



Synthesis, part of a Special Feature on [Global Water Governance: Challenges and Future Scope](#)

Global Water Governance in the Context of Global and Multilevel Governance: Its Need, Form, and Challenges

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ABSTRACT. To complement this Special Feature on global water governance, we focused on a generic challenge at the global level, namely, the degree to which water issues need to be dealt with in a centralized, concentrated, and hierarchical manner. We examined water ecosystem services and their impact on human well-being, the role of policies, indirect and direct drivers in influencing these services, and the administrative level(s) at which the provision of services and potential trade-offs can be dealt with. We applied a politics of scale perspective to understand motivations for defining a problem at the global or local level and show that the multilevel approach to water governance is evolving and inevitable. We argue that a centralized overarching governance system for water is unlikely and possibly undesirable; however, there is a need for a high-level think tank and leadership to develop a cosmopolitan perspective to promote sustainable water development.

Key Words: *global governance; multilevel governance; scale; water governance*

INTRODUCTION

The global water system is under pressure (Vörösmarty et al. 2010). Planetary boundaries of many water-related processes are being crossed (Rockström et al. 2009). We focus only on freshwater, which is perceived differently by different people: as a sacred commodity, e.g., in Indian mythology; as a heritage (European Parliament and the Council of the EU 2000); as a social, an economic (ICWE 1992), or a political good (Schouten and Schwartz 2006); as a human right (Gupta et al. 2010, UNGA 2010); as a security issue (Gleick 1993, cf. Levy 1995); as a hydrological entity, by hydrologists; and as an ecosystem medium (Sneddon et al. 2002) that provides ecosystem services (MEA 2005). Different water governance actors/stakeholders prioritize different aspects: some prioritize the commodity aspect that can be managed by the market, some prioritize the nationalistic framing, others recognize water's transboundary character as critical, and still others argue that its global nature calls for a global understanding and governance system. This has led to dialogue and conflict between these different framings.

At a practical level, debate focuses on whether water should be managed as a sector or as a crosscutting issue; whether governance should take place primarily at local, national, or fluvial levels or whether there is a critical role for the global level; and whether water governance solutions should be treated as magical panaceas or critically examined for contextual validity (see Pahl-Wostl et al. 2012, Gupta et al. 2013). None of these are either/or situations. This Special Feature goes beyond our 2008 special issue on GWG in *Global Governance*, which analyzed current GWG (Pahl-Wostl et al. 2008) including the legal setup (Dellapenna and Gupta 2008). We submitted in that issue that arguments in favor of GWG include that there is only one hydrological system, that global

environmental change is a global phenomenon and cannot be controlled only at lower administrative levels, that cumulative outcomes of local phenomena create global problems, and that the direct and indirect impacts of water management will be global. Although the subsidiarity principle calls for managing water at the lowest appropriate governance level, the global dimensions call for also governing at the global level. We now address the following question: How should the water governance challenge be dealt with at the global level? We review the different perspectives and arguments that have been put forward to address this normative question, based on a literature review, the contributions to this Special Feature, and three international workshops in 2010 and 2011 organized by the Global Water System Project. We look at the "politics of scale," which examines the levels at which water problems are perceived, the politics of water governance in terms of the nature of water itself and the nature of water governance architecture, and the processes of change in GWG focusing primarily on societal learning.

THE POLITICS OF SCALE IN GWG

We present a typology of water problems; discuss whether some issues are more relevant at a particular level and why; make the argument that the politics of scale helps to shape the level at which these problems and the resulting claims for governance are constructed; and argue that a multilevel governance (MLG) approach to water problems could contribute to sustainable management of the resource.

Water ecosystem services and drivers affecting those services

Although water is an ecosystem medium, governing water occurs from anthropocentric perspectives. The ecosystem services concept, which focuses attention on the services

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Table 1. Policies and drivers affecting the ecosystem services of water.

Policies		Indirect drivers		Direct drivers		Ecosystem services		Human well-being
Norms, principles, paradigms	Influence	Economy (agriculture, industry, services)	Which shape	Infrastructure including provision of water	Affecting who gets which service, how much, and for how long	Supporting	Thus contributing to	Security
Security		Climate change and variability		Land-use change		Provisioning		Good life
Regulatory, economic, and information instruments		Demography		Pollution		Regulating		Health
Management instruments (community, public-private)		Technology				Cultural		Good social relations

provided by our natural resources, can integrate these two perspectives because it captures the importance of ecosystem integrity for human well-being. Following the Millennium Ecosystem Assessment categorization, water challenges can be described in relation to its four ecosystem services: (1) supporting, e.g., nutrient cycling; (2) provisioning for productive, consumptive, and nonconsumptive uses; (3) regulating, e.g., water purification; and (4) cultural, e.g., aesthetic (Aylward et al. 2005). Water systems contribute to improving human well-being by influencing security, quality of life, and health, as well as social relations (MEA 2005). These services are provided to a different degree at different spatial levels from local to global. The question of who gets which service, when, where, and how, at local to transboundary contexts, is determined through complex policy-making processes.

