

Irrigation Water Pricing

The Gap Between Theory and Practice



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Edited by

F. Molle

and

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Contents

Contributors	vii
Preface	xi
Foreword	xiii
1. Water Pricing in Irrigation: The Lifetime of an Idea <i>F. Molle and J. Berkoff</i>	1
2. Water Pricing in Irrigation: Mapping the Debate in the Light of Experience <i>F. Molle and J. Berkoff</i>	21
3. Why Is Agricultural Water Demand Unresponsive at Low Price Ranges? <i>C. de Fraiture and C.J. Perry</i>	94
4. 'Get the Prices Right': A Model of Water Prices and Irrigation Efficiency in Maharashtra, India <i>I. Ray</i>	108
5. Thailand's 'Free Water': Rationale for a Water Charge and Policy Shifts <i>F. Molle</i>	126
6. Water Rights and Water Fees in Rural Tanzania <i>B. van Koppen, C.S. Sokile, B.A. Lankford, N. Hatibu, H. Mahoo and P.Z. Yanda</i>	143
7. Who Will Pay for Water? The Vietnamese State's Dilemma of Decentralization of Water Management in the Red River Delta <i>J.-P. Fontenelle, F. Molle and H. Turrall</i>	165

8. Water Pricing in Haryana, India	192
<i>P.J.G.J. Hellegers, C.J. Perry and J. Berkoff</i>	
9. The Energy–Irrigation Nexus in South Asia: Groundwater Conservation and Power Sector Viability	208
<i>T. Shah, C. Scott, J. Berkoff, A. Kishore and A. Sharma</i>	
10. Wells and Canals in Jordan: Can Pricing Policies Regulate Irrigation Water Use?	233
<i>J.-P. Venot, F. Molle and Y. Hassan</i>	
11. Water Pricing in Tadla, Morocco	262
<i>P.J.G.J. Hellegers, C.J. Perry and T. Petitguyot</i>	
12. Water Pricing Policies and Recent Reforms in China: The Conflict between Conservation and Other Policy Goals	277
<i>B. Lohmar, Q. Huang, B. Lei and Z. Gao</i>	
13. Water Pricing and Irrigation: A Review of the European Experience	295
<i>J. Berbel, J. Calatrava and A. Garrido</i>	
14. Policy-driven Determinants of Irrigation Development and Environmental Sustainability: A Case Study in Spain	328
<i>C. Varela-Ortega</i>	
Index	347

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Preface

Following the emphasis laid at the Dublin and Rio conferences on treating water as an economic good, much hope has been vested in water pricing as a means of regulating and rationalizing water management.

In the irrigation sector, water pricing has first and foremost been promoted as a cost-recovery mechanism. Users are generally asked to cover recurrent costs so as to ensure the physical integrity of irrigation schemes and their financial sustainability, and perhaps also to pay back a part of the investment cost on economic, equity and/or financial grounds. Pricing has also been promoted as an economic tool, with the aim of eliciting desirable cropping shifts or technological change or even the reallocation of water to economic sectors with higher value added. Lastly, price-based incentives have been promoted as an environmental tool that can contribute to the control of pollution and the sustainability of ecological values.

This book offers a reassessment of this issue. It aims to deepen the understanding of the factors that dictate the effectiveness of irrigation water pricing in practice. It is hoped that this will provide a basis for improving the design of future water policies and for avoiding some of the more costly and misplaced reforms of the recent past. It is based on a comprehensive review of the available evidence and provides an extensive bibliography.

The first chapter looks back at the history of ideas and practices in irrigation water pricing. It flags, in particular, their evolution over the past 15 years and argues that they have in many ways gone full circle back to the consensus that prevailed prior to the Rio Conference. The second chapter synthesizes the lessons learned from the case studies and a comprehensive review of experience accumulated during the past 25 years. It identifies the striking gap between theory and practice, reviews constraints on the effectiveness of irrigation pricing policies, and analyses the scope and potential of differing policy measures. This assessment leads to the conclusion that the scope for irrigation pricing is more limited than has often been assumed.

