

Guardian of Dutch regional water management

The reinvention of the expertise role of the Dutch regional water authority Noorderzijlvest to govern for climate change adaptation

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Colophon

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Preface

Dear reader,

A red line in my studies at the Faculty of Spatial Sciences at the University of Groningen has been the development in spatial planning towards a more communicative and integrative way of working. Fascinated by water management, I regard studying this movement in the oldest democratic organizations in Europe which arguably had the most influence on the Dutch landscape and society than anything else - Dutch regional water authorities - as the icing on the cake.

Thank you, Margo, for your genuine interest in both the research topic and me. Your ideas and feedback, as well as your uplifting words, kept my spirit high during the whole research. I would also like to thank my friends and family for their unconditional support, encouragement, and the needed distraction. Finally, thank you to all participants who enthusiastically contributed to this research.

I am proud to present to you this master thesis and hope it will provide you with valuable insights in strengthening the positioning of Noorderzijlvest to govern for climate change adaptation.

Elna Minderman Groningen, 27th of June 2021

Abstract

At the end of the 20th century, climate change has pushed for a new paradigm in water management towards flood resilience. In this new paradigm for water management, three approaches are put central to enable integrative and effective water management. This goes hand in hand with the need for more responsive governments, which put focus on communication between all aspects of society. As Dutch regional water authorities carry the institutional responsibility to address long-term policy problems within water management, they are expected to play a key role in this shift. However, as these authorities have a history of centuries long water management based on the urge to control through technical expertise, they are still mainly focused on technical solutions. Although technical expertise remains important in the management of water quality, quantity, and safety, Dutch regional water authorities must adapt to balance their expertise role with the need to become more responsive governments to govern for climate change adaptation. The aim of this research is to study how Dutch regional water authorities deal with this dilemma by gaining insight in the repositioning of the regional water authority Noorderzijlvest. The analysis of this research shows that Noorderzijlvest is currently actively establishing its new position. Noorderzijlvest is on the right track, but improvements can be made. Based on this research, several recommendations for strengthening the institutional center of Noorderzijlvest are created, such as: elaborate and reflect on who Noorderzijlvest perceives as 'partners' in differing projects and the partner role Noorderzijlvest sees for itself, for example: Noorderzijlvest as an initiating partner, an executing water expert, or a policy partner.

As limited research has been done on the relation between Dutch regional water authorities and climate change adaptation, this research contributes to planning theory by focusing on this knowledge gap. Besides this, this research explores the role of language in the adaptation of Dutch regional water authorities by adopting a framing perspective. With which is contributed to the theoretical debate on the role of meaning-making in institutional adaptation.

Key concepts: Dutch regional water authorities, Noorderzijlvest, climate change adaptation, public institutions, framing perspective, organizational mission mystique.

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List of abbreviations

BOVi: 'Blauwe Omgevingsvisie' - Blue Strategy on Spatial Planning and the Environment

POVi: '*Provinciale Omgevingsvisie*' – Provincial Strategy on Spatial Planning and the Environment

GOVi: 'Gemeentelijke Omgevingsvisie' – Municipal Strategy on Spatial Planning and the Environment

Chapter 1: Introduction

1.1 Climate change and the need for adaptation and a responsive government

The acceleration of global climate change has been so radical in the last decades that many scientists claim that the Earth is currently in a new geological period, named the Anthropocene (Schoeman et al., 2014). This period reflects high levels of greenhouse gases, losses of habitat and biodiversity, and even the alternation of biochemical and hydrological cycles (Barnosky et al., 2011). The latter can result in areas receiving too much or too little water, while already 80 percent of the world population is subject to threats of water security (Vörösmarty et al., 2010). Herein, the awareness that potential damage could be high without sufficient preventive, mitigating, and responsive strategies is growing (Kaufmann et al., 2016).

Restemeyer et al. (2017) describe climate change as the most pressing uncertainty in water management. As a response, there is a paradigm shift in water management from the end of the 20th century onwards, where the predominant focus started to shift away from the desire to have control over water (Van der Brugge et al., 2005). In the new paradigm for water management, three approaches are put central: integrated water resources management; ecosystem-based approaches; and adaptive management (Schoeman et al., 2014). In literature, these trends are perceived to push for a shift of the dominant water planning paradigm towards flood resilience (e.g., Liao, 2014; Restemeyer et al., 2015). Ideas such as wider stakeholder participation, the use of different types of knowledge, the integration of other disciplines, attention to the needs, wants, and values of humans, and also bringing science, policy and practice closer together gain attention in this new paradigm in water management (Gleick, 2000; Ison et al., 2011; Pahl-Wostl, 2008 all in Schoeman et al., 2014). This shift is also perceived as the shift from government to governance. The latter is focused on more democratic procedures and enlarging the role of citizens and interest groups in decision-making processes (Van den Brink, 2009). The shift towards flood resilience thus goes hand in hand with the need for more responsive governments, as this trend calls for more communication between all aspects of society (e.g., Van den Brink, 2009).

On the one hand, the importance of integrating technical with social and economic approaches is widely accepted to reduce flood vulnerabilities (Zevenbergen et al., 2012). This means that the use of technical measures - or 'robustness' as Restemeyer et al. (2015) describe it - is still necessary in the new paradigm for water (Restemeyer et al., 2015; Liao, 2014; Kaufmann et al., 2016). On the other hand, this remaining technical orientation is an important barrier for climate-proof planning (Biesbroek et al., 2011). In Restemeyer et al. (2017) the authors critically speak about the remainders of the command-and-control practices which are still applied to all layers of Dutch water management. This latter is the result of centuries long of faith and investments in technical measures in water management, which resulted in cost-efficiency to stick to the choice of investing in technical structures rather than investment in other measures (Liao, 2014; Kaufmann et al., 2016). Positive feedback loops can create a certain path from which it becomes difficult to deviate, even when alternatives might have more advantages in the long run, which is called path-inefficiency (Gerrits & Marks, 2008). Because of this inflexibility to take other approaches the water sector entered a lock-in. As a result, Dutch (regional) water management approaches remain largely expert-driven

(Restemeyer et al., 2017). As the policy choices that are made today further limit future choices (Gerrits & Marks, 2008), Dutch water management is in need of a new path that can deal with contemporary uncertainties and complexity to govern for climate change adaptation.

However, safeguarding water quality, water quantity, and water safety - the core tasks of Dutch regional water authorities – will continue to require technical knowledge. This has resulted in a tension within Dutch water management between adaptability and the urge to control (Restemeyer et al., 2017). Moreover, Kamperman and Biesbroek (2017) argue that current Dutch regional policy measures might not be sufficient to push for the climate change adaptation action for which (inter)national policies call, and that there is no comprehensive understanding if and how Dutch regional water authorities are adapting to climate change (Kamperman & Biesbroek, 2017).

1.2 Problem statement

The need for more responsive governments and the contribution to the integration of different spatial ambitions are to some extent diametrically opposed to the technical path on which Dutch water management depends. Thus, to face these challenges, regional water authorities must reposition, as Dutch regional water authorities are expected to play a key role in this shift to flood resilience and in the adaptation of water systems to ensure timely and concrete adaptation actions to the uncertainty of climate change (Government, 2009; Government 2016 in Kamperman & Biesbroek, 2017).

Against this background, the aim of this research is to study how regional water authorities deal with the dilemma between the requirement of technical expertise in the management of water quality, water quantity, and water safety on the one hand, and the current need to become more responsive governments to govern for climate change adaptation on the other. The aim of this research leads to the following main research question:

How do Dutch regional water authorities reinvent their expertise role to govern for climate change adaptation, while balancing their technical knowledge on the one hand and the need for more responsive governments on the other, and how is this reflected in concrete water planning practices?

In order to answer this main question, secondary research questions are formulated:

- 1. To what extent can Dutch regional water authorities be conceptualized as public institutions?
- 2. How is the regional water authority Noorderzijlvest strategically and politically repositioning itself to govern for climate change adaptation?
- 3. How is this repositioning of Noorderzijlvest reflected in concrete water planning practices?

1.3 Theoretical approach: institutional adaptation from a framing perspective

To reinvent their expertise role to govern for climate change adaptation, it is crucial that Dutch regional water authorities are able to adapt. Such adaptive capacity is an important criterion to

regard an organization as an institution (that is, an institutionalized organization) (Boin et al., 2021). Therefore, this research conceptualizes Dutch regional water authorities as public institutions. Selznick (1957) presents three criteria to make a distinction between organizations and institutions. Herein, an institution has a distinct identity and unique competence; a strong reputation together with a high level of legitimacy; and adaptive capacity to sustain viability (Selznick, 1957). Literature on public institutions suggest that an institution is 'more' than an organization: it is an organization which is able to evolve and create value and meaning on its own (Goodsell, 2011). Public institutions possess a certain central mission which creates a sense of purpose and guards a specific public value, also regarded as a 'hidden' meaning described as the 'mission mystique' of the public institution (Boin & Christensen, 2008). The interpretation of this mission mystique is based on the mission mystique template, which reflects the purpose, history, and culture of the public institution: characteristics of an institutionalizing organization (Goodsell, 2011). The mission mystique template as provided by Goodsell (2011) is considered as a useful tool to elaborate upon the three institutional characteristics of Selznick (Boin et al., 2021).

As institutional adaptation often goes hand in hand with the introduction of a new policy language (e.g., Van den Brink, 2009), this research took a discursive approach. The core of a discursive approach is "[...] the study of 'language in use', which is perceived as a form of social action" (Van den Brink, 2009 p. 16). Herein, a framing perspective specifically focuses on language use as framing. The resulting frames can be regarded as 'schemata of interpretation' or 'sense making devices', which are for example used to highlight certain goals and mobilize employees (Entman, 1993; Benford & Snow 2000; Weick, 1995). In this research, the use of frames is mainly based upon the ideas of Entman (1993), Benford and Snow (2000), and Laws and Rein (2003). The focus was not on identifying one dominant frame, but rather on collective action framing: "[...] this framing perspective tried to provide a window on how social movements or collective actors construct an interpretive schema that underlies mobilization and sustains action" (Steinberg, 1998 in Van den Brink, 2009 p. 37).

This research combined the analysis of the mission mystique of Noorderzijlvest with a framing perspective to explore the role of language in institutional adaptation. The framing perspective was operationalized by studying the framing process of strategic policy advisors and strategic policy documents of Noorderzijlvest to analyze each cell of the mission mystique template as used by Boin et al. (2021). With this, it was studied how Noorderzijlvest as a public institution creates value through its organizational mission mystique to keep its license to operate.

1.4 Research design

As societal movements lie at the basis of the need for the repositioning of Dutch regional water authorities, this empirical research began with taking a historical perspective on the institutionalization of Dutch regional water authorities. Based on this, the mission mystique of the Dutch regional water authorities was constructed around the 1970s. Subsequently, a qualitative and interpretative embedded single-case design was adopted. Herein, interpretive methods are used to understand social patterns of human meaning-making (Van den Brink, 2009) of one case with multiple units of analysis (Yin, 2009). The Dutch regional water

authority Noorderzijlvest has been selected as the case mostly based on practical selection criteria. Multiple regional water authorities were contacted in the search for an average regional water authority. Noorderzijlvest was the only one that actively responded and was, before the COVID-19 lock-down, interesting for its location to conduct interviews. This case study was used for two main goals: the first was to study the repositioning of Noorderzijlvest at strategic level, for which data was collected by analyzing strategic documents and conducting semi-structured interviews strategic policy advisors. The second goal was to analyze the translation of this strategic repositioning in concrete water planning practices, for which two concrete water planning projects were used. The selected units of analysis were the 'Blue Strategy on the Environment' and the 'Double Dike project', as these are generally considered key examples of the new way of working by Noorderzijlvest itself. For this, data was also collected by conducting semi-structured interviews, but at operational level with employees of Noorderzijlvest who were involved in the concrete water planning projects as well as external partners. The data was then analyzed by adopting a framing perspective using ATLAS.ti software.

1.5 Scientific and social relevance

So far, limited research has been done on the relation between Dutch regional water authorities and climate change adaptation. The scientific contribution of this research focuses on the call of Van den Brink (2009) and Kamperman and Biesbroek (2017) for more research on the role of the regional level of water management in climate change adaptation. Herein, the tension between technical expertise and the need for responsive governments in which water authorities are currently positioned is put central.

In spatial planning, institutions are mainly regarded as laws and regulations. The interpretation of institutions as institutionalized organizations receives little attention. Simultaneously, meaning-making is underexposed in the literature on institutional adaptation (e.g., Van den Brink, 2009; Boin et al., 2021). Therefore, this research adopts a framing perspective to contribute to exploring the role of language in institutional adaptation, which is the second scientific contribution of this research.

The social relevance is reflected in gaining a deeper understanding on how Noorderzijlvest is repositioning itself to balance their role based on technical expertise and the need to become a responsive government. Based on this, policy recommendations for Noorderzijlvest are established to strengthen its strategic repositioning and the translation to concrete water planning practices. Although generalization is not possible based on one case, all Dutch regional water authorities are contributing to the paradigm shift in water management. Therefore, a second point in the social relevance of this research is the aim to elaborate upon policy recommendations for other regional water authorities.

1.6 Reading guide

Chapter 1 introduced this research and elaborated on its problem statement, theoretical approach, research design, and relevance. Chapter 2 provides the theoretical background of and

link between the key concepts of this research. At the end of Chapter 2, five analytical steps are established to conduct the empirical research. Chapter 3 further elaborates on these analytical steps and on the methodological strategy of this research. Chapter 4 will provide a thorough literature review on the establishment of Dutch regional water authorities to conceptualize regional water authorities as public institutions. Subsequently, the results are divided in two chapters: Chapter 5 focuses on the framing process of strategic policy advisors of Noorderzijlvest and strategic policy documents to elaborate upon the current strategic positioning of Noorderzijlvest. Subsequently, Chapter 6 elaborates on the findings regarding the reflection of the strategic and political repositioning in concrete water planning practices. The main conclusions, points of discussion, and recommendations are discussed in Chapter 7. Hereafter the list of references and appendices can be found.

Chapter 2: Water authorities as public institutions

This chapter elaborates upon the conceptualization of regional water authorities as public institutions, which answers the first secondary research question: 'To what extent can regional water authorities be conceptualized as public institutions?' First, section 2.1, 2.2, and 2.3 elaborate upon the current trends in (Dutch) water management and the importance of regional water authorities herein. 2.4 explains the difference between an organization and an institution. Subsequently, sub-section 2.5 focuses on the relation between public institutions and two other key concepts: the mission mystique, and the role of language in developing and reinventing a mission mystique. At the end of Chapter 2, five analytical steps are specified to conduct the empirical research.

2.1 A new paradigm for water

The previous prevailing water management paradigm was science-based and focused on command-and-control, resulting in solutions based on technical engineering (Schoeman et al., 2014). Shaped by water managers who assumed predictability of the future who believed that natural variability could be reduced by centralized and sectoral approaches, stakeholder involvement was limited (Schoeman et al., 2014; Haasnoot et al., 2013). This traditional approach can also be referred to as the technocratic scientific style and is characterized by the search for control of water (Van der Brugge et al., 2005). The ad hoc and post hoc approaches proved to be effective in the past when external drivers were still changing relatively slowly compared to the lifetime of infrastructure systems. However, this is no longer tenable in the current pace of change of external drivers (Zevenbergen et al., 2012). As is often argued, climate change is seen as a complex concept where many different actors and sectors are involved and where it is difficult to reach mutual understanding (Allmendinger, 2017). This complexity and uncertainty results in water policy-makers not knowing what to plan for (Restemeyer et al., 2017), which makes adapting to climate change a very complex issue for the water sector (Van den Brink et al., 2011).

Since the end of the 20th century, there is a growing awareness that human induced climate change is a threat for ecosystems and influences all aspects of life, including the water sector, which makes command-and-control practices alone insufficient (Luiten, 2017; Schoeman et al., 2014). The engineering-based practices of flood management started to shift to strategies based on risks and socio-ecological awareness, where focus is put on integrated approaches (Zevenbergen et al., 2012; Schoeman et al., 2014). Schoeman et al. (2014) describe this 'new water paradigm' to solve the gap between the conventional approaches and integrated and effective water management. This paradigm is described as both enabling and requiring several values of water, such as the ecological, social, cultural, and economic values (Schoeman et al., 2014). Within this paradigm shift in water management, Schoeman et al. (2014) describe several trends. The first one is more focus on integrated water management, wherein sustainable development and cross-sectoral planning are central instead of top-down planning practices. As described by Van den Brink (2009, p. 243): "Integrated water management concerns the integration of the relevant policy sectors and corresponding interests, such as spatial planning, nature and water management." A second described trend incorporates

ecosystem-based approaches, which promotes an integrated approach in the management of water, land, and societies as components of ecosystems. Besides these two trends, there is need for long-term, adaptive measures, as Schoeman et al. (2014, p. 381) state: "The novel challenges and opportunities of the Anthropocene demand approaches that foster adaptive capacity in preparation for unforeseen changes emerging from the complex interconnections and feedbacks between societies, economies and the environment." Thus, the third trend focused on adaptive management to enable decision making despite uncertainty (Schoeman et al., 2014). Many researchers (e.g., Liao, 2014; Restemeyer et al., 2015) refer to this transition as the shift from resistance to resilience. Where resistance aims at the reduction of the chance of for example flood hazards, while the goal of resilience is the minimization of flood consequences (Restemeyer et al., 2015).

2.2 Dutch water management riding waves of change

Zooming in on the Netherlands, the previous prevailing paradigm was very strong as the Netherlands has had the urge to control the water for quite a few centuries. The current system is the result of more than a millennium of usage, incorporation, and manipulation of wet networks by the Dutch. The Dutch defense strategies to minimize the probability of flooding are famous around the world (e.g., Lintsen, 2002; Driessen et al., 2018; Kaufmann et al., 2016), which makes that the Netherlands is often regarded as a front runner in water management. In history, major floods have always acted as an incentive for changing flood risk management policies, mainly on local-scale protection (Mauch, 2009 in Zevenbergen et al., 2012).

The start of the shift towards this new paradigm started after 1953, when the Netherlands was hit by one of its most well-known flood disasters: the 'Watersnoodramp'. After the disaster, former reluctance of Rijkswaterstaat, the executive organization of the Dutch Ministry of Infrastructure and Water Management, and the idea that there was no reason to be afraid of the rising sea-level started to change (Bregman, 2020). The dominant strategy of 'keeping the water out' was broadened with strategies where flood mitigation and recovery gained attention while the focus on flood risk prevention decreased (Driessen et al., 2018). The search for technologies that could both meet safety criteria and ecological conservation began and the principle of integrated water management was first introduced.

In the period between the 1970s to the mid-1990s, Dutch water management gradually shifted from a technocratic scientific to an ecological perspective as the strong belief in technical abilities became increasingly considered as insufficient (Van den Brink, 2009). Van den Brink (2009) clarifies this by stating that waves of political and societal changes in this period in the Netherlands, such as democratization of society, increased focus on the environment. Moreover, a rising neoliberal-politico-economic ideology put pressure on the technocratic scientific style in water management (Van den Brink, 2009). The awareness among the Dutch society arose that ordinary practices, such as dams and flood control schemes, had unintended consequences for the natural environment and did not esteem nature (Disco, 2002). However, the translation to practice proved to be rather difficult as the technocratic style was well-embedded at the core of Dutch water management (Disco, 2002).

2.3 The importance of Dutch regional water authorities

As the primary goal of Dutch regional water authorities is safeguarding water quality, quantity, and water safety (Pot et al., 2020), they are expected to play a key role in the translation of new water management principles to practice in the Netherlands and with this in climate change adaptation of water systems (Government, 2009; Government, 2016 in Kamperman & Biesbroek, 2017). Currently, 21 regional water authorities exist in the Netherlands, as seen in Figure 1. These authorities ensure dry feet, and clean and sufficient water. Together they are responsible for the management of 18,000 kilometers of dikes, 225,000 km waterways, 6175 pumping stations, and 325 wastewater treatment plants (Unie van Waterschappen, n.d.-c). In its entirety, Dutch regional water authorities collected 'only' 1.26% of the GDP in 2014 with which important tasks were fulfilled (Dekking & Havekes, 2015). Already around the turn of the first millennium, Dutch regional water authorities were founded, where their responsibilities included the protection against intrusion of the sea, reclamation of the land, and the management of inland waterways (Fockema Andreae, 1952 in Toonen et al., 2006). The authorities safeguarded against floods by using dikes and channelization, protecting the people and valuable farmland which allowed the population to grow (Gerrits & Marks, 2008).

These authorities in particular contribute to the paradigm shift in water management by focusing on the integration and development of innovative and adaptive solutions that are, partly, nature-based. This is because Dutch regional water authorities carry the institutional responsibility to address long-term policy problems for long-term water management (Pot et al., 2020). In the past decade, Dutch regional water authorities have increased their involvement in climate change adaptation by signing several inter-organizational agreements to contribute to specific long-term objectives (Pot et al., 2020). For example, the Climate Agreement with the Dutch national government reflects their ambition to take responsibility for long-term water management (Dutch Water Authorities, 2010 in Pot et al., 2020).

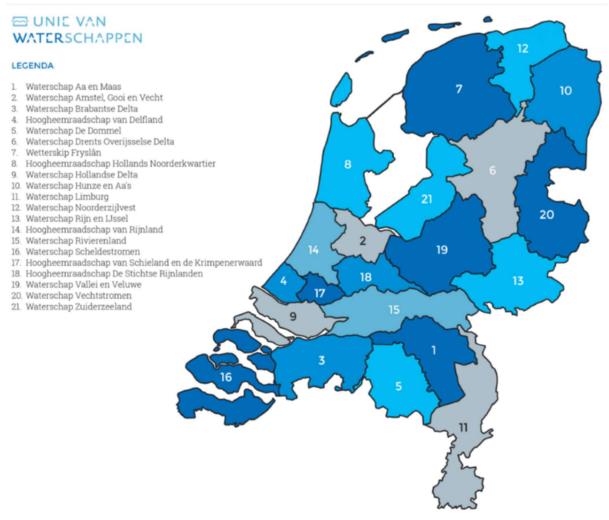


Figure 1: Map of the geographical location of all 21 Dutch regional water authorities in 2018 (source: Unie van Waterschappen, n.d.-d).

2.4 Conceptualizing public institutions

The importance of Dutch regional water authorities show that the trends of our current time cannot be confronted without strong administrative authorities within the government (Goodsell, 2010). In changing circumstances, the organizational capacity to adapt to changing expectations of stakeholders is seen as an important feature in order to 'stay alive', or in other words: to maintain the organizations license to operate. This durability can change an organization in something special: a public institution - a safeguard of important values - or: a guardian of public value (Hendriks, 2014; Boin et al., 2021). Traditionally, institutions are defined as the norms of the state and the law (Salet, 2018), also known as 'the rules of the game'. Salet (2018 p. 1) sees institutions "[...] as a set of public norms that condition the interaction between subjects." However, a specific strand of organizational studies (e.g., Boin & Christensen, 2008) considers institutions as institutionalized organizations. Herein, an institution is defined as proposed by Selznick (1957, in Goodsell, 2011, p. 478): "[...] an organization that moves beyond a rationally designed system for meeting predetermined goals to an organic, evolving entity that accumulates the ways, values, and symbols of its culture

over time." According to this definition, the institution can create value on its own (Goodsell, 2011). Selznick (1957 in Boin et al., 2021) further distinguishes between organizations and public institutions by providing three criteria to identify an institution as seen in Figure 2. To be defined as an institution, an organization:

- 1. Has a unique identity and competence, where the institution has developed an identity which is clear and widely recognized by both its members and outside world on what it seeks to achieve and how these are addressed, and is well-suited to meet societal expectations;
- 2. Has a strong reputation and high legitimacy, where the institution is trusted, respected, and sometimes taken for granted;
- 3. Remains viable through adaptation, which refers to the adaptive capacity to protect the institutional core as key to its survival (Boin et al., 2021).

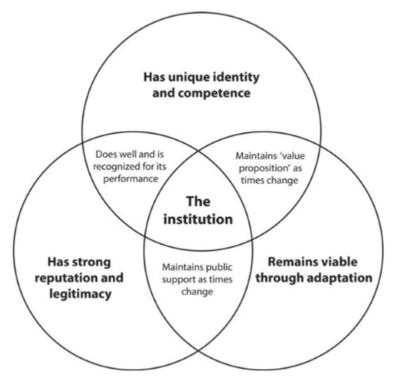


Figure 2: An organization as institution: Selznick's criteria (Boin et al., 2021 p. 5).

