

Contributors

Tun Ahmad Sarji Abdul Hamid was Chief Secretary to the Government of Malaysia from 1990 to 1996. He is a graduate of the University of Malaya, the Institute of Social Studies, the Hague, and Harvard University, USA. Ahmad Sarji joined the Malayan Civil Service in 1961, was appointed District Officer of Rembau, Negeri Sembilan in 1963, held State and Federal posts, and was chosen by the Prime Minister Tun Abdul Razak Hussein to be the founding Director-General of the Farmers' Organisation Authority. He continued after retirement with numerous positions including President of the Commonwealth Association for Public Administration and Management, Chairman of Permodalan Nasional Berhad (National Equity Corporation) and many of its companies, Executive Chairman of the Cambridge Malaysian Education and Development Trust, founding Chairman of the Institute of Islamic Understanding Malaysia (IKIM) and President of the Heritage of Malaysia Trust.

Professor AbuBakr Bahaj is the Principal Investigator of the e4D programme and leads the 45-strong Energy and Climate Change Division at the University of Southampton, UK, where he completed his PhD, progressing from a researcher to a Personal Chair in Sustainable Energy. For more than 25 years, Professor Bahaj has pioneered sustainable energy research and established the energy theme within the university. His major research programmes may be found at www.energy.soton.ac.uk, and include Cities and Infrastructure, Data and Modelling, Energy and Behaviour, Energy and Buildings, Energy for Development, Environmental Impacts, Microgeneration Technologies and Renewable Energy (Solar Photovoltaics and Marine Energy). Professor Bahaj's work has resulted in more than 270 articles published in academic refereed journals and conference series of international standing. In 2012 he was appointed Chief Scientific Advisor to Southampton City Council – believed to be the first such appointment in the UK, and in 2014 the UK's Science Council named him as one of the country's 100 leading practising scientists.

Dr Mukulika Banerjee is Associate Professor in Social Anthropology at the London School of Economics and Political Science (LSE), UK, and Inaugural Director of the South Asia Centre, launched at LSE in June 2015. She grew up in India and took a first degree in English followed by Masters degrees in Sociology, all at the University of Delhi. She completed her DPhil at the University of Oxford, UK, in 1994 and was appointed a post-doctoral Junior Research Fellow at Wolfson College, Oxford, the same year. She took up her first lectureship in 1996 at University College London and joined LSE in 2009. Her latest book, *Why India Votes?*, was published in 2014 and she is currently working on a monograph on democracy and village life. Mukulika also has an active interest in music and the arts, giving regular public lectures on a wide range of

subjects. She has also made a documentary (with CultureWise) for BBC Radio 4 on the Indian elections and makes regular appearances on radio and television.

Murefu Barasa is the Managing Partner at EED Advisory Limited, a boutique advisory firm based in Nairobi, Kenya, with service offerings in the energy and environment sector. He is an experienced renewable energy and energy access consultant, having led engagements for several clients including the World Bank Group, UN agencies, the government of Kenya (Ministry of Energy), the government of Tanzania (Ministry of Energy and Minerals) and the government of Rwanda (Ministry of Infrastructure), among others. Murefu holds a BSc in Environmental Studies from Kenyatta University (Kenya) and a Masters in Environmental Science from Yale University (USA). He lives with his wife Andreata and daughter Imani in Nairobi.

Dr Terry van Gevelt is Project Manager for the Smart Villages Initiative, Research Associate and Affiliated Lecturer at the Centre of Development Studies, University of Cambridge, UK, and a senior member of St Edmund's College, Cambridge. Previously, he was a visiting scholar at Seoul National University and the Korea Rural Economic Institute, and a consultant for the World Bank. Terry holds a BSc (Hons) from the Department of Economics, University of Warwick, UK, and MPhil and PhD degrees from the Centre of Development Studies, University of Cambridge.

Javier González Díaz is Affiliated Lecturer at the Centre of Development Studies, University of Cambridge, UK, where he teaches Institutions and Development. He is also associated to the Centre of Latin American Studies, University of Cambridge, where he teaches Inequality in Latin America. Javier is Associated Researcher at the Centre for New Development Thinking, Faculty of Economics at the University of Chile. He has been Advisor on Education and Innovation Policy to the Chilean Minister of Finance, Executive Secretary to the Ministers' Council for Advanced Human Capital Formation, Director of Studies at the National Commission for Scientific and Technological Research, Researcher at Chile's Ministry of Education, and Consultant to UNESCO, Oxfam and the World Bank. His research focuses on inequality, social mobility, education policy, political and institutional economics, and social and economic development.

