

## Day 1 – Wednesday July, 16

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### Day 2

### Day 3

8:30 am – 9:30 am, Sports Hall 2

### Registration

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9:30 am – 10:30 am, Conference Auditorium

### Opening Session

10:30 am – 11:00 am, Sports Hall 1

### Coffee break

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11:00 am – 12:30 pm, Conference Auditorium

## Plenary: The future of scenarios in IPCC and IPBES



This session will focus on the potential role of scenarios in the coming IPCC Working Group reports; the role of scenarios for integration across disciplines and communities, and the potential connections to IPBES.

#### *Moderators:*

- **Bas van Ruijven**, Research Group Leader and Principal Research Scholar, Energy, Climate, and Environment Program, International Institute for Applied Systems Analysis (IIASA)
- **Jan Sigurd Fuglestad**, Research Director and Special Advisor, Center for International Climate Research (CICERO)
- **Zuzana Harmáčková**, Head, Department of Social-Ecological Analysis, Global Change Research Institute (CzechGlobe), Czech Academy of Sciences

#### *Panellists:*

- **Robert Vautard**, IPCC WGI Co-Chair and Lead, IPSL Institute, National Centre for Scientific Research at Institut Pierre-Simon Laplace
- **Bart van den Hurk**, IPCC WGII Co-Chair and Scientific Director, Deltares
- **Kate Calvin**, IPCC WGIII co-chair
- **Paula Harrison**, Principal Natural Capital Scientist and Professor of Land and Water Modelling, UK Centre for Ecology and Hydrology
- **Helen Roy**, Professor in Ecology at the University of Exeter and Individual Merit Scientist – Ecologist, UK

Centre for Ecology and Hydrology

- **Shizuka Hashimoto**, Professor, Department of Ecosystem Studies, University of Tokyo

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12:30 pm – 13:30 pm, Sports Hall 1

## Lunch break

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13:30 pm – 14:30 pm, Conference Auditorium

## Plenary: Future population health and health systems under the SSPs



There is increasing evidence that people are suffering and dying from climate change, that risks will continue to rise for nearly all climate-sensitive health outcomes with additional climate change, and that health systems are vulnerable. The session will discuss extending the SSP narratives and quantifications for the health sector to inform more robust and useful projections of the magnitude and burden of future risks and of the effectiveness of policy responses under different climate and development pathways.

*Moderator:* **Kristie Ebi**, Professor of Global Health, University of Washington, US

*Panellists:*

- **Gregor Kieseewetter**, Senior Research Scholar, Energy, Climate, and Environment Program, International Institute for Applied Systems Analysis (IIASA)
- **Camille Belmin**, Researcher, International Institute for Applied Systems Analysis (IIASA)
- **Helen Macintyre**, Principal Climate Change Scientist, UK Health Security Agency
- **Alan Dangour**, Director of Climate and Health, Wellcome

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14:30 pm – 15:00 pm, Sports Hall 1

## Coffee break

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15:00 pm – 16:30 pm

## Parallel session 1a

Roger Stevens LT 11 (10.11)

### 1a-11: Scenario Model Intercomparison Project (ScenarioMIP)



**Chair:** **Brian O'Neill**

#### Overview of ScenarioMIP process and key outcomes

Detlef van Vuuren and Keywan Riahi

#### Energy system developments across the scenarioMIP scenarios

Christoph Bertram

#### Exploring land-use and GHG emission futures: Insights from CMIP7 ScenarioMIP

Alexander Popp, Florian Humpenöder, Tomoko Hasegawa, Shinichiro Fujimori, Gerd Brantes  
Angelkorte, Pedro Rochedo, Xin Zhao, Jonathan Doelman, Astrid Bos, Detlef van Vuuren, Yazhen Wu,  
Stefan Frank, Oliver Fricko, Keywan Riahi, Jan Philipp Dietrich, Cindy Azuero, Laurent Drouet, Elmar  
Kriegler

## **Carbon Dioxide Removal in ScenarioMIP scenarios and extensions**

Tomoko Hasegawa

## **CMIP Earth System Modeling outlook**

Helene Hewitt

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Roger Stevens LT 05 (7.05)

## **1a-05: Shared Socioeconomic Pathways (SSPs) for Europe**



Chair: Kasper Kok

### **Shared Socioeconomic Pathways for Switzerland (SSP-CH): A novel approach applied to develop current national SSPs**

Lena Gubler, Pascal Tschumi, Marco Pütz, Irmi Seidl, Jürg Füssler, Quirin Oberpriller, Nicolas Schmid,  
Sophie Bogler, David Giger, Andreas Kemmler, Alexander Piégas, Sven Kreidelmeyer, Minh Phuong Vu,  
Andreas Brutsche, Almuth Kirchner

### **National land use pathways for Germany and their implications for Ecosystems and Biodiversity – a modelling approach based on new national SSPs**

Maximilian Witting, Karina Winkler, Felix Gulde, Mark Rounsevell, Matthias Garschagen

### **Downscaling Shared Socioeconomic Pathways for the Czech Republic: A novel integration of horizon scanning and stakeholder validation in an Eastern European context**

Lenka Suchá, Eliška K. Lorencová, Magdaléna Koudelková, Jitka Martínková, Zuzana Harmáčková

### **Enriching the European Shared Socio-Economic Pathways with considerations of biodiversity and nature using a nexus approach**

Paula Harrison, Anita Lazurko, HyeJin Kim, George Linney, Elizabeth Diaz-General, Simeon Vano,  
Zuzana Harmackova, Mark Rounsevell

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Roger Stevens LT 09 (8M.09)

## **1a-09: Policy & politics I**



Chair: Joel Millward-Hopkins

### **Synthesis of physical climate storylines through common policy directions (CPDs)**

Taro Kunimitsu, Anton Orlov, Jana Sillmann

### **Futuring Capacity in Energy and Climate Governance: Integrating Policy Analysis and Foresight for Japan's Energy Future**

Manuela G. Hartwig, Masahiro Sugiyama, Hiroto Shiraki

## Representing policies in scenarios of probabilistic projections: Expected growth of solar PV and onshore wind power in Europe

Nik Zielonka, Evelina Trutnevyte

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Roger Stevens LT 07 (8M.07)

### 1a-07: Net Zero



Chair: Sarah Sinclair

#### The Net Zero Futures Platform: pathways for transforming land use for net zero, nature and people.

Dr Sarah Sinclair

#### Imagining a net zero health system of the future

Caitríona Callan, Genevieve Cameron, Anya Gopfert, Jay Burt, Tom Hardie

#### Net-zero compatible development pathways in Argentina, Brazil, China, India, Indonesia, Mexico and South Africa: lessons for short-term actions

Yann Briand, Johannes Svensson, Clara Lepin, Henri Waisman, Christopher Bataille, Luky Anggraeni, Vidhee Avashia, Aliosha Behnisch, Rizaldi Boer, Daniel Buira, Savahna de Kock, Gelang Dewi, Carolina Dubeux, Amit Garg, Thalia Hernández, Francisco Lallana, Emilio Lèbre La Rovere, Bryce McCall, Marina Recalde, Uco Siagian, Saritha Sudharamma Vishwanathan, Julia Tatham, Fei Teng, Jordi Tovilla, William Wills

