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## Government facilitation of external initiatives: how Dutch water authorities cope with value dilemmas

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### ABSTRACT

Water authorities search for new collaborations with non-governmental actors, with the aim of facilitating societal initiatives. A comparative case study was conducted to analyze the value dilemmas faced by water authorities when they choose to facilitate and how they cope with these dilemmas. The study found that the most prevalent dilemma is between traditional democratic values and efficiency-related values. In the chosen solutions, the latter seem to prevail over the former. Casuistry, cycling and hybridization are common coping mechanisms. The study shows the potential of non-governmental initiatives in the water sector while also reflecting critically on dominant administrative values.

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## Introduction

As in all sectors of public administration, the water sector has shifted from hierarchical and highly institutionalized forms of government rule towards a more collaborative approach (Fliervoet & Van den Born, 2016; Pierre & Peters, 2000; Termeer, Dewulf, & van Lieshout, 2010). Water authorities increasingly collaborate with individual water users, communities, private actors and non-profit organizations to reach their policy goals (Pahl-Wostl, 2007; Watson, 2015). The involvement of stakeholders in the decision-making process has become common practice in many countries (Koontz, 2014; Petts, 2007; Schoeman, Allan, & Finlayson, 2014). The involvement of non-governmental actors in other phases of the policy process, such as policy implementation and evaluation, is less prevalent (Mees et al., 2016).

Recently, however, water authorities have started to explore new, more encompassing forms of working with non-governmental actors (Edelenbos, Van Buuren, Roth, & Winnubst, 2017). They advocate the self-organization of stakeholders and encourage non-governmental actors to take more responsibility for flood risk management, for example (Johnson & Priest, 2008; Nye, Tapsell, & Twigger-Ross, 2011; Watson, Deeming, & Treffny, 2009). Authorities aim to work with non-governmental actors as equal partners or even limit their own role to

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the facilitation of external actors' actions (Grotenbreg & Van Buuren, 2016). The initiating leadership in projects then lies with the non-governmental actors (Westerink et al., 2016). Pahl-Wostl, Jeffrey, Isendahl, and Brugnach (2011) speak of a new water management paradigm in which a new balance is set between bottom-up and top-down processes and in which narrow stakeholder participation is replaced by broad stakeholder participation.

Water authorities have a lot to gain in these forms of collaboration: embracing external initiatives may result in cost savings, generate public support, and lead to innovative solutions to public problems (Alexander, Priest, & Mees, 2016; Nikolic & Koontz, 2007). But the authorities also have something to lose when they choose to facilitate external initiatives: they have to share discretion over the use of public authority and public funds with non-governmental actors (Donahue & Zeckhauser, 2006). This may result in administrative value conflicts (van Buuren, Eshuis, & Bressers, 2015; Hood, 1991).

In traditional forms of water management, in which the government is the main initiator, financier and definer of the measures taken, classical, democratic values such as state sovereignty, public authority, legality and impartiality dominate. In alternative forms of collaboration in which the government facilitates external initiatives, other administrative values, such as customization, flexibility and effectiveness, are more important (Edelenbos, van Meerkerk, & Koppenjan, 2017). Despite the wish for more collaboration with non-governmental actors, water authorities are also still expected to uphold the classical, democratic values. Choosing to facilitate can thus lead to contradictory demands and value dilemmas for water authorities (Meijerink & Dicke, 2008). This study examines these dilemmas.

Existing research predominantly describes practices of stakeholder involvement initiated by government. Self-organizing initiatives that develop autonomously in society are much less studied (Mees et al., 2016). Despite growing scholarly attention to new forms of collaboration between state and non-state actors in the water sector, much is still unknown about the dilemmas encountered by water authorities when they choose to facilitate external initiatives, how they deal with these dilemmas, and with what result. These questions form the starting point of this study.

A comparative case study was conducted of two cases in which the Dutch national water authority, Rijkswaterstaat (RWS), aimed to facilitate an external initiative. The Dutch water authority is an informative object of study because the Dutch water sector is traditionally strongly government-led, publicly funded, and focused on risk avoidance (van Buuren et al., 2015). Collaboration with non-governmental actors is generally seen as a threat to decisive and uncompromised action (Warner, 2006). Recently, however, RWS started exploring the facilitation of societal and private initiatives (Frantzeskaki, Jhagroe, & Howlett, 2016). The water authority wants to go beyond the principal-agent relationship common to formal public-private partnerships (PPPs) (Grotenbreg & Van Buuren, 2016). This leads to a situation in which many value dilemmas can be expected.

A comparative case study design was chosen to find the relation between different value dilemmas, coping mechanisms, and results. In the first case, the water authority accommodated the initiative of a non-profit organization to create a nature reserve. In the second case, the water authority searched for private initiators to realize and exploit a tidal power plant in a public dam. This selection covers two forms of facilitation: accommodating facilitation, in which the authorities react to an existing initiative; and invitational facilitation, in which authorities have a role in mobilizing external actors to initiate a project that the

authority can subsequently facilitate (Grotenbreg & Van Buuren, 2017). Therefore, the effects of different forms of facilitation can be identified.

In the next section, four common ways in which private-sector and civil society initiatives are accommodated worldwide in the water sector are briefly discussed. In the third section, the relevant literature on government facilitation is examined, highlighting the advantages and disadvantages for water authorities of embracing external initiatives. An overview is presented of three types of administrative values that can conflict in facilitation practices and different mechanisms employed by authorities to cope with these dilemmas. The fourth section presents the research design, and the fifth describes the selected cases. The next section discusses the analysis and case comparison. The final section closes the article with a discussion and conclusions.

## **From government to governance in the water sector**

In the government-led Dutch water sector, water management is perceived as a public task, and water authorities rely heavily on their duty of care (Kraak, 2011). Water security is publicly funded by taxes, ensuring full cost recovery. As in most countries, there is still a strong prediction and control regime (Pahl-Wostl, 2007), and water management is predominantly focused on risk avoidance (van Buuren et al., 2015). Participation by non-governmental actors is often seen as a threat to decisive and uncompromised action (Warner, 2006). Recently however, new forms of collaboration with non-governmental actors are being introduced in the Netherlands. Gradually, and relatively late compared to other sectors and other countries, external actors are being admitted into the arena (Edelenbos et al., 2017).

### ***Policy instruments for the inclusion of non-governmental actors worldwide***

Other countries are generally more progressive than the Netherlands in terms of granting non-governmental actors an active role in the provision of services in the water sector. There are various instruments through which participation by private and societal actors is promoted worldwide. First, PPPs enable projects to be (partly) financed by private consortia. The PPP finance structure gives governments access to alternative debt and equity that traditional public (debt) finance cannot provide (Reynaers & De Graaf, 2014; World Bank Group, 2014). Second, viability gap funding is an instrument that enables funding by a combination of taxpayers' and users' payments. It reduces the upfront capital costs of pro-poor investments by providing grant funding, which can be used in the construction phase of a project (Farquharson, Torres de Mästle, Yescombe, & Encinas, 2011).

Third, in unsolicited proposals, private actors propose a PPP project to the government. Submissions are treated confidentially in their initial stages, but once the financial viability of the project has been demonstrated and the government declares it of national interest, the project is often put out to public tender, enabling open competition among other private consortia. Fourth, tax swaps allow companies to invest in projects proposed by local authorities and receive a tax reduction in the following years until the equivalent of the investment is achieved (Deloitte, 2014). Whereas the first two instruments are applicable mainly to private initiatives where a more traditional public commissioner–private consortium model applies, the last two can be used by societal actors such as NGOs, cooperatives, and local companies interested in making a contribution to their community.

## **Government facilitation of non-governmental initiatives and its benefits**

Government facilitation, as discussed in this article, can be seen as another governance instrument through which non-governmental initiatives are accommodated in the water sector. It combines elements of PPP and unsolicited proposals. In government facilitation, private or societal actors take the initiative to produce public goods or services, and the government facilitates this initiative. Ownership of the initiative lies (predominantly) with the non-governmental initiator, and there is no principal–agent relation in the sense that the government does not act as the commissioner of a project. Government facilitation exists in different forms and intensities (Sørensen & Torfing, 2011). Authorities can for example actively entice non-governmental initiatives, or they can passively await such action. The amount and form of support can also differ; authorities might change rules and regulations in favour of the initiative and contribute financially, or they might solely provide a platform for non-governmental actors to meet and further develop their plans (Grotenbreg & Van Buuren, 2016).

Facilitation of non-governmental initiatives can have many benefits for authorities. It can enlarge the reservoir of available knowledge and financial and organizational resources, thereby complementing the strengths of the public sector. There can be efficiency gains (Donahue & Zeckhauser, 2006; Reynaers & De Graaf, 2014), and facilitation can increase productivity and public value creation (Zhang, Crawley, & Kane, 2015). Things can be accomplished that the government could not have done on its own. Embracing external initiatives can further generate public support and lead to more innovative solutions to public problems (van Buuren et al., 2015; Wegerich, Warner, & Tortajada, 2014). The facilitated project can function ‘at arm’s length’ from centres of political authority; this may offer greater flexibility in decision making, resource acquisition, management, and accountability arrangements (Skelcher, Mathur, & Smith, 2005).

## **Theory of value dilemmas and coping mechanisms**

### ***Different (interpretations of) administrative values***

The administrative values in situations of government facilitation of external initiatives are analyzed using Hood’s (1991) distinction between three types of administrative values: theta, lambda and sigma. Theta values are democratic values; they secure an honest and fair governance process. Lambda values relate to quality; they are about keeping things robust and resilient. Sigma values are about being effective and efficient, keeping things clean and purposeful (Hood, 1991; Hood & Jackson, 1991). These three value types can serve as justification for different administrative doctrines. Many New Public Management practices are for example generally justified by the sigma values, efficiency and austerity. The values guide how administrations are organized, the role assigned to the government, how public officials perform, what are understood as public goods, and what the government aims to achieve (van Buuren et al., 2015).

