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A framework for assessing the accountability of local governance arrangements for adaptation to climate change

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Accountability has hardly been studied in the governance of climate change adaptation. This paper develops a framework for assessing the accountability of interactive governance arrangements for local adaptation. This framework is based on five important accountability mechanisms: Clear responsibilities and mandates, Transparency, Political oversight, Citizen control and Checks and sanctions. For illustration purposes, the proposed framework is applied to the case of a Dutch local adaptation governance arrangement. The application shows that the five proposed mechanisms and their operationalizations offer a valid assessment of the accountability of such arrangements. It also raises some challenges, such as the tensions between accountability and flexibility, legitimacy and effectiveness; the potentially important roles of trust and of the political skills of central actor(s) in the arrangement in raising accountability, and the potential need to distinguish between arrangements for policy planning and for service delivery.

Keywords: accountability; interactive governance arrangements; assessment framework; climate change adaptation

1. Introduction

In (environmental) governance theory and practice, interactive governance has become increasingly important for effective processes of decision-making for, and implementation of, public services (e.g. Sørensen and Torfing 2007; Provan and Kenis 2008; Driessen *et al.* 2012; Jedd and Bixler 2015). Interactive governance is about "the complex process through which a plurality of social and political actors with diverging interests interact in order to formulate, promote, and achieve common objectives by means of mobilizing, exchanging, and deploying a ranges of ideas, rules, and resources" (Torfing *et al.* 2012, 2–3). In this paper, we use the term interactive governance arrangements. These relate to some form of organization (as opposed to hierarchical government or self-governance) in which multiple actors of the state, market and civil society collaborate on equal terms on the basis of deliberation and negotiation within predefined boundaries set by the government (Driessen *et al.* 2012). In such arrangements, policy-making takes place interactively between multiple actors based on trust and reciprocity in entities such as networks and partnerships.

The decline of traditional state-centric governing mechanisms and the rise of new interactive governance arrangements such as networks and partnerships raise accountability concerns in the democratic governance of society (e.g. Van Kersbergen and Van Waarden 2004; Sørensen and Torfing 2005; Bäckstrand 2006; Joss 2010; Klijn

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and Koppenjan 2014; Forrer *et al.* 2010). This shift threatens to make established mechanisms of accountability such as elections, hierarchy, judicial proceedings and auditing obsolete (Van Kersbergen and Van Waarden 2004; Papadopoulos 2007; Klijn and Koppenjan 2014). The relationships in such interactive arrangements are horizontal and between organizations, rather than vertical and within organizations (Forrer *et al.* 2010), thereby weakening the traditional means of oversight and control in principal–agent relationships. Moreover, the plurality of actors in interactive governance arrangements dilutes responsibility and authority, making it difficult to hold the arrangement to account for its decisions and actions (e.g. Klijn and Koppenjan 2014; Papadoupolos 2007; Newman 2004).

Adaptation to climate change requires locally appropriate activities and place-based solutions to increase the resilience of communities to the impacts of climate change (Grasso 2010). It is often argued that adaptation needs an interactive approach in which the public authorities purposely involve local stakeholders and affected citizens in their adaptation planning and implementation (e.g. Mees 2017; Wamsler 2016; Juhola and Westerhoff 2011; Tompkins and Eakin 2012). Including those stakeholders in interactive arrangements is important for local climate adaptation, which is very much dependent on adaptive measures to private properties from housing associations, private developers and citizens. Hence, it may raise similar accountability concerns as described above.

However, in the adaptation governance literature, the issue of accountability is still barely addressed, conceptually and empirically. In the public administration literature, the issue of accountability in interactive governance has been discussed, for instance, in studies on network governance and public–private partnerships. Generally, these studies are conceptually well elaborated. In particular, the network governance literature has started to discuss the democratic legitimacy of networks in terms of legitimacy, transparency and accountability. However, there is still a lack of work on evaluation criteria (Torfing *et al.* 2012) and of empirical evaluations (Bovens 2007). Also, there appears to be a gap in concrete operationalizations of criteria with which the accountability of interactive arrangements can be empirically studied (Benner, Reinicke, and Witte 2004; Sørensen 2013). A first step to address these knowledge gaps is to develop clear criteria with which the accountability of local adaptation arrangements can be empirically assessed. Borrowing from the literature on the accountability of network governance and of public–private partnerships, this paper aims to contribute to the adaptation governance literature by developing a framework to empirically assess the accountability of interactive governance arrangements for adaptation, and to identify deficits in, particularly, accountability mechanisms.

In Section 2, a literature review is given, on the basis of which a framework is presented in Section 3 for the assessment of the accountability of climate adaptation arrangements. Section 4 provides an illustration of the applicability of the framework to a Dutch local adaptation arrangement, and discusses some initial results with respect to its accountability. Section 5 provides a reflection on the applicability of the framework, and discusses some of the tensions and challenges that surfaced from the application.

2. Accountability

2.1. Public accountability

In its core meaning, accountability refers to actors, organizations, leaders, etc. being called to account to some authority for their actions according to some set standard

(Mason 2008; Mulgan 2000). It is historically and semantically related to ‘accounting’ in the meaning of bookkeeping (Bovens 2007). Nowadays, accountability is connected with the discourse of ‘good governance’, in which case accountability is seen as a virtue (Bovens, Goodin, and Schillemans 2014) rather than tied with financial administration and bookkeeping (Bovens 2007).