#### Technologies Enabling Low-Cost Net-Zero Pathway in Saudi Arabia

Raphael Apeaning

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Roger Stevens LT 10 (9.10)

### 1a-10: International equity I



Chair: Shonali Pachauri

#### Who Must Reach Net-Zero First? A Systematic Exploration of Fair Climate Policy

Puneet Kamboj

#### Growth, Equity, and Urgency: How Faster Economic Convergence Reshapes Climate Ambition

Mel George, Haewon McJeon, Anand Patwardhan

#### Fair climate finance and mitigation benefits under climate uncertainty

Adriano Vinca, Marina Andrijevic, Edward Byers, Setu Pelz, Jarmo Kikstra, Matt Gidden, Volker Krey, Keywan Riahi

#### Regional implications of latitudinal stratospheric aerosol injection under different cooperation regimes

Massimo Tavoni, Pietro Andreoni

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Roger Stevens LT 04 (8.04)

## 1a-04: Health-related risks and vulnerability



Chair: Jon Sampedro

### Use of scenarios in national climate change risk assessment for the health sector in Europe

Sari Kovats, Grace Turner

### Leveraging Climate-Sensitive Disease Modelling for Health Resilience in a Changing Climate

Anna B. Kawiecki

### Children disproportionately exposed to attributable heat stress today and under near-term warming of 1.5°C and 2°C

Rosa Pietroiusti, Erich Fischer, Rupert Stuart-Smith, Luke J. Harrington, Chloe Brimicombe, Matthias Mengel, Annalisa Savaresi, Sam Adelman, Wim Thiery

### Health impacts and socioeconomic inequalities of future outdoor air pollution in Europe

Clàudia Rodés-Bachs, Jon Sampedro, Dirk Jan Van de Ven, Russell Horowitz

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Roger Stevens LT 16 (12.16)

## 1a-16: New ways to build scenarios I



Chair: Alaa Al Khourdajie

### A likely story: scenarios, projections and predictions

Robin Lamboll

### Probabilistic projections of global wind and solar power growth based on historical national experience

Avi Jakhmola, Jessica Jewell, Vadim Vinichenko, Aleh Cherp

### Complexity and uncertainty in future precipitation across climate transition zone in South-Eastern Africa: A climate narratives approach

Ajay Bhawe, Neha Mittal, Suraje Dessai

### Serious board games on climate change as a tool for modeling scenarios

Thomas Yount

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Roger Stevens LT 06 (8.06)

## 1a-06: Modelling Nature Futures



Chair: Jonathan Doelman

### An Integrated Model for Nature Future Scenarios

TianXiang Yue, ChenChen Wu

### Modelling human and nature outcomes under scenarios of KM-GBF target implementation

Jay Burns, Peter Alexander, Mark Rounsevell

## Global review of models for scenario analysis: capabilities and gaps in informing the CBD Kunming-Montreal Global Biodiversity Framework

HyeJin Kim, Patrick Walkden, Rebecca Rowe, Bernd Lenzner, Calum Maney

### Can the global implementation of the GBF bend the curve of biodiversity loss?

Jonathan Doelman

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Roger Stevens LT 12 (10M.12)

## 1a-12: Urban scenarios

Chair: Alex de Sherbinin

### Downscaling global climate projections to the city scale and beyond

Jun'ya Takakura, Kiyoshi Takahashi, Takayuki Nishimura, Hitoshi Wakabayashi

### The Future of Climate Adaptation in Jakarta: Estimating Long-Term Metropolitan Socioeconomic and Urban Challenges to Adaptation Using a Participatory Scenario Approach

Alexandre Pereira Santos, Jan Petzold, Gusti Ayu Ketut Surtiari, Matthias Garschagen

### Advances in Climate Migration Modeling and the Mobility and Migration Model Intercomparison Project (3MIP)

Alex de Sherbinin, Andrew Bell, Fabien Cottier, Nicolas Choquette-Levy, Thomas Bearpark, Michael Oppenheimer

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Roger Stevens LT 08 (9.08)

## 1a-08: Just energy transition

Chair: Alice Larkin

### Improving scenario analyses to study the employment impacts of energy transition

Rudeena Jabar, Haritha Songola, Anjali Sharma

### Futures for workers and climate: regional disparities of just transitions in China and India

Augustin Danneaux, Thomas Le Gallic, Julien Lefèvre, Gang He

### Quantifying minimum mobility needs: the Who, the Where and the Why

Marlin Arnz, Zakia Soomauroo, Vivien Fisch-Romito, Jihoon Min, Joel Millward-Hopkins, Paul Natsuo

Kishimoto, Caroline Zimm, Benigna Boza-Kiss, Bas Van Ruijven

### Actionable futures in a carbon-constrained world: Pragmatic energy scenarios for improving Societal Wellbeing in India

Gaurav Gharde, Alice Larkin, Carly McLachlan

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18:30 pm, Royal Armouries Museum, Armouries Drive, Leeds, LS10 1LT

Conference dinner

## Day 2 – Thursday July, 17

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### Day 3

9:30 am – 11:00 am

#### Parallel session 2a

Roger Stevens LT 11 (10.11)

#### **2a-11: The SSP Framework: From ScenarioMIP to Next Steps**



Chair: Detlef van Vuuren & Keywan Riahi

##### **Updated SSP drivers**

Brian O'Neill

##### **Embedding adaptation pathways in socio-economic and climate futures**

Marina Andrijevic, Kristie L. Ebi, Marjolijn Haasnoot, Matthias Garschagen, Julius Schlumberger

##### **Digital Transformation within Shared Socioeconomic Pathways**

Charlie Wilson, Yee Van Fan

##### **Equity in CMIP7 scenarios and beyond**

Setu Pelz

##### **Integration of impacts in ScenarioMIP**

Franziska Piontek, Katja Frieler

##### **Next steps for the scenario framework**

Bas van Ruijven

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Roger Stevens LT 05 (7.05)

#### **2a-05: Shared Socioeconomic Pathways (SSPs) across scales**



Chair: Tim Carter

##### **This is not an SSP5! Are global and regional SSPs consistent?**

Kasper Kok, Simona Pedde, Oliver Johnson, Henrik Carlsen, Eric Kemp-Benedict, Sara Talebian, Xiaoshi Xing

##### **Regional divergence is necessary for salience**

Simona Pedde

##### **Developing the UK-Livestock-Shared Socioeconomic Pathways (UK-Livestock-SSPs): A Participatory Co-Design Approach**

Kirsty Blair, Isabel Fletcher, Jay Burns, Dominic Moran, Peter Alexander

##### **Shared Socioeconomic Pathways of the Energy Sector – Redefining the Chinese Narratives**

Roger Stevens LT 09 (8M.09)

## **2a-09: Policy & politics II**



Chair: Luisa Lutz

### **Modelling political futures along climate scenarios**

Julia Leininger, Christopher Wingens

### **Preparing for the anti-climate politics catalysed by warming**

Joel Millward-Hopkins

### **Scenarios for global abatement and coordination: The implications for national mitigation cost and cost distribution**