Herein, Boin et al. (2015 p. 665) define adaptation "[...] as a goal-oriented activity, and not as the random outcome of small changes." Often adaptation features of both private and public organizations are presented as a key organizational capacity to the survival and performance of organizations (Boin et al., 2015). This indicates that newly established organizations do not per definition carry the status of an institution. Only when public organizations combine their strong internal logic with high levels of legitimacy, they may obtain institutional characteristics over the years (Selznick, 1957). So, through durability, organizations can have a permanent imprint on the public landscape (Boin & Christensen, 2008). Institutionalization is described in a variety of levels, which makes institutionalization and its product: the public institution, only a matter of perspective (Boin & Christensen, 2008; Boin et al., 2021). Opposing the described point of view where organizations need to continuously adapt in order to stay alive,

the 'ecology school' in the field of organization theory follows another perspective. Namely that an organization's survival chance is enhanced in absence of adaptation attempts (Boyne & Meier, 2009). The proposed explanation for this is that the legitimacy built up from reliability and consistency is undermined through such change (Boin et al., 2015). However, viability is endured through adaptation by protecting the institutional core. This means that the expectations and norms of its stakeholders are consistently delivered, while structures and practices might change (Boin et al., 2021).

2.5 Mission mystique: a hidden meaning

The theory about public institutions suggest that these institutions are believed to be 'more' than just any organization: there is something special about them (Ansell et al., 2015). In the literature, this special part of the definition of a public institution is seen as a 'hidden' meaning - a widely shared mission within the organization's internal staff (Boin & Christensen, 2008), also described as the 'mission mystique':

"The mission mystique agency is endowed with an aura of positive institutional charisma that is derived from the nature of its mission and how well it is carried out—hence the term mission mystique. It is felt both within and without the organization. To career employees, the mystique fosters a personal commitment to advancement of the mission. To attentive outsiders, it generates admiration and respect. [...] It by no means excludes but goes beyond the usual production criteria of sheer efficiency or the attainment of performance targets." (Goodsell, 2011 p. 477).

A mission in this sense will provide the organizations sense of purpose and describes 'why it should be doing what it does'. At the same time, socially desirable missions can produce legitimacy and enthusiasm both internally and externally (Suchman, 1995; Kouzes & Posner, 2008 both in Bryson, 2012). Goodsell (2010 p. 2) assumes that the attainment of public authorities is highest "[...] when the energy generated by serious engagement in important public tasks finds its way into all aspects of agency life." The underlying belief system, also known as frame (Laws & Rein, 2003), of a mission mystique is described as a web of emotive and cognitive elements that form the mystique aura together. The center of the web consists out of the earlier described mission which produces a shared sense of identity and pride, as individuals make sense of complex problems, creating 'shared mental models' (Goodsell, 2011; Goodsell, 2010). This system can grow and evolve over time which allows for the mystique to be passed on to successive generations (Goodsell, 2011).

The internal vision and external expectations can be modified by moments of crisis. Herein, the agreement on a (new) mission can have a very positive influence on the endurance of the performance of an organization (Pfeffer, 2010). Public institutions could use this mission to strengthen the institutional center and elevate the public authority to its highest potential through building legitimacy and credibility. According to Goodsell (2011) the mission can be strengthened by putting more focus on the following points:

1. The mission articulation, for which it is important that the mission is not just a forgotten clause or product. In contrast, it should excite those who are working for

the organization through its liveliness and attract the attention of the public to reveal its collective goal. Practically this means that the mission should be carried out in a simple and emotional short line which is memorable;

- 2. Workforce continuity is especially important for organizations where highly specialized professionals are needed to prevent massive layoffs. To reach this the organization must try hard to keep valuable employees through encouraging passion in its people and by building institutional pride;
- 3. At the same time, the mystique should have the capacity to change instead of lingering in the past. This means that the organization should be open to new ideas, emerging technologies, and for discussion;
- 4. Also important is the compelling aura, which is mainly important in general to gain respect and admiration as a public organization. This is the objective of mission mystique itself to ensure the continued existence of the organization (Goodsell, 2011).

To be able to track and interpret how an organization takes on institutional characteristics, the mission mystique template can be used. The mission mystique template is a framework which should be individualized instead of standardized and reflects the purpose, history, and culture of the public organization (Goodsell, 2011). This template, as seen in Table 1, consists out of 9 cells, of which the vertical columns distinguish three segments of the system, and the horizontal rows reflecting three functions (Goodsell, 2011). However, an important note is that Goodsell (2011) himself studied six public institutions and found that not one complied perfectly with all elements.

	Prime qualities	Essential elaborations	Temporal aspects
A purposive aura	A central mission purpose permeates the agency	The societal need met by the mission is seen as urgent	Has a distinctive reputation based or achievement
Internal commitment	Agency personnel are intrinsically motivated	Agency culture institutionalizes the belief system	Agency history is known and celebrated
Sustaining features	Beliefs are open to contestation and opposition	Agency enjoys qualified policy autonomy to permit appropriate adaptation	Agency renewal and learning are ongoing

Table 1: Organizational features of institutionalizing public organizations (Boin et al., 2021 p.6 adapted from Goodsell, 2011).

The cells located in Prime qualities indicate "[...] the trajectory bearings of a particular agency's mission mystique." (Goodsell, 2011 p. 479). Where the first cell (cell 1) indicates the central mission purpose in practice, cell 4 - the middle-left cell - specifies how the mission belief motivates individual members, and last (cell 7) - bottom-left - points out disagreements regarding the interpretation of the mission, which keeps the mission constantly under consideration (Goodsell, 2011).

The second column, the Essential elaborations shows the contextual features which affect movement within the mission trajectory. Herein, the societal need reflects the need for the mission to be maintained (cell 2). Next, cell 5, is the context of shared values and ideals located around the mission within the agency (Goodsell, 2011), cell 8 points to the extent in which the agency can decide for themselves what they do (Boin et al., 2021)

Temporal aspects are elements that relate to the time span of the institutions' existence. Cell 3 provides information about the record of the mission achievement on which the presentday reputation is based. Cell 6 then describes how the historical past is celebrated which shows organizational pride and formation of identity, and the last cell, cell 9, indicates ongoing organizational renewal through learning which prepares the institution for the future (Goodsell, 2011).

The dynamic of the template emerges in the rows, where the first row 'charges' the institution with a sense of purpose: cell 1 here states the institutions 'raison d'être' which follows from the central objective of the agency, interesting here is if the mission itself is stated in the law. Then, the legitimacy and significance are revealed through the mission's accomplishment of filling an important societal void (cell 2: top-middle). This legitimacy is strengthened through the past achievements of the institution since this shows that the agency is competent for the task (cell 3) (Goodsell, 2011).

The second row mobilizes the internal energy which is needed to pursue the purpose. The first cell (4) states to what extent the personnel are intrinsically motivated by the mission to work and not only by material compensation, cell 5 focusses on the organizational culture built around the fulfillment of the mission which then unites employees. Stories and ceremonies regarding the institutions' notable moments in history also influences this internal dedication (cell 6) (Goodsell, 2011).

Sustaining features holds cultural and policy vitality, to avoid institutional decline. Cell 7 describes the stimulation of open dialogue by discussions regarding mission implementation to avoid the doctrine becoming entrenched (Goodsell, 2011). With policy autonomy, leaders of an institution can chart their course (cell 8) (Boin et al., 2021), followed by self-renewal within the institution through continuous learning (cell 9) (Goodsell, 2011)

2.6 Framing a mission mystique: the role of language

As presented earlier, regional water authorities are currently facing certain trends which generate uncertainty. Public institutions which used to provide stability become less effective in such uncertain situations (Laws & Rein, 2003). As a response, institutional adaptation is needed to keep the institution's license to operate. Herein, a new policy language and new key concepts are introduced to keep a high level of legitimacy, wherein language shapes an individual's worldview (Van den Brink, 2009). Such meaning and meaning-making plays a central role in taking a discursive approach, with which the role of language in politics and the embeddedness of language in practices can be studied (Hajer & Versteeg, 2005). Herein, the discourse perspective focuses on systems of meaning as discourses which produce reality (Van den Brink, 2009). Another example of a discursive approach as an interpretive method of social sciences is the framing perspective. The framing perspective studies the various ways in which

people strategically make sense of reality, in which explicit focus is put on agency and strategy (Van den Brink, 2009).

The origin of the concept 'frame', as frequently used in academic research regarding social sciences, is derived from the work of Goffman (1974). For Goffman (1974 in Benford & Snow, 2000) "frames denoted 'schemata of interpretation' that enable individuals 'to locate, perceive, identify, and label' occurrences within their life space and the world at large." Action and discussion are then based on these frames which represent the knowledge and interpretations present (Laws & Rein, 2003). In other words, frames can be defined as a communication tool which individuals and groups use to interpret ongoing interaction, it addresses how these interactors work out definitions of their own identity (Dewulf et al., 2009). Frames act similar to the structure of a building of which the fundamental structure is not directly visible, which then makes the distinction between what should receive attention and what not (Laws & Rein, 2003). Entman (1993) connects this to the concept of salience, which can be described as the act of making a certain piece of information more standing out, by for example repeating it, which increases the chance that a receiver will remember it (Entman, 1993).

Benford and Snow (2000) add to this that frames are specifically created to achieve a goal such as for example the mobilization of people or to find new employees, which are then used within the mission of an institution. Which is a more specific direction in framing is collective action framing, where the credibility of frames is especially important. How collective actors construct frames underlying mobilization or actions is described as the collective action perspective (Steinberg, 1998 in Van den Brink, 2009). Collective action framing specifically aims at the mobilization of potential bystanders to gain support (Benford & Snow, 2000). This perspective can be seen as the opposite of the individual schemata of interpretation which focuses on aggregations of individual attitudes and perceptions, as collective action framing follows the idea that frames are the outcome of negotiated shared meaning and create a mental model organization-wide (Gamson, 1992). Such frames could be set up when there is a shared meaning of a problematic situation which needs change, and collective movement is needed to change the problematic situation to a desired alternative situation (Van den Brink, 2009; Benford & Snow, 2000). Collective action frames are dynamic processes rather than a static given: they are constantly reproduced and transformed as they are affected by the numerous elements of their surrounding environment (Benford & Snow, 2000).

2.7 Conceptual framework and analytical steps

To summarize this, growing complexity and uncertainty due to climate change result in a new paradigm for water management. The transition from resistance to resilience is put central, where focus lies on a democratic and integrated way of working. In this transition, Dutch regional water authorities are regarded as a key player with the knowledge and expertise to implement concrete measures for climate change adaptation. However, as Dutch water management is still largely focused on command-and-control practices, Dutch regional water authorities must adapt to play their part in the transition towards resilience. Such adaptive capacity is an important criterion in literature on public institutions to define organizations as

an institution, where the institution can remain viable through adaptation. Another criterion is that institutions have a unique identity and competence, which is well-suited to meet societal expectations. With this, a public institution is regarded as 'more' than an organization: the institution carries a mission mystique, which is felt both within and outside of the organization. As the internal vision and external expectations can be modified by moments of crises, establishing a new mission can have a positive influence on the endurance of the performance of the institution. To interpret how this mission mystique changes and how an organization takes on institutional characteristics, the mission mystique template can be used. In the repositioning of Dutch regional water authorities to work towards flood resilience, where they need to balance their technical expertise role with the need to become responsive governments, a new mission is established. An interesting addition to this theory is the role which language plays herein as a new policy language and key concepts are introduced, which mobilize collective action through negotiated shared meaning. Thus, by studying language by adopting a framing perspective to interpret the collective action frame as a response to balance a role based on technical expertise with the need to become a responsive government, the new organizational mission mystique, and thus the repositioning, of Noorderzijlvest can be interpreted. The focus is not necessarily to identify the dominant frame, but on the used language in this mission statement to take collective action at strategic level and the reflection in concrete water planning practices. As a result, the strategic and political repositioning of the Dutch regional water authority Noorderzijlvest can be understood.

Based on this conceptual framework, the repositioning of Noorderzijlvest was studied by taking the following five steps:

Step 1:

The first step was to analyze the institutionalization of Dutch regional water authorities throughout history (circa 1250 - 1970s) and their resulting mission mystique.

Step 2:

Zooming in on the Dutch regional water authority Noorderzijlvest, the second step was to analyze the strategic framing process within this regional water authority that seeks to reinvent its organizational mission mystique (strategic level).

Step 3:

Through an investigation of the BOVi and Double Dike projects, the operationalization of the new organizational mission mystique by Noorderzijlvest employees was studied in concrete water planning practices (operational level; internal perspective).

Step 4:

To study the reinvented organizational mission mystique from an external as well as an internal perspective, the fourth step was to analyze how other parties involved in these projects interpret the operationalization of the reinvented mission mystique (operational level; external perspective).

Step 5:

In the final step, the repositioning of Noorderzijlvest was interpreted based on the combined internal and external perspective, how this is reflected in concrete water planning practices, and how this position has developed in the context of the historical development of the water boards. Based on this, several lessons will be drawn for both Noorderzijlvest and Dutch regional water authorities regarding the current search for a reinvention of their mission mystique to govern for climate change adaptation while balancing their technical expertise role with the need to become a more responsive government.

How these analytical steps are operationalized will be explained in the next chapter, as well as other methodological choices.

Chapter 3: Methodology

This chapter focuses on, and justifies, the methodological choices of this research's analytical steps. At first, the choice for conducting a qualitative and interpretative embedded single-case design and the case selection of Noorderzijlvest is elaborated upon. Subsequently, the methodological strategy of this research is described. After this the data analysis of primary data is discussed, as well as the ethical considerations of this research.

3.1 A qualitative and interpretive embedded single-case design

To analyze how Dutch regional water authorities reinvent their expertise role to govern for climate change adaptation while balancing their technical knowledge on the one hand and the need to become a more responsive government on the other, and how this is reflected in concrete water planning projects, a qualitative and interpretive embedded single-case design is conducted. In a qualitative and interpretive strategy, the analysis of social patterns and processes of human meaning-making are central (Van den Brink, 2009), wherein interpretive methods aim to understand the life of the actor in the situation being observed (Yanow, 2006). Case studies are ideal when a research wants to gather small-scale, in-depth information (Taylor, 2016), put emphasis on uniqueness (Van den Brink, 2009) and on 'the power of example' (Flyvbjerg, 2001). With this, a qualitative and interpretive case study research is not followed to understand other cases (Van den Brink, 2009). The uniqueness of each Dutch regional water authority is reflected in the different context in which each authority is located. However, selecting one regional water authority to analyze its repositioning can provide valuable lessons and policy recommendations for other regional water authorities. This is based on the assumption that all regional water authorities are currently experiencing pressure to find a new role. Because there are still remainders of the command-and-control practices in all layers of Dutch water management (Restemeyer et al., 2017), while the shift towards a new paradigm is in need of more responsive governments throughout the whole water sector as well.

Cases are often selected based on the expected information content (Flyvbjerg, 2001). As the initial proposal of this research was based on the selection of two regional water authorities to be able to compare between two, multiple regional water authorities were contacted. However, Noorderzijlvest, located in the Northern part of the Netherlands and number 12 in Figure 1, was the only regional water authority which actively responded. Simultaneously, the search was based on finding a case which was generally not perceived as the most progressive. If the most progressive regional water authority was selected, the learned and established policy recommendations would be less likely to apply to other regional water authorities. Afterwards it was found that the assumption that Noorderzijlvest would not be the most progressive regional water authority was supported by a study by Kamperman and Biesbroek (2017) on measuring the climate change adaptation policy in Dutch regional water authorities. This confirms that Noorderzijlvest does not belong to the top three regarding the Adaptation Initiatives Index Scores, nor at the bottom three (Kamperman & Biesbroek, 2017).

To analyze the repositioning of Noorderzijlvest in concrete water planning practices, this single-case design consists of multiple units of analysis: an embedded single-case design

(Yin, 2009). A first pilot interview was conducted to obtain background information of Noorderzijlvest and to discuss potential concrete water planning projects wherein Noorderzijlvest fulfilled a broader role which was not only based on technical expertise. The proposed projects are considered as exemplary projects in the new way of working by Noorderzijlvest itself. These projects provided the ability of analyzing the translation of the authority's positioning in concrete water planning practices. The selected units of analysis were the Blue Strategy on the Environment, or BOVi: in Dutch called 'Blauwe Omgevingsvisie' and the Double Dike project, the 'Dubbele Dijk project'.

The Blue Strategy on the Environment: the BOVi

On the first of January 2022, the Dutch 'Omgevingswet' (Environmental Law) is expected to take effect (Rijksoverheid, n.d.). This law requires the national government, provinces, and municipalities to develop mutually harmonized environmental visions. Although Dutch regional water authorities are not obliged to develop an environmental vision, the authorities believe that it is valuable to be at the heart of society and publicize a clear vision. It is emphasized that the regional water authorities must take the stage (Waternatuurlijk, n.d.). Thus, a few chose to do so to make themselves and their objectives recognizable for their key partner as they state: "By developing our BOVi we give direction and content to our interests, role, and responsibilities. We are a serious partner in the region and an expert in the field of water management." (Waterschap Noorderzijlvest, 2020a p. 3). In the BOVi, both the legal responsibilities and social responsibilities are reflected. It is also specifically aimed at bringing several topics such as climate adaptation, drought, biodiversity, and water security together in one vision (Waternatuurlijk, n.d.), and could therefore play an important role in balancing Noorderzijlvest's role based on technical expertise with the need to become a more responsive government.

Double Dike project

Another unit of analysis is the Double Dike project. Noorderzijlvest manages around 66 kilometers of primary flood defenses in the North between Lauwersoog and Delfzijl. An inspection concluded that twenty kilometers of the dike between Delfzijl and Eemshaven needed improvement (Waterschap Noorderzijlvest, 2016). Although dike improvements are still often seen as a technical task, the concept for a double dike was seen as an opportunity for co-benefits within this dike improvement and was further developed. The double dike entails two dikes where one is situated behind the other, as seen in Figure 3. This concept is expected to be as robust as increasing the height of one old dike; to provide a stable dike zone on the longer term; create the possibility to collect sediment and offers better protection to earthquakes resulting from gas extraction in the province of Groningen (Antea Group, 2015). Noorderzijlvest is proud of this project and regards it as an innovative project where water safety is combined with opportunities for economy, nature, and recreation (Eemsdollard2050, n.d.). Therefore, this project was selected to analyze how the strategic and political positioning of Noorderzijlvest is translated into practice.

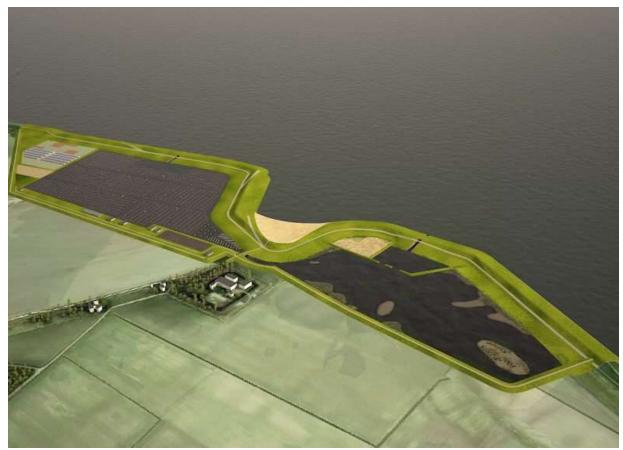


Figure 3: An exemplary picture of the Double Dike project (source: Eemsdollard2050, n.d.).

3.2 Step 1: Historical literature review of regional water authorities in general

To operationalize the analytical steps presented in the conceptual framework, multiple strategies were developed. In the first step, the institutionalization of Dutch regional water authorities was analyzed to interpret the previous mission mystique of regional water authorities. This serves as a starting point to be able to study how Noorderzijlvest is currently repositioning itself to govern for climate change while balancing its expert role and the need to become a more responsive government in the final step. This step was conducted by means of a literature review of the documents as presented in Table 2 to form a comprehensive overview of the history of Dutch regional water authorities and their resulting mission mystique in the 1970s.

Giebels, L. (1992). De zaak van de abandonnerende polder en de afschaffing van de waterschapsrechtspraak in 1841. *Tijdschrift voor Rechtsgeschiedenis/ Revue d'Histoire du Droit/The Legal History Review*, 60(3-4), 449-469.

Havekes, H.J.M. (2008). *Functioneel decentraal waterbestuur: borging, bescherming en beweging*. [In Dutch] Sdu Uitgevers by. Den Haag, The Netherlands.

Kuks, S.M.M. (2009). *Chapter 8: Institutional Evolution of the Dutch Water Board model*. 155-170 in: Water Policy in the Netherlands – Integral Management in a Densely Populated Delta by Folmer, H. and Reinhard, S. RFF Press Book: Washington, DC, USA.

Lintsen, H. (2002). Two Centuries of Central Water Management in the Netherlands. *Technology and Culture*, 43(3), 549–568.

Mostert, E. (2017). Between Arguments, Interests and Expertise: The Institutional Development of the Dutch Water Boards, 1953-Present. *Water History*, 9(2), 129-46.

Toonen, T.A.J., Dijkstra, G.S.A. & Meer, F. van der (2006). Modernisation and reform of Dutch water boards: resilience or change? *Journal of institutional economics 2*, 2, 181-201.

Ven, G.P. van de (1993). *Man-made lowlands: history of water management and land reclamation in the Netherlands*. Translation of: Leefbaar laagland: geschiedenis van de waterbeheersing en landaanwinning in Nederland. Third edition. Stichting Matrijs, Utrecht, the Netherlands.

Table 2: Overview of the main literature used to study the institutionalization of Dutch regional water authorities.

3.3 Step 2: Zooming in on the strategic level of Noorderzijlvest: a framing analysis of documents and semi-structured interviews

The research method to conduct the second step consisted of a framing analysis of strategic documents and semi-structured interviews to interpret the current mission mystique of Noorderzijlvest. As the framing perspective puts explicit focus on agency and strategy, and is previously applied to organizations (e.g., Van den Brink, 2009), this research adopts a framing perspective as discussed in Chapter 2.6. With this, the research question: 'How is the regional water authority Noorderzijlvest strategically and politically repositioning itself to govern for climate change adaptation?' is studied to construct the new mission mystique. This allows to 'shoot' a film of the development of Noorderzijlvest to elaborate on how Noorderzijlvest is repositioning. The framing process of Noorderzijlvest includes key concepts used to describe how the regional water authority is repositioning itself, what key concepts in the new policy language are, and what these aim for according to Noorderzijlvest. The operationalization of the framing perspective is further presented in Chapter 3.5.

To study the framing process of Noorderzijlvest at strategic level, first strategic documents were analyzed. Currently, Dutch regional water authorities are obliged to formulate goals and measures in a so-called Water Management Program (*Waterbeheerprogramma 2016-2021*). As the current Water Management Program comes to an end after 2021, the governing board of Noorderzijlvest decided to initiate on putting a new spot on the horizon regarding its long-term strategic positioning to provide guidance to the new Water Management Program. This has taken shape as a Blue Strategy on Spatial Planning and the Environment, in Dutch called the '*Blauwe Omgevingsvisie*', in short: BOVi. Thus, the previous Water management Program 2016-2021), and the Coalition Agreement (*Bestuursakkoord 2019*). These documents were found on the website of Noorderzijlvest. To confirm if there were any missing

documents, interviewees were asked for any additional documents. An overview of the analyzed policy documents is provided in Table 3.

Name of the policy document (in Dutch)	Year of publication	Covered years
Water Management Program	2016	2016-2021
(Waterbeheerprogramma)		
Coalition Agreement	2019	2019-2023
(Bestuursakkoord)		
Plan of the year	2020	2021 (including outlook on
(Jaarplan)		2022-2024)

Table 3: Overview of the analyzed strategic policy documents.

Subsequently, semi-structured interviews were conducted to further elaborate on the framing process of employees of Noorderzijlvest on strategic level. Interviews are a common method for qualitative research to explain individual cases (Mahoney & Goertz, 2006), wherein semi-structured interviews provide room for flexibility but is also partly guided by a questionnaire (Longhurst, 2010). This method is suitable when not all knowledge of the interviewee is known before the interview. It is of importance that the questions will be asked as neutral as possible, to avoid steering the answers of the interviewees (Longhurst, 2010). By using the questionnaire only as a guideline, room for the interviewees is provided to highlight what they think is most important (Longhurst, 2010). Through formulation of open questions, insights in values, assumptions, and perspective can be gained (McQuarrie, 2016). The interview guide (in Dutch) can be found in Appendix 1.

