Contributors

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**Tony Allan** is globally recognized as a pioneer in the development of key concepts in the understanding and communication of water issues and how they are linked to agriculture, food, climate change, economics and politics. He was awarded the prestigious Stockholm Water Prize in 2008, the Florence Monito Water Prize in 2013 and the Monaco Water Prize in 2013. He is a Corresponding Member of the Academy of Sciences of Spain. Tony Allan’s research focuses on the social and political contexts which influence and usually determine water use and water policy. The research aims to explain why environmental and economic priorities fail to figure on the agenda of those using and allocating water. The major current research focus takes into account the underlying fundamentals of water in the hydrological cycle and the impact of engineering interventions. Policy issues are a prime concern and especially the difficulties that scientists and professionals encounter in gaining a place for their ‘knowledge’ in water policy discourses. In the
Middle East and North Africa, a major regional focus of research, it has been shown that the water crisis has been ameliorated through the availability of virtual water embedded in the international food trade. Tony is Emeritus Professor in the Department of Geography at King’s College London.

Geir B. Asheim has been Professor of Economics at the University of Oslo since 1994. He received his PhD in Economics at the University of California, Santa Barbara in 1979 and has had longer visits to several US universities, including Cornell, Harvard, Northwestern and Stanford. His main research fields are: (1) game theory, in which he has published the book *The Consistent Preferences Approach to Deductive Reasoning in Games* (2006) in addition to a number of journal articles (one awarded the Royal Economic Society Prize); and (2) intergenerational equity, in which he has published numerous articles during the last 25 years. Geir B. Asheim is currently working on axiomatic analysis of intergenerational equity, motivated by the need to resolve the intergenerational conflict that climate change leads to.

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Edward B. Barbier is the John S. Bugas Professor of Economics, Department of Economics and Finance, University of Wyoming. His main expertise is natural resource and development economics as well as the interface between economics and ecology. He has served as a consultant and policy analyst for a variety of national, international and non-governmental agencies, including many UN organizations and the World Bank. Professor Barbier is on the editorial boards of several leading economics and natural science journals, and he appears in the 4th edition of *Who’s Who in Economics*. He has authored over 200 peer-reviewed journal articles and book chapters, written or edited 21 books, and published in popular journals. His books include *Blueprint for a Green Economy* (with David Pearce and Anil Markandya, 1989), *Natural Resources and Economic Development* (2005), *A Global Green New Deal* (2010), *Scarcity and Frontiers: How Economies Have Developed Through Natural Resource Exploitation* (2011), *Capitalizing on Nature: Ecosystems as Natural Assets* (2011) and *A New Blueprint for a Green Economy* (with Anil Markandya, 2012).

Alex Bowen joined the Grantham Research Institute on Climate Change and the Environment at the London School of Economics in Autumn 2008 as a Principal Research Fellow. His research interests include the design of public policies to reduce greenhouse gas emissions, ‘green’ growth and the macroeconomic and labour market
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**Carlo Carraro** is President of the Università Ca’ Foscari Venezia, where he is also Professor of Environmental Economics and Econometrics. He holds a PhD from Princeton University. In 2008, he was elected Vice-Chair of Working Group III and Member of the Bureau of the Nobel Laureate Intergovernmental Panel on Climate Change (IPCC). He has been working as IPCC Lead Author since 1995. Professor Carraro is Chairman of the Scientific Advisory Board of the Fondazione Eni Enrico Mattei, Director of the Climate Impacts and Policy Division of the Euro Mediterranean Centre for Climate Change (CMCC), and Director of the International Centre for Climate Governance (ICCG). He is a member of the Green Growth Knowledge Platform (GGKP) Advisory Committee and of the International Advisory Board of the Harvard Environmental Economics Program (HEEP). He is also a member of the Scientific Committee of the International Human Dimensions Programme (IHDP) and of the Ifo Institute for Economic Research, Munich. He is a research fellow of the CEPR (Center for Economic Policy Research), London, CESifo (Center of Economic Studies), Munich, and Associate Research Fellow, CEPS (Center of Economic Policy Studies), Brussels.

