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INTRODUCTION

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Collective action is central to addressing the water governance challenge of delivering sustainable development and global environmental benefits. Embedded in existing power structures and relationships across scales, the practice of collective action is often hard to initiate and difficult to sustain. Achieving effective collective action requires balancing interests and focusing on common goals. Whether for local water interface, watershed management or international basin cooperation, collective action is a major global challenge.

Water is governed by different actors and institutions and has become a resource contested by competing interests and divergent paradigms (Pahl-Wostl, 2015; Norman et al., 2016). Molle et al. (2009) bring to light the diverse, and often antagonistic, ideologies and interests which contest the overall shaping of waterscapes. Using hydropower, irrigation, and livelihoods as the three pillars for understanding water governance discourse in the Mekong region, they highlight the role of the science–policy interface in the shaping of (future) waterscapes and their contestations. Taking a closer look at the irrigation context, Mosse (2003) explores the changing ecology, political significance, and cultural meanings of water, mainly focusing on tank irrigation systems in the coastal plains of South India. Referring to the notion of cultural meaning of water and viewing ethics as the intrinsic dimension of any water policy, program, or practice, Groenfeldt (2013) argues that understanding ethics in water policies is fundamental to understanding water resource management.

Commons scholars have also discussed and analysed collective action around water governance, pertaining mainly to irrigation (Ostrom, 1990; Lam, 1998; Meinzen-Dick et al., 2002) and forest management (Agrawal and Ostrom, 2001; Poteete and Ostrom, 2004). Focusing on how local communities shape and reshape different rules in water governance structure, processes, and outcome, they have contributed to a comprehensive understanding of local institutional arrangements and how these are shaped by

various factors, ranging from technological interventions and social relations to processes of agrarian transformation.

Building on these works, this book further unpacks power and politics in water governance. Putting the overall shaping of collective action at the centre, it looks at the role of external forces in shaping natural resource governance at the local level, and how they influence local communities' ability to manage their resources. Partially addressing the current gap in water governance discourse, it explains how various actors come together for collective action, their motivation, and how these are derived from existing power structures and power relationships.

It offers grounded conceptual understanding derived from rigorous comparative analysis and systematic compilation of case studies at different scales, through a wide range of thematic (irrigation, hydropower, aquatic agricultural system, gender, transboundary waters) and geographical selection of water governance challenges in Asia, Africa, and Latin America, and the different types of collective action that emerge in response to these challenges. We place power and politics at the centre of collective action and water governance discourse, while addressing three core questions:

1. How is collective action shaped by existing power structures and relationships at different scales?
2. What are the kinds of tools, methods, options, pathways, and possible approaches that various actors can take and adopt towards more deliberative processes for collective action?
3. What are the anticipated outcomes for development processes, the environment, and the global resource base of achieving collective action across scales?

The focus on collective action

Theoretical explanation of collective action in common pool resources management is rooted in two main schools of thoughts. The first (and most recent) draws on an institutional–economic analysis of local forms of cooperative action (both successful and unsuccessful) to derive generalizable principles for farmer–managed irrigation (Ostrom, 1990; Ostrom et al., 1992; Tang, 1992). As stated by Mosse (2006: 700): “Such a model might view cooperative institutions as the equilibrium outcome from competitive games shaped by the structure of individual incentives (costs and benefits)”. Moreover, institutional economic analysis provides some answers to the question: under what conditions will people cooperate?

The second school emphasizes the force of tradition, social rights, value systems, and moral codes in generating and preserving cooperative resources management to ensure, among other things, minimum food security for community members. As stated by Mosse (1997: 469): “Cooperative solutions to common property use derive not so much from individual rationalism as from Scott’s (1976) moral economy or from a moral conscience arising from the small community’s need to cope with risk and its collective dependence on local resources.”

Despite the deep-rooted contrasts, as the first school of thought views a person as a rational, self-interested individual and the second as a social being, both schools emphasize the autonomy and independence from state systems of local resource use arrangements. Moreover, they portray local community as synchronic and ahistorical and do not deal with change (Mosse, 2006). While these images of collective action institutions tend to separate natural resource management from other aspects of social life, they fit neatly with the idea of apolitical locality embedded in planning models.

Mosse (2006) has brought to light the weaknesses in the above theoretization and highlighted the following:

- community institutions should not be viewed in isolation from the wider political structure of region and state;
- resources are to be viewed as defined by changing ideas of property, rights, and entitlement; and
- the integration of power analysis in understanding collective action in common pool resources.

Building on these points, this book highlights the commons as a terrain of contestation. Common pool resources are not static. The way different resource systems are governed has direct implications for our understanding of the conceptual underpinning of the commons, how it evolves over time, and how such evolution is revealed in the overall process of rule-shaping and institutional emergence. In particular, it looks at forces of globalization and how they have weakened the role of local communities in natural resource governance, while also linking these with global responses to the commodification of nature, often manifested in transnational environmental movements. For example, positioning local communities' resistance and coping strategies as an integral part of the transnational environmental movement, it questions the very rationale behind hydropower development and raises the question of how benefits and burdens from hydropower development can be shared more equally and fairly. Moreover, it argues that while many developing country governments' policies on land concession are driven by their attempts to promote economic growth, such policies do not always correspond with poverty reduction and local communities' wellbeing. In contrast, when large-scale land concession results in land grabbing, this affects local communities' ability to sustain their livelihoods from farming.

