

IPCC AR5 – Working Group III From: Lead Author Meeting I

Prof. Dr. Ottmar Edenhofer

Steffen Schlömer, Christoph von Stechow



- AR5 WGIII Outline & X-WG Cooperation
- AR5 and the Science Policy Interface
- Various Challenges Ahead



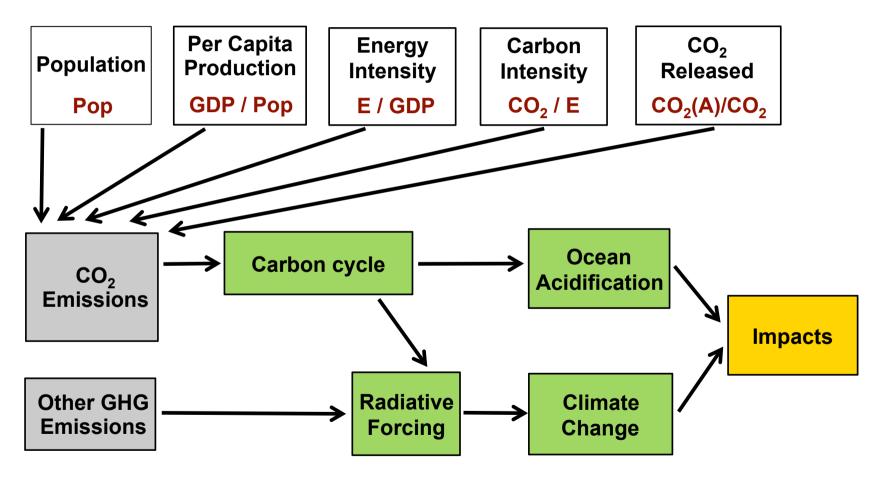


- AR5 WGIII Outline & X-WG Cooperation
- AR5 and the Science Policy Interface
- Various Challenges Ahead





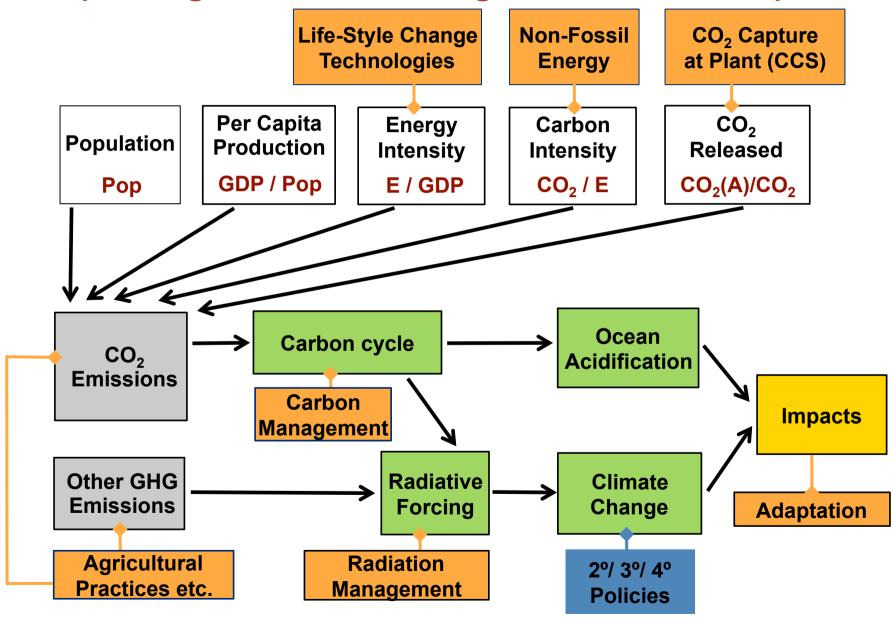
Comprehensive Understanding of Solution Space







Exploring and Assessing the Solution Space



Exploring the Solution Space – Implications

- All solutions even extreme solutions
- No place for political negotiation (language)
- No place to push a political agenda





Added Value of AR5 Outline Compared to AR4

- Improved treatment of social, economic and ethical issues, and a discussion on their application in the context of sustainable development.
- Iterative top-down and bottom-up approach.
- Exploration of different mitigation pathways.
- Integration of mitigation and adaptation.
- Geo-engineering
- Human settlement, infrastructure and spatial planning
- Integrated risk and uncertainty assessment of climate change response policies on the global, regional, national and sub-national level.
- Integrated assessment of investment and finance issues.



