

Book Reviews

Groundwater Markets and Irrigation Development: Political Economy and Practical Policy

Tushaar Shah

Bombay, Oxford University Press, 1993, 262pp, £18.95, ISBN 019-563-22-73

How can Indian water resource policies better address three central sets of issues: productivity, equity and sustainability? In this well-written and clearly argued book, Tushaar Shah reviews research findings and policy experiments related to groundwater development and lift irrigation technologies in India. The book presents research on the workings of groundwater markets in different parts of India—defined as a localized institutional set-up through which owners of modern pumps supply water to other members of the community at a price. However, this information is also used to make policy recommendations for water resources management for different areas, in relation to their water economy.

Groundwater development has been critical to both economic and social transformation in India. A central theme of the book is that, despite the importance of groundwater, public policy towards its development and management is ineffective, and can neither stimulate nor regulate this precious resource in an effective manner. Key reasons for this include: the predominance of private development; the logistical limits to current legal instruments; and the fact that most public organizations have roles restricted to planning and monitoring. The real power in groundwater management lies with the users themselves—and the electricity agencies. Thus new groundwater policies have to encompass incentives for positive change and more collective action, and not just controls and restrictions. Shah's work suggests that the evolution of competitive water markets can be as—or more—beneficial than the direct transfer of subsidized technology, and also have substantial equity.

In the first part of the book, the author develops economic models to study the responses of farmers to both economics and the environment, in relation to choice of energy supply, sources, size of water-extraction mechanism, and the effects of the pricing policies of electricity agencies on operating regimes. The book then examines the development of groundwater markets in different locations. The book surveys experiences in: the fragile coastal aquifers; canal systems with conjunctive water use options; the uncertain hydrogeology of drought-prone areas with hard-rock geologies; and finally more water-abundant areas where ease of technology adoption has led to rapid development and some mining of water tables. This analysis allows the author to differentiate 'hydro-economic regimes', where different levels of groundwater development and irrigation have been feasible.

Finally Shah reviews the range of policy instruments in use for water resource

management in India, looking at power tariffs, power supply, licensing, subsidies and public tubewells. Shah draws on the earlier sections to differentiate policy options for different 'hydroeconomic regimes'. He shows how water markets can be relevant in many different areas, but need different policy instruments to develop in equitable forms. The book gives special attention to the effects of electricity services and tariffs on the nature of groundwater markets. The book includes several very useful tables categorizing water environments, policy instruments and options for water markets in different hydro-economic contexts.

The book will not only be of great interest to Indian policy makers and researchers involved with water. Its arguments and policy recommendations also have an international relevance for areas facing groundwater management problems, and similar concerns about equity and productivity in rural development. The book should also interest students and researchers in terms of documentation of research. It shows clearly how research can be structured to inform policy. The book presents new models for the study of the economics of water use and also reports the methodologies used to study change and test hypotheses about groundwater in different environments. Tushaar Shah presents his recommendations for new policy initiatives in Indian water management on the basis of evidence rather than opinion. Let us hope that this book will stimulate the debate it seeks and deserves.

Linden Vincent
Wageningen Agricultural University
Department of Irrigation and Soil and Water Conservation
Nieuwe Kanaal 11
6709 PA Wageningen, The Netherlands

Hydropolitics Along the Jordan River: Scarce Water and its Impact on the Arab-Israeli Conflict

Aaron T. Wolf

Tokyo, United Nations University Press, 1995, viii + 272 pp., maps, diagrams, appendices, tables, references and index, ISBN 92-808-0859-1

This book is part of a series on water issues and conflict resolution sponsored by the United Nations University. *Hydropolitics Along the Jordan River: Scarce Water and its Impact on the Arab-Israeli Conflict* is an extremely interesting case study of the strategic role that water resources can play within a region. The Jordan watershed is relatively small yet it is crucially positioned given historical developments. Water shortages are rapidly becoming the norm within this watershed.

Wolf begins with a brief hydrography and a relatively extensive history of the region. The historical material sets the required context for his examination of water conflict and the potential for cooperation. A very adequate examination of important historical factors is presented as well as a nicely balanced perspective of the riparians and their relationship within the region.

