

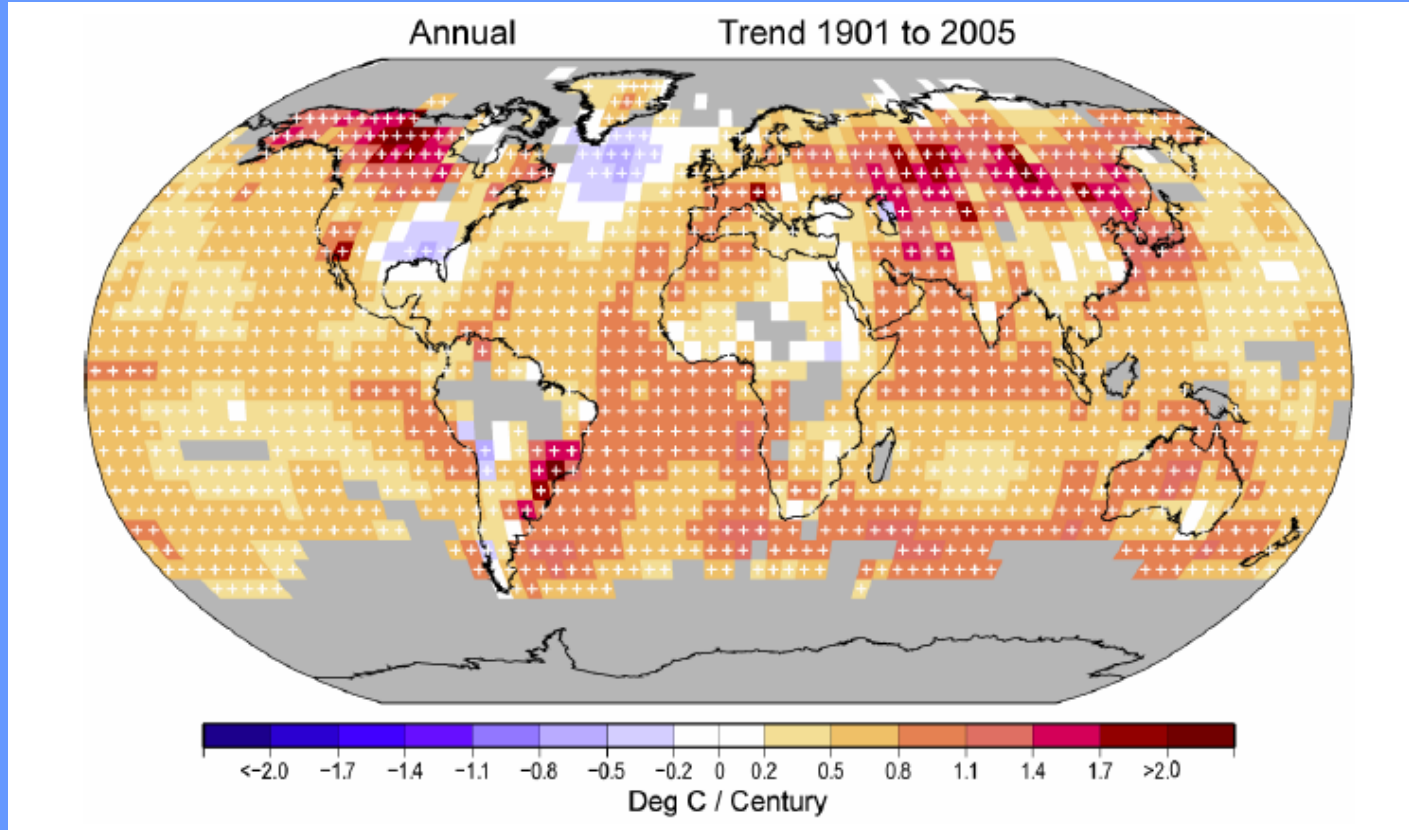
Planer for IPCC opdatering

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1. Introduktion og baggrund
2. Lidt om IPCC opgaven
3. Forsigtig forudsigelse af resultatet i den kommende 5. vurderingsrapport - AR5

The World Has Warmed



Globalt midlet, er Jorden i dag ca. $0,75^{\circ}\text{C}$ varmere end den var i 1860. Da AR4 udkom (2007) var 11 ud af de foregående 12 år blandt de 12 varmeste år siden 1850 - nu 14 ud af 15

Regeringer har brug for relevant klima information til brug for klimaforhandlinger.

