

LIST OF CONTRIBUTORS

AUTHORS, REVIEW EDITORS AND REVIEWERS

Authors and Review Editors¹

Overview

Lead Authors

Deborah M. Bartram	Eastern Research Group, Inc.	USA
Bofeng Cai	Chinese Academy for Environmental Planning	China
Eduardo Calvo Buendia	Universidad Nacional Mayor de San Marcos (UNMSM)	Peru
Hongmin Dong	Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences	China
Amit Garg	Indian Institute of Management Ahmedabad	India
G. H. Sabin Guendehou	Benin Centre for Scientific Research and Innovation, Laboratory of Applied Ecology of University of Abomey Calavii	Benin
Bundit Limmeechokchai	Sirindhorn International Institute of Technology, Thammasat University	Thailand
James Douglas MacDonald	Environment and Climate Change Canada	Canada
Stephen Michael Ogle	Natural Resource Ecology Laboratory, Colorado State University	USA
Deborah A. Ottinger	Climate Change Division, U.S. Environmental Protection Agency	USA
Riitta Kristiina Pipatti	Statistics Finland	Finland
Yasna Rojas	Instituto Forestal de Chile (INFOR)	Chile
Daniela Romano	ISPRA - Institute for Environmental Protection and Research	Italy
Maria José Sanz Sanchez	BC3, Basque Centre for Climate Change	Spain
Rob Sturgiss	Department of the Environment and Energy	Australia
Kiyoto Tanabe	Institute for Global Environmental Strategies (IGES)	Japan
Márcelo Theoto Rocha	Fábrica Ética Brasil	Brazil
Sirintornthep Towprayoon	King Mongkut's University of Technology Thonburi	Thailand
Melissa M. Weitz	US Environmental Protection Agency	USA
Tom Wirth	US Environmental Protection Agency	USA
Jongikhaya Witi	Department of Environmental Affairs	South Africa

Review Editors

Dario Gómez	Comisión Nacional de Energía Atómica	Argentina
William N. Irving	US Environmental Protection Agency	USA

Volume 1: General Guidance and Reporting

Coordinating Lead Authors

Daniela Romano	ISPRA - Institute for Environmental Protection and Research	Italy
Jongikhaya Witi	Department of Environmental Affairs	South Africa

Lead Authors

Riccardo De Lauretis	ISPRA - Institute for Environmental Protection and Research	Italy
Simon Eggleston	Global Climate Observing System (GCOS) - WMO	GCOS
Shuangxi Fang	China Meteorological Administration	China
Michael Gillenwater	Greenhouse Gas Management Institute	USA
Veronika Ginzburg	Yu.A. Izrael Institute of Global Climate and Ecology	Russian Federation
Justin Goodwin	Aether Limited	UK
Chia Ha	Environment and Climate Change Canada	Canada
Kenza Khomsi	Direction de la Météorologie Nationale	Morocco
Shamil Maksyutov	National Institute for Environmental Studies	Japan
Suvi Johanna Monni	Benviroc Ltd.	Finland
Stephen Michael Ogle	Natural Resource Ecology Laboratory, Colorado State University	USA
Newton Paciornik	Private consultant	Brazil
Klaus Radunsky	Umweltbundesamt	Austria
Yogesh Kumar Tiwari	Indian Institute of Tropical Meteorology	India

¹ The names shown in the third column are of the entities that nominated the experts, unless requested otherwise by the experts themselves.

Francesco Nicola Tubiello	FAO - Food and Agriculture Organization of the United Nations	USA
Jung Hun Woo	Konkuk University	Korea, Republic of

Contributing Authors

Cody Alsaker	National Resource Ecology Laboratory, Colorado State University	USA
Sandro Federici	Independent consultant	San Marino
Timo Tapio Kareinen	Statistics Finland	Finland
Michela Maione	University of Urbino	Italy
Alistair James Manning	UK Met Office	UK
Suvi Johanna Monni	Benviroc Ltd.	Finland
Stephen Michael Ogle	Natural Resource Ecology Laboratory, Colorado State University	USA
Cynthia Ann Randles	IPIECA - International Petroleum Industry Environmental Conservation Association	IPIECA
Melissa M. Weitz	US Environmental Protection Agency	USA

Review Editors

Michael Gytarsky	Yu.A. Izrael Institute of Global Climate and Ecology	Russian Federation
William N. Irving	US Environmental Protection Agency	USA

Volume 2: Energy**Coordinating Lead Authors**

Amit Garg	Indian Institute of Management Ahmedabad	India
Melissa M. Weitz	US Environmental Protection Agency	USA

Lead Authors

Christian Boettcher	Umweltbundesamt	Germany
Paul Nzomo Mbuti	Ministry of Energy & Petroleum	Kenya
Steven J. Oliver	Department of the Environment and Energy	Australia
Roberta Quadrelli	OECD - Organisation for Economic Co-operation and Development / IEA - International Energy Agency	OECD
Cynthia Ann Randles	IPIECA - International Petroleum Industry Environmental Conservation Association	IPIECA
Raquel Rodrigues de Souza	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH	Brazil
Ajay Kumar Singh	Private Consultant	India
Michael Strogies	Federal Environment Agency	Germany
Kostyantyn Tadlya	Resource Efficient and Cleaner Production Centre	Ukraine
Nina Uvarova	Yu.A. Izrael Institute of Global Climate and Ecology	Russian Federation
John D. Watterson	Ricardo plc	UK
Francis Davison Yamba	Centre for Energy, Environment and Engineering Zambia (CEEEZ) / University of Zambia (UNZA)	Zambia
Shengmin Yu	National Center for Climate Change Strategy and International Cooperation	China
Songli Zhu	Energy Research Institute, National Development and Reform Commission	China

