

Water governance: Facing the limits of managerialism, determinism, water-centricity, and technocratic problem-solving

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1. Introduction: A new journal on governance

We are proud to present you the very first issue of the International Journal on Water Governance (IJWG). The aim of this journal is to become an important source of knowledge on governance of complex water systems, and a source of inspiration for all professionals in the water domain to improve the governance capacity. We want to focus on actual and urgent theoretical issues and bring them further by application and elaboration in the domains of water. From a variety of disciplines, we will gather new insights on what constitutes the governance capacity with regard to specific topics, like water quality, flooding and scarcity.

Governance is the crucial overarching concept in our journal. The Oxford Handbook of Governance opens with the following characterization: “*Governance is said to be many things, including a buzzword, a fad, a framing device, a bridging concept, an umbrella concept, a descriptive concept, a slippery concept, an empty signifier, a weasel word, a fetish, a field, an approach, a theory and a perspective*” (Levi-Faur, 2012: 3). Indeed, there are many definitions of governance and the concept is used for nearly everything related to issues of organizing collective action. Nevertheless, it indicates one of the most important side-effects of modernizations: increased interdependency and the need for joint action. That is also what is needed in the domain of water and therefore it is crucial to speed up in understanding the essentials of water governance.

In IJWG, governance is approached as both a normative and an empirical phenomenon (Pierre & Peters, 2000). Governance as an empirical phenomenon has been portrayed as the growing interdependence between actors from both the public, the societal and the private domains and increasing interrelations and interconnectivity between these actors involved in issues of collective action, and a diminishing role for a single governance level in formulating and implementing public policy.

Government itself has become more and more a conglomerate of actors, and the state cannot longer rely on the availability of the necessary resources (expertise, legiti-

macy, money) to govern (Rhodes, 2000; Kooiman, 1993). The oft-mentioned shift from government to governance (Kooiman, 1993; Sørensen & Torfing, 2007) indicates that governments are unable to develop and implement public policy on their own in an effective way. Effectiveness depends on actions of many stakeholders with different resources (knowledge, money, etc.) and on the interactions that emerge from actions. In this context, governments sometimes deliberately forced by circumstances, give more room to stakeholders to influence decision-making. Governance then roughly points at situations where decision-making and implementing takes place in complex actor systems of public, private and semi-private actors. In these systems governments increasingly use horizontal forms of steering to achieve results within these actor systems.

However, we believe that this shift needs nuance. There probably never was a time when government had all necessary resources at their disposal. Governments are a recent phenomenon in world history, and as provocatively analyzed by Tilly (1985), the state had to secure itself a place in an existing patchwork of rule. In Dutch water governance, for example, a self-organized water board continued to exist and decide next to a central water department established under French occupation in 1798. Floods, wars and post-war reconstruction boosted the role of the state, but continued to leave space for civil society and the private sector. The decline of the welfare state and increasing complexity of societies gave rise to treatises of state failure and the impossibility of 'steering' (Kooiman, 1993). While much literature on governance celebrates market principles (e.g. the New Public Management, Osborne & Gaebler, 1992) others see governance as an alternative to state failure and market failure, as societal self-organization (Jessop, 2003). Jessop defines governance as 'the reflexive self-organization of independent actors involved in complex relations of reciprocal interdependence'.

However, mega-events such as the War on Terror, natural disaster and deep economic crisis in Europe may appear to buck the supposed trend 'from government to governance' (temporarily). We should avoid determinism in pronouncing a trend 'onwards and upwards'.

From a normative point of view, governance is about organizing decision-making or collective action in fragmented, multiple contexts; about organizing networks and actor systems of interdependent actors in order to bring together the necessary resources to implement collective action and to build consensus (Papadopoulos, 2003). This normative perspective often assumes the possibility of cooperation to achieve harmonious outcomes. However, this is to ignore the very complexity of relations between the various actors involved in governance, leading to a 'tapestry of competing authority claims' (Mehta et al., 1999: 18) that may be left unresolved. A closely related concept is 'good governance' that carries a moral responsibility for states to get their house in order in terms of cost recovery and accountability ('good housekeeping').

The descriptive and the normative views are often mixed up in the literature: "Policies are often treated as instruments of governance: rational, non-theoretical and goal-

oriented tools that provide the most efficient means to obtaining certain desired ends. . . [but] policy is always informed by ideological considerations, and often codifies morality” (Wright & Shore, 1995: 29).

Nevertheless, we prefer a distinction between the two. It is essential to invest in analytically descriptions of governance as an empirical phenomenon – ‘what really happens on the ground’. Only when we understand water governance processes and the multiple and complex causalities driving them, we are able to make the step towards informed prescriptions. In addition, it is necessary to be critically reflective on governance as a normative approach, its effectiveness, legitimacy and efficiency. Labeling practices as ‘governance’ is anything but a panacea for success. There is much to discover when it comes to questions as how to organize successful governance processes and building governance capacity regarding resolving water issues and crises.