Water-related ecosystem services are provided in the context of the direct and indirect pressures/drivers on the water system, pressures that will have to be dealt with by governance systems. Direct drivers include infrastructure construction on water, e.g., dams, dikes, levees, and diversions; water use, e.g., fishing, transport, and agriculture; land-use change, e.g., draining wetlands and deforestation; and pollution, e.g., waste discharge and introduction of exotic species. Indirect drivers are climate change and variability, demography, economy, infrastructure, and technology (Postel and Richter 2003, cf. WWAP 2012). The policy context, which includes geographic location, physical availability of water, and relevant socioeconomic issues, and policies, i.e., norms, principles, paradigms, and instruments, determine how society uses its water and which services it prioritizes (see Table 1).

Which water problems at which levels?

Previously, we showed that water problems can be described in terms of their effects on ecosystem services and human well-

being, the direct and indirect drivers affecting them, and the role of institutions in contributing to these problems. This brings us to the following questions: Which type of water problem needs to be dealt with at which level of governance, and why?

Table 2 distinguishes water issues that need to be dealt with at different governance levels, by different actors, for differing reasons, and leading to different policies. For example, local access issues, local vector-borne diseases, and local demand can best be dealt with by local authorities and communities because local people are more competent in dealing with their own problems than those from other levels of governance (Ostrom 1990, Shivakoti and Ostrom 2002). The local arena is a laboratory of policy making, and local people have high ownership and commitment to addressing local problems. Key management tools at this level include spatial policy and infrastructure management. At the national level, there is a need for policy making to manage national and transboundary resources. Other actors, such as river basin organizations (RBOs), become important at the fluvial level both domestically and internationally (Jaspers 2003, Hooper 2005). Transnational nongovernmental organizations (NGOs) and aid agencies may also play a role. At the global level, the issues are the development of a common understanding of global water drivers and cumulative impacts; the actors are United Nations (UN) agencies, multinational organizations, and NGOs. The reasons for action at the global level are to create common norms for water management, to enhance the effectiveness of policy measures, to deal with global drivers, and to ensure system-wide coherence (see Baumgartner and Pahl-Wostl 2013, Schubert and Gupta 2013). The policy options are treaties or agreements embodying policy measures and values, such as the human right to water (see Table 2).

Table 2. Examples of different problems and policy options for different levels. IWRM = integrated water resource management, RBOs = river basin organizations, CBO = community-based organizations.

Level		Problem	Authorities and networks	Reasons	Policies
Global	Subsidiarity pushes downward; Universal nature pushes upward	Lack of common problem definition; incoherent policy initiatives; global drivers of change (e.g., climate change); local policies to deal with local issues that add to serious global trends (e.g., dams)	UN agencies and treaties; G7, G77, and the new G's; bi and plurilateral agreements; international NGOs; multinational corporations and banks	Prevent free-riding; policy coherence; share information/experiences; transfer technologies and resources	International norms (e.g., human right to water), targets (MDGs), policies and measures (e.g., climate proofing water treaties)
Fluvial/transboundary		Poor policies, infrastructure and land-use implications of river basins/aquifers; species migration	UN regional agreements; European Union; subcontinental NGOs; RBOs	Prevent free-riding; To develop common principles of water sharing and water pollution; to create a level playing field; to jointly solve common problems	Fluvial policies and measures (e.g., Mekong River Commission; EU Water Framework Directive)
National		Poor policies on governing water (use, abuse, infrastructure, and land use) domestically and internationally; direct/indirect drivers (dealing with climate change and salt water intrusion)	National governments; national NGOs; RBOs; national companies	Prevent free-riding: state is the negotiating unit in international relations; domestic regulatory functions rest with the state; state can empower other actors to take a role	Sectoral policies; IWRM; adaptive management; spatial planning
Local		Direct drivers (local access to water, food and sanitation services, vector borne diseases; water for agriculture, waste water and land use, irrigation)	Local governments; local communities (CBOs); local and transnational NGOs; local companies	Laboratories of policy making; capable of own initiative; ownership of problem and hence solution	Spatial policy; infrastructure; management of local water services

The politics of scale in water governance

Although Table 2 structured policy options at different levels of governance because water issues are socially constructed (Collins and Ison 2010, Ison et al. 2011), actors and countries may have many differing motivations to scale up or scale down water issues. This is referred to as the “politics of scale,” and an application of the politics of scaling typology (Gupta 2008) to water shows that there are reasons that actors may wish to scale up water to the global level (see Table 3).