AR5 WG III Outline

I: Introduction	1. Introductory Chapter
II: Framing Issues	2. Integrated Risk and Uncertainty Assessment of Climate Change Response Policies
	3. Social, Economic and Ethical Concepts and Methods
	4. Sustainable Development and Equity
III: Pathways for Mitigating Climate Change	5. Drivers, Trends and Mitigation
	6. Assessing Transformation Pathways
	7. Energy Systems
	8. Transport
	9. Buildings
	10. Industry
	11. Agriculture, Forestry and Other Land Use (AFOLU)
	12. Human Settlements, Infrastructure and Spatial Planning
IV: Assessment of Policies, Institutions and Finance	13. International Cooperation: Agreements and Instruments
	14. Regional Development and Cooperation
	15. National and Sub-national Policies and Institutions
	16. Cross-cutting Investment and Finance Issues

- AR5 Outline & Cross-WG Cooperation
- AR5 and the Science Policy Interface
- Various Challenges Ahead





What is the Pragmatic Model of Science Policy Interface?

- Goals can only be justified in a discussion and in a decision process between science and society.
- If goals undermine themselves, they will be not sustainable.
- It is crucial to also name those preconditions that might lead to the failure of a specific strategy.
- The knowledge that is used for decision making has to be explictly mentioned and justified.



Policy Relevant but not Policy Prescriptive – What Does it Mean?

- "...to assess on a comprehensive, objective, open and transparent basis the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation. IPCC reports should be neutral with respect to policy, although they may need to deal objectively with scientific, technical and socioeconomic factors relevant to the application of particular policies". (Principles Governing IPCC Work)
 - Be explicit about value judgments
 - Be aware that there is more than one value system
 - Be based on reliable facts



- AR5 Outline & Cross-WG Cooperation
- AR5 and the Science Policy Interface
- Various Challenges Ahead





The Political Challenge



Advance unedited version

Draft decision -/CP.16

Outcome of the work of the Ad Hoc Working Group on long-term Cooperative Action under the Convention

The Conference of the Parties

Recalling its decision 1/CP.13 (the Bali Action Plan), and decision 1/CP 15,

Seeking to secure progress in a balanced manner, in the understanding that, through this decision, not all aspects of the work of the Ad Hoc Working Group on Long-term Cooperative Action under

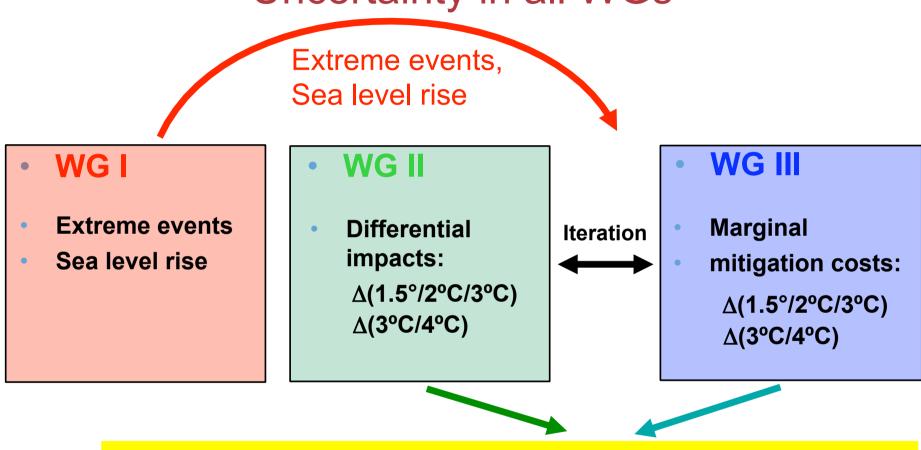
The Conference of the Parties...

[...] recognizes that deep cuts in global greenhouse gas emissions are required [...] to hold the increase in global average temperature below 2°C ...

[...] also recognizes the need to consider, [...] strengthening the long-term global goal [...], including in relation to a global average temperature rise of 1.5°C.

owing to geography, gender, age, indigenous or minority status and disability.