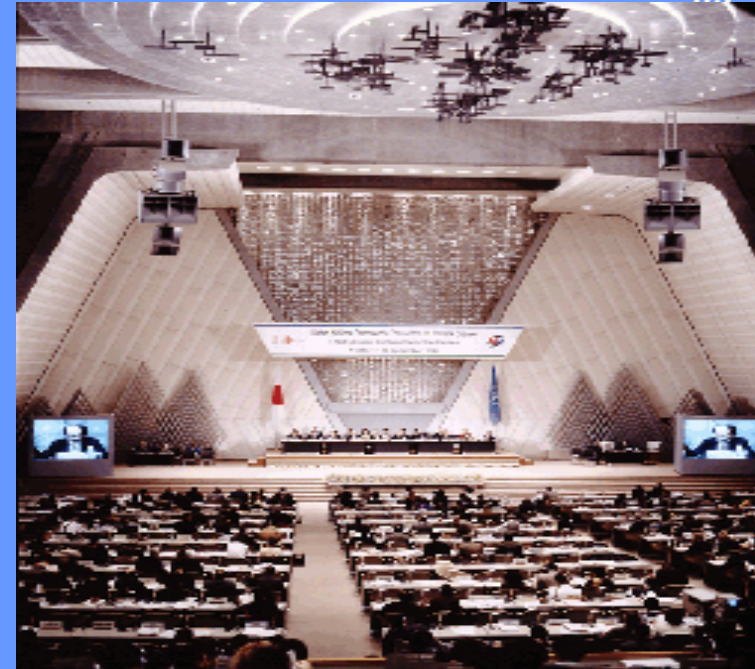
IPCC blev dannet i 1988 i FN regi

Mandatet er at levere samlede vurderinger af den videnskabelig viden omkring klimaforandringer

Det videnskabelige miljø bidrager bredt og på frivillig basis

75% af forfatterne i WG1 IPCC (2007) var ikke med til at levere WG1 IPCC (2001).
Tilsvarende for WG1 IPCC (2013)

Substansen i IPCC WG1 rapporten er i hænderne på videnskabsfolkene

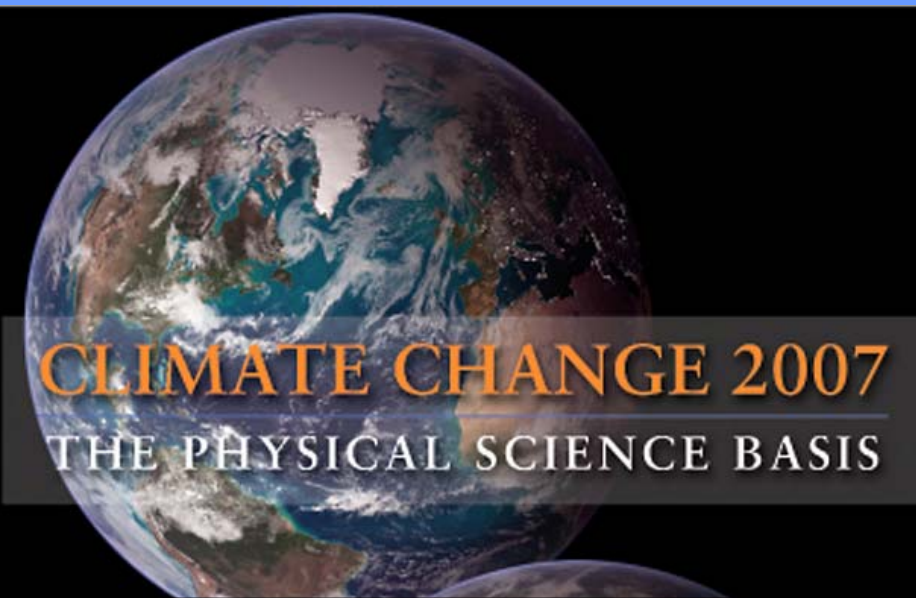


Om WG1 AR4



- Hver rapport udgør en vurdering af vidensniveauet baseret på peer-reviewed publiceret litteratur. IPCC vurderer publiceret forskning men udfører ikke selv forskning. Hver vurdering gennemgår mange reviews og revisioner re-reviews hvilket foregår over en længere årrække.
- Uformel version udarbejdes til kommentering af 6-12 udefrakommende eksperter for hver kapitel (okt 2004 - mar 2005).
- Formel første version (FOD) blev reviewet af omkring 600 reviewere fra hele verden (sep -nov 2005).
- Formel andet version (SOD) blev re-reviewet af omkring 600 reviewere fra hele verden og af omkring en snes regeringer (apr-maj 2006).
- Regerings kommentarer til revideret Summary for Policy Makers (okt-nov 2006).
- WG1 modtog og besvarede over 30.000 kommentarer i alt.
- Vurderingerne er ikke betragtninger fremkommet på basis af enkelte videnskabsfolk, men repræsenterer en meget bred proces.

The Working Group I Report



- Begyndte i foråret 2004
- Færdig i februar 2007
- 152 forfattere
- ~450 bidragsydere
- ~600 ekspert reviewere
- 30.000+ review kommentarer

Indhold

Du kan hente den på:

<http://www.ipcc.ch/>

Inkluderer desuden supplementary material.

Alle figurer findes desuden i PowerPoint format.

The IPCC Sequence of Key Findings.....