The concept of accountability has been studied and applied in several scientific disciplines, most prominently by governance scholars and political scientists, resulting in a lack of conceptual consensus on what the concept entails (Bovens, Goodin, and Schillemans 2014). This makes accountability an elusive, multi-interpretable concept (Mulgan 2000; Koppell 2005). Irrespective of the different interpretations, two common ideas appear to exist among scholars. First, accountability is about relationships between actors or between actors and the public at large. Second, the essence of accountability is answerability (Bovens, Goodin, and Schillemans 2014). As Brinkerhoff (2004, 372) puts it “… agencies or individuals have an obligation to answer questions regarding their decisions and/or actions.” This means that the actor(s) who is/are accountable should provide information on what they have done/decided, and give a justification for their decisions/actions.

Adding to the lack of conceptual clarity is the fact that accountability is often intertwined with other concepts such as responsibility (e.g. Mason 2008; Mulgan 2000; Peters 2014), legitimacy (e.g. Bovens 2007; Bäckstrand 2006; Van Kersbergen and Van Waarden 2004), transparency (e.g. Bovens 2007; Mulgan 2000), democratic governance (e.g. Sørensen and Torfing 2005), and good governance (e.g. Lockwood 2010; Joss 2010). In this paper, we regard these related concepts as different mechanisms for constituting accountability. Mechanisms are ways to achieve accountability, such as, for instance, via the democratic control from politicians and the transparency of decision-making processes. So, mechanisms are forms or instruments by which a governance arrangement can be held accountable (Bovens, Goodin, and Schillemans 2014; Klijn and Koppenjan 2014). The focus of this research, therefore, is not on whether the actors in the governance arrangement have acted in an accountable way, but on which mechanisms are used and to what degree they are prevalent, in order to hold a governance arrangement collectively accountable (Sørensen 2012).

Accountability has become a container concept for all kinds of mechanisms that make powerful institutions accountable to their publics. In this paper, we adopt the narrow definition of Bovens (2007, 450): “Accountability is a relationship between an actor and a forum, in which the actor has an obligation to explain and justify his or her conduct, the forum can pose questions and pass judgement, and the actor may face consequences.” We follow Bovens, Goodin, and Schillemans (2014) in their framing of ‘public accountability’ as the accountability for a public cause by the public. Public accountability refers to the fact that accountability regards matters open to scrutiny by the general public for matters of public interest and/or with a public purpose. It is about “accountability in and about the public domain” (Bovens, Goodin, and Schillemans 2014, 7). The public domain is not necessarily limited to the realms of public authorities, and can extend to the private sector (businesses, citizens and civil society organizations) to create public value, for instance, by providing a public good or service. Adaptation to climate change is increasingly understood as a public issue that needs the involvement of society as a whole to tackle it, even if current adaptation policy-making and action is still largely dominated by the public sector (e.g. Mees 2017; Klein, Mäntysalo, and Juhola 2016).

2.2. Public accountability and interactive governance arrangements

In parliamentary democracies, the traditional form of public accountability has been that authorities are accountable to the public through bureaucratic rules and elections. Elections enable people to hold their governments accountable for their past actions. Governments are accountable to elected politicians and the public at large for the fulfilment of public trust, for the representation of citizens' interests and for responding to societal needs (Brinkerhoff 2004; Romzek 2000; Koppell 2005). These mechanisms of accountability are increasingly put under pressure due to the shift from government to governance and the rise of interactive governance arrangements such as networks and partnerships (e.g. Klijn and Koppenjan 2014; Papadopoulos 2007; Sørensen and Torfing 2005).

The complexity from having a multitude of diverse actors in a governance arrangement makes its accountability more complicated and diversified (Klijn and Koppenjan 2014). It is argued that the involvement of diverse actors in policy-making requires new, multiple forms of accountability (Sørensen and Torfing 2005; Klijn and Skelcher 2007; Benner, Reinicke, and Witte 2004), alongside but not necessarily replacing traditional mechanisms (Jedd and Bixler 2015). The following list gives a brief account of commonly cited accountability challenges in networks and partnerships:

- *Unclear and shared responsibility and authority*. This entails ambiguous responsibilities and mandates stemming from the social complexity and diversity of actors that coproduce policy design and policy implementation. Even if individual actors in the arrangement can be held accountable by their own constituencies, how can the arrangement be collectively held accountable? (e.g. Klijn and Koppenjan 2014; Joss 2010; Papadoupolos 2007; Jedd and Bixler 2015; Forrer *et al.* 2010; Goldsmith and Eggers 2004; Bovaird 2004); What is the license to govern for the arrangement as a whole?
- *Opaqueness and closed character of governance arrangements*. What exactly happens in those arrangements is difficult to follow for outsiders. Decisions are often intentionally informal and opaque, to make it easier to negotiate and make compromises (e.g. Sørensen 2013), or for the sake of commercial confidentiality of the private business partners (e.g. Bovaird 2004; Forrer *et al.* 2010). However, the mutual interest and trust building that occurs to enhance the performance of a network can easily turn into an old boys network (Harlow and Rawlings 2007), whose doings and decisions are invisible to those outside of the arrangement (e.g. Klijn and Koppenjan 2014; Papadoupolos 2007);
- *Isolation from democratic institutions*. The political control of public–private partnerships is diluted (Bovaird 2004). Interactive arrangements such as partnerships and networks often operate in isolation from the scrutiny by official representative bodies, so that their 'democratic anchorage' is seriously weakened (Sørensen and Torfing 2005). Oversight is largely delegated to public administrators, who are sometimes part of the arrangement themselves. Those public administrators are only indirectly accountable to the public through a long chain of delegation (e.g. Hahn 2011; Klijn and Skelcher 2007; Papadoupolos 2007);
- *Lack of inclusive interest representation*. Interactive arrangements are often composed of public administrators, policy experts, interest representatives, NGOs, and private stakeholders. NGOs and the like usually have limited constituencies. Moreover, not all societal interests may have been included in the arrangement, or

have the capacity to organize themselves in civil society organizations (e.g. Papadoupolos 2007; Hahn 2011). This is particularly true for vulnerable parts of society. Many civil society organizations have an upper-class bias, and citizen participation is often skewed towards white middle-class men with sufficient resources. Moreover, Joss (2010) found that, because of their complex scientific character, sustainability discourses such as climate change tend to be dominated by professionals and technocrats, thereby excluding members of the public and affected local residents;

