

# Fourteenth IAMC Annual Meeting 2021

## Final Programme

\*\*\* Meeting Time Zone: UTC \*\*\*

		Monday 29 November 2021		Tuesday 30 November 2021			Wednesday 1 December 2021		
Tokyo	UTC + 9:00 h	12.00-12.15					Poster session 3 [Poster Room 1]		
		12.15-12.30							
		12.30-12.45	Plenary session: Introduction	Oral session: Deep 1 [Room 1]	Oral session: Demand [Room 2]	Oral session: Impact 1 [Room 3]	Oral session: Deep 3 [Room 1]	Oral session: Sectoral 1 [Room 2]	Oral session: National 1 [Room 3]
		12.45-13.00	Plenary session: Update of the Shared Socio-economic Pathways (SSP)				Oral session: Economics 1 [Room 1]		
		13.00-13.15	Plenary session: Awards Announcements						
Beijing	UTC + 8:00 h	13.15-13.30	Plenary session: Joint Assessment of impacts and mitigation and implications for scenario work						
		13.30-13.45	Break						
		13.45-14.00	Plenary session: How to better connect Social sciences and integrated assessment modelling	Oral session: Deep 2 [Room 1]	Oral session: Feasibility [Room 2]	Oral session: Impact 2 [Room 3]	Oral session: Economics 2 [Room 1]	Oral session: Sectoral 2 [Room 2]	Oral session: National 2 [Room 3]
		14.00-14.15	Break				Oral session: SSP [Room 1]		
		14.15-14.30	Plenary session: Scientific Working Groups Sessions Data Protocols and Management [Room 1] Evaluation and Diagnostics [Room 2] Scenarios [Room 3] Scenarios for Climate-related Financial Analysis [Room 4]				Poster session 1 [Poster Room 1]		
Bangalore	UTC+ 5:30 h	14.30-14.45		Poster session 2 [Poster Room 2]			Poster session 4 [Poster Room 2]		
		14.45-15.00							
		15.00-15.15							
		15.15-15.30							
		15.30-15.45							
CET Brussels	UTC+ 1:00 h	15.45-16.00							
		16.00-16.15							
		16.15-16.30							
		16.30-16.45							
		16.46-17.00							
		Thursday 2 December 2021		Friday 3 December 2021					
UTC MEETING TIME	00:00	12.00-12.15	Poster session 5 [Poster Room 1]						
		12.15-12.30	Poster session 6 [Poster Room 2]						
		12.30-12.45		Oral session: Stakeholder [Room 1]	Oral session: Finance [Room 2]	Oral session: Methods [Room 3]			
		12.45-13.00							
		13.00-13.15							
US East Coast	UTC – 5:00 h	13.15-13.30	Oral session: Sustainable 1 [Room 1]	Oral session: Land 1 [Room 2]	Oral session: National 3 [Room 3]				
		13.30-13.45							
		13.45-14.00							
		14.00-14.15	Break						
		14.15-14.30							
US West coast	UTC- 8:00 h	14.30-14.45	Oral session: Sustainable 2 [Room 1]	Oral session: Land 2 [Room 2]	Oral session: Transitions [Room 3]	Plenary Session: The implications of Glasgow for IAM research			
		14.45-15.00				Plenary session: Reporting Back on SWGs			
		15.00-15.15				Plenary session: Awards Announcements			
		15.15-15.30				Plenary session: Final Words			
		15.30-15.45	Oral session: Subnational [Room 2]						
		15.45-16.00							



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## Plenary Sessions Programme

PLENARY ROOM	<b>Monday</b> <b>29 Nov</b> <b>12.30-12.45</b>	<b>INTRODUCTION</b> <i>Chair: Detlef VAN VUUREN (PBL, UU)</i>
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12.30-12.35 **Quick introduction of the agenda**  
Detlef VAN VUUREN (PBL, UU)

12.35-12.45 **Introduction**  
John WEYANT (Stanford University)

PLENARY ROOM	<b>Monday</b> <b>29 Nov</b> <b>12.45-13.15</b>	<b>UPDATE OF THE SHARED SOCIO-ECONOMIC PATHWAYS (SSP)</b> <i>Chairs: Keywan RIAHI (IIASA)</i>
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12.45-12.52 **Overview**  
Detlef VAN VUUREN (PBL, UU)

12.52-12.58 **Updates planned on demographics**  
Samir K.C. (IIASA)

12.58-13.04 **Updated planned on economics**  
Rob DELLINK (OECD)

13.04-13.15 **Questions and Answers**

PLENARY ROOM	<b>Monday</b> <b>29 Nov</b> <b>13.15-13.30</b>	<b>AWARDS ANNOUNCEMENTS</b> <i>Chair: John WEYANT (Stanford University)</i>
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The winners of the Lifetime Achievement Award (LAA) and of the Award for Early Career Researcher (ECRA) will be announced.

PLENARY ROOM	<b>Monday</b> <b>29 Nov</b> <b>13.30-14.15</b>	<b>JOINT ASSESSMENT OF IMPACTS AND MITIGATION AND IMPLICATIONS FOR SCENARIO WORK</b> <i>Chair: Massimo TAVONI (RFF-CMCC EIEE and Politecnico di Milano)</i>
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**Celine GUIVARCH**, International Research Center on Environment and Development (CIRED) and Ecole des Ponts

**Brian O'NEILL**, Director, Joint Global Change Research Institute, PNNL

PLENARY  
ROOMMonday  
29  
Nov  
14.30-15.15HOW TO BETTER CONNECT SOCIAL SCIENCES AND  
INTEGRATED ASSESSMENT MODELLING

Chair: Elmar KRIEGLER (PIK)

**Julia LEININGER**, German Development Institute, Head of research programme on Transformation of Political (Dis-) Order

**David VICTOR**, Center for Global Transformation Endowed Chair in Innovation and Public Policy, School of Global Policy and Strategy at UC San Diego

PLENARY  
ROOMFriday  
3  
Dec  
14.15-15.00THE IMPLICATIONS OF GLASGOW FOR IAM  
RESEARCHChairs: Saritha Sudharmma VISHWANATHAN (National Institute for Environmental Studies),  
Detlef VAN VUUREN (PBL, UU)

**Allen FAWCETT**, Chief, Climate Economics Branch, US EPA (United States Environmental Protection Agency)

**Niklas HÖHNE**, New Climate Institute

**Jim SKEA**, Co-Chair of IPCC WG-III, Research Councils UK Energy Strategy Fellow at Imperial College London

**Thomas SPENCER**, Power Sector Modeller, IEA (International Energy Agency)

PLENARY  
ROOMFriday  
3  
Dec  
15.00-15.30

## REPORTING BACK ON SWGS

Chair: John WEYANT (Stanford University)

**Scientific Working Group on Data Protocols and Management**

Volker KREY (IIASA)

**Scientific Working Group on Evaluation and Diagnostics**

Shinichiro FUJIMORI (University of Kyoto)

**Scientific Working Group on Scenarios**

Detlef VAN VUUREN (PBL, UU)

**Scientific Working Group on Scenarios for Climate-related Financial Analysis**

Elmar KRIEGLER (PIK)

PLENARY  
ROOMFriday  
3  
Dec  
15.30-15.45

## AWARDS ANNOUNCEMENTS

Chair: John WEYANT (Stanford University)

The winners of the Award for Extraordinary Contributions to the field of Integrated Assessment Modeling (ECA) and of the Best Poster Award (BPA) will be announced.

PLENARY  
ROOMFriday  
3  
Dec  
15.45-16.00

## FINAL WORDS

Chair: Detlef VAN VUUREN (PBL, UU), John WEYANT (Stanford University)



## Scientific Working Groups Sessions Programme

ROOM 1	<b>Monday</b> <b>29 Nov</b> 15.15-16.00	<b>SCIENTIFIC WORKING GROUP ON DATA PROTOCOLS AND MANAGEMENT</b> <i>Chair: Volker KREY (IIASA)</i>
ROOM 2	<b>Monday</b> <b>29 Nov</b> 15.15-16.00	<b>SCIENTIFIC WORKING GROUP ON EVALUATION AND DIAGNOSTICS</b> <i>Chair: Jae EDMONDS (PNNL), Shinichiro FUJIMORI (University of Kyoto), Elmar KRIEGLER (PIK)</i>
ROOM 3	<b>Monday</b> <b>29 Nov</b> 15.15-16.00	<b>SCIENTIFIC WORKING GROUP ON SCENARIOS</b> <i>Chair: Keywan RIAHI (IIASA), Detlef VAN VUUREN (PBL, UU)</i>
ROOM 4	<b>Monday</b> <b>29 Nov</b> 15.15-16.00	<b>SCIENTIFIC WORKING GROUP ON SCENARIOS FOR CLIMATE-RELATED FINANCIAL ANALYSIS</b> <i>Chair: Jae EDMONDS (PNNL), Elmar KRIEGLER (PIK)</i>

## Networking Sessions

LOUNGES 1-3	<b>Monday</b> <b>29 Nov</b> 16.00-17.00	<b>NETWORKING SESSIONS</b>
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## Parallel Oral Sessions Programme

ROOM 1

Tuesday  
30 Nov  
12.30-14.00

DEEP 1

Chair: Sergey PALTSEV (MIT), Detlef VAN VUUREN (PBL, UU)

12.30-12.45	<p><b>Speed of technological transformations required for distinct climate ambitions in Europe [Paper ID 180]</b></p> <p><u>Marta VICTORIA</u> (Aarhus University), Elisabeth Zeyen (Karlsruhe Institute of Technology), Tom Brown (Tu Berlin)</p>
12.45-13.00	<p><b>The role of negative emission technologies in meeting the Paris Agreement under uncertainty and learning on climate sensitivity [Paper ID 158]</b></p> <p><u>Theresa SCHABER</u> (Finnish Meteorological Institute), Tommi Ekholm (Finnish Meteorological Institute)</p>
13.00-13-15	<p><b>Environmental trade-offs of direct air capture in climate change mitigation toward 2100 [Paper ID 102]</b></p> <p><u>Yang QIU</u> (University of California), Patrick Lamers (National Renewable Energy Laboratory), Vassilis Daioglou (Utrecht University, PBL Netherlands Environmental Assessment Agency), Noah McQueen (University of Pennsylvania), Harmen-Sytze de Boer (Utrecht University, PBL Netherlands Environmental Assessment Agency), Mathijs Harmsen (PBL Netherlands Environmental Assessment Agency), Jennifer Wilcox (University of Pennsylvania), André Bardow (ETH Zurich), Sangwon Suh (University of California)</p>
13.15-13.30	<p><b>Questioning short-term large-scale deployment of direct air capture as a viable carbon dioxide removal strategy [Paper ID 115]</b></p> <p><u>Pedro Luiz MAIA</u> (Cenergia/COPPE/UFRJ), Clarissa Fonte (Cenergia/COPPE/UFRJ), Marianne Zotin, Cenergia/COPPE/UFRJ), Joana Portugal-Pereira (Cenergia/COPPE/UFRJ), Pedro Rochedo (Cenergia/COPPE/UFRJ), Alexandre Szklo (Cenergia/COPPE/UFRJ), Roberto Schaeffer (Cenergia/COPPE/UFRJ)</p>
13.30-13.45	<p><b>The Sustainability Implications of a Broad Portfolio of Carbon Removal Technologies in Net-Zero Emission Future [Paper ID 6]</b></p> <p><u>Raphael APEANING</u> (ICRLP), David Morrow (ICRLP), Garrett Guard (ICRLP)</p>
13.45-14.00	<p><b>Discussion</b></p>

ROOM 2	<div>Tuesday 30 Nov 12.30-14.00</div> <div>DEMAND</div> <div>Chair: Sergey PALTSEV (MIT), Peter RUSS (JRC)</div>
12.30-12.45	<div>Upstream Sector Implications of Demand-side Transformations: The Case of Materials [Paper ID 122]</div> <div>Jihoon MIN (IIASA), Volker Krey (IIASA), Arnulf Grubler (IIASA), Benigna Boza-Kiss (IIASA), Alessio Mastrucci (IIASA), Gamze Ünlü (IIASA), Miguel Poblete Cazenave (IIASA), Bas van Ruijven (IIASA)</div>
12.45-13.00	<div>A new framework to include societal changes influenced by digitalization in net-zero energy scenarios [Paper ID 164]</div> <div>Lidia STERMIERI (Paul Scherrer Institut), Evangelos Panos (Paul Scherrer Institut)</div>

- 13.00-13.15 **Global Measurement of Low Carbon Lifestyle – An Application to Global IAMs [Paper ID 146]**  
Hazel PETTIFOR (University of East Anglia), Charlie Wilson (University of East Anglia), Maureen Agnew (University of East Anglia)
- 13.15-13.30 **Trends and drivers of air-conditioning adoption: Confidence-building in social media data [Paper ID 48]**  
Sibel EKER (IIASA), Alessio Mastrucci (IIASA), Shonali Pachauri (IIASA), Bas van Ruijven (IIASA)
- 13.30-13.45 **Aviation sector at the cross roads - Wide range of possible aviation futures after the COVID-19 pandemic [Paper ID 56]**  
Sebastian FRANZ (PIK; DTU), Christoph Bertram (PIK), Marianna Rottoli (PIK; TU Berlin)
- 13.45-14.00 **Disentangling the Food-Energy-Water Implications of Lifestyle Changes, Technology Substitution & Energy Efficiency in a 1.5C Green Growth Scenario [Paper ID 64]**  
Mel GEORGE (Center for Global Sustainability, University of Maryland; Joint Global Change Research Institute, Pacific Northwest National Lab), Haewon McJeon (Center for Global Sustainability, University of Maryland; Joint Global Change Research Institute, Pacific Northwest National Lab), Seth Monteith, ClimateWorks Foundation

