

# Contributors

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**David Adamson** is a Senior Research Officer at the Risk and Sustainable Management Group of the School of Economics at The University of Queensland, where he has been working since 2004. He is in the process of completing his PhD examining the implications of increasing climatic uncertainty on water resources in the Murray–Darling Basin. Prior to this appointment Adamson ran his own consulting company specializing in agricultural research evaluation. In a prior life he was the economist at the Cooperative Research Centre (CRC) for Tropical Pest Management, and this is an area he still dabbles in, dealing with anything from zoonosis, food safety, international trade issues and estimating the cost of invasive species.

**Michael Battaglia** is Deputy Director for the Sustainable Agriculture Flagship and has led Commonwealth Scientific and Industrial Research Organisation (CSIRO) work on Greenhouse Gas Abatement in Agriculture. He is a steering committee member on the National Nitrous Oxide Research Program, the National Livestock Methane Cluster and the Climate Change Research Strategy for Primary Industries. He received the International Union of Forest Research Organisations (IUFRO) Scientific Achievements Award in 2010 for his contribution to internationally recognized research and leadership in forest science. Battaglia is the author of landmark publications in the climate change and greenhouse gas mitigation field including: co-author of *An Analysis of Greenhouse Gas Mitigation and Carbon Biosequestration Opportunities from Rural Land Use* (2009) and a chapter author in *Adapting Agriculture to Climate Change* (2010). He published the first comprehensive assessment of climate change impacts on Australia's plantation estate in 2009, and has published more than 70 journal articles, ten books or book chapters and over 40 reports.

**William Paul Bell** is a Research Fellow at the Energy Economics and Management Group (EEMG), School of Economics, The University of Queensland (UQ). He is currently working on a collaborative project between UQ and RATCH-Australia Corporation (RAC). Funded by the Australian Renewable Energy Agency (ARENA) the project aims to establish the feasibility of a hybrid solar thermal and gas generator to replace the decommissioned coal power station at Collinsville, Queensland. Previously

at UQ he was the lead author of the project report 'Analysis of Institutional Adaptability to Redress Electricity Infrastructure Vulnerability Due to Climate Change' for the National Climate Change Adaptation Research Facility (NCCARF) and was a researcher on the project 'Market and Economic Modeling of the Impacts of Distributed Energy' for the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Intelligent Grid Research Cluster (iGrid). Bell graduated in 2010 from UQ with a PhD in economics and his PhD thesis, 'Adaptive Interactive Expectations: Dynamically Modelling Profit Expectations' used networks within an agent-based model to simulate social emergence.

**Daniel Besley** is Director, Architecture in the Design, Coverage and Regulatory Branch of the Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education (DIICCSRTE). Besley led the design of a number of aspects of Australia's emissions trading scheme. He has worked at DIICCSRTE for the past four years, with a focus on mitigation policy. Previously, Besley worked in corporate strategy in the financial sector and has extensive experience in international development where he was director of a number of non-government organizations focused on poverty reduction. He has a business degree, and a master's in International Development.

**John Cook** is the Climate Communication Fellow for the Global Change Institute at The University of Queensland. He created ScepticalScience.com, a website that rebuts climate misinformation with peer-reviewed science. In 2011, Sceptical Science won the Australian Museum Eureka Prize for the Advancement of Climate Change Knowledge. Cook has co-authored the college textbook *Climate Change Science: A Modern Synthesis*, the book *Climate Change Denial: Heads in the Sand* and published papers on climate change and the psychology of misinformation.

**Christian Downie** is an advisor in the Department of the Prime Minister and Cabinet. He was previously an advisor in the former Department of Climate Change and Energy Efficiency. Downie has spent time teaching or researching at the Massachusetts Institute of Technology, US, The Australian National University, the London School of Economics and Political Science, UK, The University of Sydney, The University of New South Wales, and Chulalongkorn University, Thailand. He holds a PhD in Political Science and International Relations from The Australian National University and a first-class honours degree in Economics from The University of Sydney.

**John Foster's** research interests lie in the fields of modeling the macroeconomics as a complex adaptive system, and the application of self-

organization theory to statistical and economical modeling in the presence of structural change. As well as modeling, the diffusion of innovations with special reference to the emergence of low carbon emission power generation technologies and the empirics of evolutionary economic growth with special reference to the role of energy generation and distribution systems. More recently Foster has been involved in modeling the impact of climate change on the entire economy with specific reference to the power generation sector.

