

## Chapter 8

# Inclusive Transboundary Water Governance

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**Abstract** Transboundary watercourses, including rivers, lakes and aquifers (confined and unconfined), shared between two or more countries, are home to over 70% of the world's population and supply water for roughly 60% of global food production. It is no surprise that the management of these watercourses has been entrusted to national states, which have the power to take sovereign decisions over their management, use and conservation. State sovereignty is mitigated through the existence of a global institutional framework comprised of customary international water law (the norms dictating how states behave), global and regional conventions, basin-level agreements and basin management organisations. The good news is that there is a large body of joint institutions between countries with transboundary watercourses, the UN estimating that around 3600 exist. This in part explains the relative lack of military interstate conflicts. Less good news is that despite the existence of international- and basin-level agreements and basin organisations, the benefits to be expected from international cooperation around transboundary watercourses have in most cases not materialised. Acute, persistent and seemingly intractable problems persist, with ecosystem degradation not being reversed, joint investments in water infrastructure not materialising and joint management organisations failing to attract significant long-term support from the respective basin states. Despite at least two decades of concerted support by the international development community, the impacts of enhanced interstate cooperation are noticeable through their absence. This chapter investigates why this may be so and introduces a starting point which moves beyond the state-centric approach to transboundary water management. In doing so it does not challenge the sovereign right of states to manage their watercourses; instead it shows how a range of non-state actors do in fact influence state practice through a variety of mechanisms. As these mechanisms are frequently covert, it becomes difficult to assess the integrity of the relationships between actors, in turn making public engagement and participation difficult. Needed is a governance paradigm which opens the decision-making arena to non-state actors all in support of the national governments and their respective mandates. This chapter ends with an indication of what such a governance arrangement

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would look like across the four success factors identified in the preface of this book: science-informed decision-making, investments in appropriate infrastructure, development of skills and talent and the water use behaviour of stakeholders.

**Keywords** Transboundary water management • Customary international law • Cooperation • Justice • Governance frameworks

## 8.1 Introduction

The UN Human Development Report of 2006, which focuses on water issues, concludes that the “scarcity at the heart of the global water crisis is rooted in power, poverty and inequality, not in physical availability” (UNDP 2006: 2). In essence this is a crisis of governance. This message is echoed by a range of international organisations (UNDP 2006; UNESCO 2008; UNEP 2009; UN-Water 2008; Jacobsen et al. 2013; World Bank 2013).

Lacking are effective organisations and institutions for the sustainable development and management of the world’s water resources (Bigas 2012). This ineffectiveness manifests itself in the poor state of freshwater ecosystems, which according to the Worldwide Fund for Nature is the most degraded of all the biomes (WWF 2012). Of the world’s 177 large rivers (those over 1000 km), only 64 remain free flowing, unimpeded by dams and other barriers, while only 21 of these large rivers retain a direct connection with the sea (WWF 2012). Water resources are under increasing pressure from human growth, activities and settlement (WI 2010), industries and cities that consume vast quantities of water and have to convey water over increasing distances to satisfy demands (UN-Habitat 2010) and production of crops for food and fuel that use ever-increasing amounts of water.

Transboundary water resources, including rivers, lakes and aquifers that are shared between two or more states, further complicate effective water governance, by introducing an international-political dimension. Approximately 276 river basins cross international borders and serve as a primary source of freshwater for approximately 40% of the world’s population. These basins are home to over 70% of the world’s population and supply water for roughly 60% of global food production. About 30–50% of the world’s population depend on groundwater source from 608 transboundary aquifer systems (IGRAC and UNESCO-IHP 2015).

Water management and allocation decisions that are made at the international and national levels often rely on national and subnational organisations for their implementation and often rely on civil society and/or local communities for their acceptance and legitimisation. This chapter illustrates the imperative for the inclusion of non-state actors in the decision-making architecture of transboundary water governance.