The interviewees for this step were selected based on their experience at the strategic level of Noorderzijlvest to create an, as Longhurst (2010) describes it, in-depth understanding of the individual case of Noorderzijlvest. The first interviewee was not a random participant, but was contacted through the supervisor of this research. For the other interviews, the snowball effect was used, where potential interviewees were put forward in earlier conducted interviews (Longhurst, 2010). The first interview had an explorative intention to gain general information about Noorderzijlvest and concrete water planning projects which reflect the water authority's search for its new positioning to govern for climate change while balancing its expertise role and the need to become a more responsive government.

3.4 Step 3 and 4: Analyzing the internal framing process on operational level and the external perspective through semi-structured interviews

The third step of this empirical research was interpreting the operationalization of the key concepts derived from step two in concrete water planning practice. In this step, the focus was laid on the framing process of employees of Noorderzijlvest involved in the BOVi and Double Dike. With this, the third secondary research question: 'How is this repositioning of Noorderzijlvest reflected in concrete water planning practices?' was studied. This step thus focused on the operationalization and the internal perspective of the new organizational mission mystique. Subsequently, step 4 focused on the interpretation of the repositioning of Noorderzijlvest by other involved parties: the province of Groningen, the province of Drenthe,

and the National Flood Protection Program (*Hoogwaterbeschermingsprogramma: HWBP*): the external perspective. In interviews with employees of the National Flood Protection Program, not only Noorderzijlvest but also regional water authorities in general were discussed.

Except for one interview, all were conducted online, as the COVID-19 pandemic demanded employees to work from home. Table 4 on the next page provides an overview of the interviewees and any additional information. All interviewees were assigned an identifier used for reference in Chapter 5 and 6. One of the interviewees of this interview, identifier 1.2, was interviewed a second time to be able to further elaborate on the operational level.

To allow for detailed quotes, the interviewees were asked for permission to record the interview which was later transcribed. The quotes wished to be used in this research where then provided to the interviewees for approval or minor changes. An important note is that the interviews were conducted in Dutch, which meant the quotes had to be translated to English, these translations were also provided to the interviewees for approval. To avoid possible miss-interpretation due to the translation of Dutch quotes into English, the original quotes are provided in Appendix 2.

Date	Identi fier	Function interviewee (<i>in Dutch</i>)	Organization	Predominant focus: strategic/ operational
12-10-	R1	Strategic advisor on coastal protection and	Noorderzijlvest	Strategic
2020		(Strategisch adviseur kustbescherming)		(explorative)
12-10- 2020	R2	Policy advisor on the external environment (Adviseur omgevingsbeleid)	Noorderzijlvest	Strategic (explorative)
07-12- 2020				Operational
09-11-	R3	Member of the daily governing board	Noorderzijlvest	Strategic
2020		(Lid dagelijks bestuur)		
17-11- 2020	R4	Policy advisor on water safety (Beleidsadviseur waterveiligheid)	Noorderzijlvest	Strategic
17-11-	R5	Project manager on flood protection	Noorderzijlvest	Both
2020		(Projectmanager hoogwaterbescherming)		
20-11-	R6	Program manager on the environment and	Noorderzijlvest	Both
2020		planning act (Programmamanager omgevingswet)		
24-11-	R7	Policy advisor on spatial planning and water	Noorderzijlvest	Both
2020		(Beleidsadviseur ruimte & water)		
26-11-	R8	Secretary of the general governing board	Noorderzijlvest	Strategic
2020		(Griffier algemeen bestuur)		
26-11-	R9	Stakeholder manager	Noorderzijlvest	Both
2020		(Omgevingsmanager)		
27-11- 2020	R10	Policy advisor on water and coastal development <i>(Beleidsmedewerker water & kustontwikkeling)</i>	Province of Groningen	Operational
16-12- 2020	R11	Advisor on communication (Communicatieadviseur)	Noorderzijlvest	Both
18-12-	R12	Strategist on spatial development	Province of	Operational
2020		(Strateeg ruimtelijke ontwikkeling)	Drenthe	
18-12-	R13	Policy advisor on water	Province of	Operational
2020		(Beleidsmedewerker Water)	Groningen	
06-01-	R14	Member of the management team of the program	National Flood	Operational
2021		managing board	Protection	
		(Lid managementteam programmadirectie)	Program	
07-01-	R15	Former managing director &	National Flood	Operational
2021		Program director national flood defenses	Protection	
		(Voormalig directeur &	Program &	
		Programma directeur Rijkskeringen)	Rijkswaterstaat	

Table 4: Overview of the interviewees.

The timeframe of the collection of the data from the interviews was between October 2020 and January 2021. The timeframe of policy documents which are used largely focusses on the period between 2016 and 2023. The most recent year where Water Management Plans were

adopted by regional water authorities was 2016, which will cover its policies until 2021 (Kamperman & Biesbroek, 2017).

	Conceptual framework	Research method	Chapter
Step 1	Analysis of the historical	Historical literature review	4
	institutionalization of Dutch regional		
	water authorities		
Step 2	Analysis of the strategic level	Framing analysis applied to policy	5
	of Noorderzijlvest to construct its new	documents and semi-structured	
	strategic and political positioning	interviews at strategic level	
Step 3	Analysis of the translation of the new	Document analysis and semi-	6
	positioning in concrete water planning	structured interviews at operational	
	projects – the internal perspective	level	
Step 4	Analysis of the interpretation of the new	Semi-structured interviews at	6
	positioning in concrete water planning	operational level	
	projects by other parties involved – the		
	external perspective		
Step 5	Interpretation of the new strategic and		7
	political positioning of Noorderzijlvest to		
	govern for climate change		

In short, the empirical research strategy was structured as shown in Table 5.

Table 5: Analytical research steps as the conceptual framework

3.5 Data analysis

A qualitative approach was used, where the case was subject to a framing-analysis of policy documents and semi-structured interviews. The data of both approaches were analyzed and combined to form a holistic view of the strategic and political positioning of Noorderzijlvest to cope with current trends. As Cope (2010) points out, data can be evaluated and organized through coding to understand meanings in a text. By providing the policy documents and transcripts of interviews with interpretive tags, certain patters can be recognized while comparing different interviews (Cope, 2010). There are multiple ways to construct a set of codes: open coding, where codes are assigned to what the researcher believes are important sections, and more systematic approaches where the data is analyzed through a particular lens (Cope, 2010). This research used both approaches, the latter through deductive coding where the codes were based on the mission mystique template, as shown in Table 6. Herein, key concepts which were used by documents and employees of Noorderzijlvest in describing the deductive codes were noted as inductive codes. For this, an inductive process was used where the researcher's initial approach was of broad evaluation to find the trends and patterns on 'accident' within the material to generate understanding from the data themselves (Cope, 2010). This is also known as open-coding with in vivo codes – where codes emerge from the text itself (Cope, 2010), based on the used language. Thus, a grounded way of working was used where the main interest lied on the key concepts that held information on the repositioning of Noorderzijlvest. Herein, the main aim was to stay as close to the original text as possible.

These concepts are regarded to form the framing process of strategic policy documents and strategic policy advisors of Noorderzijlvest in describing Noorderzijlvest's repositioning to govern for climate change adaptation while balancing its expert role with the need to become a more responsive government. As seen in Table 6, the majority of the codes that play a central role in this empirical research are linked to the purposive aura of Noorderzijlvest. These codes, or key concepts, were mainly used to analyze the central mission, societal need, and reputation in the mission mystique template of Noorderzijlvest, and to a lesser extent to analyze other organizational features such as the agency history celebration.

Deductive codes	Inductive codes	Original Dutch inductive codes
Central mission/purpose	True partner of the region	Volwaardig gebiedspartner
	Stakeholder management	Stakeholdermanagment
	Humanness	Menselijkheid
	Pro-active	Pro-actief
	Core tasks	Kerntaken
Societal need	Public support	Draagvlak
	Integral	Integraal
	Opportunities for co-benefits	Meekoppelkansen
	Focused on the external	Omgevingsgericht
	environment	
Reputation	Water awareness	Waterbewustzijn
(record mission achievement)	Water expert	Water expert
	Modern government body	Moderne overheidsorganisatie
Personnel		
Culture (shared values)		
Agency history celebration		
(organizational pride)		
Beliefs are open to		
contestation and opposition		
Policy autonomy		
Agency renewal	Collaborative planning	Samenwerken
	Agenda setting	Agenderend
	Open	Open
	Area-based planning	Gebiedsgericht

Table 6: Deductive and inductive codes in the code group 'Mission Mystique Template'.

Subsequently, Table 7 on the next page shows the codes which were used to analyze the internal and external perspective in concrete water planning practices. These deductive codes were set-up to be more zoomed-out and based on the content instead of language in which the repositioning of Noorderzijlvest was specifically mentioned, what opportunities and challenges were in the translation of the strategic mission into practice, and how external parties involved perceive the repositioning of Noorderzijlvest.

Coding of the interview transcripts and documents is done by using the computer software ATLAS.ti 8.4.

Code group	Deductive codes (in Dutch)	
BOVi	Info	
	Vertaling	
	Dilemma's	
	Kansen	
Dubbele Dijk	Info	
	Vertaling	
	Dilemma's	
	Kansen	
Noorderzijlvest	Historie	
	Wat vinden partners	
	Zoektocht herpositionering	

Table 7: More abstract deductive codes to study the key concepts in concrete water planning practice.

3.6 Ethical considerations

According to Longhurst (2010) the most important ethical issues to consider are confidentiality and privacy. By notifying the interviewees of their rights to withdraw from the interview or change answers at any time this can be ensured. Potential quotes were sent back to the interviewees for approval. To protect the interviewees' privacy, the interviewees were notified that obtained data in the form of transcripts was to be anonymized, managed and stored safely, and would only be used for this research (Longhurst, 2010). All interviews were conducted by the author of this research as a student of the Double Degree Master of the University of Groningen (Environmental and Infrastructure Planning) and the University of Oldenburg (Water and Coastal Management), independent of other organizations, and without adverse interests.

Chapter 4: Dutch regional water authorities as public institutions

This chapter focuses on the first step of the empirical research: analyzing the institutionalization of the Dutch regional water authorities throughout history. The timeframe of the different periods partly follows the structure of Van de Ven (1993) and Mostert (2017). The key developments are distinguished based on a review of literature about the history of Dutch water management in general and defining moments in the development of Dutch regional water authorities (e.g., Giebels, 1992; Van de Ven, 1993; Lintsen, 2002; Toonen et al., 2006; Havekes 2008; Kuks, 2009; Mostert, 2017). At the end of this chapter, 4.2 reflects on the key developments in the institutionalization of Dutch regional water authorities and the mission mystique template by Goodsell (2011) is used to shape the mission mystique of the regional water authorities in the 1970s.

4.1 The history of Dutch regional water authorities

800-1798: The foundation of Dutch regional water authorities

Before the year 800, the processes that mainly shaped the Dutch landscape were the formation of peat, and erosion and sedimentation of the sea and rivers. This erosion resulted in large parts of land in the north and southwest of the Netherlands being lost (Van de Ven, 1993). The main cause of loss of land after 800 was due to human occupation, as reclamation of peat led to a decrease of the surface level resulting in the take-over of tidal forces. The influence of the sea grew which led to regularly recorded storm surges after the year 1000 (Van de Ven, 1993). From 1100, the growing influence of the sea and the growth of the population, which led to more cultivation of the low land, pressured the usage of dunes as protection against the sea (Van der Linden, 1982; Van de Ven, 1993 both in Toonen et al., 2006). This meant that the Dutch civilization needed to find other solutions to protect itself from the water. Simultaneously, large peat areas were reclaimed, for which complex drainage systems and collective action within the communities was needed (Van de Ven, 1993).

In early history, water management was presumable important for everyone as all lived directly off the land (Raadschelders & Toonen, 1993). During this time, farmers were responsible for the technical services to keep their own land workable. But there were also land reclamations of several hectares which required an official secretary and mature technical service (IJff, 1993). Individual landowners started to group themselves in order to build dikes and drainage canals and are generally seen as the first local collaborations to keep the water out of cultivated lands (Mostert, 2017). Bijker (2002) further explains that these collaborations were the first form of democracy, where all landowners had voting rights of which the weight was dependent on the size of their properties.

These collaborations slowly started to increase in scale among local communities, and eventually led to the first Dutch regional water authorities which are believed to be established around the turn of the first millennium (Fockema Andreae, 1952 in Toonen et al., 2006; Kuks, 2009). According to Van de Ven (1993) this development was first seen around Utrecht, which is located in the middle of the Netherlands, around the year 1250. A special governing body was formed in order to supervise maintenance of the technical structures. This governing

body had judiciary and regulatory powers (Mostert, 2017), for which the representatives for inspection were elected (Van de Ven, 1992).

The supervision and the built dikes proved insufficient when between 1250 and 1600 the influence of the sea grew and again resulted in a higher number of floods (Van de Ven, 1992). There was need for more hydraulic structures (e.g., dams) to keep entire regions dry as natural drainage did not prove to be sufficient anymore. To further enlarge the protected areas, regional water authorities further took over the management of individual dike rings and drainage systems from other local communities from the 15th century onwards (Van de Ven, 1993; Mostert, 2017). The establishment of regional water authorities in the rest of the Netherlands is linked with these developments of hydraulic structures (Van de Ven, 1993).

Because the scale of regional water authorities increased, and with this the size of the dikes, maintenance and repair which could not be carried out only by landlords anymore, money became increasingly important. The response of the regional water authorities was to bring the water authority tax to life (Van de Ven, 1993), however, landowners further inland who only benefitted indirectly were not taxed yet. After this, the direct influence of village communities decreased – as the geographical scale of the regional water authorities grew, more stakeholders got involved, which were all to be represented in the governing board as the governance system was based on the idea of 'unity of pay, say, and interest' (Mostert, 2017; Van de Ven, 1993). In other words, the stakeholders who had a direct interest in the existence and tasks of regional water authorities were to be represented in the board and had to pay based on their amount of interest, thus farmers kept an important position throughout history (Mostert, 2017).

In the 17th century there were several disastrous floods which led to a critical look upon the functionality of the regional water authorities. This resulted in more cooperation between the different regional water authorities, and the focus on more technical expertise to tackle the occurring issues (Toonen et al., 2006), by for example employing skilled hydraulic engineers (Van de Ven, 1993; Lintsen, 2002).

1798-1952: Turbulent years: the pressure of centralization and discussions about legitimacy

Even though more skilled engineers were hired, flood disasters in the 18th century showed the lack of central coordination and the incapability of dealing with floods through a fragmented system (Kuks, 2009). It was argued that there was need for central coordination by the national government which was heavily influenced by the French ideas regarding centralization around 1800 (Lintsen, 2002). Through the new domination of the Netherlands by the French and their constitution, the focus of administrative orders shifted from the local to central levels (Kuks, 2009). In 1798, this led to the establishment of a state water authority - called Rijkswaterstaat, (Kuks, 2009). The establishment of Rijkswaterstaat was a key point in the transition from a local water management approach to a nationwide overview. However, the centralization of tasks got resistance of the regional water authorities, as the rather conservative rulers were afraid to lose their legislative and executive powers (Kuks, 2009), or in other words: their license to operate. The regional water authorities remained responsible for regional water management during these years, but this was not without a fight (Van de Ven, 1993).

Although the trend of centralization had started, the number and strength of regional water authorities increased in the 19th century. Their technical knowledge became an indispensable part of water management, together with their strong position within local communities (Toonen et al., 2006). Due to centralization, older forms of local governments '*ambachten*' were abolished. The municipality took over their functions, except the water management, which new regional water authorities took over (Toonen et al., 2006). At the same time, the need of farmers for specific water control grew as new crops were introduced which needed more fine-tuning, leading to the need for more cooperative arrangements (Toonen et al., 2006).

Next to the pressure of centralization, the regional water authorities experienced conflicts with other stakeholders after 1800. These conflicts were mostly the result of inhabitants disputing imposed obligations by the regional water authorities (Giebels, 1992). Giebels (1992) argues that this was since the powers of regional water authorities, which were both the judicial (the evaluation of laws) and executive (the implementation of laws) powers, were in contrast with the trias-politica. Eventually in 1841 the judicial powers were taken away, however, regional water authorities were still allowed to use police enforcement to enforce their regulations which was also a heavily debated topic (Giebels, 1992). Together with this, in the first half of the 19th century maintenance of bridges and roads were the responsibility of the regional water authorities (Giebels, 1992). As this responsibility also included the maintenance of interregional roads while the authorities were still relatively small and the obligations were not written down, the regional water authorities were not satisfied with having this responsibility anymore (Giebels, 1992). Due to their small size various authorities experienced difficulties in collecting enough tax money to hire specialized staff and to maintain their main responsibility: water management infrastructure (Mostert, 2017). What also played a big role in this money shortage is the fact that the maintenance of the sea dikes was often the responsibility of, and therefore only paid by, polder communities located directly at the sea. Polder communities which were located more land-inwards were then also protected, but were not contributing any money (Mostert, 2017). To solve this money shortage, subsidies were requested from the provincial and national government. Simultaneously, the central state took over some dikes or new regional water authorities were set up to take over the responsibility over the sea dikes who could then tax everyone who had an interest (Mostert, 2017).

At the same time, technological innovation such as the introduction of mechanical pumping after 1800 shows the development of expertise within regional water authorities (Van de Ven, 1993). The technological knowledge and innovation accelerated after World War 2, as there was more focus on the practice than on scientific research (Bijker, 2007). In the 20th century there were a lot of big transformations in the Netherlands due to centralization and technocratization which led to the current water management system (Lintsen, 2002). Even though there was already a focus on centralization from 1800 onwards, the amount of small water authorities still grew between 1900 and 1950 as a result of the desire to create new authorities in order to regulate the water levels more accurately everywhere and because of the technical possibilities that rose after the windmill-era (IJff, 1993). After the floods in 1916 and 1953 two major projects were executed: the Zuiderzeewerken and Deltawerken (Lintsen,

2002), which clearly showed the Dutch believe of a malleable landscape. However, in the period after World War 2, a combination of natural causes and (inter)national policy changes led to a reconstruction of the regional water authority system (Toonen et al., 2006).

1953-1962: The aftermath of the flood of 1953 and the recurrence of financial problems

After World War 2 the influence of the central government upon the regional water authorities increased further. Even though there had been reforms and attempts toward centralization in the past - the regional water authorities were mostly able to resist large-scale merging (Kuks, 2009) - industrialization led to the concept and necessity of regional water authorities being heavily discussed (Havekes, 2008). Especially after the Flood Disaster of 1953 hit the Netherlands, there were made agreements on a reduction of the number of regional water authorities to take a more regional approach. There were several small water authorities which were responsible for important dikes, but the flood revealed their inability to manage this (Lintsen, 2002). It was clear that the regional water authorities were unable to protect larger parts of the Netherlands and they lacked financial and technical means to coordinate the repairs (Mostert, 2017). The resistance of the many small water authorities was broken and, as a result, these authorities were merged into larger and better-equipped authorities to deal with water challenges (Brainich von BrainichFelth, 1993 in Kuks, 2009). This resulted in a fast decrease in the number of regional water authorities from 1953 until 2020 as seen in Table 8. Even though the regional water authorities were regarded as unequipped by the national government, it is interesting to note that the population which was impacted the most believed that the flood was the case of force majeure, instead of inadequate dikes (Van de Ven, 1993). This made it possible for the authorities in Dutch water management to remain their respect and role within the society, but the central government was still to be convinced.

At the same time the number of external challenges grew for water authorities. Until the 1950s, the Dutch water management system was 'relatively simple', it consisted 'only' of flood prevention, the control of water levels, and sanitation (Kuks, 2009). After the 1950s, the complexity increased due to attention towards other unexpected and long-time disputed external trends such as climate change (Toonen et al., 2006; Kuks, 2009). The focus on water scarcity, competing water demands, and navigation became additional focus points (Grijns & Wisserhof, 1992 in Kuks, 2009).

1963-1982: Discussions regarding the regional water authorities' license to operate

As complexity increased, the cost of flood protection rose. The increasing scale of regional water authorities did not prove to be enough to solve the financial situation. Due to the financial problems which were dependent on the performed tasks and incoming taxes, the structure and function of regional water authorities quickly got a topic of discussion (Mostert, 2017). The water authorities are a form of 'functional government', which means that they are a government body with limited tasks, instead of the broad task range of municipalities and provinces who were referred to as 'general governments'. It was argued that functional governments would complicate governance and could favor certain interest over the public interest. This type of governance was also seen as less democratic, as no general elections were held which was the case for general government (Van de Berg, 1982 in Mostert, 2017). This criticism on the democracy of the regional water authorities was the result of a social movement

among the Dutch inhabitants focused on democratization, and openness and participation. Which led to the questioning of the license to operate of the highly introverted and functional governance model of the mainly agricultural focused regional water authorities' (IJff, 1993).

As the flood of 1953 affected the whole Dutch population, it became evident that there were more people who benefitted from the activities of regional water authorities than only those who paid. It was now argued that the principle of 'unity of pay, say, and interest' applied nationwide (Mostert, 2017). In 1963 the National Association of regional water authorities therefore proposed that they should receive 30% of their spending's from the national government (Mostert, 2017). In order to judge this, the national government set up a commission for advice in 1968, but this commission disagreed with the Association that the national government had to pay 30% of the authorities' spending's (Mostert, 2017). The commission proposed that the regional water authorities would lose tasks that did not directly benefit real estate owners and polluters, who were the biggest financial contributors. This meant that they would lose the responsibility of road maintenance, recreational facilities, and coastal flood defenses (Mostert, 2017; Havekes, 2008). Even though the regional water authorities did not want to spend money on inter-regional infrastructure as stated before, the regional water authorities did not like the idea of giving up a part of their responsibilities (Havekes, 2008 in Mostert, 2017), which shows the authorities' fear of losing their license to operate overall. However, the commission did advocate for the regional water authorities' license to operate in the reorganization which was simultaneously taking place within the provinces and municipalities (Havekes, 2008). This was the most important conclusion for the regional water authorities to keep their license to operate and remain part of the Dutch institutional landscape. The opinion of the central government now was that the water authority-model was the most appropriate organizational model to perform water management tasks, and not for example the province (Havekes, 2008). The most important reason was the way how the authorities were able to give influence to all who have an interest. Another advice of the commission was to bring the amount of regional water authorities, which were still 800 around 1974, back to circa 20 (Havekes, 2008)

Simultaneously, the population growth, increased welfare, and industrialization which started in the 1950s led to serious pollution of surface waters (IJff, 1993). During this time the Dutch water management got a broader view and started to include other concerns such as recreation, industry, electricity, and the fishing sector. This led to the Pollution of Surface Waters Act (*Wet Verontreiniging Oppervlaktewateren*) in 1970, which required regional water authorities to take responsibility over the water quality of surface waters. Tasks of the regional water authorities could now include flood defense, water quality control, and sewage treatment (Mostert, 2017).

The inclusion of the responsibility for the operational water quality management into the tasks of the regional water authorities in 1970 was an important transition to the establishment of so-called 'all-in' regional water authorities which appeared shortly after (IJff, 1993; Schorer, 1993 both in Kuks, 2009). All-in regional water authorities are responsible for the maintenance of waterworks as well as the management of the water quality and quantity, including the purification of wastewater (Havekes, 2008). The impact which this development to water quality managers has given to the regional water authorities can hardly be overestimated. New treatment plants were built, and existing ones were taken over from municipalities while simultaneously laboratories, levy administrations, and devices for granting and controlling licenses were set up (IJff, 1993). As a result, regional water authorities grew rapidly in size but also in expertise: biologists, chemists, lawyers, etcetera flowed into the world of regional water management in significant numbers (IJff, 1993; Kuks, 2009).

As mentioned, already after the 1950s external trends like climate change were recognized. In 1976, the regional water authorities therefore considered a change in the composition of the administrative boards were necessary to include and represent all stakeholders through the process of decision making. This resulted in a stronger societal positioning of regional water authorities, but less direct involvement of farmers (Havekes, 2008).

