

Room: Ostasien - East Asia
(Ground Floor)

24.-25.10.2022
Bonn, Germany



State of the science of "political futures"

Exploring how to improve the representation and usability of socio-political factors in the SSPs



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Workshop
24 – 25 October 2022, Bonn Germany

Rationale: Enhancing the use of social science expertise is fundamental to the development of scenarios of climate and societal futures that are responsive to a wider range of challenges towards strong climate action and sustainability. In particular, there is an agreement that socio-political factors must inform scenarios and be integrated in scenarios in a more systematic way (cf. O’Neill et al. 2020). This need is especially pressing for the Shared Socioeconomic Pathways (SSPs), which are employed in the Intergovernmental Panel on Climate Change (IPCC) assessments.

Objective: This workshop serves for *mapping* the state of the science of existing approaches that model future scenarios of governance institutions and violent conflict. As governance has been conceived as a crucial enabler of sustainability transformations (in particular in climate, energy and health scenarios), there is a need to identify ways how to quantify the socio-political factors that comprise governance/political institutions/violent conflict and integrate them in scenarios. To inform the efforts of research groups that are already engaging in these efforts and to encourage additional research activities, this workshop is the first step in the direction of a “structured model inter-comparison” following the best practices for such efforts and for dissemination to the scenarios research community. Main objectives of the workshop thus are:

- Mapping of the state of the science of existing approaches of future scenarios (short-term goal)
- Define steps and agree on commitments to develop a structured and publishable model inter-comparison (mid-term goal)

This workshop assembles a small group of experts who have been working on understanding and projecting sociopolitical drivers and trends. As a next step, we aim to organize a workshop for a broader range of participants, which allows us to bring in different perspectives from different regions.

Date: 1.5 days; 24th and 25th of October in Bonn, Germany

Format: Workshop, which should allow for creative exchange rather than standardized presentations

Timing: Presentations and comments à 10 minutes

24.10.2022

WORKSHOP – FIRST DAY

13:00	Arrival of participants and light lunch
13:30	<p>Welcome</p> <p>Introductions of participants and aim of workshop</p>
14:00 – 15:00	<p>On the purpose of (socio)political scenarios <i>Halvard Buhaug, Elisabeth Gilmore and Julia Leininger</i></p> <p><u>Guiding question:</u> Why are sociopolitical scenarios relevant for climate/sustainability scenarios? Why is it relevant to integrate sociopolitical factors in future scenarios?</p> <p><u>Goal:</u> Define the starting point and rationale of sociopolitical projections as well as their relevance for future scenarios in climate/sustainability research.</p> <p><u>Content:</u> This session serves as an introductory session to exchange on the relevance of the topic. It aims to foster a joint understanding of the relevance of sociopolitical factors.</p> <p><u>Comments:</u> <i>Nico Bauer, PIK, and Jonas Vestby, PRIO</i></p> <p><u>Moderator:</u> <i>Staffan Lindberg</i></p>
15:00 – 16:15	<p>Introduction to the SSPs and the relevance of model inter-comparisons</p> <p>Introduction by <i>Elmar Kriegler, PIK</i></p> <p><u>Guiding question:</u> What are the SSPs and how did they evolve? Where do we stand now? What can we learn for further SSP development and integrated modelling from prior model inter-comparisons?</p> <p><u>Goal:</u> Learn about SSPs and identify best practices to compare future scenarios that model socio-political factors.</p> <p><u>Content:</u> This session serves as an introductory session to get a deeper knowledge of the SSPs and exchange on the best practices of model inter-comparison (theory, methods, findings etc.). Point of departure are well-known model comparisons such as Gates et al. (1999), Luderer et al. (2012); Clarke et al. (2014), Kriegler et al. (2015) or the mapping of the use of SSPs and RCPs in O'Neill et al. 2020.</p> <p><u>Moderator:</u> <i>Elisabeth Gilmore</i></p>
COFFEE BREAK	

Datasets and indicators to measure sociopolitical factors

Presentation and discussion of existing datasets (12 minutes each)

Guiding questions: What are appropriate datasets that represent measurable political factors? How do political factors and policies correlate? How to best account for political instability, including armed conflict?

