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POWER AND POLITICS IN WATER GOVERNANCE

Revisiting the role of collective action in the commons

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Introduction

Garrett Hardin's influential article "The tragedy of the commons" (Hardin, 1968) put institutions (or the apparent lack thereof) at the center of academic and policy debates on the management of common pool resources (Wade, 1987; Ostrom, 1990, 2000; Agrawal, 2001; Andersson and Ostrom, 2008). Ostrom et al. (1994: 3) define common pool resources as "natural or humanly constructed systems that generate a finite flow of benefits, in which: 1) exclusion of beneficiaries through physical and institutional means is especially costly; and 2) exploitation by one user reduces resources availability for others." The latter characteristic is often referred to as "subtractability" or the "zero-sum principle."

Managing water as a common pool resource is predicated on the process of rule-shaping – that is, how various actors negotiate the rules on paper and in use, what Swyngedouw (2009) highlights as part of the socio-political construction of nature. Whether it is for irrigation, hydropower, fisheries, and/or watershed protection, water governance is shaped by myriad actors with diverse interests, strategies, and access to resources. In the context of irrigation, for example, water distribution rules reflect negotiations between tail-end and head-end farmers, between farmers and the irrigation agency, and inter-village arrangements. Such negotiations highlight the close interlinkages between water distribution practices and the overall shaping of collective action. Here, farmers' access to irrigation water is secured through the collective (Beccar et al., 2002), embedded in socio-technical interdependencies of canal networks, village hierarchies, and the wider agrarian context.

Drawing on Ostrom's design principles, commons scholars have focused on various factors that shape local communities' ability to manage natural resources. These range from social norms to trust and social networks, which shape the different types of institutional rules and processes of institutional change (Ostrom and

Basurto, 2011). Recent literature has also looked at the issue of scale in commons studies (Ostrom et al., 1999; Araral, 2014), bringing to light how local communities' ability to sustain collective action will be significantly reduced when they deal with resources that are very difficult to manage at the village scale (Costanza et al., 1998), or when the management of the resources is threatened by exogenous factors, such as market forces, land concessions, and other forms of state intervention (Dietz et al., 2003).

Forces of globalization, embedded in regional economic integration, national governments' strategies promoting economic growth, and a strong emphasis on large-scale infrastructure development, have changed communities' access to natural resources, and the basic characteristics of the commons. The commodification of common pool resources across scales has not only contributed to the weakening of common property rights and collective action in natural resource governance, but also changed the overall process of rule-making as regards access to water, land, and the environment at large. For example, hydropower development has not only disrupted local communities' access to communal forests and fisheries resources, but also limited their space for mobility within the once interconnected riverine ecosystem (Molle et al., 2009a; Baird et al., 2015; Katus et al., 2016), and changed the basic characteristics of the river as a common pool resource.

Although hydropower development¹ does not in principle “subtract” the amount of water from a river – as a hydropower dam would take a certain amount of water from the river and release it back to that river after using it for power generation – this does not mean that it has zero impact. On the contrary, studies conducted by various scholars (e.g. Esselman and Opperman, 2010) have shown how frequent and unseasonal water release from hydropower dams (Lu et al., 2014) can have severe impacts on riverine ecosystems and people's livelihoods far downstream. Here, the subtractability principle becomes more complicated, and could not be viewed from the perspective of water availability/scarcity alone. While hydropower dam operation rules are defined mainly to meet peak electricity demand, the overarching impacts of hydropower dams for local community living along the river highlight the need to broaden the framework for collective action, involving hydropower companies and the state electricity generation authority.

More generally, global land deals have imposed a new system of “rights” (the state owns all the land) and forced local communities from their land (Peluso and Lund, 2011), leaving them with very few alternatives, if any, to maintain their access to manage the land (Suardiman et al., 2015a), with direct implications for water resources management. This is most apparent when large-scale land acquisition for plantations and other forms of large-scale agriculture force local communities from their land (Li, 2015), driving them to dependency on natural resource extraction, and causing severe water pollution problems, as in the case of artisanal mining (Perreault et al., 2015). While artisanal mining does not necessarily compete with large-scale mining companies, its widespread application could significantly increase environmental and health threats to local and downstream communities when chemicals released from the mining activities pollute nearby water sources.