The introductory chapters are followed by case studies that explore, in a variety of contexts, how pricing policies have been justified and introduced. The case studies evaluate the extent to which these policies have met their objectives, encountered constraints, and - often as not - failed. The case studies illuminate the overriding importance of context. Policies designed on general or ideological grounds typically fail to achieve the benefits anticipated. This calls for a much better assessment of on-the-ground reality before future reforms are introduced.

This book has benefited from the advice and comments of many researchers who, together with the co-authors, have contributed to the material gathered and to the successive reviews of the different chapters. We would like to thank in particular, José Albiac, Randy Barker, Eline Boelee, John Briscoe, Jacob Burke, Anne Chohin-Kuper, Marilyn Clement, Brian Davidson, Ariel Dinar, William Easter, Jean-Marc Faures, Tom Franks, Harold Frederiksen, Colin Green, Abdellah Herzenni, Paul van Hofwegen, Charles Howe, Marcel Kuper, Geoffrey King, Antonio Massarutto, Peter McCornick, Steven Merrett, Marcus Moench, David Molden, Peter Mollinga, Gopal Naik, Chris Olszak, Thierry Rieu, Hubert Savenije, Pierre Strosser, A. Vaidyanathan, James Winpenny and Pietr van der Zaag. In addition, we would like to thank Kingsley Kurukulasuriya for his valuable editorial assistance and Sepali Goonaratne and Mala Ranawake for their secretarial support.

Francois Molle and Jeremy Berkoff
Editors

Series Foreword: Comprehensive Assessment of Water Management in Agriculture

There is broad consensus on the need to improve water management and to invest in water for food to make substantial progress on the Millennium Development Goals (MDGs). The role of water in food and livelihood security is a major issue of concern in the context of persistent poverty and continued environmental degradation. Although there is considerable knowledge on the issue of water management, an overarching picture on the water-food-livelihoods-environment nexus is required to reduce uncertainties about management and investment decisions that will meet both food and environmental security objectives.

The Comprehensive Assessment of Water Management in Agriculture (CA) is an innovative multi-institute process aimed at identifying existing knowledge and stimulating thought on ways to manage water resources to continue meeting the needs of both humans and ecosystems. The CA critically evaluates the benefits, costs and impacts of the past 50 years of water development and challenges to water management currently facing communities. It assesses innovative solutions and explores consequences of potential investment and management decisions. The CA is designed as a learning process, engaging networks of stakeholders to produce knowledge synthesis and methodologies. The main output of the CA is an assessment report that aims to guide investment and management decisions in the near future considering their impact over the next 50 years in order to enhance food and environmental security to support the achievement of the MDGs. This assessment report is backed by CA research and knowledge-sharing activities.

The primary assessment research findings are presented in a series of books that form the scientific basis for the Comprehensive Assessment of Water Management in Agriculture. The books cover a range of vital topics in the areas of water, agriculture, food security and ecosystems – the entire spectrum of developing and managing water in agriculture, from fully irrigated to fully rainfed lands. They are about people and society, why they decide to adopt certain practices and not others and, in particular, how water management can help poor people. They are about ecosystems – how agriculture affects ecosystems, the goods and services ecosystems provide for food security and how water can be managed to meet both food and environmental security objectives. This is the fourth book in the series.

The books and reports from the assessment process provide an invaluable for resource managers, researchers and field implementers. These books will provide source material from which policy statements, practical manuals and educational and training material can be prepared.

Water pricing, especially in the irrigation sector, has been identified as a key policy mechanism to help solve problems of water scarcity and competition. It has been widely

discussed and promoted, because in theory it should work. But now after a few decades of experience it is worth assessing the actual practice of water pricing. Is it adopted, and has it been effective, and if so under what circumstances? Are there alternatives to water pricing that will lead to better use of water? This book provides an assessment of current practices, and provides insights on the way forward.

The CA is done by a coalition of partners that includes 11 Future Harvest agricultural research centers supported by the Consultative Group on International Agricultural Research (CGIAR), the Food and Agriculture Organization of the United Nations (FAO) and partners from over 200 research and development institutes globally. Co-sponsors of the assessment, institutes that are interested in the results and help frame the assessment, are the Ramsar Convention, the Convention on Biological Diversity, FAO and the CGIAR.

Financial support from the governments of The Netherlands and Switzerland, FAO and the OPEC foundation for the Comprehensive Assessment for the preparation of this book is appreciated.

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