Based on the literature on public–private collaboration and government facilitation – further elaborated on in the next section – Table 1 lists the administrative theta, lambda and sigma values that could be at stake in situations where government facilitates external initiatives. This overview is used to analyze the dilemmas confronted by the authorities in the cases because, in administrative reality, it is hard, if not impossible, to meet all three value

**Table 1.** Relevant administrative values in situations of government facilitation of external initiatives.

Theta values	Lambda values	Sigma values
Legality, rule of law, reliability	Quality, robustness, validity	Delivery
Equality, equity, impartiality, fairness, neutrality	Strategic clarity (in contrast to complexity)	Austerity, parsimony, thrift
Legitimacy, duty of care, right actor for the task	Government control, discretion over production	Efficiency, rapidity, productivity
Transparency, honesty	Security (avoiding risks)	Flexibility
Democracy, responsiveness	Government reputation	Effectiveness
Representativeness, inclusiveness	Professionalism	
Primacy of politics, government authority	Government accountability	
Public interest, public money for common goods	Customization, tailor-made solutions	

types at the same time (Rutgers, 2008). The administrative values are not absolute; they overlap and may conflict (Koppenjan, Charles, & Ryan, 2008).

Besides a differentiation between different types of administrative values, there can be various interpretations of the same administrative value. This variation in interpretation can lead to different evaluations of a governmental practice. In the governance literature, some authors mention the gains for democratic legitimacy of involving stakeholders and facilitating external initiatives (Lockwood, Davidson, Curtis, Stratford, & Griffith, 2010; Lupo Stanghellini & Collentine, 2008; Thaler & Levin-Keitel, 2016). They state, for example, that societal actors such as non-profit organizations are better than the government at identifying citizens' needs (Bode & Brandsen, 2014). Others authors, however, point out that involving non-governmental actors in traditional public services could harm democratic legitimacy (Skelcher et al., 2005; Swyngedouw, 2005; Taylor, 2007). The difference between these authors can be explained by the democracy model that they apply. Edelenbos et al. (2017) distinguish a representative, a participatory, and a self-organizing democracy model in this regard.

In the representative model, politicians govern on behalf of the electorate, uphold the primacy of politics, and are the first to decide on issues that impact society (Edelenbos et al., 2017; Held, 2006). This can be threatened if non-governmental actors enter the administrative arena (Klijn & Koppenjan, 2016). Adherents to this model argue that government facilitation of societal initiatives clashes with the public imperatives of democracy (Skelcher et al., 2005). In the participatory model of democracy, citizens get the chance to take part in the policy- and decision-making process; politicians create the conditions for this participation process (Edelenbos et al., 2017; Pateman, 1976). Adherents to this model advocate stakeholder involvement in government-initiated processes because it strengthens trust, support, and the legitimacy of government measures (Thaler & Levin-Keitel, 2016). In the self-organizing democracy model, social issues are as much as possible managed by voluntary and democratically self-governing associations. The government's role is to stimulate and reactively facilitate societal initiatives (Edelenbos et al., 2017; Hirst, 1994). Adherents to this model assume that a focus on societal actors' self-organization, accompanied by a modest, facilitative role for the government, enhances democratic legitimacy.

Growing attention is being paid to this last model of democracy, in which co-production and self-organization have central roles (Mees et al., 2016; Voorberg, Bekkers, & Tummers, 2015). It is argued that, in current times of increasingly complex public problems (Klijn & Koppenjan, 2016) and decreasing levels of political trust and voter turnout (Mair, 2005), there is a need for such forms of governance (Michels, 2011). In the practice of public

administration also, there is a growing tendency to interpret democratic legitimacy more from a collaborative or participation perspective (van Buuren, Klijn, & Edelenbos, 2012). This perspective does not, however, fully replace traditional, representative notions of democracy. Especially on the national level, the idea of the primacy of politics is still very strong (Van der Steen, Van Twist, & Bressers, 2016). This means that alternative democratic notions lead to contradictory demands and value dilemmas for public authorities.

### ***Possible value dilemmas in government facilitation of non-governmental initiatives***

A dilemma, meaning ‘two propositions’ in Greek (Hampden-Turner, 1990), is a special form of choice in which a complex issue manifests itself; it involves clashing or conflicting values (Klijn, Edelenbos, Kort, & Van Twist, 2008; Quinn, Fearman, Thompson, & McGrath, 1996). The literature suggests that several such values are to be expected in situations of government facilitation.

If facilitating authorities choose to support external initiative financially, in cash or in kind, non-elected actors gain discretion over the spending of public funds. According to some, this can cause a dilemma between the primacy of politics (a theta value) and delivery (a sigma value). Facilitating authorities no longer exclusively decide how public money is spent, what solution is chosen for a public problem, and who exactly benefits. They, in other words, have to compromise on production, payoff, and preference discretion if they facilitate (Donahue & Zeckhauser, 2006).

Collaboration with, and facilitation of, non-governmental actors have an inclusionary aim; authorities aim to include external actors in the governance process. This has the potential of enhancing the theta values, inclusiveness and representativeness. But of course, not *all* external actors will be included; facilitation of certain actors inevitably excludes others (Alexander et al., 2016). Unorganized, vulnerable, or less educated actors, who are less capable of securing government support, are especially at risk of falling behind (Westerink et al., 2016). Government facilitation can thus also endanger theta values such as equality and representativeness. It favours certain actors and can lead to ignoring alternative solutions (Taylor, 2007).

The facilitation of non-governmental initiatives often requires customization: tailor-made solutions for a specific project. Customization is a lambda value. This can conflict, however, with theta values such as the state’s legality, reliability and impartiality (de Graaf, Huberts, & Smulders, 2016). The theta value, transparency, can also be jeopardized when authorities and the facilitated external actors come up with tailor-made solutions behind closed doors. Facilitation can further harm the lambda value, strategic clarity. The involvement of multiple public and private actors leads to great strategic complexity (Klijn & Koppenjan, 2016). Facilitated projects are less straightforward and could be structured less professionally compared to when the authorities do it themselves (Donahue & Zeckhauser, 2006). The lambda value, professionalism, could be jeopardized, depending on the quality of the process and its participants.

Facilitating external initiatives can further come at the price of diluted government control (a lambda value) and, despite expectations of lower implementation costs (a sigma value), it can also lead to higher transaction costs. Collaboration with non-governmental actors is often time-, resource-, and skill-consuming for the government (Huxham & Vangen, 2005; Watson, 2015). There is a dilemma between flexibility and administrative values such as clarity, legal certainty, and decisiveness (Van Buuren, Driessen, Teisman, & Van Rijswijk, 2014). Authorities are also exposed to reputational vulnerability; they can be held accountable for

things that are out of their hands. Other theta and lambda values that could be endangered in facilitated projects are government authority, legitimacy, and accountability in the public sphere (Skelcher et al., 2005). Finally, there is a risk of diminished administrative capacity; the less an authority performs certain actions itself, the less capable it will become of doing them (Donahue & Zeckhauser, 2006), and in the long term less capable of judging and monitoring their quality.

### **Coping with value dilemmas**

When a dilemma between values emerges in administrative reality, a trade-off sometimes has to be made (de Bruijn & Dicke, 2006). Seeking a trade-off is not, however, the only way public professionals can deal with a value dilemma (Koppenjan et al., 2008). Building on work by Thacher and Rein (2004) and Stewart (2006), Steenhuisen and van Eeten (2008) distinguish six alternative coping mechanisms: cycling, firewalls, casuistry, hybridization, incrementalism and bias.

In cycling, public organizations address conflicting values sequentially over time. Building firewalls means that conflicting values are assigned to different departments; the values are decoupled, and each department is made responsible for realizing only one of the values (Steenhuisen & van Eeten, 2008). Casuistry entails public officials making decisions for each particular value conflict on the basis of their experiences in similar cases (de Graaf et al., 2016). In hybridization, conflicting values coexist in different policies or practices. This occurs, for example, when additions that reflect different values are made to existing policies (de Graaf et al., 2016). Incrementalism means that value conflicts are mitigated by incremental changes, for example small norm deviations. In bias, certain values are internalized in the organization through the dominant discourse, for example by a strong emphasis on 'safety first' (Steenhuisen & van Eeten, 2008).

Table 2 gives an overview of the coping mechanisms. The research on which Steenhuisen and van Eeten's (2008) typology of mechanisms is based is aimed mainly at public organizations in general, not at authorities, with the aim of facilitating non-governmental initiatives, and not specific projects with a limited time span as in this research. It is believed, however, that the typology can help elucidate the behaviour of facilitating authorities when they are confronted with value dilemmas.

### **Methodology**

To answer the research question, comparative case-study research was conducted (Yin, 1984), with the aim of gaining in-depth knowledge of complex situations. This entailed

**Table 2.** Typology of coping behaviour.

Coping type	Explanation of what happens in a value conflict
Cycling	Dividing attention on multiple values sequentially over time
Firewalls	Separating institutions committed to different values
Casuistry	Assessing priorities case-by-case among values on a routine basis
Hybridization	Letting policies or practices coexist with different value bases
Incrementalism	Mitigating conflicts between values with small stepwise changes
Bias	Favouring certain values over others through dominant discourses

Source: Steenhuisen and Van Eeten (2008, p. 148).



studying a small number of cases in detail to fully understand the situations in all their complexity (Blatter & Haverland, 2012; Flyvbjerg, 2001). The two-case comparison revealed the relation between different value dilemmas, coping mechanisms, and results. The cases were selected deliberately, by strategic sampling. Because of the research design, the study will not lead to direct generalizability or ready-made solutions to public problems (Hufen & Koppenjan, 2015). It does, however, elucidate new governance arrangements in the water sector.