Contributing Authors

Laura E. Dawidowski	National Atomic Energy Commission	Argentina
Oleksandra Kolmogortseva	UNOPS Ukraine	Ukraine
Teruo Okazaki	Nippon Steel & Sumikin Research Institute Corporation	Japan
Ingrid Person Rocha e Pinho	Ternium Brasil	Brazil
Steven C. Smyth	Environment and Climate Change Canada	Canada
Jongikhaya Witi	Department of Environmental Affairs	South Africa

Review Editors

Dario Gómez	Comisión Nacional de Energía Atómica	Argentina
Greet Janssens-Maenhout	Joint Research Centre, European Commission, European Union	EU

Volume 3: Industrial Processes and Product Use

Coordinating Lead Authors

Bofeng Cai	Chinese Academy for Environmental Planning	China
Deborah A. Ottinger	Climate Change Division, U.S. Environmental Protection Agency	USA

Lead Authors

Laurie S. Beu	Laurie S. Beu Consulting	USA
Kathrine Loe Bjonness	Norwegian Environment Agency	Norway
Yun Chung (Jack) Chang	Texas Instruments Inc.	USA
Michael Roger Czerniak	Edwards	UK
Laura E. Dawidowski	National Atomic Energy Commission	Argentina
Retno Gumilang Dewi	Center for Research on Energy Policy, Institut Teknologi Bandung	Indonesia
Lukas Dion	International Aluminium Institute / Rio Tinto – Arvida Research and Development Center	IAI
Tomas Gustafsson	IVL Swedish Environmental Research Institute	Sweden
Katsuhiko Hirose	Toyota Motor Corporation	Japan
Francesca Illuzzi	ST Microelectronics	Italy
Junichi Ishikawa	Japan Fluorocarbon Manufacturers Association / Chemours K.K. / (DuPont-Mitsui Fluorochemicals Co., Ltd.)	Japan
Tetsuya Kitagawa	Japan Electronics and Information Technology Industries Association (JEITA)	Japan
Oleksandra Kolmogortseva	UNOPS Ukraine	Ukraine
María José López Blanco	Gauss International	Spain
Brian T. Mader	3M Company Environmental Laboratory	USA
Michela Maione	University of Urbino	Italy
Pernelle Nunez	International Aluminium Institute	IAI
Teruo Okazaki	Nippon Steel & Sumikin Research Institute Corporation	Japan
Natalya Parasyuk	PMR Ukraine Project	Ukraine
Ingrid Person Rocha e Pinho	Ternium Brasil	Brazil
Sébastien Raoux	Transcarbon International	USA
Karen S. Schaffner	RTI International	USA
Håkon Frøysa Skullerud	Statistics Norway	Norway
Alexey Viktorovich Spirin	UC RUSAL	Russian Federation
Samir Tantawi	United Nations Development Programme (UNDP), Egyptian Environmental Affairs Agency (EEAA)	Egypt
David Sydney Wong	Light Metals Research Centre, University of Auckland	New Zealand
Andrea Zille	University of Minho	Italy

Contributing Authors

Xin Bo	Appraisal Center for Environment and Engineering, MEP	China
Stephanie N. Bogle	U.S. Environmental Protection Agency	USA
Nigel Brandon	Faculty of Engineering, Imperial College London	UK
Richard Chahine	Electrical Engineering and Computer Engineering, Université du Québec à Trois-Rivières, Hydrogen Research Institute	Canada
Shoumian Chen	Shanghai Integrated Circuit R&D Center Ltd.	China
Xiping Chen	Central South University Institute (CSUI)	China
Jeffrey B. Coburn	RTI International, Research Triangle Park, NC.	USA
Roberto de Aguiar Peixoto	Maua Institute of Technology (IMT)	Brazil
Michalopoulou Eleni	University of Bristol	UK
Simon Gaboury	Energy Efficiency and Climate Change, Rio Tinto Aluminum	Canada
Melissa Ann Gresham	INTEL Corporation	USA
Barbara Gschrey	Oeko-Recherche GmbH	Germany
David Harman	Micron	USA
Kyungah Kim	Samsung Electronics	Korea, Republic of
Joey (Ching-Hui) Lu	Industrial Technology Research Institute (ITRI)	Taiwan, Province of China
Youngsook Lyu	National Institute of Environmental Research	Korea, Republic of
Jerry Y. Marks	J Marks & Associates LLC	USA
Tetsuji Okada	Japan Refrigeration and Air Conditioning Industry Association	Japan
Shohei Oyama	Mizuho Information & Research Institute, Inc.	Japan
Andrey V. Panov	RUSAL ETC	Russian Federation

Jennifer Politsch	INTEL Corporation	USA
Brian K. Raley	GLOBALFOUNDRIES	USA
Jan Hendrik Reimink	World Steel Association	Netherlands
Winfried Schwarz	Öko-Recherche, Frankfurt am Main	Germany
Joseph Van Gompel	Applied Materials / Glade Consulting, LLC	USA
Hanno Vogel	TRIMET Aluminium Smelter	Germany
Gregory M. Watson	Arkema, Inc.	USA
Youming Yang	Jiangxi University of Science and Technology	China

Review Editors

Batouli Said Abdallah	National Center of Documentation and Scientific Research (CNDRS)	Comoros
David Glen Thistlethwaite	Ricardo plc	UK

