

# Successful Decentralisation?

A critical review of  
Dutch water governance

Prof. mr. dr. H.J.M. Havekes



Wolters Kluwer

**Successful decentralisation? A critical review of Dutch water governance**



Prof. mr. dr. H.J.M. Havekes

# **Successful decentralisation?**

A critical review of Dutch water governance

 Wolters Kluwer

Deventer – 2023

Short citation: Havekes, *Successful Decentralisation? A critical review of Dutch water governance (SBR Praktijk) 2023*[section number].

Full citation: H.J.M. Havekes, *Successful Decentralisation? A critical review of Dutch water governance (Staats- en bestuursrecht Praktijk)* (inaugural lecture Utrecht), Deventer: Wolters Kluwer 2023.

Cover design: Hans Roenhorst, [www.h2rplus.nl](http://www.h2rplus.nl)

Cover photo: Unie van Waterschappen

NUR 823-301

© 2023, Wolters Kluwer Nederland B.V., H.J.M. Havekes.

You can reach our customer service at: [www.wolterskluwer.nl/klantenservice](http://www.wolterskluwer.nl/klantenservice).

Author(s) and publisher welcome comments and suggestions. Please send them to: [boeken-NL@wolterskluwer.com](mailto:boeken-NL@wolterskluwer.com).

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Wolters Kluwer Nederland B.V.

Insofar as the making of copies from this publication is permitted on the basis of Articles 16h to 16m of the Auteurswet in conjunction with the Decree of 27 November 2002, Bulletin of Acts and Decrees 575, the legally owed remuneration for this must be paid to Stichting Reprorecht ([www.reprorecht.nl](http://www.reprorecht.nl)).

Although the utmost care has been taken in compiling this publication, the author(s), editors and Wolters Kluwer Nederland B.V. accept no liability for any errors or omissions, or for the consequences thereof.

All offers and agreements of Wolters Kluwer Nederland B.V. are subject to the General Terms and Conditions of Wolters Kluwer Nederland B.V. These can be consulted via: [www.wolterskluwer.nl/algemene-voorwaarden](http://www.wolterskluwer.nl/algemene-voorwaarden).

If Wolters Kluwer Nederland B.V. obtains personal data, the privacy policy of Wolters Kluwer Nederland B.V. will apply to that data. This can be consulted at [www.wolterskluwer.nl/privacy-cookies](http://www.wolterskluwer.nl/privacy-cookies).





Rising water – John Noy, 2020





## CONTENTS

### **Successful decentralisation? A critical review of Dutch water governance / 1**

1	Introduction / 1
2	Thorbecke's administrative reform / 3
3	Water governance in the Netherlands / 4
3.1	Drinking water supply companies / 5
3.2	Regional water authorities / 7
3.2.1	Upscaling / 8
3.2.2	Duties / 9
3.2.3	Composition and election of the water authority board / 12
3.2.4	Financing / 16
3.2.5	Recap / 17
3.3	Municipalities / 18
3.4	Provinces / 21
3.5	National government / 22
3.6	Some observations / 25
4	Water management abroad / 34
5	Design principles / 37
6	Importance of historical knowledge / 39
7	Research questions / 40





# Successful decentralisation? A critical review of Dutch water governance

*Lecture delivered on the public acceptance of the position of Professor by Special Appointment of Public Organisation of (Decentralised) Water Management at Utrecht University on 3 October 2022.*

*Mr Rector Magnificus, members of the Board of the Schilthuis Foundation and of the Curatorium, highly esteemed listeners,*

## **1 Introduction**

In early 2020, when COVID-19 still seemed a long way away, I was attending the NWB Bank's New Year reception in the National Maritime Museum in Amsterdam and visited Kadir van Lohuizen's photo exhibition *Rijzend water* [Rising Water]. His TV series *Na ons de zondvloed* [After Us the Deluge] had gripped me, and his photos and short films did the same. Climate change and its effects on the ocean and sea levels will have disastrous consequences: tropical island states such as the Marshall Islands and Kiribati are at risk of being completely submerged; the Todoru cemetery on Fiji already floods at high tide, while erosion on the east coast of England is causing whole houses to collapse into the sea; large parts of Jakarta flood when it rains heavily, and Bangladesh will have thirty million water refugees in just a few years' time. These are just a few examples of what we can expect. The rising water is going to cause major problems around the world and Van Lohuizen's photos bring that into focus.<sup>1</sup> There can hardly be a more deserving example of the well-known adage 'A picture is worth a thousand words'. It was wonderful display, but I went home feeling wretched. It was all too depressing...

Two weeks later we were given a wake-up call by Rutger Bregman's open letter to his Dutch compatriots, and by his booklet *Het water komt* [The Water's Coming]. He confronted us with a doom scenario based on conversations with several scientists, mostly from Utrecht, in which the sea level rises by as much as five to eight metres. Admittedly, this would not be before around 2200, but that still feels quite soon. In this scenario, he reckons there is a good chance we can say goodbye to cities like The Hague, Delft, Rotterdam, Amsterdam, Leiden and Haarlem. Bregman's

---

<sup>1</sup> Van Lohuizen is fascinated by the rising sea levels. In 2021 he published a beautiful photo book called *After Us the Deluge* (Lannoo, Belgium), with an introduction by Henk Ovink, Special Envoy for Water. He devotes much of the book to Greenland, the United States, Panama, Indonesia, the Pacific, Bangladesh and the Netherlands. The section on the Netherlands is by Urgenda director Marjan Minnesma.

wake-up call quite rightly attracted much attention. But in reaction to all the media attention, the Delta Commissioner and some scientists were equally justified in dialling down the level of alarm to prevent the inhabitants of these beautiful cities immediately packing their bags. I am not interested in exactly how high the sea will rise – which cannot be predicted with any accuracy for the long term anyway – but it is the essence of Bregman’s message that concerns me. We must do something about it now, otherwise we will not escape the water.

This message has never been so apposite. In the past we have tended to ignore such messages – it is no accident that Bregman refers to Johan van Veen [the Dutch hydraulic engineer who warned about the poor flood defences before the disaster of 1953] – but we can no longer permit ourselves such luxury.<sup>2</sup> To continue with the lovely metaphor of my colleague Co Verdaas, we will have to continue working on our paradise to protect and preserve it. Neither Van Lohuizen nor Bregman would have suspected that there would have been flooding in southern Limburg so soon after the former’s exhibition and the latter’s open letter.

This brings me to the central theme of this inaugural lecture: water governance. This will have to be in excellent order if we are going to be successful in safeguarding our paradise in future. In itself, this is nothing new. As Crown Prince Willem-Alexander said in the run-up to the Johannesburg Summit in 2002, “The world water crisis is a crisis of governance – not one of scarcity”. Although the crisis in this quote is drought, you could just as easily swap it for flooding and poor water quality. It sounds perfectly logical, but even this message is frequently ignored. The approach we take to water governance throughout the world is really rather sloppy, and if we are not careful the problems threatening us will become almost unsolvable. Sometimes the scale at which water systems are managed is totally inadequate. For example, at the time of the last major flood disaster in the Netherlands, the province of Zeeland, where the dikes were breached, had more than 300 water authorities. Now, you will not hear me say that this was the cause of the disaster, but it certainly did not help. Poor financing is much more often to blame, and we have our own examples of that as well. One of the causes of the narrow escape we had in the floodplain of the Rhine and Meuse rivers in 1995, which was commemorated at length in 2020, was that in the preceding years the government had repeatedly cut the budget for strengthening the river dikes. They preferred to build new highways. Yes, it was as banal as that.

Clearly, this is no longer acceptable. Our government has the constitutional obligation (Article 21) to protect its citizens against flooding and drought and to ensure

---

2 Bregman’s booklet generated new interest in Johan van Veen. Willem van der Ham presented a wonderfully designed revised edition of his earlier biography *Johan van Veen. Grondlegger van het Deltaplan*, Amsterdam 2020, with a foreword by Rutger Bregman. Almost at the same time, on September 2020, a statue of Johan van Veen was unveiled on Schielands Hoge Zeedijk in Capelle aan den IJssel, close to the first Delta Works, the storm surge barrier in the Hollandse IJssel estuary.

good water quality. With today's *dangerous climate change*<sup>3</sup> this is not becoming any easier and so it makes yet greater demands of water governance in our country. Let us submit this water governance to critical scrutiny this afternoon and assess whether it is in good shape or not. What does the institutional design look like? What are the design principles that underpin our water management system? Most of Bregman's compatriots know nothing about Dutch water governance, but luckily, according to a survey carried out under the Flood Protection Programme in early 2020, they have a remarkably degree of confidence that the government will keep them safe. A more recent survey of 2,062 people by Wageningen University corroborates this picture. Public confidence in the National Water Authority (*Rijkswaterstaat*, the government agency responsible for public works and water management) (score of 7.8) and the regional water authorities (7.6) is substantially higher than confidence in politicians in general. This relatively high level of confidence is based primarily on the capacity of these bodies to protect us against flooding. But this trust brings obligations. Moreover, in a report by the Netherlands Institute for Social Research on our national identity, the Dutch give water a prominent place, putting the Delta Works and the dikes seventh and tenth on the list. The Dutch therefore identify with water management, or in any case with protection against flooding, but 'identify with' is not the same as 'know something about'. Let us make no bones about it: the average Dutch person has no idea how water management is arranged and which public bodies are involved. Perhaps the fact that the revised, and in some respects altered, Canon of the Netherlands still includes the reclamation of the Beemster lake and the 1953 flood disaster may improve this situation somewhat. Incidentally, the water community has long had its own canon. At the request of the then state secretary, a committee chaired by Alfred van Hall drew up a Water Canon in 2009, with a glowing introduction by committee member Herman Pleij and 25 aptly chosen entries.

## 2 Thorbecke's administrative reform

Before examining the structure of water governance in the Netherlands, we need to say something about the reform of the administrative structure of government in the Netherlands by Johan Rudolph Thorbecke, the great Dutch statesman of the mid-nineteenth century. The reformed administrative structure is generally referred to as the 'House of Thorbecke'. The familiar 'occupants' of that house are the municipalities, the provinces and the state. But is there also a room for the water authorities? In one of his annual speeches, former chair of the Association of Regional Water Authorities (*Unie van Waterschappen*), Jan Jaap de Graeff, saw an 'important wing' for them in that house, but I have also seen less prestigious accommodation proposed, such as the basement and the attic. We do not know how Thorbecke himself saw it, but we should not make the mistake of concluding

---

3 This term comes from the Urgenda judgement by the Supreme Court on 20 December 2019, ECL:NL:HR:2019:2006, *NJ* 2020/41. In this judgment, the Supreme Court identifies sea level rise caused by dangerous climate change as a risk of serious impairment to the life and wellbeing of residents of the Netherlands and states that the possibility of a sharp rise in sea level may render the Netherlands partly uninhabitable.

that he was not interested in the water authorities as an administrative institution. The following quote from his letter of 1843 on the power of the provincial council illustrates this:

*“The topic has my interest. It is difficult, but worthwhile ... It touches on a public concern, well-nigh as old as the population, and was and is a condition for the habitability of our country. It is an area of provincial power which, in an administration not dissolved by the revolution, is concerned with countless facts or institutions dating from all the centuries of our history. It is part of our underdeveloped administrative law that clearly needs permanent regulation, encompassing as it does a great diversity of public and special interests; and in order to reconcile the mutual and thousandfold requirements, the necessary rules lie deeper than in any other field of government.”*

However, unlike the Municipalities Act and Provinces Act, Thorbecke did not get around to the organic law on water authorities provided for in the Constitution of 1848. The water authorities had to wait patiently until 1992. At the time it was considered simply impractical to bring those 2,000 or more water authorities, with all their widely differing regulations, within the orbit of a single law. However, the head of his Water Management Department, Quarles van Ufford, did produce a manual of no less than 147 pages with requirements to be met by provincial water authorities regulations. It does not require much imagination to see a water authorities law *avant la lettre* in this manual. We should also note that at the time when Thorbecke drew up his proposals the water authorities were probably not at all keen on the idea of government interference in the form of a water authorities law. They had always arranged their affairs with the provinces. This has previously been alluded to by Auke van der Woud and I tend to agree with him.

And talking of Thorbecke, my colleagues Lilian van Karnebeek, Frank Groot-huijse and Marleen van Rijswick are currently doing research with the intriguing title ‘What would Thorbecke have thought of the Environment and Planning Act?’. It focuses on the consequences of this coming Act (*Omgevingswet*) for the separation of powers and the normative significance of legislation. The title makes it sound like a thriller and I am already looking forward to the denouement.

### 3 Water governance in the Netherlands

As I have said, in this inaugural lecture I want to take a closer look at water governance in the Netherlands. Before examining the various parties involved, two preliminary remarks are in order. First, my description is not limited to the situation as it is now, but also outlines the key developments and changes. Water management, like water itself, is most definitely not static, but rather it is a dynamic policy area in which there have been many institutional changes, particularly in recent decades. *Panta Rhei*. Second, in anticipation of the attention given later in this lecture to several international studies, the description contains a number of practical examples from abroad. These show us that our Dutch model is not necessarily the obvious one and that other arrangements are possible. With these comments in mind, we now dive deeper into the structure of Dutch water governance. In turn, we take a

look at the drinking water supply companies, the regional water authorities, the municipalities, the provinces and national government.

### 3.1 Drinking water supply companies<sup>4</sup>

First of all, a word about drinking water supply companies, because they are also part of our public water governance – although only just, I should add straight away. During the market-driven political thinking of the late 1990s there was a good chance that the water supply companies would have followed our big energy companies into private hands. This was prevented at the last minute by a parliamentary motion put forward by Jaap Jelle Feenstra (Labour Party).<sup>5</sup> Maintaining public ownership of these companies has been highly significant for cooperation with the other partners in the water supply chain (drinking water supply–sewerage–wastewater treatment). This public ownership is guaranteed by Article 1 of the Drinking Water Act (*Drinkwaterwet*), which states that if a water supply company has the legal form of an N.V. [a public limited company] or B.V. [a private limited company], its articles of association must stipulate that the share capital – the ownership of the company – must be held directly or indirectly by a ‘legal persons governed by public law’, which, under the same provision, are the state, a province, a municipality, a regional water authority or a joint arrangement between public authorities. In practice, the water supply companies are mostly in provincial or municipal ownership.<sup>6</sup> Actually, the Minister of Infrastructure and Water Management has considerable say in the matter because the minister determines the distribution areas within which the water supply companies effectively have a monopoly, prepares a policy document on public water supply every six years and a report on drinking water quality every year, must approve mergers, can take enforcement action, and, in exceptional circumstances, can take emergency measures.