Taran Fæhn, Hidemichi Yonezawa

### **Estimating effects of existing policies on GHG emissions through linked modelling: the case of Switzerland**

Jean Chateau, Luisa Lutz, Evangelos Panos, Jules Schers, Toon Vandyck

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Roger Stevens LT 07 (8M.07)

## **2a-07: Low-carbon pathways**



Chair: Vivien Fisch-Romito

### **Modelling circular economy and climate policy with the stock-flow-service nexus**

Peter Berrill

### **Water Sector Decarbonization and its Impact on Net-Zero Goals for Saudi Arabia**

Neal Graham, Mohamad Hejazi, Gokul Iyer, Yang Qiu, Puneet Kamboj, Silvia R Santos Da Silva, Page Kyle

### **A perspective on how to represent the diffusion of energy sufficiency in low-carbon scenarios**

Vivien Fisch-Romito, Yannick Oswald

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Roger Stevens LT 10 (9.10)

## **2a-10: International equity II**



Chair: Puneet Kamboj

### **En Route to Paris Goals: Prioritising Well-Being in the Fair Sharing of Global Carbon Budgets**

Gaurav Gharde, Alice Larkin, Carly McLachlan

### **Paris-alignment beyond Global Temperature Goals: scenario evidence needs to assess countries' highest possible ambition**



Joeri Rogelj, Julia Katharina Schönfeld, Setu Pelz

## **Beyond Emissions: How Unequal Access to CDR Technologies Shapes Economic Disparities**

Raphael Apeaning, Puneet Kamboj, Mohamad Hejazi

## **Sovereigns on thinning ice: Debt sustainability, climate impacts, and adaptation**

M. Calcaterra, A. Consiglia, V. Martorana, Massimo Tavoni, Stavros Zenios

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Roger Stevens LT 04 (8.04)

## **2a-04: Impacts and vulnerability**



Chair: Jason Lowe

### **Exploring cross-sectoral risk and vulnerability to climate change to the year 2050 across multiple spatial scales across Europe**

George Linney, Anita Lazurko, Arpita Singh Panwar, Alexander Wickenden, Eva Loerke, Josep Serra

Gallego, Robert Dunford-Brown

### **Making the Shared Socioeconomic Pathways usable for the impact modelling community**

Katja Frieler, Christian Otto, Inga Sauer, Jacob Schewe, Laurin Köhler-Schindler, Nico Bauer, Alexander

Popp

### **Scenarios of human development and climate risks**

Massimo Tavoni, Marta Mastropietro, Jonathan Spinoni

### **National scenarios of climate change commitment over the 21st Century: a UK case study**

Suraje Dessai, Chris Smith

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Roger Stevens LT 16 (12.16)

## **2a-16: New ways to build scenarios II**



Chair: Ajay Bhave

### **Navigating the unexpected: The impact of disruptive events on mitigation scenarios**

Alaa Al Khourdajie, Alex Nikas, Natasha Frilingou, Shivika Mittal, Dirk Jan van de Ven, Panagiotis

Fragkos, Haewon McJeon, Ed Byers, Ilkka Keppo, Glen Peters, David McCollum, Eleftheria Zisarou,

Adam Hawkes, Ajay Gambhir

### **Emerging Indicators, Scenarios, and Frameworks for IAM: Data Driven Change and the Contribution of Youth, Students, and Young Adults**

Miguel Rezapour, Clara Zhong, James Wei, Avidane Ceana Cabellero, Phuong Thy Nguyen, Tess Bowen,

Carlos Alexis De la Torre, Sarah E. Reboloso McCullough, Meghana Kotha

### **Visions and pathways to nature-positive futures for Europe: Inspiring transformative change at the biodiversity nexus**

Paula Harrison, Anita Lazurko, HyeJin Kim, Mara de Pater, Aniek Hebinck

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Roger Stevens LT 12 (10M.12)

## 2a-12: Residential sector scenarios

Chair: Maximilian Forberg

### **Projecting Health Impacts of Clean Cooking Technology Transitions in India using Nationally Representative Individual-Level Data and a Scenario-Based Approach**

Arda Aktas, Miguel Poblete Cazenave

### **Assessing climate change costs for EU households**

Lorenza Campagnolo, Enrica Decian, Filippo Pavanello, Giacomo Falchetta, Francesco Colelli

### **Heterogeneous, Human-Centered Models of Transitions in Residential Space Conditioning**

Mohammed R. K. Siam, Zahra Heidari, Karthik Akkiraju, Narasimha D. Rao, Tami C. Bond

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Roger Stevens LT 08 (9.08)

## 2a-08: Energy transition modelling I

11:00 am – 11:30 am, Sports Hall 1

### **Coffee break**

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11:30 am – 13:00 pm

## **Parallel session 2b**

Roger Stevens LT 11 (10.11)

## 2b-11: Integrated Assessment Model (IAM) applications

Chair: Gregor Kiesewetter

### **Integrating PM2.5-Health Feedbacks into Climate Projections: Addressing Gaps in Wellbeing Considerations**

Kedi Liu, Ranran Wang, Samir K.C., Anne Goujon, Gregor Kiesewetter, Rutger Hoekstra

### **A model intercomparison analysis on global poverty alleviation and climate policies**

Shiya Zhao, Shinichiro Fujimori, Tomoko Hasegawa, Tatsuki Ozawa, Seiya Kawaguchi

### **Integrated assessment of diverse regional futures from crisis to sustainability: GCAM-Based Energy, Land use & Emissions Pathways for CMIP7**

Mel George, Christoph Bertram, Andrew Miller, Xin Zhao, Claudia Rodes Bachs, Jay Fuhrman, Rachel Hoesly, Haewon McJeon, Brian O'Neill, Yang Ou, Jon Sampedro, Steve Smith, Dirk-Jan van de Ven, Ryna Cui

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Roger Stevens LT 05 (7.05)

## 2b-05: Shared Socioeconomic Pathway (SSP) Drivers I

Chair: Brian O'Neill

### **Updated spatial population projections for the EU: Perspectives on future population dynamics and related uncertainties.**

Hedda Bonatz, Theodore Nikolettopoulos, Athanasios T. Vafeidis

### **FuturePop – Mapping future population at 100m resolution**

Laurence Hawker, Andrew Tatem, Jason Hilton, Maksym Bondarenko, Jessica Espey, Natalia Tejedor

Garavito, Ian Coady, Sada Saxton, Evgeny Noi

### **Modeling Urban Change from Past to Present: Comparative Approaches for Gridded Population and densification forecasts**

Evgeny Noi, Stefan Leyk, Deborah Balk, Mark Montgomery, Bryan R. Jones, Emanuel Agu, Alessandra Carioli

### **Advancing Population and Human Capital Insights: Updates, Scenarios, and Future Directions in SSP Research**

Samir KC

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Roger Stevens LT 09 (8M.09)

## **2b-09: Policy & politics III**



Chair: Christopher Wingens

### **Science-Policy Interface: UNFCCC national Focal Points' perspective of scientific scenarios and their policy relevance**

Jiesper Tristan Pedersen

### **Towards endogenising policy change: quantification of empirical insights into the evolution of mitigation policy effort**