Volume 4: Agriculture, Forestry and Other Land Use**Coordinating Lead Authors**

Hongmin Dong	Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences	China
James Douglas MacDonald	Environment and Climate Change Canada	Canada
Stephen Michael Ogle	Natural Resource Ecology Laboratory, Colorado State University	USA
Maria José Sanz Sanchez	BC3, Basque Centre for Climate Change	Spain
Marcelo Theoto Rocha	Fábrica Éthica Brasil	Brazil

Lead Authors

Hiroko Akiyama	Institute for Agro-Environmental Sciences, National Agriculture and Food Research Organization	Japan
Jukka Alm	Natural Resources Institute Finland (Luke)	Finland
Barbara Amon	Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB)	Germany
Jeffrey Alexander Baldock	CSIRO - Commonwealth Scientific and Industrial Research Organisation	Australia
Rolando Barahona Rosales	Universidad Nacional de Colombia	Honduras
Nathan Oliveira Barros	Federal University of Juiz de Fora	Brazil
David T.E. Bastviken	TEMA Environmental Change, Linköping University	Sweden
Jake J. Beaulieu	United States Environmental Protection Agency	USA
Martial Bernoux	FAO - Food and Agriculture Organization of the United Nations	FAO
Sumana Bhattacharya	IORA Ecological Solutions	India
Andrea M. Brandon	New Zealand Ministry for the Environment	New Zealand
Leandro V. Buendia	Freelance Consultant	Philippines
Ngonidzashé Chirinda	CGIAR - Consultative Group on International Agricultural Research / International Centre for tropical Agriculture (CIAT)	CGIAR
Nares Chuersuwana	Suranaree University of Technology	Thailand
Robert de Ligt	The Mullion Group	Australia
Agustin del Prado	BC3 - Basque Centre for Climate Change	Spain
Grant M. Domke	U.S. Department of Agriculture, Forest Service	USA
Takahiro Endo	Remote Sensing Technology Center of Japan (RESTEC)	Japan
Christopher David Evans	Centre for Ecology and Hydrology	UK
Sandro Federici	Independent consultant	San Marino
Emilio Garcia-Apaza	Faculty of Agronomy, San Andres Major University	Bolivia
Michelle Garneau	Université du Québec à Montréal	Canada
Olga Gavrilova	Tallinn University of Technology	Estonia
Muhammad Arif Rashid Goheer	Global Change Impact Studies Centre (GCISC)	Pakistan
Carlos Gomez	Universidad Nacional Agraria La Molina	Peru
Giacomo Grassi	Joint Research Centre, European Commission, European Union	EU
Carly Maree Green	Global Forest Observations Initiative (GFOI)	Australia
Thomas Gschwantner	Federal Research and Training Centre for Forests, Natural Hazards and Landscape (BFW)	Austria

Atle Harby	SINTEF Energi	Norway
John Harrison	Washington State University	USA
Rehab Ahmed Hassan	Higher Council for Environment and Natural Resources	Sudan
Kristell Hergoualc'h	CIFOR - Center for International Forestry Research	France
Martin Herold	Wageningen University & Research	Netherlands
Yasumasa Hirata	Forestry and Forest Products Research Institute	Japan
Richard (Skee) Houghton	Woods Hole Research Center	USA
Joanna Isobel House	University of Bristol	UK
Shigehiro Ishizuka	Forestry and Forest Products Research Institute	Japan
Inge Germaine Celestine	FAO - Food and Agriculture Organization of the United Nations	Belgium
Jonckheere		
Serah Kabui Kahuri	Kenya Forest Service	Kenya
Åsa Kasimir	University of Gothenburg	Sweden
Mwangi James Kinyanjui	Karatina University	Kenya
Ayaka W. Mo Kishimoto	Institute for Agro-Environmental Sciences, NARO	Japan
Haruni Krisnawati	Forestry and Environment Research, Development and Innovation Agency, Ministry of Environment and Forestry	Indonesia
Werner Alexander Kurz	Natural Resources Canada, Canadian Forest Service	Canada
Rodel Diaz Lasco	World Agroforestry Centre (ICRAF) and the Oscar M Lopez Center	Philippines
Aleksi Heikki Samuel Lehtonen	Natural Resources Institute Finland (Luke)	Finland
Adrian Leip	Joint Research Centre, European Commission, European Union	EU
Magda Aparecida de Lima	Brazilian Agricultural Research Corporation - Embrapa	Brazil
Catherine Ellen Lovelock	University of Queensland	Australia
Mattias Lundblad	Swedish University for Agricultural Sciences (SLU)	Sweden
Rogers Ernest Malimbwi	Sokoine University of Agriculture	Tanzania
Robert William Matthews	Forestry Commission Research Agency	UK
Brian G. McConkey	Ministry of Agriculture and Agri-Food	Canada
Erik Næsset	Norwegian University of Life Sciences	Norway
Sini Maaria Niinistö	Statistics Finland, Greenhouse Gas Inventory Unit	Finland
Jean Pierre Ometto	National institute for Space Research (CCST/INPE)	Brazil
Walter Oyhantcabal	Ministry of Agriculture, Livestock and Fishery, MGAP	Uruguay
Xuebiao Pan	China Agricultural University	China
Mehul R. Pandya	Space Applications Centre, Indian Space Research Organisation (ISRO), Government of India	India
Luis Alberto Panichelli	National Climate Change Division, Ministry of Environment and Sustainable Development	Argentina
David Paré	Natural Resources Canada	Canada
Himanshu Pathak	ICAR - National Rice Research Institute	India
Thomas Paul	Scion - New Zealand Forest Research Institute Ltd.	New Zealand
Sven Hans-Olof Petersson	SLU, Swedish University for Agricultural Sciences	Sweden
Yves T. Prairie	Department of Biological Sciences, Université du Québec à Montréal (UQAM)	Canada
Hanne Lerche Raadal	Ostfold Research	Norway
Nijavalli H. Ravindranath	Indian Institute of Science	India
Shanti Reddy	Department of the Environment and Energy	Australia
Kristiina Regina	Natural Resources Institute Finland (Luke)	Finland
Joachim Rock	Thuenen-Institute of Forest Ecosystems	Germany
Sebastian Rüter	Thünen Institute of Wood Research	Germany
Carlos Roberto Sanquetta	Federal University of Parana	Brazil
Atsushi Sato	Mitsubishi UFJ Research and Consulting Co., Ltd.	Japan
Bradford Sterling Sherman	Reservoir Doctors Pty Ltd.	Australia
Zoltán Somogyi	NARIC Hungarian Forest Research Institute	Hungary
Kei Suzuki	Japan Forest Technology Association	Japan
Aleksandr Trunov	Yu.A. Izrael Institute of Global Climate and Ecology	Russian Federation
Jason Alan Tullis	University of Arkansas	USA
Tony John van der Weerden	AgResearch	New Zealand
Gabriel Gustavo Vazquez-Amabile	AACREA (Argentine Association of Regional Consortiums for Agricultural Experimentation) and University of La Plata	Argentina
Marina Vitullo	ISPRA - Institute for Environmental Protection and Research	Italy