### **Case selection**

Two cases were selected in which the Dutch national water authority aimed to facilitate non-governmental initiatives: Marker Wadden and the Brouwersdam Tidal Power Plant. In the first case, the water authority chose to facilitate an environmental NGO's plan to create marsh islands; in the second case, the authority aimed to facilitate a private consortia initiative to build and exploit a power plant in a public waterworks. The envisioned form of collaboration in the cases is novel in the sense that, in the past, the authorities would probably have designed and financed the projects, put them out to tender, and commissioned only their construction, limiting the private-sector role to that of the 'hired hand'. Recently, authorities have been looking for alternative task division and are delegating the service provider role more and more to the private sector.

Both cases related to multifunctional use of public assets; water management functions (for safety and for water quality) were combined with, respectively, nature creation and energy generation functions. Government involvement in the projects was indispensable because the projects related to public assets and because the external initiators could not succeed without governmental support. The water authority encountered various dilemmas that it tried to tackle with different institutional, relational and regulatory arrangements. This makes the cases fit for the research aim. Furthermore, the case selection covers two forms of facilitation, allowing exploration of whether and how dilemmas and arrangements differ depending on the form of facilitation.

### **Data collection**

The investigation of documentation relating to the Brouwersdam case started in October 2013. An important part of the investigation was an extensive document analysis of policy documents, news articles, and reports on market consultations. The research team conducted 14 semi-structured interviews with the water authority's project manager, representatives of the other national and local authorities involved, private actors and local stakeholders. Several stakeholder and market sounding meetings were also observed.

Research on the Marker Wadden case started in October 2015, also with an extensive document analysis. Among other things, a large number of documents disclosed under the Freedom of Information Act (*Wet openbaarheid van bestuur*, 1991) containing the communication between the government and the external initiator and between different government departments were analyzed. Eight semi-structured interviews were conducted with representatives of all the national and local authorities involved and the external initiator, Natuurmonumenten. The Appendix 1 gives an overview of the documents and interviews used in the analysis.

## Data analysis

To gain insight into the value dilemmas faced by the authorities and the coping mechanisms they employed to deal with these dilemmas, the process followed in each case was reconstructed using the collected documents. The decisions made by the authorities in each case – and their timing – were identified, and an overview prepared. In the interviews that followed, the research focused on these decisions. The respondents were asked why certain choices were made, what alternatives were considered, what the pros and cons were of the options available, and how they evaluated the outcome. The respondents were further explicitly asked about the dilemmas and difficulties encountered in terms of the facilitation of, and collaboration with, the non-governmental actor(s). Case-specific situations and government facilitation in general were discussed, and the respondents elaborated on the potentials and pitfalls of this governance strategy. The identified decisions and dilemmas were coded using the list of theta, lambda and sigma values (see Table 1) to determine which dilemmas qualified as a value dilemma. The selection of the dilemmas for further analysis was guided by the respondents' judgements of the value dilemmas that they perceived as the most important, pressing, urgent, and/or typical of government facilitation situations.

## Case descriptions

### Marker Wadden

In the heart of the Netherlands lies a large freshwater lake, created in 1930 by enclosing a sea inlet. The southern part of this lake is called the Markermeer. The Markermeer barely has natural shores; some compare it with a bathtub, and it is relatively shallow. Sediment that had accumulated on the bottom of the lake was churned up by the wind and waves, making the water very turbid. The deterioration in water quality had a severe impact on the flora and fauna in the area.

Over the years, there were numerous programmes, research projects and policy plans to deal with these problems. Most of them stalled because the authorities were not willing or able to finance the necessary interventions. In 2012, a market consultation was initiated, searching for cost-effective measures to create a future-proof ecosystem in the Markermeer area. Three private consortia came up with plans, with estimated costs ranging from €282 million to €1194 million. At the same time, a Dutch non-governmental organization for nature conservation, Natuurmonumenten, presented a plan for the Markermeer to the government. It proposed to create a marsh, built from the silt sediment accumulated at the bottom of the lake. Estimated costs were €75 million for the first 1000 ha of marsh. The project was named Marker Wadden.

In 2011, Natuurmonumenten was granted a €15 million subsidy for the Marker Wadden project from one of the Netherlands' largest lotteries. Natuurmonumenten asked for an additional €30 million financial contribution from the government. The prevailing situation at the national government was fertile ground for Natuurmonumenten's proposal. There were pressing environmental issues at the Markermeer, but the government did not have the resources for an all-encompassing plan. Natuurmonumenten brought a well-developed, manageable plan and €15 million of its own resources to the table. Stimulating non-governmental actors to take the lead in solving public problems was an important goal of the government, and this project fitted this vision.

After internal discussions, two ministries decided to contribute €15 million each. Because of concerns about Natuurmonumenten's capacity to manage such a large project, it was decided that the national water authority RWS would join Natuurmonumenten in a collaborative executive organization and would execute the tendering process. To avoid allegations of state aid, a unique, open invitation was sent to private and societal actors to become partners in the project. Interested actors had to show their commitment by co-investing a minimum of €5 million. Because of this high entry requirement, only the province of Flevoland was able to step in.

In 2014, the work was commissioned to a private consortium, and by 2016 the construction work had started. After the creation of the first island in 2016, Natuurmonumenten was responsible for raising the funds needed to complete the first project phase with the creation of four more islands. Local and national authorities contributed another €14 million, other private and societal actors €11 million. Table 3 gives an overview of the characteristics of the cases, including the roles and aims of the different actors involved.

### ***Brouwersdam Tidal Power Plant***

The Brouwersdam, constructed in 1971, is one of the world-famous Dutch delta works. The dam fully closes off the water behind the dam from the tide. This led to a deterioration in water quality; low oxygen levels caused the disappearance of flora and fauna; and the lack of tide led to accumulation of sediment on the lakebed. To improve water quality, as dictated by European Union legislation, the government developed a plan to partly reopen the dam and restore estuarine dynamics in the water behind. Making a breach would be very costly,

**Table 3.** Case characteristics of Marker Wadden and Brouwersdam Tidal Power Plant.

	Marker Wadden	Brouwersdam
Physical project content	100 ha archipelago of marsh islands in freshwater lake	Tidal power plant in breach in primary flood defence dam
Environmental urgency	Medium urgency – deteriorating flora and fauna, sediment accumulation	No immediate urgency for power plant
Administrative history	Ten years of planning, policy development and research	Ten years of investigation into possibility of power plant
Initiative and initiator	NGO took initiative to create archipelago and asked the government for help	Public authorities invited private actors to participate in realization of power plant
Form of government facilitation	Accommodating	Invitational
Government's aim	Support external initiative, benefit from additional funds	Financially enable breach in dam, support (local) business, support renewable energy generation
Aim of non-governmental shareholder(s)	Realize appealing project for (future) members	Profit
Stance of non-governmental shareholder(s)	Active, eager to act	Awaiting
Novelty of governance arrangement	Novel, collaborative, public–private creation of new land	Novel, public facilitation of private use of public infrastructure
Drivers of successful realization	Resoluteness of NGO; attractive project for both the NGO and government; willingness to innovate	Strong public–public collaboration and enthusiasm
Barriers to successful realization	Difficulty finding additional participants and funding	Limited public willingness to contribute financially
Progress (July 2017)	First marsh island created, funding for four more islands secured	No political willingness to finance breach, which is a precondition for the power plant

but, thanks to the increasing potential of tidal energy generation, in 2010 the idea emerged to realize a tidal power plant in the future breach that would contribute financially to the construction of the breach.

In the first phase of the project, in 2013, a joint project bureau, composed of the national water authority RWS, two provinces and two municipalities, was installed to investigate the feasibility of a breach, including a power plant. From the start, the intention was that private actors would design, build, finance, maintain and operate the plant. Because of the many uncertainties regarding the business case for this investment, the project bureau started an extensive, pre-competitive dialogue and fact-finding process with the market. At the end of 2013, there were dialogues, both public and confidential, between the authorities and the interested companies. A range of private actors, such as engineering companies and tidal turbine constructors, participated. It became clear that a power plant would not lead to the hoped-for revenues to cover the costs of the breach; on the contrary, realizing a power plant would result in additional costs. However, enthused by the conversation with the private and societal actors and convinced of the additional benefits of a power plant, such as a positive impact on the local economy, the investigation continued.

In a second phase of the project, in 2014, four private consortia were selected and financially compensated to further optimize their plans. Parallel to the market consultation, one of the provinces joined an EU-funded project researching the best possible technique to generate tidal energy at the Brouwersdam. The results were made available to the market. Through the whole process, the authorities involved highlighted the collaborative, public-private nature of the process, speaking of co-creation. The authorities invested substantial resources, time, energy and manpower in the consultation, while maintaining their stance that the market 'has to do it' and the government 'will solely facilitate'. The recurring government message was that the aim was to stimulate the market to come up with an innovative proposal and a feasible business plan.