IPCC (1990) Broad overview of climate change science, discussion of uncertainties and evidence for warming.

IPCC (1995) “The balance of evidence suggests a discernible human influence on global climate.”

IPCC (2001) “Most of the warming of the past 50 years is likely (>66%) to be attributable to human activities.”

IPCC (2007) “Warming is unequivocal, and most of the warming of the past 50 years is very likely (90%) due to increases in greenhouse gases.”

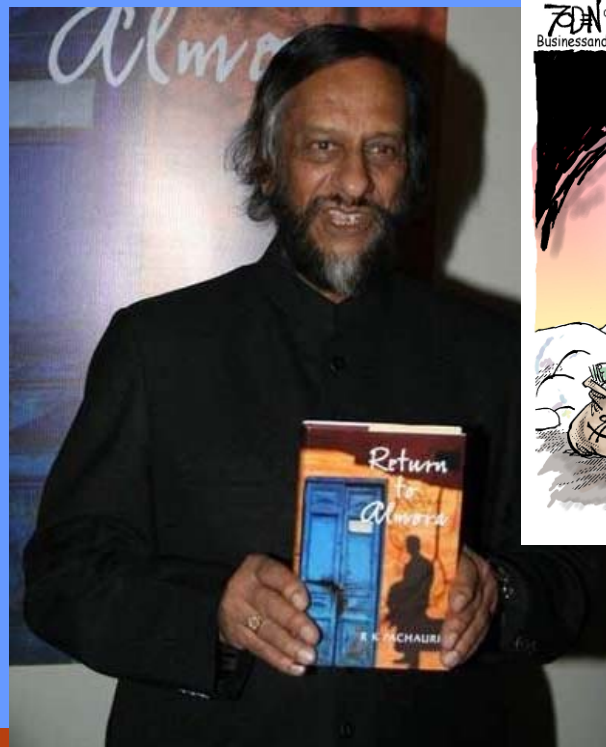
IPCC (2013) “It is still warming, greenhouse gases are very likely (>90%?) responsible for most of the observed warming” (‘virtually certain’ svarer til >99%)



IPCC krakelering?

- Climate Gate
- Himalaya gletsjere
- Vandstandsændringer i Holland
- Pachauris bog

- Hvad gør IPCC?