Our water supply companies have a history that goes back more than 170 years. The first water supply company was established in Amsterdam around 1850. Between 1870 and 1940 the number of water supply companies grew to about 220, and from then on the number declined sharply to the 10 we have today. Although perhaps less spectacular than the upscaling of the water authorities, on which more later, this process of consolidation is still quite remarkable. This administrative scale has proved to be suitable for doing the important work of supplying drinking water to households and businesses<sup>7</sup> both competently and efficiently. Compulsory periodic performance benchmarking<sup>8</sup> ensures that information is provided and accounted for. Moreover, the introduction of performance benchmarks in the water supply sector has led to a significant increase in productivity. Whereas the Baumol effect makes it hard to achieve such growth in productivity in the labour intensive

---

4 The data in this section are mainly from Drinking Water Statistics 2022, The Hague: Vewin 2022.

5 Parliamentary Proceedings II (*Kamerstukken II*) 1997/98, 25869, nr. 2.

6 The Amsterdam water company Waternet is incorporated into a foundation of the City of Amsterdam and Amstel, Gooi en Vecht Regional Water Authority.

7 Water supply to industry is not considered further here.

8 See Article 39 et seq of the Drinking Water Act.

public sector – and in some sectors, such as the judiciary and education, there was even a 1% to 2% negative growth in the period from 1980 to 2020 – the water supply sector has performed exceptionally well. Of the fifteen public and semi-public sectors investigated, the water supply sector even had the highest increase in productivity, at 2%.

Actually, the ten companies differ greatly in size. Vitens is almost ten times as big as the Groningse en Drentse water supply company in terms of number of connections, production, sales and turnover. If we take a closer look at the operating scale of the companies, we can see that over the last thirty years or so there has been a considerable increase in efficiency. Between 1990 and 2005 the number of employees fell from 8,500 to around 5,000 at a time when the water supply network expanded by about 30,000 km and the number of connections increased by almost 2.5 million to more than 8 million in total. Despite this strong growth in the number of connections, drinking water consumption per person has fallen to around 120 litres per day in recent years. Most of this reduction is down to technological developments, such as water-saving toilets and showerheads and more economical washing machines, which are the home appliances that use most water. Incidentally, the dry summers in the past few years led to a slight increase in domestic water use. Swimming pools had to be filled! Groundwater is the source of 66% of our drinking water, with the remaining 34% coming from surface water resources.

These efficiency improvements have not been made at the expense of drinking water quality, which has remained at an exceptionally high level: it meets the legal standards in 99.95% of tests, according to the reports by the Human Environment and Transport Inspectorate (*Inspectie Leefomgeving en Transport*). The outstanding quality of our drinking water is reflected in the general customer satisfaction survey of 6,500 customers (650 per water company) conducted by Kantar Public in 2019. These customers gave an enviable average rating of almost 8.1, a score which rates the water supply companies considerably higher than several other organisations that provide services to society: municipalities (6.9), the Tax and Customs Administration (6.5), health insurers (7.5), internet service providers (7.4) and energy companies (7.7). The rating for general service provision (divided into troubleshooting, maintenance, moving/customer changes, meter reading and billing) was equally high, at 7.9 in 2019.

And now we turn to the price of drinking water, because the water bill is not a ‘tax’, but a price. Is our high quality and reliable drinking water expensive for households? Not really. The average price, which consists of a standing charge and a variable charge depending on actual use,<sup>9</sup> is around € 1.90 per m<sup>3</sup>. The proportions of the total price made up by the standing charge and actual use are 46% and 54% respectively. Of this price, on average € 0.50 of every euro is made up of taxes, mostly central government taxes (VAT and tax on tap water) plus the provincial groundwater charge and municipal and/or water authority distribution and con-

9 For comparison: Argentina has the *canilla libre* system in which drinking water rates are set independently of actual consumption, which obviously puts no brakes on consumption. See OECD, *Water Governance in Argentina*, OECD Studies on Water, OECD Publishing 2019, p. 57.



cession reimbursements. Without these taxes, drinking water would be almost 30% cheaper for households, which makes the water supply companies' opposition to these taxes understandable.<sup>10</sup> The ten water supply companies are in a healthy financial situation. They make an annual turnover of almost € 1.4 billion and have a loan capital amounting to more than € 3.3 billion, which is offset by assets worth more than € 6.7 billion and reserves of more than € 2.6 billion. This healthy financial position allows the water supply companies to invest more than € 600 million annually. There is no question of stagnation (and therefore of decline). Their position also allows them, during extremely dry periods, to appeal to customers not to wash their cars, not to water their gardens too often and show restraint when filling their swimming pools. But that is only logical, I hear you think. Of course it is, and informing customers is even a statutory obligation under Article 7 of the Drinking Water Act. But in the US the tens of thousands of water utilities are simply not in a position financially to be able to send such signals to their customers, because they would go bankrupt – even though average drinking water consumption per person in the US is more than five times as high as in the Netherlands, and in some states problems of drought are already becoming unmanageable. There could be no better proof of the importance of getting the administrative scale right.

This brief review of the water supply companies shows that our drinking water supply is in good shape.<sup>11</sup> And that is no luxury, given that the ongoing problems of diffuse groundwater and surface water pollution and drought, not to mention the rapid increase in the number of homes, do not make it any easier for these companies to meet their duty of care under Article 3 of the Drinking Water Act to ensure a sufficient and continued operation of the public water supply. Moreover, in meeting their duty of care, the water supply companies are heavily dependent on government policy in relevant areas. In that regard, it can do no harm to point out that the duty of care to safeguard the continued operation of the public water supply under Article 2(1) of the Drinking Water Act applies to all administrative bodies.

### 3.2 Regional water authorities<sup>12</sup>

In the context of this review I want to take a slightly longer look at the regional water authorities, with particular attention to the radical institutional changes this age-old public institution has undergone in recent decades.<sup>13</sup> Elsewhere I have stated that the water authority has been reinvented, which has met with some raised

10 They make sure to itemise all these taxes separately on the bill.

11 The European Commission and the OECD also remarked on this again a few years ago in OECD, *Financing Water Supply, Sanitation and Flood Protection: Challenges in EU Member States and Policy Options*, OECD Studies on Water, Paris: OECD Publishing 2020.

12 See H.J.M. Havekes, *Functioneel decentraal waterbestuur: borging, bescherming en beweging* (diss.), The Hague 2009 (containing an extensive English summary, p. 425–455) and H.F.M.W. van Rijswijk & H.J.M. Havekes, *European and Dutch Water Law*, Groningen 2012, p. 135–202.

13 For the early history of the water boards, see Milja van Tielhof, *Consensus en conflict. Waterbeheer in de Nederlanden 1200-1800*, Hilversum 2021, which dispels the myth that the water boards were the oldest democratic institution in the Netherlands.

eyebrows. After all, it is quite a claim. Here I want to show why this statement is not an exaggeration. This review serves another purpose as well. My experience is that the institutional transformation of the old-style water board is relatively unknown outside the sector itself. I notice that time and again. It is unfortunate, because the other local and regional authorities can learn from it. Whereas the water sector would do well to follow developments in public administration and where necessary translate them to its own situation, other public authorities in turn would do well to follow developments in water governance. At the moment it is mainly one-way traffic, which is a shame. This lecture aims to improve this situation somewhat. A second comment I would like to make is connected with the fact that many of the changes were set in motion by the strategic vision document *Water centraal* [Water central] published at the end of 1996 by a think-tank of the Association of Regional Water Authorities.<sup>14</sup> Less than two years after the Regional Water Authorities Act (*Waterschapswet*) came into force, this report put forward radical proposals which found little support among the majority of the water authorities. Nevertheless, within ten years almost all the proposals had been implemented – there are strategic vision documents that have had less impact. The water authorities, therefore, have shaped their own transformation, and that obviously improves the chances of success.

Below, I discuss in turn the major changes that have occurred in the scale, the range of tasks, the composition and election of the board, and the financing of the water authorities.

### 3.2.1 *Upscaling*

As we know, in the previous century there were still a few thousand water authorities. To be precise, in 1950 there were 2,647 water authorities of all types and sizes. It was a colourful administrative patchwork. You do not have to be a supporter of 'big is beautiful' to realise that this number was somewhat on the generous side. The core business of the water authorities, the essential work, requires a certain minimum scale of operation. Without being able to determine precisely, let alone calculate, what the optimal scale for water authorities is, we can still say something about this important point. Not only were there many water authorities in the mid-twentieth century, but in many regions there were even more than one within the same area. Despite there being a division of tasks between these multiple water authorities, not only was this situation less than transparent, but it also entailed the risk of poor coordination, with potentially damaging consequences. Fortunately, the practice of 'over-diking' (building a dike higher than the one on the other side of the river, the aim being to ensure that if the water rose too high the other side would flood first and one's own dike would be spared) and of even sabotaging each other's dikes died out a few hundred years ago. Nevertheless, even during the already forgotten flooding in the province of Noord-Holland in the autumn of 1994, communication between the surrounding storage basin water authority and the

---

14 Report *Water centraal. Waterbeheer in de volgende eeuw* [Water central. Water management in the next century], The Hague: Association of Regional Water Authorities 1996.

polder water authorities within it was poor.<sup>15</sup> Hence the call by the previously mentioned think-tank in *Water central* for establishing ‘all-in’ water authorities that would be responsible for all the water management tasks within one area.

Since 2018 we have had just 21 regional water authorities in the Netherlands.<sup>16</sup> Almost unnoticed, the water sector has gone through an increase in operational scale that is unprecedented in our public administration. The number of water authorities has been ‘centimated’, if that is even a word.<sup>17</sup> By comparison, in the same period the number of provinces increased by one (Flevoland) and the number of municipalities decreased from 1015 to 344. In 1950 there were more than 2.5 times as many water authorities as municipalities, but now there are just 21 regional water authorities and 344 municipalities. It feels as if this upscaling process has propelled the water authorities passed in its Formula 1 car the municipalities at 300 km per hour on the administrative highway, while the provinces sit in the car park.

All those mergers have led to much bigger, regional water authorities. Some provinces have just one regional water authority (Friesland, Flevoland, Zeeland and Limburg), but even so the current regional water authorities are generally based on hydrological boundaries. This can be seen in the fact that more than half of the regional water authorities straddle provincial borders. The Rivierenland water authority even straddles four provinces, while the cities of Amsterdam and Rotterdam both lie in three water authorities. Water management sets its own administrative boundaries. The Association of Regional Water Authorities now considers this scaling up process to be complete. In a strategic vision prepared in 2015 the Association points out that further mergers would not deliver any substantial cost savings because the water authorities already work closely together in many areas. Taking this process too far would result in a drop off in knowledge of the area, more bureaucracy and less direct contact with stakeholders, which would diminish exactly those qualities the water authorities should have in abundance. That is why the Association advises caution with regard to any further increase in the scale at which the water authorities operate, and that seems to me to be a correct observation.

### 3.2.2 Duties

The duties of the water authorities is perhaps the area that has changed the least, but here too there have been a number of significant developments. The principle of decentralisation contained in the Regional Water Authorities Act has been of great service in this regard and so it deserves some explanation.<sup>18</sup> Article 2(1) of the Regional Water Authorities Act states: “*For the exercise of the competence referred*

15 According to the conclusion of the Van Gelder Committee, which investigated the flooding in mid-September 1994.

16 The existence or otherwise of the Blija Buitendijks on the Wadden dike in Friesland has been a matter of debate for a long time. In many respects this water authority was in direct contravention of the Regional Water Authorities Act, but as far as is known it was never formally dissolved during the reorganisation of the water authorities in Friesland. At the end of 2017, however, the Province of Friesland decided to formally dissolve this water authority, putting an end to any further doubts.

17 At least, I have not been able to find it in the Shorter Oxford English Dictionary.

18 For a more extensive discussion, see Havekes (diss.), p. 149–157.

to in the first paragraph, duties, as referred to in Article 1, second paragraph, first sentence [the water system and wastewater management – HJMH], shall be assigned to water authorities, unless this is incompatible with the interest of a proper governance of water management.” Initially this provision was not included in the bill; it was inserted by a ministerial memorandum of amendment at the insistence of the water authorities. The provision expressly states that, in principle, the provinces must assign the responsibility for local and regional water management to water authorities and may only deviate from this principle if it would be detrimental to the proper governance of water management. This statutory ground for exemption is now meaningless as it dates from a time when there were still about 150 water authorities, some of which were indeed too small to properly carry out certain tasks. This is never an issue for the 21 regional water authorities we have now. The principle of functional decentralisation has a robust basis in law. The decentralisation provisions in Article 117(1) of the Municipalities Act (*Gemeentewet*) and Article 115(1) of the Provinces Act (*Provinciewet*) are worded in less forceful terms. Under these provisions, ‘the Minister of the Interior and Kingdom Relations shall promote decentralisation in the interests of the municipalities and provinces’. The second paragraph of these provisions gives municipalities and provinces somewhat firmer ground to stand on, as it obliges the minister to provide good grounds for not transferring the responsibility for certain matters to the municipal or provincial level. Nevertheless, Dölle and Elzinga talk of a weak provision in their manual on municipality law.

Under the decentralisation principle in the Regional Water Authorities Act, the provinces of Groningen, Friesland and Utrecht, which had been carrying out the water quality management duties themselves, transferred these responsibilities to water authorities in the 1990s. Furthermore, large urban areas such as Utrecht, Alkmaar and Breda, and the upland Veluwe region [with a mix of forest, heath and farmland] were brought under a water authority for the first time. The 2009 Water Act (*Waterwet*) gave responsibility for groundwater management to the water authorities. Curiously, though, the licensing of major groundwater extraction and the associated groundwater charge remained a responsibility of the provinces. I shall return to that later. Finally, the control of muskrat and coypu, which used to be a provincial task, was transferred to the water authorities in 2011.<sup>19</sup> This functional decentralisation was driven mainly by financial considerations. As the water authorities can pay for it from the water system charge, the government no longer has to transfer money for this (about € 20 million per year) to the Provinces Fund.

