



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.

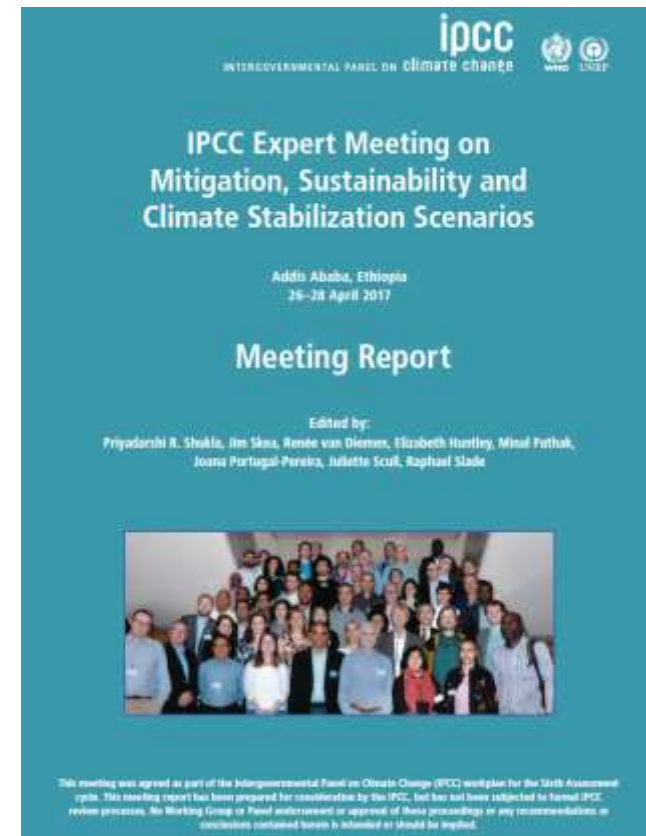
Working Group III Challenges for AR6:

- 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.

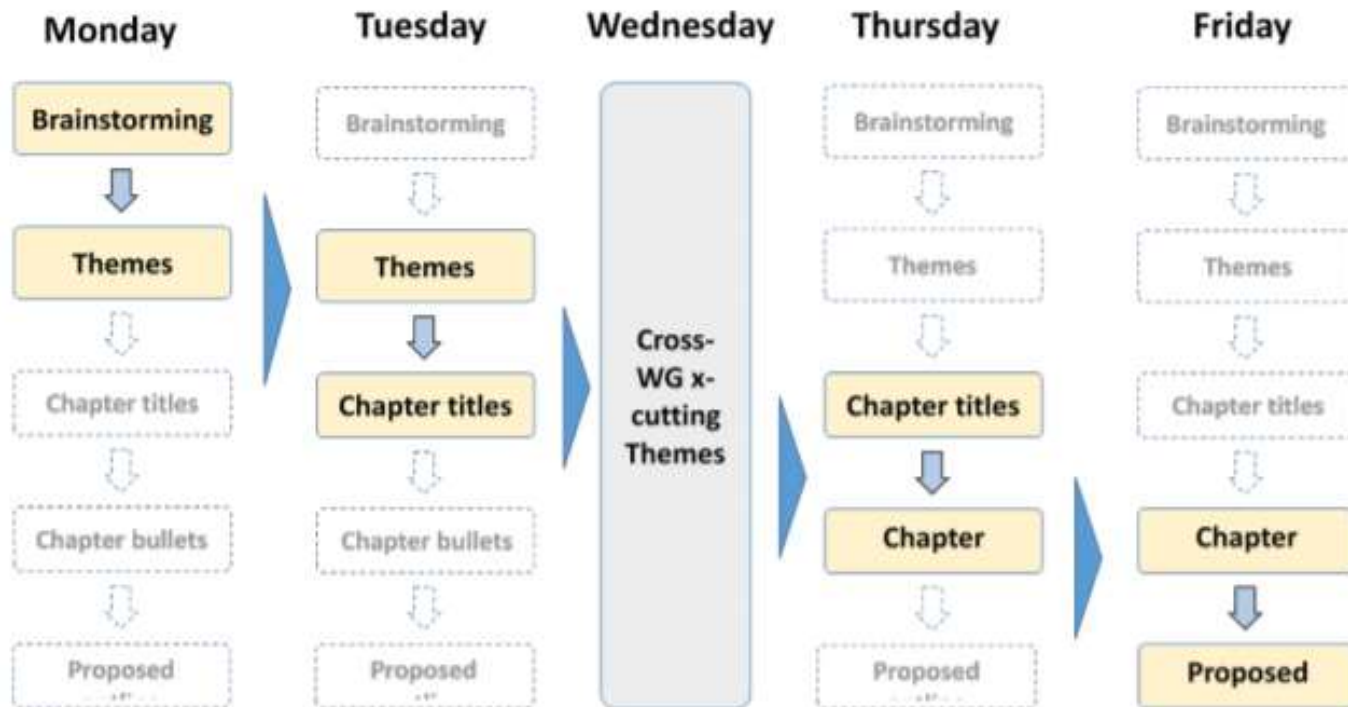
Recommendations for research communities