1983-present: Intertwinement with other policy sectors and remained trust in technical measures

In 1983 a constitutional revision was enacted which Havekes (2008) describes as the pivot point between the historical developments in water management and the system of regional water authorities, and the current administrative constellation. It was for the first time that regional water authorities were seen as a fully-fledged part of public administration: regional water authorities were put under the chapter which was called 'Provinces, municipalities, regional water authorities and other public bodies' in the constitution (Havekes, 2008). Only in the 'Waterschapswet' (Regional Water Authorities Act) of 1991, the concept water authority got a definition: "Water authorities are public bodies which have the water management of a certain area as goal." (Havekes, 2009 p. 83). This is also seen as an important point of demarcation with the history: this law on regional water authorities was set up to bring more uniformity between regional water authorities. Together with the transfer of much power to the central government, this brought the role of provinces in water management to a minimum (Van de Ven, 1993). Besides this, the law also stated that the whole population now had to pay the water authority taxes, and it took the advice of the earlier mentioned committee to make regional water authorities responsible for both water quality and quantity (Mostert, 2017).

A few years later in 2002, the discussions about the license to operate of regional water authorities was still lively. In the water management system, integrated water resource management already received attention for a couple of years since the floods of 1993 and 1995 (Kuks, 2009), but its financing needed some thought which was done by an inter-ministerial working group (Mostert, 2017). However, the discussions within this working group were not so much about financing, but rather about how water management was governed and organized (Mostert, 2017). Eventually this working group proposed some alternatives for modifications to the tasks of the regional water authorities, which ranged from small changes to the tasks being completely taken over by the Rijkswaterstaat. The regional water authorities were kept, due to a statement which was directly taken from academic research: "[...] having separate bodies representing the interest of water management makes balancing water management interests a more conscious process." (Tweede Kamer 2003-2004, 19428. Nr. 1 in Mostert, 2017 p. 138). The financial crisis of 2008 instigated the political discussions about the regional water authorities' license to operate again. Eventually the Cabinet of Rutte II in

2012 agreed on the statement that the Dutch regional water authorities should be kept, but should be merged into 10 or 12 left bodies, and in the long run into 5 (Mostert, 2017), which led to the number of regional water authorities being decreased to 26 'all-in' regional water authorities (Havekes, 2008). The development of the number of Dutch regional water authorities throughout the last one hundred years is summarized in Table 8.

Over the centuries the population also found a living in other sectors than farming, leading to the gradual disappearance of water authorities from the public's view. These days, an unconscious self-evidence of the water authorities predominates. People are used to clean, running water in their houses, and dikes (Raadschelders & Toonen, 1993), mainly the result of: "When it comes to water, there is nothing we cannot do." (Raadschelders & Toonen, 1993 p.2). Even though the Netherlands has a long record of water management, for Dutch inhabitants it is self-evident that their feet are dry and water management does not give much cause anymore for headlines in the news, due to the daily functioning of the regional water authorities (IJff, 1993). It is evident that the political culture of the Netherlands still features characteristics that descend from the early history of water politics (Bijker, 2002). Bijker (2002) sees that there is still a certain trust in technical solutions and in technocracy. The history of the regional water authorities shows that there has been a threat from the water for centuries long, to which a quick reaction was often needed. Centuries long of taking a pragmatic approach to find ad hoc solutions led to the fixation of the idea of malleability in shaping the Dutch physical landscape (Bijker, 2002).

It is clear that in the beginning the regional water authorities worked on a very small scale, with a strong focus on agricultural lands, and without any official support water authorities (IJff, 1993). Now, the regional water authorities are described as professional organizations where employees try to tackle the most difficult challenges regarding water quality, quantity, and safety. Additionally, the water managers flow in from all parts of society and enjoy being part of the water authority system in its modern appearance (IJff, 1993).

Year	Number	Source	
1900	Ca. 2000	IJff(1993)	
1953	Ca. 2670	Mostert (2017)	
1962	Ca. 2000	Mostert (2017)	
1974	Ca. 800	IJff (1993) & Mostert (2017)	
1977	678	IJff(1993)	
1988	153	Mostert (2017)	
1993	118	IJff(1993)	
1999	63	Mostert (2017)	
2014	24	Mostert (2017)	
2020	21	Uni van Waterschappen (n.db)	

Table 8: Number of regional water authorities between 1900 and 2000.

4.2 The institutionalization of Dutch regional water authorities

Based on this historical analysis of Dutch regional water authorities, their institutionalization can be summarized in four key developments:

- At multiple points in history regional water authorities proved insufficient, for example between 1250 and 1600, but also in the 17th and 18th century, and in 1916 and 1953. As a result, the scale of regional water authorities enlarged but the pressure for complete centralization of its tasks remained. By increasing in scale, the regional water authorities generated enough power and expertise to build big technical structures to keep larger areas dry to withstand complete centralization towards the national government.
- 2. Hand in hand with this development went the development of technological innovation as an important feature in terms of institutionalization. The development of expertise was first seen in the technological innovation to increase the size of areas which could be drained. When the protection of larger areas was necessary, dams and other hydraulic structures were introduced which developed and proved their effectiveness and expertise to stakeholders. An important feature is that one of the earlier mentioned characteristics of public institutions, namely the permanent imprint on the public landscape, is clearly seen in the Netherlands. The fact that the Netherlands is often called a man-made landscape shows the effect which technical expertise has had on the Dutch environment. With this, the regional water authorities were able to maintain their position in water management.
- 3. Although the authorities lost their judicial powers in 1841 and small authorities tried to prevent large-scale merging, agreements were made to take a larger regional approach which led to an expansion of tasks as the power and expertise of the authorities increased. The expansion of tasks was an important point in the role development of regional water authorities in Dutch water management. At first, their main responsibilities were drainage of agricultural land and flood protection. When concerns on pollution arose, water quality was included in the tasks of the regional water authorities through the Pollution of Surface Waters Act, leading to 'all-in' regional water authorities. As a result, the authorities grew rapidly in size as they built and took over treatment plants and expertise as specialized staff such as biologists and lawyers entered the world of regional water management.
- 4. To endure the financial problems, the water tax was introduced which evolved from taxing only the landowners who directly benefitted drainage to nation-wide taxation for water safety and water quality. Although the entire Dutch population was now seen as a stakeholder of Dutch regional water authorities, dry feet and clean drinking water is now self-evident for Dutch inhabitants and the regional water authorities are even taken for granted.

An increase in scale has thus been accompanied by a strong professionalization of the Dutch regional water authorities. By significantly changing their position and expertise, the authorities, established an indispensable position in Dutch water management. With this, the regional water authorities successfully adapted to the institutional crises. In Chapter 4.1 it became evident that direct stakeholder involvement decreased throughout history as a result of

the increase in scale, as in early days the administrative body of regional water authorities existed out of land-owners themselves, while later all stakeholders were 'only' represented.

	Prime qualities	Essential elaboration	Temporal aspects
A purposive	Central mission is based	There is an urgent societal	Societal appreciation is high
aura	on the water management	need for maintenance of	in the battle against floods but
	of a certain area.	water works and	simultaneously taken for
		management of water quality	granted.
		and quantity is urgent.	
Internal	Personnel is intrinsically	Culture institutionalizes	Attention on agency history is
commitment	motivated: skilled	belief system through a	not specified
	engineers who were likely	strong focus on technical	
	very proud of their work.	measures to fight the water.	
Sustaining	Beliefs are not open to	Policy autonomy grew	Agency renewal and learning
features	contestation and	smaller, more influence from	are ongoing: visible renewal
	opposition: strong focus	the national government due	as the authorities merged to
	on technical measures to	to centralization.	larger scale and acquiring
	fight the water without		much technical expertise.
	taking other perspectives		
	into account.		

Based on the historical overview of this chapter, the mission mystique of Dutch regional water authorities around the 1970s was derived which is presented in Table 9.

Table 9: A summary of the organizational mission mystique of Dutch regional water authorities around the 1970s based on Chapter 4.

It can be concluded that Dutch regional water authorities are more dynamic than ever and can be regarded as institutionalized organizations. However, the shift from the 1970s onwards - where Dutch water management gradually started to shift from a technocratic scientific to an ecological perspective – does make them more vulnerable than ever. This reflects the necessity of the search of Dutch regional water authorities to balance its remained trust in technical measures with the need to become more responsive governments to keep its license to operate.

Chapter 5: Noorderzijlvest: towards a pro-active and true partner in area-based planning projects

In studying how regional water authorities deal with their current vulnerability by balancing their expertise role with the need to become more responsive governments to govern for climate change adaptation, this chapter zooms in on the Dutch regional water authority Noorderzijlvest and describes the findings of the collected data. First, the history of Noorderzijlvest is presented. After this, the current trends which are perceived by employees of Noorderzijlvest are discussed. Subsequently, the framing process of strategic policy documents and strategic policy advisors within Noorderzijlvest that seeks to reinvent its organizational mission mystique is analyzed, which corresponds to the second analytical research step. This analysis will follow the numbered cells of the mission mystique template as presented in Chapter 2 and gives attention to prime qualities such as the central mission, distinctive reputation, and the intended agency renewal.

5.1 The birth of Noorderzijlvest

On the first of January in 1995, four Dutch regional water authorities, namely Westerkwartier, Hunsingo, Noordenveld, and Smilde were combined into Noorderzijlvest (Waterschap Westerkwartier, 1994). Noorderzijlvest became the most northerly located regional water authority of the Netherlands, with a management area of 144,000 hectares (Werff & Hempenius, 1999). The main motivations for the establishment of Noorderzijlvest were the larger scale on which land could be collectively protected, and the fact the former regional water authorities were situated in each other's management areas which led to tasks being compiled. This could burden certain areas with taxes of up to four or five different water authorities, and also meant that the control and cost distribution of the whole catchment area was fragmented (Waterschap Westerkwartier, 1994). Noorderzijlvest was the first regional water authority in the north of the Netherlands to exceed provincial borders as an 'all-in' regional water authority – managing water quality, water quantity, and water safety (Werff & Hempenius, 1999). Traditionally, Noorderzijlvest is described as a farmers' organization as the focus of this regional water authority and its predecessors has predominantly been on rural areas.

5.2 Waves of change: current perceived trends by employees of Noorderzijlvest

This main focus on rural areas is currently being challenged by several developments which Noorderzijlvest describes in the Water Management Program (2016-2021). These can be roughly subdivided into three trends. The first trend is the growing awareness of climate change and adaptation. Climate change itself is not seen as a new responsibility for regional water authorities as the protection against rising sea-levels has always lied at the core of these authorities, but according to employees of Noorderzijlvest the felt urgency is new. A distinct point in history which led to this urgency within climate change awareness was a flood hazard in 2012. This flood hazard was the result of high-water levels of surface waters functioning as drainage of the polders, which led to the evacuation of Woltersum. The awareness that the

impacts of climate change are becoming more unexpected grew, and as a result Noorderzijlvest became aware that the sole focus on technical knowledge was not sufficient anymore: the shift towards more environmental and societal approaches was set in motion.

For employees of Noorderzijlvest, climate change awareness also includes other major water-related challenges, such as regional land-subsidence due to gas extraction, and a declining population. Especially the latter affects the ability of Noorderzijlvest to adapt to climate change, as the income of Dutch regional water authorities mainly exists of tax money. Together with the large amount of primary flood defenses for which Noorderzijlvest is responsible, the balance between the income and expenses to maintain the ability to cope with these trends will be a challenge, as the program manager on the Environment and Planning Act illustrates:

"Few people, big tasks. So, keeping our income and expenditure in balance to be able to cope with these trends in the future as well, that is the biggest challenge I see. If we can do it is not the point, effortlessly. But, you have to be able to keep paying for it, which is a big challenge." $(R6)^1$

The second trend can be described as the larger focus on social responsibility, where sustainability and communication are put central. To illustrate this, the Water Management Program states: "The society requires us to operate our social responsibilities in a transparent and cooperative way." (Noorderzijlvest, 2016 p. 48)². Social responsibility is interpreted by Noorderzijlvest as dealing with certain problems instead of leaving it to others or shifting it in space or time. Herein, Noorderzijlvest puts focus on transparency towards citizens and direct partners as they expect Noorderzijlvest to make clear what they do and why they do it. Sustainability is translated as having respect for natural water systems, where water as a natural source is used in a responsible way.

Thirdly, it was believed that the larger regional approach which developed in the 20th century and the first years of the 21st century decreased the direct contact between Noorderzijlvest and the citizens of its management area. In the same period as the fusion of the four regional water authorities which led to the birth of Noorderzijlvest, flood hazards in 1998, 2006 and 2012 amplified the need for focus on the water system as a whole and its regional character. Currently, the organization is trying to reconnect with the external environment and citizens within the management area. This trend was reinforced by the appointment of a new dikewarden (*dijkgraaf*), the chair of the regional water authority, in 2012 because of retirement. As a former mayor, the new dike-warden was used to engage with citizens. As a result, support, legitimacy, and the participation of citizens became increasingly important, which is reflected in the following statement of the secretary of the general governing board of Noorderzijlvest (*griffier van het algemeen bestuur*):

"What you see is that our focus was primarily on water safety and the question: 'How can we do that properly?'. While our new dike-warden said: 'We are not here for the water or those dikes, but for the people.' What you see is that our orientation changed a lot with this." $(R8)^3$

5.3 The repositioning of Noorderzijlvest: towards a communicative mission mystique

The new central mission: balancing technical and social responsibilities

As a response to these trends, the organizational mission mystique of Noorderzijlvest is changing in order to stay viable. However, the central mission of Dutch regional water authorities has always been ensuring dry feet and the protection of agricultural land. Since the year 1995 the core tasks of Noorderzijlvest, being the management of water quality, water quantity, and water safety, have not changed. Whereas the former mission originated from the nature of the authorities, the current core tasks are spelled out in the law since 2009: the Water Act (Het Waterschapshuis, 2020). Herein, the responsibility for regional water management and a large part of the Dutch primary flood defenses is specified.

Currently, the employees of Noorderzijlvest still identify the core tasks and ensuring dry feet as the most important part of the central mission, as certain norms to water management must be met by law, but urgency is felt to change the authority's technocratic way of working. There is a shared notion within Noorderzijlvest that the citizens inside the management area must be the central point of focus. As a member of the daily governing board (lid van het dagelijks bestuur) illustrates: "This means that we have a lot of knowledge about water and how to manage the water, but ultimately we do what we do for the citizens in our management area." (R3)⁴. With this realization a relatively new function within (water)planning projects emerged: the 'stakeholder manager' (in Dutch: omgevingsmanager or stakeholdermanager). Stakeholder managers map the interests of stakeholders to create consensus where all parties benefit from the project. This is interpreted as the ability of employees to scan the external environment on current events, and the ability to discover what the authority can expect and encounter in projects. As an advisor on communication explains: "They [stakeholder managers] are able to discover the sentiments and can build 'humanness' with those contacts." (R11)⁵. Building 'humanness' (in Dutch: *menselijkheid*) is highlighted to create interpersonal warmth and responsiveness to emotions, reflecting the central focus on citizens. This shows that Noorderzijlvest is becoming more externally oriented, as its mission is formulated in the Water Management Program 2016-2021 (Noorderzijlvest, 2016 p. 8)⁶ as follows:

"The regional water authority Noorderzijlvest stands for safe, sufficient, and clean water for all citizens of our management area. With this we create a foundation for a healthy and sustainable living- and working environment in Groningen and Drenthe. In collaboration with our partners, we are transparent, result-oriented, and cost-efficient in an innovative, socially responsible, and sustainable way. We want to be visible in our environment."

Societal need: to become more considerate in its external environment

The traditional societal need verifies the focus of the central mission on the core tasks, as there was and still is an urgent need for clean and sufficient water as well as dry land. For Noorderzijlvest this implies providing water for roughly 400,000 people and managing national water security with 65.8 kilometers of primary flood defenses.

Currently, the societal context is changing, which leads to the need for water authorities which are more considerate in their external environment as seen in Chapter 2. Although the need for an organization which is transparent about its way of working on its social responsibilities might not seem as urgent as ensuring dry feet, Noorderzijlvest could lose its legitimacy and eventually its license to operate when this need is ignored. Noorderzijlvest focuses on creating and maintaining 'public support' (*draagvlak*), which is interpreted as projects being supported by stakeholders, partners, and citizens through actively engaging those parties. However, it is pointed out by the employees that the historical trend of centralization and the wish from the Dutch politics to further merge the regional water authorities will complicate the process of creating public support, and might result in the loss of detailed knowledge of the management areas. When asked how the interviewees regard this wish to further merge the authorities, a strategic advisor on coastal protection illustrates:

"It will become more difficult to bridge the gap between citizens and the regional water authority. I recognize that the regional water authorities around us, Wetterskip Fryslân and Hunze en Aas, contain different water systems. If you are unlucky, an increase in scale leads to knowledge about specific water systems becoming more universal, and I doubt whether that has a positive impact on the tasks we have to complete as a regional water authority." (R1)⁷

The societal need for organizations which are more considerate in their external environment is also reflected in larger scale social movements, such as the growing focus on ecosystembased approaches and integrated water management as described in Chapter 2.1. Noorderzijlvest focuses on maintaining and creating public support by shifting towards a more 'integrated way of working' (*integraal*). The employees translate this as trying to think from more than one point of view or project and placing those in a broader context. Where the task and goal within Noorderzijlvest would still be the improvement of a dike, employees are aware that there might be other goals or needs in the surrounding area. By connecting internal ambitions with the ambitions of partners, 'opportunities for co-benefits' (*meekoppelkansen*), a frequently used concept, are explored to create added value.

A distinctive reputation: becoming a visible and true partner of the region

The societal need to become more considerate in its external environment might be the result of the current distinctive reputation of Noorderzijlvest. In the 1970s, where the traditional mission mystique is positioned, the national and international distinctive reputation of Dutch regional water authorities was high. Even today Dutch water management, in which the regional water authorities play a great role, is seen as an example for water management in other countries (e.g., OECD, 2014). However, within the Netherlands this distinctive reputation declined after the Flood Disaster of 1953, to the point where the license to operate of the authorities was heavily discussed in politics until 2012. This discussion has currently faded into the background within Dutch politics, but this did not necessarily lead to a distinctive reputation among Dutch citizens. It is taken for granted that Dutch inhabitants live in one of the safest deltas in the world where the urgency for dry feet is high: the awareness of the importance of Dutch regional water authorities is low. This shows that Noorderzijlvest has not yet gained such a special aura of respect which is reflected in the low turnout for the administration-elections: only 50.5% of all Dutch inhabitants (NU.nl, 2019).

Simultaneously, the influence of farmers is especially high within Noorderzijlvest: in periods of water nuisance or drought, people in rural areas directly experience the performance of the regional water authority. This results in those people voting for the political parties that are active in rural areas to be represented in the general administration of Noorderzijlvest, keeping the influence of farmers relatively high. To improve the distinctive reputation for its stakeholders, Noorderzijlvest incorporates its wish to be visible in its mission statement: "We want to be visible for our external environment." (Noorderzijlvest, 2016 p. 8)⁸. The term of 'water awareness' (*waterbewustzijn*) is frequently used, which means that Noorderzijlvest tries to communicate with its citizens on how human actions influence the water system and with this, influence the impact of periods of extreme weather. At the same time, the authority aims attention at the authority's history and landscape features with historical-cultural value, such as the celebration of the 100th anniversary of the Waterwolf, which is a water pumping station. With this, Noorderzijlvest expects citizens to better understand decisions and projects of Noorderzijlvest leading to a higher level of legitimacy.

The wish to be more visible in its external environment is also reflected in Noorderzijlvest's wish to be seen as a 'water expert' (*waterdeskundige*) which is included in projects instead of an authority that only checks if a certain project meets certain legal conditions. Employees of Noorderzijlvest perceive that Noorderzijlvest is still often seen as a third party by partners such as provinces and municipalities. As a project manager on flood protection explains:

"The external environment has to regard us as a water expert: that everyone know that we have that knowledge, and that with this we can be a true partner for the province and municipality in our field. The image that I had in the past was that we were not always primarily involved in the development of spatial plans, often only later when the contours of the plans were already fixed. Like: oh yes, we also have to think about the regional water authority. You would think that the regional water authority is necessary when it comes to water safety, quality, and quantity. We want to be a true partner in this, based on our responsibility." (R5)⁹

An interesting concept herein is Noorderzijlvest's wish to become a 'true partner of the region' (*volwaardig partner*), where Noorderzijlvest is taken seriously as a direct partner in concrete planning projects, rather than only as a permit allowing body. This focus is also reflected in used concept in the plan of the year to become a 'modern government body' (*moderne overheidsorganisatie*) (Waterschap Noorderzijlvest, 2020b), which is described in the Plan of the Year 2021 as an organization focused on professionalization and quality improvement of their daily work by adopting an integrated way of working both internally and externally (Waterschap Noorderzijlvest, 2020b). A strategic advisor on coastal protection further illustrates:

"Perhaps the idea behind the aim to become a modern government body is to avoid restricting ourselves in the here and now, but that we should look ahead, just like other governments, and should involve our stakeholders and grant them a place at our table. I think that the BOVi translates this very well: we do not allow ourselves to be put in a dependent position. We are a government layer as well, with our own task perception, on which we want to act." $(R1)^{10}$

Agency personnel is intrinsically motivated

In becoming a true partner of the region and adopting a new way of working, personnel play a key role. There used to be a strong focus on hiring employees with only technical skills and knowledge: experts who were proud of the knowledge they possessed in their field. Currently this pride and intrinsic motivation is still deeply rooted in the organization, and employees strongly believe in the importance of their work. When asked to describe the average employee of Noorderzijlvest all the interviewees were more than positive. They describe each other as knowledgeable, committed, passionate, implementation-oriented, and driven by and proud of their work – clearly indicating the enduring intrinsic motivation and united workforce of the employees of Noorderzijlvest. For example, a policy advisor on spatial planning and illustrates:

"[...] the vast majority is really passionate about what they do. That is very nice to see as it also makes you more motivated. An enthusiastic colleague is more likely to involve other colleagues in a project than colleagues who are not enthusiastic. I think this ultimately improves a project: if you enlarge the scope in a more enthusiastic way. It gets better, more fun, and broader. Fun (*gezelligheid*) is important, as this serves as a lubricant within an organization." (R7)¹¹

Agency culture: room for improvement in the sensitivity to the external environment

Although personnel can be regarded as intrinsically motivated, current shared ideas and behaviors are not seen as a stabilizing function for the belief system of Noorderzijlvest. Tension is felt within Noorderzijlvest between different employees, as one part is still focused on the traditional, technocratic way of working, while the other part wants to establish a new partner role for the organization. A member of the daily governing board explains that as a result, compromises within the strategic vision are made to get everyone on board. This may result in a less progressive vision, which might not enact change. The employee continues:

"On the one hand there is a group of people who say: cobbler, stick to your last and limit yourself to the basic tasks because that is already expensive enough. On the other hand, there are people who say: yes, but we have a societal function and have to look beyond just those technical solutions. This discussion keeps coming back, also because there is often a price tag involved." $(R3)^{12}$

Picking up signals from the external environment, dealing accordingly with those, and even adjusting policy accordingly is seen as a challenge in the new partner role of Noorderzijlvest.

To improve these communicative competences, skills other than technical are necessary. As illustrated by a member of the daily governing board:

"It is difficult that not everyone who is schooled in technical skills - people who are driven by their area of expertise and the contents – is able to create those antennae to the outside. That is something we still have to work on." $(R3)^{13}$

Herein, employees of Noorderzijlvest see room for improvement in the sensitivity to the external environment, which relates to the central dilemma between technical expertise and the need for more collaboration and communicative competences - reflecting the core tension within the organization.

Agency history: historical-cultural value of technical landscape features

Another part of the agency culture is a shared identity which is in the case of Noorderzijlvest strengthened by embedding symbolic meaning with tangible symbols such as an emblem and flag. These are displayed in Figure 4 below.



Figure 4: The emblem (15-08-1998) and flag (05-04-2000) of Noorderzijlvest (source: Waterschap Noorderzijlvest, 2014).

In history, the predecessors of Noorderzijlvest placed memorial stones at large discharge sluices (*uitwateringssluizen*) with the names of the chairmen to celebrate and show their pride. Currently there is less attention for the birth of Noorderzijlvest, which is not a highlight for the regional water authority. This might be because Noorderzijlvest has only been established 26 years ago, thus this celebration would not do justice to the long history of the predecessors of the regional water authority.

