



Governing long-term policy problems: Dilemmas and strategies at a Dutch water authority

Wieke D. Pot , Art Dewulf & Catrien J.A.M. Termeer

To cite this article: Wieke D. Pot , Art Dewulf & Catrien J.A.M. Termeer (2020): Governing long-term policy problems: Dilemmas and strategies at a Dutch water authority, Public Management Review, DOI: [10.1080/14719037.2020.1817531](https://doi.org/10.1080/14719037.2020.1817531)

To link to this article: <https://doi.org/10.1080/14719037.2020.1817531>



© 2020 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



[View supplementary material](#)



Published online: 10 Sep 2020.



[Submit your article to this journal](#)



Article views: 700



[View related articles](#)



[View Crossmark data](#)

Governing long-term policy problems: Dilemmas and strategies at a Dutch water authority

Wieke D. Pot , Art Dewulf  and Catrien J.A.M. Termeer 

Public Administration and Policy Group, Wageningen University and Research, Wageningen, The Netherlands

ABSTRACT


Despite the increasing need to address long-term challenges, public sector organizations are incentivized to focus on short-term results. This article uses an ethnographic approach to analyse how members of a regional water authority understand and deal with long-term policy problems as part of their everyday practices. It reveals three specific dilemmas: investing in the realization of objects or objectives, adopting a stable or responsive approach, and taking a proactive or reactive stance towards the external environment. The concept of strategic agility enables organizations to respond proactively to unexpected developments by devising strategies to steer as well as to accommodate change.

KEYWORDS Ethnography; long-term governance; strategic planning; public sector; strategic agility

Introduction

Climate change, technological progress and the transition to renewable energy are among the long-term challenges that further increase the need for public sector organizations to address long-term policy problems in their present-day processes. Governments in particular can find it difficult to develop and execute long-term strategies because of governments' highly politicized and rule-bound nature (Bryson and Berry 2010; Poister 2010). Political executives are often accused of being biased towards the short term (Bührs 2012). This is because democratic governments are characterized by four-yearly election cycles and the need to be responsive to their current constituents. These characteristics can make it difficult for democratic institutions to adopt longer term time horizons and address the needs of future generations (Boston 2017). Governments that address long-term policy issues are therefore faced with important temporal and substantive tensions. For example, according to Goetz (2014) there is a growing tension between responsive and responsible democratic politics, at the expense of both. Responsibility here refers to deciding about solutions that are effective and sustainable over a long time period, whereas responsiveness encourages speedy action and immediate results. The embracement of New Public Management in the public sector has also stimulated a focus on short-term, output-oriented, and measurable results at the expense of the consideration of long-term

CONTACT Wieke D. Pot  wieke.pot@wur.nl

 Supplemental data for this article can be accessed at <https://doi.org/10.1080/14719037.2020.1817531>

© 2020 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group. This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

consequences and developments (Höglund et al. 2018; Gieske et al. 2020). Furthermore, there are tensions between short-term organizational budget cycles and longer term planning cycles within public organizations; and between the realization of short-term objectives such as those related to specific projects, and the realization of overarching organizational objectives (Wolf and Van Dooren 2018; van Berkel, Ferguson, and Groenewegen 2016).

Within public management literature, the key tension between investing time and resources in short-term, present-day affairs versus in long term policy problems is identified but remains underexplored. Three important gaps remain. A first gap is that a part of the literature specifically focused on processes of strategy development (Hansen and Ferlie 2016; Bryson, Edwards, and Van Slyke 2018) and strategy enactment (Jalonen, Schildt, and Vaara 2018; Höglund et al. 2018). But strategy is not the only process or product in which public sector organizations address long-term policy issues. They are also dealt with in other – more everyday – organizational processes, such as investment planning, budgeting, and political decision-making. A second gap is that scholars that have been concerned with a broader set of everyday managerial practices have focused on grasping what managers actually do, and reveal how managers spend their time (Rhodes, Hart, and Noordegraaf 2007; van Dorp 2018; Mintzberg 1973). But these scholars did not zoom in on the specific time spent on long-term policy issues in public sector organizations, and therefore did not reveal any of the underlying organizational dilemmas or strategies. A third gap is that literature has provided tools and methods to facilitate long-term decision making, such as foresight methods (Schmidhuber and Wiener 2018) and strategic management tools (Hansen and Ferlie 2016; Williams et al. 2008). But these tools neglect the everyday context of public sector managers, policy makers, and political executives (Bryson and Berry 2010; Pot et al. 2018), and often do not become integrated within public sector organizational practices (Volkery and Ribeiro 2009; Rickards et al. 2014).

This article responds to these gaps by focusing on how members of public sector organizations specifically deal with long-term policy problems (gap 2) as part of their everyday practices (gap 1). We adopt an ethnographic research approach to take the full context of public sector decision-making into account (gap 3). As a research setting, we selected the case of a Dutch regional water authority: an organization that, on paper, has a clear need to address long-term policy problems because of its institutional responsibility for long-term water management.

The following broadly defined research question guides this ethnographic research: *How do people in public sector organizations deal with long-term policy problems in their everyday practices?* This question is divided into three sub-questions (RQs):

- RQ1: How do organizational members understand long-term policy problems?
- RQ2: What are the underlying dilemmas that organizational members encounter in everyday practices when addressing long-term policy problems, and under what conditions do these dilemmas appear?
- RQ3: How do organizational members deal with dilemmas related to long-term policy problems in their everyday practices?

In the next section, the theoretical sensitizing concepts are introduced. We then outline our ethnographic methodological approach. The results section presents the answers to the research sub-questions. In the discussion, the dilemmas and strategies are linked

to existing theoretical notions, and avenues for future research are suggested. The article ends with a short conclusion.

Theoretical background

In this section, we briefly introduce the key sensitizing concepts that guide our analysis. A key principle of ethnography is to start with an open perspective, to work inductively from the data, and to work with broadly defined concepts that provide the necessary flexibility to generate new ideas and insights during the ethnographic fieldwork and analysis (Huby, Harries, and Grant 2011). As part of the discussion we will further theorize our findings.

Long-term policy problems

Long-term policy problems are sometimes referred to as meta problems (Seidl and Werle 2018), grand challenges (Ferraro, Etzion, and Gehman 2015), and super wicked problems (Lazarus 2008). Sprinz defines long-term policy problems as ‘public policy issues that last at least one human generation, exhibit deep uncertainty exacerbated by the depth of time, and engender public goods aspects both at the stage of problem generation as well as at the response stage’ (2009, 2).

Using this definition, long-term problems are characterized by a long-term time horizon, because these problems will last for a long period of time – for at least a generation according to Sprinz (2009). In the literature, there is no generally accepted standard time horizon for addressing long-term problems, or consensus about the meaning of terms such as short term, long-term, or future generations (Bauer 2018; Eshuis and van Buuren 2014). The specific time horizon that is adopted to deal with long-term problems can differ per individual and organizational department or practice (Segrave, Van Der Zouwen, and Van Vierssen 2014). Time horizons in strategic policy advice typically span around 10 to 20 years (Bauer 2018), whereas time horizons in visionary organizational practices often lie between 30 and 50 years (Kaivo-oja, Katko, and Seppälä 2004). Because long-term problems will last for generations or more, time horizons to address these problems need to cross the regular governmental cycles of elections, decision making, planning, and budgeting (Pörtner et al., 2019). This can be challenging, especially for political executives that need to be responsive to their current constituents. The limited time horizon of legislative periods has given rise to discussions about the myopic view of governments (Boston 2017; Bührs 2012; Bonfiglioli and Gancia 2013). Long-term problems are also characterized by high levels of uncertainty about what the future will look like and about what actions to take to deal with the future (Foxon, Reed, and Stringer 2009). Scholars speak of radical uncertainty (Ferraro, Etzion, and Gehman 2015), deep uncertainty (Kwakkel, Walker, and Haasnoot 2016) and unknown unknowns (Termeer and van den Brink 2013). Examples of long-term uncertainties include: inability to predict what the future will look like (substantive uncertainties), different views on what the future problems are (equivocality), conflicting or ill-defined goals (ambiguity) and undeveloped or changing procedures (institutional uncertainty) (Dewulf and Biesbroek 2018).

To deal with and understand the uncertainties inherent to long-term policy problems, organizational actors may try to make sense of what the future will look like. They may try to calculate and model plausible futures, they may formulate long-term

visions and objectives, and with that fill in desirable futures (Bai et al. 2015), or they may explore or develop various scenarios of possible futures (Vink, van der Steen, and Dewulf 2016; Schmidhuber and Wiener 2018).

Given, but not restricted to, these characteristics we explore how regional water authority members understand and deal with long-term policy problems.

Governance dilemmas

This article focuses on the dilemmas that arise when governments devote attention and action to long-term policy problems instead of the short term. Dilemmas are central when it comes to long-term policy problems (Jordan et al. 2010).

