

# IPCC Technical Briefing AWG-LCA

## Emerging Results and Contributions of WG I

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**ipcc**  
INTERGOVERNMENTAL PANEL ON climate change



## Relevance of Physical Science Basis for UNFCCC Art. 2:

- The Copenhagen Accord proposes levels of climate change which suggest compliance with Art. 2 of the UNFCCC;
- WG I will assess information on **climate change commitments**, on **irreversible changes**, and on **abrupt climate changes**;
- WG I will continue to assess information on changes in mean and variability for major climate variables for **a range of scenarios**;
- This combined knowledge is essential for the **assessment of risk** performed in WG II and WG III;
- WG I will **not provide** an assessment of what constitutes „*dangerous anthropogenic interference with the climate system*“.

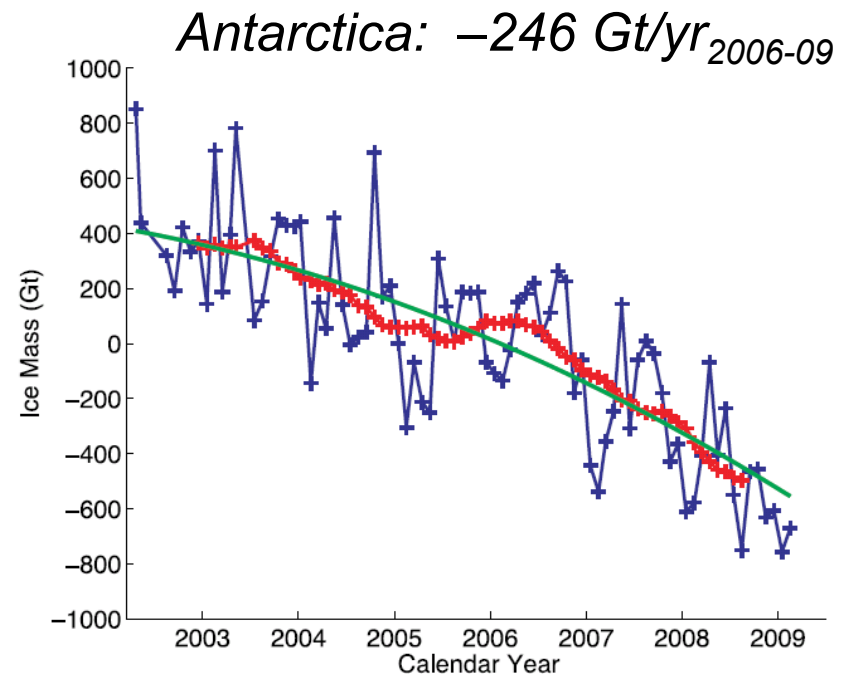
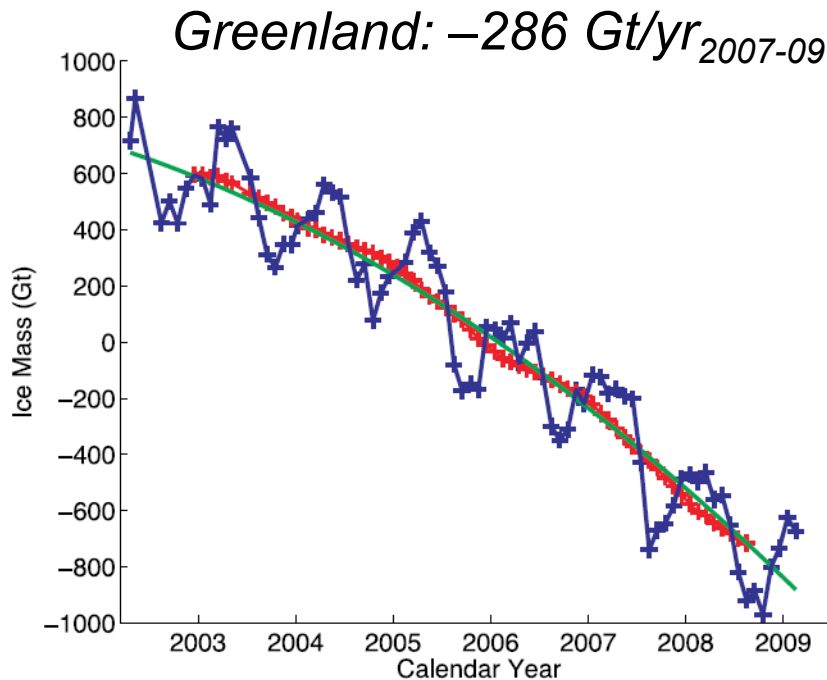
## Preparations of WGI towards AR5:

*non-exhaustive list of IPCC Expert Meetings (EM) and IPCC Workshops (WS)*

- |          |   |
|----------|---|
| Jan 2010 | EM on Assessing and Combining Multi-Model Climate Projections<br><input checked="" type="checkbox"/> <a href="#">Meeting Report and Good Practice Guidance Paper</a>  |
| Jun 2010 | WS on Sea Level Rise and Ice Sheet Instabilities<br><input checked="" type="checkbox"/> <a href="#">Meeting Report</a>  |
| Jul 2010 | cross-WG Meeting on Consistent Treatment of Uncertainties (with WGII and WGIII)<br><input checked="" type="checkbox"/> <a href="#">Guidance Notes for AR5 Authors</a> |
| Jan 2011 | WS on Impacts of Ocean Acidification on Marine Biology and Ecosystems (with WGII)<br><input checked="" type="checkbox"/> <a href="#">Meeting Report</a>               |
| Jun 2011 | EM on Geoengineering (with WGII and WGIII)<br><input type="checkbox"/> <a href="#">Meeting Report</a>   |

❖ **Large ice sheets in polar regions (Chapter 4)**

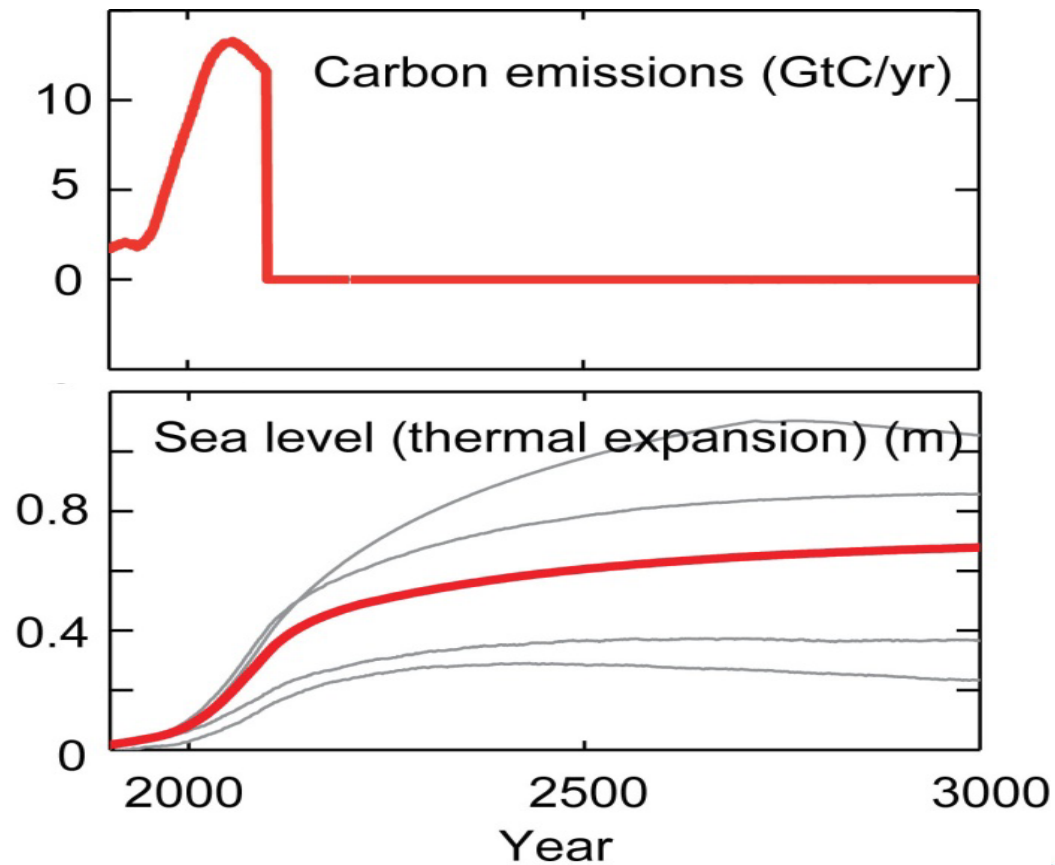
Accelerating mass loss of both polar ice sheets identified by GRACE



(Velicogna, 2009)

