Contributors

**Andrew Allan** specializes in national water law and regulation. His research interests include water resource legislation, water rights, legal aspects of participatory irrigation management and flood management. He is the legal expert for the Government of Kazakhstan Committee for Water Resources to improve the capacity of the Ministry of Agriculture to create and develop Water User Cooperatives and has analysed water legislation in Kazakhstan and provided advice on building stakeholder involvement in basin management.

**Joaquín Andreu** is Professor of Integrated Water Resources Planning and Management and is responsible for the Research Group of Water Resources Engineering at Instituto de Ingeniería del Agua y Medio Ambiente de Universidad Politécnica de Valencia (Technical University of Valencia). He has been the Technical Director of the Júcar River Basin Authority. His main interests in applied research are integrated planning and management of water resources and river basins, decision support systems for water planning and management, hydro-economic modelling, drought risk assessment and management and water conflicts resolution.

**Wim Bastiaanssen** joined the Water Resources Section at Delft University of Technology in 2007 as part-time Professor in remote sensing and water management. He deals with retrieving satellite data (for example, evaporation, water storage and crop transpiration) for use in hydrology and water resources. Wim has a PhD from Wageningen University and he is Scientific Director of the WaterWatch consultancy company.

**Xueliang Cai** is a researcher with the International Water Management Institute in Pretoria, South Africa. He is a water resources, irrigation and remote sensing specialist with significant experience in land, water and agriculture management research. He has worked at global, regional and field scales to investigate agricultural water and land management issues for sustainable development including work in China, Sri Lanka, India, Uzbekistan, South Africa, Malawi and Zambia. Cai obtained his PhD degree in irrigation engineering from Wuhan University, China.
Keryn Chalmers is Head, Department of Accounting and Finance at Monash University. Her research interest is in the financial accounting and financial reporting area, specifically in relation to accounting policy and disclosure choices of management and the role of financial reporting as a governance mechanism. Her current research interests include General Purpose Water Accounting. She was a member of the research team responsible for drafting a conceptual framework for General Purpose Water Accounting and has conducted training on such accounting.

Qin Changhai works for the China Institute of Water Resources and Hydropower Research. He is a member of the team responsible for the development of China’s System of Environmental and Economic Accounting for Water and has extensive experience in the valuation of water resources, especially in hybrid and economic accounting and the value of water depletion and degradation.

Gordon L. Clark is the Halford Mackinder Professor of Geography and Professorial Fellow at St Peter’s College, Oxford University. Prior to this appointment he held teaching and research positions at Harvard University, the University of Chicago, Carnegie Mellon University and Monash University. Gordon has been the UK representative on the Research Training and Mobility of Researchers Panel of the European Commission Directorate-General for Research, is a member of the Advisory Board of the Centre for the Study of Globalisation and Regionalisation (Warwick University), has served on the Scientific Advisory Board at Lund University (Sweden) and is an Affiliate of the Alfred P. Sloan Foundation Industry Studies programme.

Esther Corral holds a degree in chemical engineering from the School of Industrial Engineering, Polytechnic University of Madrid, Spain and contributed to Chapter 6 as part of a six-month International Development Exchange Programme scholarship. After leaving South Africa, she was offered a post as Programme Officer at the Resident Coordinator’s Office of the United Nations in Guatemala, where she is providing support to the United Nations Emergencies Team, the interagency thematic groups on Food Security and Nutrition and Interculturality and Indigenous People, and the Millennium Development Goals Fund Joint Programmes.

Claire M. Cote is an environmental specialist with Anglo American Metallurgical Coal. Previously, she was a Senior Research Fellow at the Centre for Water in the Minerals Industry at the University of Queensland. Claire has developed methodologies to improve the description, understanding and analysis of water systems of mining and mineral
Contributors

processing operations. She led an Australian Coal Association Research Program study that benchmarked water use in the Australian coal mining industry and the development of the preliminary water accounting framework for the minerals industry.

Jason Cummings is the CEO (Capital Region) for Greening Australia. Prior to this, he was the Assistant Director Environmental Policy at the Minerals Council of Australia. In this role, he was responsible for policy development, capacity building and advocacy regarding the mining industry’s environmental policies and practices. This encompassed water resources management, land and biodiversity, energy efficiency and materials stewardship. He has a PhD in ecosystem rehabilitation and has worked in academic and private sector roles as a natural resources manager.

Hong Gan is a senior water resources engineer and the Deputy Director of the Water Resources Department of China Institute of Water Resources and Hydropower Research. He has more than 25 years experience with water resources planning and management in China. He provided technical leadership in the development of China’s approach to water accounting and is now involved in the implementation of the System of Environmental-Economic Accounting for Water in China.

Jayne M Godfrey is Dean, College of Business and Economics, Australian National University. For her service to Australian society through business leadership, Godfrey was awarded Australia’s Centenary Medal. She is on the Australian Accounting Standards Board, which sets accounting rules with the force of law for Australian companies, and has an active interest in the economic determinants and consequences of both national and international accounting standards. She is also on Australia’s Water Accounting Standards Board.