Putting power and politics at the centre of water governance analysis

We argue that centring power and politics in natural resource governance is crucial for understanding the overall shaping of the commons, as local communities have become inherently linked with the overall processes of commodification and globalization. From a scholarly perspective, this highlights the need to further the

conceptual underpinning of the commons, looking at how interlinkages between the commons and various external actors have resulted in the changing institutional arrangements and new characterization of common pool resources. This book highlights the need for broadening current understandings of community and its connections and disconnections with the wider governance structure and processes across scales. For this, we link the notion of collective action as developed by Ostrom (1990) in her Institutional Analysis Development framework with the framing of water governance as a hydrosocial cycle (Swyngedouw, 2009).

Originating from political ecology, the framing of water as a hydrosocial cycle centres on the processes of socio-political construction of nature. It looks at the political and ecological production of a time- and place-specific socio nature as a manifestation of existing power structures, past and current power relationships, and an outcome of power struggles. The framing not only puts nature-society relationships at the centre of the analysis, but also highlights the contested nature of these relationships, often manifested in different forms of water struggles, which involve regimes of representation that aim to blend society and nature together through water truth and knowledge claims to define the order of things. Here, nature is viewed as a number of socio-political arenas with contested functions, values, and meanings as they define processes of inclusion and exclusion, development and marginalization, and the distribution of benefits and burdens that affects different groups in different ways. Building on the assumption that knowledge of nature is not neutral/universal, but that natural and social orders mutually contribute to each other as hybrids, and thus are the product of a certain socio-political-technological order, the hydrosocial cycle views water as a medium that conveys power and a source of collaboration and conflict.

The framing of water governance as a hydrosocial cycle has several advantages. First, it links local governance dynamics with multi-level institutional analysis across scales. Here, local communities' strategies to cope with water pollution caused by mining corporations are analysed in relation to private-sector interest in mining, how this limits a community's livelihood options, and how the translation from land concession to water grabbing is shaped by the dominant interest of national elites. Similarly, the overall process of resettlement due to hydropower development is analysed not only in terms of how local villagers shape and reshape their livelihood strategies following resettlement, but also in relation to how companies formulate, consult about, and implement resettlement action plans.

Second, it puts power relationships and power struggles at the centre of the analysis of water governance structures, processes, and outcomes. Local communities' strategies in resettlement processes are analysed not only in relation to their access to negotiation processes in resettlement action plans, but more importantly with respect to how this access is rooted in the existing power structure (e.g. village hierarchy) and shaped by power relationships (between villages and company staff) (Katus et al., 2016).

Third, it highlights the need to disaggregate local community to better understand the process of elite capture and identify potential entry points to tackle it, and

reveals how elite domination at the local level is often a product of a higher-level political constellation. From a policy perspective, framing water governance as a hydrosocial cycle will also enable us to identify potential entry points for change through better understanding of existing power structures and power relations.

Objectives

The book has two primary objectives. First, it aims to examine concepts and practices of collective action that have emerged globally in recent decades. Building on a Foucauldian conception of power – that power is everywhere – and through systematic compilation of case studies across Asia, Africa, and Latin America, the book illustrates and analyses how collective action is shaped by existing power structures and relationships at different scales and across different agro-ecological systems (e.g. irrigation, groundwater use, hydropower development, fisheries, mining).

Second, having identified the commons as critical arenas in which to counter the neoliberalization of nature, the book looks at possible pathways and approaches that various actors might adopt towards more deliberative processes for collective action.

Structure

The book contains 13 case studies of collective action and explores how these are shaped and reshaped by power structures and relationships. It incorporates a wide range of themes, ranging from local institutional arrangements in community-based fisheries and the shaping of farmers' strategies as an integral part of scalar politics to the role of identity shaping in collective action in the context of hydropower resettlement, which is taking place in different agro-ecological zones (e.g. fisheries, irrigation, hydropower), situated in various parts of Asia, Africa, and Latin America.

Chapter 2 frames the way we look at water governance and collective action in this book. Focusing on the need to reintroduce a new system of values that embody equity, diversity, and social justice, it puts the commons at the centre of current debates on sustainable development and identifies it as an integral part of the transnational environmental and rights movement. It argues that positioning the commons as an alternative means to counterbalance the dominant neoliberal development tendency to commoditize nature is crucial for achieving informed, inclusive, and accountable natural resources governance.

Chapter 3 shows how collective action problems are at the heart of the Nile Basin's development challenges. Since the early twentieth century, the nature of the "collective" in which action has been required has changed markedly, from a basin heavily dominated by colonial powers to one of independent nation states. Several attempts have been made to establish effective institutions to govern these users, addressing the need for cooperation and driven by the logic of maximization of benefits. However, the institutional process has been complex and the outcomes

fairly marginal to wider development. The author examines some of the collective action challenges posed and the essential place of politics and power discourse within the collective action process, and shows how ways forward have to bridge these imbalances at the level of collective action institutions; otherwise, institutional failure will become the norm.