ROOM 3

*Tuesday*  
**30**  
**Nov**  
 12.30-14.00

## IMPACTS 1

*Chair: Steve ROSE (EPRI), Kiyoshi TAKAHASHI (NIES), Stephanie WALDHOFF (JCGRI/PNNL), John WEYANT (Stanford University)*

- 12.30-12.45 **Climate change impacts on electricity demand in Japan: simulations based on the hourly resolution climate scenarios [Paper ID 80]**  
Yuki HIRUTA (National Institute for Environmental Studies), Noriko Ishizaki (National Institute for Environmental Studies), Shuichi Ashina (National Institute for Environmental Studies), Kiyoshi Takahashi (National Institute for Environmental Studies)
- 12.45-13.00 **Implications of land use transitions and climate change on local flooding in urban areas: An assessment of 42 Indian cities [Paper ID 10]**  
Vidhee AVASHIA (IIM Ahmedabad), Amit Garg (IIM Ahmedabad)
- 13.00-13.15 **Climate change impacts on the energy system: A model comparison [Paper ID 191]**  
Victhalia ZAPATA Castillo (Copernicus Institute of Sustainable Development, Utrecht University), David E. H. J. Gernaat (PBL The Netherlands Environmental Assessment Agency), Seleshi G. Yalew (Technical University of Delft), Silvia R. Santos da Silva (University of Maryland), Iyer Gokul (Pacific Northwest National Laboratory), Mohamad Hejazi (King Abdullah Petroleum Studies and Research Center – KAPSARC), Detlef P. van Vuuren (PBL The Netherlands Environmental Assessment Agency)
- 13.15-13.30 **Macroeconomic implications of climate change in the EU: a country and sub national assessment [Paper ID 19]**  
Francesco BOSELLO (Centro Euro-Mediterraneo sui Cambiamenti Climatici – CMCC, Università Ca' Foscari Venezia; RFF-CMCC European Institute on Economics and the Environment – EIEE), Ramiro Parrado (Centro Euro-Mediterraneo sui Cambiamenti Climatici – CMCC, Università Ca' Foscari Venezia; RFF-CMCC European Institute on Economics and the Environment – EIEE), Gabriele Standardi (Centro Euro-Mediterraneo sui Cambiamenti Climatici – CMCC, Università Ca' Foscari Venezia; RFF-CMCC European Institute on Economics and the Environment – EIEE)
- 13.30-13.45 **Reduced-form damage functions for estimating the economic impacts of climate change in Europe [Paper ID 62]**  
David GARCÍA-LEÓN (Joint Research Centre, European Commission), Gustavo Naumann (Joint Research Centre, European Commission), Eamonn Mulholland (Joint Research Centre, European Commission), Michalis Vourdoukas (Joint Research Centre, European Commission), Francesco Dottori (Joint Research Centre, European Commission), Wojciech Szewczyk (Joint Research Centre,

European Commission), Alessandro Dosio (Joint Research Centre, European Commission), Luc Feyen (Joint Research Centre, European Commission), Juan Carlos Ciscar (Joint Research Centre, European Commission)

**13.45-14.00 Hydropower and floods, insights from the Integrated Water-Energy modelling of the Drin Basin [Paper ID 2]**

Youssef ALMULLA (Royal Institute of Technology – KTH), Klodian Zaimi (Polytechnic University of Tirana), Emir Fejzić (Royal Institute of Technology – KTH), Vignesh Sridharan (Royal Institute of Technology – KTH), Francesco Gardumi (Royal Institute of Technology – KTH)

ROOM 1	<p><i>Tuesday</i> <b>30 Nov</b> <i>14.15-15.30</i></p>	<p><b>DEEP 2</b> <i>Chair: Sergey PALTSEV (MIT), Detlef VAN VUUREN (PBL, UU)</i></p>
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**14.15-14.30 Demand, Technology and Structural change pathways to mitigate GHG emissions in the hard-to-abate sectors [Paper ID 46]**

Oreane EDELENBOSCH (Utrecht University), Maarten van den Berg (PBL Netherlands Environmental Assessment Agency), Andries Hof (PBL Netherlands Environmental Assessment Agency), Detlef van Vuuren (PBL Netherlands Environmental Assessment Agency)

**14.30-14.45 Possible share socioeconomic pathways to meet Thailand 2-degree target [Paper ID 107]**

Achiraya CHAICHALOEMPREECHA (Sirindhorn International Institute of Technology, Thammasat University), Puttipong Chunark (Sirindhorn International Institute of Technology, Thammasat University), Bundit Limmeechokchai (Sirindhorn International Institute of Technology, Thammasat University)

**14.45-15.00 Turning on biomaterials representation in a Brazilian IAM [Paper ID 138]**

Camilla C. N. de Oliveira (PPE/COPPE/UFRJ), Gerd Angelkorte (PPE/COPPE/UFRJ), Pedro R. R. ROCHEDO (PPE/COPPE/UFRJ), Alexandre Szklo (PPE/COPPE/UFRJ)

**15.00-15.15 Developing SSP-consistent Direct Air Capture Deployment Scenarios towards +1.5°C and +2°C Futures [Paper ID 58]**

Jay FUHRMAN (Pacific Northwest National Laboratory), Andres Clarens (University of Virginia Department of Engineering Systems and Environment), Katherine Calvin (Pacific Northwest National Laboratory), Scott Doney (University of Virginia Department of Environmental Sciences), Patrick O'Rourke (University of Maryland), Pralit Patel (Pacific Northwest National Laboratory), Pradhan Shreekar (University of Virginia Department of Engineering Systems and Environment), William Shobe (University of Virginia Batten School of Leadership and Public Policy), Haewon McJeon (Pacific Northwest National Laboratory)

**15.15-15.30 Discussion**

ROOM 2	<p><i>Tuesday</i> <b>30 Nov</b> <i>14.15-15.30</i></p>	<p><b>FEASIBILITY</b> <i>Chair: Roberto SCHAEFFER (COPPE), Saritha Sudharma VISHWANATHAN (National Institute for Environmental Studies)</i></p>
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**14.15-14.30 Perceived Feasibility of Japan's decarbonization transition: Expert Perspectives [Paper ID 89]**

Yiyi JU (Waseda Institute for Advanced Study, Waseda University), Masahiro Sugiyama (Institute for Future Initiatives, University of Tokyo), Hiroto Shiraki (School of Environmental Science, University of Shiga Prefecture)



- 14.30-14.45 **Exploring demand-side mitigation: comparing historical dietary changes and IAM scenarios [Paper ID 147]**  
Silvia PIANA (RFF-CMCC European Institute on Economics and the Environment), Elina Brutschin (International Institute for Applied Systems Analysis), Valentina Bosetti (RFF-CMCC European Institute on Economics and the Environment)
- 14.45-15.00 **Bioenergy potentials under environmental and social constraints [Paper ID 168]**  
Isabela TAGOMORI (PBL), Vassilis Daioglou (PBL/UU), Detlef van Vuuren (PBL/UU)
- 15.00-15.15 **IAM analysis of biomass co-processing opportunities in the refinery sector [Paper ID 53]**  
Clarissa FONTE (Cenergia/COPPE/UFRJ), Rebecca Draeger (Cenergia/COPPE/UFRJ), Letícia Lorentz (Cenergia/COPPE/UFRJ), Andrea Pinho (Cenergia/COPPE/UFRJ), Aline Carvalho (Cenergia/COPPE/UFRJ), Raísa Carvalho (Cenergia/COPPE/UFRJ), Pedro Rochedo (Cenergia/COPPE/UFRJ), Alexandre Szklo (Cenergia/COPPE/UFRJ)
- 15.15-15.30 **Discussion**

ROOM 3	Tuesday	<b>IMPACTS 2</b> <i>Chair: Steve ROSE (EPRI), Kiyoshi TAKAHASHI (NIES), Stephanie WALDHOFF (JCGRI/PNNL), John WEYANT (Stanford University)</i>
	<b>30 Nov</b> 14.15-15.30	

- 14.15-14.30 **Long-term economic impacts of coastal floods in Europe [Paper ID 127]**  
Ignazio MONGELLI (European Commission - Joint Research Centre), Juan-Carlos Ciscar (European Commission - Joint Research Centre), Michalis Voudoukas (European Commission - Joint Research Centre), Luc Feyen (European Commission - Joint Research Centre), Antonio Soria (European Commission - Joint Research Centre)
- 14.30-14.45 **Water-Related Threats to Indonesia's Economy [Paper ID 130]**  
Jennifer MORRIS (MIT), Sergey Paltsev (MIT), Brent Boehlert (Industrial Economics, Incorporated), Kenneth Strzepek (Industrial Economics, Incorporated)
- 14.45-15.00 **Heterogeneous Climate Change Impacts on Electricity Demand in World Cities circa Mid-Century [Paper ID 187]**  
Yasmin ROMITTI (Boston University), Ian Sue Wing (Boston University)
- 15.00-15.15 **Modeling Arctic oil in a changing climate and its implications for regional and global fossil fuel markets [Paper ID 194]**  
Ying ZHANG (JGCRI-PNNL), Siwa Msangi (JGCRI-PNNL), Stephanie Waldhoff (JGCRI-PNNL), Jae Edmonds (JGCRI-PNNL)
- 15.15-15.30 **Discussion**

ROOM 1	Wednesday	<b>DEEP 3</b> <i>Chair: Sergey PALTSEV (MIT), Detlef VAN VUUREN (PBL, UU), Andries HOF (PBL)</i>
	<b>1 Dec</b> 12.30-13.00	

- 12.30-12.45 **Global energy transition and material requirements for the transmission and distribution of electricity [Paper ID 24]**  
Iñigo CAPELLÁN-PÉREZ (Group of Energy, Economy and System Dynamics of the University of Valladolid – GEEDS), Elena Zamora-Verdejo (Group of Energy, Economy and System Dynamics of the University of Valladolid – GEEDS), Fernando Frechoso (Group of Energy, Economy and System Dynamics of the University of Valladolid – GEEDS), Carlos de Castro (Group of Energy, Economy and

System Dynamics of the University of Valladolid – GEEDS), Gonzalo Parrado-Hernando (Group of Energy, Economy and System Dynamics of the University of Valladolid – GEEDS)

- 12.45-13.00 **One hundred percent of Solar and Wind energy systems for Russia [Paper ID 152]**  
Vladimir Potashnikov (RANEPA), Alexander GOLUB (RANEPA), Michael Brody (RANEPA)

ROOM 1	Wednesday	<b>ECONOMICS 1</b> <i>Chair: Shinichiro FUJIMORI (Kyoto University), Elmar KRIEGLER (PIK)</i>
	<b>1 Dec</b> 13.00-14.00	

- 13.00-13.15 **Conditions for low-carbon green growth [Paper ID 59]**  
Shinichiro FUJIMORI (Kyoto University), Ken Oshiro (Kyoto University), Tomoko Hasegawa (Ritsumeikan University)
- 13.15-13.30 **Decomposing costs and benefits of integrated scenarios of climate change mitigation and impacts [Paper ID 150]**  
Franziska PIONTEK (Potsdam Institute for Climate Impact Research), Elmar Kriegler (Potsdam Institute for Climate Impact Research), Christoph Bertram (Potsdam Institute for Climate Impact Research), Jerome Hilaire (Potsdam Institute for Climate Impact Research)
- 13.30-13.45 **Climate benefits of well-below 2C scenarios [Paper ID 44]**  
Laurent DROUET (RFF-CMCC European Institute on Economics and the Environment), Valentina Bosetti (Bocconi university), Massimo Tavoni (Politecnico di Milano)
- 13.45-14.00 **Macro-economic assessment of updated damage functions [Paper ID 174]**  
Kaj-Ivar VAN DER WIJST (PBL Netherlands Environmental Assessment Agency), Francesco Bosello (RFF-CMCC European Institute on Economics and the Environment – EIEE), Laurent Drouet (RFF-CMCC European Institute on Economics and the Environment – EIEE), Johannes Emmerling (RFF-CMCC European Institute on Economics and the Environment – EIEE), Andries Hof (PBL Netherlands Environmental Assessment Agency), Marian Leimbach (Potsdam Institute for Climate Impact Research – PIK), Ramiro Parrado (RFF-CMCC European Institute on Economics and the Environment – EIEE), Franziska Piontek (Potsdam Institute for Climate Impact Research – PIK), Detlef van Vuuren (PBL Netherlands Environmental Assessment Agency)

ROOM 2	Wednesday	<b>SECTORAL 1</b> <i>Chair: Gokul IYER (JGCRI/PNNL), John WEYANT (Stanford University)</i>
	<b>1 Dec</b> 12.30-14.00	

- 12.30-12.45 **Sectoral pathways for alternative net-zero scenarios for India [Paper ID 29]**  
Vaibhav CHATURVEDI (Council on Energy, Environment and Water – CEEW), Ankur Malyan (Council on Energy, Environment and Water – CEEW)
- 12.45-13.00 **The role of hydrogen-based energy carriers in meeting the decarbonization goals of the Paris Agreement [Paper ID 141]**  
Ken OSHIRO (Kyoto University), Shinichiro Fujimori (Kyoto University)
- 13.00-13.15 **Pathways to carbon neutrality in transport sector: electric vehicles, synthetic fuels, or fossil fuels with negative emission technologies [Paper ID 1]**  
Keigo AKIMOTO (Research Institute of Innovative Technology for the Earth – RITE), Fuminori Sano (Research Institute of Innovative Technology for the Earth – RITE)