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**Louis Dupuy** obtained an MSc in International Banking and Finance at the University of Birmingham, UK, and a Magistère in International Economics and Finance from the Université Montesquieu Bordeaux IV, France. He is currently Assistant Lecturer in the LAREFI (Laboratoire d’analyse et de recherche en économie et finance internationales) at the Université Montesquieu Bordeaux IV, France. He recently completed his doctoral thesis on ‘sustainability and international trade’. His main areas of interest are international trade theory and sustainable development, notably exploring potential bridges between neoclassical trade models and sustainability approaches. He is particularly interested in the impact of trade-induced specialization on structural change from a sustainability perspective.

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Cameron Hepburn is an economist with expertise in energy, resources and the environment. He is Professor of Environmental Economics at the University of Oxford, based at the Smith School and the Institute for New Economic Thinking at the Oxford Martin School, and is also Professorial Research Fellow at the Grantham Research Institute at the London School of Economics and a Fellow at New College, Oxford. He has degrees in law and engineering, a doctorate in economics, and over 30 peer-reviewed publications in economics, public policy, law, engineering, philosophy and biology. He has particular expertise in environmental and climate-change economics, with research interests in the theory and implementation of emissions trading, the economics and ethics of cost–benefit analysis, green growth, behavioural economics, and discounting and intertempo-
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**Tim Jackson** is Professor of Sustainable Development at the University of Surrey. From 2006 to 2011 he was Director of the ESRC Research Group on Lifestyles, Values and Environment (RESOLVE). Funded by the UK Economic and Social Research Council, the aim of RESOLVE was to develop a robust understanding of the links between lifestyle, societal values and the environment, and to provide evidence-based advice to policy makers seeking to influence people’s lifestyles and practices. Professor Jackson now directs the Defra/ESRC-funded Sustainable Lifestyles Research Group. From 2004 to 2011 he was Economics Commissioner on the UK Sustainable Development Commission, where his work culminated in the publication of the controversy-provoking book *Prosperity without Growth: Economics for a Finite Planet* (Earthscan, 2009). In addition to his academic work, Tim is an award-winning dramatist with numerous radio writing credits for the BBC.

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Glenn-Marie Lange leads the environmental policy and economics work of the World Bank’s Department of Agriculture and Environmental Services, which is responsible for the World Bank’s work on wealth accounting and adjusted net savings, including the recent report, *The Changing Wealth of Nations*. She leads the Global Partnership for Wealth Accounting and Valuation of Ecosystem Services (WAVES), which is working in more than ten countries to mainstream natural capital in national economic accounts and development planning. Dr Lange joined the World Bank in 2009, coming from the Earth Institute at Columbia University (2004–2008), where her work focused broadly on ecosystems services valuation, environmental accounting and development. Prior to that, 1985 to 2004, she worked at New York University’s Institute for Economic Analysis. Working extensively in Africa, Dr Lange pioneered the use of environmental valuation and accounting to integrate environmental concerns into macroeconomic and sectoral policy analysis since 1995. Dr Lange received a PhD in Economics from New York University in 1990.

Philip Lawn is an Associate Professor at the Flinders Business School, Flinders University, Adelaide. Over the past decade Philip has written and edited a number of books and articles on the principles, indicators and policy aspects of sustainable development. Some of his books include: *Sustainable Development Indicators in Ecological Economics* (Edward Elgar, 2006), *Frontier Issues in Ecological Economics* (Edward Elgar, 2007), *Sustainable Welfare in the Asia-Pacific* (co-edited with Matthew Clarke, Edward Elgar, 2008), and *Environment and Employment: A Reconciliation* (Routledge, 2009). Philip is currently working on a climate change book and an edited volume on how nations can best make the transition to a sustainable, just and efficient economy.

Andrea Lucchesi has a PhD in Economics from the University of São Paulo, Brazil. Her research interests are in environmental economics, technology, policy, labour economics and quantitative methods. Her recent work deals with the interaction between environmental innovation, regulation and skilled labour demand using a firm-level approach.