Some of the most effective institutional responses to the commodification of global common pool resources have emerged in the form of international environmental NGO networks and multi-scale socio-political alliances. These networks and alliances link local communities' resistance with international NGO campaigns, placing them as an integral part of transnational environmental movements. Ranging from transnational agrarian movements such as La Via Campesina (Borras, 2010), to regional alliance networks comprising international NGOs, local communities, and civil society groups (Zawahri and Hensengerth, 2012), to context-specific multi-scalar alliances (Bebbington et al., 2010; Boelens et al., 2010), these networks and alliances could act as an alternative decision-making mechanism for global action, while conveying local communities' voices across scales.

In his call for "institutional diversity," Berkes (2007) highlights the need for better understanding of the institutional linkages between scales (local, national, regional, global) and the need to manage common pool resources at multiple levels.² Current research on the commons has looked at the process of rule-shaping in regards to access to water, land, and the environment at large; how this is manifested in collective action (Agrawal, 2001); and how it evolves over time (Wilson et al., 2016). Building on these studies, we highlight the need for alternative multi-scalar governance structures and mechanisms as a form of institutional emergence, to link local communities' governing role and ability with other relevant actors and institutions across scales (private sector, civil society groups, transnational movements) as the first step to addressing global challenges in natural resource governance.

Placing the commons in the center of the current debates on sustainable development is crucial for identifying potential entry points for collective action towards more equal and just natural resource governance across scales. Rapid economic development that serves the interests of policy elites does not only separate communities from the commons (Green and Baird, 2016), but also creates governance traps for local communities (Feeny et al., 1990; Ribot, 2009). For example, when hydropower development limits local villagers' access to rivers and forces them to fish further and further away from their community, this strategy not only increases households' burdens (higher costs, longer distances, competition with other fishers), but also contributes to problems of overfishing elsewhere.

Linking the overall shaping of collective action with the forces of globalization and the commodification of nature (Castree, 2003), we look more explicitly at the roles of political and economic drivers that shape the process of rule-making across scales. Building on earlier analysis of how institutional dynamics predetermines the actual management outcomes of various types of common pool resources (Clever, 2015), we argue that informed, inclusive, and accountable natural resource governance can be achieved through positioning the commons as a means to tackle and counter the dominant neoliberal development tendency to commoditize nature. Unpacking power and politics in water governance is crucial for understanding current challenges faced by the "new commons" or common pool resources that require multi-scalar governance structures and mechanisms for their sustainable management.

Building on the earlier definition (Ostrom et al., 1994) and focusing on how globalization processes have transformed the commons, we redefine common pool resources as natural or humanly constructed systems that generate a finite flow of benefits, in which:

1. the exclusion of beneficiaries can be done at a reasonable cost (through the use of power over others); and
2. exploitation by one user might not necessarily reduce resource availability, but could result in severe environmental degradation, negatively affecting people's livelihoods and exacerbating current practices of injustice.

In the next section, we highlight how forces of globalization have transformed the commons and the implications of this for our understanding of collective action.

Critical institutionalism and institutional bricolage

The way the commons are currently managed has direct socio-economic and political implications across scales. For example, fires triggered by the clearing of land for palm oil and pulp and paper plantations in Indonesia that resulted in transboundary haze over Singapore and Malaysia show the regional and global impacts of corporate control of common pool resources such as land and water (Varkkey, 2013). This requires commons scholars to link institutional analysis of common pool resources with how decisions on natural resource governance are negotiated across scales, and thus link their work with growing contemporary issues in global natural resource governance, especially those pertaining to land and water grabs that have left many people dispossessed (Edelman et al., 2015). This highlights the need to put equity and social justice issues at the center of analysis of the commons (Obeng-Odoom, 2016).

We highlight the importance of critical institutionalism as one of the main building blocks for setting up a future research agenda in which equity and social justice play key analytical roles towards understanding the commons. Critical institutionalism looks at institutions as embodiments of social process, intertwined in multi-scalar complexity and uncertainty of human actions in their relationship with others and the surrounding environment. Or, as stated by Cleaver (2015: 1):

Critical institutionalism ... explores how institutions dynamically mediate relationships between people, natural resources and society. It focuses on the complexity of institutions entwined in everyday social life, their historical formation, the interplay between formal and informal, and the power relations that animate them.

Critical institutionalism furthers Ostrom's Institutional Analysis Development framework for collective action in several ways. First, it explains how (institutional) change

occurs “at the messy middle” (Peters et al., 2012) by linking local-level institutional dynamics with other forces shaping natural resource governance across scales, and how they in turn shape local institutions’ abilities in terms of scope and degree of influence (Leach et al., 1997). This is most apparent from the concept of institutional bricolage, which explains how actors “assemble and reshape institutional arrangements, drawing on whatever materials and resources are available, regardless of their original purpose” (Cleaver, 2015: 4). Thus, rather than focusing on the idea of how to craft the “right” institutions, the practice of “bricolage” shows how institutional shaping can be less purposeful, partial, and ad hoc.