It should not be forgotten, though, that these tasks are carried out very differently now than in the past. The water authorities are, quite rightly, required to demonstrate their social responsibility. An example of this is the Blue Deal concluded with the Ministry of Foreign Affairs (BuZa) and the Ministry of Infrastructure and Water Management (IenW) in 2018, which aims to give twenty million people around the world access to sufficient, clean and safe water. The conversion of existing wastewater treatment plants into energy and raw materials plants<sup>20</sup> and the development of

19 Bulletin of Acts, Orders and Decrees (*Stb*) 2011, 270.

20 See <https://www.efgf.nl>.

water source heat pumps to provide heating (and cooling) for homes – unheard of just twenty years ago – are also excellent examples. Incidentally, the last development has given rise to questions about whether such duties are appropriate for water authorities as functional administrative bodies and whether tax income should be used to fund them. At the end of 2018, the minister announced that changes would be made to the legislation to put an end to such doubts.<sup>21</sup>

Although there is certainly a change in emphasis and the way responsibilities are carried out, the core tasks of the water authorities have not changed fundamentally. In 2020 it is still all about keeping our feet dry and having sufficient and clean water. Which is why I was not so happy with the suggestion made around the time of the 2019 water authority elections by the Water Natuurlijk political party, although undoubtedly well-meant, to rename the water authorities ‘climate authorities’. Of course, the water authorities are fully involved in climate adaptation, but the other government authorities are doing this as well. With a name like this water authorities would appear to be taking on more than they can handle.

All in all, the range of tasks assigned to the water authorities seems to be about right as it is, although serious consideration could be given to making them responsible for those aspects of the management of groundwater and bathing water resources that are currently the responsibility of the provinces. For groundwater, I believe there is every reason to do this. The legislator certainly made an error in the 2009 Water Act by making the water authorities responsible for groundwater management, while leaving the responsibility for licensing three types of abstraction and the power to levy charges with the provinces. And to make things even more complex, the government has the responsibility for abstractions and infiltration under national waters (with the exception of abstractions for which the province is the competent authority under Article 6.4 of the Water Act).<sup>22</sup> Other than surface water management, which is the responsibility of national government and the water authorities, there are now four authorities involved in groundwater management (municipality, water authority, province and national government) and that has little to do with integrated water management. There are still gains to be made here. I am saying nothing new, as the Advisory Committee on Water (*Adviescommissie Water*) pointed this out in its advice on groundwater at the end of 2017, saying it was “shocked by the complexity of the governance of groundwater management. Even experts with legal knowledge of the groundwater domain indicate that the governance is exceptionally complicated and that they regularly do not know exactly how it is organised”. To resolve this, the Advisory Committee on Water argued for giving water authorities a more central role in groundwater management. With half an eye on the current problems of drought and land subsidence, I heartily agree, while noting in passing that the limits to how the groundwater charge may be spent would then have to be relaxed to enable it to have any effect. In the past this regulatory aspect has proved to be a highly sensitive issue and it held up the

21 Parliamentary Proceedings II (*Kamerstukken II*) 2018/19, 35000, J, nr. 30. However, the relevant legislative proposal has still not been submitted to the House of Representatives and so a bit more urgency would not go amiss.

22 See Article 6.10a, Water Decree.

debate on the draft Groundwater Act (*Grondwaterwet*) in Parliament for two years. In 1977 an amendment put forward by Van Kuijen (Pacifist Socialist Party)<sup>23</sup> and adopted by a narrow majority in Parliament imposed an obligation to establish a regulatory national charge with the aim of preventing groundwater abstraction by parties other than drinking water supply companies, with the exception of well drainage of construction sites. Those affected, therefore, were farmers and businesses. The amount of the charge would be linked to the price of tap water. This was unacceptable to the Senate. Only by submitting a novel proposal for taking different forms of water-saving measures was the government able, two years later, to proceed with the debate. The regulatory national charge did not make it into the statute books. I feel the time is now ripe to dust off this amendment. The Council for the Environment and Infrastructure (*Raad voor de Leefomgeving en Infrastructuur*), in an advisory report on the deterioration of nature, has also recently argued for higher charges on industrial groundwater abstraction.<sup>24</sup> Indeed, since the abolition of the groundwater tax in the Environmental Taxes Act (*Wet belastingen op milieugrondslag*) in 2012 our precious groundwater has been very cheap. Perhaps, as during the COVID-19 pandemic, we should follow the example of Denmark, which a few years ago introduced a new groundwater charge of € 0.67 per m<sup>3</sup> (by comparison, the average provincial groundwater charge in the Netherlands is € 1.40 per 100 m<sup>3</sup>). The average revenue of about € 130 million is used to finance some of the costs of Danish water management. Since then, households and businesses alike have changed their approach to using water (for example, by collecting rainwater) because this is financially attractive. Without this charge our Danish colleagues say that water use in Denmark would now be 50% higher.

Conversely, most of the four water authorities that have responsibility for road maintenance in part of their service area would like to be relieved of it, but the relevant municipalities are not keen to take this over for financial reasons. This ought to be looked at again in a properly organised joint consultation, as provided for in the National Administrative Agreement on Water (*Bestuursakkoord Water*).<sup>25</sup>

### 3.2.3 *Composition and election of the water authority board*

On this point there have been some very radical changes. In my opinion, these are the inclusion of residents on the water authority board, the replacement of the individual candidate system with the list system for elections, and the direct election of the board at the same time as the provincial council elections. I shall briefly say a little more about these.

23 Parliamentary Proceedings II (*Kamerstukken II*) 1976/77, 13705, nr. 31.

24 A valuable suggestion, although it remains unclear to me why the Council refers only to 'industrial' groundwater abstractions and therefore disregards agricultural abstractions which, according to the 2022 Vewin Drinking Water Statistics (p. 16), at almost 200 million m<sup>3</sup> far exceed industrial abstractions (128 million m<sup>3</sup>).

25 The 'subsidiary' duty of road maintenance should not be dismissed lightly. A fifth water authority that is charged with road maintenance, but in its entire service area, wishes to retain this responsibility, the Scheldestromen Regional Water Authority in Zeeland, maintains more kilometres of roads than the National Water Authority (*Rijkswaterstaat*).

The resident representation has its roots in the financial problems that plagued the old water boards in the 1950s. Although from 1970 residents were indirectly represented on the water authority boards for water quality responsibilities and paid towards the costs, they did not pay any charges for flood protection and water level management (for 'dry feet'). This changed after the 1977 government policy document 'Towards a new water authority system?' (*Naar een nieuw waterschapsbestel?*) argued for a general resident representation on the water authority board more or less across the whole country.<sup>26</sup> Residents also have an interest in protection against flooding as the work of the water authority enables them to live, work and play in safety. Where this was a big issue, the government argued, resident representatives should also be welcome on the water authority board, not to mention their financial contribution. The government's position was more of an answer to the financial difficulties facing the water authorities and had little to do with their *democratisation*. Nevertheless, the resident representation had the important positive side effect of bringing the water authority as an institution to the attention of a wider public. Whereas in the past many people saw the water authority as a rather insignificant body in which farmers sorted out their water management affairs, the inclusion of residents on the board opened up the institution, both literally and figuratively. There has been resident representation on the board and a resident water system charge since the Water Authority Act of 1992, and nowadays residents are even in the majority on the boards of all water authorities, which does justice to the fact that they make by far the biggest financial contribution. Besides the resident representatives, today's water authority board also contains a number of 'secured seats' for farmers, nature conservation managers and businesses.<sup>27</sup> These categories would otherwise stand no chance in elections involving the more than thirteen million residents eligible to vote, which is why they are called 'secured seats'. Their representatives are not elected, but appointed by the relevant conservation organisations and trade associations.

The replacement of the individual candidate system with a list system is all to do with the increase in the scale at which the regional water authorities operate. An individual candidate system worked well for the several thousand old-style water boards, but was no longer suitable as the size of the water authorities increased because voters no longer knew who the candidates were. In the list system they are replaced by the names of political parties<sup>28</sup>.

And now the last point, the water authority elections. Looking back, we have to conclude that we have muddled our way through the past twenty to thirty years. Almost everything has been tried out: indirect and direct elections, either separately or at the same time as the municipal council elections, paper ballots, telephone votes and internet voting. The only method I have not come across is smoke signals.

26 Parliamentary Proceedings II (*Kamerstukken II*) 1976/77, 14480, nrs. 1–2.

27 Article 13, Regional Water Authorities Act.

28 It is worth noting that, at the insistence of the Council of State, the government quickly withdrew its silly proposal to ban political parties 'as such' from the executive boards of water authorities (the idea was that the water authorities should not be 'politicised').



Every time either the turnout was too low or there were serious flaws in the voting process, which invariably resulted in a debate about the value of the water authority system *as such*. Since 2015, though, water authority elections have been held with the provincial council elections, and that has proved to be a good decision.<sup>29</sup> The first elections under this new system were a success, with a turnout of 43.5% (almost double that in 2008) and a flawless process. The elections of 20 March 2019 were an even bigger success, if that were possible, with a 51.3% turnout. More than seven million people cast their votes, something that had never happened before. Holding the election at the same time as the provincial council elections undoubtedly had a major part to play, but this level of interest was at least partly due to voters' genuine concern about the consequences of climate change. This rapid growth in interest since 2017 – at the end of 2019 the climate was even the second biggest concern among the Dutch population after social cohesion, ahead of immigration and integration – has also been observed by Statistics Netherlands.

The new electoral system works well. As for the composition of the board, there is currently a debate about the secured seats, a topic that also surfaced in the run-up to the elections of 20 March 2019. Early in 2020, under pressure from the House of Representatives, the Minister of Infrastructure and Water Management set up a committee chaired by Jan Boelhouwer to advise her on the future of the secured seats. At the end of May, the committee published its report, which the minister sent to the House of Representatives so that it could be considered in the General Consultation on Water in June.<sup>30</sup> That same month Laura Bromet MP (GreenLeft) opened a private member's bill to abolish the secured seats for internet consultation.<sup>31</sup> Let me say a little more about that report. The committee argued for abolishing the secured seats on water authority boards. First, the committee pointed out that water authorities now have a different role, one in which water increasingly has a structuring function in spatial planning, and so giving specific interest groups a special position is no longer appropriate. The nature of the debate in water authority boards is shifting from securing specific interests to securing the common interest. The committee also conducted an 'affinity study' which showed that the land without buildings category (farmers) has been well represented on the boards via the lists for residents' seats. Lastly, the committee found that in practice the interests of the secured categories can also be well served by the elected board members. And if necessary, the secured categories can be given a place on advisory committees. Compared with previous reports on these topics by the Advisory Committee on Water Legislation (*Commissie van Advies inzake de Waterstaatswetgeving*) and the Advisory Committee on Water, to which the committee also refers, the consideration given to the contemporary role and position of the water authorities and the outcome of the affinity study are new elements. Nevertheless, the committee's advice does not convince me. I miss specific consideration of the functional character of the water authority and have the feeling that the water authorities have been

29 Bulletin of Acts, Orders and Decrees (*Stb*) 2014, 63.

30 Parliamentary Proceedings II (*Kamerstukken II*) 2019/20, 27625, nr. 501.

31 The bill has been submitted; Parliamentary Proceedings II (*Kamerstukken II*) 2020/21, 35608, nrs. 1–3.

modelled in the image of the municipalities and provinces, as if the committee was on autopilot. Instead, the functional character requires different institutional arrangements in fundamental areas such as the size and boundaries of the operational areas, the composition of the board and the funding system. The fact that the committee sees no place on the board for the business category – not even in its fall-back option – only strengthens me in my view. It ignores the evident interest businesses have, not only in wastewater management but also in the water system. Industrial premises must be safeguarded from flooding in order to maintain production. And because they have this interest in water management, businesses pay not only a combined water treatment charge of € 366 million in 2022, but also no less than 20% of the water system charge for buildings. This amounts to an annual contribution of about € 170 million, not much less than the amount raised from the water system charge for land without buildings (farmers), at over € 190 million. The adage ‘No taxation without representation’ is sufficient grounds for their representation on the board. In the light of all the previous fundamental reviews of the composition of the water authority board, this aspect deserved thorough consideration – all the more where the affinity study ignores the business category.

As I said earlier, I could live with the earlier proposal by the Advisory Committee on Water, with a few adjustments. This envisages a reduction in the number of secured seats by two each for the three secured categories and the scrapping of the mandatory seat on the executive board. I see support for this position in the academic community. In his inaugural lecture Professor Nehmelman also saw a place for the secured categories. In recent months Douwe Jan Elzinga has vigorously rejected the committee’s advice and the private members bill in several columns and interviews. According to him, they do no justice to the functional character of the water authority and to the fact that its competencies are limited to water management tasks strictly defined by law, which he feels deserves a different representation of interests. He points out, for example, that the composition of a university council is different from that of a municipal council. Moreover, several of my Utrecht colleagues have also made critical comments on that proposal. They stress that before taking such a step you must first determine what the future role and tasks of the water authority should be.

On 31 May this year the House of Representatives finished its reading of the bill, leading to a thoroughly unexpected conclusion. First, Pieter Grinwis (Christian Union) submitted an amendment that in effect amounted to the same thing as the previously mentioned proposal by the Advisory Committee on Water.<sup>32</sup> In its tenor and wording, this amendment left nothing in the bill whole. Possibly for this reason, just before the vote on 31 May 2022 the amendment was replaced by a new amendment,<sup>33</sup> which amounted to the Boelhouwer Committee’s fall-back option: two seats each for the land without buildings (farmers) and nature conservation areas categories and dropping the mandatory seat on the executive board. The business category was scrapped. This amendment was eventually adopted. I am not

32 Parliamentary Proceedings II (*Kamerstukken II*) 2021/22, 35608, nr. 15.

33 Parliamentary Proceedings II (*Kamerstukken II*) 2021/22, 35608, nr. 17.

particularly happy with this outcome. I would have retained all the secured seats, but in smaller numbers, or scrapped all of them. Under this new system discussions on the boards will be dominated by the question of which group does or does not have an interest in regional water management. In this respect, the new situation will only fuel new discussion, and that will result in uncertainty. Incidentally, the Senate still has to give its opinion on the heavily amended bill and, given the political balance in the House of Representatives, in my view it remains to be seen whether the Senate will approve it. The reading will undoubtedly take some time and so there will only be clarity on the composition of the water authority board shortly before the water authority elections of March 2023. This is a highly unfortunate state of affairs.