Dilemmas consist of choices between two or more courses of action and arise because they oppose existing beliefs, values, priorities or practices (Boswell, Corbett, and Rhodes 2019). Dilemmas can include a clash of values, such as participation versus efficiency, but also be about competing priorities such as prioritizing housing shortages over climate change mitigation. Dilemmas can be related to political choices between alternative courses of action, such as: what are the different ways to frame the problem, at what scale to govern the problem, when to take and plan specific decisions, with what instruments to realize policy goals, how to weigh costs and benefits, and how to implement and enforce policies (Jordan et al. 2010). A costs-and-benefits dilemma for long-term problems is, for example, how to impose costs on current constituents for the benefits of future constituents (Jacobs 2011). A dilemma for political executives could be how to provide legal certainty, while allowing for flexibility to change policies in response to changing insights about long-term policy problems (van Buuren et al. 2014). For public sector managers, a dilemma could be how to translate long-term objectives and strategic plans to short-term operational plans and budgets (Höglund et al. 2018).

In the analysis, we allowed the specific dilemmas to emerge from the observations; they therefore do not necessarily have to be formulated by respondents but could also be more implicitly present. To start exploring dilemmas, we will first need to focus on the *meanings* that situated agents, hence governmental actors, have (Boswell, Corbett, and Rhodes 2019). Furthermore, dilemmas emerge under specific *conditions* that enable or constrain specific courses of action (Berti and Simpson 2019). For example, the governance dilemma of diversity versus unity can manifest itself because there is a certain variety of actors involved, while there is also a shared sense of urgency to come up with one alternative (van Buuren and Loorbach 2009).

Practices and strategies

Dilemmas force individuals to act and find ways to deal with the dilemma, as dilemmas cannot be solved (Poulsen 2009). A focus on practices allows to reveal the ways that individuals find to take action, despite the controversies that are part of dilemmas (Berti and Simpson 2019). A practice-based approach therefore reveals empirical insights on how people act, rather than on how people think they should act or talk about long-term policy problems.

We conceptualize practices as '*strategies for coping with dilemmas in a world of complex specificity*' (Boswell, Corbett, and Rhodes 2019, italics added). Different from the research field 'strategy-as-practice' we do not restrict our analysis to the process of

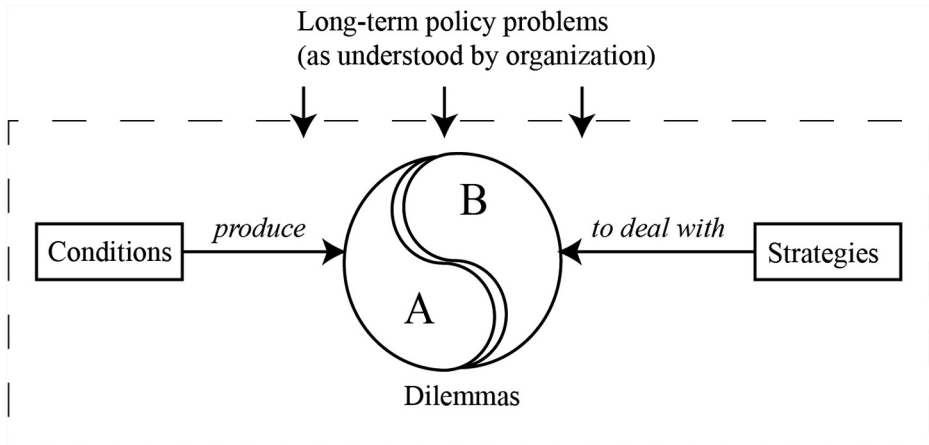


Figure 1. Framework to study dilemmas related to long-term policy problems.

developing strategic plans or on how organizational members enact organizational strategy (Höglund et al. 2018). Instead, this article will include all everyday practices in which long-term policy problems are dealt with. These can, for example, include policy making, budgeting, and decision-making in political arenas.

Figure 1 depicts the relationship between long-term policy problems, conditions, dilemmas, and strategies. Long-term problems enter organizations and are framed and dealt with by the members of organizations. When discussing and addressing long-term problems within their everyday practices, organizational members face dilemmas. These dilemmas emerge under specific conditions: this is the context in which organizational members operate and that enables or constrains specific courses of action. In response to these dilemmas, organizational members employ different strategies.

Research design

In this article, we employ a theory building, exploratory, research design based on ethnography. Ethnography is the study of people and groups in their everyday context (Emerson, Fretz, and Shaw 2011). The two defining features of ethnography are participant observation, often referred to as fieldwork, and the development of a written record of what is observed (Rhodes 2014; Van Maanen 1988). The researcher that performed the fieldwork in this study is the first author and will be called the ethnographer. The ethnographer positioned herself in the field as a professional stranger (Agar 1996): stranger in the sense that she entered the field as a newcomer, knowing only a few people; professional in the sense that she could build on previous experience in both research and management consultancy. We explain the data collection and analysis steps below, after presenting the field site.

Field site description and selection

Dutch regional water authorities (RWAs) are functional democracies and as such have pre-determined tasks that are limited to water management. These tasks include: flood protection, management of water quantity and quality, and wastewater treatment.

These tasks are supervised by higher tiers of government: the provinces and the national government. RWAs have specific taxation powers and earmarked revenue, and have their own democratically elected governing bodies (Mostert 2017). The RWA governing bodies consist of a general assembly and an executive assembly chaired by a chairperson (*dijkgraaf*). The executive assembly prepares all decision proposals that go towards the general assembly. Members of the executive assembly are drawn from the general assembly; hence there is no dualistic system in place (Dutch Water Authorities 2017). The general manager of RWAs is also the secretary of the executive assembly. This ethnographic study took place in the second half of 2018 and the first quarter of 2019, which was the period just before the RWA elections in March 2019.

RWAs increasingly participate in all sorts of collaborations and innovations (Gieske, Duijn, and van Buuren 2019). In the past decade, RWAs signed several inter-organizational agreements to contribute to specific long-term objectives, for example the Climate Agreement with the Dutch government that commits RWAs to energy conservation and CO₂ emission reduction objectives (Dutch Water Authorities 2010).

Their responsibility for long-term water management and role in inter-organizational agreements with long-term objectives make Dutch RWAs a good empirical setting to study the public sector tension of dealing with long-term policy problems in everyday practices. We specifically selected the RWA *Zuiderzeeland* (ZZL) because it has included the most climate change adaptation initiatives as part of its strategic water plan of all 21 Dutch regional water authorities (Kamperman and Biesbroek 2017). This can be seen as an indicator of a relatively long-term focus. The ZZL mission statement also reveals its long-term orientation:

We think ahead. About sustainability and the production of energy from water, for example. About the effects of climate change and the chances for a circular economy. [...] Our mission? That we safeguard dry feet not only for our current generation, but also for our children and grandchildren.¹

The RWAs' areas follow water system boundaries (Dutch Water Authorities 2017). For ZZL, this means that the area covers the entire province of Flevoland and small parts of the provinces of Overijssel and Friesland (414,000 inhabitants in total). Almost the entire ZZL area came into being because of the impoldering of the Dutch Zuiderzee between 1940 and 1968, from which the ZZL name derives (Smits 1970).

Data collection

Ethnographic data were collected over a period of six months between the end of August 2018 and the beginning of March 2019. The ethnographer started with a period of deep immersion followed by two months of yo-yo-ing in and out of the field (Rhodes 2014) to: (1) get close and to access the everyday practices by being there (Huby, Harries, and Grant 2011); and (2) reflect and decide what next steps to take by spending time away from the field (Ybema, Kamsteeg, and Veldhuizen 2018). To observe everyday practices, four organizational members covering different positions within the organization were shadowed for at least five days: the chairperson of the executive assembly to include observations of the governing bodies; one of the two executive directors to get a broad overview of ambitions and projects within the organization; the operations manager to include operations and investments with regard to water pumping stations and sanitation plants; and a senior policy advisor

Table 1. Overview of data.

Data source	Type	Length/number
Observations	Fieldnotes from observed meetings	± 90 hours (total time in the field 200 hours)
Interviews	Introductory, informational and member-check interviews	19 (15–90 minutes)
Reflexive journal	Diary kept during data collection and analysis to keep track of process, insights and next steps	6700 words
Documents	Documents (such as presentations, agendas, reports, decision files)	± 110 items
Artefacts	Photographs from site visits, buildings, meeting rooms and meeting output	38 items
Peer debriefing conversations	Minutes of peer debriefing conversations with co-authors and other methodological experts	9 (60–90 minutes)

to cover policy preparation. The observation days were purposively selected, based on digital calendars of and conversations with organizational members, to capture sufficient meetings that potentially dealt with long-term issues.

Additional observations beyond the shadowed individuals were undertaken to gain a better understanding of specific long-term topics (such as the vision trajectory), and to include all decision-making arenas, i.e. the executive directors, the strategy meeting, the management meeting, project meetings, the meeting between each member of the executive committee and civil servants (*portefeuillehoudersoverleg*), the executive assembly and the general assembly. Observation data were complemented with interviews and meeting documents (see [Table 1](#)).

Observations served as the primary data source. Interviews were used to select relevant meetings for observation and to verify and reflect on observations. Documents that belonged to the observed meetings were also collected to verify observations, gain additional data (e.g. about the framing of long-term problems), and to gain a better contextual understanding. Extensive notes from meetings and interviews were written into full fieldnotes as soon as possible after the observation. In fieldnotes, the literal quotes of observed people were put between quotation marks. Each data source was given a unique identification number: for fieldnotes, the date with a number added; for interviews, the date with the function added; and for documents, the date with ‘doc’ added (see Supplementary Material S1).