In 2016, in the third phase of the project, the national water authority started preparing an integrative, concession-based tender for making the breach, including the power plant. According to this plan, the government would pay only for the breach. The winning consortium would be responsible for the design, financing, maintenance and exploitation of the power plant, therefore bearing all performance, financial and commercial risks. The government planned to facilitate the private initiative by providing several subsidies to the winning consortium and by offering compensation for design costs to the private consortia participating in the design and tendering phase. The plans to realize a power plant are currently on hold. Public and private stakeholders await further political decision making on partly reopening the dam, which is a precondition for a power plant. To date (July 2017), there is insufficient public willingness to finance this reopening. The decision has been postponed until after the formation of a new government, after the national elections of March 2017.

## **Analysis**

### ***Marker Wadden***

#### ***Dilemmas in the Marker Wadden initiation phase***

The first dilemma in the Marker Wadden case became manifest when Natuurmonumenten presented its plan to the government. The government had just initiated a market

consultation, but Natuurmonumenten decided not to participate officially in this consultation because it did not want to comply with the accompanying terms and conditions. The authorities saw the benefits of Natuurmonumenten's plan. It was, among other things, substantially cheaper than the proposals of the private consortia that did apply for the market consultation. The situation can be understood as a dilemma between the theta values, legality and reliability, and the sigma values, delivery and austerity. As Natuurmonumenten did not comply with the market consultation terms, it was not operating on a level playing field with the private consortia that did comply. Nevertheless, the authorities rated Natuurmonumenten's proposal as 'too good to ignore' and decided to include it in the consultation's results. In terms of coping, the authorities applied casuistry (Steenhuisen & van Eeten, 2008); the characteristics of the NGO's initiative persuaded the authorities to make an exception.

Natuurmonumenten contributed €15 million and requested another €30 million from the national government. This created a dilemma between the theta values, reliability and primacy of politics, and the sigma values, delivery and austerity. The economic crisis had hit, and there had been budget cuts in nature development. The government did not have the money to realize a large-scale project on its own, and it was therefore happy with Natuurmonumenten's initiative and funds. But it had difficulty finding the requested €30 million. The entire available budget had been assigned to other policy plans. Eventually, the ministries involved decided to revoke and reallocate money previously assigned to the provinces for nature development.

Another dilemma emerged when the government decided to collaborate with Natuurmonumenten and contribute €30 million to this project without conducting a public tendering procedure first. This could harm the government's impartiality, a theta value. The authorities dealt with this by publishing an open call for expressions of interest in joining the project. The entry requirements were steep, however – participants had to contribute at least €5 million, and thus no other non-governmental actors joined. Besides the open call for expressions of interest, the authorities prevented unlawful state aid by not financing more than half of the total project costs and demanding that any possible revenues be reinvested in the project. Fearing that they are neglecting public values in collaborations, public authorities often introduce rules and regulations (Koppenjan et al., 2008).

The authorities made more tailor-made agreements with Natuurmonumenten. This customization, a lambda value, is often indispensable in such an unconventional public–private collaboration. There can be a tension, however, between customization and the theta values, equality and transparency. A group of landowners filed a complaint about non-transparent decision making. Under the Freedom of Information Act (*Wet openbaarheid van bestuur*, 1991), the government had to disclose almost all its communication with Natuurmonumenten.

### ***Dilemmas in the planning and design of Marker Wadden***

There was internal discussion within the government about the organizational form of the collaboration with Natuurmonumenten. Should the government transfer the €30 million contribution to the NGO; should the NGO transfer its budget to the government and make it a state-owned project; or should they form a collaborative project organization and work together as equal partners? Joining the project would cost the government more money (in time, energy, manpower and so on) and affect the sigma value, austerity. Eventually, it was decided to form a joint project organization to safeguard lambda values such as quality,

government control and government reputation. By joining and not only facilitating the project, the authorities hoped to have a positive effect on the project outcomes. The authorities also decided, at the expense of austerity, to lead the tender of the construction work, thus securing the relation established with the market. In terms of coping, this approach can be labelled hybridization: the authorities allowed the coexistence of practices with different value bases (Steenhuisen & van Eeten, 2008).

The government's project goal (improving water quality by reducing mud accumulation) and Natuurmonumenten's goal (creating a nature reserve) overlap but are not identical. The authorities involved had some difficulty safeguarding their project goals and indirectly the public interest (a theta value). It proved not to be feasible to make the government's financial contribution contingent on the achievement of clearly defined and measurable project outcomes. Therefore, the authorities refrained from that. To secure some other public goals, such as innovation and knowledge development, the authorities set up (and partly financed) a parallel learning programme. This is an example of erecting firewalls; different sections of the organization now safeguarded different values (Steenhuisen & van Eeten, 2008).

Natuurmonumenten voiced its concerns about the possibility that the government could withdraw its financial contribution after future elections and the formation of a new government. The NGO proposed to secure the money by lodging it in an external bank account. This caused tension between the primacy of politics, a lambda value – democratically chosen political bodies should control the spending of public funds – and delivery, a sigma value – the NGO would not continue the project without securing the money. The authorities gave in, and the external bank account was created. They applied the coping mechanism of casuistry in deciding on this solution in this particular case (Steenhuisen & van Eeten, 2008).

### *Dilemmas in the creation and exploitation of Marker Wadden*

In the realization phase, the government encountered some new dilemmas. The water authority RWS, the executive organization, normally follows standardized working methods and procedures. This secures legality, a theta value, and efficiency, a sigma value. Some of these methods and procedures proved to be a hindrance in the Marker Wadden project. The project organization also dealt with this dilemma by casuistry (Steenhuisen & van Eeten, 2008). The organization decided, for example, to bypass the RWS tender board, a board that gives binding advice about the tendering approach. Instead, it established another tender board with a more limited mandate. Another example of casuistry for customization is the changes made regarding the software that RWS normally works with to track project progress and financing, which Natuurmonumenten could not access. The project team therefore now works with self-designed systems, custom-made for the Marker Wadden project. The customization (lambda) is aimed at enhancing delivery (sigma).

RWS further experienced its dependence on the external initiator, Natuurmonumenten. The two parties agreed that the NGO was responsible for raising the additional funds necessary to finalize the project. The authority found it not legitimate (a theta value) to engage in this task. When Natuurmonumenten had difficulty raising these funds, endangering project delivery (a sigma value), the government helped out, and different authorities agreed to make additional financial contributions. This coping mechanism can be labelled incrementalism; with small, stepwise adaptations conflicting values were mitigated (Steenhuisen & van Eeten, 2008).

Table 4 gives an overview of the value dilemmas, coping mechanisms and solutions chosen in the different phases of the Marker Wadden project. A number of trends can be observed. The most recurring dilemma is between democratic (theta) values and delivery (sigma) values, and in a majority of situations the sigma value seems to prevail in the chosen solution. Nevertheless, the theta value was not fully rejected, as authorities chose an arrangement in which delivery or austerity took priority but at the same time the theta value at stake was guaranteed to a certain degree. It can also be observed that, when lambda values such as quality and professionalism were jeopardized too much, authorities chose to take a more dominant, no longer facilitative role – for a specific project phase – at the expense of austerity, a sigma value. An example of such a choice is RWS' decision to take care of the tendering process, driven by doubts about Natuurmonumenten's capacity to organize it.

In this case, the authorities responded to an external initiative, and this led to a reactive way of working. It included finding instant, custom-made solutions in reaction to unexpected situations. This approach seemed to work in this case; the actors involved are happy with the results to date: the first marsh islands have been created. But the process to arrive at this result required significant effort, transaction, and coordination costs for the government. This could be because this form of collaboration with a societal partner is relatively new for the water authority. Future projects could make use of developed arrangements as a blueprint and require fewer government resources for their preparation. In that case, the resources used could be seen as an investment and part of a learning curve to adapt to this new role. But if every new collaborative project is as resource-intensive, it is not certain that the authorities will find it worthwhile to continue accommodating external initiatives.

**Table 4.** Value dilemmas and chosen solutions in the Marker Wadden case.

Situation	Value dilemma	Coping mechanism	Authorities' choice, outcome
<i>Initiation phase</i>			
Initiator does not comply with market consultation terms	Legality (theta) vs. austerity (sigma)	Casuistry	Austerity, proposal included in consultation result
Initiator requests substantial, public, financial contribution	Reliability (theta) vs. delivery (sigma)	Casuistry	Delivery, budget reallocated
Financial contribution without public tender	Impartiality (theta) vs. delivery (sigma)	Hybridization	Middle way, open call for participation
Formal complaint about non-transparent decision making	Transparency (theta) vs. customization (lambda)	Cycling	Transparency, under Freedom of Information Act
<i>Planning and design phase</i>			
Discussion of organizational design of collaboration	Quality (lambda) vs. austerity (sigma)	Hybridization	Quality, government project partner, and contracting authority
Public goals do not fully match external initiator's goals	Public interest (theta) vs. delivery (sigma)	Firewalls	Delivery, public goals in separate programme
Initiator fears withdrawal of public financial contribution	Primacy of politics (theta) vs. delivery (sigma)	Casuistry	Delivery, project budget in external bank account
<i>Realization and exploitation phase</i>			
Standardization does not match with project	Legality (theta) vs. customization (lambda)	Casuistry	Customization, project-specific procedures and methods
Authority dependent on initiator's search for further funding	Legitimacy (theta) vs. delivery (sigma)	Incrementalism	Middle way, authority supports initiator in search for funding

Another point for consideration is the long-term consequences of this way of working. The three private consortia that submitted their plans at the government's invitation were sidelined the moment Natuurmonumenten showed up. This could harm the government's relation with market parties and weaken the government's credibility.