#### 3.2.4 *Financing*

There have also been some major changes to water authority financing in recent years. In the middle of last century the financial situation of the water authorities – as already mentioned – was deplorable. After much toing and froing over the years, this eventually led to a provision in the 1992 Regional Water Authorities Act giving them the option of including residents on the board and contributing to the financing of the work of the water authority. Although the government had stressed that this representation would be relevant where the interests of residents are ‘manifest’, soon after 1992 the water authorities were in such dire financial straits that residents had positions on all water authority boards, and had to pay water authority taxes.<sup>34</sup> It is now impossible to imagine water authorities with no resident representation on the board, and the resident charges bring in € 700 million each year to the water authorities.

The Regional Water Authorities Act has therefore provided the water authorities with a robust financing system. As a devolved, functional water manager, the water authority is almost entirely self-financing, which is something you do not really see anywhere else in the world. They only receive state funding of around € 200 million per year to cover part of the cost of reinforcing the primary flood defences. Their wide tax-raising powers, which generated about € 3.2 billion in revenue in 2022,<sup>35</sup> is without doubt one of the great strengths of today’s regional water authorities. Even the OECD, on which more later, recognised this a few years ago, with the proviso that there was some room for improvement. For instance, the OECD said the ‘polluter pays’ principle could be applied more rigorously, specifically mentioning diffuse agricultural emissions. Also, the profit principle could be strengthened by imposing higher charges for surface water and groundwater abstractions. Over the past few years the Association of Regional Water Authorities has been conducting an internal study with the aim of resolving a number of major problems – even

34 Actually, the term ‘resident charge’ is not accurate, because the charge is not levied per resident, but per household. Article 121(1)a of the Regional Water Authorities Act explicitly states that the charge is levied on the dwelling and that the rate is set at an equal amount per dwelling.

35 For comparison, in 1954 the total tax revenue of the 2,647 water authorities was € 20 million, which shows just how much the tax-raising powers of the water authorities have increased.

devolved tax regimes need a roadworthiness check-up from time to time, as Arjen Schep, endowed professor of sub-central governments taxes at Erasmus School of Law, put it so well in his recent inaugural lecture. In mid-2018 an ad hoc commission on reforming the tax system (*Commissie Aanpassing Belastingstelsel*) presented its report, which contained a large number of proposals for improvement. However, on the issue of the water system charge it proved impossible to gain majority support from the water authorities. After this, a steering group worked on a limited number of new proposals, which were unanimously approved by the regional water authorities at the end of 2020 and sent to the minister as they required an amendment to the Regional Water Authorities Act. These proposals deserve to be given an opportunity to work. Nevertheless, it would be good if the suggestions made earlier by the OECD were looked at again in a follow-up process. Fortunately the prospects look good. Now, the precise proposals are not what concern me here, but rather the argument made in the letter to the minister to look again at the future-proofing of the funding of Dutch water management in the light of the OECD report. The letter pointed out the current inability to reward good behaviour, even beyond the fiscal sphere, and to tackle diffuse pollution through taxation, which would enable better application of the 'polluter pays' principle. Just under a year later, the minister informed the House of Representatives that he had started an examination of the future financing of water management,<sup>36</sup> which seems to be a response to the issues raised. This process offers plenty of opportunity to consider the earlier recommendations by the OECD, and it also takes on board the desire of the water authorities for more flexibility. This makes sense, because the water authority taxes are now rigidly laid down in the legislation, certainly in comparison with the sewerage charge, over which the municipalities have much more administrative freedom. It easily takes four to five years to make any changes to the water authority charges. As the recommendations by the OECD date back to 2014, there is every reason to make haste with the minister's examination.

### 3.2.5 Recap

This review has shown that the water authority as an institution has undergone a major revamp. The administrative scale, the range of tasks, the composition and election of the board, and the financing of the authorities have been radically altered.<sup>37</sup> The statement that the water authority has been reinvented is no exaggeration. It is evident that these changes have enabled the water authorities to do their important work even better. Overhauling their institutional design has evidently been worthwhile. With about 11,500 employees and 600 board members, the water authorities are now well equipped to manage and maintain the 3,400 km of primary flood defences, the 12,000 km of other water-retaining structures, the 225,000 km of waterways, the 6,000 pumping stations and the 325 wastewater treatment plants in the country. Their own earmarked tax revenue of € 3.2 billion per year – without doubt their strongest card – makes them 95% self-supporting and permits

36 Parliamentary Proceedings II (*Kamerstukken II*) 2021/22, 27625, nr. 557.

37 Many of the changes were formalised in the Regional Water Authorities (Modernisation) Act of 21 May 2007, Bulletin of Acts, Orders and Decrees (*Stb*) 2007, 208.

annual investments of € 1.7 billion for innovation.<sup>38</sup> And what was unthinkable until recently, their wastewater treatment plants can be used in the fight against COVID-19 because virus particles can be detected in sewage before infected people become ill. This is called 'big brown data'. Via biennial performance benchmarks (*Waterschapspeil*) to identify important trends the sector demonstrates transparency and shows how taxpayers' money is spent and what this delivers. The figures on which these are based are from the more detailed annual cross-company performance benchmarks (*Waterschapsspiegel*).<sup>39</sup>

However, it is not the case that everything has changed. Besides all the modifications, much that was good has remained the same and there is operational continuity. Today's regional water authorities are still local and regional communities that manage the water resources within a particular area. Within the framework of national and provincial policies, they make relatively autonomous decisions on what needs to be done and who pays for it, and then implement those decisions. Their boundaries are still determined on a hydrological basis and they have remained a purely functional administration that only carries out water management tasks, involving both wet and dry infrastructure. The regional water authorities have their own democratically chosen boards, have their own specific tax-raising powers and have robust regulatory and enforcement powers. Thanks to the 2014 OECD report, of which more later, the position of the water authorities is currently undisputed, although experience tells us that past results are no guarantee for the future.

### 3.3 *Municipalities*

We now turn to the municipality, the government authority that is closest to the citizen. Right from the beginning, the municipalities have been responsible for sewer maintenance. Given the fundamental connection between this duty and the planning and design of urban areas, there is much to be said for this. It is a municipal responsibility in other countries too. The first sewers, which were built in the middle of the nineteenth century, carried wastewater from homes and businesses away from the urban area and discharged it into surface water bodies. The main purpose was to protect public health and prevent nuisance from unpleasant smells. The first wastewater treatment plants were built as late as the middle of the twentieth century, with the exception of a few facilities in Amsterdam and Tilburg,<sup>40</sup> and were only introduced in numbers after the passing of the Pollution of Surface Waters Act in 1970 (*Wet verontreiniging oppervlaktewateren*). Some municipalities saw a role for themselves in that area too, individually or in the form of a joint

---

38 See <https://www.winnovatie.nl> for an overview of innovation projects.

39 See <https://www.waterschapsspiegel.nl>.

40 Tilburg was forced to build its treatment plant by the Supreme Court in the famous *Voorste Stroom* judgements.

arrangement,<sup>41</sup> but this never materialised. Despite joint agreements between the Association of Netherlands Municipalities (*Vereniging Nederlandse Gemeenten*) and the Association of Regional Water Authorities, the Crown had to intervene on several occasions to get a municipal wastewater treatment plant transferred to the water authority. Only the City of Amsterdam, which has considerable in-house expertise, has retained control of its wastewater treatment plants to this day. Although since 2002 it has been legally possible for municipalities and water authorities to arrange for a wastewater treatment plant to be run by a municipality instead of the water authority, as far as I know this has never been done. This provision was clearly a political sop when making wastewater management one of the core responsibilities of the water authorities.<sup>42</sup>

With hindsight, this division of tasks between municipality and water authority can be considered as a positive development. The municipalities had their hands more than full maintaining the sewers and, frankly, did not always do that very well. There was little political interest in sewerage and that meant there was often too little money to do a good job. The municipalities also relied heavily on national government money via the *Verfijningsregeling*. It says a lot that in the mid-1980s two chairs of water treatment authorities, who had extensive experience of municipalities as executive councillor for public works and director of municipal works, called for the transfer of the responsibility for sewer maintenance to the water authorities. The backlogs in maintenance and replacement of sewers were a thorn in their side as they had a negative impact on efforts to improve water quality, in which the water authorities had invested considerable sums. Their request was not honoured, but it did put the relation between sewer maintenance, wastewater management and surface water management in the spotlight. That there is a strong relationship between sewer maintenance and wastewater management is obvious. As the sewers are connected to the water authority's treatment infrastructure (pressure pipes and wastewater treatment plants), everything that happens in the sewers impacts the water authority. But there is an equally strong relationship between sewer maintenance and surface water management, and not only because the effluent from wastewater treatment plants is discharged into surface water bodies. During heavy rainfall the sewers may not be able to carry all the drainage water and so the excess is discharged via storm overflows to surface water. In such cases, it makes a big difference if the sewer is a combined or a separate system. In the former, both rainwater and wastewater is discharged to surface water, which has an adverse impact on water quality.

Fortunately, the municipal authorities eventually realised that sewer maintenance was not up to scratch. This led to the establishment in 1986 of the RIONED foun-

---

41 See the Royal Decree of 13 April 1976, *AB* 1977, no. 6, concerning the intention of eight municipalities in the Hoekse Waard region to establish their own water treatment authority (a water authority with only a water quality and wastewater treatment duty), alongside the water authority's facility, which would then carry out the water quality duties for the remaining municipalities in the region.

42 Act of 30 January 2002, Bulletin of Acts, Orders and Decrees (*Stb*) 102. See Havekes (diss.), p. 180–189.

dation, a knowledge organisation whose mission is to promote the importance of sewer management and support the municipal authorities in carrying out this task by publishing guidelines and models. Membership of this organisation is not restricted to the municipalities; the water authorities, the provinces, national government and the business and scientific communities can also join. Another clear improvement was the revision of the Environmental Management Act (*Wet milieu-beheer*) in the early 1990s, which now requires the municipalities to prepare sewerage plans. Like water management, maintenance of the sewerage system should be carried out according to a plan if it is to be done properly. It is therefore particularly unfortunate that when the Environment and Planning Act (*Omgevingswet*) comes into force this obligation will lapse after a transition period. We will just have to trust that the municipalities will realise that up-to-date sewerage plans cannot be missed.

But by far and away the most important change is the adoption of the law on financing municipal water-related tasks (*Wet verankering en bekostiging van gemeentelijke watertaken*).<sup>43</sup> This made drastic changes to the Municipalities Act, the then Water Management Act (*Wet op de waterhuishouding*) and the Environmental Management Act, giving the municipalities a much wider role in the maintenance of the sewerage system. In addition to regular sewer maintenance, the municipalities were given two new duties of care: for storm water discharge and for urban groundwater management.<sup>44</sup> These new duties, which ended the previous division of responsibilities for subsurface drainage (municipality) and surface water drainage (water authority), could also be funded from the new 'general sewerage charge' (*brede rioolheffing*). This change in the law gave an extra dimension to municipal urban water management and provided it with a robust financial footing. In the light of the current precarious financial situation many municipalities find themselves in, the fact that the revenue from the sewerage charge can only be used for this wider package of sewerage management responsibilities and is therefore earmarked, just like the water authority taxes, feels almost like a godsend.

To recap, we can conclude that sewerage management by the municipalities, as it stands in 2022, is in pretty good shape. The work is undeniably being carried out better than in the past, due in large part to the introduction of the general sewerage charge – and the water authorities benefit from this as well. In the period when the municipalities were still heavily dependent on national government funding, implementation was considerably worse, which again says something about the potential of having a robust dedicated tax base. An area of concern is that some of the smaller municipalities are rather short-staffed. Moreover, it is unfortunate that in 2016 RIONED stopped doing the performance comparisons. Enquiries have revealed that the mutual learning value of these comparisons declined and had increasingly been viewed as a periodic accountability reporting tool. The municipalities apparently did not consider it worthwhile putting in the necessary effort.

43 Act of 28 June 2007, Bulletin of Acts, Orders and Decrees (*Stb*) 276.

44 These two duties of care are currently included in Articles 3.5 and 3.6 of the Water Act, and soon in Article 2.16 of the Environment and Planning Act.



In my view, though, the accountability element is an important part of performance benchmarking. The general sewerage charge now generates about € 1.6 billion each year. For that money, it does not seem at all unreasonable to expect some form of national accountability and information provision on how that money is used. In my opinion, the municipalities would do well to take this up again as soon as possible. After all, their partners in the water supply chain do just that.

### 3.4 Provinces

Over the past few decades the part played by the provinces in Dutch water management has declined. The former Provincial Water Authority has long ceased to exist and the position of the province in relation to water supply companies, water authorities and municipalities has undergone considerable change. Since the passing of the 1992 Regional Water Authorities Act, the provincial water management regulations have been just a few pages long and preventive supervision by the provinces has been greatly reduced. The provinces now concentrate on regional water policy and harmonising it with other policy fields, the perfect role for our mid-tier administration and of great importance for practical implementation. The province draws up the regional water plan and area standards for regional flooding and regional flood defences, and approves project decisions by water authorities to ensure consistency with spatial planning policies.

The provinces do still have some executive tasks, though. While the responsibility for controlling muskrat and coypu has been transferred to the water authorities in 2011, under the Environment and Planning Act the provinces will still be responsible for licensing three categories of major groundwater abstractions and for imposing groundwater charges. I pointed that out earlier. Likewise, the provinces have the lion's share of responsibilities for implementing the Swimming Pools (Hygiene and Safety) Act (*Wet hygiëne en veiligheid zweminrichtingen*) and can declare swimming bans, for example. It should be said, though, that they are frequently assisted by the water authorities, which have their own separate or joint laboratories. One province (Limburg) has made use of the powers it has under in the Provinces Act and delegated responsibility for all its bathing water responsibilities to the water authority. Management of regional waterways is also generally in the hands of the provinces, although here too tasks are regularly delegated to the water authority for reasons of efficiency, because the water authority is already responsible for water quantity management.