Professor Sir Brian Heap is Senior Adviser for Smart Villages, Research Associate of the Centre of Development Studies, University of Cambridge, UK, and Past President of the European Academies Science Advisory Council. He was Master of St Edmund's College, Cambridge, and Vice-President and Foreign Secretary of the Royal Society, London. He has doctorates from Nottingham and Cambridge and was Director of Research at the Institute of Animal Physiology



and Genetics Research (Cambridge and Edinburgh) and at the Biotechnology and Biological Sciences Research Council (Swindon, UK). He has been engaged in public issues of biotechnology, population growth, sustainability and science policy, working with the World Health Organization, the UK-China Forum and the European Commission.

Dr John Holmes is co-Leader of the Smart Villages Initiative and a Senior Research Fellow at the University of Oxford, UK, where his research is concerned with making better links between science and policy making. His previous career spanned the assessment and development of clean coal technologies, responsibility for the science and engineering of the UK's radioactive waste disposal programme, and Head of the Science Programme of the Environment Agency, the environmental regulator for England and Wales. He has a first degree in natural sciences from Cambridge University, a PhD in engineering from Imperial College London, and an MBA from Henley Management College, UK.

Professor Daniel M. Kammen is a Professor of Energy at the University of California, Berkeley, USA, with parallel appointments in the Energy and Resources Group, the Goldman School of Public Policy, and the department of Nuclear Engineering. He was educated in physics at Cornell (BA 1984) and Harvard (MA 1986; PhD 1988), and held postdoctoral positions at the California Institute of Technology and at Harvard. He was an Assistant Professor at Princeton University, USA, before moving to Berkeley. His work is focused on energy access and on developing low-carbon energy systems across scales. He was appointed by US Secretary of State Hilary Clinton in 2010 as the first energy fellow of the Environment and Climate Partnership for the Americas (ECPA) initiative, and is the Lead Scholar for the Fulbright NEXUS programme in Energy and Climate Change. Professor Kammen served as the Chief Technical Specialist for Renewable Energy and Energy Efficiency at the World Bank from 2010 to 2011. He has served as a coordinating lead author on various reports of the Intergovernmental Panel on Climate Change (IPCC) since 1999. The IPCC shared the 2007 Nobel Peace Prize.

Professor P.C. Kesavan has made outstanding contributions in the areas of low-dose radiobiology and chemical radioprotection, especially by caffeine. He qualified in agricultural science in New Delhi, India, and held faculty positions in the University of Calgary and Dalhousie University, Canada, and in New Delhi. He was Director of Bioscience at the Department of Atomic Energy, Mumbai, and Honorary Executive Director and Distinguished Fellow at the M.S. Swaminathan Research Foundation, Chennai, India. He has held visiting positions in the UK, Germany, the Netherlands and the USA, and represented India at the UN

Scientific Committee on Effects of Atomic Radiation in Vienna. Professor Kesavan is on the editorial boards of the *International Journal of Radiation Biology* and the *Journal of Radiological Protection*. Since 1999 he has worked in the area of sustainability science, sustainable agriculture and rural development, and has published papers on the management of extreme hydro-meteorological disasters in reputed journals such as *Philosophical Transactions of the Royal Society*, London, amongst others. Professor Kesavan's current focus is on climate change and sustainable agriculture.

Dr R. Vasant Kumar has more than 20 years of research experience in electrochemistry, energy devices, materials chemistry synthesis and sensors. Dr Kumar has been conducting world-leading research in materials chemistry reactions at the cutting edge of new applications within an ecological calculus. He has published more than 200 papers, 12 patents, 4 chapters in handbooks and 1 edited book (*High Energy Density Lithium Batteries: Materials, Engineering, Applications*, Wiley-VCH 2010). He has supervised more than 30 PhD students, 20 postdoctoral researchers and 25 visiting students, and hosted 8 visiting professors. He is the Founder and Director of several start-up companies – Solutions4Hydrogen Ltd in Pune, India; Environmental Monitoring & Control Ltd, Stafford, UK; Cambridge Solar Energy Solutions Ltd, Cambridge, UK – for furthering his research into real-world applications in the areas of energy and environment.

