

Expectations and outline of the WG III contribution to the 6th Assessment Report





Government questionnaire: priority topics for AR6

Policy relevant information on the Paris Agreement goals (well below 2°C, efforts to achieve 1.5°C, climate neutrality); anticipate the global stocktake; transformation pathways to meet 2°C and 1.5°C; social + financial + technological + sectoral + regional implications of pathways	19
Geo-engineering, including limits, negative emissions	7
The role of short-lived climate pollutants and other benefits	6
Options for decarbonization pathways, including solutions from business	6
Links between climate change and SDGs	5
Technological, economic, social, and institutional barriers to realizing mitigation targets and benefits from carbon offset mechanisms	4
Opportunities, challenges, barriers and co-benefits of climate change mitigation policies and measures	3
Impacts on land-use change, including ecosystem restoration, biodiversity and ecosystem functions and services	3

Mitigation in the Paris Agreement: Temperature, emissions and sinks

- "This Agreement aims to strengthen the global response to the threat of climate change.... including by holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change"
- "Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve"
- The CoP....shall periodically take stock of the implementation of the Agreement to assess collective progress towards achieving the purpose of the Agreement and its long-term goals (the "global stocktake")
- Parties aim to reach global peaking of greenhouse gas emissions as soon as possible..... so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century







AR5 achieved a systemic view of mitigation opportunities. But there is a need to include a wider range of approaches in the assessment, including national and regional modelling as well as global models.

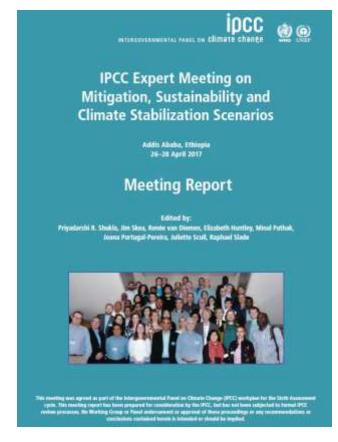
Working Group III Challenges for AR6:

- To assess the linkages between high-level climate stabilization goals and scenarios on the one hand and the range of practical steps that can be taken in the short- and medium-term to make the realisation of these goals possible.
- To make greater use of social science disciplines, in addition to economics, especially for gaining insight into issues related to lifestyle, behaviour, consumption, technological choices and socio-technical transitions.
- To link climate change mitigation better to other agreed policy goals nationally and internationally (e.g. the Sustainable Development Goals - SDGs).



Expert Meeting on IPCC Expert Meeting on Mitigation, Sustainability and Climate Stabilisation Scenarios: April 2017

- 54 scientists from 27 countries covering a wide range of disciplines and perspectives – not just modellers
- Also included participants from:
 - Business
 - Government
 - WGs I and II communities









Recommendations for the IPCC

- Establish a cross-chapter contact group within WG III on scenarios and modelling
- Establish a cross-Working Group contact group for scenarios during the AR6 cycle
- Select authors with a wide-range of expertise, and authors that can enhance integration across Working Groups.
- Hold cross–Working Group discussions on best practices for presentation and communication of scenario ranges.
- Determine how the IPCC will use the Shared Socio-Economic Pathways (SSPs)
- Establish a clearer distinction between 'assessment' and 'research', and communicate this distinction to the authors.



Recommendations for research

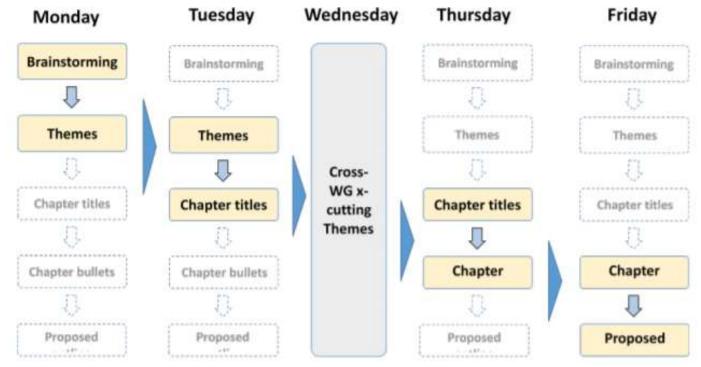
- communities Ensure different tools and models are used for the purpose they are most appropriate for
 - Identify gaps in knowledge in integrated assessment models
 - Link IAMs with finer scale models that represent infrastructure more explicitly
 - Enhance transparency by being more explicit about assumptions, trade-offs, and uncertainties in scenarios
 - Unpack the concept of 'feasibility'
 - Bottom-up research communities could enhance efforts to self-organise, and build capacity on modelling for under-represented regions
 - Broaden the range of people (including social scientists, businesses and other stakeholders) involved in the design of storylines that feed into the scenarios.