In short, the provinces now have only a limited role in water management and focus increasingly on the strategic task of aligning water management with other policy areas, particularly spatial planning. Of the total annual expenditure on water management of no less than € 7.8 billion, only about € 150 million goes through the provinces.<sup>45</sup> The provinces do not have their own source of income from water taxes other than the groundwater charge. Moreover, compared with the total amount of water taxes and end-user prices, this charge generates a modest revenue of about

---

<sup>45</sup> See the annual progress report *De Staat van ons Water 2021*, p. 51. The report can be found on the website <https://www.onswater.nl>.

€ 15 million per year, primarily because the way this revenue may be spent is strictly limited by law.<sup>46</sup>

### 3.5 *National government*

The word 'decentralised' in the title of my professorial chair is between brackets, so I feel I am justified in allowing myself a brief review of national government. This is certainly not misplaced, given the important role national government plays in water management. Its role is twofold. First, the national government, in the person of the Minister of Infrastructure and Water Management, is responsible for water policy, and second, this minister, via the National Water Authority,<sup>47</sup> is responsible for the management of the national water system (which consists of the North Sea, Wadden Sea, IJsselmeer lake, the major rivers and a number of major canals). In the first role, the minister prepares policies for water management and drinking water supply and is responsible for the relevant legislation, such as the Regional Water Authorities Act, the Water Act and the Drinking Water Act. The minister is also charged with approving the core elements of provincial water authorities regulations. Where necessary the minister can overrule provincial policy on the water authority system, which has occurred on a few occasions, particularly in the early years of the Regional Water Authorities Act, in each case regarding interprovincial regional water authorities.<sup>48</sup> The Water Act and the Drinking Water Act also confer certain regulatory powers on the minister. The minister also chairs the Water Steering Group, in which the government and the associations of water authorities, municipalities, provinces and water supply companies periodically discuss water policy and make agreements on how to tackle any problems that have arisen. Finally, the minister participates in international negotiations on water policy. Being located in the estuaries of four big European rivers, it is not surprising that fruitful international contacts are particularly important for the Netherlands. The flooding in Limburg in the summer of 2021 illustrated this once again, as such flooding can only be prevented in future by taking cross-border measures. The national policy agenda is therefore well covered. In that respect, the merger some years ago of the Ministry of Transport, Public Works and Water Management (V&W) with the Ministry of Housing, Spatial Planning and the Environment (VROM) has proved to be a good move. It put an end to the years of turf warfare between the two ministries, which inevitably drew in the regional and local organisations. The water supply companies and municipalities backed VROM and the water authorities backed V&W. Consumers and businesses had no interest in this turf war, and it certainly did not reduce the social costs of water management. There is now a single ministry for all water affairs, which is much more convenient.

---

46 See Article 7.7(1) of the Water Act.

47 Since the formation of the last government, we have fortunately again had a ministry with 'water management' in its name, so the many foreign delegations that visit our country again know who to turn to. This change of name came at a cost, but then it was worth it. An objection to this change of name is that we no longer have a ministry with 'environment' in its name.

48 Article 6-9 Regional Water Authorities Act.

The implementation of national water management tasks has been fully separated from policymaking and is in the hands of the National Water Authority. Although this government agency does not have such a long history as the water authorities, it still dates back to 1798. During the time of the French administration, a *Bureau voor den Waterstaat* was established under the supervision of the *Agent van Politie en Binnenlandsche Correspondentie* (a sort of Ministry of the Interior) and led by a *president voor den algemeene waterstaat* (president for general water management) – and so the National Water Authority was born. This highly centralised set-up was intended to break the autonomy of the provinces and water authorities in water management affairs. The functional nature of the National Water Authority makes it a robust and expert executive agency responsible for the management of the national water system. The ‘regional’ waters are the responsibility of the regional water authorities. Maps accompanying the Water Regulations (*Waterregeling*) clearly show which organisation is responsible for each water body so that stakeholders know who they should direct any complaints to. This may seem an obvious arrangement, but actually it is not. At least 33% of French dikes are ‘orphan dikes’, dikes for which no organisation has a clear management responsibility.<sup>49</sup> You can guess the outcome. Funnily enough, the opposite situation also exists. The OECD report on Brazil<sup>50</sup> threw light on the ‘double dominion’ phenomenon, where there are two managers of the same water body. The outcome is actually no different from the French situation...

The National Water Authority is also responsible for the major storm surge barriers and the coastline. This management responsibility involves several different activities: investment, maintenance, project decisions and licensing, regulatory oversight and, when necessary, enforcement. Because of the close connection between the national water system and the regional waters, the National Water Authority works closely with the water authorities – in my experience much more than in the past – and is seeking to make more contacts with municipalities and provinces. In contrast to the water supply companies, the water authorities and the municipalities, the National Water Authority has hardly any budget of its own to carry out its tasks. There is the water pollution charge for national waterways and coastal and marine waters, which generates about € 20 million each year, but that is about it. For most of its costs, the National Water Authority depends on general government funding, which makes its financial position rather weak. In recent years, it has regularly come to light that the National Water Authority lacks sufficient funds to properly manage and maintain the many water control works.<sup>51</sup>

In addition to the minister and the National Water Authority, there is another government official who has a crucial role in water management. Since 2011, following the report by the second Delta Commission, we also have a Delta Commissioner, a

49 W. van Doorn-Hoekveld, *Distributional effects of EU Flood Risk Management and the Law. The Netherlands, Flanders and France as case studies* (diss.), Utrecht 2018, p. 52.

50 OECD, *Water Resources Governance in Brazil*, OECD Studies on Water, OECD Publishing 2015, p. 22.

51 With this in mind, at the presentation of the Schilthuis Medal in 2009 I argued for transforming the National Water Authority into a true water authority with its own tax income.

government commissioner whose duty is to ensure protection against flooding and a sufficient supply of fresh water. To this end, each year the commissioner draws up a Delta Programme and can draw upon guaranteed long-term financial resources in the Delta Fund. The present incumbent is Peter Glas, who succeeded the first Delta Commissioner, Wim Kuijken, in 2018. It may be a little irreverent to say so, but the Delta Commissioner is in fact a watchdog who keeps a close eye on our flood risk management and freshwater supplies and is in a position, should the situation demand it, to sound the alarm in the right places. Without doubt, in our low-lying delta country such a government commissioner, with his annual Delta Programme and Delta Fund, has a particularly useful role to play. In its 2014 report, the OECD was also positive about this structure.<sup>52</sup> I have never asked the commissioner in person, but it must be a rather lonely position, because as far as I know he does not have any foreign colleagues. It is yet another indication that we have organised our water management in a unique way; it contains several elements that you find nowhere else in the world.

Finally, there is a fourth official: the Special Envoy for International Water Affairs of the Kingdom of the Netherlands, who we should not leave out of this overview. In his role as 'Ambassador for Water', as he is usually referred to, the Special Envoy strengthens the position of the Netherlands as a country with ambitions in the field of water management and helps with promoting Dutch knowledge and expertise in international markets. Appointed in 2015, Henk Ovink is our first Ambassador for Water and he has proved to be very competent at playing the 'bring in the Dutch' card.<sup>53</sup>

To summarise, national government has a distinct role in Dutch water management. The minister has a clear strategic position, the National Water Authority is a robust executive agency, and the Delta Commissioner, the Delta Programme and the Delta Fund provide an additional guarantee of protection against flooding and the provision of freshwater supplies. An area of concern is that the National Water Authority has very little income of its own and is therefore almost entirely dependent on what the government sets aside for the execution of its tasks. Of particular concern is a loss of know-how – according to insiders the cause of the financial debacle during the renovation of the IJsselmeer Dam (*Afsluitdijk*). And if I may permit myself just one point of criticism, it is unfortunate, to say the least, that in recent years the ministry has abolished important advisory bodies, such as the Advisory Committee on Water Legislation and the Advisory Committee on Water. You should have the courage to maintain a forum for opposing views: speaking truth to power is needed in water management too. At the moment this is only provided for at a distance via the Council for the Environment and Infrastructure (Rli), and that is simply regrettable. Given the many challenges we face, water management is important enough to have its own advisory body. Until that is put right, academics should step in and fill the gap. I hope to make a modest contribution of my own today.

52 OECD, *Water Governance in the Netherlands: Fit for the Future?*, OECD Studies on Water, OECD Publishing 2014, p. 20.

53 See the positive opinion of the Advisory Committee on Water, *Advies Watergezant*, AcW-2017/143565, 6 June 2017.

### 3.6 Some observations

It is now time for some observations. If we take a closer look at this system of water governance, four things stand out. In the first place, water management in the Netherlands is entirely in government hands, and it has always been that way. Actually, the market has plenty of opportunities when it comes to implementation, such as the construction and maintenance of our water engineering works. This observation is not without significance, given that in some countries, such as England and France, the market plays a much bigger role in water management. On the other side of the North Sea, important parts of the water sector – water chain management in particular – were privatised under Margaret Thatcher.<sup>54</sup> Here in the Netherlands we made a point of not doing that, although as I said before it was touch and go for the drinking water supply companies. This public structure ensures there is a public body that can put the public interest above private interests, that has certain powers *and* that can be held accountable for water management issues. Water management in our country is highly regulated and subject to a range of standards, in particular via the Water Act and the directives of the European Union. Even the safety of our most important dikes are subject to legal standards, something you do not see anywhere else in the world. Citizens and businesses therefore know what to expect from government, although there will always be issues and moments when the authorities will have to improvise and develop new policies, an example being the extreme droughts of the last few years. And for some problems, water managers are unfortunately heavily or entirely dependent on the generic product policies in other policy areas (e.g. fertilisers, pesticides, medicine residues, emerging substances). When I say that such policies regularly fall short of what is necessary, I am not saying anything new.

A second observation that can be made is that this public structure is highly decentralised. Most of the money by far is raised and spent regionally and locally. Of the total expenditure on water management in the Netherlands, which amounts to at least € 7.8 billion per year, more than € 6.2 billion is spent by water authorities, municipalities and water supply companies. This is another phenomenon seen in few other countries. Some countries, such as South Korea, Japan, Israel and Turkey, even have a completely centralised structure. Our decentralised administrative structure of course has a history; there were municipalities and water authorities long before there was a state called 'the Netherlands'. But it is quite remarkable that after all those years that structure is apparently still trusted. A decentralised structure – as long as the scale is right and there is no institutional fragmentation – does indeed have clear advantages: it is closer to the citizen, makes use of local knowledge, is less bureaucratic, is more efficient, distributes powers and is much more accountable. Inevitably, such a decentralised structure results in more play-

---

54 The results have been spectacularly mediocre. See the alarming article in the *Financial Times* of 23 January 2018, p. 7, which reveals the enormous debts, high prices and poor performance of the water companies, particularly in comparison with Scottish Water, which escaped privatisation in 1989.

ers, but with a total of five responsible institutions the number is still manageable. There are many other countries that certainly have no fewer.

All these advantages do not make it any easier for some to get used to. At least, I had that feeling when a few years ago I read *Panorama Nederland* by the Board of Government Advisors.<sup>55</sup> In itself it is a well thought through and attractive vision of the future, with a lot of attention to water and even a hefty chapter on governance, but I could find little understanding of our decentralised water governance. In various places in the text the decentralised administrative structure of the Netherlands is even presented as a risk.<sup>56</sup> In my opinion the government advisors have been a little presumptuous and could have shown a bit more faith in the regional and local authorities. But that does not imply that national government should not provide any form of *direction* or *coordination*. This is sometimes necessary. Some of the problems we are currently facing, such as those surrounding manure, nitrogen and PFAS, can only be resolved through the adoption of generic national policies. But within such a framework, regional and local authorities are capable enough of interpreting and implementing those policies.

For that matter, the House of Representatives also finds it hard to *let go*. In mid-2011 a motion by Van Veldhoven (Democrats 66) and others called upon the government to prevent water authority taxes rising by more than the rate of inflation and to inform the House in good time if charges levied by a water authority are set to rise by more than 5% a year.<sup>57</sup> This may be a sign of genuine concern, but they seem to have momentarily lost sight of the fact that water authority tariffs are set and paid by the people in the authority's jurisdiction. It has long been known that local communities – the commons – are perfectly capable of running their own affairs. My colleague Tine de Moor has shown that this was also the case in the early Middle Ages. It is an observation that has not escaped Rutger Bregman, either. But don't get me wrong, in our decentralised unitary state the exercise of regional and national government supervision of the water authorities (and of the water supply companies and municipalities) is an important condition for decentralisation of responsibilities. In his inaugural lecture, the first professor by special appointment of water management and water authority law at this university, Joep Verburg, used a Siamese twin as a wonderful metaphor for decentralisation and regulatory oversight. Nowadays such twins can be successfully separated, but his message is clear: you cannot have one without the other. Of course, the form that regulation takes must be in line with institutional developments. Given the upscaling of the water authorities it is only right that the preventive oversight has been largely dismantled and replaced by a more positive and repressive oversight. In practice, there is little provincial government oversight. A recent study by a student at the University

---

55 College van Rijksadviseurs, *Panorama Nederland. Rijk, Hechter en Schoner*, The Hague 2018. The words 'water authority' appear just a few times in the report. 'Water supply company' never occurs in the report at all.

56 *Panorama Nederland*, p. 17 and p. 70, where it states that 'a decentralised approach leads to an untidy landscape and this has been met with justified concern and resistance among broad sections of the population'.

57 Parliamentary Proceedings II (*Kamerstukken II*) 2010/11, 27625, nr. 215.

of Groningen, who surveyed all the provinces, turned up not a single example of a concrete application of this provincial regulatory instrument.

