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**Karin E. Kemper, William Blomquist, Ariel Dinar, Integrated River Basin
Management Through Decentralization**

a result of those politics, governments set the price of water in wealthy areas low to appease wealthy voters. The chapter concludes by considering how the scarcity of water might cause it to become the oil of the twenty first century.

Chapter 10, "Water Wildcatters," evaluates how speculators in Florida and other states and around the world are positioning themselves to profit from expected future water shortages. The chapter considers how corporate raider Boone Pickens purchased vast acres of water rights in expectation of future shortages. Pickens expects to make huge profits because he believes water will be bought and sold as a commodity in the near future. The chapter concludes by examining the potentially dangerous consequences of such a scenario in which those in need might not be able to access clean water.

Chapter 11, "Technology's Promise," assesses two potential technological solutions to the water shortage problem: underground storage and saltwater desalination. The book provides examples of unsuccessful attempts of each technology in Florida and raises concerns that the technology might aggravate water supply problems by allowing more people to inhabit places that do not have enough water to support population increases.

Chapter 12, "Redemption & the River of Grass," provides hope for the future of Florida's water by discussing ongoing efforts to save the Everglades. The chapter concludes by providing numerous reasons why water is essential not just for physical well being, but also to a healthy state of mind.

Mirage logically develops and examines the numerous problems affecting Florida's water supply. By giving the reader both a historical and contemporary understanding of those problems, *Mirage* allows the reader to truly understand the severity and importance of the issues. From a legal perspective, *Mirage* foreshadows possible legal battles between states over water rights as water becomes more scarce. Thus, *Mirage* is an excellent book for any person seeking to understand how the development of Florida's once vast wetlands depleted underground water sources and caused Florida to go from a land of water surplus to a land of water shortage.

Patrick Hickey

Karin E. Kemper, William Blomquist, Ariel Dinar, *Integrated River Basin Management Through Decentralization*, Springer, Berlin (2007); 262 pp; \$129.00; ISBN 978-3-540-28354-6, hard cover.

Integrated River Basin Management Through Decentralization is a technical case study focusing on factors that increase or decrease the success of decentralizing river basin management. The editors develop an analytical framework in the initial chapters, and with their factors defined, apply the framework to eight river basins throughout the world.

The final product is a series of chapters with identical subheadings, but case-specific facts and conclusions. Guest authors appear in several of the analyses, but the editors completed the majority of the studies themselves. Kemper is a water resources management specialist and Dinar is an economist - both work for the World Bank. Blomquist is a political scientist at Indiana University Purdue University Indianapolis. The editors propose that river management functions best when national and local policies and interests coalesce. This balance, tipped either towards national or local control, will vary depending on initial contextual factors.

In Chapter One, the editors explain their study, beginning with initial factors that influence how decentralization of river basin management occurs. Economic development at the national and basin level is important, along with social and cultural distinctions one can see among the basin's stakeholders. Stakeholders are those using the water within the basin. Do vast differences in income and culture prevent local users from successfully devising a basin management system, or is success based more on pressing scarcity? Does the initial water rights system play a part? What about gaps in political influence? The study aims to answer questions such as these.

Chapter Two introduces the eight basins and lays out broad descriptions of current management problems (water pollution, flooding, intersectoral conflict), which party initiated the decentralization (local groups, national government, or both), the nature of the organization finally charged with river basin management (non-governmental, governmental mixture), and the amount of access local stakeholders have in the management process (access to councils or commissions to voice opinions). The editors study eight basins in depth: the Murray-Darling basin in Australia; the Alto Tiete basin in southern Brazil; the Jaguaribe basin in northeast Brazil; the Fraser basin in western Canada; the Tarcoles basin in Costa Rica; the Brantas basin in Java, Indonesia; the Warta basin in Poland; and the Guadalquivir basin in Andalusia, Spain.

Chapter Three is an overview of how the editors narrowed the basin selection from 197 river basins to eight. The editors sent out 197 questionnaires to elicit statistical information and then ran those results through a formula to determine how the relationships of those factors influence the success of decentralization.

Chapter Four is the first basin case study the editors apply to their framework. The Murray-Darling basin in southeastern Australia is arid, over-appropriated, and full of irrigated agriculture. Hence, a water management system had been in place for decades. Scarcity had always been a concern, but more recently, water quality and ecosystem quality concerns cropped up nationally. In Australia, the states have control over natural resources, frustrating reform here because the basin runs through three states. Accordingly, those states signed the Murray-Darling Basin Agreement in 1992 "to promote and coordinate effective

planning and management for the equitable, efficient, and sustainable use of the water, land and other environmental resources.” The commission has transboundary authority to manage the river, but has no revenue-generating authority. For example, it cannot levy water tariffs or discharge fees. National pressure led the three states to create an interstate local commission to manage the basin. The editors determined that while local stakeholders have a voice, there is concern the commission is beholden to national policy because it was created nationally.