This chapter will firstly clarify a number of terms used in the chapter; it then describes the issue of a state-centric approach and the problem that this creates; the

concept of multilevel governance is then discussed as a concept that could shed some light on the issue; we then delve into more detail on the organisational structure of transboundary water governance, followed by an exploration of water justice and social inclusion.

## **8.2 Clarifying Terms**

### ***8.2.1 Scales and Levels***

There are many definitions of scale and level in the literature, and the terms are often conflated. For the purposes of this chapter, it is useful to distinguish between these two terms. Thus the term scale refers to different ordering systems for space, time, administration and jurisdiction (Ramasar 2014); and the term level refers to points along a scale which in most cases takes on a spatial unit of analysis, for example, global, basin, state, province and local levels (Gibson et al. 2000; Cash et al. 2006).

### ***8.2.2 Organisations and Institutions***

The decision-making architecture of transboundary water governance comprises two scales, namely, organisation and institution. In this chapter the definitions from North (1990) are adopted, where institutions are considered “the rules of the game” and include principles, policies, regulations, legislation, conventions, agreements, treaties and social norms and organisations are considered the “players”, for example, government departments, non-government organisations, civil society groups, river basin organisations, municipalities and community-based organisations. These organisations and institutions can be explicitly mapped out for each transboundary water issue of interest as a mechanism to develop a deeper understanding of the levels within each scale that comprise this architecture.

### ***8.2.3 The Issue: A State-Centric Approach***

The management of transboundary waters naturally falls within the ambit of the state. The state is the referent level that is entrusted and empowered to make sovereign decisions over the management, use and conservation of these shared waters. In relation to water, state sovereignty is upheld through the existence of a global institutional framework comprised of customary international water law (the norms dictating how states behave), global and regional conventions and bilateral or

multilateral basin-level agreements and treaties. The UN estimates that approximately 3600 joint institutions exist between states to govern transboundary water resources (UN-Water 2013).

However, despite the existence of these institutions, the benefits to be expected from international cooperation over transboundary water resources have in most cases not materialised as expected (Earle et al. 2010). Acute, persistent or seemingly intractable problems persist, with ecosystem degradation continuing unabated, joint investments in water infrastructure not materialising and joint management organisations failing to attract significant long-term support from their respective basin states. Despite at least two decades of concerted support by the international development community, the impacts of enhanced interstate cooperation are noticeable through their absence (Earle and Bazilli 2013). These challenges pose a risk to other interventions seeking to promote development, peace, regional integration, ecosystem protection and poverty eradication in a transboundary context. Coupled with the multiplier effects of climatic change, there exists a real possibility of tensions over water escalating at various levels (Ki-Moon 2007; NATO 2010; OSCE 2010; Department of Defense (DoD) 2010; NIC 2012).

States at times choose to engage in cooperative processes, while at other times, or indeed in other basins, they do not. In the majority of research efforts on transboundary water governance, states are viewed and analysed as homogeneous units, with an assumption that water resource use and allocation occurring at the national level will cascade down to a broad range of users (Sneddon and Fox 2006; Hirsch and Jensen 2006; Suhardiman and Giordano 2012; Reed and Bruyneel 2010). The flaw of this assumption is that it omits subnational actors and the role they may play in driving transboundary water governance processes at the national and international level.

### ***8.2.4 Connecting the Scales and Levels***

One thesis that could shed some light on the lack of cooperation over transboundary water resources is that of a multilevel governance approach. Multilevel governance is both a process and a description of governance architecture. It provides a framework for describing the complex interaction and interdependencies between the plethora of “actors” and “rules of the game”. An explicit integration of the different levels within the organisational and institutional scales of governance is imperative for effective decisions over transboundary water resources to be made, implemented and accepted (Patrick et al. 2014a).

