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Perspectives on Water Governance

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Book Review Essay

Perspectives on Water Governance

Erika Weinthal

Delli Priscoli, Jerome, and Aaron T. Wolf. 2009. *Managing and Transforming Water Conflicts*. Cambridge: Cambridge University Press.

Shah, Tushaar. 2009. *Taming the Anarchy: Groundwater Governance in South Asia*. Washington, DC: Resources for the Future and Colombo, Sri Lanka: International Water Management Institute.

Whiteley, John M., Helen Ingram, and Richard Warren Perry, eds. 2008. *Water, Place & Equity*. Cambridge, MA: MIT Press.

Although fresh water only comprises 2.5 percent of all water resources worldwide, it is essential for sustaining human life. Yet, approximately 1.1 billion people lack access to any type of safe drinking water. As a direct consequence, about 1.6 million people die every year from waterborne illnesses (e.g., diarrhea and cholera) of whom 90 percent are children under five, primarily in developing countries.¹ In 2000, the United Nations Millennium Summit affirmed the importance of safe drinking water for poverty alleviation as embedded in Goal 7, Target 10 of the Millennium Development Goals (MDGs), which seeks to halve by 2015 the number of people worldwide without adequate access to safe drinking water and basic sanitation.

The common feature of the three books under review here is their attention to water. Even then, they cover different types of water resources and uses (surface water versus groundwater; irrigation water versus drinking water) and at different levels of scale (villages, national governments, and international treaties). They also cover different theoretical perspectives, encapsulating a wide-range of disciplines within the social sciences, including development economics, geography, social ecology, political science, public policy, anthropology, and law.

What unites these books, then, is their focus on the centrality of water resources for alleviating poverty and improving human life, fostering equity and fairness, adjudicating social struggles over access to and quality of water deliv-

1. World Health Organization 2010.

ery, and forging sustainable and adaptive water management. All the books explicitly explore the role of water and development—i.e. whether water should be managed through a centralized bureaucracy, devolved to local water management authorities, or privatized to foreign companies. For much of the 20th century, state elites and bureaucrats have sought to engineer water systems to control the variability in rainfall and glacial melt and to move water from water-rich to water-scarce regions; these books draw attention to those actors that have been excluded from the state's modernization agenda. Their focus on non-state actors provides a lens through which to examine societal challenges to the state's role in directing water policy and the privatization of water services to foreign companies. They highlight the importance of public participation, rights, and equity, all of which are part of a larger literature on accountability, transparency, and fostering a democratic culture.² Combined, these three books provide an excellent survey of the core issues facing scholars and practitioners concerned with water governance and poverty alleviation. They are also part of the literature that looks at "the new face of water conflict" taking place at the subnational level.³

Jerome Delli Priscoli and Aaron T. Wolf, two of the leading figures in the field of international water, have written a superb textbook on conflict management over transboundary waters. *Managing and Transforming Water Conflicts* will be used widely in classes on water negotiations and diplomacy. Students and practitioners alike will appreciate its detailed survey of the literature on water conflict and cooperation and its links to research projects and databases on water resources and hydrogeopolitics. Much of the first part of the book succinctly synthesizes the central findings of Wolf's earlier work on water cooperation and Delli Priscoli's work on alternative dispute resolution (ADR). Indeed, this survey of the literature provides compelling evidence for their central claim that, over the course of the 20th century, human beings have managed to solve disputes over water.

The book provides a detailed history of major international developments in international water law and negotiations, including discussions of major conventions (e.g., the 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses) and conferences such as the 1992 International Conference on Water and the Environment that produced the Dublin Statement on Water and Sustainable Development. Their knowledge of international water law and its development is vast, drawing upon several decades of work to tease out the important gold nuggets from different treaties. For instance, despite the sophisticated design of the Jordan-Israel Treaty, it still failed to include provisions related to drought, which they argue was a cause for concern in early 1999 when Israel suggested it might not be able to deliver water from the Sea of Galilee to Jordan as specified in the treaty. Delli Priscoli and

2. For example, see Bruch et al. 2005.

3. Conca 2006.

Wolf's coverage is up-to-date on developments in international water law, including the International Law Association's Berlin Rules. The book's comprehensive appendices compile valuable information on treaty characteristics (e.g., groundwater provisions, water quality provisions, and water allocations) that are often understudied in the conventional literature on water conflict and cooperation.