An analytical approach allows us to engage with those sceptical of the concept of water governance, either because they feel it is ‘old wine in new bottles’¹ or as a new way of *Wichtigmacherei* without much added value (Hakelmacher, 2010). In this context it merits mention that not everything called governance does what it says on the tin. The ubiquity of ‘governance’ literature hides a tendency to equate ‘governance’ with ‘management’ or ‘steering’. ‘Governance’ as the art of governing certainly has a pedigree, dating back to the ancient Greeks, κυβερνάω is to steer (Wikipedia, consulted 20 October 2012). However, if we are serious about the complexity, fragmentation, and interdependence of present-day society, we have to acknowledge the limits of ‘steering’ and socio-political problem solving.

We seek to improve our understanding of water issues from a governance perspective, by signaling theoretical advances, learning from practice and reflexive capacity. We therefore particularly invite articles that engage with the conceptual development of ‘water governance’ itself, and how that informs water practice. Rather than looking for panacea’s (Meinzen-Dick, 2007) and nirvanas (Molle, 2008), we try to keep our feet firmly on the ground and see what in the water governance domain does and can work (and for whom) – which, in a complex, fragmented and multiple context – isn’t as easy as it may sound.

2. Water governance: A thematic orientation

Water is an important source for living. At the same time, many countries and regions experience water stress and crisis. Regarding water stress, it is argued that a third of the world’s population nowadays lives in water-stressed countries. By 2025, this is expected to rise to two-thirds (IPCC-WGII, 2007). With respect to water crises; in almost all delta areas in the world, the surplus of water causes problems. Three-quarters of the world population lives in deltas and runs the risk of severe (IPCC-WGII, 2007).

¹ <http://www.thirdworldcentre.org/governance.html>, consulted 20 October 2012.

At the same time countries all over the world, especially the developing countries face problems of poor water quality, for example due to water pollution by industries. Also in developed countries, these issues remain high on the political agenda.

Some argue that the current so-called 'water crisis' is not caused by a lack of water technology, but rather by a lack of good water governance (UNESCO, 2006). The explanation for this is that water issues cannot be solved by new water technologies in a top-down, hierarchical manner, but need to be addressed and approached through a bottom up, horizontal and multi-stakeholder way of working (Ward et al., 2012).

Water can be considered a complex and interconnected system (Teisman & Edelenbos, 2011; Edelenbos, Bressers, & Scholten, 2013), which touches upon other domains and fields like agriculture, economic development, social development, ecology, health, etc. Water is of interest to many stakeholders, industries, municipalities, farmers, recreational sector, environmental organizations and others, who all approach the problem and the possible solutions differently (Leach & Pelkey, 2001; Kuks, 2004). Consistent with the global rise of (formal and informal) networks (Castells, 2000), water is a governance challenge, which requires certain capacities to solve water problems in an effective, efficient and legitimate way (Edelenbos, Steijn, & Klijn, 2010).

Oftentimes the water governance capacity to solve water problems is insufficient due to the institutional fragmentation of responsibilities. Water has a variety of functions and values, which are often handled by different organizations and institutions. These are often bound by geographical and functional jurisdictions (Sabatier et al., 2005; Tropp, 2007). In many cases there are different institutions with different and conflicting interests concerning water, like flood safety, water quality or water shortage (Leach & Pelkey, 2001; Lubell & Lippert, 2011; Sabatier et al., 2005). However, water also touches on the issues of climate change, spatial planning and development (Warner, van Buuren, & Edelenbos, 2012). In this perspective, spatial quality and integrated planning are often-mentioned goals and ambitions (Edelenbos, 2010; van Schie, 2010; Warner & van Buuren, 2011). Achieving cooperation, joint responsibility and integration in such fragmented water governance systems is a core problem (Edelenbos & Teisman, 2011). This is also stressed in holistic approaches of water issues, like co-management and adaptive management (Pahl-Wostl, 2007; Tortajada, 2010), Integrated Water Resource Management (IWRM, e.g. Margerum, 1995) and Integrated Regional Water Management (IRWM, e.g. Lubell & Lippert, 2011). These approaches can be considered 'forerunners' of water governance, where the latter explicitly underlines the complex, compounded and interrelated aspect of water issues, stress and crises that needs attention and action from a multi-actor, multi-level and multi-domain point of view (see Edelenbos and Teisman, this issue). At the same time these various approaches (like integrated water management, adaptive water management and collaborative water management) seem to reduce the complex water challenges to merely managerial problems, which can be tackled by applying the right (mix of) management principles. We want to stress the importance to acknowledge the complexity and contingency of water issues in governance

and management theories, in order to be able to develop reflexive, context-specific and legitimate interventions. Thus, by using the concept of *water governance* we emphasize especially three elements we explicitly wish to address and further explore in our journal:

- Empirically, water governance is about the interactions of a variety of actors dealing with water-related issues in more or less structural arrangements, that impact upon the quality and characteristics of water systems;
- Normatively, water governance departs from the notion that the complexity and controversy of water issues require approaches that acknowledge the fragmentation and interdependence in terms of domains, levels, values, and institutions;
- Water issues are interconnected with other physical and functional domains, understanding the interaction with other domains is crucial for improving water governance.

3. Water governance: Beyond water centrality

The selection of articles in the inaugural issue illustrates and deepens the positioning of IJWG. The first article in this first issue, by Lopez-Gunn et al., focuses on the habit of professionals in water management to apply a water-centric approach. Water policy makers pronounce droughts and floods as ‘disasters’, where a more dispassionate look would bring more nuanced and balanced problem analysis. Lopez-Gunn et al. argues that many of the problems with water supply and protection, in this case in Spain, are not caused in the water sector. Water governance is strongly interrelated with the aims and actions in a broader system of governance and action. Many, possibly the majority of today’s water problems elsewhere in society (see also Hoekstra’s inaugural address 2005). This can mean that the roots of solution strategies also lie elsewhere in society. As editorial team, we would like to evoke a whole series of contributions on the topic of water-centric behavior as a cause of governance failure, the enrichment to multifaceted approaches, the working of these approaches and the impacts but also the limits and unintended consequences of such approaches.

In our aim to improve the knowledge about the broader system of governance and action the journal is open to contributions about governance systems neighboring the water system. Important ones are agriculture, urban development and mining. Dealing with the problems these systems are causing for the supply of water and flood protection can be improved, if the knowledge about the ‘logic’ of these neighboring systems is improved. Other articles in this issue also stress the multi-domain and systemic nature of water governance.

The second article, by Dinar & Jammalamadaka, focuses on the neighboring domain of agriculture. It elaborates the role of official institutions and social norms in relation to the need of adaptation to changing (climate) conditions, which have impact upon water availability.

The third article, by Turton, focuses on the mining industry, in this case in South Africa. It will be clarified that and how this industry is causing water-related problems and what kind of governance challenges this raise.

As editorial team, we would like to evoke a whole series of contributions on the topic of water-neighboring governance systems, their impact on water systems and the governance challenges with respect to water quality, water supply and flood protection. More insight in the interconnectedness of complex systems and its governance can bring the field of water governance much further than an exclusive focus on water issues alone.

4. Water governance: Beyond managerialism

While water managers and water authorities, like water boards, are crucial actors with respect to water, a range of other actors and their actions are important too. Their actions and decisions have considerable impact on the quality of the water, on the challenges of the water managers and authorities. Governance embraces the way local communities and municipalities, regional and national governments and the networks of parties as well as international organizations and collaborative platforms are dealing with water as one of the most precious resources of our planet water and with flooding as one of the most dangerous side-effects of the existence of seas and rivers. In that sense, it deals with governments on several levels, but also with the interactions and interferences between these levels. It also deals with several policy areas and it deals with the interplay between governments, private sector and citizen participation, as well as the many pitfalls and trade-offs by doing that (Warner, 2006).

The fourth article by Edelenbos and Teisman elaborates the topic of multilevel governance beyond the boundaries of the water domain itself and in interplay with private sector and citizens. It is argued that the boundaries between levels, policy areas and public and private domains are important topics for analysis and understanding. They argue that water governance means acting beyond boundaries of organizational and institutional structures, by intermingling and interconnecting actors, scales and domains.

As editorial team, we specifically invite scholars to address the dynamic and fluid nature of water governance processes. This will stress the limits of control and managerial perspectives, discussing and nuancing the problems in directing complex and compounded water governance system in certain wanted directions due to most of time unforeseen and unpredicted multi-level and scale interactions and interferences in social-ecological systems.

5. Water governance: The importance of hybridity and partnerships

The fourth article, by Lobina, focuses on the public and private options for managing water systems. There is a long standing and on-going debate on the question whether

private water services will lead to a better performance than public ones. The author argues that private water operators are not better at achieving their goals than public ones. This contribution shows that water issues and water governance processes do not stop at the borders of public spheres and governmental institutions. It concerns also other actors in the playing field, such as NGOs, private (water) companies, and (organized) citizens. The transition in modern water management from technocratic towards more adaptive and democratic approaches is widely acknowledged (Sabatier et al., 2005; van der Brugge, Rotmans, & Loorbach, 2009; van Buuren, Klijn & Edelenbos, 2012). There are all kinds of initiatives in the water domains, illustrating this development: citizen participation, public-private partnerships, civic environmentalism and community-based initiatives (Brunner & Steelman, 2005). Often networks are formed beyond traditional governmental institutions and in cross-boundary spheres reflecting hybrids of societal, governmental and market institutions. Current institutional arrangements for service provision in the water sector are in flux and new hybrid constellations emerge.