There is a third element that I must mention here. For about twenty years now the various government authorities involved in water management have been working closely together. It used to be very different. I can even remember from my own experience that municipalities and water authorities were constantly at each other's throats, even though the water authority boards contained quite a few indirectly elected mayors and executive councillors. The water authorities made heavy and costly demands of municipal sewer systems and municipalities planned new housing estates right next to the water authority's treatment plant, so you can guess the consequences. At the national level, the relationships between the Association of Netherlands Municipalities and the Association of Regional Water Authorities and between the Ministry of Housing, Spatial Planning and the Environment (VROM) and the Ministry of Transport, Public Works and Water Management (V&W) were no better; they fought many battles. All this drove up the social costs of water management. As so often is the case, it took a 'disaster' for them to abandon their administrative trenches and shake each other's hands in no-man's land. In the autumn of 1998 it started to rain very heavily, first in the south-west and a bit later in the north-east of the country. You probably remember the flooded greenhouses in Delfland and the Groninger Museum, which in great haste had to move its collection to safety on a higher floor. Not to mention the fact that this extreme rainfall, much to the chagrin of the then finance minister, Gerrit Zalm, led to the first application of the Disaster (Reimbursement for Damages) Act (*Wet tegemoetkoming schade bij rampen*),<sup>58</sup> which had just been passed. What is important here is that, according to good practice, a committee was appointed to look into it.

Of the committee's recommendations, we most remember the new mantra 'retain-store-discharge'. All those downpours, however, were the reason for the 2003 National Administrative Agreement on Water, which was brought up to date in 2008. In 2011 a new Administrative Agreement on Water was concluded between the five water organisations which put a heavy emphasis on cost-cutting. Specifically, savings of € 750 million per year would have to be found 'by 2020', divided into € 300 million from water system management (flood protection and water quality) and € 450 million from water chain management (drinking water supply, sewerage and wastewater treatment). The intended savings amounted to more than 10% of the total annual costs, an ambitious goal for a sector that did not have a reputation for being overly inefficient. Nevertheless, at the end of 2017 the goal had been reached by greatly improving cooperation, and at the end of 2019 the sector had clocked up savings of € 1,072 million that year. Cooperation may sound soft, but it pays! And in hard euros. It also makes the work more enjoyable, it must be said.

I can imagine that you are wondering where these savings were found. Mostly in the wastewater chain: sewers and wastewater treatment.<sup>59</sup> Much can be saved

58 Bulletin of Acts, Orders and Decrees (*Stb*) 1998, 325.

59 For concrete examples, see <https://www.samenwerkenaanwater.nl>.



by better coordination and timing of measures. That may sound rather vague, but the fact that more than 30% of the costs of wastewater management, at the moment around € 1.5 billion per year, are caused by rainwater makes it a bit more concrete. At the moment large quantities of relatively clean rainwater are going through those treatment plants. Disconnecting rainwater and building separate sewer systems can greatly reduce costs in the long run.

Water authorities also work well with other water authorities and/or municipalities on collecting the local taxes. In a growing number of regions joint collection of local taxes is resulting in significantly lower collection costs.<sup>60</sup> The costs of sending 800,000 tax assessments instead of 400,000 is far from twice as high. This form of inter-authority cooperation also makes a considerable contribution towards achieving the cost savings set out in the National Administrative Agreement on Water. Curiously, though, as far as I know there has as yet never been any mention of the provinces being involved in collecting groundwater charges. There are therefore still opportunities for further cooperation.

Now I realise that some criticism may be made of the current cooperation agreements. The Council of State has pointed in particular to the weak position of Parliament in the current *agreement democracy*, which sometimes seems to be taking the place of normal legislative processes. This criticism has been incorporated into a later advice by the Council for Public Administration (*Raad voor het Openbaar Bestuur*), which while advocating the inclusion of Parliament in such agreement processes, at the same time concludes that broad social agreements as a governance arrangement are very welcome, and even necessary. I heartily agree with this conclusion. These administrative cooperation agreements are now indispensable in water management.

On this subject, one specific part of our water governance system deserves attention. Regional water organisations are found in many countries, but the way in which we have shaped the institutional structure of the water chain may be called unique. Whereas in the Netherlands there are three parties in charge (drinking water supply companies, municipalities and water authorities), over the border the water chain is often in the hands of a single organisation, such as a large municipality or a private company that holds a long-term PSO contract.<sup>61</sup> Our set-up is therefore very different<sup>62</sup> and that places great demands on coordination and coopera-

60 Collection costs are incurred by government to collect taxes. The importance of low collection costs is also highlighted in the OECD *Recommendation on Water*, discussed below: 'considering transaction costs, including administrative costs, when designing pricing instruments...'.  
 61 Paris rescinded its PSO concession some years ago and awarded water chain management duties to a public sector company. For the success of this move, see the exchange of views between Bernard Barraqué and Deputy Mayor Anne Le Strat in *Water Policy* 14 (2012), p. 903–914, 16 (2014), p. 197–204 and p. 422–424. Other large French municipalities are reportedly considering a similar move. In Argentina, taking back water chain management into public hands has not led to significant improvements, according to the aforementioned OECD report.

62 The Amsterdam water company Waternet is the executive arm of the Amstel, Gooi en Vecht Regional Water Authority and the City of Amsterdam and is the exception to the rule because it is has responsibility for all parts of the water chain (and the water system) and for this reason calls itself a water cycle company.

tion between these parties. There is an undeniable synergy across the various parts of the water chain. The National Administrative Agreement on Water – by the way, there is also a National Administrative Agreement on the Water Chain (*Bestuursakkoord Waterketen*) – gives this coordination and cooperation a solid basis and coordination between municipalities and water authorities is even laid down by law,<sup>63</sup> which results in good performance and the efficient and cost-conscious implementation of water chain management. Moreover, R&D is well provided for by KWR water research institute, RIONED and the Foundation for Applied Water Research STOWA, which increasingly work together. If we want to compare the final costs with those in other countries, we have to be careful because performances differ, the amount of investment varies considerably, tariffs are structured differently and sometimes (as in the Netherlands) are ‘contaminated’ by central government taxes, as we shall see below. Further research would seem to be needed here. Nevertheless, with the necessary reservations, we may conclude that, benchmarked against the amount of drinking water used in the Netherlands, an *integral* price, including the costs of drinking water, sewerage and wastewater treatment, of about € 4 per m<sup>3</sup> is not on the high side. The OECD, in its recent study mentioned a number of times already, and the European Commission both express much respect for the way the management of the drinking water supply and wastewater management is carried out in the Netherlands. If we were to design the management of the water chain from scratch, the outcome would probably be different, but the fact is the current structure works very well because of the intensive cooperation between all the parties.

I have delved deeper into this cooperation because it seems to be a typically Dutch phenomenon that you hardly ever come across in other countries, and it is tempting to point to our polder culture. In fact, the total annual costs of water management have hardly increased since 2011 and that is quite an achievement. Thanks to this cooperation, in 2021 the average family with one child and their own home paid € 839 for water management. Without the cooperative working arrangements that would easily have been € 100 to € 150 more per year. Farmers and businesses also see the savings in their tax assessments. Examples of similar forms of cooperation are hard to find in the many OECD reports on water management in other countries. The relevant agencies often know little or nothing about each other (other countries are mostly bigger) and in some cases they even work against each other.

Actually, there is something odd about these costs, in two respects, and these are the fourth element that should be mentioned. In the first place, local taxes in the Netherlands make up 5% of the total tax burden, a very modest amount even in comparison with other countries. At the same time, though, about 25% of public expenditure is by the municipalities. Given our highly *centralised* tax system, in which most taxes are imposed by national government, it is extraordinary to say

---

63 See Article 3.8 of the Water Act. Given the success of this cooperation it is regrettable that the obligation in Article 2.2 of the Environment and Planning Act is worded much less forcefully.

the least that the lion's share of the costs of water management are met from regional and local taxes and end-user prices. If we leave the provincial surcharges on the motor vehicle tax to one side,<sup>64</sup> almost half of all local taxes go to fund water management. Of the total annual costs of water management, which amount to at least € 7.8 billion, central government bears a relatively small proportion, around 20%, which according to the Ministry of Infrastructure and Water Management's budget for 2020 came to about € 1 billion.<sup>65</sup> More than € 6.2 billion is collected annually via the municipal sewerage charge, the water authority taxes and the drinking water bill. It is very tempting to argue that it is thanks to this robust system of local financing that water management is run pretty well. It is equally tempting to suggest that for this reason municipal tax-raising powers should be substantially expanded.<sup>66</sup>

But there is a second point worth noting. The total annual amount of € 7.8 billion is 'contaminated' with several taxes the local and regional water partners have to pay each year to the national government. The drinking water supply companies and water authorities alone pay about € 850 million in VAT and tax on tap water. The water authorities also pay over € 190 million towards the costs of the Flood Protection Programme and each year receive a bill from national government for more than € 30 million for various small items, such as the costs of the Valuation of Immovable Property Act (*Wet WOZ*), the water authority elections and the digital system for the Environment and Planning Act. On top of that there are several smaller national taxes, such as the water pollution charge for national waterways and coastal and marine waters, and corporation and energy tax. If you add up all these amounts, you are forced to conclude that the national government actually *profits* from water management – although this accrues to a different minister.<sup>67</sup> For a country in a delta, this is a remarkable observation, and one which most people will not be aware of. Now, it is not my intention to put our national financial arrangements up for discussion – after all, I believe they are where the strength of our water management lies – but I do just want to draw attention to this point. For national government, water management is anything but a costly business. If the regional and local authorities and agencies occasionally ask for financial support to get certain new developments up and running, if the National Water Authority ask for additional budget to tackle the backlog of maintenance work, and if over the coming years the effects of climate change require costly interventions in water management, there can be no justification for refusing and pointing to the government's weak financial position.

---

64 Few car owners see these surcharges as a provincial tax.

65 This does not include the costs of the Delta Fund of over € 1.2 billion.

66 With the €6 billion expansion proposed by the Study Group on Inter-Authority and Financial Relations (in the report *Als één overheid. Slagvaardig de toekomst tegemoet!*, The Hague 2020, p. 60), the amount of municipal taxes and earmarked levies compared to municipal expenditure would increase from less than 20% to over 34%. Compared with the water authorities, this is perhaps not a very high percentage, but at least it would be a big step in the right direction.

67 If you take a much broader view of these payments and, for example, include the income tax paid by all the almost 80,000 employees in the public and private water sector, the cost of the annual contribution by the national government to the Delta Fund of about € 1.2 billion is also more than 'recouped'.

If we let all this sink in for a moment, we can see that Dutch water management is a 100% public responsibility,<sup>68</sup> it is heavily decentralised with an important role for regional water authorities, municipalities and water supply companies, and it has a solid financial basis and therefore adequately and efficiently carried out, also from an international point of view. The decentralisation of water governance in the Netherlands is a success. The question mark in the title of this inaugural lecture can therefore be replaced by a full stop, or an exclamation mark if you wish. Nevertheless, only a few years ago the second Rutte government resolved to overhaul the position of the water authorities. In the preceding years there had been some waves in the water authority pond caused by the widespread criticism of the administrative burden, although somewhat exaggerated, and the cost-cutting. Even during the parliamentary debate on the Regional Water Authorities Act, the very existence of the water authorities had sometimes been questioned. Moreover, at the end of 2011 a motion put forward by MP Gerard Schouw (Democrats 66)<sup>69</sup> called upon the government to investigate how the tasks carried out by the water authorities could be transferred to other authorities, such as the provinces. The coalition agreement of the second Rutte government, *Building Bridges*, seemed as it were to build on this motion and the autumn of 2012 turned out to be an ice cold shower for the water authorities, all the more as the VVD (People's Party for Freedom and Democracy) and PvdA (Labour Party) election manifestos contained nothing about this at all – a case akin to the proposed abolition of the dividend tax, which was not in the VVD manifesto either.<sup>70</sup> So what did that coalition agreement actually say about the water authorities? It proposed a further scaling up of the water authorities, bringing their number down to ten or twelve, removing all reference to water authorities in the Constitution<sup>71</sup> and in time merging the water authorities with the envisioned five national regions, which would replace the current twelve provinces. This was clearly a bridge too far for the water authorities. And no-one was spared – the coalition agreement also contained radical plans for the municipalities and provinces. The Groningen politician Bert Middel (Labour Party), who is also chair of a water authority governing board, has suggested that these plans originally came from his party and referred to them as a knife in the back. Middel seems to have a point when you consider that an earlier pamphlet by Wouter Bos – a past leader of the Labour Party who, with VVD politician Stef Blok, was responsible for cementing the Rutte II coalition – was strongly critical of the large number of administrative tiers in the Netherlands.

68 We ignore here the fact that under Article 3.4(1) of the Water Act wastewater treatment plants may be run by private companies. Apart from the Harnaschpolder water treatment plant of the Delfland Regional Water Authority, this has never been taken up.

69 Parliamentary Proceedings II (*Kamerstukken II*) 2011/12, 33000, VII, nr. 98.

70 Since the final report of the State Committee on the Parliamentary System (*Lage drempels, hoge dijken. Democratie en rechtsstaat in balans*, Amsterdam 2018, p. 138) this phenomenon has been known as the Ostrogorski paradox. We may agree with the State Committee that the process of forming a government is a black box.

71 Indeed, abolishing the regional water authorities would require an amendment to the Constitution, as Nehmelman et al. showed some years ago. See R. Nehmelman, I.U. Tappeiner, H.F.M.W. van Rijswijk, H.R.B.M. Kummeling & S. Steenman, *De constitutionele inbedding van het waterschap*, Nijmegen 2011.

The water authorities, led by the then chair of the Association of Regional Water Authorities, Peter Glas, joined with the Minister of Infrastructure and the Environment in what in retrospect may be considered a masterstroke. Seemingly under the motto ‘if we can’t find support at home, we’ll look for it abroad’, they asked the OECD to give an opinion on water governance in the Netherlands. In itself, this entailed a certain risk, because the OECD’s country reports cannot be relied upon to be overly respectful. The reports are produced with renowned international peer reviewers, who are not loath to make harsh judgements. Apparently, though, confidence in Dutch water governance was high and the need was such that the risk was considered worth taking. And this trust was not misplaced. On 17 March 2014 the then deputy secretary-general of the OECD, Yves Leterme, presented the report to Minister Schultz van Haegen in The Hague. That same afternoon the report was the main event during the Association of Regional Water Authorities’ water authority day, where Leterme found a very attentive audience. The main message of the report was that Dutch water governance is excellent and is even acknowledged as a global reference. Leterme gave it a score of 8.5 (out of 10) and called the water authorities the backbone of Dutch water management. Peer reviewer Francisco Correia, former Portuguese minister of environment, spatial planning and regional development, had put it possibly even more eloquently during his commentary on the draft report at the Water Governance Initiative meeting in Paris on 8 November 2013: “Dutch water management is a Formula 1 car whose technology will find its way into ordinary cars in a few years’ time.”