Managing and Transforming Water Conflicts, moreover, offers clear insights to guide practitioners about the nuts and bolts of treaty-design and institution-building, gleaned lessons from a large array of case studies (e.g., the Mekong, Indus, and Nile basins). Most importantly, the authors argue that negotiations must move beyond a focus on rights and needs to a consideration of benefits and equity. They have compiled a lengthy list of successful cooperative actions that states have undertaken, drawing recommendations that states "use words such as *shared* and *common*, seek meaningful community input, and create open and transparent rules of behavior" (p. 114). They argue that benefits are likely to be enhanced when negotiations are integrative and no longer focus on single issues, but rather link issues across sectors. In the Aral Sea basin, for example, effective cooperation did not ensue in the 1990s precisely because the agricultural sector was never included in the negotiations despite the recognition that the water and energy sectors were inextricably linked.⁴

A major contribution of the book is its detailed discussion of public participation. The authors contend that the sustainability and effectiveness of water planning depends on how well policymakers listen to and provide access to information for those members of society affected by water development projects. Otherwise, there is always the chance that those marginalized may seek to undermine the project's impact. Within water negotiations, they argue, a transparent, open and participatory process is vital for managing conflict and fostering cooperative outcomes in international river basins that espouse principles of equity. The Nile Basin Initiative stands out for its attention to the *process* and not the *product*; talks are taking place among non-state actors in parallel to the ministerial level discussions.

The one limitation of the book is its lack of scientific depth, a problem that faces many texts on water. At the same time that *Managing and Transforming Water Conflicts* underscores the importance of groundwater and water quality, it makes some incorrect assumptions about the salinity and instability of groundwater resources. Although the mineralization of groundwater has some input on salinity, the relationship does not always hold. For example, many of the fossil groundwater sources in the Middle East are deep but with very low salinity.

A second book on the topic, *Taming the Anarchy*, provides an extensive history of the irrigation economy in South Asia. It covers the Mughal Empire, in which communities were intimately involved in rule-making and enforcement; the British Colonial period, during which the British single-handedly engi-

4. See also Weinthal 2002.

neered one of the world's largest centralized irrigations systems; and present-day South Asia, characterized by millions of atomistic water users who operate outside of the state's plans for irrigation. Those focusing on water resources in South Asia have frequently emphasized surface water, particularly concerning interstate cooperation over the Indus and Ganges-Brahmaputra. This book, instead, explains the exploitation of the often-overlooked groundwater economy that has had a profound effect on agriculture, aquifer depletion, and poverty in South Asia. Indeed, the attention directed to India's international rivers has obscured the fact that, by the mid-1980s, India had become the largest groundwater user in the world.

At the heart of the book is the story of the tube well revolution that accompanied the Green Revolution of the late 1960s, providing livelihoods for the millions of the rural poor through enabling them to overcome drought and famine. A major strength of the book is its nuanced and balanced depiction of the irrigation boom that spread across South Asia in the 1970s with the introduction of electric pumps for tube wells, allowing individuals to access any type of aquifer. As a consequence, groundwater became the mainstay of smallholder agriculture. If it were not for these pumps and shallow tube wells, farmers, according to Shah, would have been unable to elongate their growing seasons or diversify their farming systems, which not only provided insurance against frequent droughts, but contributed to poverty alleviation.

Yet unbridled groundwater extraction has had its costs. Over-pumping of coastal aquifers not only exacerbates groundwater stress, but also raises questions about the future of an agrarian system so dependent upon this water boom. Indeed, unlike the other books under review, Shah shows the irony of too much "democratization" of water management in the absence of strong state oversight and regulations. Simply put, the tube wells that have "democratized" irrigation access in South Asia have long-term environmental consequences, despite their short-term socio-economic benefits. While Shah alludes to water quality issues such as naturally occurring arsenic in the groundwater in Bangladesh, more attention could have also been paid to the long-term health consequences.