- *Absence of traditional checks and sanctions*. It is difficult to hold an arrangement accountable through traditional forms of enforceable controls and sanctions. The actors in an arrangement are often (self-) appointed and exit options are very limited; actors cannot be removed at the next public election. Interactive arrangements are characterized by horizontal (interorganizational) relationships, rather than clear, vertical principal–agent relationships (e.g. Benner, Reinicke, and Witte 2004; Forrer *et al.* 2010). Therefore, the actors in the arrangement cannot be easily 'punished' by their principals for deviant behaviour. Posing sanctions through the judicial system is also problematic or more complex (e.g. Klijn and Koppenjan 2014; Harlow and Rawlings 2007; Papadoupolos 2007; Sørensen and Torfing 2005).

3. Assessment framework for local adaptation arrangements

In this section, five mechanisms are discussed of relevance to overcoming the accountability challenges of governance arrangements, and hence to constituting accountability. Those can be alternative mechanisms to more traditional government approaches, such as elections and hierarchies; or similar mechanisms (e.g. transparency) that are operationalized in a different way, so that they become relevant for local adaptation arrangements.

Following other scholars, the assumption in this paper is that interactive governance arrangements are held accountable through a combination of several accountability mechanisms (Sørensen and Torfing 2005; Klijn and Skelcher 2007; Bäckstrand 2006; Newman 2004) that each address a different accountability challenge as described in the previous section. Since many accountability challenges of governance arrangements concern how to establish democratic control, the framework developed here is predominantly informed by a democratic perspective (Bovens 2007). However, it also contains a mechanism, checks and sanctions, that is relevant from a constitutional perspective, which focuses on the abuse of power (Bovens 2007). Networks and partnerships can be(come) quite powerful, which may require other checks to prevent them from abusing their power.

For the development of the analytical framework, four mechanisms were derived from the literature on the accountability of network governance: (1) clear responsibilities and mandates, (2) transparency, (3) political oversight, and (4) checks and sanctions. To this list, an additional mechanism has been added: (5) citizen control. The first four accountability mechanisms are generally claimed to be important in the network governance literature, but this body of literature does not pay much attention to citizen control as an important additional mechanism. It is assumed that citizens are represented in governance networks through civic organizations, NGOs and interest groups. Moreover, in the view of many scholars, citizen control cannot be a real alternative to other accountability mechanisms because of the absence of sanctions. Nevertheless, Sorenson and Torfing (2005) have a different view: they explicitly discuss that all citizens should

have access to dialogue with the network, and that citizens should be able to influence the network, in order to improve the democratic anchorage of governance networks.

It is argued here that citizen control is a separate, additional mechanism of particular relevance for the accountability of local adaptation arrangements. First, there is an argument regarding the local governance level: it has become quite common in the last decades to involve citizens in local decision-making processes that affect the community in, for instance, urban planning and environmental policy as a means for achieving accountability and improved democracy and effectiveness more generally (e.g. Abels 2007). Second, there is an argument regarding the specific context of adaptation: citizens are important stakeholders for solving adaptation issues. Citizens can bring in tacit knowledge of local climate impacts and vulnerabilities to those impacts and inform debates about future climate scenarios; citizens can generate tailor-made ideas and solutions for specific neighbourhoods; and the implementation of many climate adaptation measures requires adaptations to private residential properties (Hegger *et al.* 2017; Wamsler and Brink 2014). In addition to these substantive rationales, normative rationales have also been reported, such as the consideration of different interests, raising legitimacy and enhancing social learning (e.g. Mees, Driessen, and Runhaar 2014; 2012; Burton and Mustelin 2013; Klein, Mäntysalo, and Juhola 2016; Glucker *et al.* 2013; Tennekes *et al.* 2014).

Together, the five mechanisms build into a framework of criteria as presented in Table 1. It shows how the accountability challenges and mechanisms are linked. With this framework, the degree (on a 3-point scale of low, medium, high) to which these mechanisms manifest themselves in local governance arrangements can be empirically measured, on the basis of which the accountability of those arrangements can be assessed and accountability deficits can be spotted. Brief accounts of the five mechanisms in the next paragraphs are given with the purpose of building an assessment framework for empirical purposes. These accounts are based on, but do not aspire to give a complete overview of the conceptualizations and reflections of the extensive body of (environmental) governance literature.

3.1. Clear responsibilities and mandates

This mechanism deals with the challenge of the unclear, shared and ambiguous responsibilities and mandates of governance arrangements as mentioned in Section 2.2. Previous studies have indicated that blurred and vague responsibilities are a key issue in adaptation governance (e.g. Wamsler and Brink 2014; Termeer, Dewulf, and Breeman 2013). It is important that responsibilities and mandates for decisions and actions in the arrangement are clearly delineated, allocated and accepted (e.g. Suškevičs 2012; Lockwood 2010; Joss 2010; Forrer *et al.* 2010; Goldsmith and Eggers 2004). Clarity of responsibilities has also been argued to be important for adaptation governance (Mees 2017; Mostert 2015). Klijn and Koppenjan (2014) contend that the roles and divisions of authority, costs, benefits and risks are some of the key things that should be specified in a so-called process design of the network; they argue that this process design is an important mechanism both for internal (actors in the arrangement) and external accountability (the environment of the arrangement).