- 13.15-13.30 **Opportunities and challenges of post-COVID's new normal: Rethinking the role of the transport sector to China's carbon neutrality by 2060 [Paper ID 193]**  
Runsen ZHANG (Hiroshima University), Tatsuya Hanaoka (National Institute for Environmental Studies)
- 13.30-13.45 **Transport futures and global carbon neutrality: results from new MESSAGEix-Transport scenarios [Paper ID 96]**  
Paul KISHIMOTO (International Institute for Applied Systems Analysis – IIASA), Francesco Lovat (IIASA), Bas van Ruijven (IIASA), Volker Krey (IIASA), Keywan Riahi (IIASA)
- 13.45-14.00 **Transition pathway to a carbon neutral energy system in Ireland: Implications for passenger light-duty vehicles [Paper ID 8]**  
Vahid ARYANPUR (Energy Policy and Modelling Group, MaREI Center, University College Cork), Olexandr Balyk (Energy Policy and Modelling Group, MaREI Center, University College Cork), Hannah Daly (Energy Engineering, School of Engineering, University College Cork), Brian O'Gallachoir (Energy Policy and Modelling Group, MaREI Center, University College Cork), James Glynn (Center on Global Energy Policy, Columbia University)

ROOM 3	Wednesday	<b>NATIONAL 1</b> <i>Chair: Jae EDMONDS (JGCRI/PNNL), Gokul IYER (JGCRI/PNNL), Diego SILVA HERRAN (NIES)</i>
	<b>1 Dec</b> 12.30-14.00	

- 12.30-12.45 **The Transition pathway for China to reach the 2060 Carbon Neutrality target [Paper ID 111]**  
Junling LIU (Harbin Institute of Technology – Shenzhen, Mingjian Yin, Tsinghua University), Ke Wang (Renmin University of China)
- 12.45-13.00 **Distributional impact of carbon taxes on household consumption in Japan [Paper ID 156]**  
Katsuya SASAKI (Kyoto University), Shinichiro Fujimori (Kyoto University), Ken Oshiro (Kyoto University), Tomoko Hasegawa (Ritsumeikan University, College of Science and Engineering), Shiya Zhao (Kyoto University)
- 13.00-13.15 **Assessing strategies for reducing the carbon footprint of textile products in China under the Shared Socioeconomic Pathways framework [Paper ID 110]**  
Siyu Peng (Shanghai Jiao Tong University), Yan Xia (Chinese Academy of Sciences), Jing-Yu LIU (Shanghai Jiao Tong University), Yong Geng (Shanghai Jiao Tong University)
- 13.15-13.30 **Mitigation strategies to bridge the gap between low-carbon and net-zero emissions energy system in India: the role of electrification, hydrogen and negative emission technologies [Paper ID 144]**  
Omkar PATANGE (Indian Institute of Management Ahmedabad), Amit Garg (Indian Institute of Management Ahmedabad), Saritha Vishwanathan (Indian Institute of Management Ahmedabad, National Institute of Environmental Studies, Tsukuba, Japan)
- 13.30-13.45 **The 1.5°C global climate target and China's carbon neutrality pledge [Paper ID 12]**  
Nico BAUER (Potsdam Institute for Climate Impact Research – PIK, Member of the Leibniz Association), Christoph Bertram, (Potsdam Institute for Climate Impact Research – PIK, Member of the Leibniz Association), Stephen Bi (Potsdam Institute for Climate Impact Research – PIK, Member of the Leibniz Association), Jérôme Hilaire (Potsdam Institute for Climate Impact Research – PIK, Member of the Leibniz Association), Gunnar Luderer (Potsdam Institute for Climate Impact Research – PIK, Member of the Leibniz Association), Jessica Strefler (Potsdam Institute for Climate Impact Research – PIK, Member of the Leibniz Association), Falko Ueckerdt (Potsdam Institute for Climate Impact Research – PIK, Member of the Leibniz Association), Xiliang Zhang (Institute of Energy, Environment, and Economy at Tsinghua University)
- 13.45-14.00 **Discussion**

ROOM 1	Wednesday <b>1 Dec</b> 14.15-15.00	<b>ECONOMICS 2</b> <i>Chair: Shinichiro FUJIMORI (Kyoto University), Elmar KRIEGLER (PIK)</i>
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- 14.15-14.30 **Comparing cash transfers and climate change mitigation for inequality-averse donors [Paper ID 101]**  
Robin LAMBOLL (Imperial College), Lianne Blok (Imperial College), Joeri Rogelj (Imperial College)
- 14.30-14.45 **Energy needs for adaptation significantly impact mitigation pathways [Paper ID 32]**  
Francesco Pietro COLELLI (Department of Economics, Ca' Foscari University of Venice; Centro Euro-Mediterraneo sui Cambiamenti Climatici – CMCC), Johannes Emmerling (Centro Euro-Mediterraneo sui Cambiamenti Climatici – CMCC; European Institute on Economics and the Environment – EIEE), Giacomo Marangoni (Centro Euro-Mediterraneo sui Cambiamenti Climatici – CMCC; European Institute on Economics and the Environment – EIEE), Malcolm Mistry (Department of Economics, Ca' Foscari University of Venice; Centro Euro-Mediterraneo sui Cambiamenti Climatici – CMCC), Enrica De Cian (Department of Economics, Ca' Foscari University of Venice; Centro Euro-Mediterraneo sui Cambiamenti Climatici – CMCC; European Institute on Economics and the Environment – EIEE)
- 14.45-15.00 **Discussion**

ROOM 1	Wednesday <b>1 Dec</b> 15.00-16.00	<b>SSP</b> <i>Chair: Keywan RIAHI (IIASA), Detlef VAN VUUREN (PBL, UU)</i>
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- 15.00-15.15 **Tracing international migration in projections of income and inequality across the Shared Socioeconomic Pathways [Paper ID 14]**  
Helene BENVENISTE (International Institute for Applied Systems Analysis / School of Public and International Affairs, Princeton University / Center for the Environment, Harvard University), Jesus Crespo Cuaresma (International Institute for Applied Systems Analysis / Department of Economics, Vienna University of Economics and Business / Wittgenstein Centre for Demography and Global Human Capital / Austrian Institute of Economic Research), Matthew Gidden (International Institute for Applied Systems Analysis / Climate Analytics), Raya Muttarak (International Institute for Applied Systems Analysis / Wittgenstein Centre for Demography and Global Human Capital)
- 15.15-15.30 **Scenarios for the U.S. Great Lakes Region Using SSPs, Government Agency Modeling, Stakeholder Elicitation, and Iterative Participatory Processes: A Focus on Energy in an Interconnected Region [Paper ID 16]**  
Jeffrey BIELICKI (The Ohio State University)
- 15.30-15.45 **Update of SSP GDP projections: capturing Covid 19 impacts and recent changes in national accounting and PPP conversion [Paper ID 99]**  
Johannes KOCH (Potsdam Institute for Climate Impact Research), Marian Leimbach (Potsdam Institute for Climate Impact Research)
- 15.45-16.00 **Discussion**

ROOM 2

Wednesday  
1  
Dec  
14.15-16.00

## SECTORAL 2

Chair: Gokul IYER (JGCRI/PNNL), John WEYANT (Stanford University)

- 14.15-14.30 **Opportunities and constraints represented by the heavy industry in energy transition pathways: a global IAM assessment [Paper ID 197]**  
Marianne ZOTIN (Cenergia/COPPE/UFRJ), Luiz Bernardo Baptista (Cenergia/COPPE/UFRJ), Letícia Magalar (Cenergia/COPPE/UFRJ), Pedro Rochedo (Cenergia/COPPE/UFRJ), Alexandre Szklo (Cenergia/COPPE/UFRJ), Roberto Schaeffer (Cenergia/COPPE/UFRJ)
- 14.30-14.45 **Synergies between aviation and maritime decarbonization goals: co-production of aviation and shipping alternative fuels [Paper ID 26]**  
 Francielle Carvalho (CENERGIA/COPPE/UFRJ), Eduardo MÜLLER-CASSERES (CENERGIA/COPPE/UFRJ), Clarissa Fonte, Rebecca Draeger (CENERGIA/COPPE/UFRJ), Pedro Luiz Maia, Pedro Rochedo, (CENERGIA/COPPE/UFRJ), Joana Portugal-Pereira (CENERGIA/COPPE/UFRJ), Alexandre Szklo (CENERGIA/COPPE/UFRJ), Roberto Schaeffer (CENERGIA/COPPE/UFRJ), Luiz Bernardo Baptista, (CENERGIA/COPPE/UFRJ)
- 14.45-15.00 **Global mitigation scenarios in the residential sector: demand-side versus supply-side strategies for space heating and cooling [Paper ID 117]**  
Alessio MASTRUCCI (IIASA), Benigna Boza-Kiss (IIASA), Bas van Ruijven (IIASA)
- 15.00-15.15 **Making Integrated Assessment Models circular: An assessment of recycling, carbon sequestration and biomass use in the plastic sector [Paper ID 163]**  
Paul STEGMANN (Utrecht University), Vassilis Daioglou (PBL / Utrecht University), Marc Londo (NVDE / Utrecht University), Martin Junginger (Utrecht University)
- 15.15-15.30 **Race to Zero - transition pathways of individual industrial sectors in a 1.5°C future [Paper ID 190]**  
Sha YU (Pacific Northwest National Laboratory) James Edmonds (Pacific Northwest National Laboratory), Yang Liu (Tsinghua University), Haewon McJeon (Pacific Northwest National Laboratory), Molly Charles (Pacific Northwest National Laboratory)
- 15.30-15.45 **Examining supply and demand drivers of hydrogen deployment in energy transition scenarios [Paper ID 140]**  
Patrick O'ROURKE (University of Maryland), Haewon McJeon (Pacific Northwest National Laboratory - Joint Global Change Research Institute), Page Kyle (Pacific Northwest National Laboratory - Joint Global Change Research Institute), Bryan K. Mignone (ExxonMobil Research and Engineering Company)
- 15.45-16.00 **Discussion**

ROOM 3

Wednesday  
1  
Dec  
14.15-16.00

## NATIONAL 2

Chair: Jae EDMONDS (JGCRI/PNNL), Gokul IYER (JGCRI/PNNL), Diego SILVA HERRAN (NIES)

- 14.15-14.30 **Net-zero emission targets for major emitting countries consistent with the Paris Agreement [Paper ID 176]**  
 Heleen van Soest (PBL Netherlands Environmental Assessment Agency), Michel den Elzen (PBL Netherlands Environmental Assessment Agency), Detlef VAN VUUREN (PBL Netherlands Environmental Assessment Agency)

- 14.30-14.45 **Allocating global COVID-19 recovery packages over low-carbon technologies to optimise between emission reductions and employment gains [Paper ID 98]**  
 Alexandros Nikas (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens), Dirk-Jan Van de Ven (Basque Centre for Climate Change – BC3), Aikaterini Forouli (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens), Konstantinos KOASIDIS (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens), Shivika Mittal (Grantham Institute for Climate Change and the Environment, Imperial College London), Sara Giarola (Department of Chemical Engineering, Imperial College London), Ajay Gambhir (Grantham Institute for Climate Change and the Environment, Imperial College London), Alexandre Koeberle (Grantham Institute for Climate Change and the Environment, Imperial College London), Alessandro Chiodi (E4SMA S.r.l.), Gabriele Cassetti (E4SMA S.r.l.), Maurizio Gargiulo (E4SMA S.r.l.), Sigit Perdana (Ecole Polytechnique Federale de Lausanne – EPFL), Marc Vielle (Ecole Polytechnique Federale de Lausanne – EPFL, Switzerland), Themistoklis Koutsellis (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens), Haris Doukas (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens)
- 14.45-15.00 **Towards a net-zero emissions world: assessing G20 countries' contributions towards the transition to a very low-emissions economy [Paper ID 61]**  
 Kimon Keramidas (European Commission - Joint Research Centre – JRC-Seville), Antonio Soria Ramirez, European Commission - Joint Research Centre – JRC-Seville), Jacques Despres (European Commission - Joint Research Centre - JRC-Seville), Burkhard Schade (European Commission - Joint Research Centre - JRC-Seville), Ana Diaz Vazquez (European Commission - Joint Research Centre - JRC-Seville), Stephane Tchung-Ming, European Commission - Joint Research Centre - JRC-Seville), Andreas Schmitz (European Commission - Joint Research Centre - JRC-Seville), Krzysztof Wojtowicz (European Commission - Joint Research Centre - JRC-Seville), Toon Vandyck (European Commission - Joint Research Centre - JRC-Seville), Rafael GARAFFA, European Commission - Joint Research Centre - JRC-Seville), Andrea Diaz Rincon (European Commission - Joint Research Centre - JRC-Seville), Matthias Weitzel, European Commission - Joint Research Centre - JRC-Seville), Florian Fosse, European Commission - Joint Research Centre - JRC-Seville), Peter Russ, European Commission - Joint Research Centre - JRC-Seville)
- 15.00-15.15 **Assessing short-term and long-term economic and environmental effects of deep decarbonisation pathways in Tunisia [Paper ID 75]**  
Meriem HAMDI-CHERIF (OFCE Sciences Po), Frederic Reynes (OFCE Sciences Po, NEO), Gissela Landa (OFCE Sciences Po)
- 15.15-15.30 **Discovering Robust Deep Decarbonization Pathways in Colombia [Paper ID 183]**  
Thomas WILD (University of Maryland), Brinda Yarlagadda (University of Maryland), Leon Clarke (University of Maryland), Mengqi Zhao (University of Maryland), Gokul Iyer (Pacific Northwest National Laboratory)
- 15.30-15.45 **Switzerland's national mitigation pathways: towards net-zero emissions in 2050 [Paper ID 142]**  
Evangelos PANOS (Paul Scherrer Institute), Tom Kober (Paul Scherrer Institute)
- 15.45-16.00 **Modelling the achievement of very ambitious energy system decarbonisation targets to 2030 with the TIMES-Ireland model [Paper ID 37]**  
Hannah DALY (MaREI Centre, Environmental Research Institute, University College Cork), Olexandr Balyk (MaREI Centre, Environmental Research Institute, University College Cork), Andrew ZP Smith (MaREI Centre, Environmental Research Institute, University College Cork)