Nonetheless, cherishing landscape features with historical-cultural value is a focus point in the current governing agreement (Noorderzijlvest, 2019a). By memorializing finished projects in the book: Works of Art, intended as a gift for the previous dike-warden, Noorderzijlvest emphasizes its identity.

Besides this, special attention to the 100th anniversary of a water pumping station named the Waterwolf last November is an example of pride and attention for the authority's history. Noorderzijlvest is proud of its historical achievements and with those anniversaries the organization tries to show external stakeholders how important the regional water authority is in the environment. One of the interviewees, a policy advisor on spatial planning and water states:

"We identify ourselves based on our heritage, for example the Waterwolf. In our view it is important to show who we are and what we do. From origin we are a somewhat technical organization, so we like to show our technical works." $(R7)^{14}$

In the plan for the year 2021 there was also focus on the development of an interactive corporate film and a corporate story as part of celebrating the agency history (Noorderzijlvest 2020b), but it was not found available yet and no interviewee could elaborate on this. This demonstrates that the pride of Noorderzijlvest is predominantly focused on its technical achievements.

Beliefs are open to contestation and opposition and creates dialogue

As seen before, there are different ideas about the future role of Noorderzijlvest at strategic level, where the tension can be summarized as technical versus collaborative planning. Although disagreement on the mission statement could potentially feel as a burden, it does create dialogue which prevents the mission from becoming entrenched. Noorderzijlvest is actively working on creating open dialogue by providing room for employees and interested parties to attend meetings of the general governing board, where discussions can be held. With this, policy can be challenged through internal and external checks to avoid arrogance and unchecked group thinking where the mission becomes too entrenched, as the program manager on the Environment and Planning Act illustrates:

"We are fortunate to have committed portfolio holders who have strong ideas about which way they would like to go themselves. That is where we keep each other focused: employees (*ambtenaren*) based on their professionalism and administrators (*bestuurders*) based on their role." (R6)¹⁵

No qualified policy autonomy as a functional government

In the Netherlands, the National Water Plan of the central government and regional water plans of provinces provide the framework for regional water policy and management. Based on this, regional water authorities individually create their water management plans which elaborate on the strategy to realize the national strategic objectives and describe concrete measures (InfoMil, n.d.). Thus, Dutch regional water authorities are responsible for the translation and implementation of national and provincial water policy; they do not have policy autonomy over regional water management. As a result, regional water authorities cannot choose their own path, which could hinder institutional adaptation. However, an employee of Noorderzijlvest does see a shift in the role of regional water authorities as functional governments, where the regional water authorities are becoming more focused on politics instead of only on their executive role. The program manager on the Environment and Planning Act of Noorderzijlvest further explains:

"Dutch regional water authorities are becoming more politically focused. In the past it was argued that 'if we can do our job invisible without anyone complaining, then we are doing a good job'. I do notice that choices made in themes such as peat oxidation and salinization are becoming more political, as you can only be 'non-political' in times of abundance. However, also within regional water authorities choices must now be made in the

distribution of scarcity, which confronts the authority with political issues. In that sense, regional water authorities are starting to gain more similarities with normal governmental layers, instead of with functional governments. This may lead to a reconsideration of the system revisions, but this is currently not the case." (R6)¹⁶

Agency renewal and learning are ongoing to develop an integrated way of working Noorderzijlvest is aware that the direct influence of stakeholders and citizens in the early history of regional water authorities disappeared due to the scale enlargements of the 20th century and is now trying to focus on repairing this contact. As seen under the central mission, building 'humanness' is an important concept in this process. Noorderzijlvest tries to adapt to the current trends by focusing on 'collaborative planning' (*samenwerken*) where working together with partners, such as other organizations and government layers, is the negotiated shared focus. This is illustrated by the program manager on the Environment and Planning Act:

"We have three principles: creating a future-proof management area, together, with robust work and customization. So, area-oriented and together with our partners. No longer solely based on the task and power, but with a strong focus on the region: what does the region require, which tasks need to be done, and who does what?" (R6)¹⁷

Noorderzijlvest wants to focus on being an 'agenda setting' (*agenderend*) and 'open' (*open*) partner in its relationship with these partners, in which they are pro-active in perceived issues. However, it is argued that the preservation of technical knowledge is necessary while simultaneously, it is acknowledged that the external environment and stakeholders are of great importance and are becoming increasingly more important. Herein, the new way of working is framed as 'area-based planning' (*gebiedsgericht*) and 'integral' (*integraal*). However, a stakeholder manager points out that this way of working is not yet supported organization-wide:

"I really have the most devoted coworkers out there. Amazing at doing their job and wanting to do the best they can. Sometimes this clashes with coworkers who are only focused at their own area of expertise, since eventually things have to be done and made together. But in itself: as a regional water authority we can also do that, finding that connection, but there are still some challenges." $(R9)^{18}$

To achieve organization-wide support, Noorderzijlvest is starting an e-learning module called the 'future-proof program' (*toekomstfit programma*) to teach all employees new necessary skills in this new way of working and to involve employees in the participatory process of projects. The Water Management Program. This shows that Noorderzijlvest focuses on enhancing its employees in its repositioning, as an advisor on communication illustrates:

"This is about: what does it mean to work different, what is an integrated way of working, how do you take the lead herein, how can you shape participation and how to develop managerial sensitivity. [...] We aim for making our employees aware that once they are assigned to a project, there are a number of steps that can be taken in the preparation of the

project to work in a more area-based way. [...] So, learning in the flow of working. Or in other words: not just individual training courses, but examining on the job what the external environment looks like and what is needed to allow it to participate. Helping them [the employees] with this during the project, that is the idea. We think that this way of working will only endure when we can build it into our daily work. If you are going to start with something: how can you do it? And how to organize the process? With this, the process will finally become more important than the result." (R11)¹⁹

Next to this, an interesting key concept with which employees framed the process of learning was 'innovative' (innovatief). With this, new knowledge for the primary flood defenses is gained, for example by putting special equipment in a dike which can measure earthquakes or the influence of bypassing vessels. One of the interviewees states that there are several platforms with other regional water authorities to be able to learn from each other about the integration of the coming Environment and Spatial Planning Act (Omgevingswet), but that this is not yet set in motion with much vigor and ambition. Knowledge is also not actively shared between Noorderzijlvest and other authorities such as the province, who might have more experience on participation with inhabitants. Another focus point in learning and organizational that protection renewal is to work within the flood program (Hoogwaterbeschermingsprogramma: HWBP), where at first there were a lot of people externally hired, there is deliberately chosen to train people internally. With these points, Noorderzijlvest tries to preserve its license to operate in the changing societal context.

5.4 Key observations

To summarize this analysis, the key observations which shape the current mission mystique of Noorderzijlvest are presented in Table 10 on the next page. Based on this, it is concluded that Noorderzijlvest can be regarded as an institutionalized organization. Herein, the current mission mystique of Noorderzijlvest shows that the strategic positioning - the collective action frame - of Noorderzijlvest consists out of several key concepts: 'stakeholder management', 'humanness', 'public support', 'integrated way of working', 'opportunities for co-benefits', 'water awareness', 'true partner of the region', 'collaborative planning', 'agenda setting', 'open', and 'area-based'. Together these concepts form the 'partner-frame', which shows Noorderzijlvest's ambition to be a true partner for the region based on their water expertise in collaborative planning.

	Prime qualities	Essential elaboration	Temporal aspects
A purposive	"The regional water	Next to the core tasks, the felt	The low turnout for the
		urgency to adapt to climate	administrative-elections
	stands for safe, sufficient, and	change adaptation is regarded	reflects a low awareness
	clean water for all citizens of	as a new societal need. For	among citizens and the
	our management area. With	this, an organization which is	absence of a distinctive
	this we create a foundation	more considerate in its	reputation. Noorderzijlvest
	for a healthy and sustainable	external environment is	tries to make itself more
	living- and working	needed as 'public support' is	visible in their environment
	environment in Groningen	a key factor to remain viable.	by creating 'water
	and Drenthe. In	To achieve this, focus lies on	awareness' among citizens
	collaboration with our	an 'integrated way of	and by aiming attention at
	partners, we are transparent,	working' where internal	becoming a 'true partner for
	result-oriented, and cost-	ambitions are connected to	the region'.
	efficient in an innovative,	external ambitions to create	
	socially responsible, and	opportunities for co-	
	sustainable way. We want to	benefits'.	
	be visible in our		
	environment."		
Internal	Employees describe each	Tension between employees	There is attention to the
commitment	other as knowledgeable,	and within the governing	history of the organization
	committed, passionate,	boards destabilizes the shared	by strengthening the culture
	implementation-oriented, and	belief system and leads to a	with an emblem and flag.
	driven by and proud of their	less progressive long-term	Historical achievements are
	work. This can be interpreted	vision. Herein, there is room	also celebrated through
	as the personnel being	for improvement in the	special attention to
	intrinsically motivated.	sensitivity to the external	technical structures.
		environment to work towards	Noorderzijlvest is proud of
		a shared ambition.	and identifies itself with
			historical-cultural heritage.
Sustaining	As a result of the tension	As a functional government	Noorderzijlvest is
features	between technical versus	Noorderzijlvest does not have	repositioning to govern for
	'collaborative planning',	qualified policy autonomy	climate change by focusing
	room is created for internal as	over regional water	on 'collaborative planning'
	well as external discussions.	management, hindering	where Noorderzijlvest takes
	As the focus on collaborative	institutional adaptation.	an 'agenda setting' and
	planning is increasing, there		'open' partner role in 'area-
	is also more attention to		based' and 'integral'
	listening to the external		planning processes.
	environment.		

 Table 10: A summary of the current organizational mission mystique of Noorderzijlvest based on Chapter 5.

Chapter 6: The translation of Noorderzijlvest's new organizational mission mystique in concrete water planning practices

In this chapter, the operationalization of the new organizational mission mystique, resulting from Chapter 5, in concrete water planning practice is studied. This third step in this research focuses on the operational level and the internal perspective within two projects: the BOVi and the Double Dike project. This chapter starts with background information on the BOVi. Subsequently, the translation of the new organizational mission mystique by employees involved in this project was analyzed. In sub-section 6.2 the focus lies on the Double Dike project. At the end of this chapter, 6.3 presents the external perspective on the operationalization of the reinvented mission mystique: the fourth analytical step.

6.1 Focus on a new, voluntary, long-term vision: the BOVi

The main goal of the BOVi is to steer administrative focus by providing insight in complex tasks and to clarify which topics need to be put on the agenda to keep the work of Noorderzijlvest work feasible and affordable (Waterschap Noorderzijlvest, 2021). The BOVi, which is currently available as a concept version, describes which strategy is needed to deal with sudden calamities as well as in the distant future (2050-2100). An interviewee explains that eventually, the BOVi will provide strategic guidance to other spatial and environmental plans in its management area. For example, to the practical measures of the Blue Program on Spatial Planning and the Environment (*Blauwe Omgevingsprogramma: BOP*) 2022-2027 which will be required by the coming Dutch Environment and Planning Act (*Omgevingswet*). Currently, all regional water authorities are required by law to formulate goals and specific measures in a Water Management Program (*Waterbeheerprogramma*) which covers 5 subsequent years. Thus, the BOP will take over the Water Management Programs and will be the short-term implementation program of the BOVi.

Phase 1: Creating 'discussion maps' to connect with partners

The BOVi is set-up in three different phases. In the first phase - the analysis-phase – the biggest challenges, 'opportunities for co-benefits' (*meekoppelkansen*), and bottlenecks were explored with the involvement of partners and stakeholders. The first output of this phase was in July 2019. The partners are described as other governmental layers and organizations such as water companies who provide drinking water. Agricultural and nature organizations are regarded as stakeholders. During this phase, Noorderzijlvest made use of 'discussion maps' (*praat kaarten*) on which partners and stakeholders could visualize what is needed in the region. The goal of these maps was to engage stakeholders and partners to analyze current issues and to acquire insight in important topics. Herein, Noorderzijlvest focused on the bigger context than only its management area: the entire north of the Netherlands. The collage of this phase is visualized with the discussion map as seen in Figure 5, other examples are discussion maps where opportunities for co-benefits or the quality of water supply and discharge are visualized.

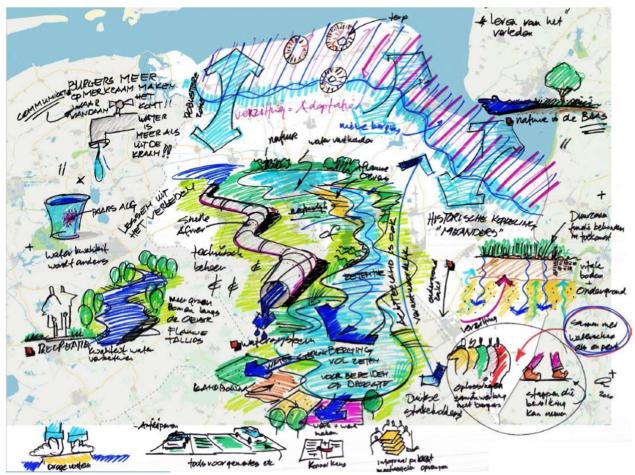


Figure 5: Collage of the discussion maps used in the analysis phase of the BOVi (source: Waterschap Noorderzijlvest, 2019b).

Phase 2: Developing guiding strategic statements

In the second phase - the synthesis-phase - the analyzed issues were used to find whether the interest of partners was like-minded, the opposite, or even entirely new. With this, possible solutions to important topics were studied. This resulted in six so-called guiding statements (*richtinggevende uitspraken*) representing the provisional ambitions, which were released in September 2020. These were used for follow-up participation sessions with partners and stakeholders and will eventually be used to base further environmental policy on. These guiding statements are:

- Together we stay ready for climate change, (Samen blijven we klimaatklaar);
- Our water system becomes more nature-based, (Ons watersysteem wordt meer natuurlijk);
- **3**. We facilitate our partners in developing smart, spatial developments, (*We faciliteren onze partners in slimme ruimtelijke ontwikkelingen*);
- We contribute to a sustainable world, (We werken mee aan een volhoudbare wereld);
- We are a valued (policy)partner, (We zijn een gewaardeerde (beleids)partner);
- 6. We are a socially responsible government,

(*We zijn een maatschappelijk verantwoordelijke overheid*) (Waterschap Noorderzijlvest, 2021).

It is evident that the focus of the new organizational mission mystique on 'collaborative planning' and being visible for its environment through being a 'true partner of the region' is clearly reflected herein. What stands out is the use of the word '*volhoudbaar*' in step 4, which is derived from the South-African word '*volhoubaar*', instead of using the Dutch word '*duurzaam*'. This latter is interpreted as more passive while '*volhoudbaar*' is described as taking short term action. Another interesting point is the focus on 'policy' in step 5, as regional water authorities are from origin only an executive organization. By taking the role of facilitator, the aim at becoming a pro-active partner instead of reactive can be pursued. In statement 6, the recognition of the societal need for public support is reflected: "The major societal challenges such as climate adaptation are becoming more urgent. This requires new ambitions, possibly different choices, and a new way of collaborative planning with our partners." (Noorderzijlvest, 2021 p. 4)²⁰.

Phase 3: Developing a strategy for the 'blue environment'

Currently, the BOVi is positioned in the third phase where the vision is formed based on the guiding statements. In February 2021, the concept-version of the BOVi was released. Herein, Noorderzijlvest tries to balance the different interests against each other to structure its most important ambitions. Subsequently, with the help of these ambitions, the long-term governing strategy is created. In this phase, the intention was to involve other governmental layers and organizations again as well, however, input in this phase was limited due to the second wave of COVID-19 in the Netherlands. The pandemic forced the regional water authority to engage online with its stakeholders and partners. Although partners and Noorderzijlvest found the interaction very useful and argued that significant steps were taken, it was stated multiple times that the interaction was not comparable with the interaction of sitting in a room al together working with a marker and paper.

6.1.1 The translation of Noorderzijlvest's new organizational mission mystique in the BOVi

The development of the BOVi as a new strategic ambition plays an important role within Noorderzijlvest's search to balance its technical expertise with the need to become a more responsive government. What is noticeable in the collage of the discussion maps in Figure 5 is the combination of different key elements which were also stated in the new strategic positioning of Noorderzijlvest in Chapter 5. For example, the focus on 'water awareness' is translated as a communication point at the upper left corner: 'making citizens more aware of where water comes from, there is more to it than water only coming from the tap'. The key focus on an 'integrated way of working' is included on the bottom right, and the concepts of 'collaborative planning' and 'water expert' are translated as 'solutions in collaboration with citizens' and 'together with the regional water authority as an expert'.

A second interesting point is the explanation of the strategic advisor on coastal protection and the policy advisor on the external environment that the provinces and municipalities have asked the regional water authority to raise their voice when they detect an issue in the external environment. The strategic advisor on coastal protection illustrates: "In the meantime, you [referring to the policy advisor on the external environment] have had discussion with partners such as the provinces about our BOVi. Their employees clarified that the regional water authorities should speak up more often." $(R1)^{21}$. On which the policy advisor on the external environment responds:

"Yes, they would like to see us in a more agenda setting role. We are trying to accommodate a lot of participative discussions, which is very difficult with working from home. An old colleague of us, who is now working at the province of Groningen, told us that our guiding statements are written down too gentle, and that we should stand our ground a bit more." $(R2)^{22}$

Thus, the 'agenda setting' role which Noorderzijlvest sees for itself is a response to its partners. This agenda setting attitude forms, together with the focus on being 'pro-active', the translation of the new role as a 'true partner for the region'. Noorderzijlvest tries to bring this ambition in practice by voluntarily creating a Blue Strategy on the Environment: BOVi to link with the Strategy on Spatial Planning and the Environment of the municipality and province: the GOVi and POVi. The GOVi and POVi will be required by the new Environmental Law of 2022. By creating a BOVi, Noorderzijlvest is actively searching for discussion with direct partners. With this, Noorderzijlvest is positioning itself as a serious partner that will be invited as a partner by the provinces and municipalities. This is illustrated by a member of the daily administration:

"What we would like to do, what we try to achieve with the BOVi, is to turn this around. That we become decisive for the water part in spatial planning. That is new, actually a half revolution, that regional water authorities also make a BOVi next to the GOVi and POVi. This can be seen as a bit strange, but we get a lot of positive responses from other governmental layers that we try to position ourselves as experts in the field of water. So they appreciate it." $(R3)^{23}$

The most important key concepts in the description of the process of the BOVi by employees are 'integral', 'area-based', and 'collaborative planning' This is interpreted as a project where all sectors internal and external to the regional water authority work together, what is translated to practice by inviting all stakeholders and partners to share their ambitions and interest which was then used as input in all phases of the BOVi. This means that from the first step on, external parties could enhance the long-term strategic vision of Noorderzijlvest.

Employees describe the process of the BOVi as fulfilling the ambition of Noorderzijlvest in attaining a role as 'water expert' (*waterdeskundige*): regional water authorities have a great deal of knowledge and expertise regarding water and soil, which they feel could benefit partners as well. This is also described as taking the lead role in the determination of the water part in spatial planning, instead of passively waiting for partners such as the province. By introducing the BOVi, Noorderzijlvest tries to actively find and secure its ambitions and role in future issues such as climate change adaptation, which clearly translates the ambition to become a pro-active water expert.

With the BOVi, Noorderzijlvest forces itself to actively engage with its stakeholders and to think beyond its own scope. Emerging dilemmas and tensions urge the board of Noorderzijlvest to make decisions on topics that might otherwise have been avoided. With this, the long-term strategy of Noorderzijlvest becomes clear with which they can eventually be more pro-active in agenda setting and defending the water interest. As the program manager of the Environment and Planning Act states:

"I think the BOVi has helped to make a number of issues explicit on the long term. As a result, we already have a number of conversations on the radar which we otherwise would not have had or only much later. With this we can address what is to come." $(R6)^{24}$

The ambition to become more transparent is translated in the BOVi as communication and to provide clarity regarding the ambitions of Noorderzijlvest to its partners and stakeholders. By creating an 'open' character towards these partners and stakeholders by inviting them in an early stage in projects such as the BOVi, goals and ambitions with partners can be linked. This is a starting point to fulfill the wish to search for 'opportunities for co-benefits' more frequently. The BOVi provides the opportunity for all stakeholders and partners to be up-to-date about the ambitions of Noorderzijlvest, which could result in more initiatives to link projects together, as a policy advisor on water safety explains:

"This allows us to radiate that as a regional water authority we are actively broad oriented and that we are open to the wishes and development of third parties. [...] So, the vision is very much aimed at opening up to others, which we want to achieve by setting up the BOVi. This shows that we are looking further ahead and that we are indeed aware of all trends such as climate change." $(R4)^{25}$

Another point that stood out was that the employees of Noorderzijlvest who are involved in the project of the BOVi display great enthusiasm about their work. As seen in Chapter 5, intrinsic motivation is an important factor in starting to work in an integrated way, which means that the motivated employees are a key player in the translation of the strategic mission to practice.

6.1.2 Tensions in the translation of Noorderzijlvest's ambition to the BOVi

Although the employees within the BOVi project are driven by their work and motivated to enact change, the secretary of the governing board recognizes that the most resourceful and progressive employees are chosen to work on the BOVi project. The interviewee explains the difference of the average BOVi-employee with other employees of Noorderzijlvest, who might be more old-fashioned and focused on the technical way of working. As a result, the integration of the BOVi in the entire organization in order to get every employee to work according to the BOVi principles, and how much time and effort Noorderzijlvest is willing to invest in this, is seen as a challenge. The secretary of the governing board illustrates:

"To be honest, I think not the entire organization is yet aware of the fact that you should work much more according to the principles that we also apply to projects such as the BOVi. The point of view of the employees working on this [the BOVi] is completely different than from the organization until now, as this is still very much only from our own perspective: we are the regional water authority and we know what is best, and these are the permits and rules." $(R8)^{26}$

Another observed challenge in the translation of key concepts of the new organizational mission mystique in the BOVi is that classical debates within the governing boards, such as cities versus rural, and farmers versus nature, lead to compromises to gain general consensus among the entire governing board.

Next to this, the employees argue that the general awareness of the urgency of climate change and adaptation is still insufficient, and that regional water authorities struggle with engaging inhabitants herein. These authorities are no longer used to having direct contact with inhabitants, as for example municipalities have, and are still searching for means on how to link to the discussions between inhabitants, municipalities, and provinces. The secretary of the governing board states: "There is still a world to win." (R8)²⁷. Additionally, it would be too optimistic to assume that the BOVi would only result in positive cooperation. The BOVi might lead to competition between the regional water authority and stakeholders regarding clashing interests which were previously not as visible, for example on nature conservation. This does, however, create room for discussion on topics which were formerly not pertinent which is one of the biggest opportunities of the new strategic vision.

6.2 The Double Dike project as an exemplary project in Noorderzijlvest's new role

Another studied concrete water planning project is the Double Dike project. An inspection between 2006 and 2010 concluded that the primary flood defense between Eemshaven and Delfzijl did not comply with necessary safety standards. A dike improvement was necessary for which Noorderzijlvest was in charge, as Noorderzijlvest is responsible for the management of this part of the primary flood defense (Anteagroup, 2015). As the social impact of earthquakes in the province of Groningen is high, Noorderzijlvest initiated the ambition to accelerate the dike improvement to minimize risks as a result of possible earthquakes (Anteagroup, 2015). The dike section which had to be improved became part of the National Flood Protection Program which consists of all projects that aim on improving the Dutch primary flood defense structures which do not comply with safety standards. Herein, the National Flood Protection Program guides the project and assesses the implementation (Anteagroup, 2015). In the exploration phase (verkenningsfase) of the dike improvement in 2014 multiple stakeholders - the province of Groningen, the municipalities of Delfzijl and Eemsmond, and the RWE (an energy company) - initiated to explore possible opportunities for co-benefits. The province of Groningen initiated on a study on the feasibility of the concept of a double barrier zone, as the province carried the desire to explore saline cultivation. With a double barrier zone, this desire would become feasible in the area between the two dikes as this area is influenced by tidal currents (Anteagroup, 2015). A cross-section of this double dike concept is illustrated in Figure 6.

The idea of a double barrier zone was already explored as part of new dike concepts as preferential strategies in the Deltaprogram (*Deltaprogramma*) of the national government, which are established to give guidance to practical measures (Nationaal Deltaprogramma, n.d.).