Data analysis

For the data analysis, we used a constant comparison method that consisted of the following steps (see [Figure 2](#)):

- (1) Open coding: Inductive coding at the level of fieldnotes resulting in a narrative of events and codes for key topics, people, locations and arenas based on who-what-when-where-questions (Gioia, Corley, and Hamilton 2013).
- (2) Axial coding and memo-ing: Inductive coding focusing on how and why the long-term is understood and dealt with in certain ways in particular observations. This step resulted in memos for recurrent long-term themes (meanings and dilemmas) with different quotations from fieldnotes, interviews and documents.

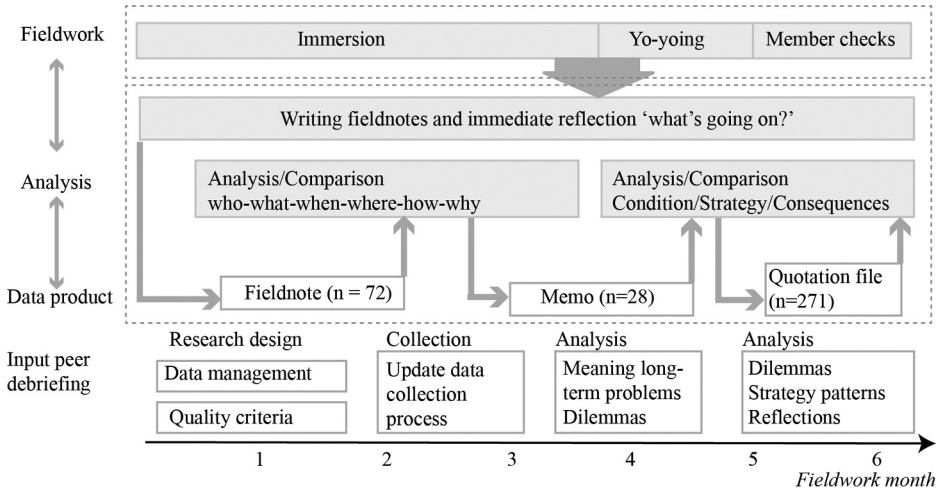


Figure 2. Data collection and analysis process.

- (3) Constant comparison: Comparing quotations included in memos to identify recurrent strategy patterns (Boeije 2002) and distinguish conditions from strategies and consequences (Strauss and Corbin 1998). For this step, a database of relevant quotations was created, to easily select and compare strategies and conditions per dilemma, per person and per topic.
- (4) Selective coding: Emergent dilemmas and strategies were compared with existing literature while writing up the results. This was an iterative process that required abduction: using insights to create new and plausible connections between empirical data and existing theory (Wolf and Baehler 2018).

For illustrative quotations per code, see Supplementary Material S2.

Quality criteria for ethnographic research

The ethnographer can never be a detached neutral observer but should ensure *credibility*. We ensured credibility by: involving outside researchers as second and third author and organizing peer debriefing sessions (Gioia, Corley, and Hamilton 2013), using yo-yo fieldwork alongside deep immersion to ensure persistent observation while avoiding going native (Rhodes, Hart, and Noordegraaf 2007); and using different data sources to triangulate findings. Because the ethnographer cannot take in everything (Emerson, Fretz, and Shaw 2011), it is important that an ethnographer ensures *authenticity* by presenting alternative realities (Van Maanen 1988). We used an extensive member-checking process to verify observations by organizing reflexive interviews and an openly accessible meeting for all organizational members. To allow *transferability* of findings, we provided a contextual case description in the method section. And for *traceability and rigour*, we presented our methods of data collection and analysis, established an audit trail and kept a reflexive journal (Erlandson et al. 1993) (see Table 1, and Supplementary Material S3 with an overview of the quality criteria).

Results

In this section, we first explore how long-term policy problems are understood by ZZZL members, then explain the underlying dilemmas that organizational members encounter and the conditions under which those dilemmas emerge, and end with the individual strategies for dealing with these dilemmas.

RQ1: How do organizational members understand long-term policy problems?

From our data, we deduced four ways that organizational members understood long-term policy problems. In the following, the codes in parentheses refer to the documents in Supplementary Material S1.

First, long-term policy problems were often equalled to the *external environment*. For example, in the organizational water management plan, ZZZL discusses long-term developments under the heading of ‘The regional water authority and its environment’ (20141028-doc, p. 13); and, in a strategic discussion about the wastewater chain, a policy advisor stated: ‘Connecting with the environment is also important for the future, otherwise you will be eliminated in a couple of years’ time’ (20181017-1). In the member-check interview, the chairperson saw this framing of external environment as a way to externalize long-term problems. She also explained that ‘opportunities [from the external environment] and developments’ are often treated as the same, to make it easier to deal with the long term because ‘then a development becomes a person’ (20190304 – Chairp.). This also gives rise to the dilemma of reactivity versus proactivity towards the external environment, which we discuss later.

Second, long-term policy issues were often discussed as *future problems or developments*. For example, the onboarding information that ZZZL employees compiled for new assembly members who would take their seat after the elections list a range of ‘future problems’, including soil subsidence, climate change, circular economy, water safety, legislation and digitalization (20181126-doc). Sometimes, such developments were portrayed as ‘autonomous developments’: ‘Soil subsidence is an autonomous development. Water nuisance caused by soil subsidence is beyond the legal duty of the regional water authority’ (20180906-doc). In the member-check interview, the senior wastewater chain policy advisor interpreted autonomous mainly as ‘something that just happens, outside of our influence, [...] it happens with or without us’ (20190304 – Pol. ad.). The executive director explained, with a smile, that by calling it autonomous ‘you are done with it, there is no need to think about it further’ (20190226 – Ex. Dir.). This meaning is not restricted to one specific dilemma.

Third, long-term problems were part of *organizational objectives*. One of the executive assembly members, for example, explained to the ethnographer that ZZZL is making sure that ‘in 2035, wastewater treatment plants are 100% [energy] self-sufficient’ and that with regard to a ‘circular economy [ZZZL] has set its goals for 2050’ (20180920-2). A senior policy advisor mentioned the organizational objectives of ‘robust, sustainable and efficient’ in his presentation about the wastewater chain strategy (20181119-1; 20190122-doc). In the member-check interview, he explained that mentioning these objectives without further defining them in executive assembly decision proposals is ‘a bit of marketing and sales’ (20190304 – Pol. ad.). This is related to the dilemma of responsiveness versus stability, and especially the strategy of framing attractive long-term objectives.

Fourth, long-term problems were sometimes connected to specific *future time horizons*. In a project meeting about future wastewater treatment demands, the executive director explicitly articulated the question ‘what is our time horizon’, arguing that ‘If you have a vision for how this particular city will develop in 20, 30 years’ time, you will discover that the municipality has different stakes than we do’ (20181004–1). The time horizon also becomes manifest in discussions about long-term investments. The controller stated about the activity to map foreseen investments in infrastructure: ‘he [the project manager] will look [...] until who knows how long, until 2040’ (-20181120–1; see also 20181213 – Ext. cons.). This meaning is related to the dilemma of object versus objective.

Another observation is that the concept of uncertainty was almost entirely absent (i.e. present in only 3/271 quotations). In the member-check interview, the director responded: ‘We prefer not to hear the word uncertainty [because] [...] it is seen as a value judgement instead of a concept.’ This possibly also relates to the absence of future scenarios to support decisions. In observed meetings where scenarios were used, scenarios did not represent future scenarios but alternative technical solutions (-20190122–2; 20181119–1; 20181211–1) or different crisis situations as part of calamity exercises (20181016–1; 20181211–3). During the member-check interview, the executive director explained that he had introduced future scenarios and scenario thinking in the organization in 2008 and 2009 and that ‘it was fun to do but now we have something else’ (20190226 – Ex. Dir.). The senior policy advisor also referred to these scenarios as ‘exercise’, stating that ‘I guess because it only works if you continuously actualize it and keep [...] bringing it up in discussions’ (20190304 – Pol. ad.).

RQ2: What are the underlying dilemmas that organizational members encounter in everyday practices when addressing long-term policy problems, and under what conditions do these dilemmas appear?

Table 2 summarizes the three underlying organizational dilemmas that we found.

Dilemma 1: Investing in objects or objectives

We illustrate this dilemma (found in 20% of dilemma quotations) with one of the cases in which it became manifest, that of Windfarm Hanze.

Our case description of Windfarm Hanze goes back to 2016, when ZZL developed a ‘master plan for sustainable energy’. This plan needed to give substance to the long-

Table 2. Overview of dilemmas.