Multilevel governance is an arrangement where institutions operate at various levels (e.g. local, regional, state, national, global) with multiple mandates and across different, but overlapping areas. The use of the term governance rather than government reflects the shift in decision-making powers from the state, where a state is a political and geopolitical entity administered by a government, to non-state actors. The more nuanced understanding of this is not a complete shift in power but rather

a model of collective bundling of organisations that all influence the decision-making process (Patrick et al. 2014b). The devolution of power to other government actors through a decentralised state model also adds to this new collective governance model. The sharing between different actors of the role of institutional development, institutional formulation, institutional implementation and institutional regulation and monitoring add a further layer of complexity to our understanding of governance.

Multilevel governance is a network arrangement of institutions that can cooperate to successfully manage common pool resources such as water. Some of these institutions may be initiated to manage specific aspects of natural resource management such as water allocation, or they may be of a more general nature where water allocation is one aspect of a bigger portfolio. Each institution is essentially independent of the other, although some may be nested, where the scope of authority is superseded by the next higher level or they may form an autonomous network of institutions with overlapping goals and policy objectives (Ostrom 1996). Suhardiman and Giordano (2012: 304) contend that the distinctions between what constitutes a state and a non-state actor have become blurred, with overlap between these groups due to partnerships being formed as well as a movement of individuals between these groups. This leads state and non-state actors to develop “nested institutional structures” which manage resources at various levels of scale.

A multilevel institutional arrangement could distribute resources and capacities in such a way that any “perverse incentive and information problems at one level are offset to some extent by the positive incentives and information capabilities for actors at other levels” (Andersson and Ostrom 2008: 73) and that this arrangement will achieve better water management outcomes than either a completely decentralised or centralised institutional structure (Patrick et al. 2014a).

There are various costs associated with a multilevel governance arrangement such as production, administration and bureaucratic costs (McGinnis 2005) that might exclude it as the most appropriate organisational arrangement for all problems and goals. It is, however, an appealing concept as it does not prescribe a specific blueprint governance model (Andersson and Ostrom 2008), and thus it can accommodate contextual issues and differences and make use of existing institutional and organisational structures. It is a system that also acknowledges the dynamic nature of water resource governance and is thus more adaptive and responsive to issues that arise at different levels and encourages a cooperative approach to addressing water management issues.

### ***8.2.5 A Closer Look at Organisational Structure***

Earle et al. (2010) propose that transboundary water resources can provide an opportunity to contribute to regional development and peace if the organisational capacity exists to manage them cooperatively. They propose a conceptualisation of this organisational framework as consisting of three interrelated communities of



**Fig. 8.1** The cogs within the organisational scale of transboundary water governance (Earle et al. 2010)

actors. They comprise the water management community (including water users from civil society and the private sector and water managers from governmental departments or agencies), international community (external to the basin actors such as researchers and development partners) and politicians in the basin states (see Fig. 8.1).

These three communities interact in a variety of ways, influencing each other and learning from each other; however, the overall pace and direction of transboundary water governance processes is set by the politicians (as representatives of the central state). These communities are not heterogeneous; their components are exposed to a range of pressures and power dynamics operating at various levels, some within the water sector and some from outside. The nuances of pressures and power relations at a variety of levels need to be better understood if transboundary waters are not to become a source of conflict or countries remain trapped in a state of “negative peace” – merely the absence of war (Earle et al. 2010).

Interested groups operate at a variety of levels and often place pressure on politicians to provide them with access to resources, jobs or other services, in so doing

influencing the actions of these politicians at the international level (Earle 2013). The politicians in turn have final say over the international water management regimes which they are willing to commit their respective country to; if there is the perception amongst local-level stakeholders that entering into an international agreement will negatively impact their access to water resources, then there is great pressure placed on politicians not to proceed with such an action. Thus states, as represented by politicians, are not the only actors possessing agency; they are but part of a range of actors that play a role in water governance frameworks (Earle et al. 2010). By better understanding the interests of these non-state actors, it may be possible to better understand some of the choices articulated by states at the international level (Earle and Bazilli 2013; Earle et al. 2015).