Aleh Cherp, Anastasia Pavlenko, Lola Nacke, Senjuty Bhowmik, Jessica Jewell

### **Triple Planetary Crisis of climate change, biodiversity loss and pollution: Baseline analysis toward 2050**

Cecilia Bellora, Ruben Bibas, Rob Dellink, Jean Fouré, Toon Vandyck, Hidemichi Yonezawa

### **Future Nexus Interactions Among Biodiversity, Food, Water, Health and Climate Change: assessing trade-offs and synergies**

Odirilwe Selomane, Zuzana Harmáčková, and IPBES Nexus Assessment Chapter 3 Authors

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Roger Stevens LT 07 (8M.07)

## **2b-07: Global post-growth futures**



Chair: Céline Guivarch

### **Post-Growth mitigation scenarios to reduce inequality between countries**

Gabriele Dabbaghian, Céline Guivarch, Julien Lefèvre

### **Integrated Assessment Modeling of Global Post-Growth Scenarios**

Mengyu Li, Manfred Lenzen

## Developing Post-Growth Futures: Moving the SSP framework beyond growth

Alex Edwards, Jarmo Kikstra, Mathias Kirchner, Iñigo Capellán-Pérez, Michael Miess

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Roger Stevens LT 10 (9.10)

### 2b-10: Equity and climate impacts

Chair: Narasimha Rao

#### **Bridging India's Space Cooling Energy Gap: Pathways towards Sustainable and Equitable Thermal Comfort**

Apurva Verma, Anoop Singh

#### **Future scenarios of urban green infrastructure for equity and cooling in Antananarivo, Madagascar**

Rui Han, Jessica P.R. Thorn, Robert A. Marchant

#### **Persistent underexposure of high-income groups to extreme climate events in Europe throughout the 21st century**

Mehdi Mikou, Céline Guivarch, Améline Vallet, Aglaé Jézéquel

#### **Missing Paris: A scenarios agenda for a just and equitable society on a hotter Earth with a novel biosphere**

Christopher Lyon

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Roger Stevens LT 04 (8.04)

### 2b-04: Risk and vulnerability in national studies

Chair: Sari Kovats

#### **Gender dimensions of climate change: Future projections of vulnerability and risk at the Sub-National level in India**

Jagriti Kher, Savita Aggarwal

#### **Advancing Integrated Scenario Modeling for Urban Flood Risk: Lessons from Hue City**

Olabisi S. Obaitor

#### **A Scenario-based Approach to Projecting the INFORM Risk Index in Ethiopia**

Domenico Bovienzo, Alex de Sherbinin

#### **Towards a shared approach for scenarios in National Climate Change Risk Assessments**

David Jaroszweski, David Dawson

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Roger Stevens LT 16 (12.16)

### 2b-16: Scenario co-creation and co-design

Chair: Inga Menke

## **Stress-Testing Climate Futures: A Co-development Exercise to Assessing Extreme Scenarios**

Inga Menke, Sylvia Schmidt, Edward Byers, Qinhan Zhu, Carl-Friedrich Schleussner

## **Co-creating Sustainable Futures: Integrating Stakeholders Perspectives in the Bioplastics Sector**

Ana Rita Farias, Samuel Domingos, Catarina Possidónio, Bernardo Cruz, Eliana Portugal, Sílvia Luís, Ana Loureiro

## **Engaging the Public in Scenario Development: The Role of Survey Experiments**

Karl Scheifinger, Elina Brutschin

## **Navigating future scenarios for sustainable land management in a mountain social-ecological system in northern Thailand using the KESHO Tool**

Pattrawut Pusingha, Robert A. Marchant

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Roger Stevens LT 06 (8.06)

## **2b-06: Just Nature Futures I**



Chair: Paula Harrison

### **A proposal for the systematic incorporation of justice into biodiversity transformational change scenario/pathway design and modelling**

Christopher Wong, Elliott Woodhouse, David Leclere, Larissa Nowak, Thomas Shinko, Thomas Kastner

### **Balancing Nature's Values: A Justice-Oriented Approach to Land-Use Planning**

Camille Venier-Cambron

### **Justice-Explicit Transformative Change Pathways for Halting Biodiversity in Food and Biomass Value Chains**

Elliott Woodhouse, David Leclere, Christopher Wong, Larissa Nowak, Thomas Kastner, Daniel Braun,

Koen Kuipers, Thomas Shinko, Jan Boerner, Marta Kozicka, Isabell Richter, Sibylle Rouet-Pollakis

### **Assessing scenarios of Planetary Boundary transgression – Using the FRIDA system dynamics model**

Axel E. Eriksson, David Collste, Jannes Breier, Dieter Gerten, William A. Schoenberg, Lars J. Nilsson

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Roger Stevens LT 12 (10M.12)

## **2b-12: Circular economy**



Chair: Detlef van Vuuren

### **Integrating Circular Economy into mitigation pathways: preliminary results from model intercomparison**

Marianne Zanon Zotin, Luja von Kockritz

### **Scenarios of resource efficiency and the circular economy. Comparing supply chain resiliency and emissions reduction potentials.**

Jonathan Norman, John Barrett

### **Synthetic representation of households – an approach for modelling future national consumption patterns in Sweden**

Roger Stevens LT 08 (9.08)

## 2b-08: Energy transition modelling II



Chair: Atul Kumar

### A multi-model comparison to explore Korea's 2035 NDC

Cheolhung Cho, Soyeong Jung, Haewon McJeon, Jiyong Eom, Younghwan Ahn, Chan Park

### Developing Future Hydrogen Trade Pathways Toward Korea's 2050 Carbon Neutrality

Jiwon Kwun, Patrick O'Rourke, Haewon McJeon, Jiyong Eom

### Historical developments in Kyoto greenhouse gasses (1985-2023) against scenario projections for the four generations of emission scenarios informing the IPCC

Jiesper Tristan Pedersen, Detlef van Vuuren

### India's Fossil Phase-down: A Multi-Scenario Analysis for Sectoral Decarbonisation

Atul Kumar, Namrata, Adarsh Kumar Singh, Ankur Agrawal, Kumar Gaurav

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13:00 pm – 14:00 pm, Sports Hall 1

## Lunch break

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14:00 pm – 15:30 pm, Conference Auditorium

## Plenary: Regional SSPs in practice: What we have learned and what lies ahead?



The authors of the Shared Socioeconomic Pathways (SSPs) called for *extended* SSPs from the broader community that 'build on the basic SSPs by providing more detailed qualitative and/or quantitative information to support more specific sectoral and regional analyses.' Past years have seen a growing number of extended SSPs built to assess implications for economic stability, fiscal planning, and the delivery of social services at regional and sectoral level. After the presenters share their experiences with building regional scenarios, we will invite the audience to join a forward-looking exploration of how scenarios for global assessment can be linked to local and regional scenario development.