Clarity of responsibility and authority enables the accountability forum to hold the arrangement accountable: in order to judge whether the arrangement has fulfilled its responsibilities and has governed in line with its mandate, the accountability forum should know for which decisions and actions the arrangement is responsible and authorized. As a

Table 1. Framework for assessing the accountability of local governance arrangements.

Accountability challenge	Accountability mechanism	Indicators for low, medium and high degrees of prevalence of the mechanism
Blurred and ambiguous responsibility and authority	Clear responsibilities and mandates	Minimum: there is clarity of responsibilities. Each partner has specific responsibilities and these are laid down in written form
		Medium: there is clarity of responsibilities and mandates of the network, and the network is authorized to do what it has been created for by the partners in the network, so that those constituencies can hold the network accountable (internal accountability)
		High: there is clarity of responsibilities and mandates of the network; and the network is mandated not only by the partners in the network, but also by elected politicians (external accountability)
Opaque, fragmented and unstructured decision-making	Transparency	Minimum: the network provides regular narrative accounts of its decisions
		Medium: there is transparency of rules and procedures for decision-making and of goals and performance standards of the network
		High: there is transparency of rules and procedures for decision-making, and the network provides justifications for their decisions. The goals and performance standards, sources of funding and spending and policy outcomes are disclosed
Isolation from democratic institutions	Political oversight (indirect representation via elected politicians)	Minimum: politicians are informed of the decisions of the network in a timely manner, and have a set of performance standards by which they can hold the network accountable
		Medium: elected politicians can ratify the key decisions of the governance network
		High: elected politicians are part of the governance network and are able to co-decide on key decisions
Lack of inclusive interest representation	Citizen control (direct inclusive interest representation)	Minimum: citizens can hold the governance network accountable by asking questions to monitor the progress (consultation)

(*continued*)

Table 1. (*Continued*)

Accountability challenge	Accountability mechanism	Indicators for low, medium and high degrees of prevalence of the mechanism
		Medium: citizens can hold the governance network accountable by asking questions to monitor the progress, and by passing judgement on a limited range of decisions (advice) High: citizens can ask questions, pass judgement and define corrections to ensure responsiveness (collaboration)
Less traditional checks & sanctions	Additional checks and sanctions	Minimum: there are means of control within the organizations of each partner in the network, and for the project as a whole from the side of the local public officials and/or external auditors (bureaucratic and/or administrative accountability) Medium: next to internal control within the partner organizations, the network has developed and agreed upon self-evaluations, peer assessments and professional codes of conduct for mutual checks and balances (peer accountability) High: next to internal control within the partner organizations and self-evaluations of the network, there is a strong threat from naming and shaming as a corrective mechanism (reputational accountability)

minimum, the participants in the arrangement should be aware of, and agree with, the delineation of responsibilities for decisions and actions. These should be laid down in a formal document (e.g. a process design as Klijn and Koppenjan 2014 suggest). An improved accountability would be that the mandates of the arrangement are clear and have been approved by the partners in the arrangement. This would at least guarantee a form of internal accountability. A high extent of accountability would be achieved when the responsibilities and authorities are clear to the outside world, and that the arrangement has been mandated by elected politicians to do what they are intended to do.

3.2. Transparency

Transparency deals with the challenge of the opaque decision-making of arrangements. As Benner, Reinicke, and Witte (2004, 205) put it: "… transparency in its many facets has to be the central element of any system of accountability in multisectoral networks."

Transparency is also claimed to be particularly important in matters of sustainability, given their high-level complexity, as it increases the awareness and appreciation of who and what is involved in the decision-making (Joss 2010). Adaptation is a complex sustainability issue that touches upon different sectors, actors and governance levels in society (Mees, Driessen, and Runhaar 2012), resulting in a fragmentation of decisions and actions (Termeer *et al.* 2011). Furthermore, adaptation is hampered by an institutional void, with weakly defined structures and procedures (Termeer *et al.* 2011). These challenges render decision-making processes in adaptation to be quite fragmented, unstructured and opaque.

Transparency deals with the right to know about matters. It is about the availability and open access to information regarding decisions and the justifications for those decisions, as well as the decision-making processes and their outcomes. Nevertheless, it is argued that networks and partnerships must operate in a certain degree of seclusion, to be able to reach negotiated agreements built on mutual interest and trust. As a minimum, the arrangement should give regular narrative accounts of their decisions and actions. A more extensive form of transparency is access to information with respect to the selection process of participants, and the rules and procedures regarding negotiation and decision-making. Ideally, there should also be access to the goals and performance standards of the arrangement, to the how and why of decisions and to the funding sources and spending (Benner, Reinicke, and Witte 2004; Sørensen and Torfing 2005; Klijn and Koppenjan 2014). Transparency is crucial for peer accountability, i.e. oversight by professionals such as experts, NGOs and people from the business community outside of the arrangement, and for public reputational accountability, i.e. oversight by the general public through reputational consequences (Benner, Reinicke, and Witte 2004). To promote accessibility, the information should be presented in a form that is understandable for different target groups including lay people (Suškevičs 2012; Lockwood 2010).

3.3. Political oversight

Political oversight is meant to overcome the challenge of isolation from democratic institutions. Arrangements need to have some kind of oversight or control from elected politicians, who are able to represent all interests in society, a form of accountability coined under various names, such as ‘democratic accountability’ (Sørensen and Torfing 2005), ‘vertical accountability’ (Klijn and Koppenjan 2014), and ‘political accountability’ (Romzek 2000; Brinkerhoff 2004). Adaptation governance is challenged by a large extent of uncertainties regarding climate change, its impacts on society, and potential solutions, by controversies regarding the goals and the solutions for adaptation (e.g. Adger *et al.* 2009) and the long-term character of climate change (e.g. Dovers and Hezri 2010). These challenges make political oversight very important in order to represent and guard all interests in society now and in the future (assuming that elected politicians are a fair representation of present and future interests).