**John Freebairn** graduated with a PhD from the University of California, Davis in 1972, and worked as senior economist at the New South Wales Department of Agriculture until 1974. He became a research fellow at the Research School of Social Sciences at The Australian National University in 1974 before becoming Professor of Agricultural Economics at La Trobe University from 1977 until 1984. From 1984 until 1986 Freebairn took over the responsibilities of Research Director at the Business Council of Australia. John joined Monash University in 1986 as Deputy Director in the Centre of Policy Studies. In 1991 he moved to the Department of Economics at Monash and at various times was Chairman of the Department, Deputy Dean and Dean of the Faculty. Freebairn joined The University of Melbourne in 1996. He was Head of Department from 1997 to 2002 and Director of the Melbourne Institute from April 2005 to April 2007. In 2008 John was appointed as the Ritchie Chair.

**Ross Garnaut** is a Professorial Research Fellow in Economics at The University of Melbourne. He was a longstanding Professor of Economics and then Distinguished Professor of Economics at Australian National University. He is a Distinguished Fellow of the Economic Society of Australia and a Distinguished Life Member of the Australian Agricultural and Resource Economics Society. He is a Doctor of Letters *Honoris Causa* of The Australian National University and Doctor of Science *Honoris Causa* at The University of Sydney. He is a Fellow of the Australian Academy of Social Sciences and an Honorary Professor of the Chinese Academy of Social Sciences. He is the author of numerous books, monographs and articles in scholarly journals on international economics, public finance and economic development, particularly in relation to East Asia and the Southwest Pacific. In addition to his distinguished academic career, Garnaut has also had longstanding roles as policy advisor, diplomat and businessman. He was Senior Economic Adviser to Australian Prime Minister R.J.L. Hawke from 1983 to 1985 and subsequently served as the Australian Ambassador to China (1985 to 1988). In September 2008, he presented the Garnaut Climate Change Review to the Australian Prime Minister. In November 2010 the Minister for Climate Change and Energy

Efficiency commissioned Garnaut to update his 2008 review, and the final report was presented to the Australian Government in May 2011. He was Chairman of Australian Centre for International Agricultural Research 1994–2000 and a member of the Board of Trustees of the International Food Policy Research Institute in Washington DC from 2003 to 2010 and its Chairman from 2006. He was Foundation Chairman of Lihir Gold Limited from 1995 to 2010 and was the Chairman of the Papua New Guinea Sustainable Development Program Limited (Singapore) from 2002 to 2012.

**Simon Grant** has held academic appointments at The University of Melbourne, The Australian National University, Tilburg University in the Netherlands and Rice University in Houston, Texas. In 2011 he returned to Australia to take up an appointment in the School of Economics at The University of Queensland. His principal research interests are in choice under uncertainty and game theory. In recent years he has been working on models for decision-making in complex environments, where it is impossible for decision-makers to fully characterize the possible outcomes and factors that may affect them. A central goal is to integrate heuristic rules such as the precautionary principle with the more formal approach adopted in cost–benefit analysis. He is on the editorial board of two journals and is a former co-editor-in-chief of *Mathematical Social Science*.

**Michael Harris** is Chief Economist of the Australian Bureau of Agricultural and Resource Economics and Sciences. Prior to this, he spent several decades in academic and policy research positions at the Melbourne Institute of Applied Economic and Social Research at The University of Melbourne, and at La Trobe University. He has a PhD from The University of Melbourne, and has also taught there, as well as at La Trobe University, and most recently in the Department of Agricultural and Resource Economics at The University of Sydney, where he was Associate Professor. Harris has published in and refereed for a number of national and international scholarly journals, is on the editorial boards of two journals, and is currently Associate Editor of the *Australian Journal of Agricultural and Resource Economics*.

**Steven Kennedy** is Deputy Secretary at the Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education (DIICCSRTE). He was previously Deputy Secretary at the Department of Climate Change and Energy Efficiency and the Head of Secretariat of the Garnaut Climate Change Review Update 2011. Kennedy has twice been seconded to the Prime Minister's office from the Australian Treasury, working as the Director of Cabinet and Government Business

and as a senior economic advisor. He has held a number of positions at the Australian Treasury. He was the General Manager of the Infrastructure, Competition and Consumer Division and the Domestic Economy Division. Kennedy has also worked at the Australian Bureau of Statistics. He holds a PhD and a master's in Economics from The Australian National University, and a Bachelor of Economics (first-class honors) from The University of Sydney.

**Mick Keogh** grew up on a farm in southern New South Wales (NSW). He holds bachelor's and master's degrees in agriculture, both obtained at The University of New South Wales. His career has included periods of employment as a farm manager, a university researcher, an agribusiness consultant and an agricultural lobbyist and policy advisor. In late 2003, he was appointed Executive Director of the Australian Farm Institute, an independent policy research institute that conducts research into strategic policy issues of importance to Australian agriculture. Since then, Keogh has been involved in research into a wide range of issues impacting on the agricultural sector both in Australia and internationally, and has authored a large number of papers and reports on these subjects. He also appears regularly in the media and as a speaker at Australian and international agricultural conferences. In 2011, he was appointed Chairperson of the Australian Government's panel that reviewed drought support measures, the outcome of which was a fundamental change in Australian drought policy. In 2012 Keogh was appointed Chairman of the Australian Government's National Rural Advisory Council (NRAC), a statutory council that provides advice to the Australian Government Minister for Agriculture, Fisheries and Forestry.