Next, Wolf turns our attention to the difficult task of analysing such a complex and contentious international watershed. Chapter 3 presents a careful development of his interdisciplinary framework for evaluating watershed development and analysing water conflict. Several disciplines that have something to offer

those interested in water policy and management are summarized: physical sciences, law, political science, economics, game theory and alternative dispute resolution. These overviews present a nice, yet brief, introduction to the tools and lessons that these fields offer for the management of water resources. As a result, the interdisciplinary framework that the author develops draws on the strengths of each tradition. Wolf postulates three phases in the process of water conflict analysis: preliminary watershed analysis, the evaluation framework (options and viability) and implementation.

In Chapter 4, this interdisciplinary framework is applied to the Jordan watershed; the historical context previously developed in Chapter 2 is critical for this application. Wolf begins his analysis by addressing the water crisis in the Jordan basin. He formulates a four-stage water development plan for the watershed: (1) negotiate an equitable division of existing resources; (2) emphasize greater efficiency for water demand and supply; (3) alleviate short-term needs through interbasin water transfers (if available and politically viable); and (4) develop a regional desalinization project in cooperation-inducing stages. Wolf addresses the water conflict dimension as well by focusing on cooperation-inducing strategies for implementation efforts. He suggests three examples of cooperation-inducing implementation: an agreement for sharing existing resources, negotiations over the mountain aquifer and a Med–Dead or Red–Dead Canal desalination project. The attention given to the political viability of alternatives gives his interdisciplinary analysis much credibility.

Chapter 5 provides a concise summary of the book. An Afterword addressing significant recent events of the peace process brings the reader up to date and illustrates how change is an ever-present factor in our world. The Appendices offer many useful maps, documents, the PRINCE Political Accounting System, a water projection model, and information on the desalination projects. The bibliography is extensive; it is an excellent resource and reading list for this region.

Wolf provides readers with a well-researched and insightful study of the strategic importance of water resources. He takes his qualitative interviews and weaves a very careful story that illustrates the crucial role of water in the Jordan watershed. The consideration given to the historical contexts of political conflicts provides us with a deep and balanced treatment of the issues surrounding water in this region. Wolf gives us an example of the development and use of an interdisciplinary framework for water planning and management. In doing so, he both offers solutions and helps to broaden our perspectives. It may increasingly take this breadth of understanding with respect to our watersheds experiencing significant conflicts to generate insightful solutions to increasingly scarce water supply such as he develops in this work.

I highly recommend this book to those with an interest in Middle East water issues and to those who are new to this contentious watershed. It serves as an excellent international watershed case study for advanced undergraduates and graduate students (although an expensive supplemental paperback text at approx \$50). Additionally, it serves as a strong example of a thorough research project within an interdisciplinary framework.

Faye Anderson
Southern Illinois University
Faner Hall 4543, Carbondale, IL 62901-4526, USA

Political economy is the study of production and trade and their relations with law, custom and government; and with the distribution of national income and wealth. As a discipline, political economy originated in moral philosophy, in the 18th century, to explore the administration of states' wealth, with "political" signifying the Greek word polity and "economy" signifying the Greek word "oikonomía" (household management). The earliest works of political economy are usually attributed to the British

Start by marking "Groundwater Markets and Irrigation Development: Political Economy and Practical Policy" as Want to Read: Want to Read savingâ€¦| Want to Read. This volume presents the lessons learned from a wide range of groundwater and irrigation projects throughout the country of India. It offers information on their development, projected scope, and ultimate impact on agricultural productivity and economic activity. This valuable resource will be read with interest by all professionals involved with setting or implementing wa This volume presents the lessons learned from a wide range of groundwater and irrigation projects throughout the country of India. Fundamentals of Political Economy. Item Preview. remove-circle. Share or Embed This Item. EMBED. texts. Fundamentals of Political Economy. by. Communist Party of China. Topics. Maoist, textbook, economics, maoism, mao zedong, tse tung, marxism, communism, Collection. opensource. International Food Policy Research Institute 2033 K Street NW Washington, DC 20006-1002 USA Tel. +1-202-862-5600 Fax +1-202-467-4439 E-mail ifpri@cgiar.org www.ifpri.org. Under these conditions, irrigation development offers the promise of greater food security and the rural-area development by ensuring yearlong agricultural production. Despite considerable potential for development and the emphasis placed on irrigation development in many plans, less than two percent of the total cultivatable area in Ghana is irrigated. Sub-surface and groundwater-based irrigation systems are not evenly distributed across the regions but are fast spreading beyond traditional enclaves such as the Volta region's Keta strip. Are you sure you want to remove Groundwater markets and irrigation development from your list? Groundwater markets and irrigation development. political economy and practical policy. by Tushaar Shah.