According to Klijn and Koppenjan (2014), a first requirement is that the relationships between actors in the arrangement and politicians should be made explicit. Furthermore, politicians should be informed of the decisions of the governance arrangement in a timely manner, and have a framework of goals, requirements and performance standards by which they can hold the arrangement accountable. This framework should be negotiated between the arrangement and the politicians, and should be adjustable under certain predefined conditions (Klijn and Koppenjan 2014). An enhanced level of political

oversight is achieved when politicians are required to ratify the key decisions made by the governance arrangement. In an ideal situation, according to Sørensen and Torfing (2005), elected politicians should be part of the arrangement to ensure high levels of political oversight.

3.4. Citizen control

Citizen control through engagement is often labelled as direct accountability (as opposed to indirect representation through elected politicians) (Damgaard and Lewis 2014). It means that citizens can hold authorities accountable by being able to directly participate in some way in the development of public policy, which is argued to increase the accountability of policy-makers in addition to electoral control (Damgaard and Lewis 2014; Agger and Löfgren 2008; Sørensen and Torfing 2005) or in response to the dysfunction of formal accountability mechanisms (Joss and Mohr 2004 in Abels 2007). Through their voice, citizens can increase the responsiveness of public authorities to citizens (Devas and Grant 2003), and increase the notion of accountability as a virtue (Damgaard and Lewis 2014).

Citizen engagement is of particular relevance to adaptation governance for many different reasons, as argued before. There is an additional argument in that the effects of and vulnerabilities to climate change are quite diverse among different citizen groups. Therefore, it is argued that vulnerable people should be actively involved in adaptation decisions that directly affect them (e.g. Paavola 2008), the more so since those citizens tend to be under-represented in adaptation participation processes (e.g. Few, Brown, and Tompkins 2007).

Citizens can engage in governance arrangements in many different ways, dependent on their level of participation and actual voice (cf. Arnstein's 1969 ladder of participation). This can range from being passively informed and consulted during public hearings, to asking questions and giving advice through advisory boards, citizens summits, mini-publics and the like, to being able to co-decide as full partners in the governance arrangement, while their voice options increase along this continuum. According to Jedd and Bixler (2015), real and authentic engagement involves moving beyond providing input and advice, towards being able to influence issue framing, generating policy options and making decisions. As a minimum level of accountability, citizen control should go beyond receiving information and being incidentally involved. The minimum level of accountability should allow citizens to pose questions and thus oblige actors in the arrangement to explain and justify their conduct, and citizens should be able to express their views on a limited range of issues (Damgaard and Lewis 2014). Sørensen and Torfing (2005) contend that access to the public debate with governance arrangements should not be limited to directly affected citizens, but should extend to all citizens. A higher level would be that citizens can ask specific questions, and provide advice to give judgements and have some influence on, for instance, performance measurements. The consecutive level gives citizens influence on the policy agenda and can determine the outcomes of policy-making. The final level concerns the co-ownership of citizens in which citizens co-decide on policy-making, at which stage it becomes difficult to separate their roles as account givers and account holders (Damgaard and Lewis 2014).

3.5. Checks and sanctions

Interactive governance arrangements are difficult to oversee and control due to the absence of traditional checks and sanctions. The same goes for the governance of

adaptation, which is characterized by weakly defined rules, responsibilities, procedures, routines and structures (Termeer *et al.* 2011).

Therefore, these arrangements need to have other checks, balances and sanctions, than or in addition to the standard performance requirements and sanctions by which organizations or actors in the arrangement can be held accountable by their principals or elected officials. Forrer *et al.* (2010) contend that continuous assessment through performance measures between partners is important in a public–private partnership. Such performance measures should be flexible to accommodate change of goals (Goldsmith and Eggers 2004). Within an interactive governance arrangement, institutional provisions can be made to provide additional checks, such as benchmarking, certification, societal reports, self-evaluations, peer group assessments, professional codes of conduct, and assessments by stakeholders (Klijn and Koppenjan 2014; Benner, Reinicke, and Witte 2004). In their study, Jedd and Bixler (2015) found that the adherence of the actors to specific codes of conduct of the governance arrangement in itself can be a powerful reward (rather than sanction), since it creates and maintains professional relationships in which resources are exchanged. Romzek *et al.* (2013) also found that the informal norms and rules of the game in networks yield rewards such as trust, favours, opportunities for future collaboration and enhanced reputation. Nevertheless, as Papadopoulos (2007) and Lord (2004) argue, there is a tendency among the actors in the arrangement to collude as a result of mutual trust building and mutual interests, and this may inhibit the function of checking upon each other. An additional form of sanction with some ‘teeth’ is loss of credibility or reputation, also referred to as public reputational accountability (Benner, Reinicke, and Witte 2004; Papadoupolos 2007). Naming and shaming through negative publicity can be an effective form of punishment for governance arrangements in the absence of formal sanctions, in addition to arrangement specific performance requirements and checks. Similarly, Romzek *et al.* (2013) show that loss of reputation and of opportunities for future cooperation offer strong informal sanctions among peers in a network.

4. Empirical application

4.1. Introduction to the case study

This chapter illustrates how the framework is applied to assess the accountability of a local adaptation governance arrangement in The Netherlands. ‘Rooftop park Rotterdam’ concerned the design and implementation of a multi-functional dike that is simultaneously a shopping centre and a park for the surrounding neighbourhoods. The dike protects a part of Rotterdam from flooding from the river Meuse, while the park on the building reduces surface water flooding from increased precipitation due to climate change. This case was selected because the residents in the surrounding neighbourhoods were actively involved in the design and implementation and were active participants of the governance arrangement.

