesstelsel van start" (The start of the new system of advice). *Bestuurswetenschappen*. nr. 1, 1-16.
- Sneep, J.C. 1979: *Het waterschapsbestuur* (The government of the waterboard). PhD thesis University of Amsterdam. Deventer: Kluwer.
- Studiecommissie Waterschappen 1974: *Het waterschap en zijn toekomst* (The waterboard and its future). The Hague: Staatsuitgeverij.
- TNO 1997: *Het draagvlak voor interactieve besluitvorming in de sector water van Rijkswaterstaat* (The support for interactive decision making in the sector water of the State Water Management Agency). TNO Studiecentrum voor Technologie en Beleid.
- Tuijn, J. van 1998a: "Te weinig oog voor de hele watervoorziening; VEWIN-directeur Cals waarschuwt voor overhaaste liberalisering" (Too little consideration for water supply as a whole; VEWIN-director Cals warns against too rash liberalization). *H2O*. nr. 2, 7-8.
- Tuijn, J. van 1998b: "Twee verschillende prikkels voor doelmatigheid; meer warkwerking: wel of niet heilzaam?" (Two different incentives for efficiency; more competition: beneficial or not?). *H2O*. nr. 8, 12-13.
- V&W 1985: *Living with water; towards integrated water management*, English version of *Omgaan met water; naar een integraal waterbeleid*. Rijkswaterstaat: The Hague.
- V&W 1989: *Derde Nota waterhuishouding*. (Third policy document on water management). Tweede Kamer, vergaderjaar 1988-1989, 21250, nr 1-2.
- V&W 1990: *Water in the Netherlands: Time for Action; English summary of the National Policy Document on Water Management*. The Hague: Ministry of Transportation, Telecommunication and Public Works.
- V&W 1997a: *Ontwerp Beheersplan voor de Rijkswateren; Programma voor het beheer in de periode 1997 t/m 2000* (Draft management plan for the State water; programme for the period 1997-2000). The Hague: Ministry of Transport, Infrastructure and Water Management, Directorate-General Rijkswaterstaat.
- V&W 1997b: *Water Kader; Vierde Nota waterhuishouding; regeringsvoornemen* (Water frame; Fourth Policy Document water management; official government draft). The Hague: Sdu.
- Veldboer, L. 1996: *De inspraak voorbij; Ervaringen van burgers en lokale bestuurders met nieuwe vormen van overleg* (Beyond public participation; experiences of citizens and local politicians with new forms of consultation). Instituut voor Publiek en Politiek: Amsterdam.
- Ven, G.P. van de 1993: *Man-made lowlands*. Utrecht: Matrijs.
- Verburg, J.J.I. ed. 1992: *De Waterschapswet; een artikelsgewijs commentaar*. (The Waterboards Act; a commentary on the different sections). W.E.J. Tjeenk Willink: Zwolle.
- VEWIN 1996: *Jaarboek voor de waterleiding in Nederland*. (Yearbook for water supply in the Netherlands). VEWIN: Rijswijk.
- Vinke, G.B. 1998: "Grote weerstand tegen introductie marktwerking voor drinkwater" (Much resistance against introduction of competition in drinking water supply). *H2O*. nr. 3, 12-14.
- Vlist, H. van der 1997: "Het regionaal waterbedrijf en het markt-virus" (Regional water companies and the market virus). *H2O*. nr. 20, 688.
- Wijmen, S. 1992: *Water om the drinken* (Water for drinking). VEWIN: Rijswijk.
- Waterkring 1998: *De Waarden van Water; Manifest van de Waterkring* (The values of water; manifest of the Water Circle). March 1998.

WCED 1987: *Our common future*. (Brundtland report). Oxford/New York.

Zijderveld, A.C. 1997: "Het bestuur en de gemeenschap" (Government and civic society).  
*Bestuurswetenschappen* 1997, nr. 1, 5-10.