ROOM 1

Thursday  
2  
Dec  
13.00-14.00

## SUSTAINABLE 1

Chair: Gokul IYER (JGCRI/PNNL), Steve ROSE (EPRI), Detlef VAN VUUREN (PBL, UU)

- 13.00-13.15 **Quantifying synergies and trade-offs in the global Water-Land-Food-Climate nexus using a multi-model scenario approach [Paper ID 41]**  
Jonathan C. DOELMAN (PBL Netherlands Environmental Assessment Agency, Copernicus Institute for Sustainable Development, Utrecht University), Felicitas D. Beier (Potsdam Institute for Climate Impact Research – PIK, Humboldt-Universität zu Berlin, Department of Agricultural Economics), Elke Stehfest (PBL Netherlands Environmental Assessment Agency), Benjamin L. Bodirsky (Potsdam Institute for Climate Impact Research – PIK), Arthur H.W. Beusen (PBL Netherlands Environmental Assessment Agency), Abhijeet Mishra (Potsdam Institute for Climate Impact Research – PIK, Humboldt-Universität zu Berlin, Department of Agricultural Economics), Alexander Popp (Potsdam Institute for Climate Impact Research – PIK), Detlef P. van Vuuren (PBL Netherlands Environmental Assessment Agency, Copernicus Institute for Sustainable Development, Utrecht University), Lotte de Vos (PBL Netherlands Environmental Assessment Agency, Wageningen Environmental Research, Wageningen University), Isabelle Weindl (Potsdam Institute for Climate Impact Research – PIK), Willem-Jan van Zeist (Wageningen Economic Research, Wageningen University & Research), Tom Kram (PBL Netherlands Environmental Assessment Agency)
- 13.15-13.30 **Sustainable energy-food-water and health nexus solutions enhancing regional community-based supply chain systems post-Covid-19 in Bhutan [Paper ID 91]**  
Miho KAMEI (IGES), Tashi Wangmo (Gelephu Thromde municipality, Bhutan), Louise Guibrunet (UNAM), Behnam Zakeri (IIASA), Peter Rafaj (IIASA), Shonali Pachauri (IIASA), Zbigniew Klimont (IIASA), Shuzo Nishioka (IGES), Mikiko Kainuma (IGES), Volker Krey (IIASA), Keywan Riahi (IIASA)
- 13.30-13.45 **An Analysis on Global Food Access Under Net-Zero Emission Scenarios with Consideration of Direct Air Capture and Carbon Storage [Paper ID 77]**  
Ayami HAYASHI (Research Institute of Innovative Technology for the Earth – RITE), Fuminori Sano (RITE), Takashi Homma (RITE), Keigo Akimoto (RITE)
- 13.45-14.00 **Can we save water and still feed the country? Integrated assessment of increasing irrigation costs on land-use change and crop cultivation in India [Paper ID 162]**  
Vartika SINGH (Indian Institute of Management Ahmedabad (IIMA), International Food Policy Research Institute – IFPRI, Humboldt Universität-zu Berlin), Chandan Jha (Indian Institute of Management Ahmedabad – IIMA), Miodrag Stevanovic (Potsdam Institute for Climate Impact Research – PIK), Ranjan Kumar Ghosh (Indian Institute of Management Ahmedabad – IIMA), Hermann Lotze-Campen (Potsdam Institute for Climate Impact Research (PIK), Humboldt Universität-zu Berlin), Alexander Popp (Potsdam Institute for Climate Impact Research – PIK)

ROOM 2

Thursday  
2  
Dec  
13.00-14.00

## LAND 1

Chair: Alexander POPP (PIK), Roberto SCHAEFFER (COPPE)

- 13.00-13.15 **Potential impacts of GHG emissions abatement measures on agricultural markets and food security [Paper ID 185]**  
Wenchao WU (Japan International Research Center for Agricultural Sciences – JIRCAS), Shinichiro Fujimori (Kyoto University), Jonathan Doelman (PBL Netherlands Environmental Assessment Agency), Stefan Frank (International Institute for Applied System Analysis – IIASA), Jordan Hristov (European Commission, Joint Research Center), Page Kyle (Pacific Northwest National Laboratory), Ronald Sands (USDA Economic Research Service), Willem-Jan van Zeist (Wageningen Economic Research), Petr Havlik (International Institute for Applied System Analysis – IIASA), Ignacio Pérez



Dominguez (European Commission, Joint Research Center), Amarendra Sahoo (European Commission, Joint Research Center), Elke Stehfest (PBL Netherlands Environmental Assessment Agency), Andrzej Tabeau (Wageningen Economic Research), Hugo Valin (International Institute for Applied System Analysis – IIASA), Hans van Meijl (Wageningen Economic Research), Tomoko Hasegawa (Ritsumeikan University), Kiyoshi Takahashi (National Institute for Environmental Studies)

**13.15-13.30 An integrated modelling framework to assess carbon emissions and removals in the European Agriculture, Forestry and Land Use sectors [Paper ID 11]**

Ana Luisa BARBOSA (European Commission - Joint Research Centre, Sevilla), Ignacio Perez-Dominguez (European Commission - Joint Research Centre, Sevilla), Amarendra Sahoo (European Commission - Joint Research Centre, Sevilla), Sarah Mubareka (European Commission - Joint Research Centre, Ispra), Viorel Blujdea (European Commission - Joint Research Centre, Ispra), Giulia Fiorese (European Commission - Joint Research Centre, Ispra), Roberto Pilli (European Commission - Joint Research Centre, Ispra), Giacomo Grassi (European Commission - Joint Research Centre, Ispra), Raffaele Salvucci (European Commission - Joint Research Centre, Sevilla), Monika Kesting (EuroCARE, Bonn, Germany), Peter Witzke (EuroCARE, Bonn, Germany), Maarten Hilferink (ObjectVision, Amsterdam, The Netherlands)

**13.30-13.45 Competition between afforestation and BECCS for land and carbon dioxide removal [Paper ID 36]**

Vassilis DAIOGLOU (Utrecht University), Jonathan Doelman (PBL Netherlands Environmental Assessment Agency), Steef Hanssen (Radboud University), Detlef van Vuuren (PBL Netherlands Environmental Assessment Agency)

**13.45-14.00 Towards land-use pathways for ambitious climate and biodiversity targets [Paper ID 105]**

David LECLÈRE (IIASA), Michael Obersteiner (Oxford University), Mike Barrett (WWF UK), Stuart H. M. Butchart (Birdlife), Abhishek Chaudhary (IIT Kanpur), Adriana De Palma (NHM), Farbice A. J. DeClerck (EAT), Moreno Di Marco (Sapienza University), Jonathan C. Doelman, Martina Drauer (IIASA), Robin Freeman (ZSL), Michael Harfoot (UNEP-WCMC), Tomoko Hasegawa (Ritsumeikan University), Stefanie Hellweg (ETH-Z), Jelle P. Hilbers (Radboud University), Samantha L. L. Hill (UNEP-WCMC), Florian Humpender (PIK), Nancy Jennings (Dotmoth), Tamis Krisztin (IIASA), Georgina M. Mace (UCL), Haruka Ohashi (Forestry and Forest Products Research Institute), Alexander Popp (PIK), Andy Purvis (NHM), Aafke M. Schipper (Radboud University), Andrzej Tabeau (WUR), Hugo Valin (IIASA), Hans van Meijl (WUR), Willem-Jan van Zeist (WUR), Piero Visconti (IIASA), Rob Alkemade (WUR), Rosamunde Almond (WWF-UK), Gill Bunting (Birdlife), Neil D. Burgess (UNEP-WCMC), Sarah E. Cornell (SRC), Fulvio Di Fulvio (IIASA), Simno Ferrier (CSIRO), Steffen Fritz (IIASA), Shinichiro Fujimori (NIES), Monique Grooten (WWF-NL), Tom Harwood (CSIRO), Petr Hav-k (IIASA), Mario Herrero (CSIRO), Andrew Hoskins (CSIRO), Martin Jung (IIASA), Tom Kram (PBL), Hermann Lotze-Campen (PIK), Tetsuya Matsui (Forestry and Forest Products Research Institute), Carsten Meyer (iDIV), Deon Nel (WWF-NL), Tim Newbold (UCL), Guido Schmidt-Traub (WRI), Elke Stehfest (PBL), Bernardo Strassburg (IIS), Detlef van Vuuren (Utrecht University), Chris Ware (CSIRO), James Watson (Queensland University), Wenchao Wu (NIES), Lucy Young (WWF-UK)

ROOM 3

Thursday

2  
Dec

13.00-14.00

## NATIONAL 3

*Chair: Jae EDMONDS (JGCRI/PNNL), Gokul IYER (JGCRI/PNNL), Diego SILVA HERRAN (NIES)*

**13.00-13.15 A Global Roll-out of Nationally Relevant Policies can Bridge the Emissions Gap [Paper ID 175]**

Heleen VAN SOEST (PBL Netherlands Environmental Assessment Agency), Lara Aleluia Reis (RFF-CMCC European Institute on Economics and the Environment), Luiz Bernardo Baptista (Centre for Energy and Environmental Economics, Universidade Federal do Rio de Janeiro – CENERGIA/COPPE/UFRJ), Christoph Bertram (Potsdam Institute for Climate Impact Research), Jacques Despres (European Commission, Joint Research Centre – JRC), Laurent Drouet (RFF-CMCC European Institute on Economics and the Environment), Michel den Elzen (PBL Netherlands



Environmental Assessment Agency), Panagiotis Fragkos (E3Modelling), Oliver Fricko (International Institute for Applied Systems Analysis), Shinichiro Fujimori (Department of Environmental Engineering, Kyoto University), Neil Grant (Grantham Institute, Imperial College London), Mathijs Harmsen (PBL Netherlands Environmental Assessment Agency), Gokul Iyer (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland), Kimon Keramidas (European Commission, Joint Research Centre – JRC), Alexandre Koeberle (Grantham Institute, Imperial College London), Elmar Kriegler (Potsdam Institute for Climate Impact Research), Aman Malik (Potsdam Institute for Climate Impact Research), Shivika Mittal (Grantham Institute, Imperial College London), Ken Oshiro (Department of Environmental Engineering, Kyoto University), Keywan Riahi (International Institute for Applied Systems Analysis), Mark Roelfsema (PBL Netherlands Environmental Assessment Agency), Bas van Ruijven (International Institute for Applied Systems Analysis), Roberto Schaeffer (Centre for Energy and Environmental Economics, Universidade Federal do Rio de Janeiro – CENERGIA/COPPE/UFRJ), Diego Silva Herran (National Institute for Environmental Studies), Massimo Tavoni (RFF-CMCC European Institute on Economics and the Environment), Gamze Unlu (International Institute for Applied Systems Analysis), Toon Vandyck, European Commission, Joint Research Centre – JRC), Detlef van Vuuren (PBL Netherlands Environmental Assessment Agency)

**13.15-13.30 A multi-model analysis of long-term emissions and warming implications of current mitigation efforts [Paper ID 173]**

Ida Sognaes (CICERO), Ajay Gambhir (Imperial College), Dirk-Jan VAN DE VEN (BC3), Alexandros Nikas (NTUA), Annela Anger-Kraavi (Cambridge), Ha Bui (Cambridge), Lorenza Campagnolo (CMCC), Elisa Delpiazzi (CMCC), Haris Doukas (NTUA), Sara Giarola (Imperial College), Neil Grant (Imperial College), Adam Hawkes (Imperial College), Alexandre Koberle (Imperial College), Andrey Kolpakov (IEF-RAS), Shivika Mittal (Imperial College), Jorge Moreno (BC3), Sigit Perdana (EPFL), Joeri Rogelj (Imperial College), Marc Vielle (EPFL), Glen P. Peters (CICERO)

**13.30-14.00 Discussion**

ROOM 1	<p>Thursday</p> <p><b>2</b></p> <p><b>Dec</b></p> <p>14.15-16.00</p>	<p><b>SUSTAINABLE 2</b></p> <p><i>Chair: Steve ROSE (EPRI), Gokul IYER (JGCRI/PNNL), Detlef VAN VUUREN (PBL, UU)</i></p>
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**14.15-14.30 Sustainable Development Goals and NDC of Nepal: The Energy and GHG emission perspective [Paper ID 109]**

Bijay B. PRADHAN (Sirindhorn International Institute of Technology-Thammasat University), Salony Rajbhandari (Sirindhorn International Institute of Technology-Thammasat University), Ram M. Shrestha (Asian Institute of Technology), Bundit Limmeechokchai (Sirindhorn International Institute of Technology-Thammasat University)

**14.30-14.45 The Implications of Global Change for the Co-Evolution of Argentina's Integrated Energy-Water-Land Systems [Paper ID 195]**