Chapter 4 illustrates the actual shaping of multi-scalar water struggles in the Peruvian highlands, looking specifically at how four communities in the upstream of the Pampas watershed defend their water access, wetlands, and livelihood integrity through strategic alliances, manifested in various forms of collective action. The chapter brings to light the overall shaping of grassroots scalar politics, and thus how local communities create and mobilize alliances with national NGOs and transnational water justice networks, as alternative means to convey their voices and aspirations.

Chapter 5 looks at the overall shaping of collective action within the context of a transboundary security complex in the SADC region. Taking South Africa and Lesotho's water-for-energy swap as an archetypal example of transboundary water cooperation, it revisits the concept of hydro-hegemony and conflict-cooperation debates. It illustrates how one state's domination over others can be respectively changed or sustained by collective action or the lack thereof.

Chapter 6 analyses local governance dynamics and how these are interlinked with the ongoing hydropower construction boom in the Mekong Basin. Taking the Cheay Areng and Lower Sesan 2 dams in Cambodia as case studies, it reveals how hydropower dam development not only destroys local communities' ability to manage their surrounding natural resources, but also divides their affinity and identity in relation to the dam. While some local communities perceive dam development as detrimental to their livelihoods, others view it as beneficial.

Chapter 7 discusses and illustrates the origin and growth of health impact assessment in Thailand. Framed around the politics of knowledge and its relationship to collective action, it shows how the Khao Hinsorn community has deployed community health impact assessment as a means to engage in – and challenge – an expert-led assessment. Viewing community impact assessment as a process of community empowerment, it shows the close linkage between the overall process of knowledge production and the associated power relationships.

Chapter 8 illustrates the central positioning of collective action as a key pillar for enabling joint use and management of land and water for improved rural livelihoods in Malawi. It discusses and analyses the overall process of a gendered power contestation during the transformation of an informal irrigation scheme within the context of a matrilineal society and looks at the issue of power dynamics and how this plays out within irrigated agriculture through female and male membership of water user associations.

Chapter 9 links a peasant economy with the broader power structure. Taking irrigation as a case study, it argues that water governance in the Andean highlands cannot be understood in isolation from the broader power structures in which they are embedded. Positioning the Andean peasant economy and the irrigators'

communities within the ongoing tug of war between the spheres of “community” and “commodity,” the chapter illustrates the role of community water control as the backbone of “community resistance” to externally normed management, privatization, and commoditization of water resources.

Chapter 10 highlights how rapid transformations in resource use in Cambodia’s Tonle Sap Great Lake have significantly undermined local fisheries. Focusing on the ongoing reform processes and forms of collective action in fisheries resource access and management, it looks at how local power relationships shape and reshape access to natural resources and argues that the ability to foster collective action has become especially important because local communities’ ability to respond to these challenges lies beyond what individual households can undertake.

Chapter 11 looks at the impact of gold mining on local communities’ land and water rights in Cerro de San Pedro, Mexico. Exploring multi-actor networks that creatively engage in multi-scale action, it elaborates how conflict arose over common land and water resources, and how local communities cope with it. Most importantly, it shows that such conflict is not just about the right to access resources, but also concerns underlying injustice in local, national, and international rules and regulations. Using the land–water rights interface, it unpacks power relationships and political dynamics behind the legitimacy and authority shaping these rules.

Chapter 12 looks at how the functioning of a groundwater market results in the overall shaping of inter-class alliances, involving both small and large farmers and their collective efforts, through, for instance, the installation of tube wells and pumps groups. It shows how farmers’ dependency relationships can serve as a foundation for collective action among the different stakeholders and how water-user groups could help increase farmers’ bargaining power and change the existing incentive structure.

Chapter 13 looks at transboundary water governance in the Indus River Basin and how it is challenged by the current political deadlock, while also revealing key stakeholders’ perspectives pertaining to transboundary water cooperation and the role of the Indus Water Treaty in shaping riparian relationships over time. Positioning basin-wide dialogue as a means to convey and discuss riparian countries’ opinions and perspectives, it highlights the potential role of dialogue as a win–win proposition and starting point to foster riparian countries’ engagement in transboundary water governance.

Chapter 14 discusses the role of collective media in providing spaces for dialogue in the Indus River Basin. Focusing on the notion of norms in international cooperation, and linking this with the role of state and non-state actors in transboundary water governance, it discusses the overall idea of collective action and its potential contribution to furthering current discussion amid the current political deadlock as part of reimagining South Asia.

Chapter 15 looks at the role of governance structure and mechanisms, as manifested in the current institutional arrangements in transboundary water governance in the Mekong and Nile basins. It highlights the important role of understanding

human agency in shaping these structures and mechanisms, as embodied in various forms of collective action, ranging from intergovernmental negotiation to regional-level advocacy and transnational movements.

Chapter 16 sums up key issues discussed in the preceding chapters, provides a synthesis of lessons learned, and posits a future research agenda on water governance and collective action.

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