*Moderator:* **Eric Kemp-Benedict**, Associate Professor of Ecological Economics, Sustainability Research Institute, University of Leeds

*Panellists:*

- **Timothy Carter**, Research Professor, Policy and Risks Group, Climate Solutions Unit, Finnish Environment Institute (Syke)
- **Senator Crystal Drakes**, Economist, sustainability strategist, and foresight practitioner
- **Kasper Kok**, Assistant Professor, Earth Systems and Global Change, Wageningen University
- **Simona Pedde**, Scenario Analyst, Senior Researcher, Wageningen University

- **Saritha S. Vishwanathan**, Assistant Professor, Department of Environment Engineering, Kyoto University Katsura, and senior researcher, Indian Institute of Management Ahmedabad

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15:30 pm – 16:00 pm, Sports Hall 1

## Coffee break

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16:00 am – 17:30 pm

## Parallel session 2c

Roger Stevens LT 11 (10.11)

### **2c-11: Future directions for Integrated Assessment Modelling (IAM) I**



Chair: **Sonia Seneviratne**

#### **Principles of integrated sustainability assessments for the 2030s**

Jan Bakkes

#### **Leveraging Machine Learning to Reveal Transparency in Integrated Assessment Model Ensembles**

Yixin Sun, Hongbo Duan, Yun Tang, et al.

#### **Integrating impacts and closing loops – applications of the Rapid Impact Model Emulator in IAMs**

Edward Byers, Michaela Werning, Mahe Perrette, Niklas Schwind, Adriano Vinca, Volker Krey, Keywan

Riahi, Carl Schleussner

#### **Decision analysis of mitigation pathways under uncertainty in the climate response**

Elmar Kriegler, Gabriel Abrahão, Zebedee Nicholls

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Roger Stevens LT 05 (7.05)

### **2c-05: Shared Socioeconomic Pathway (SSP) Drivers II**



Chair: **Manfred Lenzen**

#### **Downscaled Projections of Population by Age, Gender, and Education for Europe under Shared Socioeconomic Pathways 3.0**

Benedetta Sestito, Lena Reimann, Maurizio Mazzoleni, Hedda Bonatz, Wouter Botzen, Jeroen Aerts

#### **Approaches to Modelling Climate Migration**

Tom Bearpark, Nic Choquette-Levy, Michael Oppenheimer, Jordan Rosenthal-Kay, Tingyin Xiao

#### **A New Framework for Country-Level Gini Projections: Integrating Redistribution and Structural Drivers into SSP-based Climate Scenarios**

Miguel Poblete Cazenave, Arda Aktas

#### **Geopolitical conflict impedes climate change mitigation**

Manfred Lenzen, Mengyu Li

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Roger Stevens LT 09 (8M.09)

## 2c-09: Climate Scenarios for the UK



Chair: John Barrett

### Designing a new generation of national climate scenarios

Jason A. Lowe, Carol McSweeney, Neha Mittal

### Revisiting the Tyndall Centre's 2005 UK Energy Scenarios: Lessons Learned and Implications for Future Climate Policy

Alice Larkin, Gaurav Gharde, Sarah Mander, Carly McLachlan

### Panel discussion on UK scenarios

John Barrett (moderator), panelists TBD

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Roger Stevens LT 07 (8M.07)

## 2c-07: Implementing post-growth futures



Chair: Mengyu Li

### Charting the Blue Doughnut: Scenario Pathways for a Safe and Just Blue Economy in Barbados

Crystal Drakes, Winston Moore, Eric Kemp-Benedict, Vanessa Schweizer

### Modeling greenhouse gas emission pathways for a wider range of possible futures: degrowth-, green-growth- and fossil-fueled- SSPs in Switzerland

Quirin Oberpriller, Nicolas Schmid, Andreas Kemmler, Lena Gubler, Juerg Fuessler

### From Scenarios to Real-World Mobility Solutions: Charting the Path by Modelling Sufficiency

Valentin Stuhlfauth, Saheb Yamina, Bouzouina Louafi

### Minimizing climate chaos through Indigenous Wellbeing: Towards an 'Indigenous Futurity Index' while theorizing 'Indigenization' and pushing back against stereotypes

Lee Francis IV, David Karabelnikoff, Heather Sauyaq Jean Gordon

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Roger Stevens LT 10 (9.10)

## 2c-10: The 1.5°C limit in an overshoot world



Chair: Carl-Friedrich Schleussner

### The pursuit of 1.5°C endures as a legal and ethical imperative in a changing world

Joeri Rogelj

### Accountability in a 1.5°C overshoot world

Gaurav Ganti, Sabine Fuss, Setu Pelz, Joeri Rogelj, Keywan Riahi, Carl-Friedrich Schleussner

### The Effects of Burden-Sharing Principles and Pathways to Net-Zero on Carbon Dioxide Removal Obligations in 1.5°C Overshoot Scenarios



Kasra Motlaghzadeh, Neil Craik, Juan Moreno-Cruz, Vanessa Schweizer

## **The global mismatch between equitable carbon dioxide removal liability and capacity**

Pu Yang

## **Exploring Fair and Efficient Pathways for Managing Climate Overshoot Responsibility**

Setu Pelz

## **Exploring research requirements for the next generation of overshoot scenarios**

Nico Bauer, Lena Kilian, Laurin Köhler-Schindler, Elmar Kriegler, Leon Merfort, Franziska Piontek,  
Jessica Strefler

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Roger Stevens LT 04 (8.04)

## **2c-04: Adaptation pathways I**



Chair: HyeJin Kim

### **Adaptation pathways for biodiversity conservation under climate change**

Kazuaki Tsuchiya, Haruka Ohashi, Akiko Hirata, Tomoko Hasegawa, Wenchao Wu, Shinichiro Fujimori,  
Tetsuya Matsui, Junya Takakura, Kiyoshi Takahashi

### **Quantifying the limits of climate change adaptation: the case of vegetation fire**

Oliver Perkins, Olivia Haas, Matthew Kasoar, Apostolos Voulgarakis, Doug Kelley, Joao Teixeira, James  
Millington

### **Integrating climate-related ecosystem service mismatch in spatiotemporal assessment of urban excess heat risk**

Helena Duchková, Davide Geneletti, Davina Vačkářová

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Roger Stevens LT 16 (12.16)

## **2c-16: Communicating scenarios**



Chair: Jan Sigurd Fuglestad

### **Uncertainty communication and inaccurate energy scenarios: empirical testing with users**

Valeria Sorgato, Evelina Trutnevyte

### **The Scenario Compass Initiative: Making Scenario Information Accessible**

Keywan Riahi, Leon Clarke, Karl Scheifinger

### **Scenarios Databases as knowledge infrastructures: history and way forward**

Béatrice Cointe

### **Indicators of Global Climate Change**

Piers Forster

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Roger Stevens LT 06 (8.06)

## 2c-06: Food systems



Chair: Alexander Popp

### Representative Transformation Pathways of Food Systems: A Tool for Assessing Our Collective Health in 2050

Russell Cain

#### Implementing uncertain food demand in scenarios

Brian O'Neill, Kanishka Narayan, Stephanie Morris

### The critical role of dietary change and waste reduction in food system emissions mitigation

Brinda Yarlagadda, Jay Fuhrman, Seth Monteith, Laura Aldrete, Javier Patron, Xin Zhao

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Roger Stevens LT 12 (10M.12)