Stephen John Wakelin	Scion - New Zealand Forest Research Institute Ltd.	New Zealand
Changke Wang	National Climate Center, China Meteorological Administration	China
Robert Michael Waterworth	The Mullion Group	Australia
Yeni Widiawati	Research Institute for Animal Production (IRIAP), Indonesian Centre for Animal Research and Development (ICARD)	Indonesia
Chengyi Zhang	National Climate Center, China Meteorological Administration	China
Xunhua Zheng	Institute of Atmospheric Physics, Chinese Academy of Sciences	China
Jianhua Zhu	Institute of Forest Ecology, Environment & Protection, Chinese Academy of Forestry	China
<i>Contributing Authors</i>		
Cody Alsaker	National Resource Ecology Laboratory, Colorado State University	USA
Valerio Avitabile	Joint Research Centre (JRC), European Commission (Ispra)	Italy
André Bannink	Wageningen Livestock Research, Wageningen University & Research	Netherlands
Karen A. Beauchemin	Agriculture and Agri-Food Canada	Canada
Luca Birigazzi	FAO - Food and Agriculture Organization of the United Nations	Italy
Rémi Cardinael	CIRAD (French Agricultural Research Center for International Development), UPR AIDA / University of Zimbabwe	France
Harry Clark	New Zealand Agricultural Greenhouse Gas Research Centre (NZAGRC), AgResearch Ltd.	New Zealand
Max Collett	National Inventory Systems and International Reporting Branch, Department of the Environment and Energy	Australia
Marife D. Corre	Faculty of Forest Sciences and Forest Ecology, Georg-August University of Göttingen	Germany
Bridget Deemer	U.S. Geological Survey, Grand Canyon Monitoring and Research Center	USA
Alistair Robert Grinham	University of Queensland	Australia
Ram B. Gurung	Natural Resource Ecology Laboratory, Colorado State University	USA
Mark E. Harmon	Department of Forest Science, Oregon State University	USA
Ermias Kebreab	University of California, Davis	USA
Sarian Kosten	Radboud University	Netherlands
Johannes Lehmann	Atkinson Center for a Sustainable Future Soil and Crop Sciences, School of Integrative Plant Science, College of Agriculture and Life Sciences, Cornell University	USA
April B. Leytem	USDA United States Department of Agriculture - Agricultural Research Service (USDA-ARS)	USA
Zhe Li	Chongqing Institute of Green and Intelligent Technology, Chinese Academy of Sciences	China
Chang Liang	Environment and Climate Change Canada	Canada
Ronald E. McRoberts	U.S. Forest Service	USA
Akinori Mori	National Agriculture and Food Research Organization	Japan
Ngwa Martin Ngwabie	Department of Agricultural and Environmental Engineering, College of Technology, University of Bamenda	Cameroon
Alasdair Dewar Lowe Noble	AgResearch	New Zealand
Carolyn Imede Opio	UN Food and Agriculture Organization	Uganda
Michael Peacock	Swedish University of Agricultural Sciences	Sweden
Simone Rossi	European Commission, Joint Research Centre	Italy
Danaë M.A. Rozendaal	Wageningen University & Research	Netherlands
Marco Aurelio Santos	Energy Planning Program / COPPE / UFRJ	Brazil
Cindy Heather Shaw	Natural Resources Canada, Canadian Forest Service	Canada
Yasuhito Shirato	National Agriculture and Food Research Organization, Institute for Agro-Environmental Sciences (NIAES)	Japan

Yowhan Son	Division of Environmental Science and Ecological Engineering, Korea University	Korea, Republic of
Victor Stepanenko	Lomonosov Moscow State University (MSU), Research Computing Center and Faculty of Geography	Russian Federation
Oliver van Straaten	Georg-August University of Göttingen	Germany
Andrew C. VanderZaag	Agriculture and Agri-Food Canada	Canada
Edzo Veldkamp	Georg-August University of Göttingen	Germany
Theunis Valentijn Vellinga	Wageningen Livestock Research, Wageningen University & Research	Netherlands
Louis V. Verchot	International Center for Tropical Agriculture (CIAT) - Headquarters and Regional Office for Latin America and the Caribbean	USA
Raul Abad Vinas	Joint Research Centre, European Commission	Spain
Dominic Woolf	Cornell University	USA
Kazuyuki Yagi	Institute for Agro-Environmental Sciences (NIAES), National Agriculture and Food Research Organization (NARO)	Japan
Xiaoyuan Yan	Institute of Soil Science, Chinese Academy of Sciences	China
Review Editors		
Fahmuddin Agus	Indonesia Soil Research Institute, Indonesian Agency for Agricultural Research and Development (IAARD)	Indonesia
Marta Andrea del Carmen Alfaro Valenzuela	Instituto de Investigaciones Agropecuarias (INIA)	Chile
Dominique Blain	Environment and Climate Change Canada	Canada
Hendrik H.J. Vreuls	Netherlands Enterprise Agency (RVO.nl)	Netherlands