Similarly, governments and actors could have reasons to scale down water to national/local levels (see Table 4). These reasons are based on empirical analysis over years and can also be seen as hypotheses for future testing.

The multilevel approach

The complexity of water, the direct and indirect drivers of water problems, and the reasons for managing water at different levels lead us to argue that water needs to be dealt with at multiple levels simultaneously. MLG scholars argue that governance dispersion is superior to state monopoly because it internalizes externalities; allows for local heterogeneity, preferences, and jurisdictional competition;

and creates a credible policy culture with innovation and experimentation (Hooghe and Marks 2003, 2004, Steen and Toonen 2011). Common pool resource scholars argue that decentralization and local self-organization need to be complemented by institutional arrangements operating at other governance scales (Andersson and Ostrom 2008). Insights from comparative studies suggest that effective governance systems are characterized by a balance between bottom-up and top-down approaches, and between decentralization and cross-level coordination (Huntjens et al. 2010, Pahl-Wostl et al. 2012). The challenge remains to assess what should be governed at which level and what kind of cross-level coordination is required to achieve sustainable management. We focus mostly at the global level. However, it is evident from our previous elaborations that this cannot and should not be done without due consideration of linkages to other levels.

THE POLITICS OF GWG

The complex nature of water governance

Water governance is influenced by changing norms, paradigms, and theories of governance: for example, the shift

Table 3. Reasons for scaling up water.

Motivation Type	Motivation	Application to Water
To enhance understanding of a problem	To account for the global hydrological system	E.g., fresh water systems are connected, and need to be dealt with as a whole
	To account for externalities as influential factors	E.g., the influence of global trade and investment regimes on water
	To determine global impacts and thresholds of a problem	E.g., cumulative impacts of pollution, extraction (fishing), or infrastructure (one dam is okay; thousands are reshaping water flows)
To improve the legitimacy and effectiveness of policy making	To understand the ideologies driving decision making	Is water a “commons” or “commodity” that can be privatized? These framings at global level shape national policies
	To include countries/actors in decision making	E.g., to collectively put pressure on upstream countries to share water with downstream countries, thus creating a level playing field
To promote domestic interests	To protect the common good; to attain sustainable development	To manage the hydrological resource holistically
	To postpone decisions, or avoid taking measures at the domestic level	To avoid taking measures in one water basin, until everyone agrees, minimizing own costs
To promote extra-territorial interests	To avoid a race to the bottom and promote the use of cleaner/more efficient technology	E.g., require all countries to use certain water saving or treatment technologies, thus creating markets for technologies
	To gain influence over resources in another location despite potential loss of control over resources by actors at a lower scale level.	Gives control over how other countries manage/share water (e.g., on Nile)
	To bypass an agency because of its lack of either motivation or capacity	Where national governments are not interested (e.g., human right to water), thereby pressurizing them
	To create a level playing field through joint action that enhances the power of cooperating actors	E.g., common principles of equity and the no harm principle that can be applied world-wide (see UNGA 1997)
	To increase the decision making space, thus enlarging the scope for trade-offs	E.g., the introduction of the concept of virtual water, which could expand the space for action

from government, i.e., state centric, top down, centralized, and state controlled, to governance, i.e., participatory, bottom up and top down, decentralized and deconcentrated, privatized, and including public-private partnerships, networks, communities, and informal ways of managing challenges (Pahl-Wostl et al. 2008, Agyenim and Gupta 2010). Accordingly, water governance is, in many parts of the world, also moving from state-centric, top-down systems to a more diffuse governance system (e.g., Anokye 2013).