## 2c-12: Renewables deployment and critical materials



Chair: Peter Berrill

### Multi-sector demand for critical materials in energy system

Yang Qiu, Brinda Yarlagadda, Gokul Iyer, Neal Graham, Matthew Binsted, Marshall Wise, Pralit Patel, and Allen Fawcett

### The Role of Critical Minerals and Materials in Energy System Evolution

Gokul Iyer, Seth Monteith, Dan Plechaty, Jun Shepard, Allen Fawcett, Jim McFarland, Jae Edmonds

### Solar PV Deployment for Spain's Net-Zero Transition: Insights from the One Earth Climate Model

Jonathan Rispler, Sven Teske

### Spatially explicit layouts of onshore solar and wind power plants in China under different land use constraints

Jianxiang Shen, Wenjia Cai

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Roger Stevens LT 08 (9.08)

## 2c-08: Decarbonizing transport



Chair: Nicole Van den Berg

### Decarbonizing land-based transport modes in Saudi Arabia

Puneet Kamboj

### Deep Decarbonization in Thailand's Transport Sector: The Impacts of Modal Shifts, Technology Transition, and Economic Impacts

Achiraya Chaichaloempreecha, Tatsuya Hanaoka, Runsen Zhang, Bundit Limmeechokchai

### A pathway design framework for national freight transport decarbonization strategies

Yann Briand, Dipti Gupta, Marcio de Almeida D'Agosto, George Vasconcelos Goes, Daniel Neves

Schmitz Gonçalves, Amit Garg, Saritha Sudharmma Vishwanathan, Fadiel Ahjum, Hilton Trollip, Bryce

McCall, Ucok W.R. Siagian, Retno Gumilang Dewi, Steve Pye, François Combes, Martin Koning

## **Analyzing sectoral policies for deep decarbonization: the case of national freight transportation**

Lauren Harry-Villain, Yann Briand, Hilton Trollip, Henri Waisman, Sidsel Ahlmann Jensen, Mark

Gjerek, Rico Merkert, Amin Hassani, Marcio Dagosto, George Vasconcelos Goes, Ricardo Delgado

Cadena, Dipti Gupta, Jordi Tovilla, Thalia Hernandez, Nnaemeka Emodi, Alicia Zhao, Ryna Yiyun Cui,

Frederic Rudolph, Catherine Hall, Harro van Asselt, Maria Rosa Munoz, Daniel Neves Schmitz-

Gonçalves

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18:00 pm, Sports Hall 1

## **Drinks reception**

## **Poster session**



### **The scenarios for climate and societal futures for the coastal region of Kenya**

John Thoya Maitha, Ibrahim, Ioannis Tsipouridis

### **Reducing the catastrophic risk potential from unseen climate extremes: findings from workshop discussions and a path forward**

Tom Wood, Hebe Nicholson, Jenix Justine, Tom Matthews

### **Natural biome changes and climate feedbacks in long-term future climate model simulations**

Daniel Hill

### **FeliX ISE: An interactive and participatory tool for exploring behaviour change scenarios in the food system**

Ryan Yi Wei Tan, Filippos Marntirosian, Deepthi Swamy, Nikolaos Tantaroudas, Sibel Eker

### **An economic framework for extending greenhouse gas emissions from multiple Integrated Assessment Models beyond 2100**

Weiwei Xiong, Katsumasa Tanaka

### **Sectoral drivers of 1.5°C compatibility: A machine learning analysis comparing outcomes from PRIM, SHAP, and clustering**

Georgia Ray

### **Enhancing dynamic adaptive policy pathways with pathway operators for clearer visualization of climate intervention decisions**

Hannah Rebekah Thigpen, Vanessa Schweizer

## **Tracking global peaking**

Claire Fyson, Sabine Fuss, Carl Schleussner, Neil Grant

## **Exploring the interplay of SRM and CDR in climate change mitigation strategies**

Yue He, Thomas Gasser

## **Toward a consistent comparison of the social cost of carbon and target-consistent carbon prices with application to Korea**

Yohan Choi, Chan Park, Jonghyun Yoo, Haewon C. McJeon, Jiyong Eom, YeongJae Kim

## **Commercialization and consumerism: Catalysts of urban sprawl and land use transformation in Bengaluru**

Dr Shivakumar Nayka.G

## **Using classroom drama methods as an educational tool for teaching climate action in schools**

Carolyn Bradley

## **Transformation scenarios for the wetlands of the V Baoulé (Côte d'Ivoire) : climate impacts and anthropogenic pressures by 2050**

Mian Joseph Atta, Brou Raymond Yao, Djenebou Soumahoro, Kan Émile Koffi

## **Apples of Discord in the climate code? And other questions (Or: What might we learn from the humanities?)**

LM Bogad, Harlin/Hayley Steele, Alisha Chan

## **Towards a feminist and more participatory approach to scenarios: What we can learn from Asking Different Questions (ADQ)**

Sarah E. Reboloso McCullough, Harlin/Hayley Steele, Kase Wheatley, Anna B. Kawiecki, Alisha Y. Chan, Keith Taylor, Meghana Kotha, Miguel Rezapour, Clara Zhong, James Wei, Avidane Ceana Cabellero, Phuong Thy Nguyen, Tess Bowen, Carlos Alexis De la Torre

## **Urban scenarios for city transformation: Climate adaptation and resilience strategies for the resource constrained metropolitan city of India**

Shailendra K. Mandal, Supriya Rani

## **Application to post-net-zero scenarios of CARMEN, a new carbon cycle emulator coupled with the FaIR SCM**

Alex Romero Prieto, Camilla Mathison, Piers Forster, Glen Harris, Ben Booth, Chris Smith

## **Biome-specific potential benefits and risks of afforestation on biodiversity under future climate change**

Pavithra Rangani Wijenayake, Kazuaki Tsuchiya, Haruka Ohashi, Akiko Hirata, Tomoko Hasegawa, Shinichiro Fujimori, Tetsuya Matsui, Kiyoshi Takahashi

## **A cross-impact balance analysis of marine carbon removal using legal, socio-technical, and environmental insights**

Stephanie Rose Cortinavis, Vanessa Schweizer, Neil Craik

## **Exploring land use governance with serious games: Lessons from Mexico and Denmark**

Yair Asael Alpuche Alvarez

## **Identifying drivers of vulnerability across scales through participatory downscaling of shared socioeconomic pathways: insights from two Global South megacities**

Jan Petzold, Alexandre Pereira Santos, Deepal Doshi, Ravinder Dhiman, Gusti Ayu Ketut Surtiari

## **Past floods as learning foundations: Interdependency and scenario planning for healthcare resilience**

Mawaddah Ghazali, Chee Yew Wong, Paola Sakai, Valentina Lichtner

## **Interactions between global and local drivers of vegetation change in India: Consequences for ecosystem services**

Dilip GT Naidu, Jagdish Krishnaswamy

## **Integrating justice indicators into shared socio-economic pathways of Japan**

Manuela G. Hartwig, Irina Melnikova

## **AI-driven trade intelligence and sustainable economic scenarios for Africa**

Victor Oshodi

## **Comprehensive yet comprehensible: Navigating uncertain climate risks scenarios for local regions to set adaptation priorities**