## **8.3 Driving the Cogs**

### ***8.3.1 Power***

Issues around power become paramount at this point – with various subnational actors possessing better access to political decision-makers than others. As a result of what Allan and Mirumachi (2010) refer to as the “hydraulic mission” approach to managing and developing water resources, the primary actors in TWM processes have been states – represented by technical, economic and political elites operating in what generally gets termed “the national interest”. Left out are the local communities relying on the resource directly: the water users, poor, women and other important groups. Instruments such as the UN Watercourses Convention of 1997 make an effort of presenting an attempt at an inclusive stakeholder approach – through asserting the importance of the “no-harm rule” and the “equitable share approach”. However, it lands up supporting the status quo through the omission of any reference to stakeholder issues or participation mechanisms. Likewise, regional transboundary laws such as the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the SADC Protocol on Shared Watercourses are found to be silent on issues related to stakeholder participation and gender (Earle and Bazilli 2013).

### ***8.3.2 Reframing Issues Across Levels***

National interests and socio-economic imperatives drive the political agenda of individual nation-states. The uptake of transboundary water management and cooperation efforts could be greatly improved by reframing them in the national interest. The same can be said about human security needs. What mechanisms of reframing can be adopted by international- and local-level issues to align them more with

national interests? What compliance and implementation mechanisms of national interest priorities can be utilised to improve human and water security? We need to understand better how knowledge on regional water resources can more effectively feed into decision-making at different scales. We need to demonstrate how existing knowledge can add value. This is not only knowledge of biophysical systems but the political processes that drive choices and trade-offs. Can we reframe the “duty to cooperate” outlined in the UN Charter to move beyond state actors and identify a role of non-state actors?

### ***8.3.3 Shifting Power Dynamics***

#### **8.3.3.1 Municipal to National to International**

Cities are powerful actors since the majority of the earth’s population today live in urban areas, making cities important drivers of water resource management processes (UN-Habitat 2010; Earle 2013). While municipal water use in most countries is a small portion of overall water use, it commands a high assurance of supply due to economic and political influence, placing cities in a strong position to compete for water resources across increasing distances. The quest for urban water security includes the provision of services directly related to water resources, such as electricity generated from hydropower, on international transboundary water management processes.

Cities have driven several transboundary water governance processes, accessing central state politicians through a variety of mechanisms, some explicit and others not. In a study unpacking the role of cities on transboundary water processes, Earle (2013) contends that cities influence the agenda in transboundary water governance in three main ways: (1) their increased capacity to pay for water resources (in comparison with rural water users) means that they can harness large-scale water transfers for their use; (2) via their need for electricity and other services (such as flood protection) where cities are dependent on water resources; and (3) the need for their politicians to secure a political power base in the rural areas. For example, cities such as Johannesburg, Amman, Windhoek, Lusaka, Bangkok and Cairo have all played a driving role in the development of water resources or the evolution of water management institutions in the international transboundary basins around them. This can in cases lead to increased cooperation, where the water-related needs of cities have led to the development of new laws, institutions and collaborative infrastructure projects. However, this same thirst can lead to increasing water stress in the basin as well as neighbouring basins, possibly resulting in conflict at the inter-state level. Further investigation is required to determine how the water-related needs of cities are articulated at the national level. Most likely it is not through any one channel or mechanism, but rather a range of actors that reflect the needs of cities and (mostly independent of one another) motivate national governments to take up specific initiatives at the transboundary water level.



Generally it is found that the role of cities in transboundary water processes is not often considered in research on transboundary water, making it important to reach a better understanding of this interaction (Earle 2013). By better understanding this role, light is shed on the “black box” of interstate interactions around transboundary water. Data and records of city-level planning and policies on water resources are, arguably, more accessible to researchers than the records of interstate negotiation and policy processes on transboundary watercourses.