- 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

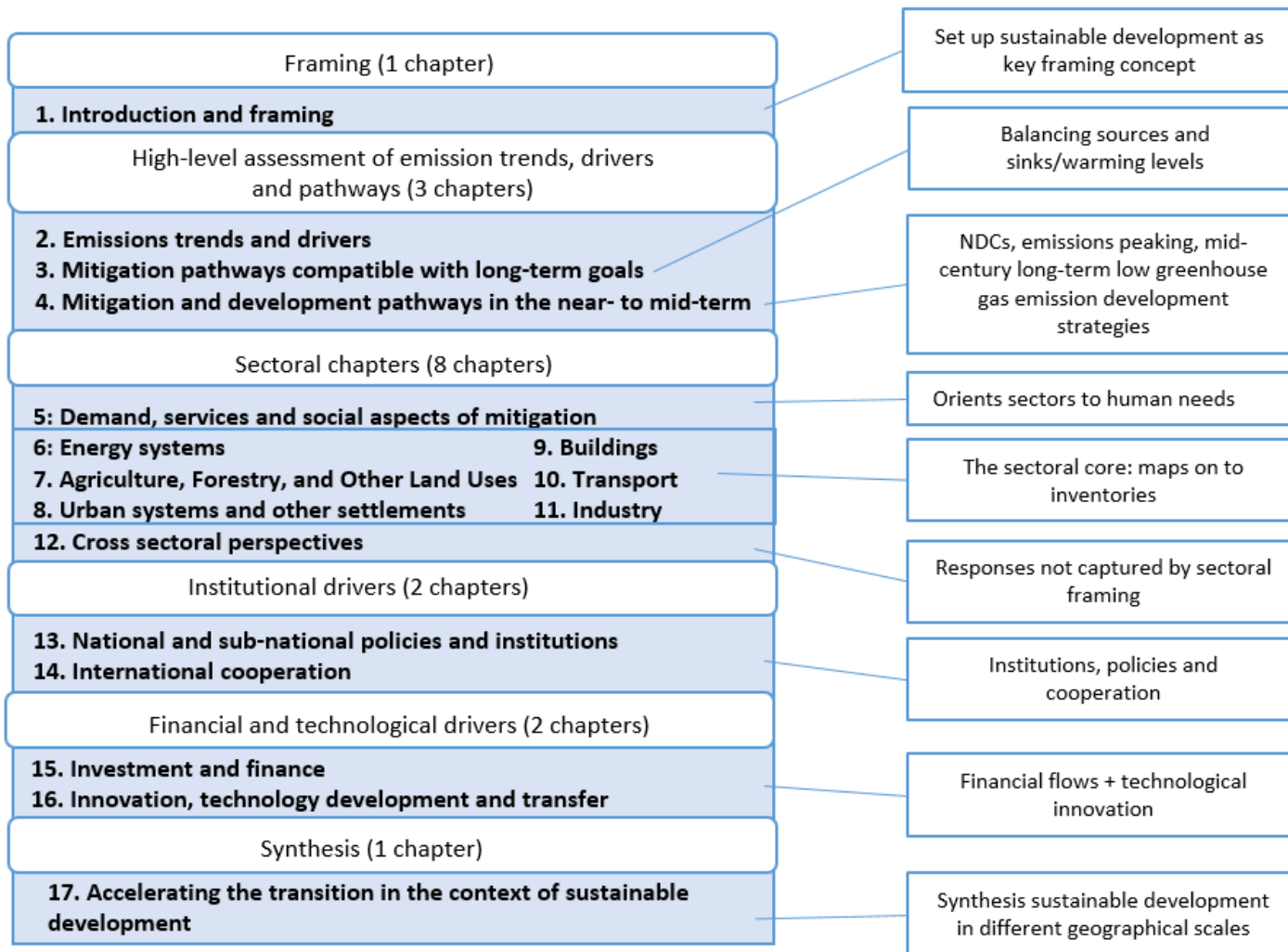
- Structured bottom-up process: no draft outline to start the meeting.
- Outline emerged over the course of the week through interactive series of discussions.



Approving the outlines of AR6 September 2017



Approved outline of WG III AR6



IPCC WG III timeline