❖ **Projections, commitments, and irreversibilities (Chapters 6, 12, 13)**

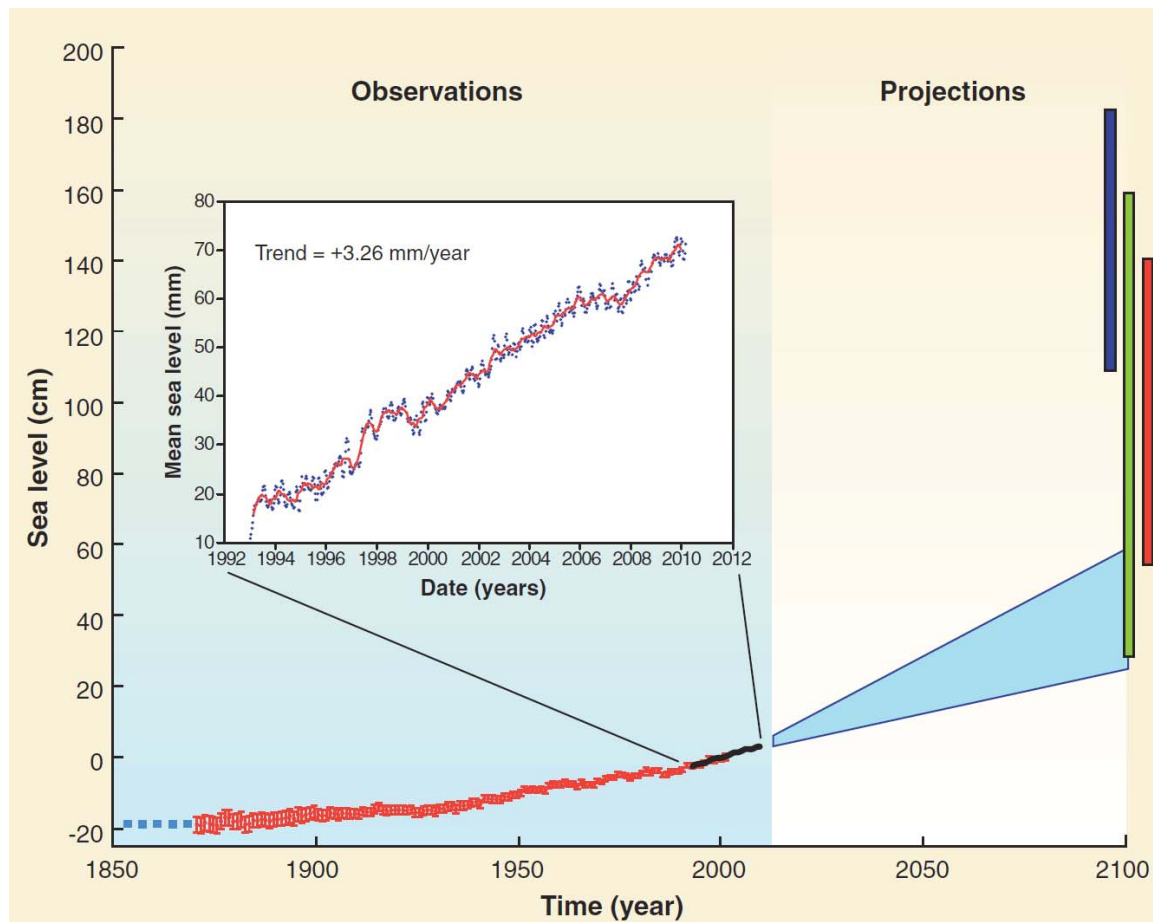
Multi-century irreversibility of CO<sub>2</sub> perturbation



(Plattner et al. 2008)

## ❖ Sea level change (Chapter 13)

Large uncertainties in SLR projections due to model range



(Nicholls and Cazenave, 2010)

## **Contributions of WG I to address issues related to Art. 2 and the Copenhagen Accord:**

- Chapters 5, 6, and 12 specifically refer to abrupt changes and irreversibilities;
- Chapters 11 and 12 provide climate projections, Chapter 13 assesses comprehensively sea level, and Chapter 14 addresses the regional climate change;
- A hierarchy of models, ranging from EMICs to CCMs, will explore various emissions scenarios and „physics tests“;
- Emphasis will be on communicating uncertainties using a probabilistic approach where possible.

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### Schedule of Report Production

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	<i>Nov</i>	<i>2010</i>	<i>First LA meeting, Kunming, China</i>
	Mar	2011	Completion of 0-order draft
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	18 Nov	2011	Completion 1 <sup>st</sup> -order draft
2012	<b>Apr</b>	<b>2012</b>	<b>Third LA meeting, Marrakesh, Morocco</b>
	10 Aug	2012	Completion of 2 <sup>nd</sup> -order draft
	<b>Jan</b>	<b>2013</b>	<b>Fourth LA meeting, TBD</b>
2013	May	2013	Completion of Final Draft
	<b>Sep</b>	<b>2013</b>	<b>Final Approval Plenary WGI</b>
2014	Mar	2014	Final Approval Plenary WGII
	Apr	2014	Final Approval Plenary WGIII
	Nov	2014	Final Approval Plenary Synthesis Report

**papers submitted:  
31. July 2012**

**papers in press:  
15. March 2013**