Mengqi ZHAO (Earth System Science Interdisciplinary Center – ESSIC, University of Maryland), Thomas Wild (Earth System Science Interdisciplinary Center – ESSIC, University of Maryland; Joint Global Change Research Institute, Pacific Northwest National Laboratory – PNNL), Zarrar Khan (Joint Global Change Research Institute, Pacific Northwest National Laboratory – PNNL), Brinda Yarlagadda (School of Public Policy, University of Maryland), Leon Clarke (School of Public Policy, University of Maryland), Mohamad Hejazi (King Abdullah Petroleum Studies and Research Center), Fernando Miralles-Wilhelm (Earth System Science Interdisciplinary Center – ESSIC, University of Maryland), Chris Vernon (Joint Global Change Research Institute, Pacific Northwest National Laboratory – PNNL)

- 14.45-15.00 **Assessing SDG synergies and trade-offs of diverging Paris-compliant mitigation strategies [Paper ID 129]**  
Jorge MORENO (Basque Centre for Climate Change – BC3; Centre for Environmental Policy, Imperial College London), Dirk-Jan Van de Ven (Basque Centre for Climate Change – BC3), Jon Sampedro (Joint Global Change Research Institute, Pacific Northwest National Laboratory – PNNL), Ajay Gambhir (Grantham Institute for Climate Change and the Environment, Imperial College London), Jem Woods (Centre for Environmental Policy, Imperial College London), Mikel Gonzalez-Eguino (Basque Centre for Climate Change – BC3; University of the Basque Country)
- 15.00-15.15 **Future evolution of virtual water trading in the United States electricity sector [Paper ID 85]**  
Neal GRAHAM (Joint Global Change Research Institute), Gokul Iyer (Joint Global Change Research Institute), Marshall Wise (Joint Global Change Research Institute), Mohamad Hejazi (King Abdullah Petroleum Studies and Research Center – KAPSARC), Thomas Wild (Department of Civil and Environmental Engineering, University of Maryland)
- 15.15-15.30 **Integrating biodiversity in the BLUES model [Paper ID 139]**  
Ana Carolina OLIVEIRA FIORINI (Cenergia/COPPE/UFRJ), Lucas Silva Carvalho (Cenergia/COPPE/UFRJ), Pedro Rua Rodriguez Rochedo (Cenergia/COPPE/UFRJ), Fabio Amendola Diuana (Cenergia/COPPE/UFRJ), Gerd Angelkorte (Cenergia/COPPE/UFRJ), Eveline Maria Vasquez Arroyo (Cenergia/COPPE/UFRJ), Stella Mainardi Nogueira da Gama (Cenergia/COPPE/UFRJ), Roberto Schaeffer (Cenergia/COPPE/UFRJ)
- 15.30-16.00 **Discussion**

ROOM 2	Thursday	<b>LAND 2</b> <i>Chair: Alexander POPP (PIK), Roberto SCHAEFFER (COPPE)</i>
	<b>2 Dec</b> 14.15-15.15	

- 14.15-14.30 **Leakage effects from achieving Brazilian deforestation targets for Legal Amazon and Cerrado [Paper ID 3]**  
Geanderson AMBRÓSIO (Potsdam Institute for Climate Impact Research), Jan Philipp Dietrich (Potsdam Institute for Climate Impact Research), Denis da Cunha (Universidade Federal de Viçosa), Miodrag Stevanovic (Potsdam Institute for Climate Impact Research), Alexander Popp (Potsdam Institute for Climate Impact Research), Ewerton Araujo (Universidade Federal de Pernambuco), Florian Humpeöder (Potsdam Institute for Climate Impact Research), Hermann Lotze-Campen (Potsdam Institute for Climate Impact Research)
- 14.30-14.45 **Energy use of agricultural residues in the Brazilian integrated assessment model [Paper ID 128]**  
Taísa MORAIS (Cenergia/COPPE/UFRJ), Gerd Angelkorte (Cenergia/COPPE/UFRJ), Pedro Rochedo (Cenergia/COPPE/UFRJ)
- 14.45-15.00 **Methodological Developments for the Analysis of Opportunities for a Sustainable Transition of Agriculture in a Brazilian IAM [Paper ID 5]**  
Gerd ANGELKORTE (Cenergia/COPPE/UFRJ), Pedro Rochedo (Cenergia/COPPE/UFRJ), Alexandre Szklo (Cenergia/COPPE/UFRJ), Roberto Schaeffer (Cenergia/COPPE/UFRJ)
- 15.00-15.15 **Discussion**

ROOM 2

Thursday  
2  
Dec  
15.15-16.00

## SUBNATIONAL

Chair: *Sergey PALTSEV (MIT), Massimo TAVONI (RFF-CMCC EIEE and Politecnico di Milano)*

- 15.15-15.30 **The Surprisingly Inexpensive Cost of State-Driven Emission Control Strategies [Paper ID 145]**  
Wei PENG (Penn State University), Gokul Iyer (Joint Global Change Research Institute), Matthew Binsted (Joint Global Change Research Institute), Jennifer Marlon (Yale University), Leon Clarke (University of Maryland), James Edmonds (Joint Global Change Research Institute), David Victor (University of California San Diego)
- 15.30-15.45 **Subnational Hydropower Modelling with GCAM-Canada [Paper ID 7]**  
Evan ARBUCKLE (University of Alberta), Matthew Binsted (Joint Global Change Research Institute – JGCRI), Evan Davies (University of Alberta), Diego Chiappori (University of Alberta), Maria Candelaria Bergero (Joint Global Change Research Institute – JGCRI), Muhammad-Shahid Siddiqui (Environment and Climate Change Canada), Nick Macaluso (Environment and Climate Change Canada)
- 15.45-16.00 **Discussion**

ROOM 3

Thursday  
2  
Dec  
14.15-16.00

## TRANSITIONS

Chair: *Celine GUIVARCH (CIRED and Ecole des Ponts), Saritha Sudharma VISHWANATHAN (National Institute for Environmental Studies),*

- 14.15-14.30 **Managing within-region inequalities on the way to low carbon economies [Paper ID 167]**  
Nicolas TACONET (PIK), Bjoern Soergel (PIK), Franziska Piontek (PIK), Elmar Kriegler (PIK)
- 14.30-14.45 **Within-Country Inequality in the RICE50+ model [Paper ID 50]**  
Johannes EMMERLING (RFF-CMCC), Andreoni Pietro (RFF-CMCC), Massimo Tavoni (Politecnico di Milano)
- 14.45-15.00 **Quantifying energy needs for modelling multidimensional poverty [Paper ID 95]**  
Jarmo KIKSTRA (Imperial College London and IIASA), Jihoon Min (IIASA), Narasimha Rao (Yale University and IIASA), Alessio Mastrucci (IIASA), Keywan Riahi (IIASA and Graz University of Technology), Joeri Rogelj (Imperial College London and IIASA), Bas van Ruijven (IIASA)
- 15.00-15.15 **Reconciling competitiveness and equity in EU climate policy [Paper ID 177]**  
Toon VANDYCK (European Commission – JRC), Matthias Weitzel (European Commission – JRC), Krzysztof Wojtowicz (European Commission – JRC), Luis Rey Los Santos (European Commission – JRC), Anamaria Maftai (Eurofound), Sara Riscado (Banco de Portugal)
- 15.15-15.30 **European electricity sector risks increasing regional inequalities in benefits and vulnerabilities by 2035 [Paper ID 157]**  
Jan-Philipp SASSE (University of Geneva) Evelina Trutnevte (University of Geneva)
- 15.30-15.45 **Just transition pathways regarding oil quality distribution through the lens of COFFEE model [Paper ID 43]**  
Rebecca DRAEGER (Cenergia/COPPE/UFRJ), Eduardo Mueller-Casseres (Cenergia/COPPE/UFRJ), Alexandre Szklo (Cenergia/COPPE/UFRJ), Pedro Rochedo (Cenergia/COPPE/UFRJ)
- 15.45-16.00 **Discussion**

ROOM 1

Friday  
3  
Dec  
12.30-14.00

## STAKEHOLDER

*Chair: Elmar KRIEGLER (PIK), Saritha Sudharma VISHWANATHAN (National Institute for Environmental Studies)*

- 12.30-12.45 **Getting models (and modellers) to inform long-term mitigation strategies [Paper ID 27]**  
Franck LECOCQ (CIRED-Agroparitech), Alain Nadai (CIRED-CNRS), Christophe Cassen (CIRED-CNRS)
- 12.45-13.00 **Participatory system dynamics modelling for local action on the Sustainable Development Goals [Paper ID 165]**  
Katrina SZETEV (Deakin University), Moallemi Enayat (Deakin University), Bryan Brett (Deakin University)
- 13.00-13.15 **A stakeholder-driven approach to modelling national emissions pathways across the world [Paper ID 123]**  
Shivika MITTAL (Grantham Institute for Climate Change and the Environment, Imperial College London), Baptiste Boitier (SEURECO), Gabriele Cassetti (E4SMA S.r.l.), Lorenza Campagnolo (RFF-CMCC European Institute on Economics and the Environment – EIEE), Alessandro Chiodi (E4SMA S.r.l.), Rocco De Miglio (E4SMA S.r.l.), Elisa Delpiazzi (RFF-CMCC European Institute on Economics and the Environment – EIEE), Haris Doukas (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens), Maurizio Gargiulo (E4SMA S.r.l.), Sara Giarola (Department of Chemical Engineering, Imperial College London), Alexandre C. Koeberle (Grantham Institute for Climate Change and the Environment, Imperial College London), Andrey Kolpakov (Institute of Economic Forecasting of the Russian Academy of Sciences), Ben McWilliams (Bruegel), Jorge Morenoi (Basque Centre for Climate Change – BC3), Alexandros Nikas (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens), Sigit Perdana (École Polytechnique Fédérale de Lausanne – EPFL), Marie Pied (ESMIA Consultants), Alexander Shirov (Institute of Economic Forecasting of the Russian Academy of Sciences), Diego Silva Herran (National Institute for Environmental Studies), Kathleen Vaillancourt (ESMIA Consultants), Dirk-Jan Van de Ven (Basque Centre for Climate Change – BC3), Marc Vielle (Ecole Polytechnique Fédérale de Lausanne – EPFL), Xi Yang (School of Economics and Management, China University of Petroleum Beijing), Georg Zachmann (Bruegel), Ajay Gambhir (Grantham Institute for Climate Change and the Environment, Imperial College London)
- 13.15-13.30 **Co-creating a model inter-comparison exercise with stakeholders in the EU [Paper ID 135]**  
Alexandros NIKAS (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens), Alessia Elia (E4SMA S.r.l.), Baptiste Boitier (SEURECO), Konstantinos Koasidis (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens), Haris Doukas (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens), Gabriele Cassetti (E4SMA S.r.l.), Annela Anger-Kraavi (Climate Change Policy Group, CAS, University of Cambridge), Ha Bui (Cambridge Econometrics), Lorenza Campagnolo (Euro-Mediterranean Center on Climate Change – CMCC), Rocco De Miglio (E4SMA S.r.l.), Elisa Delpiazzi (Euro-Mediterranean Center on Climate Change – CMCC), Arnaud Fougeyrollas (SEURECO), Ajay Gambhir (Grantham Institute for Climate Change and the Environment, Imperial College London), Maurizio Gargiulo (E4SMA S.r.l.), Sara Giarola (Department of Chemical Engineering, Imperial College London), Neil Grant (Grantham Institute for Climate Change and the Environment, Imperial College London), Adam Hawkes, Sara, Giarola (Department of Chemical Engineering, Imperial College London), Andrea Herbst (Fraunhofer Institute for Systems and Innovation Research ISI), Alexandre Koeberle (Grantham Institute for Climate Change and the Environment, Imperial College London), Andrey Kolpakov (Institute of Economic Forecasting of the Russian Academy of Sciences), Pierre Le Moul (SEURECO), Ben McWilliams (Bruegel), Shivika Mittal (Grantham Institute for Climate Change and the Environment, Imperial College London), Jorge Moreno (Basque Centre for Climate Change – BC3), Felix Neuner (Fraunhofer Institute for Systems and Innovation Research ISI), Sigit Perdana (Ecole Polytechnique Fédérale de Lausanne – EPFL), Glen Peters (CICERO Center for International Climate and Environmental Research), Patrick Plitz (Fraunhofer Institute for Systems and Innovation Research ISI), Joeri Rogelj (Grantham Institute for Climate Change and the Environment, Imperial College London), Ida Sognns (CICERO Center for International Climate and Environmental Research), Dirk-Jan Van de Ven (Basque Centre for Climate Change – BC3), Marc Vielle

(Ecole Polytechnique Federale de Lausanne – EPFL), Georg Zachmann (Bruegel), Paul Zagam (SEURECO), Alessandro Chiodi (E4SMA S.r.l.)