## ***Brouwersdam Tidal Power Plant***

### ***Dilemmas in the Brouwersdam Tidal Power Plant initiation phase***

In the initiation phase of the Brouwersdam project, the authorities actively searched for private initiators and other societal actors willing to participate. This caused several dilemmas. First, the involvement of a large number of actors can lead to a complex and time-consuming process. Strategic clarity (lambda) and efficiency (sigma) can be jeopardized. It does, however, enhance inclusiveness (theta). In this case, the authorities categorized stakeholders and shareholders. Selections of them were invited to specific parts of the consultation, with a focus on private actors who were expected to provide the necessary private funds and information. In terms of coping, the authorities applied cycling. By initially inviting all interested actors and in later sessions making a selection, they applied different values sequentially over time (Steenhuisen & van Eeten, 2008).

Part of the initiation phase was an extensive, precompetitive market consultation. In some cases, private actors wanted to share information only behind closed doors. This caused a dilemma between the theta values, legality and impartiality, and the sigma values, delivery and effectiveness. Confidential dialogues with a selected group of private actors could give the latter unfair advantage over their private competitors. But these dialogues were essential for the project's progress. The authorities found a middle ground in disclosing as much information as possible but keeping sensitive competition information confidential. This can be typified as hybridization: the coexistence of practices with different values bases (Steenhuisen & van Eeten, 2008).

Another dilemma emerged in this initiation phase. The authorities aimed to entice private actors to take the lead in the realization of a power plant, among other things by stressing the governmental support that private initiators would receive. This hopefully would enhance project delivery, a sigma value. But the authorities also had to be transparent (a lambda value) about their own limited capacity to contribute to a power plant and their desire to 'solely' facilitate. In the Brouwersdam case, the authorities seemed to focus on enthusing rather than downplaying expectations. A potential unintended consequence was an inactive, awaiting market that expected the government to take the lead (and as a consequence, no private delivery at all). In terms of coping, the authorities applied the bias mechanism: they discursively focused on the (private) benefits of realizing a power plant (Steenhuisen & van Eeten, 2008).

It was uncertain whether the public budget would become available to realize the breach in the dam, which was a precondition for the private realization of a tidal power plant. Despite this uncertainty, the authorities started the market consultation process. There was a dilemma between reliability (theta) and government reputation (lambda) versus delivery and flexibility (both sigma). If no public budget became available after all, the private actors would be disappointed, and the government's reliability and reputation would be harmed. But if the budget did become available, the consultation findings would contribute to the quality of the project preparation and speed up its implementation.



### ***Dilemmas in the planning and design of the Brouwersdam Tidal Power Plant***

The main dilemma for the authorities in the planning phase of the Brouwersdam project was that they wanted a tidal power plant to be realized (delivery, a sigma value), but at minimal public risk and costs (austerity, also a sigma value). With the planned tendering of a concession, the authorities tried to entice private actors to realize and exploit the power plant. The winning consortium would receive a government payment only for the breach; the consortium itself would have to finance the power plant, with a limited number of subsidies, such as the subsidy for generating renewable energy. This is another example of coping by hybridization: the authorities aimed to realize both delivery and austerity by focusing on private responsibility supplemented by public subsidy (Steenhuisen & van Eeten, 2008).

The design costs in the competition phase proved to be too high for the private actors. This endangered the sigma value, delivery. One of the authorities involved therefore decided to reimburse part of the design costs of the power plant if private actors lived up to set expectations. But this arrangement came at the cost of the sigma value, austerity. The authorities applied casuistry as coping mechanism: the developments in the case led them to change their strategy (Steenhuisen & van Eeten, 2008).

### ***Dilemmas in the realization and exploitation of the Brouwersdam Tidal Power Plant***

Because of its innovative nature, potential private initiators had difficulty attracting investors for this project. This again created a dilemma for the authorities between legality (theta) and customization (sigma) and between austerity and delivery (both sigma values). As stated, the authorities wanted a tidal power plant to be realized at minimum public cost. To reduce the risk of private initiators' not finding the necessary funding and the power plant not being realized, the authorities set up an active support scheme for potential private initiators. They actively searched for subsidy possibilities; one of the provinces lobbied national and European bodies to increase financial support for the power plant. In terms of coping, this could be labelled firewalls: the authorities divided tasks in such a way that especially the local authorities helped the private actors find financial resources (Steenhuisen & van Eeten, 2008).

The fact that a privately initiated tidal power plant would be heavily subsidized caused another dilemma. Was not a small group of private actors benefiting disproportionately from public money? This can be understood as a dilemma between public interest and impartiality, theta values, and, again, delivery, a sigma value. The authorities tried to deal with this dilemma by stressing that the private initiators needed to invest a substantial amount themselves. Another way of coping with this dilemma was to frame private benefits as also being public benefits. 'The power plant will be an international showcase attracting a lot of visitors to the region' was the government's message. This resembles the coping mechanism cycling: the authorities alternately stressed private responsibility and public-private collaboration (Steenhuisen & van Eeten, 2008).

Table 5 gives an overview of the value dilemmas, coping mechanisms and solutions in the different phases of the Brouwersdam project. Again, most of the dilemmas were between democratic (theta) and delivery (sigma) values. The authorities took a more dominant role than the discourse about 'sole facilitation' suggested, not because lambda values were at stake, as in the Marker Wadden case, but because the sigma value, delivery, was endangered. The envisaged private initiators had difficulty raising funds and attracting investors, mainly

**Table 5.** Value dilemmas and chosen solutions in the Brouwersdam case.

Situation	Value dilemma	Coping mechanism	Authorities' choice, outcome
<i>Initiation phase</i>			
Stakeholder and shareholder involvement	Strategic clarity (lambda) vs. inclusiveness (theta)	Cycling	Inclusiveness, few boundaries to number of participating actors
Confidential talks with selected group of private actors	Legality (theta) vs. effectiveness (sigma)	Hybridization	Middle way, some information behind closed doors
Enticing potential initiators with public enthusiasm and support	Transparency (theta) vs. delivery (sigma)	Bias	Delivery, authorities not always clear about their own limited capacity
Uncertainty about availability of public funding for breach	Reliability (theta) vs. flexibility (sigma)	Casuistry	Flexibility, market consultation prior to conclusion about budget
<i>Planning and design phase</i>			
Public desire for innovative tidal power plant at minimum cost and with limited risks	Austerity (sigma) vs. delivery (sigma)	Hybridization	Austerity, concession-based tender, minimal public subsidy
Design costs too high for private actors to bear	Delivery (sigma) vs. austerity (sigma)	Casuistry	Delivery, partial compensation for design costs
<i>Realization and exploitation phase</i>			
Total investments too high and too risky for private actors	Legality (theta) vs. delivery (sigma)	Firewalls	Strong public support in form of (search for) subsidies
Private initiators benefit from public subsidies	Public interest (theta) versus delivery (sigma)	Cycling	Middle way, private investments, framing benefits as public

because of the uncertainties regarding the revenue-generating capacity of the project. To ensure project continuation, the authorities supported the private actors with lobbying, finding subsidies, and reimbursing part of the design costs. This came at the expense of the sigma value, austerity, and the intention to 'solely facilitate'.

The outcome of this governance process remains uncertain. To date (July 2017), there is insufficient political willingness to finance the reopening of the dam, which is a precondition for the realization of a power plant. The decision has been postponed until after the formation of a new government, after the national elections of March 2017. Only after this will the success of the water authorities' actions become clear. Will the private actors take the lead in realizing and exploiting a power plant? Until now, the private actors have been relatively positive about the project, but it is too early to really take stock. The authorities took a risk in initiating such an intensive market consultation. If the project does not proceed due to a lack of political will, the private actors involved will be disappointed and possibly less willing to participate in future consultation processes.

### **Case comparison**

Although very different in nature, the two cases show comparable dilemmas in the project phases. These dilemmas can more generally be expected to emerge in situations in which water authorities facilitate external initiatives. In the initiation phase, the emerging dilemmas mostly relate to how a successful collaboration can be designed. Inclusiveness, stakeholder

involvement and enhancing local support are important goals of facilitation, but inclusiveness inherently encompasses exclusiveness. Certain actors will be excluded, leading to dilemmas relating to traditional democratic values such as legality, impartiality and representativeness. Here, the discrepancy between a classic representative democracy model and a more collaborative model becomes apparent. In the planning and design phase, the details of the collaboration arrangement are established, leading to questions about the distribution of risks, costs and benefits. Relatedly, dilemmas concerning public interest emerge. How is this guaranteed in a collaboration with an actor that has possibly divergent interests? The dilemmas in the realization and exploitation phase are mainly about project continuation. How can obstacles be overcome?

Table 6 facilitates further comparison of the two projects under study. It becomes clear that the value dilemmas, coping mechanisms and outcomes depend largely on the characteristics of the non-governmental initiative that an authority facilitates. The characteristics of the initiative partly determine the form of government facilitation, which goes hand in hand with certain dilemmas and coping mechanisms.

In the Marker Wadden case, the NGO Natuurmonumenten approached the government with a well-developed project plan, a significant budget and a clear interest in realizing the plan. The water authority subsequently employed an accommodating form of facilitation; it reactively accommodated the external initiative. Consequently, the authority seemed to lag behind events somewhat; it had to find a way to deal with every new situation that popped up. The ad hoc way of working in relation to accommodating facilitation is reflected in the coping mechanisms employed. The mechanisms most often employed were casuistry (finding case-specific solutions) and hybridization (letting different values coexist).