Goal: Get to know work of each other more in-depth and link politics/polities to policies in future scenarios.

Content: Colleagues present their datasets and we discuss it. Focus should be on discussion and exchange with a spirit of how to advance our joint field of interest. An additional angle is the discussion of the relationship between politics/polities and policies. As many SSP scenarios use policy interventions, there is a need to disentangle the relationship between these political issues.

Moderator: *Halvard Buhaug*

Policy density as a measurement of climate policy ambition
Simon Schaub and Jale Tosun, Heidelberg University

Political institutions in the V-Dem dataset
Staffan Lindberg and Marina Pavlova, V-Dem Institute

Armed conflict
Håvard Strand, University of Oslo

Comments: *Sylvia Karlsson-Vinkhuyzen, Wageningen University*

16:45 – 18:15

END OF DAY ONE

24.10.2022

**YOU ARE INVITED TO JOIN US FOR DINNER @ 19:30
(COSTS COVERED BY ORGANIZERS)**

**LEO'S BISTRO
HOTEL COLLEGIUM LEONINUM
NOVA VITA RESIDENZ BONN GMBH
NOEGGERATHSTRASSE 34
D-53111 BONN**

25.10.2022
WORKSHOP – SECOND DAY

09:00 – 09:15	<p>Summary of first day and goals for second day</p> <p>Input by organizers</p>
09:15 – 10:45	<p>State of the science I: Existing sociopolitical futures Presentation and discussion of three models (10 minutes each)</p> <p><u>Guiding question:</u> What are major explanatory factors of institutional development? Which factors should be accounted for when modeling future sociopolitical development? What are the main features of each model? What are advantages, what shortcomings?</p> <p><u>Goal:</u> Get to know work of each other more in-depth</p> <p><u>Content:</u> Colleagues present their work followed by discussion of the key themes, methodological advancements, and potential new directions for inquiry. Focus should be on discussion and exchange with a spirit of how to advance our joint field of interest.</p> <p><u>Moderator:</u> <i>Armin von Schiller</i></p> <p>Explanatory factors of institutional development <i>Staffan Lindberg, V-Dem Institute</i></p> <p>Governance projection along SSPs <i>Marina Andrijevic, IIASA</i></p> <p>Political institutions along SSPs and SDP <i>Constantin Ruhe, University Frankfurt, IDOS, Chris Wingens, IDOS and Julia Leininger, IDOS</i></p> <p><u>Comments:</u> <i>Mark Roelfsema, PBL</i></p>
COFFEE BREAK	

State of the science II: Existing sociopolitical futures

Presentation and discussion of three models (10 minutes each)

Guiding question: What are major explanatory factors of conflict development? Which factors should be accounted for when modeling future sociopolitical development? What are the main features of each model? What are advantages, what shortcomings?

Goal: Get to know work of each other more in-depth

Content: Colleagues present their work followed by discussion of the key themes, methodological advancements, and potential new directions for inquiry. Focus should be on discussion and exchange with a spirit of how to advance our joint field of interest.

11:00 – 12:30

Moderator: *Halvard Buhaug*

Key drivers of armed conflict
Håvard Strand, University of Oslo

Conflict scenarios and incorporating feedbacks into the economy
Elisabeth Gilmore, PRIO and Carleton University

Predicting the impact of armed conflict on vulnerability
Paola Vesco, Uppsala University

Comments: *Jessica Jewell, Chalmers University*

LUNCH BREAK

State of the science III: Existing sociopolitical futures

Presentation and discussion of three models (10 minutes each)

Guiding question: Which factors should be accounted for when modeling future sociopolitical development? What are the main features of each model? What are advantages, what shortcomings?

Goal: Get to know work of each other more in-depth

Content: Colleagues present their work followed by discussion of the key themes, methodological advancements, and potential new directions for inquiry. Focus should be on discussion and exchange with a spirit of how to advance our joint field of interest.