13.30-13.45 **Climate Change Scenario Services [Paper ID 9]**

Cornelia AUER (Potsdam Institute for Climate Impact Research), Elmar Kriegler (Potsdam Institute for Climate Impact Research), Henrik Carlsen (Stockholm Environment Institute), Kasper Kok (Wageningen University), Simona Pedde (Wageningen University), Volker Krey (International Institute for Applied System Analysis), Boris Müller (University of Applied Science)

13.45-14.00 **Exploring orderly and disorderly scenarios for assessment of financial risks – the NGFS transition scenarios [Paper ID 100]**

Elmar KRIEGLER (Potsdam Institute for Climate Impact Research), Christoph Bertram (PIK), Jérôme Hilaire (PIK), Leon Clarke (U Maryland), Ryna Cui (U Maryland), Jae Edmonds (U Maryland, PNNL/JGCRI), Molly Charles (PNNL/JGCRI), Alicia Zhao (U Maryland), Jihoon Min (IIASA), Franziska Piontek (PIK), Joeri Rogelj (IIASA, Imperial College), Fabio Sferra (IIASA), Bas van Ruijven (IIASA), Sha Yu (U Maryland, PNNL/JGCRI)

ROOM 2

Friday  
3  
Dec  
12.30-14.00

## FINANCE

*Chair: Roberto SCHAEFFER (COPPE), Bas VAN RUIJVEN (IIASA)*

12.30-12.45 **Accounting for finance is key for climate mitigation pathways [Paper ID 126]**

Stefano Battiston (Department of Banking and Finance, University of Zurich - Department of Economics, Ca' Foscari University of Venice), Irene MONASTEROLO (EDHEC Business School, EDHEC-Risk), Keywan Riahi (International Institute for Applied Systems Analysis IIASA - Graz University of Technology), Bas J. van Ruijven (International Institute for Applied Systems Analysis IIASA)

12.45-13.00 **Assessing near-term transition and longer-term physical climate risks of greenhouse gas emissions pathways [Paper ID 60]**

Ajay GAMBHIR (Grantham Institute - Climate Change and the Environment, Imperial College London), Mel George (Center for Global Sustainability, University of Maryland and Joint Global Change Research Institute, Pacific Northwest National Laboratory), Haewon McJeon (Center for Global Sustainability, University of Maryland, and Joint Global Change Research Institute, Pacific Northwest National Laboratory), Nigel Arnell, Department of Meteorology (University of Reading), Dan Bernie, Met Office Hadley Centre), Shivika Mittal (Grantham Institute - Climate Change and the Environment, Imperial College London), Alexandre Koberle (Grantham Institute - Climate Change and the Environment, Imperial College London), Jason Lowe (Met Office Hadley Centre), Joeri Rogelj (Grantham Institute - Climate Change and the Environment, Imperial College London), Seth Monteith (ClimateWorks Foundation)

13.00-13.15 **Physical and transition financial risks in hybrid agent-based integrated assessment models [Paper ID 103]**

Francesco LAMPERTI (Scuola Superiore Sant'Anna and RFF-CMCC European Institute on Economics and the Environment), Valentina Bosetti (Bocconi University and RFF-CMCC European Institute on Economics and the Environment), Emanuele Campiglio (University of Bologna and RFF-CMCC European Institute on Economics and the Environment), Laurent Drouet (RFF-CMCC European Institute on Economics and the Environment), Johannes Emmerling (RFF-CMCC European Institute on Economics and the Environment), Andrea Roventini (Scuola Superiore Sant'Anna and OFCE Sciences Po), Massimo Tavoni (Polytechnic University of Milan and RFF-CMCC European Institute on Economics and the Environment)

- 13.15-13.30 **Transition risks and opportunities in Brazil in a low-carbon world [Paper ID 84]**  
Mariana IMPÉRIO (Cenergia/COPPE/UFRJ), Gerd Angelkorte (Cenergia/COPPE/UFRJ), Bruno Cunha (Cenergia/COPPE/UFRJ), Rafael Garaffa (European Commission Joint Research Centre), André Lucena (Cenergia/COPPE/UFRJ), Alexandre Szklo (Cenergia/COPPE/UFRJ), Roberto Schaeffer (Cenergia/COPPE/UFRJ), Pedro Rochedo (Cenergia/COPPE/UFRJ)

- 13.30-14.00 **Discussion**

ROOM 3	Friday <b>3</b> Dec 12.30-14.00	<b>METHODS</b> <i>Chair: Jae EDMONDS (JGCRI/PNNL), Volker KREY (IIASA)</i>
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- 12.30-12.45 **Dealing with deep and endogenous uncertainties in IAMs [Paper ID 49]**  
Tommi EKHOLM (Finnish Meteorological Institute), Erin Baker (University of Massachusetts), Olli Herrala (Aalto University), Fabricio Oliveira (Aalto University)
- 12.45-13.00 **A comprehensive harmonisation framework for integrated assessment models [Paper ID 66]**  
Sara GIAROLA (Imperial College London), Shivika Mittal (Imperial College London), Marc Vielle (Ecole Polytechnique Federale de Lausanne – EPFL), Sigit Perdana (Ecole Polytechnique Federale de Lausanne – EPFL), Lorenza Campagnolo (RFF-CMCC European Institute on Economics and the Environment – EIEE; Ca' Foscari University of Venice; Euro-Mediterranean Center on Climate Change – CMCC), Elisa Delpiazzi (FF-CMCC European Institute on Economics and the Environment – EIEE; Ca' Foscari University of Venice; Euro-Mediterranean Center on Climate Change – CMCC), Ha Bui (Climate Change Policy Group, CAS, University of Cambridge), Annela Anger Kraavi (Climate Change Policy Group, CAS, University of Cambridge), Andrey Kolpakov (Institute of Economic Forecasting of the Russian Academy of Sciences), Ida Sognaes (CICERO Center for International Climate and Environmental Research), Glen Peters (CICERO Center for International Climate and Environmental Research), Adam Hawkes (Imperial College London), Alexandre Koberle (Imperial College London), Neil Grant (Imperial College London, London), Ajay Gambhir (Imperial College London), Alexandros Nikas (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens), Haris Doukas (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens), Jorge Moreno (Basque Centre for Climate Change – BC3), Dirk-Jan van de Ven (Basque Centre for Climate Change – BC3)
- 13.00-13.15 **The role of Rooftop Solar PV in global energy transitions [Paper ID 88]**  
Siddharth JOSHI (University College Cork, Ireland, International Institute for Applied Systems Analysis – IIASA), Behnam Zakeri (International Institute for Applied Systems Analysis – IIASA), Shivika Mittal (Grantham Institute & Climate Change and the Environment, Imperial College London), Alessio Mastrucci (International Institute for Applied Systems Analysis – IIASA), Paul Holloway (University College Cork), James Glynn (Center on Global Energy Policy, Columbia University), Volker Krey (International Institute for Applied Systems Analysis – IIASA), Priyadarshi Ramprasad, Shukla (Global Centre for Environment and Energy, Ahmedabad University), Brian O'Gallachoir (University College Cork)
- 13.15-13.30 **Downscaling IAMs results to the country level - a new algorithm [Paper ID 160]**  
Fabio SFERRA (IIASA), Bas van Ruijven (IIASA), Keywan Riahi (IIASA)

- 13.30-13.45     **rfasst: An R tool to estimate air pollution impacts on health and agriculture [Paper ID 154]**  
Jon SAMPEDRO (Joint Global Change Research Institute - Pacific Northwest National Laboratory),  
Zarrar Khan (Joint Global Change Research Institute - Pacific Northwest National Laboratory), Chris R.  
Vernon (Joint Global Change Research Institute - Pacific Northwest National Laboratory), Steven J.  
Smith (Joint Global Change Research Institute - Pacific Northwest National Laboratory), Stephanie  
Waldhoff (Joint Global Change Research Institute - Pacific Northwest National Laboratory), Rita Van  
Dingenen (European Commission-Joint Research Centre – JRC)
- 13.45-14.00     **Discussion**



# Poster Sessions Programme

POSTER  
ROOM 1

Tuesday  
**30  
Nov**  
15.30-  
16.00

## POSTER SESSION 1

### NATIONAL

#### **Greening the green: repackaging recovery packages [Paper ID 22]**

Panagiotis Fragkos (E3 Modelling), Rafael GARAFFA (Joint Research Centre), Lilia Caiado Couto (University College London), Bruno S. L. Cunha (Energy Planning Program, Graduate School of Engineering, Federal University of Rio de Janeiro), Pedro R. R. Rochedo (Energy Planning Program, Graduate School of Engineering, Federal University of Rio de Janeiro), Luiz Bernardo Baptista (Energy Planning Program, Graduate School of Engineering, Federal University of Rio de Janeiro), Angelo C. Gurgel (Energy Planning Program, Graduate School of Engineering, Federal University of Rio de Janeiro), Roberto Schaeffer (Energy Planning Program, Graduate School of Engineering, Federal University of Rio de Janeiro), Alexandre Szklo (Energy Planning Program, Graduate School of Engineering, Federal University of Rio de Janeiro), André F. P. Lucena (Energy Planning Program, Graduate School of Engineering, Federal University of Rio de Janeiro)

### NATIONAL

#### **An All-In climate strategy can cut U.S. emissions by 50% by 2030 [Paper ID 120]**

Haewon McJEON (University of Maryland), Tom Cyrs (World Resources Institute), Alicia Zhao (University of Maryland), Kowan O'Keefe (University of Maryland), John O'Neill (University of Maryland), Ryna Cui (University of Maryland), Leon Clarke (University of Maryland), Nate Hultman

### NATIONAL

#### **Technology, technology, technology: An Integrated Assessment of Deep Decarbonization Pathways for the Canadian Oil Sands [Paper ID 17]**

Candelaria Bergero (Joint Global Change Research Institute), Matthew Binsted (Joint Global Change Research Institute), Osama YOUNIS (Department of Civil and Environmental Engineering, University of Alberta), Muhammad-Shahid Siddiqui (Economic Analysis Directorate, Environment and Climate Change Canada), Evan J. Arbuckle (Department of Civil and Environmental Engineering, University of Alberta), Diego V. Chiappori (Department of Civil and Environmental Engineering, University of Alberta), Jay Fuhrman, Joint Global Change Research Institute), Haewon McJeon (Joint Global Change Research Institute), Nick Macaluso (Economic Analysis Directorate, Environment and Climate Change Canada), Evan G.R. Davies (Department of Civil and Environmental Engineering, University of Alberta)

### NATIONAL

#### **Achieving the EU 2030 targets - what level of carbon prices and regulatory policies are needed [Paper ID 149]**

Robert PIETZCKER (Potsdam Institute for Climate Impact Research), Renato Rodrigues (Potsdam Institute for Climate Impact Research), Gunnar Luderer (Potsdam Institute for Climate Impact Research)

### NATIONAL

#### **Net-zero CO2 scenarios for the U.S.: EMF-37 first results [Paper ID 155]**

Ronald SANDS (USDA Economic Research Service)



## NATIONAL

**An investigation of the impact of bounded rationality on the decarbonisation of Kenya's power system [Paper ID 92]**

Alexander KELL (Imperial College London), Sara Giarola (Imperial College London), Adam Hawkes (Imperial College London)

## SSP

**Improving the representation of income inequality under the SSPs [Paper ID 133]**

Kanishka NARAYAN (Pacific Northwest National Lab, Joint Global Change Research Institute), Stephanie Waldhoff (Pacific Northwest National Lab, Joint Global Change Research Institute), Claudia Tebaldi (Pacific Northwest National Lab, Joint Global Change Research Institute), Brian O'Neil (Pacific Northwest National Lab, Joint Global Change Research Institute)

## METHODS

**Smoothing a reference pathway based on discrete exogenous projections [Paper ID 182]**

Taoyuan WEI (CICERO Center for International Climate Research)

## METHODS

**An interactive model revived with a scalable codebase, for exploring future pathways [Paper ID 118]**

Ben JH MATTHEWS (Independent model developer)

## LAND

**Spatial, techno-economic, and logistic analysis for maritime biofuels in Brazil, Europe, South Africa, and the USA [Paper ID 25]**

Francielle CARVALHO (Federal University of Rio de Janeiro), Joana Portugal-Pereira (Federal University of Rio de Janeiro), Martin Junginger (Utrecht University), Alexandre Szklo (Federal University of Rio de Janeiro)

## LAND

**The implications of agricultural suitability and protected area on land use and bioenergy production [Paper ID 39]**

Alan DI VITTORIO (Berkeley Lab), Kanishka Narayan (Joint Global Change Research Institute, Pacific Northwest Lab), Chris Vernon (Joint Global Change Research Institute, Pacific Northwest Lab)

## SUBNATIONAL

**Development and Application of GCAM-Canada Model for Future Energy Scenario Analysis [Paper ID 178]**

Diego V. CHIAPPORI (University of Alberta), Evan G.R. Davies (University of Alberta), Matthew Binsted (Joint Global Change Research Institute – PNNL), Maria Candelaria Bergero (Joint Global Change Research Institute – PNNL), Evan J. Arbuckle (University of Alberta), Muhammad-Shahid Siddiqui (Environment and Climate Change Canada), Osama Younis (University of Alberta)

POSTER  
ROOM 2Tuesday  
30  
Nov  
16.00-  
16.30

## POSTER SESSION 2

## DEEP

**Distributional effects of Direct Air Capture technologies [Paper ID 4]**Pietro ANDREONI (EIEE), Johannes Emmerling (EIEE), Massimo Tavoni (EIEE, Politecnico di Milano)

## DEEP

**Linking the Scaling of Carbon Dioxide Removal Deployment to Hard to Abate Emissions with the Global Change Assessment Model [Paper ID 72]**Garrett GUARD (American University), Raphael Apeaning (American University), David Morrow (American University)

## DEEP

**Land use implications of BECCS in Brazil: an intercomparison study [Paper ID 113]**Leticia LORENTZ (Cenergia/COPPE/UFRJ), Ana Carolina Fiorini (Cenergia/COPPE/UFRJ), Pedro Rochedo (Cenergia/COPPE/UFRJ)