It is the aim of the editorial team to develop a large body of knowledge on the public-private provision debate and elaboration and testing examples of public private partnerships reflecting hybrids of public, private and societal institutions. We explicitly want to stress the importance of improving our knowledge and understanding of the (dis)functioning of hybrid networks.

6. Water governance: Analyzing complexity and patterns of stability and change

Recognizing the complexity of water governance also implies to develop a more profound understanding of how governance processes evolve and how we can explain both stability and change. Water governance processes do not fit in our quite linear interpretations of policy processes evolving from agenda-setting to implementation, but can be better understood as ongoing processes of different rounds of interaction and negotiation in different arenas and with different actors (Teisman, 2000) which result in only temporal and dynamic policy equilibriums (van Buuren & Gerrits, 2008). The same holds true for how policy paradigms evolve. Speaking about 'transitions' and 'paradigm shifts' do not do justice to the nonlinear character of policy evolution, which is not only strongly path-dependent, but can also be quite disruptive.

Bressers and Kuks propose to develop a more systematic analytical framework for analyzing and comparing the dynamics of water governance regimes, with help of five dimensions: a multi-level dimension, a multi-actor dimension, a multi-perspective dimension, a multi-instrument dimension and a multi-resource dimension.

In their contribution, they argue that the five dimensions of a governance regime adjust to each other according to three path dependency mechanisms: (a) a dominant set of values (motivation), (b) a dominant cognitive frame of reference (cognitions), and (c) a dominant power configuration (mutual dependencies between actors). These three mechanisms create stability in a regime, which beyond a certain point can also

be pathways for changes. Dynamics come into a governance regime through external triggers disturbing the regime stability.

As editorial team we argue that water governance processes are constantly moving in a continuum of change and stability (see also contribution by Edelenbos and Teisman in this issue). Sometimes long periods of stability are followed by big changes, which need prompt and legitimate response and action. We invite scholars to address this dynamics, explaining collapse or change and discussing their consequences for dealing effectively with dynamics and erratic developments in water governance systems.

7. The governance of knowledge for water

Our broad approach to water governance and the acknowledgment that water systems are intrinsically complex and water issues controversial, does have important implications for the question with regard to 'the governance of knowledge' required for effective action. In order to deal in a well-guided and rational way with water systems, not only sufficient and authoritative knowledge of the water system itself and about the interactions with other systems is needed. In complex governance constellations, knowledge requirements will become much broader because knowledge is fragmented, constructed, contested and limited (van Buuren, 2009).

Water governance is implying the management and governance of knowledge beyond boundaries of levels and domains. Can this be organized in an effective way and if so, how? Various normative approaches of water management (adaptive water management, integrated water management, collaborative water management) postulate a variety of requirements for how to organize knowledge for water governance. At the same time, the everyday complexities of water governance processes hinder simply applying these rules. An important challenge is to find out how the governance of knowledge can be organized in a context of complex and controversial governance processes, which are normally oriented at the short term and on realizing fixed policy goals. Another challenge is to find out how more collaborative knowledge processes can be entwined with the technocratic tradition of the water domain.

In the seventh contribution to this first issue, van Buuren elaborates on water knowledge management. He critically assesses the various knowledge requirements in current water management paradigms and sketch some avenues for thinking about the governance of knowledge in the water domain that try to do justice to its inherent complexity and controversy.

8. Concluding remarks

The first issue indicates main topics and approaches the International Journal of Water Governance want to cover. In general it is our aim to increase the understanding

of water governance and to develop more grounded insight in how to assess governance capacity in the domain of water and neighboring areas to effectively, efficiently and legitimately deal with water stress and crises. This can help to develop effective strategies to deal with water supply and flood protection on the one hand and to develop effective strategies for other domains like agriculture, mining and regional and urban development that have to take the issue of ‘dealing carefully with water’, much more into account.

To realize this aim the journal is open for contributions from a variety of domains, including public management, law, sociology, economics, planning, environmental sciences, risk management and innovation studies. This variety of disciplines is a first indicator of the multifaceted nature of water governance. Water governance has to be understood as a multidisciplinary phenomenon. It is the aim of the editorial team to bring together knowledge from the technical/applied sciences dealing with water and water management and from a variety of social sciences, like economics, public and business management and administration, policy and political sciences, and law.

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