AR6 scoping meeting May 2017

- Structured bottom-up process: no draft outline to start the meeting.
- Outline emerged over the course of the week through interactive series of discussions.



Approving the outlines of AR6 September 2017







Approved outline of WG III AR6

Framing (1 chapter)

1. Introduction and framing

High-level assessment of emission trends, drivers and pathways (3 chapters)

- 2. Emissions trends and drivers
- 3. Mitigation pathways compatible with long-term goals
- 4. Mitigation and development pathways in the near- to mid-term

Sectoral chapters (8 chapters)

- 5: Demand, services and social aspects of mitigation
- 6: Energy systems

- 9. Buildings
- 7. Agriculture, Forestry, and Other Land Uses 10. Transport
- 8. Urban systems and other settlements
- 11. Industry

12. Cross sectoral perspectives

Institutional drivers (2 chapters)

- 13. National and sub-national policies and institutions
- 14. International cooperation

Financial and technological drivers (2 chapters)

- 15. Investment and finance
- 16. Innovation, technology development and transfer

Synthesis (1 chapter)

17. Accelerating the transition in the context of sustainable development

Set up sustainable development as key framing concept

> Balancing sources and sinks/warming levels

NDCs, emissions peaking, midcentury long-term low greenhouse gas emission development strategies

Orients sectors to human needs

The sectoral core: maps on to inventories

Responses not captured by sectoral framing

> Institutions, policies and cooperation

Financial flows + technological innovation

Synthesis sustainable development in different geographical scales







IPCC WG III timeline

*	APR	I-5 Apr First Lead Author Meeting (LAMI), Edinburgh, UK
	JUL	7 Jul Submission of Zero Order Draft (ZOD) to TSU for compilation
2019		8-19 Jul TSU compile Zero Order Draft
		22 Jul-I Sep Internal Review of Zero Order Draft
	SEP	7 Sep TSU distribute compiled ZOD review comments to CLAs
		30 Sep-4 Oct Second Lead Author Meeting (LAM2), Location TBC
	DEC	15 Dec First Order Draft (FOD) submitted to TSU for Compilation
		16 Dec-12 Jan TSU compile First Order Draft
*	JAN	13 Jan-8 Mar Expert Review of First Order Draft
	MAR	19 Mar TSU distribute compiled FOD review comments to CLAs
	APR	13-17 Apr Third Lead Author Meeting (LAM3), Location TBC
*	JUN	15 Jun Literature deadline: cut-off date for submitted papers Literature for consideration by report authors must be submitted to publishers by this date
		28 Jun Second Order Draft (SOD) submitted to TSII for Compilation

	JUN	29 Jun-12 Jul TSU compile Second Order Draft	
*	JUL	13 Jul-13 Sep Expert & Government Review of the SOD & the FOD of the Summary for Policymakers (SPM)	
	SEP	26 Sep TSU distribute compiled SOD review comments to CLAs	
	ОСТ	25-31 Oct Fourth Lead Author Meeting (LAM4), Location TBC	H
	DEC	Week of 14 Dec (TBC) SPM Drafting Authors Writing Workshop, Location TBC	
	JAN	19 Jan Literature deadline: cut-off date for accepted papers Literature for consideration by report authors must be accepted for publication by this date	7
		31 Jan Final draft submitted to TSU	
	FEB	I-14 Feb TSU compile Final Draft	
		15 Feb-11 Apr Final Government Distribution (FGD)	7
	APR	28 Apr TSU send compiled SPM Review Comments to SPM Drafting Team	
	JUL	9-10 Jul SPM Meeting, Location TBC	
		12-16 Jul Approval Plenary, Location TBC	*







2020