Andrew Mnzava is a Senior Research Officer with the Commission for Science and Technology (COSTECH) in Tanzania. He has been extensively involved in rural electrification programmes, from project design through implementation, monitoring and evaluation, and in renewable energy policy advocacy. He has been involved in projects such as formulating and facilitating the framework for accelerating off-grid rural electrification in Tanzania under the Rural Energy Agency and Norwegian Embassy in Tanzania; State of Play, a preliminary analysis of mini-grid project developer skills, scale and scope; the Biomass Energy Strategy for Tanzania by the Ministry of Energy and Minerals; Analysis and Characterization of the Energy Sector and Renewable Energy Technologies in Tanzania, by the Cleaner Production Centre of Tanzania CPCT; the Lighting Tanzania project funded by the World Bank; the Kigoma Sola project funded by Millennium Challenge Account Tanzania (MCA-T); and Clean Development Mechanism (CDM) projects supported by the Swedish Energy Agency (SEA) in Tanzania, to mention a few.

Professor Deepak Nayyar is Emeritus Professor of Economics at Jawaharlal Nehru University, New Delhi, India, and Honorary Fellow of Baliol College, Oxford, UK. He served as Chief Economic Adviser to the government of India and Secretary in the Ministry of Finance from 1989



to 1991, and was Vice-Chancellor of the University of Delhi from 2000 to 2005. He was Distinguished University Professor of Economics at the New School for Social Research, New York, USA, Professor of Economics at Jawaharlal Nehru University, New Delhi, and taught economics at the universities of Oxford and Sussex, UK, and the Indian Institute of Management, Calcutta. He was Chairman of the Board of the World Institute for Development Economics Research, Helsinki, Finland, served on the Board of Directors of the Social Science Research Council of the USA, and on several international bodies including the World Commission on the Social Dimension of Globalization and the South Centre, Geneva, Switzerland. Professor Nayyar has published numerous articles and books on trade, globalisation, liberalisation, development, stability and growth.

Dr Tobias S. Schmidt is an Assistant Professor of Energy Politics at ETH Zürich, Switzerland. His research centres on the interaction of energy policy and its underlying politics with technological change in the energy sector. His research covers both developed and developing countries. One of his areas of expertise is the role of politics and policies for risk perception among private-sector energy investors. He is a consultant to the United Nations Development Programme (UNDP), and has co-authored the UNDP report *De-risking Renewable Energy Investment*. As part of his work on developing countries he has published several papers on rural electrification, specifically through village-level mini-grids. Dr Schmidt also contributed a research project on electric mini-grids by Stanford University's Institute for Innovation in Developing Economies, USA.

Professor Wole Soboyejo received a BSc in mechanical engineering from King's College, University of London, in 1985, and a PhD in materials science from Cambridge University, UK, in 1988. He worked as a Research Scientist at the McDonnell Douglas Research Labs (1988–1992) before joining the Department of Materials Science and Engineering at the Ohio State University, USA, from 1992 until 1999. Between 1997 and 1998, he was a Visiting Martin Luther King Associate Professor at MIT, moving to Princeton University, USA, as a Professor of Mechanical and Aerospace Engineering in 1999. He recently served as the President of the African University of Science and Technology in Abuja, Nigeria (2012–2014). Professor Soboyejo is now back at Princeton, where he is a Professor in the Department of Mechanical and Aerospace Engineering.

Professor Benjamin K. Sovacool is Director of the Danish Center for Energy Technologies and a Professor of Business and Social Sciences at Aarhus University, Denmark. He is also Associate Professor of Law at Vermont Law School, USA, and Director of the Energy Security and Justice Program at their Institute for Energy and the Environment, as well as Editor-in-Chief of the peer-reviewed international journal *Energy Research & Social Science*. Professor Sovacool works

as a researcher, consultant and teacher on issues pertaining to renewable energy and energy efficiency, the politics of large-scale energy infrastructure, the design of public policy to improve energy security and access to electricity, and the building of adaptive capacity to the consequences of climate change. Professor Sovacool is also the author of more than 300 refereed articles, book chapters and reports on energy and climate topics. He received his PhD in science and technology studies from the Virginia Polytechnic Institute & State University in Blacksburg, Virginia, USA.