Water governance is both a low-politics issue, i.e., given low priority and taken for granted, and a high-politics issue, i.e., considered a security issue, with countries unwilling to give up control (Commission on Growth and Development 2010). Water is a source of wealth and a source of conflict. Water is connected to all sectors of society. Where does one draw the boundaries of water? Integrated water resource management (IWRM) is an aqua-centric approach, which takes water as the starting point for creating coherence in policies. However, we could also take other starting points, e.g., ecosystems, for creating coherence. This can potentially create turf battles and is being resolved through systemic thinking and the nexus concept (see WWAP 2012, Gupta et al. 2013). Finally, water has an intrinsic value. The diversity of views on water may to some extent explain why water governance architecture today is diffuse, as explained subsequently.

Water governance architecture

GWG is diffuse. It includes almost all UN agencies loosely connected through UN-Water; epistemic communities such as the International Water Association and the International Law Association; approximately 900 bilateral to global water treaties (UNEP 2002); investment and trade treaties that have an impact on water; public-private bodies such as the World Water Council and the Global Water Partnership; conferences such as the Dublin Conference of 1992, the 2001 Freshwater Conference of Bonn, and its follow-up in 2011; and meetings such as the annual Stockholm World Water Week and the triannual World Water Forum (Dellapenna and Gupta 2008, Pahl-Wostl et al. 2008).

Global governance theories include fragmentation, pluralism, administrative governance, and public-private governance. Subsequently, we assess the relevance of these theories for how water should be governed.

Current GWG is a “mobius-web” system (Pahl-Wostl et al. 2008) characterized by bottom-up, top-down, and side-by-side governance and by networked and hierarchical interactions including many actors (Rosenau 2002). Despite its potential for coordination, such governance is prone to functional fragmentation because of weak connections, lack of leadership, and difficulties in compartmentalizing issues (cf. Krahmman 2003). Each governance body focuses on specific aspects; i.e., the UN Human Rights Council focuses on the

Table 4. Reasons for scaling down water. RBOs = river basin organizations, CBO = community-based organizations..

Motivation type	Motivation	Application to Water
To enhance understanding	To enhance problem understanding through greater resolution and grain regarding critical local and contextual elements	Local people are experts on their own water problems
To improve effectiveness of action	To use existing problem-solving institutions and thereby to take advantage of built-in processes designed to ensure legitimacy, legality, transparency, and accountability	To build on existing local and community institutions
To strategize	To mobilize local people in designing and implementing solutions, using their knowledge and capabilities	To mobilize people to help themselves (RBOs/ CBOs)
	To avoid liability for externalized effects	To avoid responsibility for harm caused elsewhere
	To divide and control, or include and exclude	E.g., Nile River Basin
	To manage and protect national and local interests; national security arguments	To prioritize national water interests over river basin interests
	To bypass an agency that is perceived as a hindrance	To avoid being told by others what action should be taken

human right to water, and the World Health Organization on water standards. Diverging interests lead actors to promote different policies in different venues; e.g., the World Bank promotes liberalization in water. The lack of common norms, i.e., norm fragmentation, leads actors with different interests to choose venues that coincide with their own normative framework. In addition, there is a shift from mandatory to voluntary agreements (cf. Kersbergen and Waarden 2001) and multiple rules operating in the same jurisdictional area, i.e., legal pluralism (cf. Krisch 2006) at the national level (Bruns and Meinzen-Dick 2001) and also at the global level (Gupta 2011). This means that there are new sites of authority, a positive connotation, but these competing policies are confusing and counterproductive, a negative connotation. Does this call for a more centralized, institutionalized approach to water governance at the global level?

Before discussing this proposition, let us look at three other trends in global architecture. The first is the trend toward using the existing network of water treaties between states (UNEP 2002), global water law (UNGA 1997), and regional conventions adopted in 1992 and 1999 (UN 1996, 2005) to develop a comprehensive framework. Dellapenna et al. (2013) make a case in this direction.

A second trend is the shift from regimes that are treaty based and state-consent oriented to administrative law and autonomous processes. Administrative law refers to the process by which water rules are made neither by legislative processes nor judicial processes but emerge through implicit or explicit rule making from the executive (Kingsbury et al. 2005). Although administrative law is common at the national level and authority is commonly delegated to civil servants, at the international level such authority is often assumed not just by international civil servants but by any actor that takes the initiative, e.g., the World Commission on Dams. In the water field, decisions taken in various hybrid bodies and RBOs are an example of the development of administrative law in this field.