The creation and implementation of the rooftop park took 15 years, from 1998 to 2004. During that period, several governance arrangements were established, and in some stages, several arrangements co-existed. For instance, a network was established between the four key actor groups that were involved over the full project lifespan (1998–2014): the municipal department for urban planning, the municipal project organization, the project developer and the neighbouring residents. This network mainly dealt with the design and implementation of the park on the dike/shopping centre. A public–private

partnership was formed between the municipality and the project developer for the building of the shopping centre, which also lasted for the entire lifespan. Other stakeholder groups were either involved in one specific stage of the project, or were addressed bilaterally by the municipality. The municipality of Rotterdam is the key actor for the project, and has been the initiator, facilitator and coordinator of the various governance arrangements. For the empirical application of the framework, we focus on the networked governance arrangement that was created for the development of the park and in which the four key actor groups participated.

Representatives of these four key actor groups formed a core project team. This team was coordinated by the municipal project manager and met on a frequent (monthly) basis to discuss and decide on the planning, design and implementation of the rooftop park. As members of the core team, citizens had considerable influence. In particular, they influenced the design of the rooftop park, for which they developed a list of eight requirements that were laid down in a covenant and acted as a checklist for the design of the park. In the first two years, a group of four to six highly active citizens were part of the team. Later on, the citizens were professionally represented by a social NGO "Stichting de Werkplaats," consisting of a few former community workers, who acted and decided on their behalf in the team. This was done for two reasons. First, the citizen group encountered problems with selling the decisions of the team back to their constituency and felt put on the spot. By keeping their distance from the team, they could remain the owners of their ideas. Second, it was agreed that a neutral professional would be better able to represent the views of *all* citizen groups, as this person was very active in contacting and engaging a variety of citizen groups in the surrounding neighbourhoods including ethnic minorities. In the next section, the analyses of the five accountability mechanisms are briefly discussed for the core team of the governance arrangement.

4.2. Methods

Over the course of two years (2015–2016), 12 in-depth face-to-face interviews were held with representatives of the key actor groups involved in the governance arrangement. In some cases, more than one representative was interviewed. For instance, the project took 15 years from initial planning to full implementation, and had four different project managers from the municipality of Rotterdam. Since the project manager occupies a central role, three of them were interviewed, each representing different stages in the project. The interviews were semi-structured according to the five accountability mechanisms. The interviews were recorded and transcribed. A case study report was made, which was verified by several key respondents. While the interviews allowed for an evaluation of the accountability mechanisms from different stakeholder perspectives, a content analysis of 12 important documents (such as the Master plan, Statement of Requirements, Memoranda for Politicians, Project Plans, Project Evaluation Reports) allowed for a more objective assessment of the accountability mechanisms, as formally laid down and described in those documents.

4.3. Analysis of accountability mechanisms

4.3.1. Clarity of responsibilities and mandates

Based on the analysis of both the formal documents and the perspectives of the various respondents, it can be deduced that responsibilities and mandates of the arrangement

have been rather clear: they have been described and formalized in a covenant between the municipality, the project developer and the NGO for the planning and design of the rooftop park. A separate contractual agreement was made between the municipality and the project developer for the actual execution of the building and park. After the execution, responsibilities and mandates for the maintenance of the park were also formalized between the municipality, the gardening company and a group of active citizens, who created a foundation for this purpose. The answers of the respondents were quite unambiguous in that the responsibilities and mandates were clear to the participants of the arrangement and their constituencies. During the planning stage, the project team had a limited authority to decide on issues of relatively minor importance, as mandated by a steering group, which consisted of a high-level principal of the municipality and of the project developer. The authority for important decisions was in the hands of this steering group, as mandated by the Mayor and Aldermen.[1] The key decisions had to be ratified by the Alderman responsible for Sustainability (see political oversight). Beyond those key decisions, it was left to the discretion of the administrative principal whether or not to involve the responsible Alderman in certain matters. During the implementation stage, the authority of the project team was expanded, since the key decisions had already been made and ratified in the planning stage. It can be concluded that there were no major deficits and that there was a high prevalence of this mechanism.

4.3.2. Transparency

Formal documents were instrumental in creating and maintaining transparency. In particular, the project plans (which were made/updated every two years) were instrumental in laying down and sharing the rules and responsibilities that were agreed upon in the arrangement, the decisions made, the budgets (to be) spent, performance requirements, time planning and the public consultation process. Justifications for decisions were known by the core team members. Furthermore, operational actions and agreements were written down in the minutes of the project team meetings. This type of information was accessible to the four participants of the core team of the arrangement and their constituencies.

The extent to which information was actively and openly communicated to the wider public varied in different stages of the project, coinciding with the different responsible project managers. For instance, in the design stage, communication to citizens was very proactive and open, facilitated by the style and skills of the project manager and his trust relations with the people of the NGO. Furthermore, the project manager organized frequent consultation meetings (so-called Rooftop park cafés) open to all citizens in the neighbourhood and in which one and the same representative of the project developer was always present. In these meetings, decisions and their justifications were openly shared and discussed. The NGO was the chair, and made and distributed the minutes of those cafés. As such, the NGO played a crucial role in creating transparency of decision-making in and beyond the arrangement. This sphere of openness and trust gradually vanished with consecutive project managers in the execution and maintenance stages of the park, who were less enthusiastic about the disclosure of all kinds of details of the decision-making process and who were less inclined towards high levels of citizen engagement. According to several respondents, this resulted in a diminished openness and transparency, which could not be compensated for by disclosure of formal documents. Thus, it appears that high levels of trust between the project manager and the

other team members were conducive to the disclosure of more complete information within and beyond the arrangement.