Michael J. Ssali graduated from Makerere University Kampala, Uganda, in 1976 as a secondary school teacher (of English). He taught at St Henry's College Kitovu and later at Kakoma Secondary School in Uganda before migrating to Nairobi, Kenya, from 1980 to 1986, where he studied journalism and contributed articles to the *Daily Nation* and *Kenya Times*. He returned to Uganda to start farming with his wife while at the same time practising journalism. He was Masaka District Chairman of the National Organization for Civic Education and Election Monitoring (NOCEM), from 1993 to 1999. He has toured the USA under the International Visitors Program (1997). He won the Best Business Journalist of the Year Award in 2008 and earned a trip to a few places in South Africa including attending the Highway Africa Conference at Rhodes University in Grahamstown. He writes a weekly column in the *Daily Monitor* titled Farmers Diary, and he is a fellow of b4fa – Biosciences for Farming in Africa (www.b4fa.org).

Professor M.S. Swaminathan, Emeritus Chairman and Chief Mentor of the M.S. Swaminathan Research Foundation, has been acclaimed by *TIME* magazine as one of the 20 most influential Asians of the 20th century. He has been described by the United Nations Environment Programme as “the Father of Economic Ecology” because of his leadership of the evergreen revolution movement in agriculture and by Jávier Pérez de Cuéllar, fifth Secretary-General of the United Nations, as “a living legend who will go into the annals of history as a world scientist of rare distinction”. He was Chairman of the UN Science Advisory Committee set up in 1980 to take follow-up action on the Vienna Plan of Action. He has also served as Independent Chairman of the FAO Council (1981–1985), President of the International Union for the Conservation of Nature and Natural Resources (1984–1990), President of the World Wide Fund for Nature (India) from 1989–1996, and served as President of the Pugwash Conferences on Science and World Affairs (2002–2007), President of the National Academy of Agricultural Sciences (1991–1996 and 2005–2007), and Chairman of the National Commission on Farmers (2004–2006).

Dr Christiana A. Thorpe recently retired as Chief Electoral Commissioner of the Sierra Leone National Electoral Commission. She was born in Freetown, Sierra Leone, holds degrees in modern



languages from University College Dublin, Ireland and St. Clements University, British West Indies. As Minister of Education, she piloted a new policy on education for Sierra Leone, introducing radical structural and other reforms in the education system. She is a civil society activist on empowerment of women, and established the Forum for African Women Educationalists (FAWE, Sierra Leone Chapter) and Reach in for the Stars Foundation (RIFTS), both addressing issues of female education and overall women's empowerment. Her work has brought accolades and awards for education, elections and the empowerment of women.

Tan Sri Ir Ahmad Zaidee Laidin FASc graduated in electrical engineering at Brighton College of Technology (now University of Brighton, UK), and gained an MSc in technological economics from the University of Stirling, UK. He is a registered professional engineer with the Board of Engineers Malaysia, and was a UK chartered engineer. Elected Academician, Ahmad Zaidee previously served as an engineer in several technical and management positions with the national electricity utility company, and was appointed head of MARA Institute of Technology in Malaysia, which became Universiti Teknologi MARA during his tenure of office. He is an Honorary Fellow of the Institution of Engineers, Malaysia, and the Academy of Sciences, Malaysia, as well as holding honorary doctorates from the universities of Stirling, Oxford Brookes and Manchester Metropolitan, UK, and Universiti Teknologi MARA, Malaysia. He is Honorary Professor of Napier University, UK, a Past President of the Federation of Engineering Institutions of Southeast Asia and the Pacific (FEISEAP), and Honorary Fellow of the ASEAN Federation of Engineering Organizations (AFEO). He represented Malaysia at the World Federation of Engineering Organizations (WFEO) while serving as President of the Institution of Engineers, Malaysia. He is Secretary General of the Academy of Sciences Malaysia and chairs its Energy Task Force, is Chairman of the Board of Directors of Unversiti Teknikal Malaysia Melaka, and is a Board Member of the Sustainable Energy Development Authority of Malaysia.