Political economy is the study of production and trade and their relations with law, custom and government; and with the distribution of national income and wealth. As a discipline, political economy originated in moral philosophy, in the 18th century, to explore the administration of states' wealth, with "political" signifying the Greek word polity and "economy" signifying the Greek word $\acute{\alpha}\lambda\omicron\gamma\acute{\alpha}\nu\eta$ (household management). The earliest works of political economy are usually attributed to the British Start by marking "Groundwater Markets and Irrigation Development: Political Economy and Practical Policy" as Want to Read: Want to Read saving! Want to Read. This volume presents the lessons learned from a wide range of groundwater and irrigation projects throughout the country of India. It offers information on their development, projected scope, and ultimate impact on agricultural productivity and economic activity. This valuable resource will be read with interest by all professionals involved with setting or implementing wa This volume presents the lessons learned from a wide range of groundwater and irrigation projects throughout the country of India. R D Dhawan Groundwater Markets and Irrigation Development: Political Economy and Practical Policy by Tushaar Shah; Oxford University Press, Bombay, 1993; Read more about Emerging Water Markets. EPW consults referees from a database of 200+ academicians in different fields of the social sciences on papers that are published in the Special Article and Notes sections. Click here for summary statistics of EPW's rank among journals in India, Asia, and the world. Groundwater irrigation and the rural poor: options for development in the Gangetic Basin. In: A World Bank Symposium. The World Bank, Washington, DC. Contract Theory and Its Application to Groundwater Markets in India. Jan 1999. K Kajisa. Kajisa, K., 1999. Groundwater Markets and Irrigation Development: Political Economy and Practical Policy. Article. May 1995. LAND ECON. K. William Easter. Robert R. Hearne. Tushaar Natwarlal Shah. Irrigation governance Irrigation technology. 1960s to 1980s Food security. Irrigation will increasingly serve a market-oriented agriculture. Increased competition for water Increased need for transparency in management Increased reliability and flexibility of the service of. water. Plan. Raising water productivity Technology and management together Management innovations Evaluation of performance of irrigation. This degree of flexibility is usually the case with sprinkler and drip irrigation, and also with pumped groundwater if the farmer owns the pump. A totally flexible delivery system for surface irrigation in large irrigation systems is expensive because of the required overcapacity in the conveyance system.

Economic policy-makers tend to confront policy issues one at a time, stating policy objectives in single dimensional terms. This approach presents difficulties because a policy aimed at achieving a single objective usually has unintended and unrecognized consequences. Water managers and policy-makers need to assess the entire range of government interventions to understand fully the economic, social and environmental impacts on a given sector, region or group of people. While water consumption and quality requirements are tied to local populations and development levels, local water availability usually changes with climatic variations throughout the year and over longer cyclical swings.

Shah, T. *Groundwater Markets and Irrigation Development: Political Economy and Practical Policy*. Bombay: Oxford University Press, 1993. Shah, T., Molden, D., Sakthivadivel, R., and Seckler, D.. *The Global Groundwater Situation: Overview of Opportunities and Challenges*. Colombo, Sri Lanka: International Water Management Institute, 2000. Singh, D. "Groundwater Markets in Fragile Environments: Key Issues in Sustainability." *Indian Journal of Agricultural Economics* 57(2002): 180-96. Upadhyay, S.K. "Use of Groundwater Resources to Alleviate Poverty in Nepal: Policy Issues." *Groundwater Irrigation and 3. The Political Economy of Trade Policy: Interests and Institutions*. 4. *The Evolution of the International Monetary System*. 5. *The Consequences of Financial Integration*. What is International Political Economy, and how should it be studied? Most people would agree that IPE, at its most fundamental, is about the complex interrelationship of economics and politics at the level of international affairs. In the words of Robert Gilpin, one of the field's pioneers, IPE is about "the reciprocal and dynamic interaction in international relations of the pursuit of wealth and the pursuit of power." As a practical matter, political economy has always been part of global relations. But as a distinct scholarly domain, surprisingly enough, IPE was born just a few decades ago.

Groundwater markets and irrigation development : political economy and practical policy. Tushaar Shah. Year of publication. Similar items by subject. *Irrigation development and economic growth : (a case study of Bihar economy)*. Mishra, Surendar, (1988). *Hydropolitics along the Jordan River : scarce water and its impact on the Arab-Israeli conflict*. Wolf, Aaron T., (1995). *Water and land management in arid ecology : policy and socio-scientific perspectives on soil-crop-water synergy*. Mathur, P. C., (1991).

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