

Mitigation scenarios relevant for policymaking: IPCC Working Group III approach in the Sixth Assessment Cycle

IPCC Working Group III Technical Support Unit, www.ipcc-wg3.ac.uk

The IPCC: The international body for the assessment of climate change



IPCC member governments asked for AR6 to focus on **options for decarbonisation pathways** and to anticipate the global stocktake. Photo by IISD/ENB | Mike Muzurakis



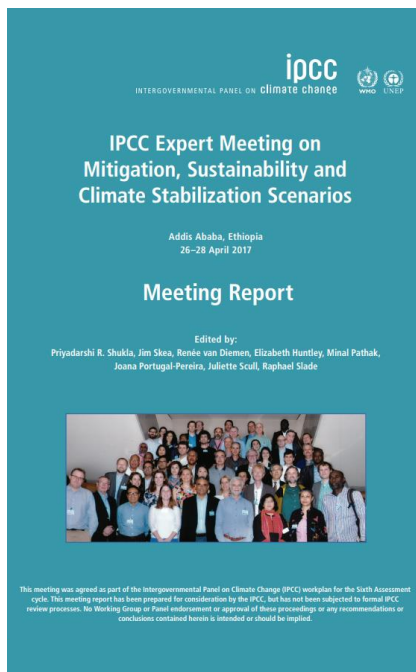
The Working Group III Co-Chairs want to **increase policy relevance** by strengthening the links between insights from scenarios and the potential steps to mitigate climate change. Photo by IISD/ENB | Diego Noguera



54 researchers from 26 countries took part in an Expert Meeting to discuss **how best to apply insights from scenarios and models** in the IPCC 6th Assessment Report.



IPCC staff provide scientific, operational and communication expertise to support authors in maximising the policy-relevance of scenario assessments.



What is a scenario?

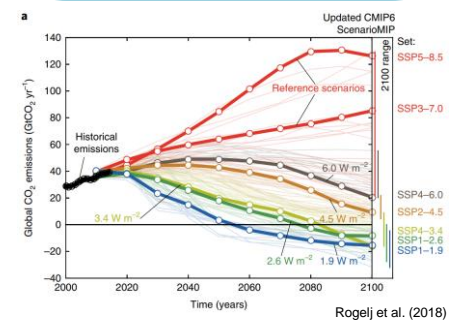
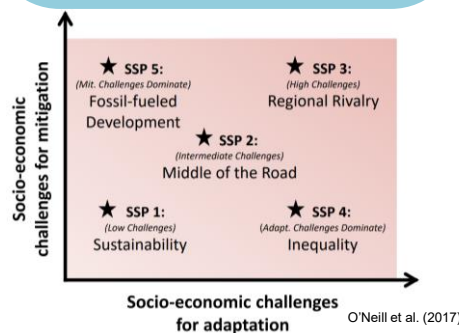
- Scenarios are neither predictions, projections nor forecasts: they are representations of plausible and internally consistent futures that link mitigation actions to different levels of climate ambition.
- Scenarios link drivers such as population, socio-economic development, technology and policy to mitigation actions, emission pathways and global climate change.
- The IPCC 5th Assessment Report covered 900 climate mitigation scenarios: since then, the modelling community has been developing new scenarios that reflect the aims of the Paris Agreement.

Making scenarios useful here and now

IPCC Working Group III held an Expert Meeting on scenarios in April 2017 in Addis Ababa, Ethiopia, to:

- Assess the linkages between high-level, long-term goals and the practical steps needed in the short- and medium-term to make these goals possible.
- Anchor climate responses in the context of development needs.
- Ensure that scenario modelling insights could be effectively included in the scoping of AR6.

The meeting recommendations fed directly into the scoping meeting for the 6th Assessment Report.



Four ways in which the Working Group III contribution to the IPCC 6th Assessment Report will use scenarios

1. Link long-term aims and near- to mid-term considerations

There is a need to better understand the near-term implications of the Paris Agreement. What are the implications for policy and investment decisions in the next few decades? In a new chapter **Mitigation and development pathways in the near- to mid-term**, AR6 will explore options on the same timescale as Nationally Determined Contributions.

2. Unpack feasibility

What is possible in models may not be possible in the real world, and vice versa. AR6 will unpack the feasibility of different levels of climate ambition by addressing enabling conditions. It will consider the technological, economic, societal and institutional dimensions of scenarios.

3. Understand the social and economic dimensions of mitigation scenarios

The IPCC is including alternative perspectives in its assessment of scenarios by bringing modellers and social scientists together in chapter teams. AR6 will include a new chapter **Demand, services and social aspects of mitigation** that will include considerations such as patterns of development and social acceptability of mitigation options.

4. Improve transparency

AR6 will be more explicit about assumptions, trade-offs, and uncertainties in scenarios, including demonstrating how value judgements have been made. An annex on scenarios and modelling methods will explain what insights scenarios can provide and their limitations.