Volume 5: Waste

Coordinating Lead Authors

Deborah M. Bartram	Eastern Research Group, Inc.	USA
Sirintornthep Towprayoon	King Mongkut's University of Technology Thonburi	Thailand

Lead Authors

Amr Mohamed Osama Abdel-Aziz	Integral Consult	Egypt
Chart Chiemchaisri	Kasetsart University	Thailand
Yoshitaka Ebie	National Institute for Environmental Studies	Japan
Juraj Farkaš	veQ s.r.o.	Slovakia
Qingxian Gao	Chinese Research Academy of Environmental Sciences (CRAES)	China
Céline Gueguen	CITEPA - Centre Interprofessionnel Technique d'Etudes de la Pollution Atmosphérique	France
Muhammad Ijaz	Global Change Impact Studies Centre (GCISC), Ministry of Climate Change	Pakistan
Tomonori Ishigaki	National Institute for Environmental Studies	Japan
Eui-Chan Jeon	Department of Environment & Energy, Sejong University	Korea, Republic of
Seungdo Kim	Department of Environmental Sciences and Biotechnology, Hallym University	Korea, Republic of
Karthik Manikavasagam	National Environmental Engineering Research Institute	India
Seini Nouhou Amadou	ECOWAS Centre for Renewable Energy and Energy Efficiency	Niger
Gregory M. Peters	Chalmers University of Technology	Sweden
Chhemendra Sharma	CSIR - National Physical Laboratory	India
Sergii Shmarin	SE National Power Company "UKRENERGO"	Ukraine
Michael Douglas Short	University of South Australia	Australia
Nuria Mariana Zanzottera	Ministry of Environment and Sustainable Development	Argentina

Contributing Authors

Mark Edward Hunstone	Department of the Environment and Energy	Australia
Chalor Jarusutthirak	Faculty of Environment, Kasetsart University	Thailand
Sunil Kumar	Solid and Hazardous Waste Management Division, Council of Scientific and Industrial Research, National Environmental Engineering Research Institute (CSIR - NEERI)	India

Zhanyun Ma	Chinese Research Academy of Environmental Sciences (CRAES)	China
Shuhei Masuda	Department of civil engineering and architecture, National Institute of Technology, Akita Collage	Japan
Marco Ritzkowski	TuTech Innovation GmbH	Germany
Marianne Thomsen	Department of Environmental Science, Aarhus University	Denmark
Komsilp Wangyao	The Joint Graduate School of Energy and Environment, King Mongkut's University of Technology Thonburi	Thailand
<i>Review Editors</i>		
Fatma Betül Demirok	Turkish Statistical Institute (TurkStat)	Turkey
Anke Herold	Oeko-Institut	Germany

Reviewers

All expert reviewers listed below submitted their review comments for the Expert Review of the First Order Draft and/or for the Government and Expert Review of the Second Order Draft. Affiliations of expert reviewers presented in the list are as provided by them at the time of registration.

Argentina

Estela Santalla UNICEN - Universidad Nacional del Centro de la Provincia de Buenos Aires
Ernesto Viglizzo National Research Council Argentina (CONICET)

Australia

Max Collett Department of the Environment and Energy
Robert de Ligt The Mullion Group
Mark Hunstone Department of the Environment and Energy
Senani Karunaratne Department of the Environment and Energy
Carolyn Maxwell Hydro Tasmania
Fabiano Ximenes New South Wales Department of Primary Industries

Austria

Yousef Alshammari University of Vienna
Michael Anderl Environment Agency Austria
Christoph Lampert Umweltbundesamt
Marion Pinterits Umweltbundesamt Vienna
Klaus Radunsky Umweltbundesamt
Guenther Schmidt Environment Agency Austria

Bangladesh

Sirajul Islam North South University

Belgium

Bruno Kestemont Statistics Belgium
Tiffanie Stephani Fertilizers Europe

Benin

Bamikolé Jacques Kouazounde University of Abomey Calavi

Bolivia

Emilio Garcia-Apaza Universidad Mayor de San Andrés, Autoridad Plurinacional de la Madre Tierra

Brazil

Alexandre Berndt Embrapa Southeast Livestock
Irineu Bianchini Universidade Federal de Sao Carlos
Philip Fearnside National Institute for Research in Amazonia (INPA)
Stoécio Maia Federal Institute of Education, Science and Technology of Alagoas
Carlos Sanquetta Federal University of Parana
Elizabeth Sikar Construmaq Sao Carlos

Canada

Remy Bargout International Development Research Centre
Ana Blondel Environment and Climate Change Canada
Marie-Eve Bonneau Environment and Climate Change Canada
Thomas Bruulsema International Plant Nutrition Institute
Patrick Coleman Black & Veatch Canada
Christine Dubois Alcoa
Doug King Carleton University
Emil Laurin Environment Canada
Reynald Lemke Agriculture & Agri-Food Canada
Nadia Morais Aluminerie Alouette Inc.
Frank Neitzert Environment and Climate Change Canada
Matthew Prescott Statistics Canada
Raul Salas Reyes University of Toronto