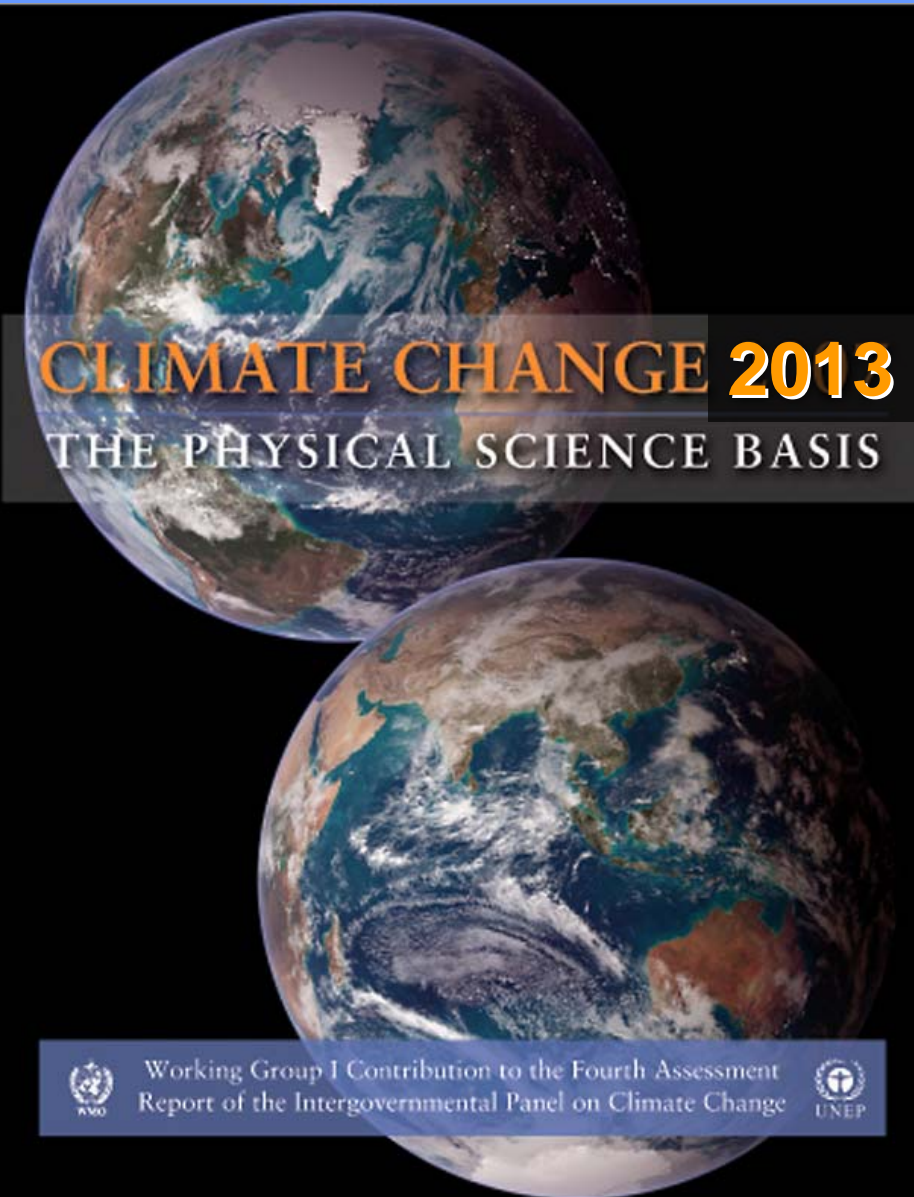
InterAcademy Council Review

IAC Independent Review of the IPCC

The IAC announced on Monday 3 May 2010 the 12 members of the review panel, to be chaired by economist Harold T. Shapiro, former president of Princeton University.

For further information on the review process see:
www.interacademycouncil.net/

Se vedere www.ipcc.ch



- Begyndte i sommeren 2009
- WG-I færdig i september 2013, II+III 2014
- ~200 forfattere i WG-I

Indhold

- Summary for Policymakers
- Technical Summary
- 14 Chapters
- Annex I: Atlas of Global and Regional Climate Projections

WG-I AR5 Outline

- SPM
- Technical Summary
- 1: Introduction
- 2: **Observations:** Atmosphere and Surface
- 3: **Observations:** Ocean
- 4: **Observations:** Cryosphere
- 5: Information from Paleoclimate Archives
- 6: Carbon and Other Biogeochemical Cycles
- 7: Clouds and Aerosols
- 8: Anthropogenic and Natural Radiative Forcing
- 9: Evaluation of Climate Models
- 10: Detection and Attribution of Climate Change: from Global to Regional
- 11: Near-term Climate Change: Projections and Predictability
- 12: Long-term Climate Change: Projections, Commitments and Irreversibility
- 13: Sea Level Change

Outline

- **Chapter 14: Climate Phenomena and their Relevance for Future Regional Climate Change**
 - Executive Summary
 - Patterns of variability: observations, understanding and projections
 - Monsoon systems: observations, understanding and projections
 - Extremes: observations, understanding and projections
 - Interconnections among phenomena
 - Frequently Asked Questions
- **Annex I: Atlas of Global and Regional Climate Projections**