Similar to *Managing and Transforming Water Conflicts*, Shah is concerned about generating concrete recommendations to "catalyze collective action among farmers to stave off a groundwater disaster" (p. 172). Yet, in contrast to Elinor Ostrom's seminal work on common-pool resources that provides a clear set of design principles for managing small-scale irrigation systems,⁵ Shah's analysis of the irrigation economy is discouraging. In a situation involving a combination of different geological features and extraction by heterogeneous users, the reader is left with a large catalog of possible solutions for South Asia's "irrigation anarchy." Shah, on the one hand, is skeptical of the appropriateness of integrated water resource management (IWRM), which emphasizes participa-

5. Ostrom 1990.

tory water resource management, because it would require countries in South Asia to make a sudden transition from a largely informal water economy into a predominately formal one. On the other hand, like Delli Priscoli and Wolf, he stresses the importance of linking sectors to address groundwater depletion—that is, to focus on the energy-irrigation nexus that has undergirded the use of different pump technologies. Some caution is warranted, however, concerning his discussion of water transfers as a solution to ease pressure on stressed aquifers. As the other books point out, such solutions have been heavily criticized in the literature concerning participatory water resource management because they elicit negative social impacts and social struggle.

Water, Place & Equity is the most novel of the books under review, explicitly addressing the issue of social struggle over water resources. It is an edited volume, with a combination of case studies that cover irrigation in the San Luis Valley, the water war in Cochabamba, Bolivia, and water reforms in Mexico and Brazil. The authors convincingly argue that water management should not be based solely upon norms of efficiency and markets, but must also take into account equity considerations.

Equity, however, is a broad concept with varied meanings in different contexts. According to Whiteley, Ingram, and Perry, equity requires “fair, open, and transparent decision-making processes in which all individuals and groups affected by water decisions have an opportunity to participate” and spearhead equity producing solutions (p. 21). Equity issues arise in the U.S.-Mexico Treaty due to the absence of adequate water quality provisions in the treaty design. In the chapter on water in Mexico, equity pertains not only to who gets to participate in the decision-making process, but also concerns the affordability and accessibility to water.

Although public participation has become part of the mantra of the international water community, *Water, Place & Equity* offers a comprehensive yet thorny portrayal of public participation. Among the development community, it is widely assumed that the creation of water user associations and stakeholder groups will best meet the needs of the local population. Yet, Whiteley et al. illuminate the ways in which participation is increasingly manifested as a social struggle at the subnational level over various forms of water development. Of particular interest is the well-known case of water utility privatization in Cochabamba, Bolivia in 2000 in which the entire water system was sold to a foreign-led consortium. That the privatization process was carried out in a non-transparent manner with little or no public participation, Madeline Baer finds, led to massive street protests to reassert public control over the water system.

Maria Carmen Lemos examines the creation of stakeholder river basin councils in Brazil, a byproduct of the harmonization of global policies designed to promote societal participation and long-term sustainability. She argues that effective participation depends upon the availability and accessibility of knowledge, especially since better-informed stakeholders can make better-informed decisions. Yet, as in international river basins described in Delli Priscoli and

Wolf, knowledge at the local level also becomes a battleground in which the former technical elite has greater opportunities to “capture” the decision-making process.

Debates over what constitutes development are also central to many of the chapters in *Water, Place & Equity*. For instance, Ismael Vaccaro’s fascinating case study of water management in Northern Spain describes what happens when meanings and values change over time when water resources are no longer part of the “modernization” process but become venues for leisure and recreation. European Union legislation embraced decentralization and stakeholder participation, which profoundly affected Spanish water policy, shifting the water culture away from development toward sustainability and equity.

In sum, the common thread that weaves across these three books is a desire to foster a better understanding of how water is used, allocated, and shared so as to incorporate public participation, fairness, and equity. As such, these books will appeal to both practitioners and scholars. While they may not offer any “cookie-cutter” solutions for solving the world’s water crisis, they clearly show that water governance must take into account competing values, multiple levels of scale and sectors, and civil society to resolve problems that continue to plague countries today such as unsafe drinking water and overexploitation of water resources.

References

- Bruch, Carl, Libor Jansky, Mikiyasu Nakayama, and Kazimierz A. Salewicz. 2005. *Public Participation in the Governance of International Freshwater Resources*. Tokyo: United Nations University Press.
- Conca, Ken. 2006. *The New Face of Water Conflict*. *Navigating Peace* 3. Washington, DC: Woodrow Wilson International Center for Scholars.
- Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.
- Weinthal, Erika. 2002. *State Making and Environmental Cooperation: Linking Domestic and International Politics in Central Asia*. Cambridge, MA: MIT Press.
- World Health Organization. 2010. Water, Sanitation, and Health. Available at: http://www.who.int/water_sanitation_health/mdg1/en/index.html.