13:30 – 15:00

Moderator: *Elisabeth Gilmore*

Explorations of integrating sociopolitical factors
Elina Brutschin, IIASA

Forecasting sociopolitical variables along the SSPs using the International Futures model
Jonathan Moyer, Denver University

Exogenous and endogenous societal development projections
Halvard Buhaug, PRIO

Comments: *Bas van Ruijven, IIASA*

COFFEE BREAK

Way ahead

Organizers

Roundtable with all participants and structured discussion on the main insights of the “state of the art” and “indicator” sessions.

Guiding question: What are next steps towards a joint publication? What gaps need to be closed before we can go for a proper model comparison?

15:15 – 16:45

Goal: Identify the main insights and gaps and define next steps towards a publication (probably a mapping at this stage, which defines gaps that are the basis for working towards a more “sophisticated” model comparison.

Content: Structured discussion (pinboards etc.)

Moderator: *Julia Leininger*

END OF WORKSHOP

References

Clarke L. et al. in *Climate Change 2014: Mitigation of Climate Change* (eds Edenhofer, O. et al.) Ch. 6 (IPCC, Cambridge Univ. Press, 2014).

Gates, W. L., Boyle, J. S., Covey, C., Dease, C. G., Doutriaux, C. M., Drach, R. S., ... & Williams, D. N. (1999). An overview of the results of the Atmospheric Model Intercomparison Project (AMIP I). *Bulletin of the American Meteorological Society*, 80(1), 29-56.

Kriegler, E., Riahi, K., Bauer, N., Schwanitz, V. J., Petermann, N., Bosetti, V., ... & Edenhofer, O. (2015). Making or breaking climate targets: The AMPERE study on staged accession scenarios for climate policy. *Technological Forecasting and Social Change*, 90, 24-44.

Luderer, G., Bosetti, V., Jakob, M. et al. The economics of decarbonizing the energy system—results and insights from the RECIPE model intercomparison. *Climatic Change* **114**, 9–37 (2012). <https://doi.org/10.1007/s10584-011-0105-x>

O'Neill, B.C., Carter, T.R., Ebi, K. et al. Achievements and needs for the climate change scenario framework. *Nat. Clim. Chang.* **10**, 1074–1084 (2020). <https://doi.org/10.1038/s41558-020-00952-0>

List of participants Workshop

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Surname	Name	Institution/Affiliation
Andrijevic	Marina	International Institute for Applied Systems Analysis (IIASA)
Bauer	Nico	Potsdam-Institut für Klimafolgenforschung (PIK)
Brutschin	Elina	International Institute for Applied Systems Analysis (IIASA)
Buhaug	Halvard	Peace Research Institute Oslo (PRIO)
Carlsen	Henrik	Stockholm Environment Institute (SEI)
Gilmore	Elisabeth	Carleton University
Hernandez	Ariel	German Institute of Development and Sustainability (IDOS)
Jewell	Jessica	Chalmers University
Karlsson-Vinkhuyzen	Sylvia	Wageningen University
Kriegler	Elmar	Potsdam-Institut für Klimafolgenforschung (PIK)
Leininger	Julia	German Institute of Development and Sustainability (IDOS)
Lindberg	Staffan	V-Dem Institute
Moyer	Jonathan	University of Denver
Pavlova	Marina	V-Dem Institute
Roelfsema	Mark	PBL Netherlands Environmental Assessment Agency
Ruhe	Constantin	Goethe University Frankfurt
Schaub	Simon	Heidelberg University
Strand	Håvard	Peace Research Institute Oslo (PRIO)
van Ruijven	Bas	International Institute for Applied Systems Analysis (IIASA)
Vesco	Paola	Uppsala University
Vestby	Jonas	Peace Research Institute Oslo (PRIO)
von Schiller	Armin	German Institute of Development and Sustainability (IDOS)
Wingens	Christopher	German Institute of Development and Sustainability (IDOS)

Organisation



German Institute of Development and Sustainability (IDOS)

Tulpenfeld 6
53113 Bonn

Contact:

Raja Mohsin Khalid
Phone: +49 228 94 927-161
Emergency contact (Dr Julia Leininger): +49 170 6406464
Fax: +49 228 94 927-130
Email: idos@idos-research.de