The fact that the OECD clearly saw room for further improvement, including the financial aspects, seemed to escape the attention of most of those present and did not spoil the festive atmosphere. This festive atmosphere – which fell just short of actually dancing on the tables – was wound up a notch, if that was possible, when the minister announced that in response to the publication of the OECD report she had that very day sent a letter to the House of Representatives, the key message being there was no reason to make any administrative or organisational changes to the governance of water management in the Netherlands.<sup>72</sup> This was a message the House of Representatives adopted with remarkably little fuss a few months later. A more recent OECD study is equally positive about Dutch performance in the field of water supply, sewerage, wastewater treatment and flood protection, particularly with regard to the decentralised financing system, the efficiency, low tariff increases and the relative ease with which funding is obtained for investments, with the NWB Bank held up as an example.<sup>73</sup>

This only goes to show that even successful organisations are not safe from the itch politicians have for changing things and that forming a government is a baffling and risky business. “It works, so it should be abolished”, Martin Sommer once complained in the *de Volkskrant* newspaper about the institute of the water authority.<sup>74</sup> Getting rid of organisations that function very well on their own sometimes

72 Parliamentary Proceedings II (*Kamerstukken II*) 2013/14, 28966, nr. 27.

73 OECD, *Financing Water Supply, Sanitation and Flood Protection: Challenges in EU Member States and Policy Options*, OECD Studies on Water, OECD Publishing 2020.

74 *De Volkskrant* 14 September 2006.

appears to be a typically Dutch political preoccupation. Nevertheless, it seems that functional governance has the wind in its sails at the moment. My colleague Geerten Boogaard pointed this out during the height of the COVID-19 crisis. Actually, we have much more functional governance than we tend to realise. Our many regional partnerships, sometimes voluntary, but increasingly mandatory – such as the environmental services, the safety regions and the regional energy strategies – can be considered to be functional public authorities. In any case, they satisfy the most important criteria for the choice of a functional form of governance, as formulated earlier by former MP Koos van den Berg in his dissertation:<sup>75</sup> they perform tasks not suited to the scale of the general administrative bodies and which require adequate intervention, a high degree of specialisation and exceptional surveillance. Van den Berg referred to the inventor of the term ‘functional decentralisation’, Josephus Jitta, who in his inaugural lecture in 1932 included intermunicipal cooperative arrangements under Article 130 of the old Municipalities Act as falling under this concept. Although Van den Berg thought the scope of Jitta’s concept was too broad, he did include the bodies established under the provisions of the Joint Arrangements Act.<sup>76</sup> I believe you would be hard pressed to deny that all these forms of regional partnerships show solid functional traits. They bear little resemblance to integrated administrative bodies with general competencies that consult with residents and make decisions on resolving social issues and the use of the necessary resources. At the very least, all these regional partnerships can be described as *pseudo-functional authorities*.

To summarise, the position of the water authorities is now uncontested. The explanatory memorandum to the Environment and Planning Act puts great store on the important role of the water authorities as functional public authorities in the management of water systems, which is so crucial for the Netherlands.<sup>77</sup> In a recent study for the Ministry of the Interior and Kingdom Relations (BZK), Professor Elzinga of the University of Groningen is equally positive about the functional governance of the water authorities.<sup>78</sup> In his report he not only convincingly dismisses the time-honoured ‘primacy’ of general administrations over functional administrations and positions functional administrations as a mature governance model, but even states on p. 132 (in Dutch) ‘that the water authorities as a form of water governance constitute a unique model that attracts worldwide attention and serves as an example for many countries, and is therefore also a valuable export product for our country.’<sup>79</sup> Finally, the current government’s coalition agreement, *Looking*

75 J.T. van den Berg, *Waterschap en functionele decentralisatie* (diss.), Alphen aan den Rijn 1982, p. 81–82.

76 Van den Berg (diss.), p. 47–56.

77 Parliamentary Proceedings II (*Kamerstukken II*) 2013/14, 33962, p. 43–44.

78 Parliamentary Proceedings II (*Kamerstukken II*) 2021/22, 35925-VII, nr. 136.

79 For a concrete example see the coalition agreement 2019–2024 of the Flemish government. This voluminous 214 page document contains, on p. 162, a proposal to rationalise Flemish water management, based on hydrographically logical entities and eliminating the current administrative fragmentation, all in line with the Dutch water authority model. It should also be noted, though, that it also states that the tax-raising powers of the polders and water boards will be discontinued, which of course is nothing like our Dutch model.

out for each other, looking ahead to the future, contains nothing threatening to the water authorities; in fact, it is distinctly positive about water management. For instance, the Association of Regional Water Authorities seems to have been successful in its case for making soil and water lead considerations in spatial planning. This is even clearly stated on page 10, where it also states that for this reason the water authorities will be involved in the process at an earlier stage and the 'water tests' (flood assessment) will carry more weight. I will return to this last point later.

#### **4 Water management abroad**

You can learn from other countries. That is why it is so important to have a good picture of water governance in other countries.<sup>80</sup> What does the institutional design for water management look like in other countries and what lessons can we learn from them? Kadir van Lohuizen's exhibition, which I began this lecture with, illustrated how water management faces major challenges all over the world and that many countries are literally up to their necks in water. It is good to know how other countries are taking up these challenges, because there are undoubtedly things that could be worth considering here in the Netherlands. And it is also good to realise that water management is organised differently almost everywhere; in fact, no two countries are exactly the same. Conversely, those countries are also often very interested in how we have succeeded in keeping our feet dry. The many foreign delegations to the Netherlands are proof of that. What I have noticed is that while they are keen to visit our major water infrastructure – and usually Amsterdam too – they are primarily interested in our water governance, particularly in how we finance water management. In many countries a lack of money for water management is the biggest organisational obstacle.

Fortunately, there is already much international exchange of knowledge and information, including through this university. For instance, my colleague Marleen van Rijswick took part in the well-known STAR-FLOOD research project, which compared flood risk governance arrangements in six European countries. What particularly struck me is that despite the EU Floods Directive, these countries have taken completely different approaches and that each country feels that its own method is by far the best. This again shows that water governance is arranged differently all over the world, from highly centralised to decentralised, from delegation to general administrative authorities to separate catchment authorities, from fully public sector bodies to arrangements that include room for private sector involvement. These differences in themselves are not a problem and they underline all the more the importance of good international research, which in the years to come I would very much like my chair group to be involved in.

And while we are talking about international research into water governance, I must not fail to mention the work of the OECD. This international organisation has

---

80 This has, quite rightly, been recognised for some time. As long ago as 1974, Appendix 6 of the report *Het waterschap en zijn toekomst* by the Study Committee on Water Authorities contained a detailed memorandum on 'the water authority' in some other European countries.



been publishing interesting studies on water governance for more than ten years. The fact that an economic organisation like the Paris-based OECD, whose membership contains about 35 mostly developed countries, has devoted so much attention to water governance is in itself quite telling. This can be explained by the fact that the former secretary-general, Angel Gurría, was convinced that good economic development is heavily dependent on good water management. In the Netherlands all we have to do to confirm this is to look at the great significance of water management to industry, agriculture and horticulture in our country. Incidentally, the OECD does not work just for its member states. Argentina is not a member, but in 2019 the OECD published a report on that country. Other countries therefore also benefit from the OECD's expertise.

As I have said, the OECD has been doing research into water governance for about ten years. Initially it produced mostly thematic reports on topics like multi-level governance, financing, stakeholder involvement, water and agriculture, and independent watchdogs. Since 2013, however, specific country reports have been published, such as the one on the Netherlands in 2014 which I have already referred to. This makes it possible to establish a good relationship between more general theoretical principles and methodologies and the specific water management situation in an individual country. The extensive coverage of best practices<sup>81</sup> from other countries gives these reports extra value, setting them apart from the inevitable, although essential, theoretical discourses. The fact that international peer reviewers work on these country reports also gives them extra kudos. Without exception, the reports are worded diplomatically, but the recommendations are no less clear for that. What makes the reports even more valuable is that the drafts are discussed in the Water Governance Initiative (WGI). The WGI, chaired since its establishment in 2012 by Peter Glas, consists of around 130 representatives from about 40 countries, ranging from civil servants from government water departments, decentralised water organisations, independent watchdogs, the big international water companies, knowledge institutions, the scientific community and non-governmental organisations. In short, the WGI has a huge amount of water knowledge. The WGI meets twice a year and is supported by a professional secretariat that ensures it is run smoothly. The meetings quite often result in revisions to the draft reports because the participants have firm and sometimes divergent opinions on them. We may have lost sight of the fact, but it was inputs like this from the WGI that led to the amendment of the Netherlands report on the topic of the poor water quality of many water bodies. The Netherlands' 'excellent track record' was subtly qualified by the addition of 'in several areas'.

Of course, in this context I should also mention the important *Recommendation on Water* published by the OECD in 2016. Making use of the knowledge and experience gained in previous studies, this document contains twelve concrete principles for good water governance. Although somewhat more elaborate, these principles are comparable to the earlier building blocks for good water governance drawn up by the former Water Governance Centre, which in turn are based on Hofstra's

---

81 Roel Bekker, *Dat had zo niet gemoeten. Fouten en falen van de overheid onder het vergrootglas*, The Hague 2020 shows that just as much can be learned from bad practices as well.

three-layer model.<sup>82</sup> Divided into three overarching themes – effectiveness, efficiency and trust & engagement – these principles are:

### **Effectiveness**

1. Clearly allocate all the tasks and responsibilities related to water (policymaking, policy implementation, operational management and regulatory oversight) and foster coordination between the relevant authorities.
2. Manage water at the appropriate scale to reflect local conditions and ensure coordination between the different scales.
3. Ensure policy coherence, especially between policies for water management and the environment, health, energy, agriculture, industry, spatial planning and land use.
4. Adapt the capacities of responsible authorities to the complexity of water challenges and to the set of competencies required to carry out their duties.

### **Efficiency**

5. Produce, update and share the relevant data and use them to improve water management.
6. Ensure that governance arrangements help to make sufficient money available for water management in an efficient, transparent and timely manner.
7. Ensure that sound regulatory frameworks are in place and enforced in the public interest.
8. Promote the introduction of innovative water governance practices by and across the responsible authorities, levels of government and relevant stakeholders.

### **Trust and engagement**

9. Emphasise the importance of integrity and transparency for greater accountability and trust in decision-making.
10. Promote stakeholder engagement for contributions to water policy and its implementation.
11. Promote water governance methods that prevent the transfer of problems between water users, urban and rural areas and generations.
12. Promote regular monitoring and evaluation of water policy, share the results with the public and make adjustments when needed.

If we let these principles sink in, the core message is to clearly allocate tasks at the appropriate scale and ensure coordination between the responsible authorities; to provide knowledge, sufficient money and a regulatory framework that is complied with and where necessary enforced; and to ensure transparency, integrity, accountability and stakeholder engagement. All these are elements we recognise from Dutch water management. Needless to say, these principles lie at the heart

---

<sup>82</sup> See Herman Havekes, Maarten Hofstra, Andrea van der Kerk, Bart Teeuwen, Robert van Cleef & Kevin Oosterloo, *Building blocks for good water governance*, The Hague: Water Governance Centre 2016 (second edition).

of the OECD studies that have appeared since 2016. Besides these principles, the OECD Council *Recommendation on Water* also contains other messages, including the promotion of efficient water use and a proper allocation of increasingly scarce water resources.

I have previously published a brief overview of several OECD studies in *Water Governance*.<sup>83</sup> One of these studies which I would like to mention here is the well-known 2011 report on multilevel water governance.<sup>84</sup> This report discusses public water governance in seventeen OECD countries: Australia, Belgium (Flanders and Wallonia), Canada, Chile, France, Greece, Israel, Italy, Japan, Mexico, the Netherlands, New Zealand, Portugal, South Korea, Spain, the United Kingdom and the United States (Colorado). Based on the *OECD Multi-level Governance Framework* provided in the report, the key challenges are presented in the form of seven 'gaps': the gap between administrative and hydrological boundaries, the information gap, the policy gap, the funding gap, the capacity gap, the objectives gap, and the transparency and accountability gap. Many of the surveyed countries indicated that in practice the funding gap presented the biggest obstacle to good water management. In view of this outcome, the report on the financing of water management also deserves a mention, if only because of the many best (and worst) practices it contains.<sup>85</sup> For instance, in Annex 4 it is stated that France, an agricultural country, has – unlike the Netherlands – for a long time had a product charge on the use of pesticides because of the diffuse pollution they cause. Which goes to show it is possible.

It is time to draw some conclusions based on these OECD studies. First, it has again become clear that water management is arranged differently across the world. Second, all countries are facing enormous challenges, which in the years to come will only be exacerbated by climate change, sea level rise, land subsidence and population growth. The recent COVID-19 crisis raises concerns about the availability of the large sums that will be needed to tackle these challenges. Third, we see that in many countries water governance could be improved, to put it mildly. In this sense, the report on the Netherlands is the odd one out. The main obstacles appear to be institutional fragmentation, insufficient data and capacity, and not least, inadequate funding. Taken together, this poses a worldwide threat to sustainable and healthy economic development.

## 5 Design principles

Following this review of Dutch water governance and the OECD studies, we can now formulate a number of criteria for good water governance. In itself this is nothing new – see the OECD principles mentioned earlier. Nevertheless, it is necessary, because to my mind water governance is crucial for the exercise of good water management. As we already know, *the world water crisis is a crisis of governance*.

---

83 *Water Governance* 01/2020, p. 24–29.