The implementation of a new preferential strategy of the Deltaprogram was regarded as an innovative project within the National Flood Protection Program, and therefore the National Flood Protection Program financed the Double Dike project. As Noorderzijlvest was the executive party of the project and responsible for safety standards of the dike improvement, Noorderzijlvest was in charge.

The dike improvement was constructed between 2017 and 2019, and the Double Dike project was implemented south of the Eemshaven, at Bierum, but is not completed yet. Currently, the area between the two dikes is still being developed by the province of Groningen together with entrepreneurs and other initiators for saline cultivation (Eemsdollard2050, n.d.).

The Double Dike project is perceived by Noorderzijlvest as an exemplary project in its new way of working, as the secretary of the governing board illustrates:

"It [the Double Dike project] is not yet something of which the regional water authority, if you look at the core tasks, thinks: do we need this? If you look at the old interpretation of dike management, then you would just build a higher dike. That double dike is, of course, not necessary within the traditional way of thinking, so I think that it is a very good example of how to look at safety concepts from a different point of view and integrate that with others, together with stakeholders. This is a great example where we succeeded." (R8)²⁷



Figure 6: Illustration of the cross-section of the Double Dike project (source: Eemsdollard2050, n.d.).

6.2.1 Noorderzijlvest profiling its new role as an innovative organization with a large scope

In the analyzation of the translation of the new organizational mission mystique of Noorderzijlvest in the Double Dike project, a few points stood out. For example, the initiative of the province of Groningen was linked to Noorderzijlvest through the professional network of employees. Although there was no incentive from the board, a few employees of Noorderzijlvest tried to actively engage the governing board in the initiative and convinced the project manager of the dike improvement, as explained by a policy advisor on water safety:

"The province was the initiator of the idea, and I was the link to the dike improvement Eemshaven-Delfzijl, as I knew what the status was of certain phases. To connect this, we now and then had to drive and influence the province, which the strategic advisor on coastal protection (R1) and I did: from time to time, we encourage third parties. Actually, the dike improvement Eemshaven-Delfzijl had to be strengthened at a rapid pace due to the problems regarding earthquakes, but the phase of the Double Dike project was just a step behind, so to include it as an opportunity for co-benefits stuff still had to be done. We experienced some resistance from the manager of the dike improvement to include the Double Dike. There is, of course, a risk that it can slow the whole project down. But these kinds of projects lend themselves very well to profile ourselves as a regional water authority." (R4)²⁸

This shows that the employees put energy in the internal commitment and purposive aura within the organization. These employees see the Double Dike project as an opportunity in actively profiling the regional water authority's new way of working, where the Double Dike project was seen as a chance to work towards 'area-based planning' which is translated by the employees as the 'scope' of projects being broader than just technical knowledge. A stakeholder manager illustrates:

"In terms of our core tasks, maybe we are becoming – at least that is what I hope as I find this important myself – less conservative and strict in our core tasks to better connect with other developments that are going on. We cannot always adhere to those rock-hard dikes, which protect us very well against flooding, but which have no positive effect on biodiversity or nature at all, while you are located along a Wadden region with very unique nature on global scale. You cannot advertise it if you only focus on water safety, which is also the reason why we started to consciously search for and have opened the door to other developments in dike improvement projects since 2014/2015." (R9)²⁹

In the explanation of the broader scope of the dike improvement between Eemshaven and Delfzijl, the key concept of 'public support' is frequently used as the successful addition of the Double Dike project as an opportunity for co-benefits is believed to enlarge this. The success of the Double Dike project is explained as taking the opportunity of area-based working instead of only from technical expertise. The employees state that this created the fundament for a more integral way of working at a current dike improvement of the Lauwersmeerdijk, where opportunities for co-benefits are worked out before the start of the dike improvement. Next to this, the simultaneous change in way of working in both the strategic positioning and in practice implies that the organizational renewal will be successful as all levels of the organization are willing to change, leading to a new purposive aura, as a policy advisor on spatial planning and water illustrates: "We call those opportunities: opportunities for co-benefits. Nowadays we always study them." (R7)³⁰

6.2.2 Tensions between a sectoral versus integrated way of working

Although one ambition of Noorderzijlvest is to work in an integrated way, employees involved in the Double Dike project explain that due to time pressure of possible earthquakes, the initial idea was to 'simply' improve the dike as a technical construction. Simultaneously, it became clear that the regional water authority is unlikely to alter a dike when there is no task regarding water safety. As a stakeholder manager states:

"We are not allowed to just spend our money on a bicycle path for recreation, we do not collect tax money for that. Administratively and in collaboration with other authorities, it does help us if we invest time and attention in the plans and wishes of the partners of the area. After all, we also need them in places where our tasks do overlap." (R9)³¹

Because of this, the project manager of the dike improvement was anxious for delays and financial risks if the Double Dike project was paired to the dike improvement. Together with the initiative and financing coming from the province of Groningen and the National Flood Protection Program, as described above, this implies that the ambitioned 'integrated way of working' has not been fully applied to this project from the beginning.

Besides this, the dike improvement was already finished in 2019, while the province of Groningen is currently still developing the area between the two dikes. This means that there is tension in the aim of an 'integrated way of working': the Double Dike project is not completely integrated in the dike improvement, a stakeholder manager further explains:

"There have been quite some challenges in the Double Dike project. The biggest was that the initial plan was to finalize the Double Dike within the dike improvement, but at a certain point in time a division was made between 'what are our tasks as the regional water authority and what are the tasks of the province', and it was decided that the regional water authority would construct the dikes and the province would further develop the area between the two dikes." $(R9)^{32}$

The stakeholder manager continues:

"But what is included in the development of the area between the two dikes... For example, the passage in the dike structure which ensures saltwater intrusion is also part of this. If it was a completely integrated way of working, as a regional water authority you prefer to have taken this area development into account as well. But that has to do with the fact that to develop the area between the two dikes, you must know exactly what is planned, which took longer than expected. That is why that division is made." (R9)³³

This is the result of administrative and political ambitions, as the ambitions of the municipalities, provinces, or other organizations and the ambitions, plans, and pace of a regional water authority could always differ. A member of the management team of the program managing board of the National Flood Protection Program elaborates on this:

"Sometimes it is quite difficult to fit these [ambitions] together. Then it becomes a political/administrative discussion, which does not have to do with the will or professionalism to carry out an integral way of working, but purely with administrative-political ambitions: am I willing and able to slow down or accelerate the project to pair other ambitions?" (R14)³⁴

In addition, the composition of the governing boards of the regional water authority also has a large influence on implementing such opportunities for co-benefits, not only if the members are willing to take risks, but also if the opportunities fit inside their focus points. As Noorderzijlvest is traditionally a farmer's organization, the interest of agriculture is still very present. As a project manager on flood protection explains:

"You have to imagine that you are sacrificing very good agricultural land to implement developments and innovations which do not directly relate to agriculture, and that is still a point of discussion within the governing board." (R5)³⁵

To summarize this, the issues regarding such an opportunity for co-benefits uncover the dilemma on how regional water authorities deals with their ambitioned role. According to the project manager flood protection the most important challenge was if the Double Dike would comply with water safety standards and to explain the system to the water safety experts. Which puts emphasis on the technical approach which is still prominent. Besides this, the facts that the two projects were not worked out simultaneously and that currently the area between the two dikes is completed by only the province show that the projects are not integrally worked out.

6.3 The external perspective on the repositioning of Noorderzijlvest: towards an agenda setting role based on water expertise

In addition to how the employees of Noorderzijlvest frame their role in these projects, another interesting point is to analyze how key partners perceive the repositioning of Noorderzijlvest. Although the tasks of the Dutch regional water authorities did not change in the last 15 years, partners of Noorderzijlvest do perceive that the regional water authority is searching for a more agenda setting role in relatively new topics such as sustainability and climate change adaptation goals. As the employees of Noorderzijlvest also stated, stakeholders would like the regional water authorities to be 'pro-active' and raise their voice when they detect an issue. Especially since water management has a somewhat subordinate role within the province, where there is more focus on other current issues. They would also like to see the Dutch regional water authorities as 'water experts' who can advise and set the agenda based on this expertise, when for example more water needs to be stored due to droughts, as illustrated by a strategist on spatial development at the province of Drenthe:

"Do not sit and wait until a provincial or national government starts something but go and see what the management area needs and put that on the table. For example: from the perspective of water management, we see this and believe that this is necessary. The provinces and municipalities then have to act upon this." $(R12)^{36}$

The former managing director of the National Flood Protection Program further argues:

"In general, I find those visions quite cautious. For a regional water authority that is not so remarkable: at the end they are still an executive party. However, you cannot make vision without knowledge of the execution." $(R15)^{37}$

The search within Dutch regional water authorities to a new way of working where they combine their technical expertise with the need to become a more responsive government is clearly seen by partners of Noorderzijlvest. A member of the management team of the program managing board of the National Flood Protection Program further illustrates this by stating:

"I noticed that Dutch regional water authorities have really developed over the past twenty years. From being authorities that were only focused on their own functional tasks to now working in a different way with an eye for all interests at stake. And there is no reason to assume that this development will not persist." $(R14)^{38}$

Herein, the interviewee describes this different way of working as working in a more integrated way. Although it takes time, this shows that the regional water authorities are trying to change their way of working. However, the interviewee also states that an integrated way of working might further increase the complexity of projects, and wonders whether water authorities would still be able to complete projects successfully.

Secondly, an increasing focus on 'collaborative planning' is perceived, as well as the desire of Noorderzijlvest to become a 'true partner of the region'. Partners perceive a changing relationship between the different governmental layers from being subordinate to each other towards a more equal relationship. This is described by the former director of the National Flood Protection Program as: "It is becoming more yin and yang, instead of hierarchical. Herein, we have to start looking for complementarity." (R15)³⁹. However, the key partners also recognize that in some places the regional water authorities are still overpowered when they cannot create counterweight to large municipalities. Simultaneously, in areas with a lot of small municipalities regional water authorities are seen to take the responsibility over area-based water planning projects, as a member of the management team of the program managing board of the National Flood Protection Program explains:

"If you are unable to provide professional rebuttal to large municipalities in the process, you will simply be overruled. [...] In several places in the Netherlands with many small municipalities, you can see that the regional water authority becomes the initiating party when it comes to area-based planning projects since the municipalities do not have the capacity to do so. I think that the regional water authorities are getting better at this every year." (R14)⁴⁰

Instead of the Dutch regional water authorities paying for the water-part, the stakeholders must decide together what they are willing to spend. This needs another positioning of the regional water authorities, where they can think along with their partners and their interests, be creative,

and link financial possibilities to this. The former director of the HWBP argues that he would like to see Dutch regional water authorities, as the executing partner, to be more agenda setting in terms of spatial planning in order to keep future flood risk management affordable. Herein, Dutch regional water authorities set clear boundaries as a water expert, to safeguard what can and cannot be done. The creation of a BOVi plays an important role in this. This vision is still seen as too careful, what demonstrated that the regional water authority is not used to its new role yet. To be agenda setting in this sense, some hard choices must first be made, but the stakeholders recognize that the regional water authorities are being careful not to come into the realm of other governmental responsibilities. The stakeholders also clearly mention the need for organizational renewal as addition to the earlier stated challenge of ensuring that the new strategic vision touches down in the whole organization.

The final point that stood out was that partners of Noorderzijlvest recognize a lot of ambition for area-based planning projects in the Dutch regional water authorities, but when push comes to shove, the finances are expected to be carried by the largest stakeholder such as the national government. The financial limitations for Dutch regional water authorities in finding and executing opportunities for co-benefits when financial support from for example the National Flood Protection Program stops is described as a classic dilemma by the former director of the National Flood Protection Program:

"In that case the classic dilemma of regional water authorities rises again: big enough for a lot of technical knowledge, but not big enough to get compelling innovations off the ground themselves. And this is also a bit grounded in their attitude: financial risks are too big and there is little interest for the governing board. Herein the power of the regional water authorities is visible: relatively small, flexible, and aimed at improvement. However, this also means that they are not big enough to generate enough mass to put their neck on the line for the entire process [of such compelling innovations], from an initial investigation up to the first prototypes." (R15)⁴¹

According to the partners the BOVi plays an important part in deciding whether a project should be worked out in an integral way or not. An issue which is raised is that an integral way of working could increase the complexity of projects resulting in more challenges to reach the goal. Whereas an employee of the province of Groningen on water policy states: "You will be faster on your own, but together you will get further." (R13)⁴². However, a member of the management team of the program managing board of the National Flood Protection Program raises the question: "Are you still able get there with a lot of parties?" (R14)⁴³. Next to this, employees of a regional water authority working for example on climate mitigation experience difficulties in finding employees working on agriculture at the province, even though they know it could be beneficial to work on this together, which hinders taking an integral approach. An employee of the province of Groningen on water policy suggests the idea of introducing a new function with an employee who makes sure both parties are unable to start without each other: "You will have to introduce a new position that ensures that you and I cannot work separately, but only together." (R13)⁴⁴.

To elaborate on the perspective of key stakeholders on the BOVi: partners frame Noorderzijlvest as an organization where the 'content is central' (*inhoud staat centraal*). With this it is argued that creating a long-term vision should not be a problem, even with administrative cycles of four years. The external parties notice that the desire to create legitimacy and broad 'public support' clearly fits with this time, as the support base is seen as the determining factor in the pace of projects. Herein, the focus of Noorderzijlvest on being an 'open' partner is also seen as very important by its partners.

6.4 Key observations

With the voluntary set-up of the BOVi, Noorderzijlvest seeks to find its long-term focus points and ambitions to guide both short-term strategic policy documents and concrete water planning practices. Next to this, the BOVi is used as a starting point for the general ambition of Noorderzijlvest to focus on collaborative planning and its external environment by directly aligning internal and external ambitions in strategic visions, instead of only when concrete water planning projects are needed. As a result, the ambition to enlarge the focus on opportunities for co-benefits is made concrete.

The employees of Noorderzijlvest involved in the BOVi are focused on a renewed partner role for Noorderzijlvest. Employees mainly interpret this role as a pro-active and agenda-setting organization to become decisive for water management in spatial planning based on their technical expertise. However, the employees of Noorderzijlvest do perceive tensions in the repositioning of Noorderzijlvest, such as the focus on getting every employee to work according to the BOVi principles. Classical debates within the governing boards lead to less progressive ambitions as compromises are made. As a result, the repositioning of Noorderzijlvest might not result in a higher legitimacy among all citizens and partners. The framing process of employees is also less focused on creating public support among citizens as the strategic mission: they mainly focus on aligning policy ambitions with direct partners and stakeholders.

The framing process of employees involved in the Double Dike project was mainly focused on public support to be gained through successful opportunities for co-benefits by an integrated way of working and collaborative planning. However, as the tasks regarding the Double Dike project and the dike improvement were eventually split between Noorderzijlvest and the province of Groningen, it cannot be regarded as a fully integrated way of working. Although it was not directly mentioned, the pro-active ambition was clearly reflected in this project as employees of Noorderzijlvest tried to actively engage the governing board and had to stimulate and influence the province be able to connect the Double Dike to the dike improvement. However, this also shows that the ambitions of the province of Groningen and Noorderzijlvest were not completely aligned yet, which is an important point of focus that relates back to the BOVi.

Based on four interviews, with both the province of Groningen and Drenthe, and employees of the National Flood Protection Program, three key observations can be distinguished: the first observation relates to the new, more agenda-setting role of Noorderzijlvest. The ambitioned agenda setting role is interpreted as Noorderzijlvest fulfilling a role as water expert in spatial planning. Second, based on this new role, the relationship between the regional water authorities and other governmental authorities requires attention. The external perspective on the framing process of Noorderzijlvest in concrete water planning practices perceives collaborative planning as a more equal relationship. The third observation elaborates upon the wish of Noorderzijlvest to adopt a more integrated way of working in area-based planning projects. However, external parties still regard the long-term ambitions too cautious and perceive little incentives for regional water authorities to take part in area-based planning.

Based on this, it is argued that improvements can be made in the strategic positioning of Noorderzijlvest and the translation to concrete water planning practice, on which the next chapter elaborates.

Chapter 7: Conclusion and discussion

7.1 Introduction

The central aim of this research was to understand how Dutch regional water authorities are repositioning themselves to govern for climate change adaptation. This led to the main research question: 'How do Dutch regional water authorities reinvent their expertise role to govern for climate change adaptation, while balancing their technical knowledge on the one hand and the need to become a more responsive government on the other, and how is this reflected in concrete water planning practices?'

A qualitative and interpretative embedded single-case design was adopted to study Noorderzijlvest, wherein two units of analysis were studied: the Blue Strategy on the Environment and the Double Dike project. This case study served two main goals. The first was studying the repositioning of Noorderzijlvest at strategic level by analyzing strategic policy documents and conducting semi-structured interviews with strategic policy advisors by adopting a framing perspective. The second goal was analyzing the translation of this strategic repositioning in concrete water planning practice, from an external as well as internal perspective.

The empirical research was structured by five analytical steps as described in Chapter 2.7. First, the history of Dutch regional water authorities was analyzed that formed the general position of Dutch regional water authorities in the 1970s. Second, zooming in on the Dutch regional water authority Noorderzijlvest, the strategic framing process was analyzed to interpret the current positioning of Noorderzijlvest for which the concept 'mission mystique' was used. With this, the collective action frame was interpreted. Third, two concrete water planning projects were analyzed to study how key concepts that are used in the strategic repositioning of Noorderzijlvest are translated into practice. Fourth, the research focused on how other parties involved in these concrete projects interpret the repositioning of Noorderzijlvest to study the external perspective as well. The fifth and final step, wherein the former steps are combined to form a comprehensive representation of the repositioning of Noorderzijlvest, will be carried out in this chapter. Hereafter, policy recommendations for Noorderzijlvest are formulated. Although Chapter 3 shows that possibilities for generalization are limited as this research is based on one case, this chapter does elaborate upon policy recommendations for other Dutch regional water authorities which increases the scientific relevance of this research. Subsequently, there is reflected upon the theory and research design, and suggestions for further research are given.

7.2 Empirical reflection

This sub-section reflects upon the first four analytical steps of this research to answer the secondary research questions. First, the question: 'To what extent can Dutch regional water authorities be conceptualized as public institutions?' will be answered by reflecting on step one. Subsequently the second research question: 'How is the regional water authority Noorderzijlvest strategically and politically repositioning itself to govern for climate change adaptation?' will be answered by reflecting upon the second and third analytical step. Step four

will then answer the third research question 'How is this repositioning reflected in concrete water planning practices?'

Regional water authorities as public institutions

There are three key developments through which regional water authorities have institutionalized into public institutions. First, technological innovation has played an important role in the institutionalization of regional water authorities. With this, regional water authorities were able to increase in scale to comply with the need for larger regional approaches. As a result, they generated enough power and technical expertise to withstand centralization towards the national government. However, this increase in scale also led to a decrease in direct contact between the regional water authorities and its citizens. This shows an important paradox: the repositioning of Dutch regional water authorities is currently taking place to restore this connection as they are taken for granted. Second, the larger regional approach led to an expansion of tasks and all-in regional water authorities focused on water safety, quantity, and quality. In turn this resulted in the inclusion of other disciplines and the expertise within regional water authorities grew. A third key development in the institutionalization of Dutch regional water authorities is the introduction of the national water tax, which made dry feet and clean drinking water a national interest. To conclude, these developments show that Dutch regional water authorities are highly institutionalized organizations. However, especially the first development has currently resulted in regional water authorities finding themselves in turbulent water. Regional water authorities still rely on this technical expertise, while new trends such as the need for integrated water management, ecosystem-based approaches, and long-term adaptive measures call for a more responsive government.

Noorderzijlvest as a true partner in area-based projects

When reflecting on the former and current mission mystique of Noorderzijlvest, it becomes clear that mainly the organizational features within the sustaining features and purposive aura have changed. Herein, Noorderzijlvest searches for balance between its technical expert role and the need to become a more responsive government by reinventing its role as a true partner in area-based planning projects. Noorderzijlvest puts focus on being an agenda setting partner based on its technical expertise to find opportunities for co-benefits instead of using its technical expertise solely for implementing practical measures for water safety, quantity, and quality. It can be concluded that technical expertise remains the basis for the work of Noorderzijlvest. However, by enlarging its scope and taking part in collaborative planning, the goal of Noorderzijlvest is to meet other social responsibilities as well. The collective action frame is based on several key concepts which together form the 'partner-frame' of Noorderzijlvest.

Internal framing process in concrete water planning practices

Based on the key observations as described in Chapter 6, it is concluded that the repositioning of Noorderzijlvest is clearly reflected in the ambitions that started the BOVi project as well as in the guiding statements of the project. The analyzation of the framing process of employees involved in the BOVi show that the ambition to become a true partner in area-based projects

and focus on collaborative planning is translated as already including partners in the establishment of strategic policy. What stands out is that this partner role as described in Chapter 5 is on strategic level translated as collaborative planning. Herein Noorderzijlvest should operate its social responsibilities in a transparent and cooperative way, both with partners and citizens. In the four points proposed by Goodsell (2011) to strengthen the mission of an institution, the BOVi projects plays an important role in the third and fourth point. Herein, the BOVi reflects that Noorderzijlvest is open to new ideas and discussion, as well as focused on gaining respect and admiration from partners. However, in the BOVi, the partner role is predominantly focused on policy, while citizens seem excluded. In the Double Dike project, the partner role is regarded as finding co-benefits together and engage in collaborative planning. Based on this, it is concluded that the future of Noorderzijlvest is interpreted differently among the organization, which makes the partner-role of Noorderzijlvest project and context dependent.

External perspective

The external perception on the repositioning of Noorderzijlvest is focused on three points, wherein partners translate the new role of Noorderzijlvest roughly the same: as a more equal relationship where Noorderzijlvest acts as a water expert based on its technical expertise. Noorderzijlvest could create value by taking a broader scope and be pro-active in approaching the province if something is needed. Herein, the ambitions of a regional water authority, which may not be directly linked to its core tasks, can be executed by working together with the provinces. To conclude, partners perceive the repositioning of regional water authorities as a very positive development and are willing to accommodate them herein.

7.3 Step 5: Conclusion

The former analytical steps were used to answer the main research question: 'How do Dutch regional water authorities reinvent their expertise role to govern for climate change adaptation while balancing their technical knowledge on the one hand and the need to become a more responsive government on the other, and how is this reflected in concrete water planning practices?' in step five. The results show that Noorderzijlvest is currently repositioning itself by shifting its focus to a new partner-frame to take collective action. With this new focus, Noorderzijlvest tries to incorporate relatively new social responsibilities in its core tasks by enlarging its scope. Herein, technical expertise remains at the base of the organization.

The central mission of Noorderzijlvest to be transparent, result-oriented and costefficient in an innovative, socially responsible and sustainable way, in collaboration with its partners, is clearly present and translated in the BOVi. Although the Double Dike project cannot be regarded as a fully integrated way of working, it does reflect the ambition to be innovative and collaborate with partners. The strategic framing process is predominantly focused on how Noorderzijlvest can position itself as a true partner in different water planning projects in an innovative, socially responsible, and sustainable way as the collective action frame, the 'partner-frame' is based on the key concepts of 'stakeholder management', 'humanness', 'public support', 'integrated way of working', 'opportunities for co-benefits', 'water awareness', 'true partner of the region', 'collaborative planning', 'agenda setting', 'open', and 'area-based'.

However, there is no ambiguous agreement about the interpretation and translation of this role, internally as well as externally. Even though this water expertise remains necessary, the large remaining focus leaves little room for the development of a reaction to other social responsibilities. It has become clear that Noorderzijlvest is still searching for its new position and the translation of its strategic mission in practice on how to become a true partner for the region. The BOVi clearly reflects this ongoing search, as this project is set up by Noorderzijlvest to contribute to find its new way of working in governing for climate change adaptation by addressing long-term policy problems and to guide all future strategic policy documents and eventually necessary practical measures. It is expected that one overarching strategy will ease the translation of Noorderzijlvest's strategic vision into practice. However, the operationalization is and remains a large and difficult task. A specific perceived tension is that the project manager of the dike improvement was not interested in the Double Dike project as an opportunity for co-benefits due to other ambitions. On top of this, it is questioned if the entire organization of Noorderzijlvest is willing and able to fully commit to another role in water planning projects, due to classical debates in the governing boards and employees who are still focused solely on technical expertise. This conclusion is summarized in strengths and weaknesses of the repositioning of Noorderzijlvest in Table 11.