China

Zhiping An Chiyo Enterprises Limited
Guangcheng Chen Third Institute of Oceanography, State Oceanic Administration
Xiangzheng Deng Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences

Shenghui Han	Institute of Atmospheric Physics, Chinese Academy of Sciences
Yao Huang	Institute of Atmospheric Physics, Chinese Academy of Sciences
Xiaobo Qin	Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences
Changliang Shao	Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
Mingshan Su	National Center for Climate Change Strategy and International Cooperation
Dan Yu Tian	National Center for Climate Change Strategy and International Cooperation
Luhui Yan	Carbonstop
Shanshan Yang	National Center for Climate Change Strategy and International Cooperation
Costa Rica	
Kendal Blanco Salas	National Meteorological Institute
Cuba	
Cristobal Felix Diaz Morejon	Ministry of Science, Technology and the Environment
Czech Republic	
Eva Krtková	Czech Hydrometeorological Institute
Milos Tichy	Czech Technical University
Denmark	
Steen Gyldenkaerne	Aarhus University
Nicholas Hutchings	Aarhus University
Peter Aarup Iversen	Land Use and Climate Change Company
Ole-Kenneth Nielsen	Aarhus University
Dominican Republic	
Alma Vargas	Oficina Nacional de Estadística
Finland	
Pia-Kristiina Forsell	Statistics Finland
Kari Grönfors	Statistics Finland
Markus Haakana	Natural Resources Institute Finland (Luke)
Jaakko Heikkinen	Natural Resources Institute Finland (Luke)
Päivi Lindh	Statistics Finland
Jouni Nousiainen	Natural Resources Institute Finland (Luke)
Paula Ollila	Natural Resources Institute Finland (Luke)
Sanna Pitkänen	Natural Resources Institute Finland (Luke)
Tarja Tuomainen	Natural Resources Institute Finland (Luke)
France	
Valentin Bellassen	INRA - Portail d'actus grand public
Frédéric Chevallier	LSCE - Laboratoire des Sciences du Climat et de l'Environnement
Céline Gueguen	CITEPA - Centre Interprofessionnel Technique d'Etudes de la Pollution Atmosphérique
Coralie Jeannot	CITEPA - Centre Interprofessionnel Technique d'Etudes de la Pollution Atmosphérique
Denis Loustau	National Institute of Agricultural Research (INRA), UMR ISPA - Interactions Sol Plante Atmosphère
Brice Mora	Communications & Systemes
Astee représenté par Valentin	ASTEE - Association scientifique et technique pour l'eau et l'environnement
Germany	
Urs Berger	Helmholtz Centre for Environmental Research - UFZ
Frank Brentrup	Yara International ASA
Christian Boettcher	Umweltbundesamt
Ulrike Doering	German Environment Agency
Edgar Dullni	Asea Brown Boveri - ABB AG
Roland Fuß	Thunen Institute of Climate-Smart Agriculture
Andreas Gensior	Thunen Institute of Climate-Smart Agriculture
Hans-Dieter Haenel	Thunen Institute of Climate-Smart Agriculture
Anke Herold	Oeko-Institut e.V.
Kristina Juhrich	Federal Environment Agency
Andrea Kaiser-Weiss	Deutscher Wetterdienst (DWD)
David Kuntze	Umweltbundesamt Germany
Pauline Midgley	Consultant
Jens Reichel	German Environment Agency
Claus Rösemann	Thunen Institute of Climate-Smart Agriculture

Tanja Sanders
Michael Strogies
Klaus von Wilpert

Thuener Institute of Forest Ecosystems
German Environment Agency
Forest Research Institute Freiburg

Greece

Vasiliki Assimakopoulos
Iordanis Tzamtzis

National Observatory of Athens
ACCEL - I. Tzamtzis & Co G.P.

Hungary

Attila Buzasi
Klára Tarczay

Budapest University of Technology and Economics
Hungarian Meteorological Service

India

Malini Nair
Karachepone Ninan
Vishwa Bandhu Pant
Tiwari Yogesh

Christ University, Indian Institute of Science
Centre for Economics, Environment and Society
HCL Technologies Limited
Indian Institute of Tropical Meteorology, Pune

Iran

Mostafa Jafari
Raheleh Malekian
Seyed Muhammadreza Tabatabaei

RIFR- AREEO, Macro National Strategies for Climate Change Research for
AREEO, Ministry of Agriculture
National Strategic Research Center of Agriculture and Water
University of Tehran

Ireland

Gerry Brady
Eugene Hendrick

Central Statistics Office
Department of Agriculture, Food and Marine (Retired)

Italy

Eleonora Di Cristofaro
Domenico Gaudio
Giuseppe Montanaro

ISPRA - National Institute for Environmental Protection and Research
ISPRA - National Institute for Environmental Protection and Research
Università degli Studi della Basilicata

Japan

Takeshi Enoki
Yukio Haruyama
Shoji Hashimoto
Elsa Hatanaka
Taka Hiraishi
Hideshi Iki
Tomonori Ishigaki
Hiroshi Ito
Hiroshi Ito
Kazumasa Kawashima
Koichi Kojima
Naofumi Kosaka
Akihiko Kuze
Tsuneo Matsunaga
Kazunori Minamikawa
Takashi Morimoto
Ryo Nakajima
Nobuhiro Natori
Osamu Ochiai
Junichiro Oda
Takefumi Oda
Masami Onoda
Atsushi Sato
Hideaki Tazawa
Takuji Terakawa
Kochi Tonosaki
Tsutomu Tsukada
Masato Yamada
Masato Yano