### **8.3.3.2 International Interests over Local Interests**

International agreements or treaties are often used to codify water-sharing arrangements between sovereign states, but there have been some cases where local communities have been disproportionately burdened with some of the negative outcomes of decisions made at the international level. This is illustrated by way of example by the Lesotho Highlands Water Project, an international water-sharing project between Lesotho and South Africa. South Africa pays royalties to Lesotho for water transferred to its economic hub, and Lesotho receives hydropower electricity for its domestic use. The treaty signed between Lesotho and South Africa is considered by some as an example of good practice (Haas et al. 2010). However, the infrastructure involved in this interbasin transfer and hydropower scheme includes large dam development which has had significant negative impacts on the long-term ability of the affected local communities within Lesotho to maintain their livelihoods even though they received monetary compensation or were resettled (Mokoroski and Van der Zaag 2007). This example illustrates that decisions that are sometimes considered good practice at one level (in this case at the international level between South Africa and Lesotho) do not necessarily translate to positive outcomes at other levels (in this case at the local community level within Lesotho).

### **8.3.3.3 International Interests over National Interests**

The state is treated as a “black box” with little possibility of gaining an insider’s point of view. This approach has been challenged by Hirsch and Jensen (2006) in their study on national interests in the Mekong River basin where they contend that the working assumption of the international partners supporting cooperative management structures of the Mekong River Commission (MRC) has been that the respective riparian governments represent the collective interests of the states (Hirsch and Jensen 2006). They find a wide range of interests which are not easily reducible to “the national interest”, the result being that MRC institutional processes are not implemented at national level – due to the lack of support within riparian countries. At best this represents a waste of taxpayers’ money from the countries supporting the development of the MRC; at worst it opens the possibility for specific interested groups in the basin to dominate the agenda and promote approaches which legitimise their objectives and standing. Appeals to the “national

interest” in doing so become a “discursive strategy often invoked to legitimise large infrastructure projects whose environmental and social consequences may in fact be quite disastrous” (Hirsch and Jensen 2006: xviii). Put another way, “by virtue of their invocations of sovereignty and overarching concern with cooperation among riparian states over a highly abstracted notion of “water resource”, they are necessarily oblivious to environmental conflicts involving non-state actors” (Sneddon and Fox 2006: 197).

### ***8.3.4 Tracking Water Diplomacy***

Water diplomacy is a process that enables countries to prevent, resolve or manage conflicts and negotiate arrangements or agreements on the allocation and management of international water resources. It is a dynamic process that seeks to develop reasonable, sustainable and peaceful solutions to water allocation and management while promoting or influencing regional cooperation and collaboration. Water diplomacy can open up the cooperation dialogue to multiple stakeholders, including municipalities, provinces and civil society. Water diplomacy necessarily involves a suite of skill sets, with hydrologists, lawyers and political scientists sharing the negotiation table with diplomats and decision-makers.

Tensions over shared water resources are cross-cutting and often lie at the heart of national security priorities with close linkages to a wider set of economic, social and geopolitical issues (Patrick et al. 2014a). At the international level, tensions over water resources can impact negatively on regional development, dampen resilience to climate change and raise the risk of geopolitical instability. Conventionally, diplomacy is seen as high-level interaction and dialogue between nation-states. Diplomacy is now defined according to various levels and can be categorised into Track I, II and III diplomacy. These different tracks vary in terms of degree of official (Track I) vs. unofficial dialogue (Track II); actors in the dialogue, high-level political and military leaders (Track I) vs. individuals and private groups (Track III); and the purpose of the dialogue: peace talks (Track I), sharing of ideas that inform the official process (Track II) and empowerment of individuals and communities to participate in the negotiation process (Track III) (Snodderly 2011).