Ted Buskop, Bart van den Hurk, Frederiek Sperna Weiland

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## **Day 3 – Friday July, 18**

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9:30 am – 11:00 am

### **Parallel session 3a**

Roger Stevens LT 11 (10.11)

## **3a-11: Future directions for Integrated Assessment Modelling (IAM) II**



Chair: Chris Smith

### **Modeling the SHAPE scenarios in IFs**

Jonathan Moyer

### **A Dynamic Scalable Web-Model for Experimenting with Future Socio-Climate Scenarios**

Ben J H Matthews

### **Synthetic Digital Twin: A Generative Framework Bridging Earth Observation and Socio-Behavioral Dynamics**

Antonio Correias, Nathan Kunz

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Roger Stevens LT 05 (7.05)

## **3a-05: Carbon Dioxide Removal**



Chair: Claire Fyson

## **An ecosystem of systematic CDR reviews**

Claire Fyson

### **Emulating an Integrated Assessment Model to Project Long-Term Emissions and Carbon Dioxide Removal Pathways to 2300**

Katsumasa Tanaka, Weiwei Xiong, Leon Merfort, Nico Bauer

### **The Role of Carbon Dioxide Removal in the Nationally Determined Contributions and Long-Term Strategies**

Jay Fuhrman

### **Beyond Story and Simulation: Combining Qualitative and Quantitative Scenarios to Guide Direct Air Capture Policy in Canada**

Kasra Motlaghzadeh, Vanessa Schweizer, Stephanie Rose Cortinovis, Neil Craik

### **Biodiversity implications of land-intensive carbon dioxide removal**

Ruben Prütz, Joeri Rogelj, Gaurav Ganti, Jeff Price, Rachel Warren, Nicole Forstenhäusler, Yazhen Wu, Andrey Lessa Derci Augustynczyk, Michael Wögerer, Tamás Krisztin, Petr Havlík, Florian Kraxner, Stefan Frank, Tomoko Hasegawa, Jonathan Doelman, Vassilis Daioglou, Sabine Fuss

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Roger Stevens LT 09 (8M.09)

## **3a-09: Finance**



Chair: Seth Monteith & Laura Aldrete

## **Towards climate Minsky moment instability scenarios**

Jean-Francois Mercure

### **Achieving the Finance targets of the Global Biodiversity Framework: a scenario approach**

Jimena Alvarez, Sophus zu Ermgassen, Emma O'Donnell, Juan Sabuco, Sarah Gall, Isobel Hawkins, Mattia Troiano, Mark Jwaideh, Lydia Marsden, Nicola Ranger

### **Are sovereign debts sustainable under energy transition?**

Veronica Mammetti, Stavros Zenios, Giacomo Morelli

### **Assessing the materiality of nature-related financial risk for the European Union: a narrative-based approach to scenario development**

Jimena Alvarez, Andrej Ceglar, Francesco Cimini, Carlo Pasqua, Juan Sabuco, Emma O'Donnell, Mark Jwaideh, Francesca Danieli, John Hutchinson, Irene Heemskerk, Nicola Ranger

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Roger Stevens LT 07 (8M.07)

## **3a-07: The futures we want**



Chair: Michael Miess

## **Qualitative storylines and quantitative scenarios for New Economies: translating storylines on different economic paradigms to a variety of models**

Nicole J. van den Berg, Mauricio Rodriguez Acosta, Hettie Boonman, Paolo Pisciella, Michael Kuhn,  
Anouk Geenen, Stephan Slingerland

### **Towards a scenario framework for sustainable development**

Elmar Kriegler

### **Conceptualizing and Operationalizing Malleability in Sociometabolic Systems: Foundations for Sustainable Wellbeing Transformations**

Shonali Pachauri, Helmut Haberl

### **Improved living standards through reduction of income inequality does not jeopardize the achievement of existing climate pledges**

Jon Sampedro, Dirk-Jan Van de Ven, Russell Horowitz, Clàudia Rodés-Bachs, Maria Victoria Román,  
Manuel Tomás, Kanishka B. Narayan, Pralit Patel, Iñaki Arto

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Roger Stevens LT 10 (9.10)

## **3a-10: Just transitions**



Chair: Richard Bärnthaler

### **Sub-national Just Sustainable Transitions Assessment for India**

Saritha Sudharmma Vishwanathan, Jyoti Maheshwari, Udayan Singh, Vidhee Avashia, Rutva Patel,  
Ritiwika Verma, Vishal Gupta, Amit Garg

### **From Carbon Markets to Climate Justice: A Scalable, Community-Driven Approach in Colombia's Cement Sector**

Adriana Olga Alzamora Anticon, Isabella Urbano Trujillo, Sonakshi Saha

### **Whose Empowerment Counts? Gendered Power, Market Interventions, and Development Scenarios in Tanzania and Malawi**

Ruth Smith, Mapenzie Tauzie, Susannah Sallu, Stephen Whitfield

### **Food Sovereignty in Brooklyn, New York: Pathways to Resilient, Black-Led Food Systems**

Storm Lewis

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Roger Stevens LT 04 (8.04)

## **3a-04: Adaptation pathways II**



Chair: George Linney

### **Assessing Feasibility of Integrated Adaptation and Mitigation Strategies Under Present and Future Conditions Using Coping Capacity Indicators**

Eva Loerke, Anita Lazurko, George Linney, Lokendra Karki, Robert Dunford

### **Co-development of new SSP-based integrated socioeconomic and climate scenarios to support adaptation planning for key regional systems in Finland**

Timothy R. Carter

### **Farmers climate adaptation responses to drought in India: Lessons for sustainable development pathways**

K. Ravi Shankar, C.A. Rama Rao, G. Nirmala, K. Nagasree, Jagriti Rohit, C.N. Anshida Beevi, P.K. Pankaj,

Roger Stevens LT 16 (12.16)

## **3a-16: Feedbacks, cascades & tipping points I**



Chair: Edward Byers

### **Probabilistic Projections of Cascading Tipping Element Interactions Under Overshoot Scenarios**

Tessa Moeller, Annika Hoegner, Nico Wunderling, Carl-Friedrich Schleussner

### **Scenarios of cascading tipping points in energy transitions**

Femke Nijse, Cormac Lynch, Amir Akther, Tim Lenton, Aileen Lam

### **Designing a framework for stress testing scenarios for the insurance sector**

Jason A. Lowe, Anubhav Choudhary, Iain Clacher

### **Complex Risk Assessment Framework for Earth System Tipping Points**

Viktoria Spaiser

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Roger Stevens LT 06 (8.06)

## **3a-06: Just Nature Futures II**



Chair: Zuzana Harmáčková

### **Exploring just pathways toward nature-positive futures**

Lucas Rutting

### **Interpretation of the KM-GBF targets is contingent on value perspective**

Jay Burns, Peter Alexander, Mark Rounsevell

### **Visioning ecologically diverse and harmonious futures of Korea in Good Anthropocene**

HyeJin Kim, Garry Peterson, Hyeonjeong Kim, Brian Miller

### **An inclusive approach to enriching Global Marine Scenarios**

Bruno Oliveira, Julie Bremner, Josefin Ekstedt, Furqan Asif, Berthe Vastenhou, David Lusseau, Angel Borja