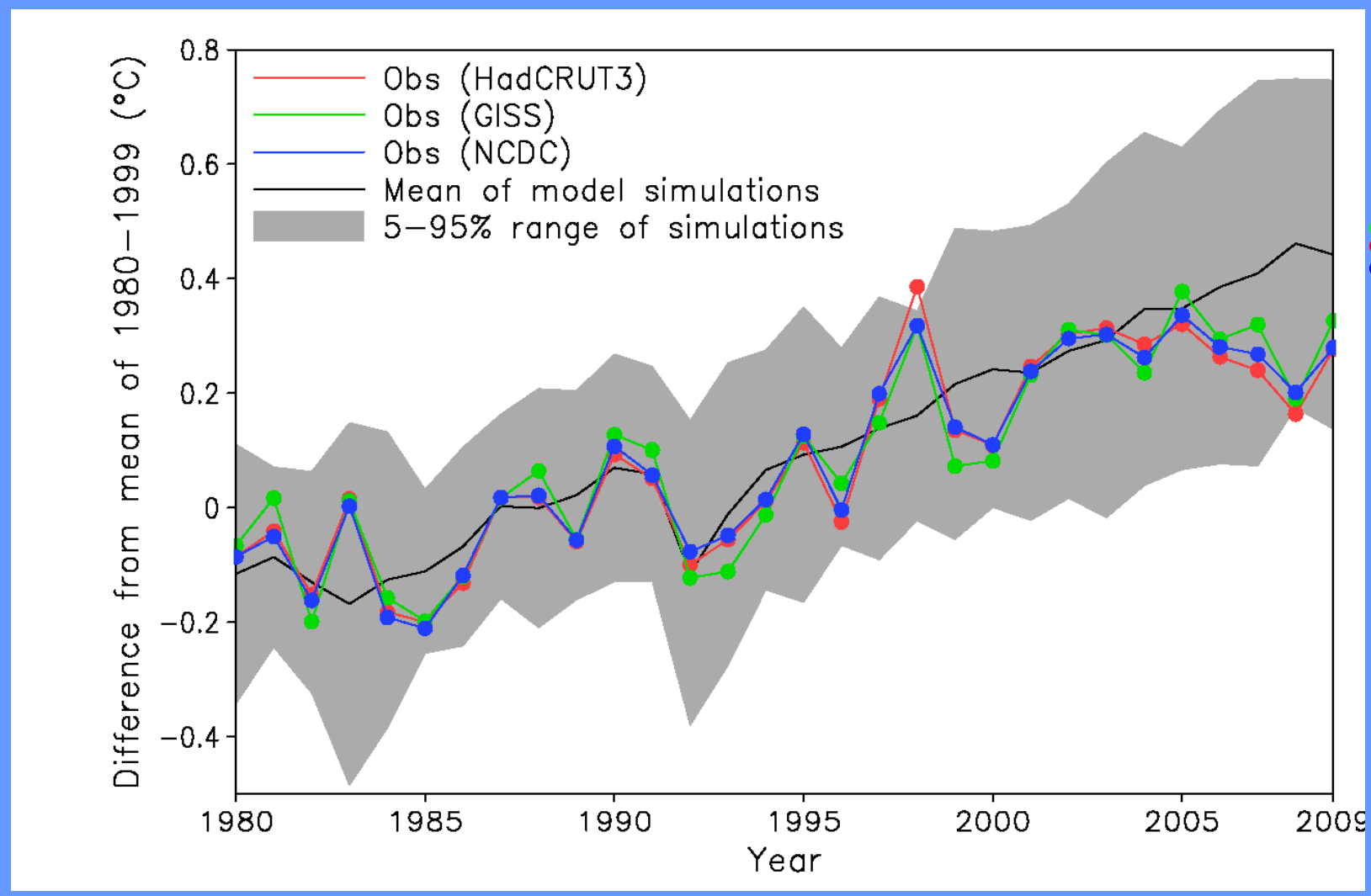
Physical Climate Science since IPCC AR4

A brief update on new findings between 2007 and April 2010



[www.norden.org/
sv/publikationer/
publikationer/
2010-549](http://www.norden.org/sv/publikationer/publikationer/2010-549)