### ***8.3.5 Striving for Water Justice and Social Inclusion***

Water allocation and management decisions made at one level, for example, the diplomatic or international level, *should* translate into socially and environmentally acceptable outcomes at the local level. What do we mean by acceptable and how do we measure improvements in water and human security? How can local-level processes and issues translate into national and international-political imperatives for peace and cooperation? Can we identify good practices of transboundary water and

benefit sharing that contribute to human security? Are there explanatory variables for cooperation and conflict that can be drawn from the social sciences? For example, justice, ethics, faith and customs and spirituality are all in some way connected and influence human security. Are there underlying values and philosophies that can act as a catalyst for peace or conflict resolution or require incorporation into water diplomacy efforts?

Reframing a problem, a solution or a system can be used as a means of including or excluding certain actors, perspectives and processes (Kurtz 2003; Van Lieshout et al. 2011). This process of inclusion and exclusion has also been examined in the justice literature, primarily by Susan Opatow. She explores it in the context of environmental conflicts and has termed it the *scope of justice* (Opatow and Weiss 2000). The scope of justice, also known as the scope of moral exclusion, has been defined as the psychological boundary for fairness (Opatow and Weiss 2000) or the boundary within which justice is perceived to be relevant (Patrick et al. 2014a). Principles of justice govern our conduct towards those within our scope of justice, while moral exclusion rationalises the denial of those outside our scope of justice (Opatow and Weiss 2000) and thus enables and justifies the application of justice principles in an inconsistent or even in an unjust manner.

By obtaining a better understanding of the way in which non-state actors influence transboundary water management, or are excluded from these processes, it is possible to gain access to what Allan and Mirumachi (2010: 25) refer to as the “world of disappeared hydropolitics”. In situations of water scarcity, relations between states over water resources become politicised and possibly securitised, leading to decision-making disappearing from public view; researchers are not privy to the discussions and decision-making processes between central states, but by analysing some of the non-state actors and their interests (which are usually more openly stated), it is possible to gain an insight into some of the hidden practices of states.

Tensions also exist between international justice and social justice. The development of theories of social justice has predominately focused on or assumed the state level rather than the international level (Cole and Schroeder 2004) and has resulted in much discussion about which should take precedence. The debate centres on whether international justice is only about relations between states or whether it is between people throughout the globe. This discussion is becoming more and more relevant with the globalisation of industry and commerce, and the development of supranational level organisations, and is a concern when discussing issues of justice within and between supranational entities, such as the European Union, and individual persons whose claims for justice are largely confined to state structures. As it stands, issues of social justice at the local level as well as issues of social justice at the global level are seen as the responsibility of the state (Cole and Schroeder 2004); it is therefore an entity that matters for social justice.

## 8.4 Conclusion

In their article on process-based approaches to researching transboundary water management, Suhardiman and Giordano (2012: 305) highlight the need to “better understand transboundary decision making processes, and how these processes are shaped by different actors’ interests, strategies, and access to resources within multiple governance levels and domains”. By gaining more insight into their roles as well as the way in which they are excluded from these processes, it should be possible to carry out a more effective analysis of the actions and positions adopted at a state level regarding transboundary water management.

The good governance of water resources is an integral part of promoting sustainable development globally (OECD 2012). What is needed is a governance paradigm that opens the decision-making arena to non-state actors, all in support of the national governments and their respective mandates. The rationale behind many international interventions to improve transboundary water governance is that the state is the prime actor amongst a range of other actors because they hold the main decision-making power. This has meant that the role of non-(central) state actors in transboundary water management has typically been under-researched (Suhardiman and Giordano 2012), producing only a partial picture of the full governance landscape.

The complexity of collaborative management institutions between countries, as well as the range of stakeholders within these countries (and the need for equitable and just allocation of resources between them), presents an opportunity to contribute to regional development objectives, provided that timely and well-structured institutions are put in place to avoid and mitigate the possibility of disputes developing into conflict (Earle et al. 2010). All this needs to take place with due recognition of the probable impacts of climate change, with effective policies developed and implemented across all levels to mitigate as well as adapt to these adverse impacts.

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