In Chapter Five, the editors examine the Alto Tiete basin in southern Brazil. The upper reaches of the Tiete River supply much of the water for the huge - and growing - metropolis of Sao Paulo. In post-dictatorship Brazil, the new government passed national legislation to decentralize many branches of the central government. The basin benefited from Sao Paulo’s relatively rich population of water technicians. Current issues stem from urbanization, which has increased demand, pollution, and flooding. National water law created basin committees, but state agencies frequently by-pass these committees. In that way, the editors conclude, the decentralization has not been successful. However, sub-basin committees capable of localized decision-making have shown more potential. Today, the greatest conflict is over whether the basin committees can charge tariffs. Not surprisingly, large water users like irrigators and industry oppose the idea, whereas municipal and local people support it. The editors generally support tariff powers because they convey more authority to smaller, but democratically vulnerable, organizations.

The editors next evaluate the Jaguaribe basin in northeastern Brazil. Here, the region is semi-arid, with a much smaller and poorer population than the Sao Paulo area. However, the rivers are intermittent, fast and large flowing rivers burst during the wet season, just to become dry months later. For this reason, Brazil built thousands of dams for storing water and for flood control over many decades. New problems are arising as local demand grows with population increases, and there are virtually no waste water treatment facilities. As with the Alto Tiete basin, the decentralization trend for river basins came from national legislation. However, in this basin the state charges for water, so local commissions are self-sufficient. The editors point out that local conditions, at first glance, made decentralization less feasible. Now, with water tariffs, the area has money to develop water resource plans with input from local users.

Chapter Seven focuses on the Fraser River basin in British Columbia, Canada. The headwaters of the Fraser River remain mostly undeveloped, flowing from deep in the Canadian Rockies. However, the estuary is highly developed, encompassing the Vancouver metro area. The Fraser Basin Council (“FBC”) is a relatively new local management authority, created in 1997 to address numerous concerns, from pulp

mills to salmon runs, from recreation to First Nation rights. In Canada, provinces have authority over natural resources, but the federal government has control over navigation, shipping, and conservation, so a mixed jurisdiction confronted local users. Encouraged by stakeholder pressure, an agreement between British Columbia and Canada created the FBC. With 36 members from different parts of state, local, and national government, First Nations, and stakeholder groups, communication and breath are excellent within the organization. The FBC is nongovernmental, and receives money from Canada, but private interests also provide project support. A major drawback hampering the FBC is, as a nongovernmental entity, it lacks authorization to implement its own projects. It creates and funds projects, but must hand them off to the appropriate governmental agency. Because of this, the government vetoes many aspects of each idea, reducing stakeholder power, a key issue the editors point out.

Chapter Eight examines the Tarcoles River basin in Costa Rica. The Tarcoles flows through the major population center surrounding the capital, San Jose, and empties into the Pacific Ocean. The basin drains only 3% of Costa Rica, but holds 50% of the population and 80% of the country's industry, resulting in serious problems with scarcity and pollution (96% of the region's domestic and industrial waste is untreated). Also, because of deforestation, soil erosion is an emerging concern. The Commission for the Rio Grande de Tarcoles Basin ("CRGT") is a locally initiated management organization, created after the principals of San Jose realized they needed to include the three dozen other major municipalities in the area to effect change. Its founding was popular, but there is concern that the CRGT lacks management power because ministerial decree created it, and not national legislation. Also, the dividing line between the ministry and the CRGT is not well defined, undermining local trust. However, the CRGT has raised awareness throughout the basin regarding pollution problems and started a voluntary business pollution discharge scheme that rewards polluters for reducing pollution. In all, the editors believe the organization has acted more as an educational entity than a management authority.

Chapter Nine focuses on the Indonesian island of Java. Indonesia has experienced huge amounts of growth recently, but has also generated international concern as the economy destroys forests and other resources. In East Java, rising from the Arjuno volcanic massif, the Brantas River flows along a burgeoning population of 15 million people. Here, untreated effluent is the largest local concern. The central government of Java created the Brantas River Basin Management Corporation ("PJT") as a governmental agency responsible for managing the basin. However, the PJT can levy no tariffs, and only manages the state-owned infrastructure. The state collects tariffs, but does not levy any on hydropower or irrigators because of their political power,

so the PJT cannot cover its own maintenance costs, let alone develop pollution control devices. The editors conclude because the mandate of the PJT is not entirely clear, it wields little power and has only an informal relationship with stakeholders.