Dilemma	Description
Object–Objective	Central to the object–objective dilemma is the question of how best to invest in long-term policy problems: at the level of separate investments in specific infrastructural <i>objects</i> or assets, or at the organizational level by focusing on reaching a specific <i>objective</i> and seizing opportunities from the external environment.
Responsiveness–Stability	The responsiveness–stability dilemma is about whether to ensure <i>stable attention</i> and dedicated resources for long-term policy problems during budget and election cycles or whether to remain <i>responsive</i> to outside impulses and adopt long-term ambitions from inter-organizational agreements.
Reactiveness–Proactiveness	The reactiveness–proactiveness dilemma is about whether to <i>steer</i> towards the realization of organizational long-term objectives and prioritize resources for long-term policy issues <i>proactively</i> or whether to <i>reactively</i> adopt insights, opportunities, ideas about long-term policy problems, as gained from the external environment.

term ambition of climate neutrality (in 2050) via the steps of energy savings and energy self-sufficiency in 2030 (20160927-doc). In 2017, ZZZ explored opportunities for wind turbines and from that a specific ‘opportunity arose of a collaboration with the Association Windfarm Hanze’ (20180327-doc). As part of this collaboration, ZZZ bought a share in a windfarm, with which it purchased a wind energy capacity to ensure ‘that [ZZZ] will be CO₂ neutral and self-sufficient in 2022 to 2023 instead of 2050’ (20180327-doc). In October 2018, a partnership agreement was signed that initiated a project company (20181030-doc). This collaboration had consequences for other organizational efforts to realize renewable energy production. In the second half of 2018, an executive assembly proposal was decided upon that argued that ‘it is no longer necessary to instal wind turbines on or close to flood protection structures to support our own energy demands’ thanks to Windfarm Hanze (20181030-doc-2). Also, as part of the procurement procedure for a new water pumping station, the project team together with the administrative and political teams placed ‘energy production’ and ‘procurement and supply of sustainable energy [...] out of the scope of the contractor’ (20181123-doc; 20180830 – Ex. Dir.).

The dilemma became manifest under three *conditions*. The first relates to the *end-of-lifetime state of objects or assets*. In this case, someone in the organization signals that a specific object or part of an object needs to be renewed, renovated or replaced to remain effective (e.g. water pumping station) and that this renovation task can be connected to existing organizational long-term objectives (e.g. energy self-sufficiency). The second condition is that a specific *initiative in the external environment pops up* that could contribute to organizational long-term objectives (e.g. the windfarm initiative). Hence, the third condition: *long-term objectives* are laid down in inter-organizational agreements or organizational strategies.

Dilemma 2: Stability or responsiveness towards long-term problems

We illustrate this dilemma (found in 25% of dilemma quotations) by using the Vision 2045 trajectory at ZZZ.

The Vision 2045 trajectory started in the year 2015, around election time (20150326-doc). The vision trajectory became part of the new executive assembly’s programme for the years 2015–2019. The Vision 2045 goal was ‘not to arrive at one future scenario’, but to ‘gain insight into challenges of the future, as well as into potential transition pathways and perspectives for action’ (20160906-doc). With the way the vision trajectory was organized, the goal was to ‘influence the acts and behaviour of assembly members’ through ‘buzz and dynamics’ (20180919 – Corp. strat.). As part of the vision trajectory, sessions were organized with Dutch scientists to which both assembly members and candidate assembly members were invited. These sessions were carefully prepared with an external moderator and aimed to discuss not so much of the future trends or the vision itself, but rather ‘governing the future’, because ‘the ideal is the long-term-oriented assembly member with a vision towards society’ (20181120–3, external moderator). At the end of the evening session in December, one of the organizers noted: ‘now we can also push these terms [used as part of the scientific essays] into the [new] executive assembly’s programme’ (20181204–4).

Regarding conditions, civil servants acted upon the annual *end-of-budget cycle* because of the need to prioritize resources, leading them to cancel specific long-term budgets. They also used the four-yearly *end-of-election cycle* with the potential of influencing the new assembly’s programme with proposals around long-term

problems. A third condition was the presence of *inter-organizational agreements*, because those provided long-term objectives to which the political assemblies had committed themselves and that needed to be translated into assembly programmes and organizational vision and strategies.

Dilemma 3: Reacting to the external environment or proactively steering towards long-term objectives

We illustrate this dilemma (found in 50% of dilemma quotations) using the ZZZ effort to develop a wastewater chain strategy.

In October 2018, a meeting about the wastewater chain strategy was organized for internal stakeholders of both the operations and the policy department at which external consultants presented a ‘strategy for the short term (2019)’ and a perspective on a ‘wastewater chain 2030’ (20181017–1). The strategy aimed to fulfil the need for ‘structure on how to steer this as organization’ and to provide ‘clarity about a number of things, [including] where to focus on, and where not to focus on’ (20181017–1). During the meeting, participants discussed the ‘intrinsic tension’ of ‘making choices’ versus ‘leaving everything open’. A couple of participants argued in favour of flexibility towards the external environment: ‘Make sure you are also flexible so that you can move towards the environment.’ Someone else maintained that ‘connecting with the external environment, [is] also needed for the future.’ Others on the other hand argued in favour of choosing: ‘be clear about your strategy’; ‘not all requests fit our organizational objectives’; and signalled the danger of ‘losing focus because of the number of ideas and plans’ (20181017–1). The presentation with which the strategy and related investments were introduced to the executive assembly in January 2019 mentioned ‘an opportunity to collaborate’ with another RWA to ensure ‘future-proof sludge processing until the end of 2037’ (Presentation – Pol ad. 20190122–2; 20190122–2; 20190212-doc).

This dilemma emerged under conditions of *initiatives from the external environment* (e.g. opportunity to work together with another RWA for sludge processing; 20180905–2, 20181004–1, 20181204–2) combined with discussions *about the formal role and tasks of the regional water authority according to legislation* (e.g. resource recovery from wastewater should not be at the expense of the primary task of water quality, 20180927–1) and the need to prioritize resources as part of the annual *budget cycle* and preparations for the new budget (e.g. no money for new ambitions, 20180914–3). ‘Seizing opportunities’ from the external environment were deemed important by ZZZ members to become more sustainable and innovative (e.g. 20180905–2, 20181004–1, 20181204–2). Both politicians and civil servants referred to the organizational core tasks, i.e. the primary legislative tasks. For example: ‘in the upcoming years we will have our hands full to fulfil our core tasks. The Dutch soil is member, 20181127–2).

RQ3: How do organizational members deal with dilemmas related to long-term policy problems in their everyday practices?

Organizational members deployed specific strategies to deal with the above dilemmas (see Table 3). The strategies elaborated upon all had at least five quotations.

Strategies to deal with the object versus objective dilemma

A first strategy used by six organizational members was to *emphasize (realized) long-term objectives*. The strategy was used to emphasize that, with the collaboration in

Table 3. Presence of strategies and dilemmas and number of quotations in which strategy was used.

Strategies per dilemma (side)	Number
Object–Objective	
<i>Object side</i>	
Postpone or phase investments	5
<i>Objective side</i>	
Emphasize (realized) long-term objectives	9
Map all planned and foreseen long-term investments and activities	7
Seek collaboration to align strategies and long-term thinking	6
Stability–Responsiveness	
<i>Stability side</i>	
Use political venues to highlight long-term challenges	16
Propose long-term plans and strategies to the current administration	9
<i>Responsive side</i>	
Differentiate ambition levels (hierarchy of objectives)	6
Connect decisions to a specific and politically attractive long-term objective	5
Reactive–Proactive	
<i>Reactive side</i>	
Co-invest in the development of new technologies	11
Leave primary responsibility for long-term with other organizations	9
Co-develop joint long-term visions and plans	9
Use collaborative platform to gain knowledge about long term	9
<i>Proactive side</i>	
Seek collaboration to realize long-term objectives	11
Set criteria for external initiatives based on fit with long-term obligations	8
Emphasize felt and formal responsibilities towards the long term	6

Windfarm Hanze, the organization would be energy self-sufficient earlier than planned – for example, by stating that ‘the ambitions have been realized’ (20180830 – Ex. Dir.) or that ‘officially we are done’ (20181108–1).

A second strategy was to *map all planned and foreseen investments and activities*. This strategy was used or proposed by four policy advisors in discussions about the sustainability strategy, the long-term investment plan and the wastewater chain strategy. They used it to ‘build coherence and plan investments consecutively’ (20181204–2), detect ‘gaps’ (20181108–1) and provide a ‘helicopter view’ (20180919 – Pol. ad. other).

A third strategy was to *seek collaboration, especially to align long-term strategies and thinking* and was used at an organizational and an individual level. At an organizational level, ZZL’s chairperson took part in the administrative platform for the IJssellake area in which newest insights about sea-level rise and water management infrastructure were discussed (20190130–1). At an individual level, the executive director proposed to get in touch with the municipality to align long-term objectives about the wastewater chain (20181004–1; 20190226–1).

A fourth strategy was to *postpone or phase investments*. This strategy was proposed and used by the process engineer in discussions about wastewater chain investments. For example, he proposed ‘to adjust the aeration to ascertain you will be futureproof’ as a first step (20181023–1) and to postpone the decision about wastewater plant capacity extension because ‘[w]e are currently trying to find the most sustainable route for capacity increase. [...] We are not yet ready to ask the executive assembly to take a decision’ (20190107 – Proc. eng.). This fourth strategy was mainly object oriented, whereas the others were more objective oriented (Table 3).

Figure 3 summarizes the object–objective dilemma, conditions, and strategies.

