## Water Trading and Global Water Scarcity

International Experiences

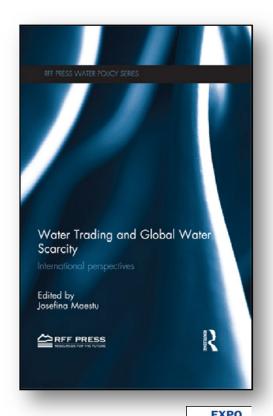
### **Edited by Josefina Maestu**

RFF Press Water Policy Series

see back for ordering details

Water scarcity is an increasing problem in many parts of the world, yet conventional supply-side economics and management are insufficient to deal with it. One of the key water management options for water demand is water trading. This book explores the role of water trading, as an instrument of integrated water resources management.

Water trading can contribute to water reallocation and in this way improve efficiency of water use and decouple economic growth and the use of water resources, thus contributing also to improve environmental river flows. It is also shown to be an instrument for conflict resolution where it may be necessary to reallocate water in the context of increasing scarcity. Water trading is based on voluntary agreements to sell water among different users. Recent experiences of implementation in different river basins have shown their potential as instruments for improving allocation. These experiences, however, also show that there are implementation challenges and some limitations to trading that need to be considered. In this book the various types of water trading formulas are explored through the experience of using them in different parts of the world. The final result is varied because, in most cases, trading is conditioned by the legal and institutional framework in which the transactions are carried out. The role of government and the definition of water rights and licenses are critical for the success of water trading. The book studies the institutional framework and how transactions have been undertaken drawing some lessons on how trading can improve. It also analyses whether trading has really been a positive instrument to manage scarcity, improve water ecosystems and pollution emission problems, in those parts of the world where problems are more serious. The book concludes by making policy proposals to improve implementation of water trading.



November 2012: 352pp

Hb: 978-0-415-63821-0: **\$140.00 \$112.00** 

**Josefina Maestu** is Coordinator of the United Nations Office to Support the International Decade for Action 'Water for Life' 2005-2015, based in Zaragoza, Spain. For 12 years she has been a lecturer on economics of natural resources management at the University of Alcala in Spain.

For more information on *Water Trading and Global Water Scarcity*, please visit: http://www.routledge.com/books/details/9780415638210/

SEE NEXT PAGE FOR TABLE OF CONTENTS...



# Water Trading and Global Water Scarcity

International Experiences

## **Edited by Josefina Maestu**

RFF Press Water Policy Series



#### Contents:

Introduction: Myths, Principles, and Issues in Water Trading Ronald C. Griffin, Dannele E. Peck, and Josefina Maestu

#### Part 1: Water Trading Experiences

1. Introduction: How We Are Implementing Water Trading: Learning from Experience *Josefina Maestu* 2. Managing Water Stress, Drought and Climate Change in The 21st Century: Water Trading as part of Integrated Approaches in Water Management *Cody L. Knutson* 3. New Frontiers for Water Management. The California Experience *Hellen Hanak* 4. Water Trades in the Western US: Risk, Speculation and Property Rights *Kristiana Hansen, Richard Howitt, and Jeffrey Williams* 5. Water Markets and Their Environmental, Social and Economic Impact In Australia *Henning Bjorlund, Sarah Wheeler and Peter Rossini* 6. Trading into and out of Trouble. Australian's Water Allocation and Trading Experience *Mike Young* 7. The Evolution of Water Markets in Chile *Guillermo Donoso* 8. The Experience of Water Markets and the Market Model in Chile *Carl J. Bauer* 9. Breaking the Gridlock in Water Reforms through Water Markets: Experience and Issues for India *Nirmal Mohanty, Shreekant Gupta* 10. Areas of Conflict and the role of Water Trading: the case of Spain *Antonio Serrano* 11. Voluntary Water Trading in Spain: a Mixed Approach of Public and Private Initiatives *Alberto Garrido, Josefina Maestu, Almudena Gomez-Ramos, Teodoro Estrela, Jesus Yaque, Ricardo Segura, Javier Calatrava, Pedro Arrojo, Francisco Cubillo* 

Part 2: Concerns About Water Trading And How Are We Dealing With Them 12. Introduction: Concerns about Water Trading Carlos M. Gomez, Eduard Interwies, Stefan Görlitz 13. The Myth of Markets for Water Joseph W. Dellapenna 14. Cash Flows: Markets for Environmental Flow Allocations David Katz 15. Experiences with Water Quality Trading in the United States of America Robert J. Rose

Part 3: Reforms to Overcome Legal and Institutional Barriers to Trading 16. Introduction: Considering Institutional frameworks and institutional reforms in trading *Carlos M. Gomez* 17. Water and Development in Latina America: Rights, Markets, Economic Context and Institutional Requirements *Miguel Solanes* 18. The Theory and Practice of Australian Institutional Reforms to Incorporate Water Markets in Integrated Water Resources Management *Jennifer Mc Kay* 19. Legal reforms that facilitate trading of water use rights in Spain *Antonio Embid* 20. Drought Management, Uncertainty and Option Contracts *Almudena Gomez-Ramos* 

Part 4: Can we get incentives right? 21. Introduction: Incentives and prices in water trading *Carlos M. Gomez* 22. Models for Optimal Water Management and Conflict Resolution *Franklin M. Fisher* 23. Optimization Modelling in Water Resource Systems and Markets *Jay R. Lund* 

Conclusions and Recommendations for Implementing Water Trading: How Water Trading can be Part of the Solution Josefina Maestu and Almudena Gomez-Ramos