In the Brouwersdam case, there was no external initiative beforehand; the authorities had to employ an invitational form of facilitation. Instead of passively awaiting a non-governmental initiator, the authorities actively searched for one. This is reflected in the types of dilemmas that emerged, especially in the initiation phase. These dilemmas all related to the question of how the authorities could successfully entice external actors to take the lead. The fact that the private actors were not as resourceful as the authorities initially thought also impacted the coping mechanism that the authorities had to employ. Cycling was one of the most employed coping mechanisms, meaning that sequentially over time different values became prevalent. In this case, some firewalls were also erected: the national and the local authorities divided tasks, the national authority stressed the private actors' own responsibilities, and the local authorities helped the private actors attract the necessary funding.

In both cases, the water authority at some points took a more dominant role than envisioned beforehand. The reasons for doing this differed, however: quality in the Marker

**Table 6.** Case comparison: Marker Wadden and Brouwersdam.

	Marker Wadden	Brouwersdam
Environmental urgency	Medium urgency: deteriorating flora and fauna, sediment accumulation	No immediate urgency for power plant
Initiative and initiator	NGO took initiative to create archipelago and asked the government for help	Public authorities invited private actors to participate in realization of power plant
Form of government facilitation	Accommodating	Invitational
Main value dilemma	Theta versus sigma	Theta versus sigma
Main coping mechanisms	Casuistry, hybridization	Cycling, casuistry, hybridization

Wadden case versus project continuation in the Brouwersdam case. This can also be traced back to the characteristics of the initiator: the NGO in the Marker Wadden case was less experienced in procuring a project; therefore the water authority felt the need to step in.

Another factor that influences an authority's dilemmas and stance in a project is how close the external initiative is to the authority's own priorities and policy goals. In the Marker Wadden case, the national government felt great urgency to do something about the deteriorating environmental condition of the Markermeer area and had already conducted a market consultation. In the Brouwersdam case, the national and local authorities disagreed about which government was responsible for solving the environmental problems in the area and how this should be done. If an authority can meet its own obligations by facilitating an external initiative, it is willing to do more to let this initiative succeed. In the Marker Wadden case, the water authority was willing to make significant adjustments to its standard way of working. Significant concessions were made to accommodate the NGO's project.

## Discussion and conclusions

Water authorities search for new forms of collaboration with non-governmental – private and societal – actors. The involvement of stakeholders in the decision-making process has become common practice, but the involvement of non-governmental actors in other phases of the policy process is less prevalent, as is research on this topic (Mees et al., 2016). Little has been written about bottom-up initiatives in the water sector; this study contributes to knowledge development on this topic.

Increasingly, collaborative and participative views on democracy have reached the water sector. But traditional views on democracy in which values such as the primacy of politics and government authority are prominent are also still important for water authorities. New forms of collaboration in which authorities facilitate non-governmental initiatives therefore lead to dilemmas between various (interpretations of) administrative values. There are a few studies that mention these value dilemmas (van Buuren et al., 2015; Meijerink & Dicke, 2008) and the diverging democracy models (Edelenbos et al., 2017) that could hinder new forms of collaboration and self-organization, yet much is still unknown about the specific dilemmas authorities face, and how they deal with these dilemmas, and with what result.

This study adds to the literature by discussing the advantages and disadvantages of government facilitation. Furthermore, it introduces typologies of administrative values and of mechanisms to cope with value dilemmas (Steenhuisen & van Eeten, 2008) to the academic debate on this topic. The typologies are used to systematically analyze dilemmas, coping mechanisms and results. The comparative case study design enables an analysis of the relation between these three elements and of the effects of different forms of facilitation (Grotenbreg & Van Buuren, 2017), which is also novel to the field.

The analysis shows that the value dilemmas faced by authorities, their coping mechanisms and the results of their actions depend on characteristics of the non-governmental initiative and relatedly the form of facilitation employed by the authorities. Another factor that influences the dilemmas and authorities' actions is the extent to which the external initiative matches the authorities' own policy goals and priorities.

In general, the most common dilemma is between traditional democratic values and sigma values such as efficiency and austerity. In a majority of cases, the solutions chosen by the authorities let sigma values prevail. Nevertheless, in doing so, the authorities do not fully

reject the other values but take measures to safeguard a minimum level of democratic values. The conflict between traditional and more collaborative forms of democracy manifests itself, for example, in concerns about the public value of the facilitated projects; the representativeness of the facilitated external actors; and whether they benefit disproportionately from the government's contribution.

Common mechanisms to cope with value dilemmas are casuistry (finding case-specific solutions), cycling (giving different values prevalence sequentially over time) and hybridization (allowing the coexistence of practices with different value bases). Another common pattern is that authorities end up taking a more prominent role beforehand, thereby abandoning the initial intention to 'solely facilitate'. Authorities do this when the quality or continuation of a project is jeopardized.

In general, the authorities deal with the dilemmas in a relatively ad hoc way. This is partly inherent in the spadework they undertake; this form of collaboration with a non-governmental actor is rather new to the water sector. The question, however, is whether the tailor-made solutions they come up with are fit to use in future situations, or whether they will have to keep reinventing the wheel. Water authorities might benefit from lessons learned elsewhere. In developing countries, for example, working with unsolicited proposals from non-governmental actors is common, and Anglo-Saxon countries are more experienced in involving the private sector.

Austerity can be an important reason for authorities to choose facilitation. But this study shows that facilitation can be a very resource-intensive governance strategy. And an authority that enters a collaboration with an external initiator becomes dependent on the (sometimes lack of) capacity and the whims of that actor. This requires great flexibility and makes the authority vulnerable. When the continuation of a project is endangered because of shortcomings in the external actor's capacities, the authority involved will feel compelled to help out organizationally or financially to save the project and the public resources invested. This is not unique to facilitation, however; it is inherent in contracting out the provision of public services to non-governmental actors. When public assets and public goods are involved, the government is a shareholder no matter what, and consequently a complete transfer of risks is virtually impossible.

Another pitfall of government facilitation relates to the potential discrepancy between short- and long-term effects. Short-term 'sigma wins', such as speedy delivery and austerity consequent to the facilitation of a non-governmental initiative, could translate into long-term 'sigma losses'. A government aiming for more active participation and responsibility on the part of non-governmental actors in the provision of water services should carefully safeguard administrative values such as impartiality and reliability. If this is not ensured, it could harm the government's relation with market parties and societal actors and weaken the government's credibility, resulting in higher transaction costs in future projects.

This study shows both the potential of facilitation of non-governmental initiatives in the water sector and the institutional barriers to it. By doing this, it adds some critical remarks and points of reflection to a stream of literature that is generally positive about both the desirability and the feasibility of new participation practices. The water sector proves to be fertile ground for non-governmental initiatives: they can enhance project quality and delivery, and water authorities appear to be able to find creative solutions in these innovative collaborations. At the same time, however, government facilitation, driven by popular, collaborative views on democracy, leads to value dilemmas that are not easy to solve. Living

up to traditional democratic values, as is still expected from most authorities, requires the development of complex coping strategies.

This study is explorative, in the sense that two cases in the same country in one sector are studied in depth. Further research is therefore needed to validate the results and extend our knowledge on value dilemmas, coping mechanisms and results in the facilitation of non-governmental initiatives in other settings.

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## References

- Alexander, M., Priest, S., & Mees, H. (2016). A framework for evaluating flood risk governance. *Environmental Science & Policy*, 64, 38–47. doi:10.1016/j.envsci.2016.06.004
- Blatter, J. K., & Haverland, M. (2012). *Designing case studies. Explanatory approaches in small-N research*. Houndsmills Basingstoke: Palgrave Macmillan.
- Bode, I., & Brandsen, T. (2014). State–third sector partnerships: A short overview of key issues in the debate. *Public Management Review*, 16, 1055–1066. doi:10.1080/14719037.2014.957344
- de Bruijn, H., & Dicke, W. (2006). Strategies for safeguarding public values in liberalized utility sectors. *Public Administration*, 84, 717–735. doi:10.1111/j.1467-9299.2006.00609.x
- van Buuren, A., Klijn, E. H., & Edelenbos, J. (2012). Democratic legitimacy of new forms of water management in the Netherlands. *International Journal of Water Resources Development*, 28, 629–645. doi:10.1080/07900627.2011.627756
- van Buuren, A., Eshuis, J., & Bressers, N. E. W. (2015). The governance of innovation in dutch regional water management: Organizing fit between organizational values and innovative concepts. *Public Management Review*, 17, 679–697. doi:10.1080/14719037.2013.841457
- Deloitte. (2014). *Tax guide. Peru 2014*. Retrieved from [https://www2.deloitte.com/content/dam/Deloitte/pe/Documents/tax/tax\\_guide%202014-rev.pdf](https://www2.deloitte.com/content/dam/Deloitte/pe/Documents/tax/tax_guide%202014-rev.pdf)
- Donahue, J. D., & Zeckhauser, R. J. (2006). Public-Private Collaboration. In M. Moran, M. Rein, & R. E. Goodin (Eds.), *The Oxford handbook of public policy* (pp. 496–525). Oxford: Oxford University Press.
- Edelenbos, J., Van Buuren, A., Roth, D., & Winnubst, M. (2017). Stakeholder initiatives in flood risk management: Exploring the role and impact of bottom-up initiatives in three ‘Room for the River’ projects in the Netherlands. *Journal of Environmental Planning and Management*, 60, 47–66. doi:10.1080/09640568.2016.1140025
- Edelenbos, J., van Meerkerk, I., & Koppenjan, J. (2017). The challenge of innovating politics in community self-organization: The case of Broekpolder. *Public Management Review*, 19, 55–73. doi:10.1080/14719037.2016.1200663
- Farquharson, E., Torres de Mästle, C., Yescombe, E. R., & Encinas, J. (2011). *How to engage with the private sector in public-private partnerships in emerging markets*. Washington, DC: The World Bank. doi:10.1596/978-0-8213-7863-2
- Fliervoet, J. M., & Van den Born, R. J. G. (2016). From implementation towards maintenance: Sustaining collaborative initiatives for integrated floodplain management in the Netherlands. *International Journal of Water Resource Management*, 33, 570–590. doi:10.1080/07900627.2016.1200962