Strengths	Weaknesses
Enlarging scope by actively focusing on new	Remained focus on role based on technical
social responsibilities.	expertise hinders climate change adaptation.
The voluntary set-up of the BOVi shows that	No ambiguous agreement on interpretation of
Noorderzijlvest is pro-actively searching for a	the new role of Noorderzijlvest as a partner:
new role in relatively new social	translated differently depending on the type of
responsibilities.	project and the context. Simultaneously, as the
	framing process is still predominantly focused
	on how Noorderzijlvest can position itself as a
	true partner, the role of citizens appears to be
	unexposed.
As an overarching policy document, the BOVi	Ambitions regarding time and money are still
can help find agreement on the translation of the	regarded as more important than an integrated
new role in different projects through better	way of working as reflected in the Double Dike
aligned strategic policy documents and	project.
implementation measures.	
The internal commitment and progressive vision	There is room for improvement in the sensitivity
of employees of Noorderzijlvest is reflected in	to the external environment, which is
concrete water planning practices, as they	recognized internally as well as externally.
proved to be a key link in the Double Dike	
project and the initiator of the BOVi.	
The Double Dike served as an exemplary	Within Noorderzijlvest, the focus on securing
project from which lessons were learned and	these learned lessons throughout the
implemented in other dike improvement	organization is not fully developed yet.
projects.	

Table 11: Strengths and weaknesses in the repositioning of Noorderzijlvest to balance between its expertise role and the need to become a more responsive government to govern for climate change adaptation.

7.4 Policy recommendations

Based on these weaknesses in the repositioning of Noorderzijlvest, three policy recommendations are established:

- 1. The remained dominant focus on technical expertise in the new role of Noorderzijlvest is hindering the search for a new way of working. Currently, Noorderzijlvest seems to be divided between the urge to be a partner or an expert. Related to this is the question what it means to be a partner in integrated area-based planning projects. Noorderzijlvest is still searching for the interpretation and translation of its new partner role, as this is translated differently in different projects and contexts. Thus, the first policy recommendation is to put more focus on becoming a true partner in area-based planning projects based on its water expertise, which can sometimes be translated as relatively 'simple'. Improvements can be made in how the new partner role is translated into different projects and contexts by elaborating and reflecting on who Noorderzijlvest perceives as 'partners' in these differing projects and the partner role Noorderzijlvest sees for itself. For example: Noorderzijlvest as an initiating partner, an executing water expert, or a policy partner. This relates to the third proposed point of Goodsell (2011) in Chapter 2.5 to strengthen an institutional center: wherein the organization is open to new ideas, emerging technologies, and discussion. Thu, this recommendation will create more consensus on the mission of Noorderzijlvest and strengthens the institutional center.
- 2. Although citizens are less directly involved than policy partners in, for example, an integrated way of working and the repositioning of Noorderzijlvest, there is little focus on this group in the framing process of employees of the ambition to become a true partner of the region. The focus seems, yet to be only on the policy partners of Noorderzijlvest, wherein the citizens of the management area are neglected. Although the mission statement as well as the interviews with strategic policy advisors express that Noorderzijlvest is eventually doing its work for the citizens, concrete water planning practices seems to exclusively focus on creating water awareness among citizens. On strategic as well as operational level, it is advised to make the framing process more inclusive by including this stakeholder group more actively. By putting focus on this compelling aura and generating respect, Noorderzijlvest can ensure continued existence according to Goodsell (2011).
- 3. Simultaneously, if all employees are expected to work according to the envisioned partner role, all should be given the tools to do so. It is important that the employees with a less progressive vision are not forgotten or overruled, as this might disturb the internal culture, intrinsic motivation, and even the central mission. Based on the first point proposed by Goodsell (2011) to strengthen an institutional center by strengthening the mission articulation, a third recommendation is to briefly formulate the vision and mission statement, as well as how employees should think and act in different contexts.

7.4.1 General lessons for other regional water authorities

All Dutch regional water authorities find themselves in different contexts, such as at the rivers or at the coast, and each of them engages in a different framing process of their own vision. However, each Dutch regional water authority is confronted with the need to balance its role based on technical expertise and the need to become a more responsive government. Therefore, some more general recommendations are established to guide the other Dutch regional water authorities as well:

- 1. In regional water management, a growing awareness that an integrated way of working does not per definition result in higher costs would be valuable. As reflected in the Double Dike project, there still seems to be apprehension regarding the regional water authority having to take full responsibility of integral projects. Willingness to engage in area-based planning projects could rise if focus is put on linking functional developments to create opportunities for co-benefits, instead of responsibilities. With this, regional water authorities can evolve from an advisory role to a true partner or even initiator of integral and area-based planning projects.
- 2. As became clear in the theory, Dutch water management is still predominantly focused on technical expertise. As a result, the willingness to act on regional level is still based on safety standards. For regional water authorities to become more responsive governments, this means that releasing certain norms and standards to create room to experiment with innovation should be explored.
- 3. An idea which emerged from the interviews was further developing the idea of a linking pin between different regional water authorities and other partners such as the National Flood Protection Program and provinces. With this, ambitions can be connected in an early stage, and it becomes less likely that projects are carried out solely based on technical expertise instead of as an integrated way of working.

7.5 Theoretical reflection and contribution to planning theory

In this research, the most relevant theories were climate change adaptation, public institutions, organizational mission mystique, and framing perspective. Climate change adaptation was mainly used to call attention to the importance of Dutch regional water authorities and their role in the shift towards flood resilience. Public institutions and the organizational mission mystique were used to interpret the repositioning of Noorderzijlvest to govern for climate change adaptation in which the framing perspective was used to study the role of language and indicate the new organizational mission mystique.

A first contribution of this research to planning theory was elaborating on research regarding Dutch regional water authorities. As these authorities guard the public interests of long-term water management and carry responsibility to address long-term policy problems, they play a key role in climate change adaptation and the shift to a new water paradigm.

Secondly, based on the studies by Boin et al. (2021) and Van den Brink (2009), it is argued that studying the role of language in institutional adaptation is unexposed in academic literature. Conceptualizing Dutch regional water authorities as public institutions was

beneficial as this made it possible to study the institutional adaptation of Noorderzijlvest. The addition of a framing perspective to literature on institutional adaptation was valuable as this made it possible to explore the strategic framing process of the new partner role of Noorderzijlvest. However, it proved difficult to include and find the position of the collective action frame in this research.

7.6 Methodological reflection

The selection of the case for this research started with the search for a regional water authority which performed on average with regards to climate change adaptation. As Noorderzijlvest was the only one which actively responded, there were no other selection criteria set-up. As a result, there was no room for comparison between cases which makes generalization of policy recommendations less accurate, as the uniqueness of cases makes it difficult to make general spatial planning approaches (Biesbroek et al., 2009). However, as Noorderzijlvest does not belong to the most progressive nor reserved regional water authorities regarding the Adaptation Initiatives Index Scores (Kamperman & Biesbroek, 2017), Noorderzijlvest can still be regarded as a general power of example from which lessons can be drawn. Zooming out, Dutch regional water management is an interesting example on global scale. However, as the Netherlands is a frontrunner on this scale, no generalizations can be made on the international level.

In this research there were multiple points that can challenge the objectivity of the researcher. The first point is that according to Flyvbjerg (2006) case studies are in essence highly subjective. Additionally, the researcher is also involved in meaning-making, especially as the framing process of employees of Noorderzijlvest is interpreted based on inductive codes and thus on what stands out according to the researcher. To avoid possible miss-interpretation due to the translation of Dutch quotes into English, the original quotes are provided. To further avoid miss-interpretation, an advise for similar studies would be to check the interpretation with the organization by means of for example a presentation.

A third point to reflect upon is the external perspective on the repositioning of Noorderzijlvest. Not all partners involved in the concrete water planning projects were interviewed. The external perspective of for example municipalities, citizens, and non-governmental organizations are not included due to the limited (time) scope of this research. Additionally, as the interviewees of the National Flood Protection Program are involved with more regional water authorities than only Noorderzijlvest, these semi-structured interviews were more general than only specified at Noorderzijlvest.

Besides this, it is important to reflect upon the duration of this research in relation to the process of the BOVi. As the project of the BOVi was still in the third phase during this research, wherein the vision was to be formed based on the guiding statements, this research only included documents resulting from the first two phases: the discussion maps and guiding statements, and the concept version of the document resulting from the third phase. Thus, the final product of this project is not included in this research. Additionally, as Noorderzijlvest regards the Blue Strategy on the Environment as an adaptive document, it may be that the data no longer corresponds exactly with the coming versions of the BOVi.

Last, to fill in the current organizational mission mystique of Noorderzijlvest proved to be slightly difficult. The predominant focus of the framing process lied on the purposive aura and sustaining features, which resulted in the internal commitment being unexposed. Another difficult point in the use of the mission mystique template was that the content of many cells overlapped. On the one hand this reflects a strongly connected mission mystique, but on the other hand this posed challenges in the interpretation of the new organizational mission mystique.

7.7 Suggestions for further research

Based on the theoretical reflection, a suggestion for further research would be to focus on the inclusion and position of the collective action frame in institutional adaptation. Additionally, further elaboration upon the methodology of a framing analysis is suggested, for example through code webs to visualize the relation between different key concepts.

Another suggestion which follows from the methodological reflection is to include more external parties which are involved in the concrete water planning projects, which forms a more holistic view on the interpretation of the repositioning of regional water authorities.

As this research focused on one case, another suggestion for further research is to include multiple regional water authorities to provide the ability to compare. Based on this, more lessons can be learned on what is necessary to solve certain tensions in the strategic and political repositioning of regional water authorities and in the translation to concrete water planning practices. This also links with a broader discussion in the Netherlands: to transform regional water authorities into climate change authorities (*klimaatschappen*), as all tasks of regional water authorities become increasingly entrenched with the impacts of climate change. With this, they can devote themselves to both more sustainable water management and energy practices without the remaining large, fixed, interest of farmers and hindrance of political-administrative discussions.

Dutch regional water authorities have proved to be enduring authorities in centuries of turbulent water and became an indispensable part of Dutch water management. I hope the recommendations of this research to strengthen their organizational mission will be used to support their future license to operate in (inter)national water management. With this, I hope to have contributed to the ability of Noorderzijlvest, and other regional water authorities, to govern for climate change adaptation.

References

Allmendinger, P. (2017). *Planning theory*. 3rd edn. London: Palgrave.

Ansell, C., Boin, A. & Farjoun, M. (2015). Dynamic conservatism: how institutions change to remain the same. *Research in the Sociology of Organizations*, 44, 89-119.

Barnosky, A.D., Matzke, N., Tomiya, S., Wogan, G.O.U., Swartz, B., Quental, T.B., & Ferrer, E.A. (2011). Has the Earth's sixth mass extinction already arrived? *Nature*, 471, 51 – 57.

Benford, R.D., & Snow, D.A. (2000). Framing Processes and Social Movements: An Overview and Assessment. *ANNUAL REVIEW OF SOCIOLOGY*, 26, 611–611.

Biesbroek, G.R., Swart, R.J. & Knaap, W.G.M. van der (2009). The mitigation-adaptation dichotomy and the role of spatial planning. *Habitat International*, 33(3), 230-237.

Bijker, E.W. (2002). The Oosterschelde Storm Surge Barrier: A Test Case for Dutch Water Technology, Management, and Politics. *Technology and culture*, 43(3), 569-584.

Bijker, E.W. (2007). American and Dutch Coastal Engineering: Differences in Risk Conception and Differences in Technological Culture. *Social Studies of Science*, 37(1), 143-151.

Boin, A. & Christensen, T. (2008). The Development of Public Institutions. Reconsidering the Role of Leadership. *Administration & Society*, 40(30), 271-297.

Boin, A., Fahy, L.A. & Hart, P. 't (eds) (2021). *Guardians of public value: how public organisations become and remain institutions*. Cham: Palgrave Macmillan (Open Access e-Books). doi: 10.1007/978-3-030-51701-4.

Boin, A., Kofman, C., Kuilman, J., Kuipers, S. & Witteloostuijn, A. van (2015). Does organizational adaptation really matter? How mission change affects the survival of U.S. federal independent authorities, 1933-2011.

Boyne, G.A., & Meier, K. J. (2009b). Environmental turbulence, organizational stability and public service performance. Administration & Society, 40, 799–824.

Bregman, R. (2020). Een brief aan alle Nederlanders: Klimaatverandering bedreigt het voortbestaan van ons land. [In Dutch] online via <u>https://decorrespondent.nl/10813/een-brief-aan-alle-nederlanders-klimaatverandering-bedreigt-het-voortbestaan-van-ons-land/415705785-40e5635f</u> accessed on 01-09-2020.

Brink, M. van den (2009). Rijkswaterstaat on the horns of a dilemma. Dissertation. Eburon, Delft.

Brink, M. van den, Termeer, C. & Meijerink, S. (2011). Are Dutch water safety institutions prepared for climate change? *Journal of Water and Climate Change*, 2(4), 272-287.

Brugge, R. van der, Rotmans, J. & Loorbach, D. (2005). The Transition in Dutch Water Management. *Regional Environmental Change*, 5(4), 164–176.

Bryson, J.M. (2012). Book Highlight—clarifying Organizational Mandates and Mission. *Global Business and Organizational Excellence*, 31(4), 59–84.

Cope, M. (2010). Coding Transcripts and Diaries. In N. Clifford, S. French, G. Valentine (Red.), *Key Methods in Geography* (440-452). London: SAGE Publications.

Dekking, W. & Havekes, H. (2015). Historische schets ontwikkeling belastings-stelsel waterschappen. [In Dutch] online via <u>http://edepot.wur.nl/362964</u> accessed on 21-10-2020.

Dewulf, A., Gray, B., Putnam, L., Lewicki, R., Aarts, N., Bouwen, R. and Woerkum, C. (2009). Disentangling approaches to framing in conflict and negotiation research: a meta paradigmatic perspective. *Human relations*, 62(2), 155-193.

Disco, C. (2002) Remaking 'nature': the ecological turn in Dutch water management. *Sci. Technol. Hum. Val.*, 27, 206–235.

Driessen, P.P.J., Hegger, D.L.T., Kundzewicz, Z.W., Rijswick, H.F.M.W. van, Crabbé, A., Larrue, C., Matczak, P., Pettersson, M., Priest, S., Suykens, C., Raadgever, G.T, & Wiering, M. (2018). Governance strategies for improving flood resilience in the face of climate change. *Water (Switzerland)*, 10(11).

Eemsdollard2050 (n.d.). Pilot Dubbele Dijk. [In Dutch] online via https://eemsdollard2050.nl/project/dubbele-dijk/ accessed on 11-11-2020.

Entman, R. (1993). Framing: towards clarification of a fractured paradigm. *Journal of communication*, 43(4), 51-58.

Flyvbjerg, B. (2001). *Making social science matter: why social inquire fails and how it can succeed again.* Cambridge: Cambridge University Press.

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219-245.

Gamson, W.A. (1992). Talking politics. Cambridge: Cambridge University Press.

Gebiedsontwikkeling.nu (n.d.). Waterschap: een krachtige speler in gebiedsontwikkeling. [In Dutch] online via <u>https://www.gebiedsontwikkeling.nu/artikelen/waterschap-een-krachtige-speler-in-gebiedsontwikkeling/</u> accessed on 10-09-2020.

Gerrits, L. & Marks, P. (2008). Complex Bounded Rationality in Dyke Construction: path-Dependency, Lock-In in the Emergence of the Geometry of the Zeeland Delta. *Land Use Policy*, 25(3), 330–337.

Giebels, L. (1992). De zaak van de abandonnerende polder en de afschaffing van de waterschapsrechtspraak in 1841. *Tijdschrift voor Rechtsgeschiedenis/ Revue d'Histoire du Droit/The Legal History Review*, 60(3-4), 449-469.

Goffman E. (1974). Frame Analysis: An Essay on the Organization of the Experience. New York: Harper Colophon.

Goodsell, C.T. (2010). *Mission mystique: Belief systems in public authorities*. Washington, DC: CQ Press.

Goodsell, C. (2011). Mission Mystique: Strength at the Institutional Center. *American Review of Public Administration*, 41(5), 475–494.

Haasnoot, M., Kwakkel, J.H., Walker, W.E., & Maat, J. ter (2013). Dynamic adaptive policy pathways: a new method for crafting robust decisions for a deeply uncertain world. *Global Environmental Change*, 23(2), 485–498.

Havekes, H.J.M. (2008). *Functioneel decentral waterbestuur: borging, bescherming en beweging*. [In Dutch] Sdu Uitgevers bv. Den Haag, The Netherlands.

Hendriks, F. (2014). Understanding good urban governance: Essentials, shifts, and values. Urban Affairs Review, 50(4), 553–576.

InfoMil (n.d.). Planstelsel. [In Dutch] online via <u>https://www.infomil.nl/onderwerpen/lucht-water/handboek-water/thema-s/ruimtelijke-ordening/plannen/planstelsel/</u> [in Dutch] accessed on 03-03-2021.

IJff, J. (1993). *Omwentelingen in het waterschapsbestel 1968 - 1993*. In: Raadschelders, J.C.N. & Toonen, T.A.J. (eds). Waterschappen in Nederland: een bestuurskundige verkenning van de institutionele ontwikkeling. Hilversum: Verloren, 13–29.

Jonge, J. de (2017). Water als maatschappelijke opgave. Unie van waterschappen. [In Dutch] online via <u>https://www.uvw.nl/wp-content/uploads/2017/01/Land-en-waterschappen-Over-de-omgevingskwaliteit-van-de-toekomstige-Delta-2016.pdf accessed on 09-09-2020.</u>

Kaufmann, M., Doorn-Hoekveld, W. van, Gilissen, H.K. & Rijswick, M. van (2016). *Analysing and evaluating flood risk governance in the Netherlands – Drowning in safety?* Nijmegen/Utrecht, the Netherlands: STAR-FLOOD Consortium, Radboud University of Nijmegen and University of Utrecht. Online via <u>https://repository.ubn.ru.nl/bitstream/handle/2066/159329/159329.pdf</u> accessed on 14-11-2020.

Kamperman, H. & Biesbroek, R. (2017). Measuring Progress on Climate Change Adaptation Policy by Dutch Water Boards. *Water Resources Management*, 31(14), 4557-4570.

Kuks, S.M.M. (2009). *Chapter 8: Institutional Evolution of the Dutch Water Board model*. 155-170 in: Water Policy in the Netherlands – Integral Management in a Densely Populated Delta by Folmer, H. and Reinhard, S. RFF Press Book: Washington, DC, USA.

Laws, D., & Rein, M. (2003). *Reframing practice*. In M. Hajer & H. Wagenaar (Eds.), Deliberative Policy Analysis: Understanding Governance in the Network Society (Theories of Institutional Design, 172-206. Cambridge: Cambridge University Press.

Liao, K.H. (2014). From flood control to flood adaptation: a caste study on the lower green river valley and the City of Kent in King County, Washington. *Natural hazards*, 71(1), 723-750.

Lintsen, H. (2002). Two Centuries of Central Water Management in the Netherlands. *Technology and Culture*, 43(3), 549–568.

Longhurst, R. (2010). Semi-structured Interviews and Focus Groups. In N. Clifford, S. French, G. Valentine (Red.), *Key Methods in Geography* (103-115). London: SAGE Publications.

Luiten, E. (2017). Land- en waterschappen: over de omgevingskwaliteit van de toekomstige delta. Unie van waterschappen. [In Dutch] online via <u>https://www.uvw.nl/wp-content/uploads/2017/01/Land-en-waterschappen-Over-de-omgevingskwaliteit-van-de-toekomstige-Delta-2016.pdf</u> accessed on 09-09-2020.

Mahoney, J. & Goertz, G. (2006). A tale of two cultures: Contrasting quantitative and qualitative research. *Political Analysis*, 14, 227-249.

Mostert, E. (2017). Between Arguments, Interests and Expertise: The Institutional Development of the Dutch Water Boards, 1953-Present. *Water History*, 9(2), 129-46.

McQuarrie, E. (2016). The market research toolbox: A concise guide for beginners. 4thEdition. Los Angeles: SAGE.

Nationaal Deltaprogramma (n.d.). Wat is het verschil tussen een deltabeslissing, een voorkeursstrategie en een deltaplan? [In Dutch] online via <u>https://www.deltaprogramma.nl/documenten/vragen-en-antwoorden/wat-is-het-verschil-tussen-een-deltabeslissing-en-een-voorkeursstrategie</u> accessed on 01-06-2021

NU.nl (2019). Ook opkomst bij waterschapsverkiezingen fors hoger dan in 2015. [In Dutch] online via <u>https://www.nu.nl/provinciale-statenverkiezingen-2019/5803680/ook-opkomst-bij-</u>waterschapsverkiezingen-fors-hoger-dan-in-2015.html accessed on 23-06-2021

OECD (2014). *Water Governance in the Netherlands: Fit for the Future?*. OECD Studies on Water, OECD Publishing, Paris.

Pot, W.D., Dewulf, W. & Termeer, J.A.M. (2020). Governing long-term policy problems: Dilemmas and strategies at a Dutch water authority. *PUBLIC MANAGEMENT REVIEW*, 1-24.

Raadschelders, J.C.N. & Toonen, T.A.J. (1993) Waterschappen in Nederland: een bestuurskundige verkenning van de institutionele ontwikkeling. Hilversum: Verloren

Restemeyer, B., Woltjer, J., & Brink, M. van den (2015). A strategy-based framework for assessing the flood resilience of cities - a Hamburg case study. *Planning Theory & Practice*, 16(1), p 45–62.

Restemeyer, B., Brink, M. van den, & Woltjer, J. (2017). Between adaptability and the urge to control: making long-term water policies in the Netherlands. *Journal of Environmental Planning and Management*, 60(5), 920-940.

Rijksoverheid (n.d.). Omgevingswet. [In Dutch] online via

https://www.rijksoverheid.nl/onderwerpen/omgevingswet accessed on 08-11-2020.

Salet, W. (2018). Public norms and aspirations. Routledge: 711 Third Avenue, New York, NY 10017.

Schoeman, J., Allan, C. & Finlayson, C.M. (2014). A New Paradigm for Water? A Comparative Review of Integrated, Adaptive and Ecosystem-Based Water Management in the Anthropocene. *International Journal of Water Resources Development*, 30(3), 377–390.

Selznick, P. (1957). *Leadership in Administration: A Sociological Interpretation*. New York: Harper & Row

Taylor, L. (2016). Case Study Methodology. In N. Clifford, M. Cope, T. Gillespie, S. French (Red.), *Key Methods in Geography* (581 - 595). London: SAGE Publications.

Toonen, T.A.J., Dijkstra, G.S.A. & Meer, F. van der (2006). Modernisation and reform of Dutch water boards: resilience or change? *Journal of institutional economics 2*, 2, 181-201.

Unie van Waterschappen (n.d.-a). Klimaatverandering. [In Dutch] online via <u>https://www.uvw.nl/thema/duurzaamheid/klimaatverandering/</u> accessed on 10-09-2020.

Unie van Waterschappen (n.d.-b). Mijn waterschap. [In Dutch] online via <u>https://www.waterschappen.nl/mijn-waterschap/</u> accessed on 17-10-2020.

Unie van Waterschappen (n.d.-c). Waterschappen in Nederland. [In Dutch] online via <u>https://www.uvw.nl/thema/wet-en-regelgeving/waterschappen-in-nederland/</u> accessed on 21-10-2020.

Unie van Waterschappen (n.d.-d). Waterschapskaart 2018. Online via <u>https://www.uvw.nl/wp-content/uploads/2018/10/Waterschapskaart-2018.jpg</u> accessed on 21-10-2020.

Ven, G.P. van de (1993). *Man-made lowlands: history of water management and land reclamation in the Netherlands*. Translation of: Leefbaar laagland: geschiedenis van de waterbeheersing en landaanwinning in Nederland. Third edition. Stichting Matrijs, Utrecht, the Netherlands.

Vleuten, E. van der, and Disco, C. (2004). Water Wizards: Reshaping Wet Nature and Society. *History and Technology*, 20(3), 291–309.

Vörösmarty, C. J., McIntyre, P. B., Gessner, M. O., Dudgeon, D., Prusevich, A., Green, P., & Davies, P. M. (2010). Global threats to human water security and river biodiversity. Nature, 467, p 555–561.