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Roger Stevens LT 12 (10M.12)

## **3a-12: Mitigation I**



Chair: Dirk-Jan Van de Ven

### **Accounting for the historical failure to cut emissions in deep decarbonisation scenarios**

Neil Grant, Lara Welder, Dimitris Tsekeris, Carley Reynolds, Marie-Charlotte Geffray, Gunnar Luderer, Chen Chris Gong, Fabrice Lécuyer, Jarusch Müßel



## **Toward Integrated Pathways for Climate Mitigation and Material Use Reduction: Insights from the JUSTICE-MATTER Model**

Giacomo Marangoni

### **Towards the next generation of stringent mitigation scenarios: From ScenarioMIP to the AR7**

Laurin Köhler-Schindler, Nico Bauer, Elmar Kriegler, Gabriel Abrahão, Lavinia Baumstark, Jan Philipp Dietrich, Florian Humpenöder, Fabrice Lécuyer, Gunnar Luderer, Leon Merfort, Alexander Popp, Jessica Strefler

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11:00 pm – 11:30 pm, Sports Hall 1

### **Coffee break**

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11:30 am – 13:00 pm

### **Parallel session 3b**

Roger Stevens LT 11 (10.11)

#### **3b-11: Rapid assessment models**



Chair: Chris Smith

#### **FASTMIP: The Fast Assessment for Scenario Trajectories Multi-emulator Intercomparison Project**

Sonia I. Seneviratne, Michael G. Windisch, Yann Quilcaille, Camilla Mathison, Eleonore Burke, Laila K. Gohar, Chris D. Jones

#### **The spatial climate emulator MESMER and its potential in the modelling of scenarios**

Yann Quilcaille, Lukas Gudmundsson, Victoria Bauer, Mathias Hauser, Lorenzo Pierini, Jonas Schwaab, Sarah Schöngart, Sonia I. Seneviratne

#### **Developing the PRIME modelling tool for novel scenario impact modelling.**

Daniel Hooke, Camilla Mathison, David Sexton, Eleanor Burke, Andrew Wiltshire, Chris D Jones, Laila Gohar

#### **The effective reservoirs model and a simple but precise emission response function**

Paul Alkemade

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Roger Stevens LT 07 (8M.07)

#### **3b-07: Values**



Chair: Sara Talebian

#### **Modelling values across Europe consistent with the shared socioeconomic pathways (SSPs)**

Hazel Pettifor, Maureen Agnew, Charlie Wilson

## Scenarios of morally induced behavioural change at scale

Viktoria Spaiser, Ajaykumar Mannivanan

### Rethinking Climate Skepticism: Developmentalism and Environmental Values in Turkey

S. Sena Akkoc, Daniela Kızıldağ, Sinan Erensü

### Deconstructing the present to imagine desirable futures: A framework for building multiscale socio-environmental imaginaries

Sara Talebian

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Roger Stevens LT 10 (9.10)

## 3b-10: Equity and food systems

Chair: Lucas Rutting

### Diverging Kenyan food system futures: markets and economic growth or food justice and sovereignty?

Lucas Rutting

### The Future of Pastoralism in the Changing Climate and Modern Land Use Management in Kajiado County

Sammy Oleku

### Implementing E.U Codes, Regulations and Voluntary Sustainability Standards: Future Scenarios of Sustainability and Equity in Cocoa Value Chain in Ghana

Edward Amankwah

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Roger Stevens LT 04 (8.04)

## 3b-04: Artificial intelligence (AI) and digital transformation

Chairs: Robin Lamboll

### Data Centre Electricity Demand in the Shared Socioeconomic Pathways

Yee Van Fan, Charlie Wilson

### Climate change mitigation scenarios incorporating direct and indirect artificial intelligence (AI) impacts

Hamish Beath, Shivika Mittal, Joeri Rogelj, Robin Lamboll

### Digitalisation and low-carbon lifestyle: Projections for the Shared Socio-economic Pathways (SSPs)

Hazel Pettifor, Maureen Agnew, Charlie Wilson

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Roger Stevens LT 16 (12.16)

## 3b-16: Feedbacks, cascades & tipping points II

Char: Elmar Kriegler

## **Integrating human-Earth feedback loops in the new Integrated Assessment Model FRIDA**

Chris Wells, William Schoenberg, Benjamin Blanz, Chris Smith, Alexandre Koberle, Adakudlu Muralidhar, David Collste, Axel E. Eriksson, Lennart Ramme, Jannes Breier, Beniamino Callegari, Martin Grimeland, Andreas Nicolaidis, Jefferson K. Rajah, Cecilie Mauritzen

## **Integration of impacts, adaptation and mitigation in the next generation of scenarios**

Franziska Piontek, Nico Bauer, Laurin Köhler-Schindler

## **Future scenarios for cascading disasters in cities.**

Roger Cremades, John Marsham

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Roger Stevens LT 06 (8.06)

## **3b-06: Forests**



Chair: Jonathan Doelman

## **Swiss forest sector pathways and their contribution to net-zero emissions until 2050**

Annina Guthauser

## **Towards fire-resilient mitigation pathways in the AFOLU sector: modelling burned area and fire emissions feedback in integrated assessment models**

Théo Rouhette, Dirk-Jan Van de Ven, Kanishka Narayan, Claudia Tebaldi, Oliver Perkins, Olivia Haas, Neus Escobar.

## **Hedging our bet on forest permanence for the economic viability of climate targets**

Michael Windisch, Florian Humpenöder, Leon Merfort, Nico Bauer, Gunnar Luderer, Jan Dietrich, Jens Heinke, Christoph Müller, Gabriel Abrahao, Hermann Lotze-Campen, Alexander Popp

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Roger Stevens LT 12 (10M.12)

## **3b-12: Mitigation II**



Chair: TBD

## **National land-based climate change mitigation strategies for long-term climate goals**

Tomoko Hasegawa, Shinichiro Fujimori, Kazuaki Tsuchiya, Akihiko Ito, Kiyoshi Takahashi

## **Solar Radiation Modification Impacts on the Climate: a Structured Meta-Analysis**

Sam Kaufmann, Jean-François Lamarque

## **Beyond “Least-Cost” allocation: Optimising sectoral contributions for Paris-compatible mitigation targets over multiple SDG trade-offs**

Dirk-Jan van de Ven

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13:00 pm – 14:00 pm, Sports Hall 1

## Lunch break

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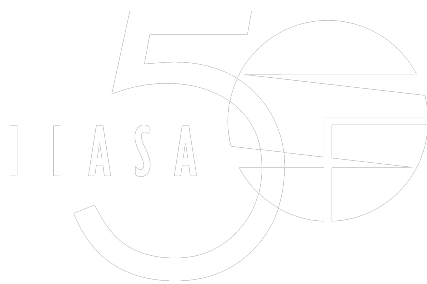
14:00 pm – 15:00 pm, Conference Auditorium

## Insights from the Scenarios Forum 2025 and closing remarks

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