- Flyvbjerg, B. (2001). *Making social science matter*. Cambridge, UK: Cambridge University Press. [10.1017/CBO9780511810503](https://doi.org/10.1017/CBO9780511810503)
- Frantzeskaki, N., Jhagroe, S., & Howlett, M. (2016). Greening the state? The framing of sustainability in Dutch infrastructure governance. *Environmental Science & Policy*, *58*, 123–130. doi:[10.1016/j.envsci.2016.01.011](https://doi.org/10.1016/j.envsci.2016.01.011)
- de Graaf, G., Huberts, L., & Smulders, R. (2016). Coping with public value conflicts. *Administration & Society*, *48*, 1101–1127. doi:[10.1177/0095399714532273](https://doi.org/10.1177/0095399714532273)
- Grottenbreg, S., & Van Buuren, A. (2016). Realizing innovative public waterworks: Aligning administrative capacities in collaborative innovation processes. *Journal of Cleaner Production*. Advance online publication. doi:[10.1016/j.jclepro.2016.08.128](https://doi.org/10.1016/j.jclepro.2016.08.128)
- Grottenbreg, S., & Van Buuren, A. (2017). Facilitation as a governance strategy: Unravelling governments' facilitation frames. *Sustainability*, *9*, 160–178. doi:[10.3390/su9010160](https://doi.org/10.3390/su9010160)
- Hampden-Turner, C. (1990). *Charting the corporate mind: From Dilemma to strategy*. Oxford: The Free Press.
- Held, D. (2006). *Models of democracy*. Cambridge: Polity Press.
- Hirst, P. (1994). *Associative democracy. New forms of social and economic governance*. Cambridge: Polity Press.
- Hood, C. (1991). A public management for all seasons? *Public Administration*, *69*, 3–19. doi:[10.1111/j.1467-9299.1991.tb00779.x](https://doi.org/10.1111/j.1467-9299.1991.tb00779.x)
- Hood, C., & Jackson, M. (1991). *Administrative argument*. Aldershot: Dartmouth Publishing.
- Hufen, J. A. M., & Koppenjan, J. F. M. (2015). Local renewable energy cooperatives: Revolution in disguise? *Environment, development and sustainability*, *18*(5), 1–14. doi:[10.1186/s13705-015-0046-8](https://doi.org/10.1186/s13705-015-0046-8)
- Huxham, C., & Vangen, S. E. (2005). *Managing to collaborate*. Abingdon: Taylor & Francis.
- Johnson, C. L., & Priest, S. J. (2008). Flood risk management in England: A changing landscape of risk responsibility? *International Journal of Water Resources Development*, *24*, 513–525. doi:[10.1080/07900620801923146](https://doi.org/10.1080/07900620801923146)
- Klijin, E. H., & Koppenjan, J. F. M. (2016). *Governance networks in the public sector*. Oxon: Routledge.
- Klijin, E. H., Edelenbos, J., Kort, M., & Van Twist, M. (2008). Facing management choices. An analysis of managerial choices in 18 complex environmental public private partnership projects. *International Review of Administrative Science*, *74*, 251–278. doi:[10.1177/0020852308089905](https://doi.org/10.1177/0020852308089905)
- Koontz, T. M. (2014). Social learning in collaborative watershed planning: The importance of process control and efficacy. *Journal of Environmental Planning and Management*, *57*, 1572–1593. doi:[10.1080/09640568.2013.820658](https://doi.org/10.1080/09640568.2013.820658)
- Koppenjan, J., Charles, M. B., & Ryan, N. (2008). Editorial: Managing competing public values in public infrastructure projects. *Public Money & Management*, *28*, 131–134. doi:[10.1111/j.1467-9302.2008.00632.x](https://doi.org/10.1111/j.1467-9302.2008.00632.x)
- Kraak, M. J. (2011). Wateroverlast En De Zorgplicht Van Waterschappen [Flooding and the duty of care of water boards]. *Tijdschrift Voor Agrarisch Recht*, *3*, 90–93. Retrieved from <https://denhollander.info/artikel/9067>
- Lockwood, M., Davidson, J., Curtis, A., Stratford, E., & Griffith, R. (2010). Governance principles for natural resource management. *Society & Natural Resources*, *23*, 986–1001. [10.1080/08941920802178214](https://doi.org/10.1080/08941920802178214)
- Lupo Stanghellini, P. S., & Collentine, D. (2008). Stakeholder discourse and water management: Implementation of the participatory model CATCH in a northern Italian alpine sub-catchment. *Hydrology and Earth System Sciences*, *12*, 317–331. doi:[10.5194/hess-12-317-2008](https://doi.org/10.5194/hess-12-317-2008)
- Mair, P. (2005). *Democracy beyond Parties*. Irvine: University of California.
- Mees, H., Crabbé, A., Alexander, M., Kaufmann, M., Bruzzone, S., Lévy, L., & Lewandowski, J. (2016). Coproducing flood risk management through citizen involvement: Insights from cross-country comparison in Europe. *Ecology and Society*, *21*, 7–20. doi:[10.5751/ES-08500-210307](https://doi.org/10.5751/ES-08500-210307)
- Meijerink, S., & Dicke, W. (2008). Shifts in the public–private divide in flood management. *International Journal of Water Resources Development*, *24*, 499–512. doi:[10.1080/07900620801921363](https://doi.org/10.1080/07900620801921363)
- Michels, A. (2011). Innovations in democratic governance: How does citizen participation contribute to a better democracy? *International Review of Administrative Sciences*, *77*(2), 275–293. doi:[10.1177/0020852311399851](https://doi.org/10.1177/0020852311399851)

- Nikolic, S. J. S., & Koontz, T. M. (2007). Nonprofit organizations in environmental management: A comparative analysis of government impacts. *Journal of Public Administration Research and Theory*, 18, 441–463. doi:10.1093/jopart/mum022
- Nye, M., Tapsell, S., & Twigger-Ross, C. (2011). New social directions in UK flood risk management: Moving towards flood risk citizenship? *Journal of Flood Risk Management*, 4, 288–297. doi:10.1111/j.1753-318X.2011.01114.x
- Pahl-Wostl, C. (2007). Transitions towards adaptive management of water: Facing climate and global change. *Water Resources Management*, 21, 49–62. doi:10.1007/s11269-006-9040-4
- Pahl-Wostl, C., Jeffrey, P., Isendahl, N., & Brugnach, M. (2011). Maturing the new water management paradigm: Progressing from aspiration to practice. *Water Resources Management*, 25, 837–856. doi:10.1007/s11269-010-9729-2
- Pateman, C. (1976). *Participation and Democratic Theory*. Cambridge: Cambridge University Press.
- Petts, J. (2007). Learning about learning: Lessons from public engagement and deliberation on urban river restoration. *The Geographical Journal*, 173, 300–311. doi:10.1111/j.1475-4959.2007.00254.x
- Pierre, J., & Peters, B. G. (2000). *Governance, politics and the state*. London: Palgrave Macmillan.
- Quinn, R. E., Fearman, S. R., Thompson, M. P., & McGrath, M. R. (1996). *Becoming a master manager: A competency framework* (2nd ed.). New York, NY: John Wiley.
- Reynaers, A., & De Graaf, G. (2014). Public values in public–private partnerships. *International Journal of Public Administration*, 37, 120–128. doi:10.1080/01900692.2013.836665
- Rutgers, M. R. (2008). Sorting out public values? On the contingency of value classifications in public administration. *Administrative Theory & Praxis*, 30, 92–113. Retrieved from <http://www.tandfonline.com/doi/abs/10.1080/10841806.2008.11029617>
- 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, 377–390. doi:10.1080/07900627.2014.907087
- Skelcher, C., Mathur, N., & Smith, M. (2005). The public governance of collaborative spaces: Discourse, design and democracy. *Public Administration*, 83, 573–596. doi:10.1111/j.0033-3298.2005.00463.x
- Sørensen, E., & Torfing, J. (2011). Enhancing collaborative innovation in the public sector. *Administration and Society*, 43, 842–868. doi:10.1177/0095399711418768
- Steenhuisen, B., & van Eeten, M. (2008). Invisible trade-offs of public values: Inside dutch railways. *Public Money & Management*, 28, 147–152. doi:10.1111/j.1467-9302.2008.00636.x
- Stewart, J. (2006). Value conflict and policy change. *Review of Policy Research*, 23, 83–95.
- Swyngedouw, E. (2005). Governance innovation and the citizen: The Janus face of governance-beyond-the-state. *Urban Studies*, 42, 1991–2006. doi:10.1080/00420980500279869
- Taylor, M. (2007). Community participation in the real world: Opportunities and pitfalls in new governance spaces. *Urban Studies*, 44, 297–317. doi:10.1080/00420980601074987
- Termeer, C.J.A.M., Dewulf, A., & van Lieshout, M. (2010). Disentangling scale approaches in governance research: Comparing monocentric, multilevel, and adaptive governance. *Ecology and Society*, 15, 29. doi:10.5751/ES-03798-150429 [online]. Retrieved from <https://www.ecologyandsociety.org/vol15/iss4/art29/>.
- Thacher, D., & Rein, M. (2004). Managing value conflict in public policy. *Governance*, 17, 457–486. doi:10.1111/j.0952-1895.2004.00254.x
- Thaler, T., & Levin-Keitel, M. (2016). Multi-level stakeholder engagement in flood risk management – A question of roles and power: Lessons from England. *Environmental Science & Policy*, 55, 292–301. doi:10.1016/j.envsci.2015.04.007
- Van Buuren, A., Driessen, P., Teisman, G., & Van Rijswijk, M. (2014). Toward legitimate governance strategies for climate adaptation in the Netherlands: Combining insights from a legal, planning, and network perspective. *Regional Environmental Change*, 14, 1021–1033. doi:10.1007/s10113-013-0448-0
- Van der Steen, M., Van Twist, M. J. W., & Bressers, D. (2016). The sedimentation of public values: how a variety of governance perspectives guide the practical actions of civil servants. *Review of Public Personnel Administration*. Advance online publication. doi:10.1177/0734371X16671369