It can be concluded that the extent to which transparency was in place varied from high to low between project managers. More generally, this illustration shows that trust may well be a prerequisite for transparency. It also shows that a distinction may need to be made between different stages of the arrangement (e.g. planning and implementation) to assess accountability.

4.3.3. Political oversight

From the interviews, it became clear that again the project manager played a central role in the communication to the Aldermen and council members of Rotterdam. In part, the disclosure of information to elected politicians is formally laid down in procedures. For instance, the budget size of the project determined how much, how often and which type of political representatives are kept informed about the project status and the key decisions made. Omission or refusal to do so would certainly be punished by getting fired. Besides these formal disclosures, how much is openly being shared between the project manager (or the administrative official) and the responsible Alderman depended on the level of trust between them and the political skills of the project manager.

Furthermore, several key decisions, such as for instance the approval of the Master plan and the Statement of Requirements, had to be ratified by the responsible Alderman. The Alderman also had to intervene in a moment of crisis between the municipality and the local water authority, and made a key decision on behalf of the governance arrangement. Several respondents indicated that their determination and their courage to take difficult decisions were instrumental for the continuation of the project. Nevertheless, those Alderman never became part of the governance arrangement. The municipal council was only kept informed on a very abstract level through the so-called 'Monitor of large projects'. The municipal council had to ratify the new zoning code (but this is required by Dutch law). The district council was occasionally informed, but could only advise, not ratify.

It can be concluded that the extent of political oversight was medium. The illustration again highlights the importance of the trust relationship between the project manager and the Aldermen as a crucial condition for political oversight.

4.3.4. Citizen control

Direct citizen engagement, in addition to their representation via the NGO, has played a crucial role throughout the project. In part, this was forced top-down by the national government that provided a substantial subsidy for the project under the condition that citizens would be actively engaged. Over the course of the project, the Rooftop cafés were held, on average, three to four times per year to keep the citizens in the neighbourhood informed and to give them the opportunity to pose questions.

Beyond this form of passive consultation, the extent varied with the project managers and their normative stance towards citizen engagement and their political skills. Due to one passionate project manager in the design stage, citizen engagement extended from passive consultation to the possibility to pass judgement and to co-decide on certain parts of the project. The views of citizens were taken on board and this culminated in the development of the eight requirements that served as design principles for the park. Thus, citizens were able to control the design of the park. These principles acted as a

performance standard against which the Master plan and the Statement of Requirement were monitored. Other forms of citizen engagement were an organized visit to parks in Paris with the core team, which was attended by 20 citizens and several design ateliers. Citizens were less involved in the execution of the rooftop park. Currently, citizens are engaged in the maintenance stage by taking over a small part of the duties of the gardening contractor, the selection of whom they could influence to some extent.

It can be concluded that the extent of citizen control varied from low (consultation) to high (collaboration), depending on the project manager's willingness and skills. The illustration again points towards the importance of the trust relationship between the project manager and citizens as a crucial condition for this mechanism's prevalence.

4.3.5. Checks and sanctions

Since the municipality was the initiator and coordinator of the governance arrangement, it is vital to study the possibilities for internal checks within the municipal organization. Analysis reveals that internal control of the decision-making process and its outcomes was done continuously through progress reporting of the project manager to his/her superior, and every two years based on an inspection of the project plan. Furthermore, dedicated project evaluations were carried out in 2010 for the planning stage, and again in 2014 for the execution stage. External checks were done by means of: (1) financial audits by accountants; (2) an obligation to send progress reports to the national government because of the subsidy provided for the boosting of citizen engagement; (3) regular updates to the council as part of the 'monitor for large projects'.

While the internal and external control of the municipality were in place, forms of mutual control among partners created by the arrangement itself were absent. The only form of control developed by the arrangement was the eight design principles for the park, which acted as a checklist against which documents such as the Master plan and the Statement of Requirements were evaluated. Apart from that, no additional self-evaluations or codes of conduct were developed to increase peer accountability.

The most utilized sanction was the threat of exit. The NGO professional used this on behalf of the citizens as a means to pressurize the other partners in the arrangement. However, they only used this threat once, as they did not really want to exit the arrangement from fear that the park would not be realized. The project developer successfully used the threat of exit twice, once to force a destination change for the building, and once to claim funding to compensate for the extra construction costs for the development of a park on top of the building. Another sanction that was used once was the resignation of the municipal superior of one of the project managers, who failed to timely inform the Alderman about an important issue for the project. This is a real threat for public servants, resulting in a culture of fear within the municipality, in turn inducing public servants to conceal any dirty laundry and impeding openness. A final means of sanction was employed by the NGO professional who occasionally threatened to go to the media or to the town hall to pressurize the other partners. According to one municipal respondent, this forced the other partners in the arrangement to be well prepared and open about pertaining issues.

It can be concluded that the presence of checks and sanctions was medium because peer control and sanctioning was limited. The illustration indicates that the extent of accountability through checks and sanctions by relatively powerless partners can depend on the presence of skilled individuals such as the NGO professional.

4.3.6. *Overall assessment of the arrangement's accountability*

The empirical results demonstrate that accountability is indeed an important issue for adaptation governance. While the accountability of the studied governance arrangement was relatively high in the decision-making stages, the accountability significantly decreased in the implementation and maintenance stages, when accountability deficits occurred in the mechanisms of transparency, political oversight and citizen control. The results suggest that these three accountability mechanisms were influenced by the trust relationships and political skills of the project manager, as the central coordinator in the governance arrangement; they influence the degree of transparency, political oversight and citizen control, regardless of the formalized rules and procedures for public engagement and disclosure of information as laid down in documents. The same goes to some extent for the NGO professional, who used his political skills as a former community worker to build trust relationships and to pressurize the other partners when he wanted to hold them accountable on behalf of the citizens.

