

# 1. Introduction

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Freshwater governance holds a prominent position in the global policy agenda. Burgeoning water demand due to population growth and rising incomes is combining with supply-side pressures, such as environmental pollution and climate change, to create acute conditions of global water scarcity. This is a major concern because water is a primary input for agriculture, manufacturing, environmental health, human health, energy production and just about every economic sector and ecosystem.

In addition to its importance, the management of freshwater resources is a complex, multidisciplinary topic. Encompassing a range of fields in the physical and social sciences, the task of sustainably meeting human and environmental water needs requires a depth and breadth of understanding unparalleled by most other policy problems.

Our objective in this volume is to provide knowledge and insights into major issues and concepts related to freshwater governance. The book is divided into five themed parts: Economics, Transboundary governance, Development, Energy and Water Concepts.

A part addresses each theme and opens with an introduction that provides an overview of key topics. For example, the introduction to the economics section presents two main foci: measuring the value of water and managing trade-offs between different water uses. The thematic case studies discuss issues such as

water pricing in Organisation for Economic Co-operation and Development (OECD) countries, finance of water supply and irrigation infrastructure and improving agricultural production with enhanced water management.

The aim of the volume is to accessibly communicate academic research from the many fields of freshwater governance. Too often, academic research is paywalled and/or written in a style that caters to colleagues in the same field, rather than a broader audience from other disciplines, the policy-making community and the general public. This open-access book presents the research of a range of global experts on freshwater governance in brief, insightful chapters that do not presume a high level of pre-existing knowledge of their respective subjects. This format is intended to present knowledge on the key problems of and solutions to global freshwater challenges.

The final part presents research from several United Nations Educational, Social, and Cultural Organisation (UNESCO) supported water research Chairs and Centres. Support and coordination of the institutions highlighted in this part of the book is provided by UNESCO. One water research Chair is The Australian National University – UNESCO Chair in Water Economics and Transboundary Governance, which was established in April 2010 and works with partners in southern Africa, UNESCO, the Global Water Partnership and other organisations to: (1) increase the skills, capacity, networks and potential of leaders and prospective water managers and policy-makers; (2) sustain and strengthen institutional capacity (especially in southern Africa) by providing a platform for collaboration and institutional development; and, (3) develop innovative research, tools, case-studies, and insights on water economics, water governance and equity.

Established by the ANU–UNESCO Chair, the Global Water Forum (GWF) seeks to disseminate knowledge regarding freshwater governance and build the capacity of students, policy-makers and the general public to respond to local and global water issues.<sup>1</sup> The GWF publishes accessible, subscription-free articles highlighting the latest research and practice concerning freshwater governance. A broad range of water-related topics are discussed in a non-technical manner, including water security, development, agriculture, energy and environment. In addition to publishing articles, reports and books, the GWF is engaged in a range of activities, such as the annual Emerging Scholars Award and hosting a portal to educational resources on freshwater.

We hope that you enjoy reading this book and, more importantly, gain an improved understanding of the complex freshwater-governance challenges facing us all on a global scale and at a local level.

This text taken from *Global Water: Issues and Insights* by R. Quentin Grafton, Paul Wyrwoll, Chris White and David Allendes, published May 2014 by ANU Press, The Australian National University, Canberra, Australia.