

# Scenarios Forum 2025 Programme

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## 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 pm – 11:00 pm, 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 Fugelsvedt**, 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
- **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

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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:*

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

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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)

## Scenario Model Intercomparison Project (ScenarioMIP) I

### 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**

TBD

## **CMIP Earth System Modeling outlook**

John Dunne

Roger Stevens LT 05 (7.05)

## **National Shared Socioeconomic Pathways (SSPs)**



### **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

Roger Stevens LT 09 (8M.09)

## **Policy & politics I**



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

Taro Kunimitsu, Anton Orlov, Jana Sillmann

### **Impacts of industrial policies on decarbonization pathways in the European Union through a modelling approach**

Alice Di Bella

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

Manuela G. Hartwig, Masahiro Sugiyama, Hiroto Shiraki

### **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

Roger Stevens LT 07 (8M.07)

## **Net Zero**



**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, Francisco Lallana, Emilio Lebre La Rovere, Fei Teng, Amit Garg, Retno Dewi, Jordi Tovilla,

Bryce McCall

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

Yang Qiu

Roger Stevens LT 10 (9.10)

## **International equity I**



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

Gaurav Gharde, Alice Larkin, Carly McLachlan

**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

**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

Roger Stevens LT 04 (8.04)

## **Health-related risks and vulnerability**



**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**

Roger Stevens LT 16 (12.16)

## New ways to build scenarios I

### Mapping the solution space through multi-layered scenario analysis

Mark Dekker, Alaa Al Khourdajie

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

Robin Lamboll

### Assessing and visualizing mitigation policy effort through probabilistic and counterfactual scenarios

Jessica Jewell, Avi Jakhmola, Vadim Vinichenko, Anastasia Pavlenko, 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

Roger Stevens LT 06 (8.06)

## Modelling Nature Futures

### 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

Roger Stevens LT 12 (10M.12)

## Urban scenarios

### 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

Roger Stevens LT 08 (9.08)

## Just energy transition



### 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

### 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

Day 3

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9:30 am – 11:00 am

### Parallel session 2a

Roger Stevens LT 11 (10.11)

### Scenario Model Intercomparison Project (ScenarioMIP) II



#### Updated SSP drivers

TBD

#### 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

TBD

#### Integration of impacts in ScenarioMIP

TBD

#### Next steps for the scenario framework

Bas van Ruijven

Roger Stevens LT 05 (7.05)

## Shared Socioeconomic Pathways (SSPs) across scales

**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**

Weize Song, Zheng Li

Roger Stevens LT 09 (8M.09)

## Policy & politics II

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

Nik Zielonka, Evelina Trutnevyte

**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

Roger Stevens LT 07 (8M.07)

## Low-carbon pathways

**MatMat – Hybrid Input-Output framework to estimate country-level carbon and  
material footprints in future scenarios**

Antoine Teixeira, Fanny Vicard, Julien Lefèvre, Bruno Fontaine, J Grand

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

Peter Berrill

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

Vivien Fisch-Romito, Yannick Oswald

**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

Roger Stevens LT 10 (9.10)

## International equity II



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

Puneet Kamboj

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

Massimo Tavoni, Pietro Andreoni

**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

Roger Stevens LT 04 (8.04)

## Impacts and vulnerability



**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

Roger Stevens LT 16 (12.16)

## New ways to build scenarios II



**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

**Wild cards in the Baltic Sea – are we ready for the unexpected?**

Kari Hyytiäinen, Jamie Jenkins, Susa Niiranen, Vilma Sandström

**Social Inertia, Future Design and Transformative Scenarios: Leveraging Creativity, Emotion and Imagination**

Peter Sutoris

**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

Roger Stevens LT 06 (8.06)

## Biodiversity nexus

### 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

### 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

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

Odirilwe Selomane, IPBES Nexus Assessment Chapter 3 Authors

### Developing Decision Support Tool for Food-Water-Land-Ecosystems Nexus Adaptation to Climate Change in Ethiopia

Natan Yimer

Roger Stevens LT 12 (10M.12)