AR5 Innovation: Considering Risk/ Uncertainty in all WGs



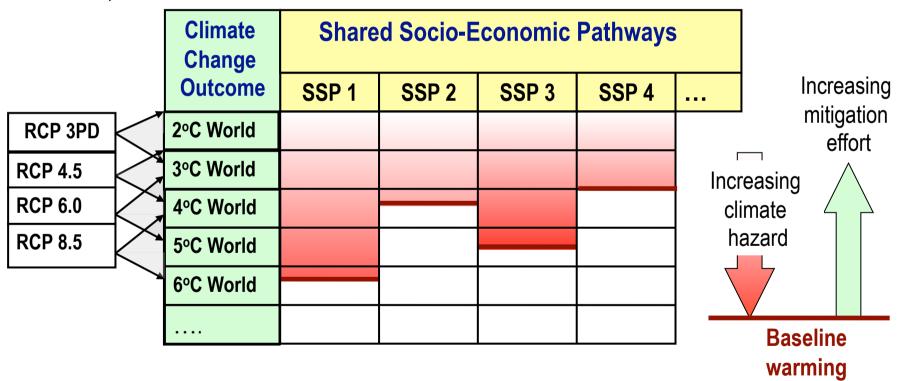
 $\Delta(1.5^{\circ}/2^{\circ}/3^{\circ}), \Delta(3^{\circ}/4^{\circ})$ Policies:

Consistent picture of impact and mitigation costs for policy relevance

A **least common denominator** for scenarios across scientific communities is required

Result of IPCC Scenario Workshop Nov 2010

→ Workshop on Socioeconomic Scenarios for Climate Change Impact and Response Assessments (WoSES), Berlin, November 2010



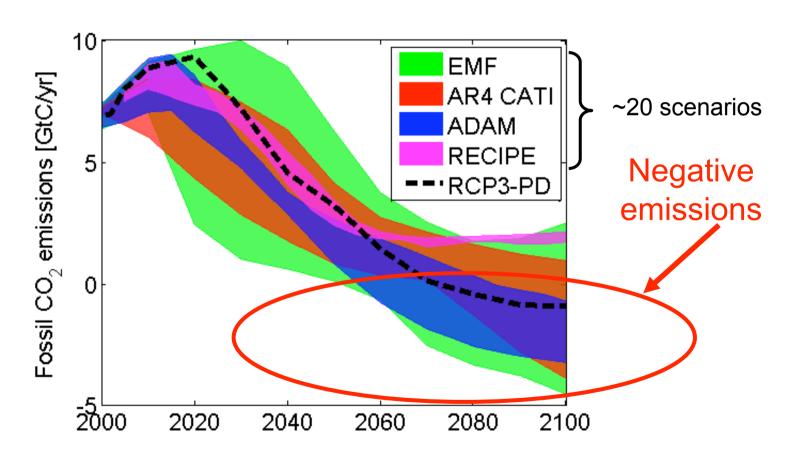
E. Kriegler, B. O'Neill, S. Hallegatte, T. Kram, R. Lempert, R. Moss, T. Wilbanks (2010), Socio-economic scenario development for climate change analysis, Working paper





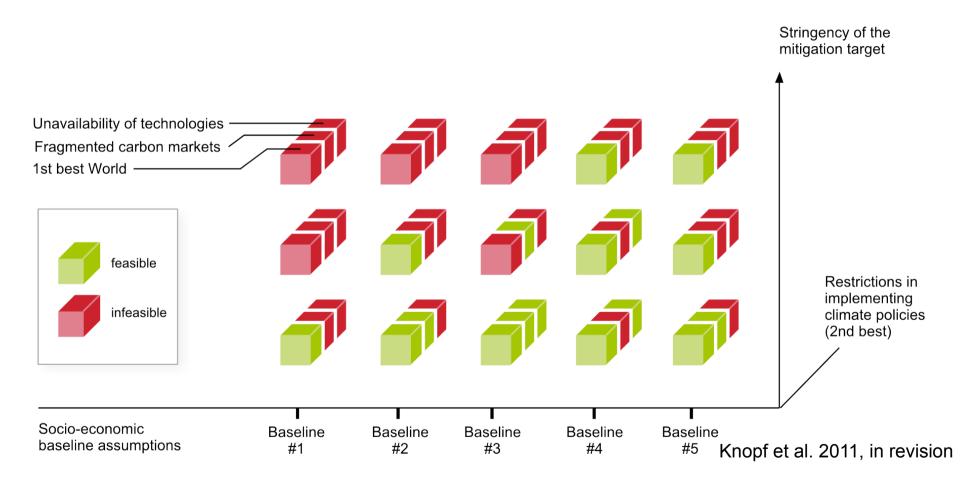
Low Mitigation Scenarios Beyond AR4

- ...but already many more available for AR5
- Exploration of RCP3-PD within the scenario process



Knopf/Luderer/Edenhofer (2011).

Scenarios for WG III: Exploration of the feasibility frontier in "second-best worlds"







Other Important Challenges Include...

- ... making the ethical foundations of economic analysis explicit throughout the AR5.
- ... providing relevant information on various geographic scales and for various sectors.
- ... providing a consistent assessment for very differet expectations.