Mitsubishi UFJ Research and Consulting Co., Ltd.
Remote Sensing Technology Center of Japan (RESTEC)
Forestry and Forest Products Research Institute
National Institute for Environmental Studies
Institute for Global Environmental Strategies (IGES)
JXTG Holdings, Inc.
National Institute for Environmental Studies
National Institute for Environmental Studies
Renesas Semiconductor Manufacturing Co., Ltd.
Mitsubishi UFJ Research and Consulting Co., Ltd.
Toyota Motor Corporation
National Institute for Environmental Studies
Japan Aerospace Exploration Agency
National Institute for Environmental Studies
Institute for Agro-Environmental Sciences, NARO
Mitsubishi UFJ Research and Consulting Co., Ltd.
Toshiba Energy Systems and Solutions Corporation
Showa Denko K.K.
Japan Aerospace Exploration Agency
Research Institute of Innovative Technology for the Earth (RITE)
National Institute for Environmental Studies
Japan Aerospace Exploration Agency
Mitsubishi UFJ Research and Consulting Co., Ltd.
Chiyoda Corporation
Mitsubishi UFJ Research and Consulting Co., Ltd.
Organization for Landscape and Urban Green Infrastructure
Kanken Techno Co., Ltd.
National Institute for Environmental Studies
Mitsubishi UFJ Research and Consulting Co., Ltd.

Kenya

Ermias Betemariam

World Agroforestry Centre

Korea, Republic of

Eui-Chan Jeon	Sejong University
Dong Koo Kim	Korea Energy Economics Institute
Raehyun Kim	National Institute of Forest Science
Eunae Seo	Korea Energy Agency
Jung-Sup Um	Kyungpook National University
Jongsu Yim	National Institute of Forest Science

Latvia

Anna Paturaska	Central Statistical Bureau of Latvia
----------------	--------------------------------------

Mauritius

Abdul Nayamuth	Climagric Ltd.
----------------	----------------

Mexico

Poot-Delgado Carlos Antonio	Instituto Tecnológico Superior de Champoton
Francisco Avina	Instituto Nacional de Ecología y Cambio Climático
Pablo Aviles Hernández	Instituto Nacional de Estadística y Geografía (INEGI)
Adalberto Noyola	Instituto de Ingeniería, Universidad Nacional Autónoma de México (UNAM)

Myanmar

Moe Aung Kyaw	Ministry of Natural Resources and Environmental Conservation
---------------	--

Netherlands

Sarian Kosten	Radboud University
Jan Peter Lesschen	Wageningen University and Research
Hans Oonk	OonKAY
Tinus Pulles	Consultant

New Zealand

Joel Gibbs	Ministry for Primary Industries
Donna Giltrap	Landcare Research
Maya Hunt	Ministry for Primary Industries
Nobert Nziramasanga	Consultant
Stephen Wakelin	Scion - New Zealand Forest Research Institute Ltd.

Nigeria

Chukwuma Anoruo	Imo State University, Owerri
-----------------	------------------------------

Norway

Henrik Åsheim	Hydro Aluminium AS
Signe Kynding Borgen	Norwegian Institute of Bioeconomy Research (NIBIO)
Alice Budai	Norwegian Institute of Bioeconomy Research (NIBIO)
Ole Kjos	SINTEF - Stiftelsen for industriell og teknisk forskning
Erik Næsset	Norwegian University of Life Sciences
Tormod Andre Schei	Tormod Schei Climate and Environmental Advisor
Håkon F. Skullerud	Statistics Norway
Aaron Smith	Norwegian Institute of Bioeconomy Research (NIBIO)
Geir Taugbøl	Energy Norway
Vigdis Vestreng	Norwegian Environment Agency

Pakistan

Amanullah	University of Agriculture Peshawar
-----------	------------------------------------

Portugal

Ana Dias	University of Aveiro
----------	----------------------

Russian Federation

Georgii Alexandrov	A.M. Obukhov Institute of Atmospheric Physics
Veronika Ginzburg	Yu.A. Izrael Institute of Global Climate and Ecology
Irina Govor	Yu.A. Izrael Institute of Global Climate and Ecology
Michael Gytarsky	Yu.A. Izrael Institute of Global Climate and Ecology
Ekaterina Imshennik	Yu.A. Izrael Institute of Global Climate and Ecology
Anna Romanovskaya	Yu.A. Izrael Institute of Global Climate and Ecology

Ruwanda

Pius Nishimwe	GreenMake LTD.
---------------	----------------

Slovakia

Lenka Zetochová Slovak Hydrometeorological Institute

Spain

Antonio Camacho University of Valencia
 Alberto Sanz Cobeña Technical University of Madrid
 Cristina Garcia Diaz Ministry of Agriculture and Fisheries, Food and Environment
 César Pérez-Cruzado University of Santiago de Compostela

Sweden

Martin Bolinder Swedish University of Agricultural Sciences (SLU)
 Mattias Lundblad Swedish University of Agricultural Sciences (SLU)
 Ingrid Mawdsley IVL Swedish Environmental Research Institute
 Gregory Peters Chalmers University of Technology
 Hans Petersson Swedish University of Agricultural Sciences (SLU)
 Klara Westling IVL Swedish Environmental Research Institute
 Per-Erik Wikberg Swedish University of Agricultural Sciences (SLU)

Switzerland

Daniel Bretscher Agroscope
 Stefan Reimann Swiss Federal Laboratories for Materials Science and Technology (Empa)
 Regine Röthlisberger Federal Office for the Environment
 Denise Fussen Yanque EBP Schweiz AG