## Residential sector scenarios

### 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

Roger Stevens LT 08 (9.08)

## Energy transition modelling I

### Does myopic foresight modeling better capture the real-world energy transition? Hindcasting in 31 European countries

Hui Shen, Xin Wen, Evelina Trutnevyte

### Probabilistic electricity system scenarios for 31 European countries

Xin Wen, Marc Jaxa-Rozen, Nik Zielonka, Evelina Trutnevyte

### 1.5°C aligned wind and solar benchmarks

Neil Grant, Lara Welder, Tina Aboumahboub, Severin Ryberg, Fadil Razak, Markus Hagemann, Emily

Daly, Gustavo de Vivero

### Electric Vehicle Aggregation as Grid Flexibility Resource: Methodological Framework and Potential Estimation

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)

### Integrated Assessment Model (IAM) applications

#### 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

#### Charting China's carbon neutrality scenario via coupled natural-social modeling

Tianpeng Wang, Fei Teng

#### 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

Roger Stevens LT 05 (7.05)

### Shared Socioeconomic Pathway (SSP) Drivers I

#### 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

Roger Stevens LT 09 (8M.09)

## Policy & politics III



**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

**Multi-Model Comparative Analysis of CGE Models for Assessing Climate Policy Impacts in China**

Hantang Peng, Xinyi Liu, Chenfei Qu, Da Zhang

**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

Roger Stevens LT 07 (8M.07)

## Global post-growth futures



**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

Roger Stevens LT 10 (9.10)

## Equity and climate impacts



**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

Roger Stevens LT 04 (8.04)

## Risk and vulnerability in national studies



**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

Roger Stevens LT 16 (12.16)

## **Scenario co-creation and co-design**



### **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**

Patrawut Pusingha, Robert A. Marchant

Roger Stevens LT 06 (8.06)

## **Just Nature Futures I**



### **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

Roger Stevens LT 12 (10M.12)

## **Circular economy**



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

Marianne Zanon Zotin

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

Jonathan Norman, John Barrett

**Upscaling materials recycling to enhance sustainability and economic resilience**

Antoine Teixeira, Julien Lefèvre, Frederic Gherzi

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

Maximilian Forberg, Johannes Morfeldt, Daniel Johansson, Jonas Nässén

Roger Stevens LT 08 (9.08)

## **Energy transition modelling II**



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

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

**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

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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)
- **Crystal Drakes**, Economist and sustainability strategist
- **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)

### Future directions for Integrated Assessment Modelling (IAM) I

#### 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

Roger Stevens LT 05 (7.05)

### Shared Socioeconomic Pathway (SSP) Drivers II

#### Downscaled Projections of GDP, Urbanization, and 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

Roger Stevens LT 09 (8M.09)

### Climate Scenarios for the UK

## 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

Roger Stevens LT 07 (8M.07)

## Implementing post-growth futures



### 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

### Sustainable Synergy and Grounded Imaginaries: A Case Study of Dhaji Diwari Method in Himachal Pradesh

Kirti Sharma

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

Lee Francis IV, David Karabelnikoff, Carlee Wilson

Roger Stevens LT 10 (9.10)

## Fair allocations in 1.5°C and overshoot scenarios



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

Setu Pelz

### 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

### 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

Roger Stevens LT 04 (8.04)

## Adaptation pathways I



### 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 Kosoar, 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

Roger Stevens LT 16 (12.16)

## **Communicating scenarios**



### **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

Roger Stevens LT 06 (8.06)

## **Food systems**



### **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

Roger Stevens LT 12 (10M.12)

## **Critical materials**



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

Yang Qiu

### **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

### **How does electrochemical energy storage for photovoltaic power generation affect the demand for critical resources under the climate target?**

Guoen Yin

Roger Stevens LT 08 (9.08)