5. Discussion

The aim of this paper was to propose a framework for the assessment of the accountability of interactive governance arrangements for climate adaptation. The application of the framework to the empirical case of Rooftop park Rotterdam in The Netherlands has shown that the measurement of the prevalence of the five mechanisms, as proposed in the framework, offers a valid assessment of the accountability of such governance arrangements. The five mechanisms and their operationalizations are measurable through a triangulation of methods for data collection. The documents were helpful in the top-down analysis of formalized accountability mechanisms, in particular regarding the clarity of responsibilities and mandates, the rules for the disclosure of information and the sanctioning mechanisms. Supplementation with stakeholder perspectives as derived from the interviews yielded more in-depth bottom-up understanding, without which the overall judgement of accountability would be pointless. Here we address two tensions and three challenges from its empirical application that deserve some reflection and further study.

First, both the literature review and the case study confirm the need for clear allocations of responsibility and authority and for transparent procedures to raise accountability, but this appears to be at odds with the need for flexibility and creativity in the governance arrangement (Halachmi 2014; Klijn and Koppenjan 2012; Goldsmith and Eggers 2004; Bovaird 2004). Flexibility is also important for adaptation governance (Amaru and Chhetri 2013). Goldsmith and Eggers (2004) suggest that one way to manage the tension between accountability and flexibility is by establishing steering committees consisting of senior staff of the partners to evaluate objectives and align them with changing requirements, similar to the steering group of the Rooftop park arrangement. Some authors propose a long-term system of performance measurement through continuous feedback and learning, rather than doing a final evaluation at the conclusion of a project (Halachmi 2014; Goldsmith and Eggers 2004). Striking a balance between accountability and flexibility cannot be easily fixed and will remain a key challenge for interactive governance arrangements and an interesting topic for further empirical studies.

Second, the mechanisms of political oversight and citizen control may be compromised if politicians and citizens themselves become part of the governance arrangement. How can they be critical outsiders if they are part of the gang? The simple

answer would be to just leave them out of the arrangement, but this would mean that they cannot partake in the negotiations and mutual trust building that takes place within the arrangement, which could reduce the arrangement's legitimacy and effectiveness. Following other scholars, the assumption behind the framework is that governance arrangements are held accountable through a combination of several accountability mechanisms (Sørensen and Torfing 2005; Klijn and Skelcher 2007; Bäckstrand 2006; Newman 2004), even if this may in some cases lead to situations of confusion, incompatibility or trade-offs between mechanisms (Klijn and Koppenjan 2014) and between accountability and other principles of good governance, such as efficiency, effectiveness and legitimacy. The aim of the framework is the optimization, not the maximization of accountability at the expense of efficiency, effectiveness or legitimacy. This should be considered when applying the framework.

Third, the empirical results point towards an important role for trust in enhancing accountability, although this did not surface from the literature review that served as the foundation for the framework. Romzek *et al.* (2013) found a positive influence of trust and relationship building on 'informal' accountability by fostering continual informational flows between network actors. Only one (old) paper directly supports the finding in this paper: Zand (1972) has shown that in situations of trust, the trusted tended to disclose more accurate, relevant and complete information, while the trusting felt less need to impose controls in order to get access to information. Some scholars view accountability and trust as alternatives or substitutes for each other (e.g. O'Neill 2004; Ammeter *et al.* 2004; Trow 1996). Yet others argue that trust and accountability may be independent, unrelated concepts (Greiling 2014). Whether and how trust should be included in the framework as a potential additional accountability mechanism for interactive governance arrangements is an important topic for further research.

Fourth, the case study also hints at the importance of the political skills of the project leader as the central actor in the arrangement. Ammeter *et al.* (2004) discuss the link between political skills, accountability and trust. They define political skill as "an interpersonal style construct, which combines interpersonal perceptiveness or social astuteness with the capacity to adjust one's behaviour to different situational demands, in a manner that inspires confidence, trust, sincerity and genuineness and effectively influences and controls the responses of others" (Ammeter *et al.* 2004, 57). As such, it fits well with the individual skills of the central actors in the governance arrangement, as described in the case study. Ammeter *et al.* (2004) contend that the possession of political skills allows an individual to build trust relationships, which in turn affects formal accountability mechanisms, such as performance evaluations. The more politically skilled an employee is, the higher the trust from the supervisor, and the more trust acts as a substitute for formal accountability. In other words, people with high political skills can influence their degree and type of accountability (Ammeter *et al.* 2004), and these skills become increasingly important in situations in which formal power and authority relationships are fading, as is the case in interactive governance arrangements.

Finally, the empirical results indicate that accountability could work differently in different stages of the policy process. To come to a sensitive measurement of accountability, we may need to distinguish between policy arrangements (for the planning stage) and service delivery arrangements (for the implementation stage) (Klijn and Koppenjan 2012). Other researchers are encouraged to continue working on the operationalization and empirical testing of the public accountability of interactive governance arrangements in different stages, for the empirical field of adaptation. We hope that the proposed framework offers a good starting point for doing so. We think

the framework has generic potential for studying governance arrangements at different scales, not only the local scale, and for different policy issues, not only climate change adaptation. Applying the framework more broadly will help to refine the framework and strengthen its validity.

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Note

1. In the Netherlands, an Alderman is a member of the municipal council, a governor with a responsibility for certain policy area(s).

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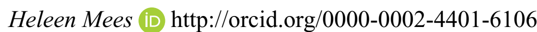
Heleen Mees  http://orcid.org/0000-0002-4401-6106

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