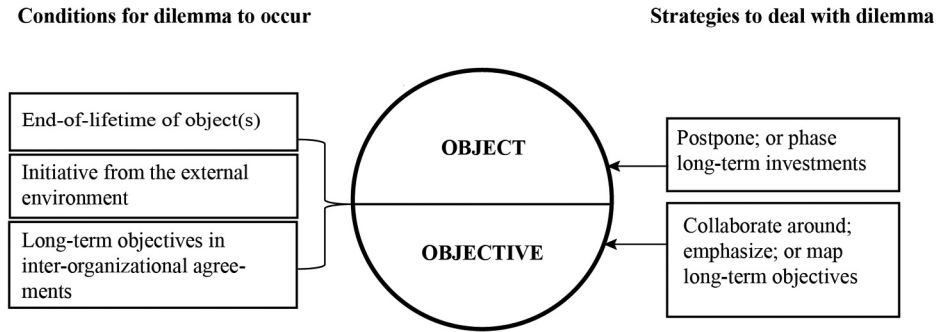


Figure 3. Dilemma of *object versus objective* orientation to address long-term problems.

Strategies to deal with the responsiveness versus stability dilemma

The first and most frequent strategy employed was to *actively use political venues to highlight relevant long-term challenges*. Civil servants, for example, used the draft for the new executive assembly's programme to dictate long-term themes and approaches (20181126–1). In fact, the chief executive stated: 'it would be great if the new executive assembly interviewed us, that they will just say copy-paste' about the vision trajectory (20181204–3); and the executive director said that he did not want to call the vision trajectory an 'inheritance but more a continuous line [that] could evolve' (20180,919–3).

As a second strategy, civil servants *proposed long-term plans to the current assembly before the elections*. For example, the executive director argued: 'we are not going to wait for the new assembly in order to prevent them asking: 'How about this, did you think about that?' (20181023–1). The chairperson also signalled an 'explosion' of policy proposals in the executive assembly in the two months before the elections (20190122–2).

As a third strategy, civil servants *connected decisions to a specific and politically attractive long-term objective*, such as 'the most sustainable pumping station' (-20180913–3, 20180,830 – PA Ex. Dir.) or 'the most sustainable regional water authority' (20181204–2). The executive director in particular strongly favoured putting a specific 'flag' on activities that would help to 'sell [them] politically' (20180913–3; see also 20180927–1).

As a final strategy, both the chairperson and civil servants proposed *hierarchies of objectives* in which *different ambition levels* for long-term themes – such as the Vision 2045 themes – and their cost would be outlined. The chairperson proposed this strategy to facilitate political discussions about the cost of 'political dreams' (-20181114–2). The civil servants adopted the strategy of 'providing politicians with a choice' (20181108–1) about long-term developments (see also fieldnote 20181029–2).

The first two strategies were stability oriented and the second two responsiveness oriented. [Figure 4](#) summarizes the dilemma.

Strategies to cope with the reactive–proactive stance towards the external environment

The first reactive strategy used by civil servants and most often discussed at meetings with executive assembly members was to *co-invest in the development of new technologies* for the wastewater chain. Proposals and initiatives for co-investments included,

Conditions for dilemma to occur

Strategies to deal with dilemma

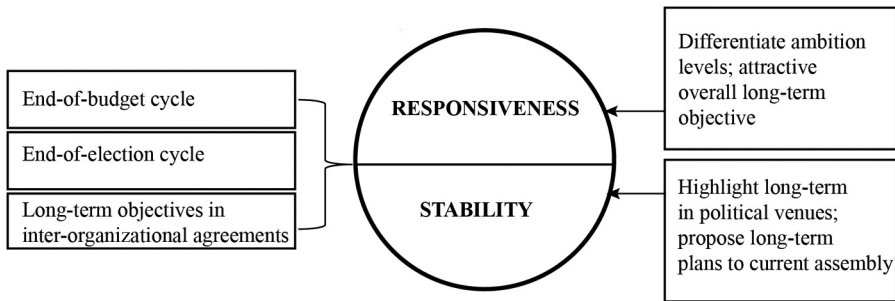


Figure 4. Dilemma of using *responsiveness versus stability* towards long-term problems.

for example, sludge processing together with a municipal energy production facility (20190212–2), energy-saving techniques together with a university and another RWA (20180920–2) and recovering cellulose from wastewater together with other RWAs and with the support of a consultancy firm (20181010–1).

A second reactive strategy was to leave the *primary responsibility with other organizations*. This was used by executive assembly members and high-level civil servants in conversations about the new Environmental Act, the Delta programme for long-term water safety and the energy transition. For these long-term themes, high-level officials proposed to leave it to other governmental institutions, e.g. the national government (20181211–2), the Delta programme institute (20181114–3), the province of *Flevoland* and regional energy transition teams (20,181,211–2), to take the lead in implementation.

Another reactive strategy was to *co-develop joint visions and long-term plans* with other governments, when ‘opportunit[ies] for that arose’ (20,180,905–2). The executive director, for example, raised the question of ‘how ZZZL could contribute to the city’s resource transition’ with its investments in wastewater treatment (20,181,004–1); and in a later meeting the process engineer stated that he had analysed ‘whether there is a chance to produce biogas because of the question that came from [the] municipality’ (20,181,023–1).

A fourth reactive strategy that ZZZL members adopted to respond to the environment was to *use collaborative platforms* in which RWAs joined forces. Collaborations allowed ZZZL to stay informed on long-term developments. These developments for example included legislation, in a joint meeting to discuss future concerns about the EU Urban Wastewater Directive (20,180,927–1). Another example is the circular economy, with a discussion about the legal and technological aspects of resource extraction from wastewater in a specific RWA ‘frontrunners’ group (20,181,010–1).

On the other hand, to steer environmental and long-term ambitions, ZZZL members used the following proactive strategies. The first was to *proactively seek collaboration to be able to meet long-term objectives* for tasks in which there was a dependence on, or overlap in, tasks with other governmental institutions. This strategy was used for the topics of climate change adaptation (20,181,119–1) and water quality (20,181,127–1) and was embraced by both political assembly members and policy advisors to make

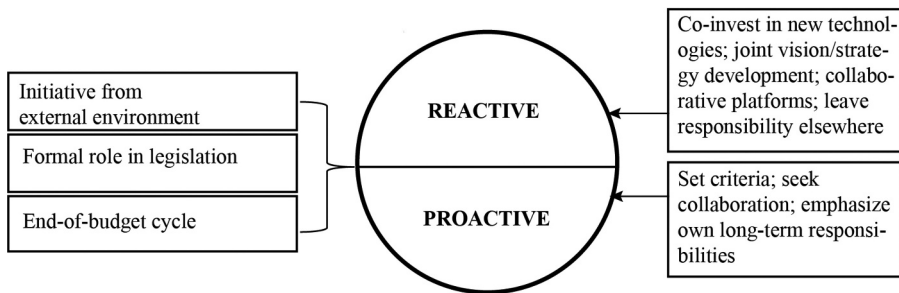
Conditions for dilemma to occur**Strategies to deal with dilemma**

Figure 5. Dilemma of *reactive versus proactive* stance towards the external environment.

sure that municipalities would take preventive measures to ensure a robust system or prevent too much water pollution.

A second proactive strategy was to *set criteria for activities developed by others, based on their fit with organizational long-term obligations*, because ‘not all requests are in line with our organizational objectives’ (20,181,017–1) and the organization would not have the capacity to honour them all (20,181,029–2). Organizational members, for example, proposed to invest in activities based on ‘business cases’ (20,181,017–1), ‘societal vigour’ (20,180,914–3) or specific ‘priorities’ (20,181,029–1).

A third proactive strategy was to *emphasize the formal and felt responsibilities* regarding long-term developments. This strategy was especially adopted by the chairperson and general assembly members to increase or question the legitimacy of long-term tasks such as climate change adaptation (including large investments in embankments, e.g. 20,181,127–2) and contributing to CO₂ emission reduction targets (e.g. 20,190,107–3). **Figure 5** summarizes this dilemma.

Discussion

We now first discuss the dilemmas presented in the previous section in relation to existing theory and then reposition them as reflecting an underlying duality. At the end of this section, we reflect briefly on the ethnographic methodology and its limitations and discuss directions for future research.

Object and objective focus: crossing scales and making forward-looking decisions

Central to this first dilemma is the question of how best to invest in long-term policy problems: at the level of separate investments in objects or at a more central-organizational level by focusing on reaching a specific objective. Here, long-term policy problems are especially understood by adopting a long time horizon. Therefore, this dilemma encompasses the theoretical cross-scale dilemma, because of the interaction of temporal scales (tackling long-term issues with present-day actions) and spatial scales (addressing the issue at the local object level or organizational and geographical area level) (Cash et al. 2006; Termeer, Dewulf, and Maartje 2010). The choice of whether to couple a number of long-term objectives and issues with a single

investment is a delicate act (van Buuren et al. 2014). It will also depend on whether organizational members use the need to invest in end-of-lifetime objects as a ‘window of opportunity’ to reach desired change (Tukker and Butter 2007; Kingdon 2011). When more long-term problems are connected to a single investment, it is likely that a forward-looking decision will be the result (Pot et al. 2018).