## Decarbonizing transport



### 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, Amit Garg, Fadiel Ahjum, Ucock W.R. Siagan,

Steve Pye, François Combes

#### 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

#### 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

#### 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

## **Sunshade Earth – Renegotiating the Earth's relationship with the sun**

William Gillam

## **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

## **Grounding climate scenarios in place: Co-designing material futures in the built environment**

Nuala Flood

## **Household's community forest willingness to conserve forest ecosystem for carbon sequestration in Cameroon**

Sophie Michelle Eke Balla

## **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 Cortinovis, Vanessa Schweizer, Neil Craik

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

Yair Asael Alpuche Alvarez

## **Arts-based approaches to global environmental governance: the entangled voices of rivers**

Malaika Cunningham

## **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

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

Thomas Yount

## **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

## Day 3 – Friday July, 18

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9:30 am – 11:00 am

### Parallel session 3a

Roger Stevens LT 11 (10.11)

#### Future directions for Integrated Assessment Modelling (IAM) II

**En-ROADS Consistent with Other Integrated Assessment Models: A statistical comparison based on NGFS scenario results**

Kaveh Dianati

**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

Roger Stevens LT 05 (7.05)

#### Carbon Dioxide Removal I

**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

Roger Stevens LT 09 (8M.09)

#### Finance I

**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?**

Roger Stevens LT 07 (8M.07)

## The futures we want

**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 Pesciella, 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

Roger Stevens LT 10 (9.10)

## Just transitions

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

Saritha Sudharmma Vishwanathan

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

Adriana Olga Alzamora Anticona, 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

Roger Stevens LT 04 (8.04)

## Adaptation pathways II

**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)

## Feedbacks, cascades & tipping points I



### 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

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

Roger Cremades, John Marsham

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

Jason A. Lowe, Anubhav Choudhary, Iain Clacher

Roger Stevens LT 06 (8.06)

## Just Nature Futures II



### 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

Roger Stevens LT 12 (10M.12)

## Mitigation I



### Geopolitical conflict impedes climate change mitigation

Manfred Lenzen, Mengyu Li

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

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

## Mobility

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

Valentin Stuhlfauth, Saheb Yamina, Bouzouina Louafi

#### 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

#### Resources in urban and rural transportation infrastructure: 1970 – 2070

Martijn van Engelenburg

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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)

## Rapid assessment models

### 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

Roger Stevens LT 05 (7.05)

## Carbon Dioxide Removal II

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

Pu Yang

Roger Stevens LT 09 (8M.09)

## Finance II

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

Stavros Zenios

**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

**Financialization in the Development of Carbon Markets in China**

Ruoxuan Li

Roger Stevens LT 07 (8M.07)

## Values

**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 Erensu

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

Sara Talebian

Roger Stevens LT 10 (9.10)

## Equity and food systems

**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  
**Rural Wealth and Consumption of Nutritious and Healthy Diets: Panel Data Evidence from Zambia**

Sophie Michelle Eke Balla

Roger Stevens LT 04 (8.04)

## **Artificial intelligence (AI) and digital transformation**



### **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

Roger Stevens LT 16 (12.16)

## **Feedbacks, cascades & tipping points II**



### **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

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

Viktoria Spaiser

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

Franziska Piontek, Nico Bauer, Laurin Köhler-Schindler

### **Reassessing Climate Policy Under Deep Physical Uncertainty Through Robust Decision-Making**

Thomas Gasser, Armon Rezai, Côme Cheritel, Artem Baklanov, Michael Obersteiner

Roger Stevens LT 06 (8.06)

## **Forests**



### **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

Roger Stevens LT 12 (10M.12)

## Mitigation II



### Mitigation of Anthropogenic Aerosols Causes an Increase in BVOC Emissions

Yue Chen, Cat Scott, Steven Turnock, Steven Rumbold, Laura Wilcox, Bjørn Samset, Robert Allen, Stephen Arnold

### 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

Roger Stevens LT 08 (9.08)

## Renewables



### 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

### Envisioning the Future Role of Offshore Wind in Finland's Energy Mix

Jamie Jenkins

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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



Presented by