Gunnar Luderer leads a research group on Global Energy Systems at the Potsdam Institute for Climate Impact Research (PIK). His research focuses on the model-based analysis of climate change mitigation and transformation pathways. In particular, he explores the technological, economic and political requirements of achieving low carbon concentration in the atmosphere. He studied Physics, Economics and Atmospheric Sciences at the University of Heidelberg and Oregon State University, and obtained his PhD at the Max Planck Institute for Chemistry in Mainz. He played a key role in several international climate mitigation research projects, such as RECIPE, Stanford EMF 27, RoSE and ADVANCE. He served as a contributing author to IPCC Reports and is a lead author of the UNEP Gap Report 2013.
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Yacob Mulugetta is a Reader in the Centre for Environmental Strategy at the University of Surrey, UK. He has a background in earth sciences and energy systems. He is the founding member of the African Climate Policy Centre (ACPC) at the UN Economic Commission for Africa (UNECA) based in Addis Ababa, Ethiopia where he worked on the opportunities and constraints of pursuing low carbon development for economic transformation. Yacob has 20 years of research, teaching and policy advice experience specializing in the links between infrastructure provision (energy mainly) and human
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Esther Naikal is a Research Analyst in the Environmental Policy and Economics Team of the World Bank’s Agriculture and Environmental Services Department. For the past three years she has been responsible for the database update and management of the wealth accounting work, which includes indicators published in the World Development Indicators such as Adjusted Net Saving, Adjusted Net National Income, and Resource Rents. She previously worked on the World Bank’s climate change knowledge and learning initiative, leading the module on the economics of climate change. She received an MA in Economics from the University of Maryland in 2008 and a BA from the University of Richmond in 2006.

Bryan G. Norton is Distinguished Professor of Philosophy, Science and Technology in the School of Public Policy, Georgia Institute of Technology, a school he helped to form in the 1990s. His current research concentrates on sustainability theory and on problems of scale in the formulation of environmental problems. He is the author of Why Preserve Natural Variety? (Princeton University Press, 1987), Toward Unity Among Environmentalists (Oxford University Press, 1991), Searching for Sustainability (Cambridge University Press, 2003), and Sustainability: A Philosophy of Adaptive Ecosystem Management (University of Chicago Press, 2005). Norton has contributed to journals in several fields and has served on the Environmental Economics Advisory Committee of the US EPA Science Advisory Board, and for two terms as a member of the Governing Board of the Society for Conservation Biology. He was a Gilbert White Fellow at Resources for the Future, 1985–86 and he was a member of the Board of Directors of Defenders of Wildlife from 1994 to 2005 and is currently on their Scientific Advisory Board. He is currently preparing a book on adaptive management as a response to rapid global change.

David Pearce, OBE was an Emeritus Professor at the Department of Economics at University College London (UCL). As a pioneer in environmental economics, David published over fifty books, including the well-known Blueprint for a Green Economy, and more than three hundred academic articles. David was one of the first environmental economists to directly influence government policy in the UK, and served as an adviser to UK Secretaries of State between 1989 and 1992. In 1989 he was named in the Global 500 Roll of Honour for services to the World Environment by the United Nations Environment Programme, and in 2004 he became the first recipient of the Lifetime
Achievement Award of the European Association of Environmental and Resource Economists. He played an instrumental role in convincing economists and policy-makers that sustainable development is an important and achievable goal, that it is both possible and necessary to value the natural environment and our impact upon it, and that sound environmental policy could and should make use of market incentives. Perhaps one of his most significant contributions was the establishment in 1990 of an MSc in environmental and resource economics at UCL – the first of its kind, and a model that has been adopted by universities around the world. Many of the contributors to this volume participated in this programme, either as students, as faculty, or both. David passed away suddenly in 2005.

Alan Randall is Professor and Head of Agricultural and Resource Economics at the University of Sydney, having served previously at The Ohio State University for 25 years (12 as department chair). He specializes in environmental economics and policy, with particular interests in environmental risk; biodiversity, habitat and environmental sustainability; environmental regulation, monitoring and enforcement; and the benefits and costs of environmental projects and programmes. His writings include Risk and Precaution (2011), Making the Environment Count: Selected Essays (1999), Resource Economics: An Economic Approach to Natural Resource and Environmental Policy (3rd edn, 2010, with John C. Bergstrom), and numerous journal articles. He is active in professional associations, editorial boards, and a variety of efforts to inform the policy process. Alan has received several awards for excellence in research. He is a Fellow of three scholarly societies (American Agricultural Economics Association, Australian Agricultural and Resource Economics Society, and Association of Environmental and Resource Economists), and holds honorary doctorates from the University of Sydney and the Norwegian University of Environment and Life Sciences.

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