Second, critical institutionalism incorporates the notion of equal rights and social justice as integral to the institutional shaping of natural resource governance. Rather than implying that institutional arrangements for sustainable common pool resources management will always result in win–win solutions, it emphasizes the possible unequal outcomes of institutional change (Andersson and Agrawal, 2011; Jones, 2015). It also recognizes the need to understand institutional dynamics shaping the governance outcome as constitutive of conflict. Partly addressing Mosse’s critique of commons scholarship (Mosse, 2006), which includes the need to link community-level institutions with the wider political structure, and the integration of power analysis in understanding institutional dynamics in common pool resources management, critical institutionalism also puts historical trajectories at the center of its analysis of institutional dynamics.

Building on the notion of equal rights and social justice, we employ a framing of power that goes beyond its definition as a hegemonic force (Cleaver, 2015) and structural impediment for collective action. Viewing power as heterogeneous and multidimensional (Bourdieu, 1991; Lukes, 2005), we adopt a Foucauldian understanding of power that is everywhere (Foucault, 1991). We argue that power cannot be absolutely hegemonic because it involves people, their social systems, and the ideas they hold about themselves and each other. Here, power can gain momentum through social relations, which produces ideas and beliefs that become commonplace. Or, as Gaventa (2003: 1) states: “power is diffuse rather than concentrated, embodied and enacted rather than possessed, discursive rather than purely coercive, and constitutes agents rather than being deployed by them.” We view power as something that is highly dynamic, constantly moving as it is shaped and reshaped by powerful and less powerful actors through their myriad connections across space and scale. Examples include the role of media collectives in shaping transboundary water governance discourse in the Indus Basin, differential perceptions of Cambodian dam development among local communities, and the local communities’ alliance with a transnational NGO movement in contesting corporate decisions in water infrastructure development in the Andes.

While power structures and power relations pose challenges for managing the commons, they could also serve as potential entry points for change (Scott, 1985; Sneddon and Fox, 2007). An example of the latter is the way farmers and some segments of rural elites build inter-class alliances to ensure more equal water distribution for irrigation in Indonesia (Suhardiman, 2017), demonstrating not only

how less powerful actors could indirectly challenge the existing power structure and relationships, but also how strategic alliances can be built to achieve common goals. Similarly, the way the Mekong River Commission (MRC) has managed to open discussions for the planned mainstream dams through its Strategic Environmental Assessment shows how an intergovernmental body can play an important role in supporting transnational environmental movements (Zawahri and Hensengerth, 2012; Suhardiman et al., 2015b). By identifying potential entry points for change through the better understanding of processes of “bricolage” at various scales (beyond the community level), we highlight the need for more comprehensive analyses of the wider political structures and power relations.

In the next section we unpack the notion of power and politics in water governance, and position the commons as a novel arena to reclaim the meaning of difference (Young, 1990) in the current development discourse, which is dominated by neoliberal development orthodoxy and the commoditization of nature. Building on Lukes’ three dimensions of power (Lukes, 2005) and recognizing the inseparable connection between institutional and power dynamics, we highlight the role of the commons in opening up political space towards more deliberative decision-making processes.

Power and politics in water governance

Water governance scholars have brought to light the importance of politics, power structure, and relationships in shaping common pool resources, primarily in the context of irrigation system management (Wittfogel, 1967; Wade, 1982; Mollinga and Bolding, 2004; Molle et al., 2009b) and hydropower development (Molle et al., 2009a; Katus et al., 2016). Focusing on power asymmetry and how this is shaped by inter-state relationships at the transboundary level, international relations scholars have come up with the concept of hydro-hegemony as a framework to analyse transboundary water governance (Zeitoun and Allan, 2008; Warner and Zawahri, 2012). Lebel et al. (2011) have also analysed the role of power relationships in the context of climate risks pertaining to flood disaster management.

Building on these works, we link current scholarship on water governance with the shaping of collective action, and how it influences water governance structure, processes, and outcomes across scales (Norman et al., 2015). For example, while international relations scholars analyse inter-state power relations mainly within the context of power asymmetry and one state’s domination over others (hegemony and counter-hegemony; see Cascao, 2008), we look at how collective action or lack thereof can change such domination, as in the case of transnational environmental movements, or sustain it. Similarly, while irrigation scholars analyse power mainly from the perspective of powerful (e.g. irrigation engineers, local politicians, rural elites) and less powerful actors (e.g. tail-end farmers), in this book we look at how collective action is rooted in the wider socio-economic and political constellation, shaped and reshaped by scalar politics involving strategic alliances with politicians, government agencies, and international NGOs, among others.