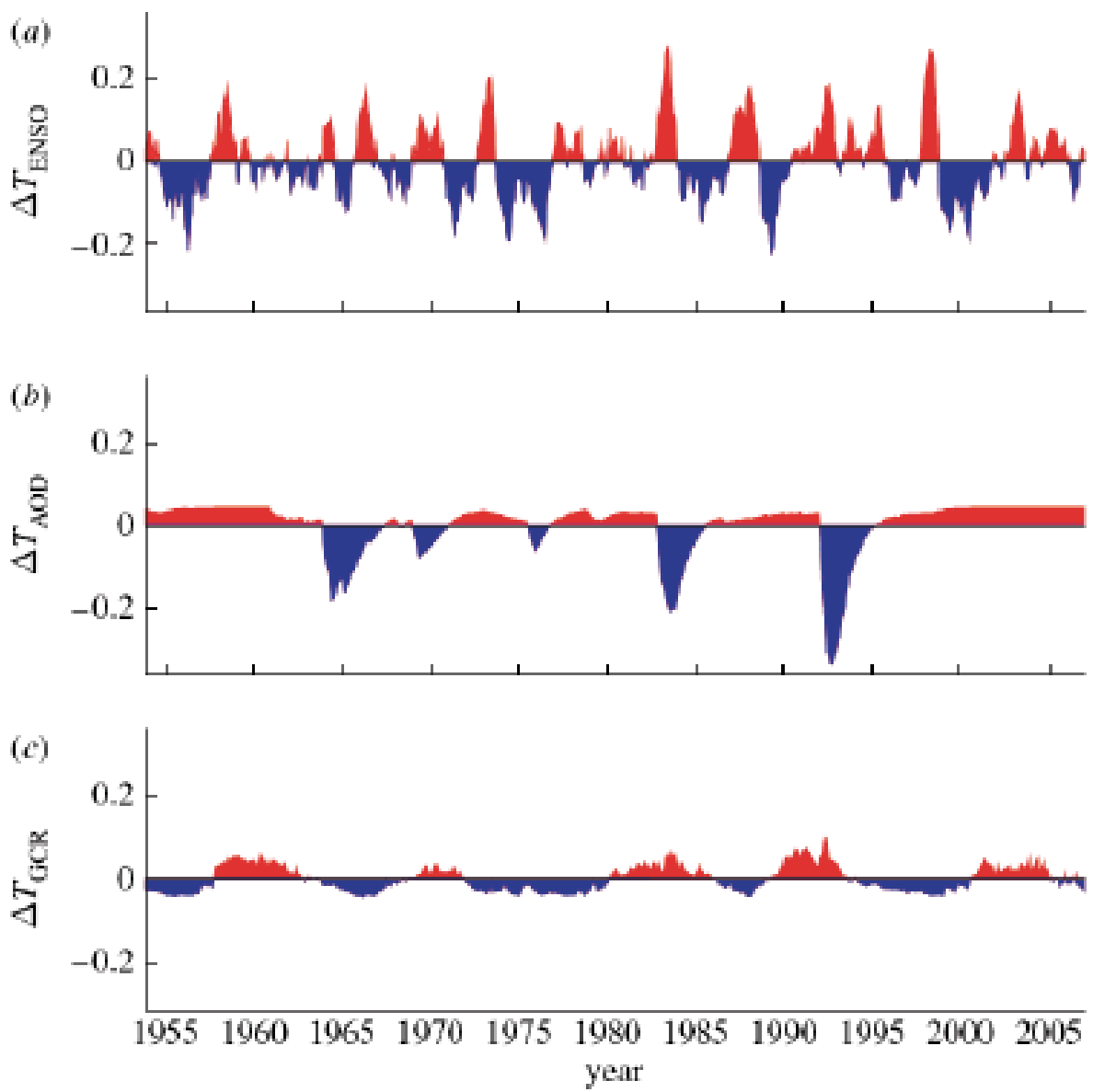
Continued global warming / cc



ENSO

Volc

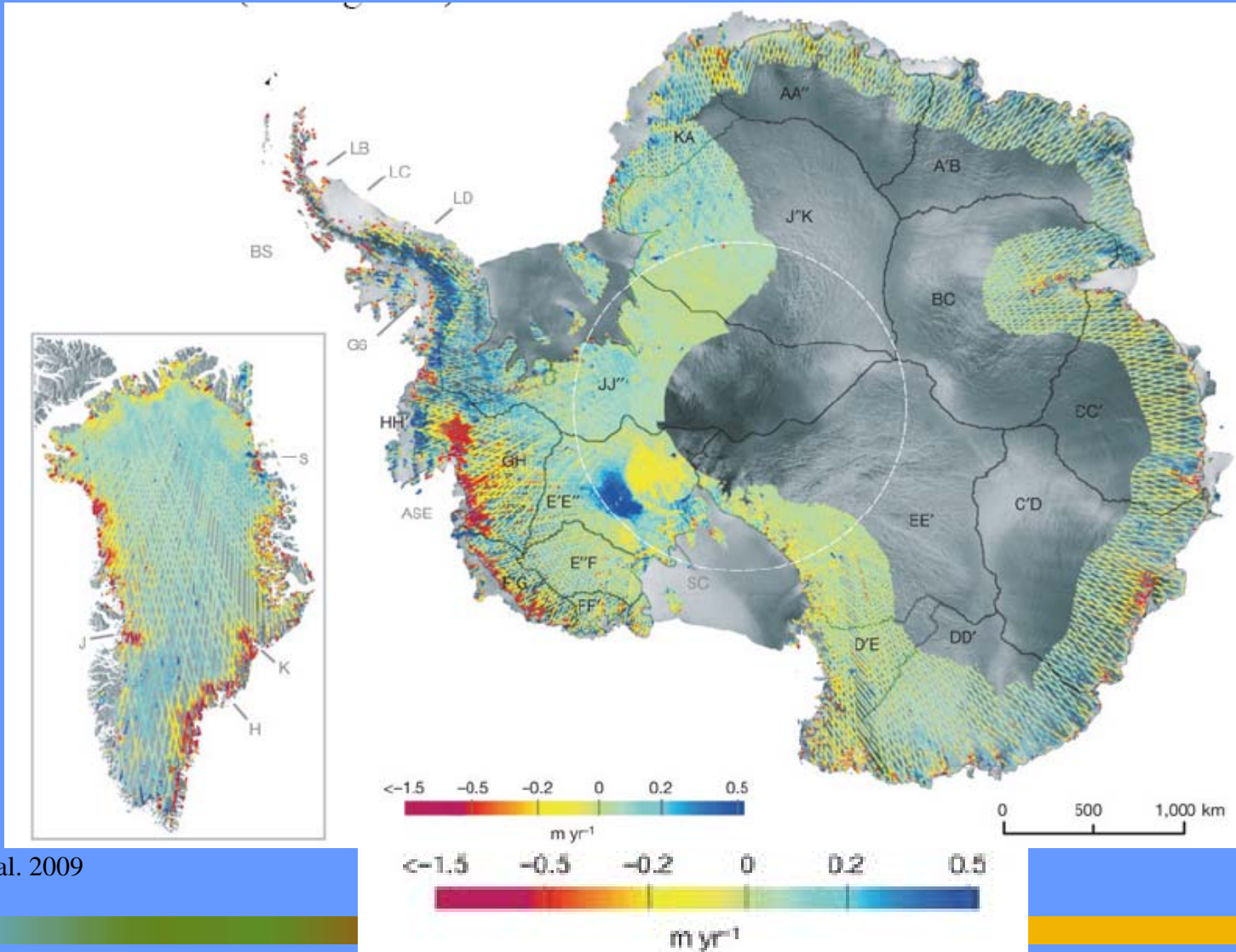
GCR



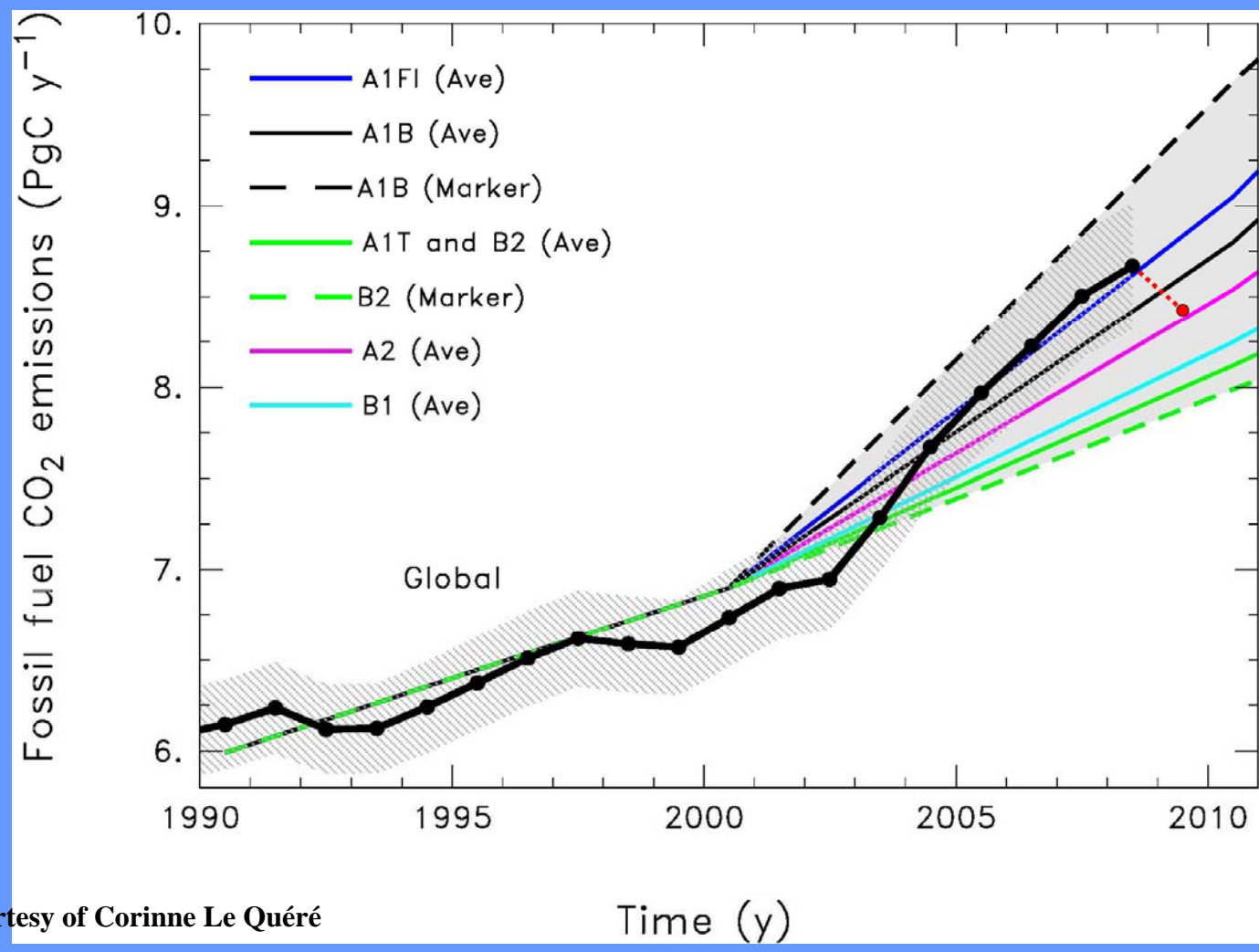
Lockwood 2008

Ice sheets lose mass

Metres per year, 2003-2007



CO₂ emissions



Courtesy of Corinne Le Quéré

Preliminary updates:

- Continued climate change
- Ice sheets lose mass
- Solar cycle effects are small (even if...)
- Estimates of the future SLR beyond the higher end of AR4 range
- 2007 Arctic sea ice minimum still the record, but the long-term trend is one of decrease
- Ocean acidification more extensively studied.
- Changes in tropical cyclones from global warming?
- Methane shows renewed growth
- Attribution studies on smaller scales and add. variables
- Estimates of climate sensitivity ~unchanged

Hvordan foregår det så?

ipcc
 INTERGOVERNMENTAL PANEL ON climate change
 Working Group I (WG I) – The Physical Science Basis

31 May 2010

Climate Change 2013: Working Group I Contribution to the Fifth Assessment Report
 Invitation to serve as a Co-ordinating Lead Author

Dear Jens Hesselbjerg Christensen,
 On behalf of the IPCC Working Group I, I am pleased to invite you to participate in the preparation of the IPCC Working Group I Contribution to the Fifth Assessment Report (AR5) on the physical science basis of climate change. Working Group I deals with the assessment of the physical science basis of climate change. Working Group I deals with the assessment of the physical science basis of climate change.