Stability and responsiveness: using political and bureaucratic resources for long-term objectives

The second dilemma identified, that of responsiveness versus stability, reflects at its core the tension between the strengths and powers of politics versus bureaucracy (Peters 2001). Here, long-term problems become part of organizational objectives. Bureaucrats have the advantage of stability because they are likely to stay in office longer than politicians and can therefore develop and implement longer-term plans without the complication of changing priorities (Boston and Pallot 1997). Bureaucrats also prepare annual budgets and can therefore propose how to allocate resources, including those targeted at long-term objectives. But the long-term plans and budgets of bureaucracy need to be approved by political executives. Because political executives are chosen via public elections, they need to be responsive to the external environment (Noordegraaf, Van Der Steen, and Van Twist 2014). As part of their close connections to the outside world, responsive politicians can signal changing circumstances, long-term trends and collaborative opportunities (Bryson, Crosby, and Stone 2015). As others have also argued, both stability and responsiveness are needed to address long-term problems (Voß, Smith, and Grin 2009; Janssen and Van der Voort 2016).

Reactiveness and proactiveness: strategic interaction with the external environment

The third dilemma is about reactivity versus proactivity towards the external environment. Here, long-term policy problems are mainly understood as belonging to the organization’s environment (O’Toole, Meier, and Nicholson-Crotty 2005). This environment is the ‘dynamic’, the ‘complexity’ that surrounds the organization (Mintzberg, Ahlstrand, and Lampel 1998, 289). A proactive approach to the long term resembles formal strategic planning. It uses objectives setting (Kemp and Loorbach 2007) and methods to grasp external pressures and long-term problems, such as a SWOT assessment (Mintzberg, Ahlstrand, and Lampel 1998) and foresight methods (Höglund et al. 2018). Proactivity may stimulate the alignment of budgets and organizational commitment with strategic priorities (Poister 2010). Pitfalls of proactivity include goal fixation (Klein 2011), detachment from real-world issues (Mintzberg, Ahlstrand, and Lampel 1998), overreliance on data (Poister 2010), and a potential overestimation of the steering capacity of the organization (Underdal 2010). An outward-oriented reactive approach can help to avoid pitfalls because it allows the organization to understand, adapt and learn from external pressures, and to signal cues, anomalies and opportunities (Klein 2011; Termeer and Margo 2013). Ideally, organizations combine a reactive and proactive strategy towards the external environment by both formulating long-term objectives to address the future and remaining flexible to respond to new insights that emerge (Jan-Peter, Smith, and Grin 2009).

Strategic agility as duality for dealing with long-term problems

The theoretical exploration of the dilemmas above enables us to reposition the dilemmas as reflecting an underlying duality. Instead of representing a choice, a duality forms a both/and perspective (Farjoun 2010). This expands the repertoire of options available to organizations.

Rather than responding to a dilemma by choosing one side over the other, it becomes possible to devise strategies that address both sides of the underlying duality:

- *Realizing objectives with investments in objects* by assessing what objectives and problems to connect to investments in objects and to determine how investments can contribute to long-term objectives;
- Adopting a *responsive and stable approach* to address long-term problems by dedicating resources to long-term plans, while leaving room to manoeuvre for political executives to select specific long-term objectives to focus on;
- Taking a *reactive and proactive* stance to the organizational environment by both signalling and prioritizing future developments, trends, insights and opportunities to consider.

We will call this underlying duality *strategic agility*. Strategic agility refers to the ability to respond proactively to unexpected developments and is a requirement for organizations to deal with a variety of possible futures (Appelbaum et al. 2017; Howlett, Capano, and Ramesh 2018; OECD 2011). Responding proactively requires the presence of both a long-term organizational strategy and specific organizational processes that facilitate learning-by-doing. Responsiveness, reactivity and an object focus fit well with the concept of agility because they allow the organization to *accommodate* changing insights and circumstances (Worley and Lawler 2010). The other part of the dilemmas, stability, proactiveness and objective focus fits a strategic perspective and allow the organization to *steer* change by formulating long-term objectives and prioritizing activities and scarce resources (Brown 2010).

Reflections on the ethnographic method and the transferability of research findings

The main contribution of ethnography to the field of public management is to observe the everyday life within public sector organizations by being present in the field (Huby, Harries, and Grant 2011). The focus on everyday practices implied that we did not restrict our research in advance to, for example, specific practices or specific long-term problems. With this broad focus we did not just capture the specific processes in which public sectors aim to deal with long-term policy problems, such as strategy development. Instead, the revealed dilemmas were found to be present in many of the day-to-day-operational practices of public sector organizations, including those of preparing elections, budgeting, vision development and political decision-making. By using ethnography, we were also able to theorize the tension between the short term and long term within public sector organizations. Existing literature has questioned the extent to which governments are able to pay attention to long-term problems, highlighting governmental myopia and often proposing reforms and new institutions (Bührs 2012; Boston 2017). This article reveals

the conditions and strategies that members of public sector organizations enable and use to address long-term policy problems. Three main limitations, or criticisms, arise in relation to ethnography, to which we would like to respond here. First of all, the ethnographer inevitably influences behaviour and reasoning by being present at the field site. Therefore Gioia et al. (2013) recommend to add an outside researcher to interpretative studies. We followed this advice by using the second and third author to reflect on observations and findings during the fieldwork and writing process. Furthermore, to avoid going native, it helps to embrace a form of yo-yo-fieldwork: going in and out of the field during the data collection and analysis phase (Rhodes 2014). Secondly, results of an ethnographic study cannot easily be transferred to other settings because ethnographic research is an interpretative methods that often lacks rigour (Gioia, Corley, and Hamilton 2013). We agree with Rhodes that ‘small facts speak to large issues’ (2014, 321) and that our findings reveal typical dilemmas of addressing long-term policy problems in everyday practices of public sector organizations. The patterns, in the form of the identified dilemmas and strategies, could serve as transferable heuristics. Also, the data collection and analysis steps provided ensure a more thorough and transparent process that could be adopted by other researchers who aim to do ethnography. Thirdly, gaining access to field sites and relevant observations can be difficult. Ethnographic research is strengthened when the ethnographer can build on existing relations as well as experience in the field to gain access to, and earn trust from, organizational members.

As a first direction for future research, ethnography could be used together with narrative or discourse analysis techniques to explore more extensively the different meanings or frames for long-term policy problems. Secondly, we recommend studying other types of organizations on the basis of the same research design to see whether similar or different dilemmas emerge in different contexts. Thirdly, qualitative comparative analysis could contribute to further exploring what combinations of conditions or strategies, that were part of the distinguished dilemmas, enable addressing long-term policy problems in everyday practices. Lastly, it would be valuable to further explore characteristics and empirical evidence of strategic agility in public sector organizations and its implications for organizational design, for example by means of a systematic literature review.

Conclusion

This article adopted an ethnographic research approach to understand how governmental actors deal with long-term policy problems in their everyday practices. As a research setting, we selected the case of a Dutch regional water authority, an organization that, on paper, has a clear need to address long-term problems because of its institutional responsibility for long-term water management. We found four ways to understand and communicate about long-term policy problems: as part of the external environment, connected to a long time horizon, as long-term objectives, and as future developments. We revealed three organizational dilemmas of dealing with long-term policy problems: investing in the realization of objects or objectives, adopting a stable or responsive approach to address long-term issues, and taking a proactive or reactive stance towards the external environment. We repositioned these dilemmas as reflecting the underlying duality of strategic agility. This enables organizations to respond proactively to unexpected developments by being able to devise strategies to

steer as well as to accommodate change, as both are crucial for dealing with long-term policy problems.

Note

1. https://www.zuiderzeeland.nl/over_ons/organisatieverhaal/ (15 December 2019)

Acknowledgments

The authors are grateful to *Regional Water Authority Zuiderzeeland* for hosting the ethnographer during the fieldwork period and for providing access to all required data.

Funding

This work was supported by the Nederlandse Organisatie voor Wetenschappelijk Onderzoek [869.15.012]

Notes on contributors

Wieke D. Pot, MSc. is Assistant Professor at the Public Administration and Policy Group at Wageningen University, the Netherlands. Her research addresses long-term decision making in public sector organizations, water governance and investment decisions in end-of-lifetime infrastructure. After finishing her Master in Public Administration, she worked as a strategy consultant and manager.

Prof. Dr. Art Dewulf is Professor at the Public Administration and Policy Group, Wageningen University & Research, the Netherlands. He studies complex problems of natural resource governance with a focus on the interactive processes of sensemaking and decision making in water and climate governance. He has published extensively on issue framing, decision making under uncertainty, and the governance of wicked problems.

Prof. Dr. Ir. Catrien J.A.M. Termeer is Chair of the Public Administration and Policy Group at Wageningen University & Research, the Netherlands. Her research addresses the governance of wicked problems in the policy domains of sustainable agri-food systems, adaptation to climate change and vital rural areas. Previously, she worked at other universities; at the Ministry of Agriculture; and at Sioo, Centre for Organizational Change and Learning. She is also a Crown member of the Social and Economic Council of the Netherlands.

ORCID

Wieke D. Pot  <http://orcid.org/0000-0001-8925-7539>

Art Dewulf  <http://orcid.org/0000-0002-4171-7644>

Catrien J.A.M. Termeer  <http://orcid.org/0000-0001-7396-1476>

References

- Agar, M. 1996. *The Professional Stranger. An Informal Introduction to Ethnography*. 2nd (revis). New York, NY: Emerald Publishing.
- Appelbaum, S. H., R. Calla, D. Desautels, and L. Hasan. 2017. "The Challenges of Organizational Agility (Part 1)." *Industrial and Commercial Training* 49 (1): 6–14. doi:10.1108/ICT-05-2016-0027.
- Bai, X., S. van der Leeuw, K. O'Brien, F. Berkhout, E. S. Frank Biermann, C. C. Brondizio, C. Cudennec, et al. 2015. "Plausible and Desirable Futures in the Anthropocene: A New Research Agenda." *Global Environmental Change* 39: 351–362. doi:10.1016/j.gloenvcha.2015.09.017.