Viewing water as a medium that conveys power and as a source of collaboration and conflict (Boelens, 2014; Swyngedouw, 2015), we look at water governance as a manifestation of existing power structures and relationships, and for this reason as an outcome of power struggles. Drawing on the concept of the hydro-social cycle (Swyngedouw, 2009) and viewing scales not as something given (Lebel et al., 2005), we put nature–society relationships at the center of water governance analysis. Viewing the boundaries between nature and society as products of the human mind and social conventions, this book looks at how power dynamics influence the overall shaping of collective action as embedded in processes of inclusion and exclusion, development and marginalization, and the distribution of benefits and burdens that affects different groups in different ways across scales.

Building on Lukes’ three dimensions of power (Lukes, 2005), this book looks at:

1. how actors and institutions define and exercise their influence over others through various means, such as financial, technical, and socio-political resources (instrumental power);
2. the role of socio-economic and political context within which decisions and actions are embedded (structural power); and
3. actors’ ability to shape social norms, values, and identities in favor of their interests (ideational power), and discuss these in relation to the notion of institutional emergence across scales.

It also looks at socio-economic and political networks across scales (Brisbois and Loe, 2016); how these are shaped through formal and informal institutional practices; and how they are derived from and/or contribute to collective action.

Putting political space at the center of water governance analysis, this book looks at how such space is created, sustained, and reproduced, “for whom, and with what social justice outcomes” (Gaventa, 2004: 31). Here, we define political space as any space where plurality, conflict, and power can be visible and contestable as such. Or, as Dikec (2005: 172) states: “space becomes political in that it becomes the polemical place where a wrong can be addressed and equality can be demonstrated.” Thus, local communities’ strategies in resettlement processes should be analysed not only in relation to their ability to influence resettlement outcomes, but also with regards to how they shape the consultation processes to negotiate their demands and represent their needs, while also taking into account their relationships and position within the existing power structure. Similarly, the role of transnational environmental movements in water governance should be analysed not only in terms of its effectiveness to change certain development decisions, but also in relation to its ability to connect and create spaces for political engagement (Pesqueira and Glasbergen, 2013).

Linking spaces for engagement with the pursuit of justice

The transformation of the commons requires commons scholars to position their work with growing contemporary issues in global natural resource governance,

unpacks power and politics, and incorporates the notion of equity and social justice in the overall analysis of collective action. Putting collective action at the center of global natural resource governance, this chapter urges the reintroduction of a new system of values (justice, diversity, equity) beyond economic growth, which will require new ways of governance centered on the need for transparency, accountability, inclusiveness, and fairness (Fraser, 1998; Sen, 2009; Schlosberg, 2013). Infrastructure development changes water flows and access to land. It disintegrates local communities' ability in natural resource governance, changes the existing power structure and relationships, and shapes and reshapes "the new constellation of winners and losers" (Joy et al., 2014: 955). Or, as Hefner (1990: 2) states: "economic change is never just a matter of technological diffusion, market rationalization or capitalist penetration. Deep down, it is also a matter of community, morality, and power."

Focusing on power, politics, and inequity in the conceptual underpinning of the commons, this book urges the need for a better understanding of the institutional interlinkages between local, national, regional, and global commons, embodied in the different types of institutions (formal organizations, informal networks, grassroots, intergovernmental), including processes of bricolage across scales, and how they can contribute towards sustainable and just development. It also underlines the need to recognize the role of local communities as actors capable of representing their rights and entitlements in the overall decision-making process through agenda-setting power (Mosse, 2010). Moreover, it brings to light the important role of social movements as collective pathways, an institutional means to address unjust practices and empower poor and marginalized groups. For example, when discussing the emergence of alter-globalization movements (Bakker, 2007; Eizenberg, 2011), the authors urge both scholars and activists to join forces in their quest to position collective action (Carrozza and Fantini, 2016) as one of the institutional foundations to counterbalance the negative impacts of economic development, especially in regards to the weakening of local communities' ability to govern the commons. Sustainable and just development cannot be fully achieved without the inclusion of the poor and marginalized, in particular their views and perceptions on natural resource management and how this affects their livelihood options.

Notes

- 1 Especially as regards run-of-river hydropower dams but also including hydropower dams with water storage.
- 2 See also Obeng-Odoom (2016) on the notion of internal and external threats to the commons.

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