## METHODS

**Improved Discovery and Access to Research Data in Energy Systems Analysis [Paper ID 65]**Anastasis GIANNOUSAKIS (PIK), Carsten Hoyer-Klick (DLR), Johannes Frey (InfAI), Ulrich Frey (DLR), Hedda Gardian (DLR), Jan Gafert (FZJ), Tobias Hecking (DLR), Christian Hofmann (RLI), Sophie Jentzsch (DLR), Kevin Knosala (FZJ), Leander Kotzur (FZJ), Stefan Kronshage (DLR), Patrick Kuckertz (FZJ), Christoph Muschner (RLI), Michaja Pehl (PIK), Vera Sehn (IER), Detlef Stolten (FZJ), Jan-Philipp Dietrich (PIK), Gunnar Luderer (PIK)

## METHODS

**Carbon Dioxide Removal Policy in Integrated Assessment Models [Paper ID 131]**David MORROW (Institute for Carbon Removal Law and Policy – American University), Raphael Apeaning (Institute for Carbon Removal Law and Policy – American University), Garrett Guard (Institute for Carbon Removal Law and Policy – American University)

## STAKEHOLDER

**The Global Least-cost User-friendly CLEWs Open-Source Exploratory model [Paper ID 13]**Agnese BELTRAMO (KTH Royal Institute of Technology), Eunice Pereira Ramos (KTH Royal Institute of Technology), Constantinos Taliotis (The Cyprus Institute), Mark Howells (Loughborough University and Imperial College London), Will Usher (KTH Royal Institute of Technology)

## SUSTAINABLE

**Long-term transition of China's power sector under carbon neutrality target and water withdrawal constraint [Paper ID 78]**Chao Zhang (School of Economics and Management, Tongji University; United Nation Environment-Tongji Institute of Environment for Sustainable Development, Tongji University), Gang HE (Department of Technology and Society, College of Engineering and Applied Sciences, Stony Brook University), Josiah Johnston (Josiah Johnston PhD Research & Consulting), Lijin Zhong (Energy Foundation China Office)

## SUSTAINABLE

**Quantifying benefits and impacts of a shared low-carbon transition for the "Belt and Road Initiative" countries [Paper ID 33]**

Ryna CUI (Center for Global Sustainability, University of Maryland), Baihe Gu (Institute of Sustainable Development Strategy, Chinese Academy of Sciences), Jenna Behrendt (Center for Global Sustainability, University of Maryland), Lingsi Kong (Institute of Sustainable Development Strategy, Chinese Academy of Sciences), Jiehong Lou (Center for Global Sustainability, University of Maryland), Jiawei Song (Center for Global Sustainability, University of Maryland), Xianchun Tan (Institute of Sustainable Development Strategy, Chinese Academy of Sciences), Alicia Zhao (Center for Global Sustainability, University of Maryland), Kaiwei Zhu (Institute of Sustainable Development Strategy, Chinese Academy of Sciences)

## SUSTAINABLE

**Modelling clean cooking and climate change goals: An exploration in ETSAP-TIMES [Paper ID 81]**

Amy HOLLANDS (School of Engineering University College Cork), Hannah Daly (MaREI Centre Environmental Research Institute University College Cork Ireland)

## NATIONAL

**Scenario analysis to inform about the requirements for successful implementation of the Paris Agreement and its global stock-take [Paper ID 15]**

Thomas Hickmann (University Utrecht), Christoph BERTRAM (PIK)

## NATIONAL

**Comparing electrification versus hydrogen-focused pathways for reaching the EU's 2050 climate goals [Paper ID 159]**

Felix SCHREYER (Potsdam Institute for Climate Impact Research), Falko Ueckerdt (Potsdam Institute for Climate Impact Research), Robert Pietzcker (Potsdam Institute for Climate Impact Research), Renato Rodrigues (Potsdam Institute for Climate Impact Research), Gunnar Luderer (Potsdam Institute for Climate Impact Research)

## NATIONAL

**The Road to Glasgow: Updates to climate pledges improve chances of limiting global climate change [Paper ID 121]**

Yang OU (Joint Global Change Research Institute, Pacific Northwest National Laboratory), Gokul Iyer (Joint Global Change Research Institute, Pacific Northwest National Laboratory), Leon Clarke (Center for Global Sustainability, School of Public Policy, University of Maryland), Jae Edmonds (Joint Global Change Research Institute, Pacific Northwest National Laboratory), Allen Fawcett (U.S. Environmental Protection Agency), Andreas Geiges (Climate Analytics), Nathan Hultman (Center for Global Sustainability, School of Public Policy, University of Maryland), Jim McFarland (U.S. Environmental Protection Agency), Malte Meinshausen (Australian-German Climate - Energy College, The University of Melbourne), Zebedee Nicholls (Australian-German Climate - Energy College, The University of Melbourne), Pralit Patel (Joint Global Change Research Institute, Pacific Northwest National Laboratory), Shaun Ragnauth (U.S. Environmental Protection Agency), Joeri Rogelj (Grantham Institute, Imperial College London), Stephanie Waldhoff (Joint Global Change Research Institute, Pacific Northwest National Laboratory), Haewon McJeon (Joint Global Change Research Institute, Pacific Northwest National Laboratory)

## ECONOMICS

**A Framework for Estimating Damages and Impacts - FrEDI v1.0 [Paper ID 76]**

Corinne HARTIN (U.S. Environmental Protection Agency), Jeremy Martinich (U.S. Environmental Protection Agency), Marcus Sarofim (U.S. Environmental Protection Agency)

## ECONOMICS

**Empirical estimates of the elasticity of substitution of a KLEM production function without nesting constraints: The case of the Variable Output Elasticity-Cobb Douglas [Paper ID 116]**

Paul MALLIET (OFCE-Sciences Po, Nanterre), Frédéric G. Reynès (OFCE-Sciences Po, NEO)

## ECONOMICS

**Assessing the impact of climate policy on different income groups [Paper ID 161]**

Yeliz SIMSEK (University of Exeter), Unnada Chewpreecha (Cambridge Econometrics), Pim Vercoulin (Cambridge Econometrics), Femke Nijse (University of Exeter), Jean-Francois Mercure (University of Exeter)

POSTER  
ROOM 1

Wednesday  
**1**  
Dec  
12.00-  
12.30

## POSTER SESSION 3

## DEEP

**Future prospects of Direct Air Capture technologies: an integrated assessment modelling [Paper ID 124]**

Benjamin MITTERRUTZNER (International Institute for Applied Systems Analysis), Behnam Zakeri (International Institute for Applied Systems Analysis), Volker Krey (International Institute for Applied Systems Analysis), Francesco Lovat (International Institute for Applied Systems Analysis), Jan Minx (Mercator Research Institute on Global Commons and Climate Change), Gregory Nemet (University of Wisconsin-Madison), Benjamin Sovacool (University of Sussex), Keywan Riahi (International Institute for Applied Systems Analysis)

## DEEP

**Evaluation of a production route for aviation electrofuels using solar photovoltaic electricity and carbon dioxide direct air capture [Paper ID 52]**

Clarissa FONTE (Cenergia/COPPE/UFRJ), Pedro Rochedo (Cenergia/COPPE/UFRJ), Alexandre Szklo (Cenergia/COPPE/UFRJ)

## SECTORAL

**How do changes to future technology developments affect the optimal residential heating decarbonisation pathway? [Paper ID 119]**

Jason MC GUIRE (MaREI/UCC), Fionn Rogan (MaREI/UCC), Olexandr Balyk (MaREI/UCC), Brian O Gallachir (MaREI/UCC), Hannah Daly (MaREI/UCC)

## SECTORAL

**An IAM-based framework for evaluating the environmental impact of low-cost technological solutions in the container shipping industry [Paper ID 42]**

Haris DOUKAS (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens), Evangelos Spiliotis (Forecasting and Strategy Unit, School of Electrical and Computer Engineering, National Technical University of Athens), Mohsen Jafari (Department of Industrial and Systems Engineering, Rutgers University), Sara Giarola (Earth Science and Engineering Department, Imperial College London), Alexandros Nikas (Energy Policy Unit, School of Electrical and Computer Engineering, National Technical University of Athens)

## SECTORAL

**Assessing China's provincial government costs and health benefits for road passenger transport to meet the carbon neutral target [Paper ID 20]**

Jianxiang SHEN (Department of Earth System Science, Tsinghua University), Wenjia Cai (Department of Earth System Science, Tsinghua University)

## SECTORAL

**The research on decarbonization pathway of synthetic ammonia industry in China under the carbon neutral target [Paper ID 186]**

Pianpian XIANG (Beijing University of Technology), Kejun Jiang (Energy Research Institute)

## NATIONAL

**Assessing the energy system impacts of Morocco's NDC and low-emission pathways [Paper ID 55]**

Panagiotis FRAGKOS (E3Modelling)

## NATIONAL

**Scaling up climate ambition post-2030: A long-term GHG mitigation analysis for Thailand [Paper ID 108]**

Puttipong CHUNARK (Sirindhorn International Institute of Technology, Thammasat University), Salony Rajbhandari (Sirindhorn International Institute of Technology, Thammasat University), Bijay B. Pradhan (Sirindhorn International Institute of Technology, Thammasat University), Bundit Limmeechokchai (Sirindhorn International Institute of Technology, Thammasat University), Shinichiro Fujimori (Department of Environmental Engineering, Kyoto University; National Institute for Environmental Studies – NIES; International Institute for Applied Systems Analysis – IIASA), Ken Oshiro (Department of Environmental Engineering, Kyoto University), Yuki Ochi (E-Konzal Co. Ltd.)

## NATIONAL

**Green recovery in a post-COVID world [Paper ID 34]**

Ioannis DAFNOMILIS (PBL Netherlands Environmental Assessment Agency), Hsing-Hsuan Chen (PBL Netherlands Environmental Assessment Agency), Miche den Elzen (PBL Netherlands Environmental Assessment Agency), Panagiotis Fragkos (E3Modelling S.A.), Unnada Chewpreecha (Cambridge Econometrics), Heleen van Soest (PBL Netherlands Environmental Assessment Agency), Kostas Fragkiadakis (E3Modelling S.A.), Panagiotis Karkatsoulis (E3Modelling S.A.), Harmen-Sytze de Boer (PBL Netherlands Environmental Assessment Agency), Vasillis Daioglou (Copernicus Institute of Sustainable Development), Oreane Edelenbosch (PBL Netherlands Environmental Assessment Agency), Bence Kiss-Dobronyi (Cambridge Econometrics), Detlef van Vuuren (PBL Netherlands Environmental Assessment Agency)

## ECONOMICS

**Impact Analysis of Zero Carbon Emission Power Generation on China's Industrial Sector Distribution [Paper ID 87]**

Kejun JIANG (Energy Research Institute, Chinese Academy of Macro-economics Research), Xiang Pianpian (Faculty of Environment and Life, Beijing University of Technology), He Chenmin (College of Environment Science and Engineering, Peking University), Feng Shengbo (Energy Research Institute, Chinese Academy of Macro-economics Research), Yang Fang (Global Energy Interconnection Co.), Liu Changyi (Global Energy Interconnection Co.), Tan Xin (Global Energy Interconnection Co.), Chen Sha (Faculty of Environment and Life, Beijing University of Technology), Dai Chunyan (Research Center for Economy of Upper Reaches of the Yangtze River - Chongqing Technology and Business University), Deng Liangchen (Energy Research Institute, Chinese Academy of Macro-economics Research)

## SUSTAINABLE

**The relationship of energy-water-carbon emissions in the Beijing-Tianjin-Hebei region by the IEWC model under low-carbon transitions [Paper ID 30]**

Yingying LIU (Beijing University of Technology), He Lv (Beijing University of Technology), Shuqi Yan (Beijing University of Technology), Sha Chen (Beijing University of Technology)

## ECONOMICS

**Beyond aggregated damage functions in an integrated assessment model [Paper ID 171]**

Koji TOKIMATSU (Tokyo Institute of Technology)

POSTER  
ROOM 2

Wednesday  
**1**  
**Dec**  
16.00-  
16.30

## POSTER SESSION 4

## FEASIBILITY

**Governance regimes and the historical performance of electricity system transitions in OECD countries: insights from retrospective modeling [Paper ID 86]**

Marc JAXA-ROZEN (University of Geneva), Xin Wen (University of Geneva), Evelina Trutnevyte (University of Geneva)

## FEASIBILITY

**Balancing Public Acceptance against Costs in the European Energy Transition: The Role of Transmission and Onshore Wind in Future Scenarios [Paper ID 134]**

Tom Brown (TU Berlin), Elisabeth Zeyen (KIT), Fabian NEUMANN (KIT), Kun Zhu (Aarhus University), Marta Victoria (Aarhus University)

## FEASIBILITY

**Bioenergy and Sustainability in India: A Capacity Building and Integrated Assessment Experiment [Paper ID 70]**

Neal GRAHAM (Pacific Northwest National Laboratory), Meredydd Evans (Pacific Northwest National Laboratory), Siddarth Durga (Pacific Northwest National Laboratory), Marshall Wise (Pacific Northwest National Laboratory)

## DEMAND

**Transport decarbonisation in the UK: a multi-agent modelling study [Paper ID 69]**

Sarah Philips (Imperial College London), Alexander KELL (Imperial College London), Sara Giarola (Imperial College London), Adam Hawkes (Imperial College London)

## DEMAND

**Opportunities of dietary shifts for climate mitigation: An Agent-Based Model perspective in Brazil [Paper ID 170]**

Maíra TAVARES (Cenergia/COPPE/UFRJ), Joana Portugal-Pereira (Cenergia/COPPE/UFRJ), Bruno Cunha (Cenergia/COPPE/UFRJ)