- Bauer, A. 2018. "When Is the Future? Temporal Ordering in Anticipatory Policy Advice." *Futures*, no. June: 0–1. doi:10.1016/j.futures.2018.06.002.
- Berti, M., and A. Simpson. 2019. "The Dark Side of Organizational Paradoxes: The Dynamics of Disempowerment." *Academy of Management Review*, in press. doi:10.5465/amr.2017.0208.
- Boeije, H. 2002. "A Purposeful Approach to the Constant Comparative Method in the Analysis of Qualitative Interviews." *Quality & Quantity* 36: 391–409. doi:10.1023/A:1020909529486.
- Bonfiglioli, A., and G. Gancia. 2013. "Uncertainty, Electoral Incentives and Political Myopia." *The Economic Journal* 123 (568): 373–400. doi:10.1111/econj.12029.
- Boston, J. 2017. *Governing for the Future: Designing Democratic Institutions for a Better Tomorrow*. Bradford, UK: Emerald.
- Boston, J., and J. Pallot. 1997. "Linking Strategy and Performance: Developments in the New Zealand Public Sector." *Journal of Policy Analysis and Management* 16 (3): 382–404. doi:10.1002/1520-6688(199722)16:3<382::AID-PAM18>3.0.CO;2-S.
- Boswell, J., J. Corbett, and R. A. W. Rhodes. 2019. *The Art and Craft of Comparison*. Cambridge: Cambridge University Press. <https://www.cambridge.org/core/books/art-and-craft-of-comparison/D7BD358158B5444D1E1D1122A0114C5BA0114C5B>
- Brown, T. L. 2010. "The Evolution of Public Sector Strategy." *Public Administration Review* 70: S212–14. doi:10.1111/j.1540-6210.2010.02275.x.
- Bryson, J. M., B. C. Crosby, and M. M. Stone. 2015. "Designing and Implementing Cross-Sector Collaborations: Needed and Challenging." *Public Administration Review* 75 (5): 647–663. doi:10.1111/puar.12432.
- Bryson, J. M., and F. S. Berry. 2010. "The State of Public Strategic Management Research: A Selective Literature Review and Set of Future Directions." *The American Review of Public Administration* 40 (5): 495–521. doi:10.1177/0275074010370361.
- Bryson, J. M., L. H. Edwards, and D. M. Van Slyke. 2018. "Getting Strategic about Strategic Planning Research." *Public Management Review* 20 (3): 317–339. doi:10.1080/14719037.2017.1285111.
- Bührs, T. 2012. "Democracy's Myopia: The Search for Correction Aids." *Australian Journal of Political Science* 47 (3): 413–425. doi:10.1080/10361146.2012.704349.
- Buuren, A. V., and D. Loorbach. 2009. "Policy Innovation in Isolation? Conditions for Policy Renewal by Transition Arenas and Pilot Projects." *Public Management Review* 11 (3): 375–392. doi:10.1080/14719030902798289.
- Cash, D. W., W. N. Adger, F. Berkes, P. Garden, L. Lebel, P. Olsson, L. Pritchard, and O. Young. 2006. "Scale and Cross-Scale Dynamics: Governance and Information in a Multilevel World." *Ecology and Society* 11 (2): 8. doi:org/8.
- Dewulf, A., and R. Biesbroek. 2018. "Nine Lives of Uncertainty in Decision-Making: Strategies for Dealing with Uncertainty in Environmental Governance." *Policy and Society* 37 (4): 1–18. doi:10.1080/14494035.2018.1504484.
- Dorp, E. J. 2018. "Trapped in the Hierarchy: The Craft of Dutch City Managers." *Public Management Review* 20 (8): 1228–1245. doi:10.1080/14719037.2017.1383783.
- Dutch Water Authorities. 2010. "Klimaatakkoord Unie En Rijk 2010-2020." Apeldoorn. <https://www.uvw.nl/wp-content/uploads/2010/07/Klimaatakkoord-Unie-en-Rijk-2010-2020.pdf>
- Dutch Water Authorities. 2017. *Water Governance: The Dutch Water Authority Model*. The Hague: Opmeeer BV. <https://dutchwaterauthorities.com/wp-content/uploads/2017/08/Water-Governance-The-Dutch-Water-Authority-Model-2017-1.pdf>
- Emerson, R. M., R. I. Fretz, and L. L. Shaw. 2011. "Writing Ethnographic Fieldnotes." In *2nd Ed.* Chicago, IL: University of Chicago Press.
- Erlanson, D. A., E. L. Harris, B. L. Skipper, and S. D. Allen. 1993. *Doing Naturalistic Inquiry. A Guide to Methods*. Newbury Park, CA: Sage.
- Eshuis, J., and V. B. Arwin. 2014. "Innovations in Water Governance: The Importance of Time." *International Review of Administrative Sciences* 80 (2): 401–420. doi:10.1177/0020852313514518.
- Farjoun, M. 2010. "Beyond Dualism: Stability and Change as a Duality." *Academy of Management Review* 35 (2): 202–225. doi:10.5465/amr.35.2.zok202.
- Ferraro, F., D. Etzion, and J. Gehman. 2015. "Tackling Grand Challenges Pragmatically: Robust Action Revisited." *Organization Studies* 36 (3): 363–390. doi:10.1177/0170840614563742.
- Foxon, T. J., M. S. Reed, and L. C. Stringer. 2009. "Governing Long-Term Social-Ecological Change: What Can the Adaptive Management and Transition Management Approaches Learn from Each Other?" *Environmental Policy and Governance* 19 (1): 3–20. doi:10.1002/eet.496.

- Gieske, H., B. George, I. van Meerkerk, and V. B. Arwin. 2020. "Innovating and Optimizing in Public Organizations: Does More Become Less?" *Public Management Review* 22 (4): 475–497. doi:10.1080/14719037.2019.1588356.
- Gieske, H., M. Duijn, and V. B. Arwin. 2019. "Ambidextrous Practices in Public Service Organizations: Innovation and Optimization Tensions in Dutch Water Authorities." *Public Management Review* 22 (3): 341–363. doi:10.1080/14719037.2019.1588354.
- Gioia, D. A., K. G. Corley, and A. L. Hamilton. 2013. "Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology." *Organizational Research Methods* 16 (1): 15–31. doi:10.1177/1094428112452151.
- Goetz, K. H. 2014. "A Question of Time: Responsive and Responsible Democratic Politics." *West European Politics* 37 (2): 379–399. doi:10.1080/01402382.2014.887880.
- Hansen, J. R., and E. Ferlie. 2016. "Applying Strategic Management Theories in Public Sector Organizations: Developing a Typology." *Public Management Review* 18 (1): 1–19. doi:10.1080/14719037.2014.957339.
- Höglund, L., M. H. Caicedo, M. Mårtensson, and S. Fredrik. 2018. "Strategic Management in the Public Sector: How Tools Enable and Constrain Strategy Making." *International Public Management Journal* 21 (5): 822–849. doi:10.1080/10967494.2018.1427161.
- Howlett, M., G. Capano, and M. Ramesh. 2018. "Designing for Robustness: Surprise, Agility and Improvisation in Policy Design." *Policy and Society* 37 (4): 405–421. doi:10.1080/14494035.2018.1504488.
- Huby, G., J. Harries, and S. Grant. 2011. "Contributions of Ethnography to the Study of Public Services Management past and Present Realities." *Public Management Review* 13 (2): 209–225. doi:10.1080/14719037.2010.532969.
- Jacobs, A. M. 2011. *Governing for the Long Term*. New York, NY: Cambridge University Press.
- Jalonen, K., H. Schildt, and E. Vaara. 2018. "Strategic Concepts as Micro-Level Tools in Strategic Sensemaking." *Strategic Management Journal*. doi:10.1002/smj.2924.
- Jan-Peter, V., A. Smith, and J. Grin. 2009. "Designing Long-Term Policy: Rethinking Transition Management." *Policy Sciences* 42 (4): 275–302. doi:10.1007/s11077-009-9103-5.
- Janssen, M., and V. D. V. Haiko. 2016. "Adaptive Governance: Towards a Stable, Accountable and Responsive Government." *Government Information Quarterly* 33 (1): 1–5. doi:10.1016/j.giq.2016.02.003.
- Jordan, A., H. Dave Huitema, V. Asselt, T. Rayner, and F. Berkhout. 2010. *Climate Change Policy in the European Union: Confronting the Dilemmas of Adaptation and Mitigation?* Cambridge, UK: Cambridge University Press.
- Kaivo-oja, J. Y., T. S. Katko, and O. T. Seppälä. 2004. "Seeking Convergence between History and Futures Research." *Futures* 36 (5): 527–547. doi:10.1016/j.futures.2003.10.017.
- Kamperman, H., and R. Biesbroek. 2017. "Measuring Progress on Climate Change Adaptation Policy by Dutch Water Boards." *Water Resources Management*. doi:10.1007/s11269-017-1765-8.
- Kemp, R., and D. Loorbach. 2007. "Transition Management as a Model for Managing Processes of Co-Evolution Towards Sustainable Development." *International Journal of Sustainable Development* 14 (1): 78–91. doi:10.1080/13504500709469709.
- Kingdon, J. W. 2011. *Agendas, Alternatives and Public Policies*. 2nd ed. Boston: Longman.
- Klein, G. 2011. *Streetlights and Shadows: Searching for the Keys to Adaptive Decision Making*. Cambridge, MA: MIT Press.
- Kwakkel, J. H., W. E. Walker, and M. Haasnoot. 2016. "Coping with the Wickedness of Public Policy Problems: Approaches for Decision Making under Deep Uncertainty." *Journal of Water Resources Planning and Management* 142 (3): 1–5. doi:10.1061/(ASCE)WR.1943-5452.0000626.
- Lazarus, R. J. 2008. "Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future." *Cornell Law Review* 94: 1153–1234.
- Mintzberg, H. 1973. *The Nature of Managerial Work*. New York, NY: HarperCollins Publishers.
- Mintzberg, H., B. Ahlstrand, and J. Lampel. 1998. *Strategy Safari. A Guided Tour through the Wilds of Strategic Management*. New York: Free Press. <http://www.myindustry.ir/files/Strategy-Safari-Mintzberg.pdf>
- Mostert, E. 2017. "Between Arguments, Interests and Expertise: The Institutional Development of the Dutch Water Boards, 1953–Present." *Water History* 9 (2): 129–146. doi:10.1007/s12685-016-0154-1.