- Voorberg, W. H., Bekkers, V. J. J. M., & Tummers, L. G. (2015). A systematic review of co-creation and co-production: Embarking on the social innovation journey. *Public Management Review*, 17, 1333–1357. doi:10.1080/14719037.2014.930505
- Warner, J. (2006). More sustainable participation? multi-stakeholder platforms for integrated catchment management. *International Journal of Water Resources Development*, 22, 15–35. doi:10.1080/07900620500404992
- Watson, N. (2015). Adaptation through collaboration: Evaluating the emergence of institutional arrangements for catchment management and governance in England. *International Journal of Water Governance*, 3, 55–80. doi:10.7564/13-IJWG26
- Watson, N., Deeming, H., & Treffny, R. (2009). Beyond bureaucracy? Assessing institutional change in the governance of water in England. *Water Alternatives*, 2, 448–460. Retrieved from <http://www.water-alternatives.org/index.php/alldoc/volume2/v2issue3/61-a2-3-9>
- Wegerich, K., Warner, J., & Tortajada, C. (2014). Water sector governance: A return ticket to anarchy. *International Journal of Water Governance*, 2, 7–20. doi:10.7564/14-IJWG66
- Westerink, J., Kempenaar, A., Van Lierop, M., Groot, S., Van der Valk, A., & Van den Brink, A. (2016). The participating government: Shifting boundaries in collaborative spatial planning of urban regions. *Environment and Planning C: Government and Policy*, 35, 147–168. doi: 10.1177/0263774X16646770
- Wet openbaarheid van bestuur [Freedom of Information Act]. (1991, October 31). Retrieved from <https://wetten.overheid.nl/BWBR0005252/2016-10-01>
- World Bank Group. (2014). *Public-private partnerships: Reference guide. version 2.0*. Retrieved from <https://ppp.worldbank.org/public-private-partnership/library/public-private-partnerships-reference-guide-version-20>
- Yin, R. K. (1984). *Case study research: Design and methods*. Beverley Hills, CA: Sage.
- Zhang, D., Crawley, C., & Kane, G. (2015). Build level of services and customer value into decision making: Sydney Water's water main asset management strategy. *Australian Journal of Multi-Disciplinary Engineering*, 11, 179–190. doi:10.7158/14488388.2015.11464894

## Appendix 1. Data collection

### **Brouwersdam Tidal Power Plant**

#### *Policy and other governmental documents*

1. Projectbureau Getijdencentrale Brouwersdam. (2013). Consultatiedocument Getijdencentrale Brouwersdam [Consultation document, Brouwersdam Tidal Power Plant].
2. Projectbureau Getijdencentrale Brouwersdam. (2014). Verslag Marktconsultatie Getijdencentrale Brouwersdam, Hoofdrapport [Report market consultation, Brouwersdam Tidal Power Plant].
3. Projectbureau Getijdencentrale Brouwersdam. (2014). Verslag openbare informatiebijeenkomst Getijdencentrale [Report public information meeting, Tidal Power Plant].
4. Projectbureau Getijdencentrale Brouwersdam. (2014). Ontwerp Rijksstructuurvisie Zuidwestelijke Delta [Design Rijksstructuurvisie South-Western Delta].
5. Projectbureau Getijdencentrale Brouwersdam. (2015). Brochure Getijdencentrale Brouwersdam [Brochure, Brouwersdam Tidal Power Plant].
6. Projectbureau Getijdencentrale Brouwersdam. (2015). Verslag van de precompetitieve fase Getijdencentrale [Report of the precompetitive phase, Tidal Power Plant].

All the above retrieved from <http://www.gcbd.nl/Documenten+openbaar/>.

#### *Interviews*

1. Project director, Brouwersdam Tidal Power Plant, Rijkswaterstaat, April 2014.
2. Consultants involved in Brouwersdam Tidal Power Plant, Antea Group, May 2014.
3. Project member, Brouwersdam Tidal Power Plant, Zeeland Province, May 2014.
4. Project member, Brouwersdam Tidal Power Plant, Zeeland Province, May 2014.
5. Project member, Brouwersdam Tidal Power Plant, South-Holland Province, May 2014.

6. Adviser, *Water Governance, Ministry of Infrastructure and Environment, May 2014.*
7. Policy adviser, *Ministry of Economic Affairs, May 2014.*
8. Policy adviser, *Ministry of Infrastructure and Environment, May 2014.*
9. Director, *holiday Park Marina Port Zélande, May 2014.*
10. Project member, *Brouwersdam Tidal Power Plant, Schouwen-Duiveland Municipality, May 2014.*
11. Project members, *Brouwersdam Tidal Power Plant, Zeeland Province, June 2014.*
12. Business development manager, *Tocado, July 2014.*
13. Project director, *Brouwersdam Tidal Power Plant, Rijkswaterstaat, May 2016.*
14. Project member, *Brouwersdam Tidal Power Plant, Province South-Holland, June 2016.*

### **Marker Wadden**

#### *Policy and other governmental documents*

1. Rijk-regioprogramma Amsterdam-Almere-Markermeer. (2011). Naar een toekomstbestendig ecologisch systeem. Optimalisatie-rapport Werkmaatschappij Markermeer-IJmeer [Towards a future-proof ecological system: Optimization report Werkmaatschappij Markermeer-IJmeer].
2. Rijk-regioprogramma Amsterdam-Almere-Markermeer. (2012). Een toekomstbesteding Markermeer-IJmeer. Eindrapport Werkmaatschappij Markermeer-IJmeer [A future-proof Markermeer-IJmeer: Final report Werkmaatschappij Markermeer-IJmeer].
3. Rijksoverheid, *Natuurmonumenten*. (2010). *Uitnodiging tot samenwerking realisatie Eerste fase Marker Wadden* [Invitation for collaboration, realization first phase, Marker Wadden].
4. Rijk-regioprogramma Amsterdam-Almere-Markermeer. (2013). *Rijksstructuurvisie Amsterdam-Almere-Markermeer*.
5. Rijk-regioprogramma Amsterdam-Almere-Markermeer. (2013). *Bestuursvereenkomst RRAAM* [Governance agreement RRAAM].
6. *Natuurmonumenten, Rijksoverheid, Flevoland, Stichting Groenfonds*. (2014). *Kaderovereenkomst Eerste Fase Marker Wadden* [Framework agreement, first phase, Marker Wadden].
7. Rijksoverheid, *Natuurmonumenten*. (2014). *Overeenkomst tot vestiging erfpacht* [Leasehold agreement].
8. *Natuurmonumenten, Rijksoverheid, Flevoland*. (2014). *Samenwerkingsovereenkomst Eerste Fase Marker Wadden* [Collaboration agreement, first phase, Marker Wadden].
9. *Natuurmonumenten, Rijkswaterstaat*. (2014). *Uitvoeringsovereenkomst Eerste Fase Marker Wadden* [Implementation agreement, first phase, Marker Wadden].
10. Rijkswaterstaat. (2015). *Projectplan Waterwet "Eerste Fase Marker Wadden"* [Project plan, Water Act, 'First Phase Marker Wadden'].

All the above retrieved from <http://www.rijksoverheid.nl/documenten>.

#### *Documents published by non-governmental actors involved*

1. *Natuurmonumenten*. (2011). *Marker Wadden. Droom van een vogelparadijs* [Marker Wadden: Dream of a bird's paradise].
2. *Natuurmonumenten*. (2012). *Marker Wadden. Sleutel voor een natuurrijk en toekomstbesteding Markermeer* [Marker Wadden: Key for a natural and future-proof Markermeer].
3. *Natuurmonumenten*. (2013). *Marker Wadden. Notitie Reikwijdte en Detailniveau* [Marker Wadden: Note on scope and detail level].
4. *Natuurmonumenten*. (2013). *Milieu-effectrapport ten behoeve van het bestemmingsplan Marker Wadden* [Environmental impact report for the purpose of the destination plan Marker Wadden].
5. BoerCroon. (2013). *Van droomproject naar stapsgewijze realisatie. Overzicht van maatschappelijke baten van Marker Wadden* [From dream project to step-by-step realization: Overview of societal gains of Marker Wadden].
6. Boskalis. (2015). *Inschrijving deel 2* [Registration part 2].

#### *Interviews*

1. Project manager, Marker Wadden, Rijkswaterstaat, January 2016.
2. Research manager, Marker Wadden, Top Sector Water, February 2016.

3. *Former policy advisor, Ministry of Economic Affairs, February 2016.*
4. *Policy advisor, Ministry of Infrastructure and Environment, February 2016.*
5. *Project director, Marker Wadden, Natuurmonumenten, February 2016.*
6. *Policy adviser, Marker Wadden, Flevoland Province, April 2016.*
7. *Project control manager, Marker Wadden, Rijkswaterstaat, May 2016.*
8. *Adviser on public–private partnerships, Taskforce Delta Technology, May 2016.*