Rashid Hassan is Professor and Director of the Centre for Environmental Economics and Policy in Africa, University of Pretoria. He has served as a member of many international advisory boards and committees including the Stockholm Resilience Centre, the Global Environment Facility Science and Technical Advisory Panel, Science Panel of the Millennium Ecosystem Assessment and was the leader of the Africa-Wide GEF/World Bank Funded Project ‘Impacts of Climate Change on Agriculture, Water and Ecosystems’.

Arjen Y. Hoekstra is Professor in Multidisciplinary Water Management at the University of Twente and Scientific Director of the Water Footprint Network, a network he co-founded. He created the water footprint
concept and established the field of water footprint and virtual water trade analysis, which addresses the relations between water management, consumption and trade. His scientific publications cover a range of topics related to water management including books on *Perspectives on Water* (International Books, 1998) and *Globalization of Water* (Wiley-Blackwell, 2008).

**Denis A. Hughes** is Director of the Institute for Water Research, Rhodes University. With more than 25 years experience in hydrological and water resource modelling he is a specialist in evaluating available water resources, hydrological design of water resource schemes, assessment of likely scenarios in terms of water availability and abstraction patterns and impacts on river systems. He is also a specialist in developing and applying hydrological modelling approaches and modelling software systems and the hydrological issues associated with environmental water requirements of rivers.

**Poolad Karimi** is a research officer at the International Water Management Institute in Colombo, Sri Lanka. Over the last six years, He has worked on agricultural water issues in different regions including Sub-Saharan Africa, Nile River basin, Limpopo basin and Karkheh basin. His current research focus is on river basin water accounting.

**Qiong Lu** is Head of the Water Information Section in the Water Resources Department, China Institute of Water Resources and Hydropower Research. She has experience in water statistics, with involvement in publishing the *China Water Resources Bulletin* and the *Annual Report on Water Management*. She is a project leader of China’s System of Environmental-Economic Accounting for Water and is engaged in the construction of the framework of that system and the technical details of accounting, particularly focusing on the accounts of water assets, physical water supply and use. She was also involved in the consultation and examination of China’s pilot studies of the System of Environmental-Economic Accounting for Water at national, watershed and regional levels.

**Jay R. Lund** is Director of the Centre for Watershed Sciences, Ray B. Krone Professor of Environmental Engineering in the Department of Civil and Environmental Engineering at the University of California and Adjunct Fellow at the Public Policy Institute of California. He has research and teaching interests in the application of systems analysis and economic and management methods to infrastructure and public works problems. His recent work is in water resources and environmental system engineering, but he also has experience in solid and hazardous waste management, dredging and coastal zone management and urban, regional and transportation planning.
Ricardo Martinez-Lagunes is inter-regional advisor on Environmental-Economic Accounting at the United Nations. He provides assistance to countries for the implementation of the System of Environmental-Economic Accounting for Water and the International Recommendations for Water Statistics. He was previously responsible for coordinating the development of the National Water Information System at the National Water Commission of Mexico. He is a civil engineer by training, with a Master of Science degree from the California Institute of Technology and graduate studies in water resource management from the State National Public Works School of France.

David Molden graduated with a PhD from Colorado State University specializing in groundwater hydrology and irrigation. Subsequently, he has developed broader interests in integrating social, technical and environmental aspects of water management with work across Asia and Africa. He was the Deputy Director General of the International Water Management Institute and is currently the Director General of the International Centre for Integrated Mountain Development.

Andrea Momblanch is a research assistant at the Department of Hydraulic and Environmental Engineering of the Universidad Politécnica de Valencia (Technical University of Valencia). She is a civil engineering graduate with research interests in water resources planning and management, public participatory processes in water management and assessment of ecosystem services in river basins using decision support systems.

Chris J. Moran is Professor and the founding Director of the Centre for Water in the Minerals Industry at the University of Queensland, Australia. He worked in the Commonwealth Scientific and Industrial Research Organisation (CSIRO) for 16 years in natural resource science and agriculture and has 20 years experience in landscape and water research. He led the team that developed the successful business case for the $100 million CSIRO Flagship ‘Water for a Healthy Country’. He conceived and ran the coal industry water project to develop a framework for leading practice water management, to populate a software implementation of this and deliver data and a practices catalogue online for industry access and use in strategic planning and mine site target setting. His research also involves the fundamental issue of valuing water outside formal markets and to formulate methods to estimate full costs associated with water management. This has required the development of a new method to link water balance and financial accounting.

Mike Muller is an Adjunct Professor in South Africa’s Witwatersrand University Graduate School of Public and Development Management.
He is a former Director-General of South Africa’s Department of Water Affairs and Forestry where he led the development and implementation of new water services and water resource policies, water sharing agreements and cooperation projects with Mozambique, Swaziland and Lesotho. A civil engineer by training, he also has extensive experience in general public management. He is a member of the Global Water Partnership Technical Advisory Committee and a member of the National Planning Commission of South Africa.