- Noordegraaf, M., S. Van Der Voort, and T. Van Mark. 2014. "Fragmented or Connective Professionalism? Strategies for Professionalizing the Work of Strategists and Other (Organizational) Professionals." *Public Administration* 92 (1): 21–38. doi:10.1111/padm.12018.
- O'Toole, L., K. Meier, and S. Nicholson-Crotty. 2005. "Managing Upward, Downward and Outward: Networks, Hierarchical Relationships and Performance." *Public Management Review* 7 (1): 45–68. doi:10.1080/1471903042000339419.
- OECD. 2011. "International Workshop 'Strategic Agility for Strong Societies and Economies'. Summary and Issues for Further Debate." Paris. [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=GOV/PGC/PGR\(2012\)1&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=GOV/PGC/PGR(2012)1&docLanguage=En)
- Peters, G. B. 2001. *The Politics of Bureaucracy*. New York, NY: Routledge.
- Poister, T. H. 2010. "The Future of Strategic Planning in the Public Sector: Linking Strategic Management and Performance." *Public Administration Review* 70: s246–54. <https://doi.org/10.1111/j.1540-6210.2010.02284.x>.
- Pörtner, H.-O., D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, et al. 2019. "IPCC Special Report on the Ocean and Cryosphere in a Changing Climate." <https://www.ipcc.ch/srocc/download-report-2/>
- Pot, W. D., A. Dewulf, G. R. Biesbroek, M. J. van der Vlist, and C. J. A. M. Termeer. 2018. "What Makes Long-Term Investment Decisions Forward Looking: A Framework Applied to the Case of Amsterdam's New Sea Lock." *Technological Forecasting and Social Change* 132: 174–190. July 2018. doi:10.1016/j.techfore.2018.01.031.
- Poulsen, B. 2009. "Competing Traditions of Governance and Dilemmas of Administrative Accountability: The Case of Denmark." *Public Administration* 87 (1): 117–131. doi:10.1111/j.1467-9299.2008.00727.x.
- Rhodes, R. A. W. 2014. "'Genre Blurring' and Public Administration: What Can We Learn from Ethnography?" *Australian Journal of Public Administration* 73 (3): 317–330. doi:10.1111/1467-8500.12085.
- Rhodes, R. A. W., P. T. Hart, and M. Noordegraaf. 2007. *Observing Government Elites. Up Close and Personal*. New York, NY: Palgrave Macmillan.
- Rickards, L., J. Wiseman, T. Edwards, and C. Biggs. 2014. "The Problem of Fit: Scenario Planning and Climate Change Adaptation in the Public Sector." *Environment and Planning, C, Government & Policy* 32 (4): 641–662. doi:10.1068/c12106.
- Schmidhuber, L., and M. Wiener. 2018. "Aiming for a Sustainable Future: Conceptualizing Public Open Foresight." *Public Management Review* 20 (1): 82–107. doi:10.1080/14719037.2017.1293145.
- Segrave, A., M. Van Der Zouwen, and W. Van Vierssen. 2014. "Water Planning: From What Time Perspective?" *Technological Forecasting and Social Change* 86: 157–167. doi:10.1016/j.techfore.2013.08.019.
- Seidl, D., and F. Werle. 2018. "Inter-Organizational Sensemaking in the Face of Strategic Meta-Problems: Requisite Variety and Dynamics of Participation." *Strategic Management Journal* 39: 830–858. doi:10.1002/smj.2723.
- Smits, H. 1970. "Land Reclamation in the Former Zuyder Zee in the Netherlands." *Geoforum* 4: 37–44. doi:10.1016/0016-7185(70)90057-6
- Sprinz, D. F. 2009. "Long-Term Environmental Policy: Definition, Knowledge, Future Research." *Global Environmental Politics* 9 (3): 1–8. doi:10.1162/glep.2009.9.3.1.
- Strauss, A., and J. Corbin. 1998. *Basics of Qualitative Research. Techniques and Procedures for Developing Grounded Theory*. 2nd editio. Thousand Oaks, CA: Sage.
- Termeer, C. J. A. M., A. Dewulf, and V. L. Maartje. 2010. "Disentangling Scale Approaches in Governance Research: Comparing Monocentric, Multilevel, and Adaptive Governance." *Ecology and Society* 15 (4): 29. doi:10.1093/mp/ssn080.
- Termeer, C. J. A. M., and B. van der Margo. 2013. "Organizational Conditions for Dealing with the Unknown Unknown." *Public Management Review* 15 (1): 43–62. doi:10.1080/14719037.2012.664014.
- Tukker, A., and M. Butter. 2007. "Governance of Sustainable Transitions: About the 4 (0) ways to Change the World." *Journal of Cleaner Production* 15 (1): 94–103. doi:10.1016/j.jclepro.2005.08.016.
- Underdal, A. 2010. "Complexity and Challenges of Long-Term Environmental Governance." *Global Environmental Change* 20 (3): 386–393. doi:10.1016/j.gloenvcha.2010.02.005.
- Van Berkel, F. J., F. W. van, J. E. Ferguson, and P. Groenewegen. 2016. "Speedy Delivery versus Long-Term Objectives: How Time Pressure Affects Coordination between Temporary Projects and Permanent Organizations." *Long Range Planning* 49 (6): 661–673. doi:10.1016/j.lrp.2016.04.001.

- van Buuren, A., P. Driessen, G. Teisman, and M. van Rijswijk. 2014. "Toward Legitimate Governance Strategies for Climate Adaptation in the Netherlands: Combining Insights from a Legal, Planning, and Network Perspective." *Regional Environmental Change* 14 (3): 1021–1033. doi:10.1007/s10113-013-0448-0.
- Van Maanen, J.. 1988. *Tales of the Field. On Writing Ethnography*. Chicago, IL: University of Chicago Press.
- Vink, M., M. van der Steen, and A. Dewulf. 2016. "Dealing with Long-Term Policy Problems: Making Sense of the Interplay of Meaning and Power." *Futures* 76 (2016): 1–6. doi:10.1016/j.futures.2016.01.003.
- Volkery, A., and T. Ribeiro. 2009. "Scenario Planning in Public Policy: Understanding Use, Impacts and the Role of Institutional Context Factors." *Technological Forecasting and Social Change* 76 (9): 1198–1207. doi:10.1016/j.techfore.2009.07.009.
- Williams, W., D. Lewis, D. Lewis, and D. Lewis. 2008. "Strategic Management Tools and Public Sector Management." *Public Management Review* 10 (5): 653–671. doi:10.1080/14719030802264382.
- Wolf, A., and K. J. Baehler. 2018. "Learning Transferable Lessons from Single Cases in Comparative Policy Analysis." *Journal of Comparative Policy Analysis: Research and Practice* 20 (4): 420–434. doi:10.1080/13876988.2017.1399578.
- Wolf, E. E. A., and D. Van Wouter. 2018. "'Time to Move On' or 'Taking More Time'? How Disregarding Multiple Perspectives on Time Can Increase Policy-Making Conflict." *Environment and Planning C: Politics and Space* 36 (2): 340–356. doi:10.1177/2399654417712243.
- Worley, C. G., and E. E. Lawler. 2010. "Agility and Organization Design: A Diagnostic Framework." *Organizational Dynamics* 39 (2): 194–204. doi:10.1016/j.orgdyn.2010.01.006.
- Ybema, S., F. Kamsteeg, and K. Veldhuizen. 2018. "Sensitivity to Situated Positionings: Generating Insight into Organizational Change." *Management Learning* 50 (2): 189–207. doi:10.1177/1350507618808656.