## DEMAND

**Future global load curves for electricity demand [Paper ID 192]**

Victhalia ZAPATA CASTILLO (Copernicus Institute of Sustainable Development, Utrecht University), Harmen-Sytze de Boer (PBL Netherlands Environmental Assessment Agency), Raphael Ma-cas Munoz (Center for Energy and Environmental Studies IVEM, University of Groningen), David E.H.J. Gernaat (PBL Netherlands Environmental Assessment Agency), Ren Benders (Center for Energy and Environmental Studies IVEM, University of Groningen), Detlef van Vuuren (PBL Netherlands Environmental Assessment Agency)

## SECTORAL

**The Footprint of Road Transportation - Impact Assessment for the Future European Road Vehicle Fleet [Paper ID 40]**

Alois DIRNAICHNER (Potsdam Institute for Climate Impact Research), Marianna Rottoli (Potsdam Institute for Climate Impact Research), Romain Sacchi (Paul Scherrer Institut, Villigen, Switzerland), Christian Bauer (Paul Scherrer Institut, Villigen, Switzerland), Gunnar Luderer (Potsdam Institute for Climate Impact Research)

## SECTORAL

**The role of shipping in carbon-restrictive scenarios from the perspective of a perfect foresight IAM [Paper ID 132]**

Eduardo MÜLLER-CASSERES (Cenergia/Coppe/UFRJ), Pedro R. R. Rochedo (Cenergia/Coppe/UFRJ), Rebecca Draeger (Cenergia/Coppe/UFRJ), Alexandre Szklo (Cenergia/Coppe/UFRJ), Roberto Schaeffer (Cenergia/Coppe/UFRJ)

## SECTORAL

**A sector-service representation of the US industrial sector for modeling energy transitions [Paper ID 94]**

Nazar KHOLOD (Pacific Northwest National Laboratory), Steven Smith (Pacific Northwest National Laboratory), Maridee Weber (Pacific Northwest National Laboratory), Page Kyle (Pacific Northwest National Laboratory), Rachel Hoesly (Northwest National Laboratory), Brinda Yarlagadda (University of Maryland), Marshall Wise (Pacific Northwest National Laboratory)

## SECTORAL

**Low-Carbon-Precast Concrete LCA/TEA a Meta-analysis [Paper ID 31]**

Joseph SANSALONE (University of Virginia), Jay Fuhrman (Pacific Northwest National Laboratory), Scott Doney (University of Virginia), Lisa Colosi-Peterson (University of Virginia), William Shobe (University of Virginia), Haewon McJeon (Pacific Northwest National Laboratory), Sha Yu (Pacific Northwest National Laboratory), Andres Clarens (University of Virginia)

## SECTORAL

**Comparative analysis of copper demand in different IAMs' carbon restriction scenarios [Paper ID 114]**

Leticia MAGALAR (Energy Planning Program, COPPE, Federal University of Rio de Janeiro), Leandro Gomes (Energy Planning Program, COPPE, Federal University of Rio de Janeiro), Luiz Bernardo Baptista (Energy Planning Program, COPPE, Federal University of Rio de Janeiro), Marianne Zotin (Energy Planning Program, COPPE, Federal University of Rio de Janeiro), Alexandre Szklo (Energy Planning Program, COPPE, Federal University of Rio de Janeiro)

POSTER  
ROOM 1Thursday  
**2**  
**Dec**  
12.00-  
12.30

## POSTER SESSION 5

## DEMAND

**Modelling behavioural choices for transport electrification: the case of Brazil [Paper ID 67]**

Sara Giarola (Imperial College London), Diego MOYA (Imperial College London), Alexandre Koberle (Imperial College London), Shivika Mittal (Imperial College London), Adam Hawkes (Imperial College London), Ajay Gambhir (Imperial College London)

## DEMAND

**Modelling a Low Energy Demand pathway in an energy system optimisation model: Case study for Ireland [Paper ID 63]**

Ankita GAUR (University College Cork), Hannah Daly (University College Cork)

## DEMAND

**Diverse baseline India's residential energy forecast: state-wise vs whole national analysis and assessment of decarbonization pathway [Paper ID 188]**

Satish YAWALE (National Institute for Environmental Studies), Hanaoka Tatsuya (National Institute for Environmental Studies)

## SECTORAL

**Deep-decarbonization and Clean Air in China's cement industry – a province-wise bottom-up analyses by 2060 [Paper ID 106]**

Zhaoling LI (National Institute for Environmental Studies), Tatsuya Hanaoka (National Institute for Environmental Studies)

## IMPACTS

**Toward better understanding of climate impacts on global water withdrawals [Paper ID 125]**

Alireza MOGHADDASI (University of Maryland), Thomas B. Wild (University of Maryland), Ryna Cui (University of Maryland)

## SECTORAL

**Materials industry modelling in net-zero emissions scenarios: the case of steel and cement [Paper ID 93]**

Kimon KERAMIDAS (Universite Grenoble-Alpes), Silvana Mima (Universite Grenoble-Alpes), Adrien Bidaud (Universite Grenoble-Alpes)

## LAND

**Adjusting land mitigation pathways for assessing collective climate progress [Paper ID 71]**

Giacomo GRASSI (Joint Research Centre, European Commission), Elke Stehfest (PBL Netherlands Environmental Assessment Agency), Joeri Rogelj (Grantham Institute for Climate Change and the Environment, Imperial College London), Detlef van Vuuren (PBL Netherlands Environmental Assessment Agency), et al.



## LAND

**Socio-economic trajectories, urban area expansion and ecosystem conservation affect global potential supply of bioenergy [Paper ID 137]**

Risper NYAIRO (Ritsumeikan University), Tomoko Hasegawa (Ritsumeikan University), Shinichiro Fujimori (Kyoto University and International Institute for Applied System Analysis – IIASA), Wu Wenchao (Japan International Research Center for Agricultural Sciences – JIRCAS), Kiyoshi Takahashi (Center for Social and Environmental Systems Research, National Institute for Environmental Studies – NIES)

## LAND

**Where's the beef? Navigating trade-offs in global beef production [Paper ID 28]**

Adam C. CASTONGUAY (The University of Queensland), S. Polasky (University of Minnesota), M. Herrero (CSIRO Agriculture and Food), M. Holden (The University of Queensland), D. Mason-DCroz (CSIRO Agriculture and Food), C. Godde (CSIRO Agriculture and Food), B. Bryan (Deakin University), B. Wintle (University of Melbourne), K. Lee (The University of Queensland), B. Witt (The University of Queensland), E. McDonald-Madden (The University of Queensland)

## IMPACTS

**CLIMRISK-EUROHEAT: Projecting heat-related mortality in Europe in an integrated assessment framework [Paper ID 82]**

Predrag IGNJACEVIC (Institute for Environmental Studies – IVM, VU Amsterdam), Wouter Botzen (Institute for Environmental Studies – IVM, VU Amsterdam), Francisco Estrada (Centro de Ciencias de la Atmosfera, Universidad Nacional Autonoma de Mexico, Mexico)

## IMPACTS

**The impact of future climate and socioeconomic change on fire carbon emissions [Paper ID 143]**

Chae Yeon PARK (National Institute for Environmental Studies), Kiyoshi Takahashi (National Institute for Environmental Studies), Junya Takakura (National Institute for Environmental Studies), Fang Li (Chinese Academy of Sciences), Shinichiro Fujimori (Kyoto university), Tomoko Hasegawa (Ritsumeikan University), Akihiko Ito (National Institute for Environmental Studies), Dong Kun Lee (Seoul National University)

## IMPACTS

**Heat stress and productivity of workers in Europe [Paper ID 166]**

Wojtek SZEWCZYK (Joint Research Centre European Commission), Ignazio Mongelli (Joint Research Centre European Commission), Juan-Carlos Ciscar (Joint Research Centre European Commission)

POSTER  
ROOM 2

Thursday  
**2**  
**Dec**  
12.30-  
13.00

## POSTER SESSION 6

## IMPACTS

**Economic impact projections by growth, level, and bottom-up models [Paper ID 169]**

Jun'ya TAKAKURA (National Institute for Environmental Studies), Kiyoshi Takahashi (National Institute for Environmental Studies), Shinichiro Fujimori (Kyoto University)

## IMPACTS

**Possible updates on the climate assessment of mitigation scenarios [Paper ID 172]**

Junichi TSUTSUI (Central Research Institute of Electric Power Industry)

## TRANSITION

**Alternative 2050 net-zero emission pathways and their implications on distributional impacts [Paper ID 79]**

Mohamad HEJAZI (King Abdullah Petroleum Studies and Research Center – KAPSARC), Haewon McJeon (PNNL), Gokul Iyer (PNNL)

## TRANSITION

**Poverty and inequality implications of carbon pricing under the long-term climate target [Paper ID 196]**

Shiya ZHAO (Department of Environmental Engineering, Kyoto University), Shinichiro Fujimori (Department of Environmental Engineering, Kyoto University), Tomoko Hasegawa (Department of Civil and Environmental Engineering, College of Science and Engineering, Ritsumeikan University), Ken Oshiro (Department of Environmental Engineering, Kyoto University), Katsuya Sasaki (Department of Environmental Engineering, Kyoto University)

## TRANSITION

**What are the implications of Bending the Curve of biodiversity loss for fairness and actions of different communities? [Paper ID 18]**

Friederike C. Bolam (UNEP-WCMC), Neil D. Burgess (UNEP-WCMC), David LECLERE (IIASA), Derek Tittensor (Dalhousie University), Piero Visconti (IIASA), Michael Harfoot (UNEP-WCMC)

## SUSTAINABLE

**Alleviating economic inequality for pursuing the Paris Agreement [Paper ID 45]**

TANG Yun, Hongbo DUAN

## SUSTAINABLE

**An open-source IAM for energy-land-material-climate scenarios [Paper ID 57]**

Nadine-Cyra FREISTETTER (Tommi Ekholm)

## SUSTAINABLE

**Future projection for the impacts of socio-economic and climate changes on water, food, bioenergy, ecosystems and land use [Paper ID 189]**

Tokuta YOKOHATA (National Institute for Environmental Studies), Tsuguki Kinoshita (Ibaraki University), Gen Sakurai (National Agriculture Food Research Organization), Yusuke Satoh (National Institute for Environmental Studies), Yadu Pokhrel (Michigan State University), Akihiko Ito (National Institute for Environmental Studies), Masashi Okada (National Institute for Environmental Studies), Etsushi Kato (The Institute for Applied Energy), Shinichiro Fujimori (Kyoto University), Kaoru Tachiiri (Japan Agency for Marine-Earth Science and Technology), Kenachi Matsumoto (Toyo University), Seita Emori (National Institute for Environmental Studies), Kiyoshi Takahashi (National Institute for Environmental Studies)

## DEEP

**An assessment of global and Asian climate change mitigation measures considering carbon capture and storage constraints [Paper ID 136]**

Osamu NISHIURA (Kyoto University), Shinichiro FUJIMORI (Kyoto University), Ken OSHIRO (Kyoto University)

## METHODS

**Solar photovoltaics is ready to power a sustainable future [Paper ID 179]**

Marta VICTORIA (Aarhus University)

## SUBNATIONAL

**Formulate a comprehensive climate action plans toward happiness, carbon neutral, and sustainable future for Da Nang city, Viet Nam [Paper ID 90]**

Miho Kamei (Institute for Global Environmental Strategies), Anh-Tuan NGUYEN (University of Science and Technology- The University of Da Nang), Pamela Fennell (Energy Institute, University College London), Louise Guibrinet (Universidad Nacional Autónoma de Mexico), Marinella Davide (Centro Euro-Mediterraneo sui Cambiamenti Climatici) Thi-Kinh Kieu (University of Science and Education - The University of Da Nang), Ngoc-Bao Pham (Institute for Global Environmental Strategies), Hotta Yasuhiko (Institute for Global Environmental Strategies), Thi-Kim-Ha Nguyen (Department of Natural Resources and Environment – DONRE, Da Nang city – municipality)

## *Topics*

<i>Deep</i>	<i>Assessment of deep mitigation scenarios, including the use of carbon dioxide removal</i>
<i>Demand</i>	<i>Modelling of energy demand, lifestyle change and radical energy efficiency improvements.</i>
<i>Economics</i>	<i>Economic assessment of climate policy and integration of mitigation, adaptation and (residual)</i>
<i>Feasibility</i>	<i>Feasibility of socio-technical energy/land transitions – representation in IAM research</i>
<i>Finance</i>	<i>Climate change, climate mitigation and the financial sector</i>
<i>Impacts</i>	<i>Integrated assessment of climate change impacts, including adaptation</i>
<i>Land</i>	<i>Integrated assessment of land-based mitigation</i>
<i>Methods</i>	<i>Methodological issues (uncertainty analysis, new programming languages, presentation tools etc)</i>
<i>National</i>	<i>Assessment of national mitigation strategies and the 2023 Global Stocktake</i>
<i>Sectoral</i>	<i>Integrated assessment of pathways to carbon neutrality in individual sectors, including industry, transport and building</i>
<i>SSP</i>	<i>Further elaboration of the Shared Socio-economic Pathways (SSP) and updates of existing quantifications</i>
<i>Stakeholder</i>	<i>IAM, stakeholder involvement and citizen science</i>
<i>Subnational</i>	<i>Assessment of subnational activities and non-state actors, including cities</i>
<i>Sustainable</i>	<i>Assessment of Sustainable Development Strategies and assessment of water/land</i>
<i>Transitions</i>	<i>Just transition</i>