A third trend is public-private mergers, i.e., a mix of public and private international law. As the commons become privatized as part of the neoliberal trend, they become subject to contracts, private international law, and public commercial law. Although the Multilateral Agreement on Investment was never finally adopted (Werksman and Santoro 1999), approximately 3000 bilateral investment treaties and multilateral investment treaties (e.g., ICSID 1965, NAFTA Secretariat 1992) govern international water-related contracts. These agreements do not always further the interests of developing countries (Sornarajah 2006) or the environment and may lack accountability (Sourgens 2007). The question is whether these trends are a positive development in line with the shift from government to governance, or whether this calls on us to revisit the question of if a more centralized water governance system is needed, especially given the lack of legitimacy and accountability of many of these processes.

Revisiting water governance

There is an active debate in UN agencies, as seen at the UN Summit of 2012, about how major issues should be managed. Management options include a centralized organization, strengthening existing programs, and coordination bodies (see Baumgartner and Pahl-Wostl 2013, Schubert and Gupta 2013). Without recapitulating other contributions to this Special Feature, we discuss whether the diffuseness in water governance is logical given that water itself is an all-pervading issue. Does this governance structure “fit” the nature of water (cf. Young 2002)?

Water is an ecosystem medium, flowing from one area and form to another area and form; it is connected in many different ways. It is one of the four spheres: hydrosphere, atmosphere, lithosphere, and biosphere. Given that there are no global governance systems for the other spheres, should there then be governance of the freshwater parts of the hydrosphere? Can a single organization handle such a large topic and the multiple ecosystem services it offers? Finally, the politics of water scaling, and the paradox of water in that it is both a high- and

low-politics issue, makes it difficult for states to be unambivalent about the role of global governance.

If this is the case, then arguing in favor of centralized water governance led by one central UN agency at the global level does not make sense. Although there is a limited role for a coordinating agency, such an agency may not fulfill the intellectual role of generating a perspective on the role of water in life and global politics; the role of generating norms, principles, and paradigms in shaping water governance; and the role of promoting cumulative governance patterns in influencing the long-term sustainability of various water services.

THE PROCESSES OF CHANGE IN GWG

We argue that GWG needs to be flexible and adaptive to deal with complex water issues and the multitude of dynamic processes and feedback that influence water governance. Given the politicized nature of water issues, GWG must provide high-level leadership on, and platforms for, deliberation of different perspectives and interests. Such requirements are not met by a single centralized agency. However, what could be an alternative that overcomes prevailing fragmentation? What could be the pathways of transformation to move toward an alternative structure?

Polycentric governance frameworks currently characterizing GWG may not be more successful in generating the necessary political will for global action (Pahl-Wostl et al. 2008). Some kind of formal global coordination is required in tandem with a more decentralized network and market-based approaches (Pahl-Wostl et al. 2013); there is also possibly a clear role for global, flexible multiactor networks to promote issue integration, agenda setting, and open framing processes (Pahl-Wostl et al. 2013). However, for rule making to be effective, there need to be binding commitments (see Dellapenna et al. 2013). Nevertheless, instead of aiming at, and arguing about, the perfect design of GWG architecture, it might be more useful to focus on the process of transformation, i.e., on the processes of change required to improve the overall framework and to move in the direction indicated previously.

Societal learning in transforming governance systems

We adopt an evolutionary perspective on transformative change that can be depicted as multilevel and multiloop learning processes (Pahl-Wostl 2009, Blackmore 2010), moving from single-loop learning, i.e., incremental improvement, through double-loop learning, i.e., revisiting of assumptions, e.g., about cause-effect relationships, and reinterpretation of institutions within a value-normative framework, to triple-loop learning, which questions underlying values, beliefs, and worldviews (Hargrove 2002). Such societal learning is an exploratory process in which actors, governmental and nongovernmental, experiment at different levels with innovative approaches and overcome or

remove the constraints and boundaries they encounter (Olsson et al. 2006, Pahl-Wostl 2009). For example, innovative regulatory frameworks may meet constraints during implementation at the regional level. Local initiatives may be restricted by stiff bureaucracies and inflexible national regulations but may gain momentum by connecting to global networks.

Higher levels of societal learning are supported by polycentric governance systems that combine distribution of authority with effective horizontal and vertical coordination. This way, the dichotomy between fragmentation that may result from decentralization and integration can be overcome (Pahl-Wostl et al. 2012). Such thinking has hardly been applied to analyzing governance at the global level. Recent work shows that polycentric network structures connecting diverse actors/groups may help in issue integration in global governance processes related to planetary boundaries (Galaz et al. 2012).