Tanzania, United Republic of

Jamidu Katima University of Dar es Salaam
 Emmanuel Jonthan Mpeti Meteorological Agency (Retired)

Thailand

Pornphimol Winyuchakrit Sirindhorn International Institute of Thailand, Thammasat University

Turkey

Kadir Aksakal Turkish Statistical Institute
 Fehmi Par Bekci Turkish Statistical Institute
 Eray Özdemir General Directorate of Forestry
 Sebahattin Sari Turkish Statistical Institute
 Serhat Sensoy Turkish State Meteorological Service
 Aynur Tokel Consultant

Ukraine

Sergii Shmarin SE National Power Company "UKRENERGO"
 Nataliya Stranadko Portland State University

United Kingdom

Justin Bishop University of Cambridge
 Hilary Kennedy Bangor University
 Archie McCulloch University of Bristol
 Anna Mikis Department for Business, Energy and Industrial Strategy
 Petra Minnerop Dundee University
 Amanda Penistone Department for Business, Energy and Industrial Strategy
 David Reay University of Edinburgh
 David Glen Thistlethwaite Ricardo plc

United States of America

Alison Adams University of Vermont - Rubenstein School of Environment and Natural Resources
 Onema Adojoh University of Liverpool
 Archis Ambulkar Jones and Henry Engineers, Ltd.
 Richard Birdsey Woods Hole Research Center
 Stephanie Bogle United States Environmental Protection Agency (US EPA)
 Jean Bogner University of Illinois at Chicago
 Mary Booth Partnership for Policy Integrity
 Vincent Camobreco United States Environmental Protection Agency (US EPA)
 Jeffrey Coburn RTI International
 Ariane Coelho Brotto New York City Department of Environmental Protection
 Philip DeCola University of Maryland
 Mark de Figueiredo United States Environmental Protection Agency (US EPA)
 Stephen Del Grosso United States Department of Agriculture, Agricultural Research Service (USDA ARS)

Mausami Desai	United States Environmental Protection Agency (US EPA)
Stephen Dettman	Finite Carbon
Adam Eisele	United States Environmental Protection Agency (US EPA)
Nancy French	Michigan Tech Research Institute
Jason Funk	Center for Carbon Removal
Ann Gallagher	U.S. Dept. of the Interior National Park Service
Fiji George	Cheniere Energy, Inc.
Tina Gilliland	Texas Instruments Incorporated
Paul Glaser	University of Minnesota
Patrick Gonzalez	University of California, Berkeley
William Hohenstein	United States Department of Agriculture
Anny Huang	California Air Resources Board (CARB)
William Irving	United States Environmental Protection Agency (US EPA)
Cortney Itle	Eastern Research Group
Jooil Kim	Scripps Institution of Oceanography, University of California San Diego
Robert Lanza	ICF International Inc.
Miriam Lev-On	The LEVON Group, LLC
David Lyon	Environmental Defense Fund
Eric Marland	Appalachian State University
Gregg Marland	Appalachian State University
Reid Miner	National Council for Air and Stream Improvement, Inc. (NCASI)
Deborah Ottinger	United States Environmental Protection Agency (US EPA)
Jennifer Politsch	Intel Corporation
Ryan Radford	California Environmental Protection Agency
Peter Riggs	Pivot Point
Jeff Rudnik	Intel Corporation
Neelam Singh	World Resources Institute (WRI)
Kenneth Skog	United States Department of Agriculture, Forest Service (Retired)
Mark Sperow	West Virginia University
Melissa Weitz	United States Environmental Protection Agency (US EPA)
Kewei Yu	Troy University

Uruguay

Virginia Sena	Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente
---------------	---

Venezuela

Dirk Thielen	Instituto Venezolano de Investigaciones Cientificas
Alicia Villamizar	Universidad Simón Bolívar

IGO**European Union (EU)**

Andrea Tilche	
---------------	--

International Aluminium Institute (IAI)

Christopher Bayliss	
---------------------	--

International Energy Agency (IEA)

Roberta Quadrelli	
-------------------	--

Joint Research Centre of European Commission (JRC)

Valerio Avitabile	
Roland Hiederer	
Adrian Leip	
Simone Rossi	
Raul Abad Viñas	

Organisation for Economic Co-operation and Development (OECD)

Florian Flachenecker	
----------------------	--

NGO**C40 Cities Climate Leadership Group**

Mingming Wang	
---------------	--

Center for International Forestry Research (CIFOR), Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA)

Iciar Alberdi

Global Change Impact Studies Center (GCISC)

Muhammad Mohsin Iqbal

Instituto Bem Ambiental (IBAM)

Thiago Metzker

International Center for Tropical Agriculture (CIAT), Consultative Group on International Agricultural Research (CGIAR)

Ngonidzashe Chirinda

International Institute for Applied Systems Analysis (IIASA)

Zbigniew Klimont

Wilfried Winiwarter

WWF International (WWF)

Nasikoa Aguilar-Amuchastegui

Yale University

Leehi Yona

UN Bodies and Organizations

Food and Agriculture Organization (FAO)

Sandro Federici

Rocio Danica Condor Golec

Francesco Nicola Tubiello

United Nations (UN)

Jessica Chan

Julian Chow

Wafa Aboul Hosn

United Nations Development Programme (UNDP)

Renata Grisoli

United Nations Framework Convention on Climate Change (UNFCCC)

Vitor Gois Ferreira

Javier Marcelo Hanna Figueroa

Dirk Nemitz

Nalin Srivastava