**Thilak Mallawaarachchi** is Senior Economist with the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) and Principal Research Fellow at The University of Queensland. He works across domains and has been active in work examining the trade-offs between production and environmental uses of resources and ways to manage social externalities associated with decisions made with limited knowledge. His policy-focused work has included contributions through Commonwealth Scientific and Industrial Research Organisation (CSIRO), James Cook University and the policy areas of the Australian Government Department of Agriculture, Fisheries and Forestry that includes ABARES. His recent work focuses on adaptation decision-making under increasing uncertainty, and improving productivity of smallholder farming systems in east and southern Africa where he works in collaboration with the Risk and Sustainable Management Group and a number of African partners. He has published widely and was a co-editor of *Water Policy Reform: Lessons in Sustainability from the Murray-Darling Basin* (2012).

**Rohan Nelson** was appointed Associate Professor of Agricultural Economics and Policy at The University of Tasmania (UTAS) in September 2012, where he is building the research and teaching capabilities in natural resource economics and policy of the Tasmanian Institute of Agriculture. His current research focus is the participatory development of policy pathways for food security with governments in sub-Saharan Africa, where he leads an AusAID-funded Commonwealth Scientific and Industrial Research Organisation (CSIRO) project. Nelson's research and practice in science policy engagement has been recognized through an affiliation with the Consortium for Science, Policy & Outcomes at Arizona State University, US since 2009. Prior to joining UTAS, he was a policy advisor in the Australian Government Department of Climate Change and Energy Efficiency from 2009 to 2012. He designed the governance structure, guidelines and methodology development process for the Carbon Farming Initiative (CFI). Prior to this he led the development and evaluation of policy options for including agriculture in the proposed Carbon Pollution Reduction Scheme (CPRS). Also with DCCEE, Nelson led the reform of climate change adaptation policy from a science-based agenda to a public policy agenda, which recognizes the role of governments in overcoming market and other public failures. Previously, he was a natural resource economist and research leader with CSIRO, Land and Water Australia, and the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES). He has published widely on the vulnerability and adaptation of rural communities and industries to climate variability and change, and the adoption of sustainable farming practices for improved natural resource management.

**Daniel Quiggin** is a graduate student at Georgia State University, US, and an alumnus of The University of Queensland (UQ). His first conference presentation was on the spread of invasive species across a heterogeneous landscape. In 2012, he completed UQ's Honours Program, producing a thesis linking matching theory with market microstructure models.

**John Quiggin** is a Federation Fellow in Economics and Political Science at The University of Queensland. He is prominent both as a research economist and as a commentator on Australian economic policy. He is a Fellow of the Econometric Society, the Academy of the Social Sciences in Australia and many other learned societies and institutions. He has produced over 1000 publications, including five books and over 300 journal articles and book chapters, in fields including environmental economics, risk analysis, production economics, and the theory of economic growth. Quiggin has also written on policy topics including climate change, micro-economic reform, privatization, employment policy and the management of the Murray–Darling river system.

**Phillip Wild** conducts research at The University of Queensland and brings agent-based modeling capability to the projects 'Control Methodologies of Distributed Generation' and 'Market and Economic Modelling of the impacts of Distributed Generation.' Wild's other research has been in the areas of econometric modeling of National Energy Market (NEM) spot price and load time series data, 'levelized cost' and 'agent-based' modeling of the NEM. He has a PhD from The University of Queensland, specializing in the field of macro-economic modeling.

**Simon Writer** is Assistant Secretary of the Design, Coverage and Regulatory Branch in the Carbon Pricing and Markets Division of the Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education (DIICCSRTE). Writer was part of the team that prepared the Clean Energy legislation in 2011. Previously, he was at the Australian Treasury, where he managed the Consumer Policy Unit and led the development of the Australian Consumer Law and also worked on consumer policy, energy markets and infrastructure policy; and the UK Department of Trade and Industry, working on credit and financial services issues. He was Australia's representative on the Organisation for Economic Co-operation and Development's (OECD) Consumer Policy Committee from 2010 to 2011. He started his career as a competition and litigation lawyer. He has a Bachelor of Arts (History), a Bachelor of Laws (Honors), Diploma of Legal Practice and Graduate Diploma of Economic Studies.