Background
 The IPCC was established under the Convention on Climate Change in 1988 to provide regular assessments of the state of the climate system and its changes. Working Group I deals with the assessment of the physical science basis of climate change. Working Group I deals with the assessment of the physical science basis of climate change.

Development and Purpose of the IPCC Scoping Process
 A scoping process was conducted during 2009 with leading scientists from around the world to review advances in climate science since the completion of the AR4 and to consider the appropriate chapter structure to cover these in the report. The outline for the AR5 report that resulted from this process was formally approved by government representatives at the IPCC's 31st Session in October 2009. At this meeting, the overall timeline for the AR5 was also agreed, with the WGI contribution to be finalised in mid-September 2013, WGI II in March 2014, WGI III in April 2014 and the AR5 Synthesis Report in September 2014. A copy of the approved outline for the WGI AR5 was sent to you with the advance notification of this invitation. It is also available on our web site at www.ipcc.unibe.ch/AR5/chapteroutline.html.

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The purpose of the IPCC is to assess the scientific understanding of climate change and not to perform or to foster research. The assessment must be carried out in a way that is comprehensive, objective, open and transparent. The assessment report must be based on peer-reviewed literature, should consider the full range of that literature and should summarise the full range of views and such literature.

Coordination and exchange by the author teams will be carried out via email. During the Lead Author Meetings, chapter meetings to discuss drafts and responses to review comments. Additional chapter meetings may be organised as the need arises. The Technical Support Unit (TSU) will also assist in the use of email and reduce travel.

A key component of the extensive reviews that are carried out by the IPCC is the review of the draft chapters. Reviewers (REs) are responsible for ensuring that all chapters are of high quality, and, where necessary, to provide the authors with comments in order to maintain independence from the reviewers for their chapter, although they may play such a role in the preparation of the chapter.

A preparatory meeting (13-14 September 2013) and a meeting in Stockholm, Sweden at which the Summary for Policymakers (SPM) will be developed.

Scientists from developing countries (DC/EITs) are eligible for travel support to attend the IPCC Secretariat in Geneva. Further details for developed countries to support the preparation of the report of that when they were invited to submit a contribution to the report.

Support the Lead Author Meetings, compile and disseminate comments before providing those to the authors. The authors are responsible for ensuring that all material which is cited in the drafts but not included in the final report is clearly identified as optional. Optional chapter meetings will be organized as the need arises. Authors are encouraged to feel free to contact the TSU via email to discuss any issues.

Aspects of report preparation and to distribute the report under development. We hope that you will get a good experience from the process.

Climate Change 2013: The Physical Science Basis

Working Group I Contribution to the IPCC Fifth Assessment Report: Invitation to serve as a Coordinating Lead Author

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consult the full schedule for preparation of the report and the planned dates for the Lead Author Meetings listed in the Table below. Please contact us immediately if you anticipate any difficulty in meeting the commitments outlined above.

Role and Organisation of the Author Teams

In the exception of Chapter 2, each chapter has two **Coordinating Lead Authors (CLAs)** who are responsible for coordinating and leading the author team. The CLAs ensure balance across the chapter, develop an appropriate level of consistency in language and content and make sure that there are no gaps in coverage. **Lead Authors (LAs)** are generally responsible for contributing to writing the chapter appropriate to their expertise. Where expertise or the range of views is insufficiently represented by the author team, the CLAs will call on **Contributing Authors (CAs)** from the scientific community. These are a key resource to a chapter and ensure a comprehensive assessment and full coverage of the scope of the chapter. Specific Lead Authors from IPCC Working Groups II may be identified early on in the writing process as **designated Contributing Authors (dCAs)** to WGI, and vice versa, in order to facilitate the information flow between the WGs.

We will also provide free on-line access for DC/EIT CLAs, LAs, and REs to key journals on climate science through the IPCC Library. This system is password-protected and will be restricted to qualifying CLAs, LAs, and REs for the duration of the preparation of the WGI AR5. Further details of this journal access system will be sent separately when the WGI AR5 is complete.

I am grateful if you would accept this invitation and look forward to working with you over the next few years on this important endeavour. Please be sure to respond to the WGI TSU at wg1@ipcc.unibe.ch as soon as possible, but no later than 31 May 2010.




Olin Dahe
 Co-Chair, WGI

Næste skridt

Date	Meeting	Location
8 to 11 November 2010	First Lead Author Meeting (LA1)	Kunming, China
19 to 22 July 2011	Second Lead Author Meeting (LA2)	France
17 to 19 April 2012	Third Lead Author Meeting (LA3)	Morocco
15 to 17 January 2013	Fourth Lead Author Meeting (LA4)	to be determined

Table: Dates of Lead Author Meetings of Working Group I

- IPCC plenum møde for accept af rapporten
 - 16 to 19 September 2013
- Jeg ved hvad jeg skal bruge min tid til!



Tak for opmærksomheden!