84 OECD, *Water Governance in OECD Countries: A Multi-level Approach*, OECD Studies on Water, OECD Publishing 2011.

85 OECD, *A Framework for Financing Water Resources Management*, OECD Studies on Water, OECD Publishing 2012.

Although there are various methodologies for determining design principles, and the differences between them are not great,<sup>86</sup> I will stay close to home and go for the building blocks developed by the Water Governance Centre (WGC) I mentioned earlier. To my knowledge they fit in well with the day-to-day practice of water management and, as I can attest from personal experience, are also easy to apply and explain abroad. In essence, they come down to the following six design principles:

- a powerful administrative organisation (adequate scale, a clear division of tasks, thorough knowledge, robust powers, a system of accountability, oversight and surveillance, transparency and integrity);
- a good legislative and regulatory framework (including compliance and enforcement instruments);
- a planning system for water management (that enshrines policy and measures for the longer term and provides for funding and coordination with other policy sectors);
- a solid and robust financing system (preferably not consisting entirely of subsidies, but of own income from charges according to the principle of *the polluter/causer/stakeholder pays*);
- stakeholder participation;
- coordination and cooperation (between the different water organisations, but also with organisations active in adjacent policy fields, particularly spatial and land use planning).

Having read the above it will be of no surprise to the reader that, as stated in the WGC booklet, Dutch water governance broadly meets these design principles, although in some areas there is room for improvement. In the light of climate change and its effects, this is a reassuring thought. In other countries – as you have also seen – it has often proved difficult to put these principles into practice. It should be borne in mind, though, that there is also a more general lack of good governance.<sup>87</sup> In such cases it is of course even more complicated to meet the basic principles of good governance specifically for water management. Finally, if I may select the most crucial principles – everyone will make their own judgement – these would be an appropriate administrative scale, a robust funding system and constructive, close cooperation with other water organisations and organisations in related policy fields. And that is where it often goes wrong internationally.<sup>88</sup>

86 S. Wuijts, *Towards more effective water quality governance. Improving the alignment of social-economic, legal and ecological perspectives to achieve water quality ambitions in practice* (diss.), Utrecht 2020. In particular, see Appendix II, p. 205–207, where four methodologies are compared.

87 For a lengthy discussion, see G.H. Addink, *Good Governance: Concept and Context*, Oxford 2019.

88 The 2020 report by the OECD and EU mentioned above reiterates that for many countries a lack of funds is the main reason that they are failing to comply with the Drinking Water Directive and the Urban Waste Water Treatment Directive.

## 6 Importance of historical knowledge

I am gradually coming to a conclusion. But not before making a final observation. It is not only other countries we can learn from, but also from the past, which is something we tend to forget when dealing with the issues of the day. Many government archives are currently not particularly well organised and it can be difficult tracking down important information. This state of affairs must be put right. It is simply essential to have some knowledge of the history of water management in our country if we are going to be able to do our job properly now and in the future. But don't get me wrong; not because things were better in the past, but because we can learn from the past. Let me mention two examples.

The first example is on the topic of enforcement. It is now hard to believe, but until 1841 – just under 100 years after Montesquieu and his *Trias Politica* – the bigger water boards had a jurisdiction and the authority to impose penalties. They possessed a 'high jurisdiction', which included capital punishment. The Rijnland water board even had a gallows and a whipping post on the dike. Some also had their own branding iron – it's hard to remain serious here – which was used along with additional punishments such as flogging and banishment from the area. The water board as the first tattoo parlour, who would have thought it? In any case, it sounds and feels very different from an ankle bracelet. As I said, these legal powers came to an end in 1841. And in case you have the wrong idea and think that Parliament put a swift end to these powers, you would be entirely wrong. The government had to try every trick in the book to get its proposal through Parliament, which had serious doubts about the wisdom of removing these powers from the water boards. It is not my intention here to glorify these corporal punishments, which in water board circles were euphemistically referred to as 'arbitral correction', and fortunately these punishments were not used very often at all. No, the point I am trying to make is that the legislator at that time was fully aware that to do their job properly the water boards needed to have robust enforcement instruments at their disposal. We need to be aware of that again today. Sometimes it seems to be forgotten – think of the regulation in the Environmental Law (General Provisions) Act (*Wet algemene bepalingen omgevingsrecht*) on indirect discharges to the sewers, for example.<sup>89</sup> Luckily, the new Environment and Planning Act does not deplete the water authorities' enforcement toolbox any more.

The second example relates to the fact that for centuries water management has been funded from taxation. So when we discuss today whether or not to introduce a carbon tax on industry or a groundwater charge for agricultural and industrial users, it may be advisable to take note of the reflections of the government and Parliament of fifty years ago on the introduction of the wastewater treatment charge. The reports of these debates turn out to be surprisingly topical and deal with precisely the same issues as today.

These are just two, relatively random examples. There are many more. So some historical knowledge is important. Of course, you don't all have to sign up for history course at this wonderful university tomorrow, but membership of the *Vereniging*

---

89 Act of 6 November 2008, Bulletin of Acts, Orders and Decrees (*Stb*) 2010, 231.

voor *Waterstaatsgeschiedenis* (Association for the History of Water Management) seems to me at least worth considering, and you even get a free subscription to the *Tijdschrift voor Waterstaatsgeschiedenis* [Journal of Water Management History].

## 7 Research questions

I come now to my concluding remarks. The foregoing has shown that Dutch water governance is in good shape, and that gives us confidence for the future. It has been thoroughly scrutinised by international experts, who have come to a positive judgement. We are seen as a 'global reference' and a 'Formula 1 car'; it is almost embarrassing. But the fact is, our water governance is robust and capable of dealing with the dangerous effects of climate change. How can we account for that? Well, it is a public structure, and given the great importance of water management for everyone in the country that seems a good thing to me. "The state, that is the dikes!", wrote our great legal scholar A.M. Donner. And as far as I am concerned, that 'state' includes the waterbodies, the pumping stations, wastewater treatment plants, etc. The market can then build and maintain this infrastructure. Furthermore, a key aspect of this structure is that it is decentralised. The different organisations know what is expected of them, they operate on a sufficiently large scale, possess the required expertise and are largely functionally organised, which makes them highly implementation-oriented. If new policy is made or new statutory safety standards are set, they are then vigorously implemented. These organisations also often have their own earmarked financial resources, and they work intensively together. Moreover, the Delta Programme, the Delta Fund and the Delta Commissioner form a unique backstop, an extra lock on the door as it were. The Delta Commissioner keeps us on our toes and when necessary sounds the alarm. Our own little 'paradise' is well protected.

This strong implementation-oriented nature of Dutch water governance should not be underestimated, but it cannot be taken for granted. More attention to implementation (also in terms of the salary level of the employees concerned) is even a main argument in the book by Bekker on the failures of government, which I have referred to before. The Study Group on Inter-Authority and Financial Relations (*Studiegroep Interbestuurlijke en Financiële Verhoudingen*) also emphasises the importance of strong implementation and the Association of Netherlands Municipalities includes a focus on implementation as the fourth and final element in its new strategy. The message appears to have got across, because policy without the power to implement it is toothless. There is also much room for improvement in other countries, where you will often find wonderful plans and strategies, but if you then inquire gently about the implementation of that plan or strategy you may be met with quizzical looks, followed by the proud announcement that they have just started preparing a new plan...

For an academic, determining that our water governance is in good shape is actually somewhat of a disappointing conclusion. From an academic with a background in the sector itself you may expect no less, but rest assured, even if our water governance is generally in good shape, there is always room for change and improve-

ment. Its institutional design requires constant maintenance. Moreover, appearances can be deceptive. We were already warned about this in 2014 by the OECD and it is regrettable that so far little or nothing has been done in response. Fortunately, the investigation into the future financing of water management recently launched by the Ministry of Infrastructure and Water Management (*IenW*) provides an opportunity to turn the OECD's recommendations into concrete proposals. As I have clearly indicated in this lecture, over the next few years we should indeed take a good look at the financing of water management and the organisation of groundwater management. These two issues are thrown into sharp relief by drought and soil subsidence – problems that for decades have been nervously kicked into the long grass. We cannot ignore them any longer. Let me formulate a few concrete questions. First, should we not simply enshrine the power of water authorities to levy taxes in Article 133 of the Constitution, as it is for the municipalities and the provinces? Given that water authorities fund about 95% of their expenditure from their own tax income, it seems to me there is every reason to do this. And does our water pricing policy provide adequate incentive to users to make efficient use of our water resources, as required by Article 9 of the EU Water Framework Directive? Would it not be sensible, as the OECD has suggested, to tax surface and groundwater abstractions more heavily? And shouldn't the tax on tap water also apply to businesses? Couldn't the standing charge in the price of drinking water be reduced so that the final price better reflects actual use? And for the same reason, is it not worth considering a higher drinking water charge for households above a certain standard volume? Likewise, should the current flat rate wastewater treatment charge for households, which has always been controversial, be replaced by a charge based on the amount of drinking water used? The Water Authority Act has long contained provisions that would permit this,<sup>90</sup> but they have never been used. Shouldn't the agricultural sector pay for the diffuse pollution of our water that it causes? After all, pricing is an incentive for users to reconsider how they use water, as the experience with introducing the wastewater treatment charge in the 1970s has shown. And is it not possible to arrange groundwater management in a simpler way, as recommended earlier by the Advisory Committee on Water, by transferring the provincial executive powers, including the power to impose a groundwater charge, to the regional water authority? And shouldn't that charge, in line with the 1977 amendment by Van Kuijen,<sup>91</sup> have a regulatory function? Shouldn't we make haste with introducing a 'distribution priority list' for groundwater as well – something that is already possible under the Water Act? Could the provincial bathing water management also be transferred to the water authority? And how could we formally strengthen the relationship between water management and spatial planning?<sup>92</sup> Does the proposal to make this appraisal 'more binding' included in the coalition agreement of the fourth Rutte government mean that the authority responsible for

90 See the provisions in Article 122h(2) of the Regional Water Authorities Act.

91 This explicitly excludes the drinking water supply companies, which already pay enough state tax and can do nothing else but pass on the costs to households.

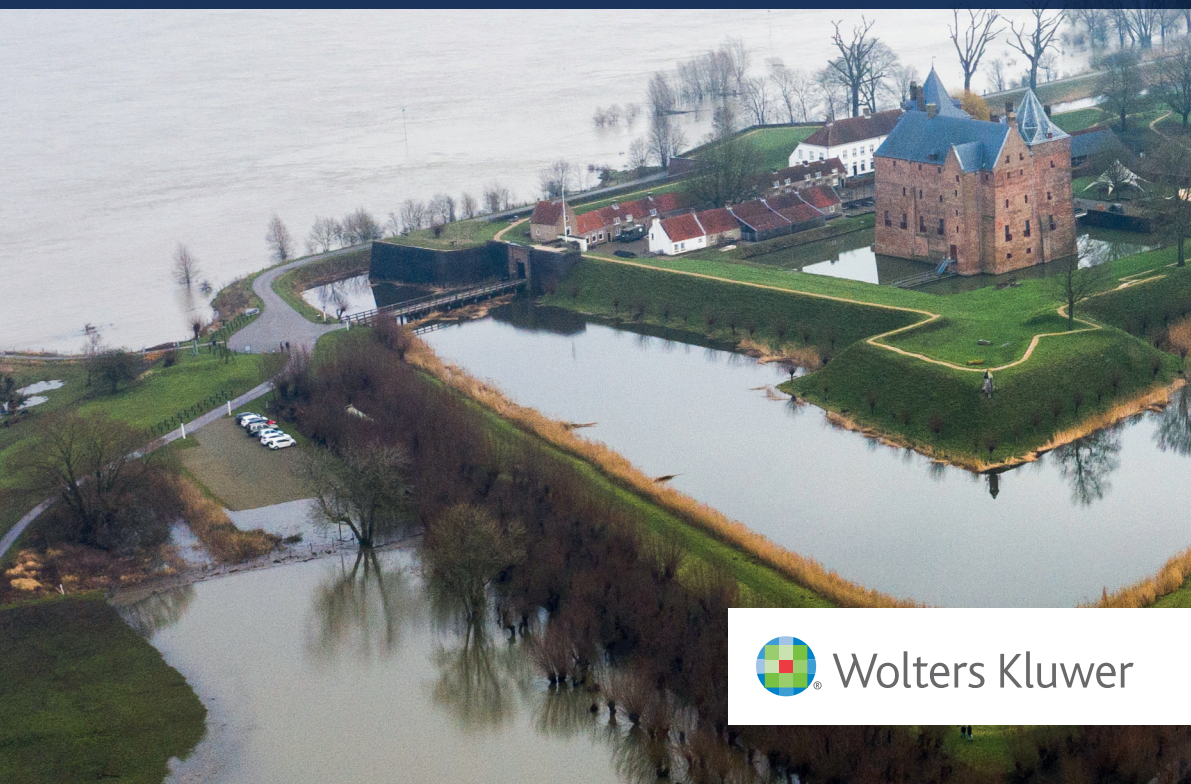
92 For a broad discussion of this, see the dissertation by F.A.G. Groothuijse, *Water weren*, Utrecht 2009, which in the conclusions and recommendations (p. 429–455) rightly emphasises that this relationship also demands a lot from the water manager.



water management will be given the right to advise the municipality? And will that advice, as advocated by the OECD in response to the Westergouwe case in 2014 [concerning plans to build new housing in one of the deepest polders in the Netherlands], be binding? As you can see, there is plenty of room for improvement. For the time being, these are just questions, but in the coming years I hope to be able to provide useful answers.

There is therefore more than enough still to do. Compared with the situation abroad, though, it does seem to be more like fine tuning; the foundations are largely settled but some aspects could and should be improved. On the subject of other countries, as I said I am much less optimistic. In many countries the prospects for good water governance – in particular sound financing, a large enough scale of operation and inter-authority cooperation – is still a long way off and the COVID-19 crisis has not made things any easier. I fear that Kadir van Lohuizen will be able to make many more documentaries and exhibitions. We will have to try to improve water governance abroad through the international exchange of knowledge. After all, that's what should be expected of a *global reference* and a *Formula 1 car*.

To realize proper water management, good water governance is a prerequisite. In his recent inaugural lecture at Utrecht University, Herman Havekes outlines and discusses Dutch water governance and the role drinking water supply companies, regional water authorities, municipalities, provinces and national government play in this. He concludes that Dutch water governance is in a good shape, due to the fully public and highly decentralized structure, with a robust and solid financial base and a highly implementation-oriented character. Nevertheless, there is room for further improvement (e.g. in the field of groundwater management and the introduction of financial incentives to influence citizens and businesses water behaviour). His critical review is interspersed with best (and bad) practices from other countries. At the same time much attention is given to the different studies and recommendations on water governance of the OECD.



Wolters Kluwer