Nikite W.J. Muller is an environmental specialist with Amatola Water. His primary responsibility is contributing to environmental sustainability within the organization’s operations and growth and development plans. His previous positions include Director of the Unilever Center for Environmental Water Quality (Institute for Water Research) at Rhodes University. His research focuses on environmental water quality such as biomonitoring, aquatic toxicology and water quality data analysis.

Eric Mungatana is at the Centre for Environmental Economics and Policy in Africa, University of Pretoria. He conducts research on water policy, resource use and environmental accounting in South Africa.

Michael Nagy is Head of the Department of Data Management and Reporting at the Austrian Environment Agency in Vienna. Between November 2006 and May 2007 he was at the United Nations in New York, as an expert on water statistics and responsible for the first drafts of the International Recommendations on Water Statistics. He has many years of experience in water statistics, environmental-economic accounting and environmental information. He has carried out several training programmes and workshops on water statistics and the System of Environmental-Economic Accounting for Water in Eastern European countries and the Middle East.

Javier Paredes is Assistant Professor of hydraulic engineering and water quality modelling at Universidad Politécnica de Valencia (Technical University of Valencia). He has a degree in civil engineering, a Master of Science in civil engineering from California State University and a PhD in civil engineering from the Universidad Politécnica de Valencia. His main research interests are water resources management and water quality modelling.

Miguel Ángel Pérez is Assistant Professor of Water Resources at the Department of Hydraulic and Environmental Engineering of the Universidad Politécnica de Valencia (Technical University of Valencia)
Contributors

and Scientist of the Research Group of Water Resource Engineering of the Instituto de Ingeniería Hidráulica y Medio Ambiente at the university. He teaches and researches the planning and management of water resources, hydrological modelling with water quality for large catchments and impacts of climate change on water resources.

Lise Pretorius has an honours degree in economics and is passionate about applying economics to environmental issues. Her honours research focused on sustainable investment in South Africa and she is currently the energy writer at Financial Mail, a leading South African weekly financial publication.

Kristina Ringwood, Principal Adviser Environment, Rio Tinto, is a senior environmental manager with experience in developing and implementing strategic approaches for managing environmental issues. Her current role at Rio Tinto includes driving the implementation of a global water strategy for the company. She has significant mineral industry experience at the operational, national and international levels, having worked as a geologist before completing a Masters in environmental science and working in corporate environment roles.

Maryanne Slattery is Director, Environmental Water Policy Coordination at the Murray Darling Basin Authority. She is a member of the Institute of Chartered Accountants in Australia. She was the Director and Project Manager of the Australian National Water Accounting Development project from its inception in 2006 until 2008.

Abel Solera is Associate Professor of hydraulic engineering at the Universidad Politécnica de Valencia (Technical University of Valencia). He has a PhD from the Technical University of Valencia. His main research interests are water resources management and decision support systems.

Mark Squillace is Professor of Law and Director of the Natural Resources Law Center, University of Colorado Law School. His prior appointments include the Charles Fornoff Professor of Law and Values at the University of Toledo College of Law and the Winston S. Howard Professor of Law at the University of Wyoming College of Law. He is a former Fulbright scholar and has authored numerous articles and books on natural resources and environmental law.

Anthony Turton is a political scientist with 20 years of strategic-level experience who specializes in transboundary water resource management including supporting negotiations between governments and other parties in international river basins. He has published widely on the subject of transboundary river basin management and is an internationally
acclaimed researcher in terms of the National Research Foundation rating system. He also has experience in the management of the process of political transformation including the development of adaptive strategies, institutional dynamics and the inculcation of a changed corporate culture.

Michael Vardon is Director of Environmental Accounting at the Australian Bureau of Statistics. Between January 2007 and November 2009 he was the Inter-regional Advisor on Environmental-Economic Accounting at the United Nations in New York. He has many years of professional experience in environment statistics and environmental-economic accounting, including the development and implementation of the System of Environmental-Economic Accounting and the System of Environmental-Economic Accounting for Water.

Yu Wang is a senior statistician in the Ministry of Water Resources, Beijing, China. He has worked on the System of National Accounts in China’s National Bureau of Statistics for many years. More recently, he has been intensively involved in water-related environmental-economic statistics. As one of the chief officials, he initiated the project of tailoring the System of Environmental-Economic Accounting for Water to China and is involved in promoting institutional reforms of China’s water statistics system to enable it to be suitable for China’s System of Environmental-Economic Accounting for Water.

Claire Woods is a PhD student in the School of Geography and the Environment at Oxford University. Before commencing at Oxford, she worked as an analyst at the Australian Competition and Consumer Commission. She has a Maîtrise in International Law from the Université Panthéon-Assas (Paris II) and Bachelor of Laws (Hons) and Bachelor of Arts degrees from the University of Melbourne. Her previous research roles include working as a research fellow for the United Nations Environment Programme Finance Initiative, producing the report on legal and practical issues involved in integrating environmental, social and governance factors into institutional investment and as a researcher on climate change policy for the Oxford-based G8 Research Group.