Waternatuurlijk (n.d.). Noorderzijlvest. [In Dutch] online via https://www.waternatuurlijk.nl/noorderzijlvest/noorderzijlvest accessed on 08-11-2020

Waterschap Noorderzijlvest (2016). Waterbeheerprogramma waterschap Noorderzijlvest 2016-2021. [In Dutch] online via

https://www.noorderzijlvest.nl/publish/pages/14421/waterbeheerprogramma_noorderzijlvest_2016-2021.pdf accessed on 04-10-2020.

Waterschap Noorderzijlvest (2019a). Voor mens en voor water – bestuursakkoord 2019-2023. [In Dutch] Online via

https://www.noorderzijlvest.nl/_flysystem/media/bestuursakkoord_2019-2023.pdf accessed on 01-12-2020.

Waterschap Noorderzijlvest (2019b). *BOVi praatstuk Analyse Fase definitief voor AB*. Internal report (Noorderzijlvest). Unpublished.

Waterschap Noorderzijlvest (2020a). *Blauwe Omgevingsvisie (BOVi) - Richtinggevende Uitspraken*. Internal report (Noorderzijlvest). Unpublished.

Waterschap Noorderzijlvest (2020b). Jaarplan 2021 – inclusief meerjarige doorkijk 2022-2024. [In Dutch] online via https://www.noorderzijlvest.nl/_flysystem/media/jaarplan_2021inclusief_meerjarige_doorkijk_2022-2024.pdf accessed on 01-12-2020.

Waterschap Nooderzijlvest (2021). Blauwe Omgevingsvisie: de BOVi – concept. [In Dutch] online via <u>https://www.noorderzijlvest.nl/publish/pages/15899/waterschap_noorderzijlvest_bovi_concept.pdf</u> accessed on 09-03-2021.

Weick, K.E. (1995). Sensemaking in organizations. London: Sage.

Yanow, D. (2006). Thinking interpretively: philosophical presuppositions and the human sciences. In D. Yanow & P. Schwarts-Shea (Eds.), *Interpretation and method: empirical research methods and the interpretive turn*. Armonk, NY: M.E. Sharpe.

Yin, R.K. (2009). Case study research: design and methods. 4th edition. Thousand Oaks: Sage Publications.

Zevenbergen, C., Herk, S. van, Rijke, J., Kabat, P., Bloemen, P., Ashley, R., & Veerbeek, W. (2012). Taming global flood disasters. Lessons learned from Dutch experience. *Natural Hazards*, 65(3), 1217-1225.

Appendices

1. Interview guide

Informatie vooraf:

- Dit onderzoek wordt uitgevoerd door mij als student van de Rijksuniversiteit Groningen en Universiteit van Oldenburg.
- U heeft het recht om u te allen tijde het interview te stoppen.
- Graag zou ik het interview willen opnemen zodat ik deze kan transcriberen, dit transcript wordt alleen voor de analyse van dit onderzoek gebruikt en zal niet met derden worden gedeeld. Uiteindelijk zal ik hieruit een aantal citaten in mijn thesis gaan gebruiken, deze citaten zal ik u voorleggen ter accordering. Geeft u toestemming om het interview op te nemen?
- Het doel van mijn onderzoek is om erachter te komen hoe waterschap Noorderzijlvest omgaat met huidige trends zoals klimaatverandering en klimaatadaptatie. Hierbij wil ik kijken naar hoe dit wordt vertaald in de visie en missie en hoe dit doorwerkt naar de praktijk. Aan de hand hiervan hoop ik uiteindelijk een aantal aanbevelingen op te kunnen stellen.

Algemeen	Introductie
-	• Kunt u een korte introductie geven van uzelf? Wat is uw rol binnen
	Noorderzijlvest en uw achtergrond?
Historie	1. Ik heb veel gelezen over de geschiedenis van waterschappen in het
	algemeen, maar om te beginnen ben ik erg benieuwd naar wat zijn
	volgens u belangrijke momenten/perioden in de geschiedenis van NZV?
	a. Wordt het bestaan van de organisatie ook gevierd?
	2. Zijn er ook bepaalde momenten van crises waarin de organisatie een
	taakverandering ondervond?
	a. Hoe zou u Noorderzijlvest nu omschrijven?
Mission	3. Ik heb ook veel gelezen over discussies over het bestaansrecht van
mystique	waterschappen, speelt dat voor uw gevoel nog steeds?
	4. Hoe gaat het waterschap om met deze discussie?
	5. Wat voor soort mensen werken typisch voor Noorderzijlvest?
	6. Denkt u ook dat het personeel intrinsiek gemotiveerd is?
Strategisch	7. Voor welke uitdagingen en veranderingen staat Noorderzijlvest op dit
	moment?
	8. Wat is hierin de algemene missie en visie van het waterschap?
	a. Wat is de essentie van de communicatiestrategie?
	9. Ik ben een aantal keer begrippen zoals regionale waterautoriteit,
	waterdeskundigen en moderne overheidsorganisatie tegengekomen in
	bijvoorbeeld het bestuursakkoord, wat betekenen deze begrippen
	volgens u?
	10. Wat is de relatie met de missie/visie van NZV?
Transformatie	11. Staat iedereen achter deze (nieuwe) visie/missie of is dit nog onderdeel van gesprek?
	12. Momenteel zijn er allerlei maatschappelijke transities gaande zoals de
	bewustwording van klimaatadaptatie. Ik kan me voorstellen dat dat lange
	termijn denken wel lastig voor waterschappen, hoe gaan jullie daarmee
	om?
	13. De Omgevingswet vraagt straks veel samenwerking tussen verschillende
	overheden, bereidt het waterschap zich daar ook al op voor? Hoe precies?
	14. Zijn er ook interne trainingen waarbij geleerd wordt om hoe er met de
	omgeving omgegaan moet worden?

Dubbele Dijk en	15. In deze context zijn bijvoorbeeld de Dubbele Dijk en BOVi een mooi
BOVi	initiatief, hoe ziet u dat?
	a. Wat is precies het doel van de BOVi/DD?
	b. Hoe sluit dit aan op de visie van het waterschap? Is dat
	duidelijk? Of is er nog een zoektocht naar deze vertaling van de visie naar de praktijk?
	c. Denkt u dat de BOVi de praktijk zal veranderen ten opzichte van
	de huidige manier van werken?
	d. Is daar binnen ook ruimte voor interpretatie?
	e. Hoe is dit proces gegaan en wie zijn erbij betrokken?
	f. In hoeverre is zo'n project afhankelijk van het bestuur?
	g. Wat waren de belangrijkste dilemma's?
	h. En dilemma's in de vertaling van deze missie in de praktijk?
	i. Wat zijn kansen voor de toekomst?
	j. En ook voor de vertaling van de missie in de praktijk?
	16. Merkt u dat er vanuit het bestuur ook actief ruimte wordt gemaakt voor
	de opzet van zulke projecten?
Reflectie	17. Wat zijn volgens u de belangrijkste focus punten van Noorderzijlvest?
	18. Wat zijn de belangrijkste geleerde lessen van het verleden? En ook van de BOVi/DD?
	19. Beperkt de technische kennis van het verleden de huidige
	communicatieve vaardigheden binnen het waterschap?
	20. Wat zijn algemenere kansen voor de toekomst?
	21. Vind u dat er momenteel genoeg focus is op de transitie naar
	klimaatbestendigheid?
Afsluiting	22. Ik heb het Waterbeheerprogramma, Bestuursakkoord en de
	richtinggevende uitspraken van de BOVi doorgenomen, zijn er nog
	andere documenten die ik zou kunnen gebruiken?
	23. Weet u ook of er nog boekjes of artikelen zijn over de historie van NZV?
	24. Heeft u ook nog tips voor andere personen die ik kan interviewen?

2. Original quotes

Chapter 5

- 1. Weinig mensen, grote opgaven. Dus het in balans houden van je inkomsten en uitgaven om ook in de toekomst opgewassen te blijven tegen deze trends, dat zie ik wel als de grootste opgave Dat we het kunnen is echt het punt niet, moeiteloos, maar je moet het ook kunnen blijven betalen, dat is een grote uitdaging.
- 2. De maatschappij vraagt van ons om transparant en in goede samenwerking, maatschappelijk te ondernemen.
- 3. Je ziet dat wij heel erg gericht waren op de veiligheid en op dat water: hoe doen we dat nu goed? Terwijl onze nieuwe dijkgraaf veel meer zoiets had van: ja we zijn er niet voor het water of die dijken, maar voor de mensen. Je ziet dat de oriëntatie toen heel erg is veranderd.
- 4. Dat betekent dat wij heel veel weten van water en het beheersen daarvan, maar dat doen we omdat het uiteindelijk gaat om de inwoners in ons gebied.
- 5. Die kunnen ontdekken waar de sentimenten zijn en die in staat zijn met die contacten menselijkheid te bouwen.
- 6. Waterschap Noorderzijlvest staat voor veilig, voldoende en schoon water voor alle ingezetenen. Wij creëren hiermee een basis voor een gezonde, toekomstbestendige leef-, woon- en werkomgeving in Groningen en Noord-Drenthe. Wij zijn transparant, resultaatgericht en kostenefficiënt op een innovatieve, maatschappelijk verantwoorde en duurzame wijze, in samenwerking met onze partners. Wij willen zichtbaar zijn voor onze omgeving.

- 7. De afstand tot burgers van het waterschap zal nog moeilijker overbrugbaar worden. Wat ik wel zie is dat nu de gefuseerde waterschappen om ons heen, Wetterskip Fryslân en Hunze en Aas, verschillende watersystemen bevatten. Als je pech hebt leidt de schaalvergroting tot dat kennis over die specifieke watersystemen globaler wordt. Of dat nou zo goed is voor het werk wat je als waterschap moet doen, daar twijfel ik wel over.
- 8. Wij willen zichtbaar zijn voor onze omgeving.
- 9. Je moet als waterdeskundige gezien worden, vanuit de omgeving, dat iedereen weet dat we die kennis ook hebben. Dat we volwaardig partner zijn van de provincie en gemeente binnen ons vakgebied. Mijn beeld is dat we in het verleden niet altijd primair betrokken waren bij de ontwikkeling van ruimtelijke plannen, veelal later als de contouren van de plannen zichtbaar waren. Zo van: ohja, we hebben ook nog het waterschap. Je zou denken dat je juist een waterschap nodig hebt als het gaat om waterveiligheid en waterkwaliteit en waterkwantiteit. We willen daar gewoon een volwaardige partner in zijn vanuit onze verantwoordelijkheid.
- 10. Misschien dat het idee dan is dat we naar een moderne overheid moeten groeien om onszelf niet te beperken in het hier en nu, maar dat we net als andere overheden moeten vooruit moeten kijken en daarbij onze medestakeholders daar ook inschakelen en een plaats gunnen. Daar past dat BOVi traject denk ik heel goed bij, we laten ons niet in een afhankelijke positie zetten. Wij zijn ook een overheid laag met onze eigen taakopvatting, we willen daar ook actief iets mee doen.
- 11. [...] de overgrote meerderheid is echt wel gedreven in hetgeen wat ze doen. Dat is heel leuk om te zien want dat maakt je zelf ook meer gemotiveerd. Een enthousiaste collega is ook eerder geneigd om andere collega's bij een project te betrekken dan collega's die niet enthousiast zijn. Daarmee wordt denk ik je project uiteindelijk beter, als je het wat breder en enthousiaster insteekt. Het wordt beter, gezelliger en breder, alles bij elkaar. Gezelligheid is belangrijk, dat is een beetje het smeermiddel binnen een organisatie.
- 12. Er is aan de ene kant een club mensen die zegt: schoenmaker blijf bij uw leest en beperk je tot je basistaken want dat is al duur genoeg. De andere kant zegt: ja maar wij zijn een maatschappelijke club en we moeten verder kijken dan alleen maar die technische dingen. Die discussie komt wel telkens weer terug. Ook omdat daar vaak een prijs aan hangt.
- 13. Het is lastig dat niet iedereen die technisch geschoold is, mensen die vak en inhoud gedreven zijn, in staat is om ook die voelsprieten naar buiten te creëren. Dat is nog wel iets waar we aan moeten werken.
- 14. Wij identificeren onszelf vaak aan de hand van ons erfgoed, de Waterwolf bijvoorbeeld. Dat is in ons opzicht belangrijker om op die manier te laten zien wie we zijn en wat we doen. We zijn van huis uit een wat technische organisatie, dus we laten graag onze technische werken zien.
- 15. We hebben het geluk dat we betrokken portefeuillehouders hebben die ook zelf uitgesproken ideeën hebben over welke kant ze zouden willen dat het op gaat. Daar houden we elkaar ook scherp in. Ambtenaren vanuit hun professionaliteit en bestuurders vanuit hun rol.
- 16. Waterschappen worden wel ook politieker, vroeger was het zo van 'als we onzichtbaar ons werk doen en niemand klaagt dan doen we het goed'. Je merkt wel dat bij thema's zoals veenoxidatie en verzilting, de keuzes die je daarin maakt, politiek worden. Non-politiek kun je zijn in tijden van overvloed. Maar ook bij waterschappen moeten er echt keuzes gemaakt worden in het verdelen van schaarste, dan kom je in die politieke vraagstukken te staan. In die zin gaan waterschappen wat meer op normale overheden lijken, in plaats van functionele overheden, dat is wel wat aan het schuiven. Dat kan ervoor zorgen dat er weer opnieuw nagedacht gaat worden over stelselherzieningen, maar op dit moment is dat niet aan de orde.
- 17. We hebben 3 principes: een toekomstbestendig beheergebied maken met robuust werk en maatwerk met elkaar. Dus gebiedsgericht en in samenwerking met onze partners. Dus niet meer alleen vanuit de taak en de macht geredeneerd, maar ook heel sterk naar het gebied kijken: waar vraagt het gebied om en welke opgaven liggen er? En wat is verstandig wie wat doet.
- 18. Ik heb echt de meest betrokken collega's die er zijn. Zo goed in hun vak en willen daarin ook het beste doen. Dat botst dus ook wel eens omdat mensen dan iets te veel op hun eigen vakgebied-eilandje zitten en uiteindelijk heb je natuurlijk wel samen dingen te doen en te maken. Maar an sich: dat kunnen wij ook goed als waterschap, die verbinding, maar daar zitten ook nog wel wat uitdagingen.

19. Daarin gaat het over: wat is dan anders werken, wat is integraal werken, hoe neem je de lead in het werk wat je moet doen, hoe kun je participatie vormgeven en hoe ontwikkel je bestuurlijke sensitiviteit. [...] Eigenlijk willen we als mensen een klus onder handen hebben, ze bewust maken van het feit dat ze dan een aantal stappen kunnen zetten in de voorbereiding van die klus waarmee ze omgevingsgerichter te werk gaan. [...] Het is eigenlijk leren in de flow van het werken. Met andere woorden: niet alleen maar losse trainingen maar telkens in het werk onderzoeken hoe de omgeving eruitziet en wat er nodig is om die mee te laten doen. Dus dat doe je dan tijdens de klus, dat is het idee. We denken dat we dat het een langere adem heeft en we het meer kunnen borgen als we het op deze manier in het dagelijkse werk kunnen inbouwen. Als je ergens aan begint: hoe doe je dat dan, hoe richt je dat proces in. Dat het proces eindelijk belangrijker wordt dan het resultaat.

Chapter 6

- 20. De grote maatschappelijke opgaven, zoals klimaatadaptatie, worden meer urgent. Dit vraagt om nieuwe ambities, mogelijk andere keuzes en een nieuwe manier van samenwerken met onze partners.
- 21. Jullie hebben ook inmiddels in het kader van de BOVi gesprekken met andere partners gevoerd, bijvoorbeeld met provincies. Er werd daar ook aangegeven vanuit ambtelijk en misschien ook wel vanuit bestuurlijk niveau van die anderen dat het waterschap best wat vaker wat harder mag roepen.
- 22. Ja ze vragen van ons om meer agenderend te zijn. We proberen, maar valt vies tegen met thuiswerken, om veel participatie gesprekken te voeren. Een oud-collega van ons die nu bij de provincie Groningen werkt zei dat de richtinggevende uitspraken zoals we die nu hebben opgeschreven te lief zijn. We mogen best wat meer onze poot stijf houden.
- 23. Wat wij graag willen, en dat doen we met die BOVi, is dat omdraaien. Dat wij bepalend worden voor het watergedeelte van de invulling van de ruimte. Dat is nieuw, eigenlijk een beetje een halve revolutie, dat waterschappen ook een BOVi maken naast de GOVi en POVi. Dat is wel een beetje gek, maar we krijgen van de andere overheden heel veel positieve respons, op het feit dat wij ons laten zien als deskundigen op het gebied van water. Dus men stelt het wel op prijs.
- 24. Ik denk dat de BOVi geholpen heeft om een aantal issues, ook op de lange termijn, expliciet te maken. Waardoor een aantal gesprekken die we anders niet of pas veel later zouden hebben gevoerd nu al op de radar hebben. Dan kunnen we bij onze partners adresseren wat eraan zit te komen.
- 25. Daarmee kunnen we uitstralen dat we actief breed kijken als waterschap en dat we openstaan voor wensen en ontwikkelingen van derden. [...] Dus de visie is wel erg gericht op het openstellen naar anderen. Dat willen we dan bereiken door die BOVi op te zetten, daarmee laten we echt zien dat we verder vooruitkijken. Dat we ons wel degelijk bewust zijn van alle veranderingen zoals klimaatveranderingen en droogte plannen."
- 26. Om eerlijk te zijn denk ik dat de hele organisatie nog niet doordrongen is van het feit dat je veel meer zou moeten werken volgens de principes die we nu ook toepassen bij projecten als de BOVi. De blik bij die club die zich daarmee bezighoudt is een hele andere dan de organisatie tot nu toe. Toch heel erg vanuit de eigen koker: wij zijn het waterschap en weten wat goed is en dit is de vergunning en dit zijn de regeltjes.
- 27. Het is nog niet iets waarvan het waterschap, als je kijkt naar de primaire taken, zegt: goh hebben wij dat nou nodig? Als je kijkt naar de oude opvatting van dijkbeheersing dan zou je gewoon een hoge dijk aanleggen. Die dubbele dijk hoeft natuurlijk vanuit de traditionele zin niet, ik vind dat een heel mooi voorbeeld hoe je met stakeholders samen toch kunt zeggen dat je toch wat anders kijkt naar veiligheidsconcepten en dat kunt integreren met anderen. Dit is een prachtig voorbeeld waarbij dat wel is gelukt.
- 28. De provincie was met het idee gekomen en ik was de link naar de DED, dus ik wist hoever we waren met bepaalde fases. Om dit te kunnen aanhaken moesten we af en toe de provincie wat aanjagen, dat deden Kees en ik dan. Af en toe stimuleren we derden. Eigenlijk moest Eemshaven Delfzijl in een rap tempo versterkt worden met die aardbevingsproblematiek, de fase van de Dubbele Dijk liep net een stapje achter, maar om het mee te nemen als koppelproject

moest er nog wel wat gebeuren om het bij het project in te krijgen. We proefden bij de projectleider van de dijkversterking wat weerstand om de Dubbele Dijk mee te nemen. Het is natuurlijk een risico dat het vertragend kan werken, maar om onszelf te profileren als waterschap, met dit soort dingen, lenen dit soort projecten zich heel goed.

- 29. Qua taakopvatting, misschien worden we wel wat, althans dat hoop ik omdat ik dat zelf heel belangrijk vind, minder behoudend en strikt in onze taak om goed aan te sluiten bij andere ontwikkelingen die er zijn. Wij kunnen niet altijd keihard aanhouden aan die keiharde dijken, die ons heel goed beschermen tegen overstromingen maar die geen meter doet voor de biodiversiteit of de natuur. Terwijl je daar wel gewoon langs een waddengebied ligt wat heel unieke natuur heeft op wereldschaal. Je kan het gewoon niet verkopen dat je alleen maar voor de waterveiligheid gaat. Dat is ook de reden dat we voor die dijkversterkingen sinds 2014/2015 heel bewust op zoek zijn gegaan en de deur open hebben gezet voor andere ontwikkelingen.
- 30. Koppelkansen noemen we dat, daar kijken we altijd naar tegenwoordig.
- 31. We mogen niet zomaar ons geld besteden aan een fietspad voor recreatie, daar halen we ons belastinggeld niet voor op. Bestuurlijk en in de samenwerking met collega overheden helpt het ons wel als we tijd en aandacht investeren in de plannen en wensen van de gebiedspartners. We hebben hen immers ook weer nodig op plekken waar onze opgaven wel aan elkaar raken.
- 32. Bij DD zijn genoeg dilemma's geweest, de grootste is geweest dat initieel het plan was om de DD ook binnen de dijkverbetering ook helemaal aangelegd te krijgen, en op een gegeven moment is daar toch een knip gelegd tussen 'wat doen wij als WS en wat doen wij als provincie' en is besloten dat het WS de dijken zou aanleggen en de provincie de inrichting zou doen. SM
- 33. Wat moet je dan verstaan onder de inrichting, dat is ook bijvoorbeeld die doorgang in de dijk om te zorgen dat er dus zoutwater dat gebied in kan. Waar je het liefst als waterschap, als je het goed integraal oppakt, had je dat natuurlijk ook meteen meegenomen. Maar dat heeft te maken dat de ontwikkeling van het binnen gebied je moet weten wat er precies komt, en dat duurde allemaal langer dan gedacht. Daarom is die knip gelegd. SM
- 34. En dat is soms best lastig op elkaar te passen. Dan wordt het vaak ook een politiek/bestuurlijke discussie, dan heeft het niet zozeer te maken met de wil of professionaliteit om integrale processen te doen maar puur bestuurlijk-politieke ambities: wil en/of kan ik het project vertragen of versnellen om andere dingen die spelen mee te koppelen?
- 35. Je moet je voorstellen dat je hele goede landbouwgrond opoffert om ontwikkelingen en innovatie door te voeren. Dat heeft dan niet 1 op 1 te maken met landbouw, en dat was binnen het bestuur nog wel een dingentje.
- 36. Ga nou niet zitten afwachten tot een provinciaal bestuur wat doet of het Rijk, maar ga nou kijken wat er in je gebied nodig is en leg dat op tafel. Zo van: wij zien vanuit het waterbeheer dit en dit en vinden dat dat en dat nodig is. Daar hebben de provincie en gemeentes dan op te acteren.
- 37. Over het algemeen vind ik die visies erg voorzichtig. Voor een WS is dat ook niet zo gek, uiteindelijk zijn zij nog wel een uitvoerende partij. Maar een visie kan je niet maken zonder verstand van de uitvoering.
- 38. Ik zie dat de waterschappen in de afgelopen 20 jaar ook echt een ontwikkeling hebben doorgemaakt. Van het waterschap dat alleen oog had voor de eigen functionele taken tot nu waarbij het waterschap op een andere manier is gaan werken met oog voor alle belangen die er spelen. En er is niets om aan te nemen dat die ontwikkeling niet door gaat.
- 39. Het wordt meer yin en yang, in plaats van boven en onder elkaar liggend. Daarin moeten we opzoek naar complementariteit.
- 40. Wanneer je in het proces met grote gemeenten niet in staat bent om professioneel weerwoord te geven word je gewoon weggespeeld. [...] Op een aantal plekken in Nederland met veel kleine gemeentes zie je dat het waterschap de initiërende partij wordt als het gaat over het voeren van gebiedsprocessen en dat gemeenten daar niet de capaciteit voor hebben. Ik denk dat die waterschappen ieder jaar beter worden in het betrekken van gemeenten zodat alle belangen meegenomen kunnen worden in een gebiedsproces.
- 41. Dan wordt het weer het klassieke dilemma van de waterschappen: groot genoeg voor veel deskundigheid, maar niet groot genoeg om hele grootse meeslepende innovaties zelf van de grond te krijgen. En dat zit ook wel een beetje in hun houding. Financiële risico's zijn te groot

en zo'n doorlopend belang is voor het bestuur niet zo interessant. Dan zie je de kracht van het waterschap: relatief klein, flexibel en gericht op verbetering, maar ook dat ze niet zo groot zijn dat ze voldoende massa weten te genereren om voor het hele traject van een eerste onderzoek tot en met de prototype feitelijk hun nek uit te steken.

- 42. Alleen ga je sneller maar samen kon je verder.
- 43. Kom je er met heel veel partijen uiteindelijk nog wel?
- 44. Je zult een functie moeten creëren die ervoor zorgt dat jij en ik niet afzonderlijk van elkaar aan de slag mogen gaan maar alleen samen.