Chapter 10 focuses on the Warta basin in Poland, one of the newest members of the European Union. The Warta basin drains one-sixth of the country in western Poland. The decline of water quality, quantity, and flood control are driving factors for reform in the basin. The democratization of Poland from 1989 to 1991 led to the development of regional water boards, which the central government directed to reduce pollution, protect drinking water, develop rational water management systems, and to provide information to users. These water boards relate directly to the Ministry of the Environment, and policies have changed in the past decade because of Poland's need to realign its water policies with those of the EU. The boards have the power to regulate water use. They also grant tax incentives for conservation and protection, as well as charge fees for discharges and withdrawals. The editors highlight this case study to show how quickly and efficiently decentralization can occur with a central government committed to the idea. However, wariness among stakeholders remains because tariff monies do not flow directly to the boards themselves.

Chapter Eleven assesses the Guadalquivir Basin in southern Spain. River basin management has a long history, beginning in 1926 when the government created the CH Guadalquivir ("CHG"). Since then, new concerns have appeared, including ecosystem protection and large increases in demand. Conflicts between irrigators and conservationists arose, a persistent issue for the CHG. The Spanish national government appoints the head, and provides one-third of CHG's budget. The editors found this basin management organization was "a device for executing central government policy one river basin at a time." Here, stakeholders may have benefited from the central government's policy but felt left out of the policy-making process.

The concluding chapter draws four lessons from the study: patience is a virtue; one size does not fit all; possibilities exist everywhere; and shared responsibility is essential. The editors suggest that implementation of a local river basin management scheme might take decades. They emphasize that on a scale from national to local, the best governmental tier for a management organization will vary depending on the circumstances. As the Jaguaribe basin exemplified, these schemes can work in places of poverty: initial resources are not an inhibiting factor in decentralizing river basin management. And finally, ensuring that every stakeholder and every level of government has some say is crucial to success.

Integrated River Basin Management Through Decentralization reads without much narrative or flavor. It is strictly an empirical political science experiment results report. It has the feel of a condensed ver-

sion of a much larger study. Thus, some sections read more like conclusions than analysis. Regardless, for a reader specifically interested in the subject, *Integrated River Basin Management Through Decentralization* provides a well-categorized look at decentralized water management across several continents.

Zachary Smith

Sarah T. Phillips, *This Land, This Nation: Conservation, Rural America, and the New Deal*, Cambridge University Press (2007) (2007); 310 pp; \$23.99; ISBN-13: 978-0-521-61796-3; soft cover.

This Land, This Nation: Conservation, Rural America, and the New Deal navigates through the New Deal's extensive acronyms and presents a comprehensive study of federal conservation policies throughout this historical era. Author Sarah T. Phillips is Assistant Professor of History at Columbia University in New York City.

Phillips interweaves environmental and political history while charting the course of New Deal conservation policies. A statement from a 1937 documentary, *The River*, sums up the New Dealers' attitude toward conservation: "Poor land makes poor people, and poor people make poor land." This belief served as the driving force behind conservation policies, as policy analysts saw a link between the Great Depression and the poor state of rural Americans. Accordingly, helping rehabilitate the lives of the rural poor would in turn lift the United States out of the Great Depression. However, farmers' resistance to some measures, problems in assisting the poorest farmers, and the outbreak of World War II further complicated an already difficult task. Phillips analyzes these policies over the course of multiple presidencies and historical events. The epilogue examines the international export of these conservation policies.

Chapter 1, "The New Conservation," traces the origins of rural conservation policy. Future president and then New York governor Franklin Delano Roosevelt's concern for a "proper balance" between rural and urban communities in a June 1931 speech reflected the importance of conservation to the eventual New Deal architect. Achieving this balance was the goal of new conservationists, and the groundwork for later New Deal programs came about during the presidency of Herbert Hoover. Phillips cites two distinct schools of thought coming together to form the new conservationist policies: rural electrification advocates and land use planners. These groups focused on providing electricity to rural areas and land degradation, respectively, and both groups linked social improvement with environmental policy. President Hoover's policy initiatives clashed with those of the new conservationists. President Hoover also sought cheap power and proper land use, but sought these results through "industrial organization and private cooperation." This goal was at odds with the new conservationists,