Inferences

Because of its dynamic network structures and diversity of actors, the mobius-like structure of GWG is conducive to double-loop learning, i.e., reframing and changes in discourse (Pahl-Wostl 2009, Pahl-Wostl et al. 2013). However, GWG seems unable to transit to the crucial stage of structural change. For example, IWRM, a key water management paradigm, successfully promoted globally by the Global Water Partnership, an NGO, was included in the 2002 World Summit on Sustainable Development in Johannesburg. According to the findings of a recent global survey commissioned by UN-Water, an increasing number of countries have adopted integrated resource management principles in their laws and policies (UNEP 2012). However, implementation on the ground that would translate principles into management practice and finally into an improved state of water resources and sustainable use of water service is still slow or even absent. This may be attributed to deficiencies in the GWG landscape, which lacks leadership and effective vertical and horizontal coordination, or to the inherent difficulties in implementing the concept per se. Furthermore, the interpretation of what an integration of IWRM principles in laws and policies means may differ widely. Whichever it is, we argue that leadership through a high-level think tank that could operate across global and national levels is needed to act as a bridging organization. Such a think tank should provide impartial and unbiased advice and support a transparent monitoring of progress and the sharing of experiences on success and failure in experimenting with new governance approaches and policy instruments. The location of such a think tank needs further deliberation. If it is within the UN, it may be entrenched in positional bargaining; if it is outside the UN system, its legitimacy and authority may be challenged. Linked to a global assessment and knowledge production process, the World Water Assessment Program, with its flagship product, the *World Water Development Report*, could be a starting point. In addition to changes in the

GWG landscape, it is also worthwhile to reflect on the content of the governance discourse. The complex and ubiquitous nature of water constitutes a particular challenge for water governance, requiring flexible and adaptive governance processes without compromising on achieving targets. Hence, we come back to the importance of the ecosystem services concept, which can help structure negotiation processes from global to local levels. This can be done by ensuring that key UN agencies and actors engaged in managing different ecosystem services are all active in the design of such negotiation processes.

CONCLUSION

We set out to review how the water governance challenge should be dealt with at the global level. We argue that water has four kinds of important ecosystem services, i.e., supporting, provisioning, regulating, and cultural, that influence the four elements of human well-being, i.e., security, quality of life, health, and social relations. We argued that there are five key direct drivers, i.e., agriculture, infrastructure, land use, overuse, and pollution, affecting water use, which are influenced by four indirect drivers, i.e., the economy, demography, technology, and climate change. These are further impacted by the policy context, i.e., ethics, norms, principles, paradigms, security, instruments, and management tools. The policy context plays a key role in determining which service of water is protected and provided to whom, when, where, and why.

We argued that there are two opposing trends: the subsidiarity principle, which pushes water governance to the lowest possible level; and the universal nature of the problems, which pushes water governance to the highest possible level. Notwithstanding these trends, it is possible to identify which water problems should be dealt with at which administrative level, involving which actors, for which reasons, and the kinds of policies that could flow from this. We argue further that there are four reasons why actors will instead try to scale up the water problem, and there are three reasons why they will try to scale down the water problem. These will naturally affect the potential for problem solving at the global level. What is clear is that we have to seek some kind of balance between governance at the different administrative levels.

We argue that the complex nature of water problems and governance processes bring us to a discussion of whether GWG should not “fit” the water resource. We argue that water governance is complex because it takes place against the background of changing governance trends and global change issues, such as climate change, and because it is simultaneously both a high-politics and a low-politics issue, a source of direct profit and indirect ecosystem services, and an economic, social, and political good. In addition, although water is interconnected to all sectors in society, an aqua-centric governance perspective is likely to be politically unpalatable

in most countries and at the global level. Fragmentation, pluralism, and the shift to administrative law and public-private mergers are inevitable developments in the international arena. Although they have their own problems, the solution is not integration as meant within IWRM, but perhaps the “nexus” approach. We believe that the fragmentation-integration dichotomy is too simplistic for the water governance context and that specific issues need to be dealt with by specific actors in a coherent/holistic manner so that the total result is more than the sum of each set of actions. The discrepancies and contradictions in water governance cannot be resolved by a blueprint but need a process of societal learning. We argue that such learning should be guided by a very high-level think tank that is willing to take a cosmopolitan perspective to assess how norms, values, principles, and paradigms can help create and preserve sustainable ecosystem services that are equitably shared by users. This calls also for leadership to develop a common legal framework within which multiple networks of actors can function to develop relevant water laws.

Responses to this article can be read online at:

<http://www.ecologyandsociety.org/issues/responses.php/5952>

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