



Climate Change 2013: The Physical Science Basis
Working Group I Contribution to the IPCC Fifth Assessment Report

What can businesses expect from the IPCC Fifth Assessment Report?

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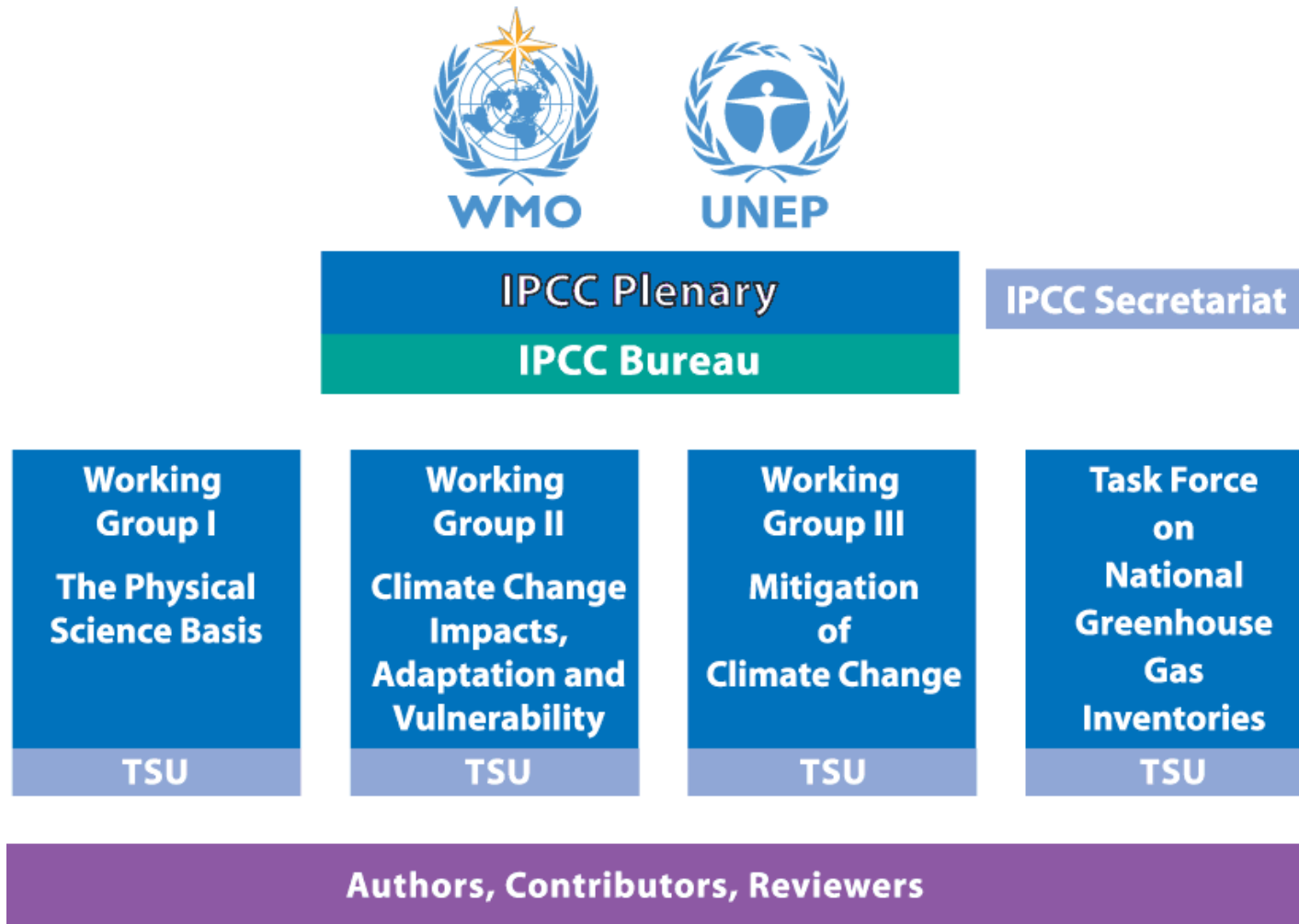
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What is unique about IPCC reports

Assessment of scientific literature to provide reports on climate change issues that are

- ❖ policy relevant, but not policy prescriptive
- ❖ scientific-technically robust
- ❖ balanced
- ❖ present uncertainties

Structure of IPCC



Principles Governing IPCC Work (1998, 2003, 2006, 2011)

[...]

2. The role of the IPCC is 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 socio-economic factors relevant to the application of particular policies.
3. Review is an essential part of the IPCC process. Since the IPCC is an intergovernmental body, review of IPCC documents should involve both peer review by experts and review by governments.

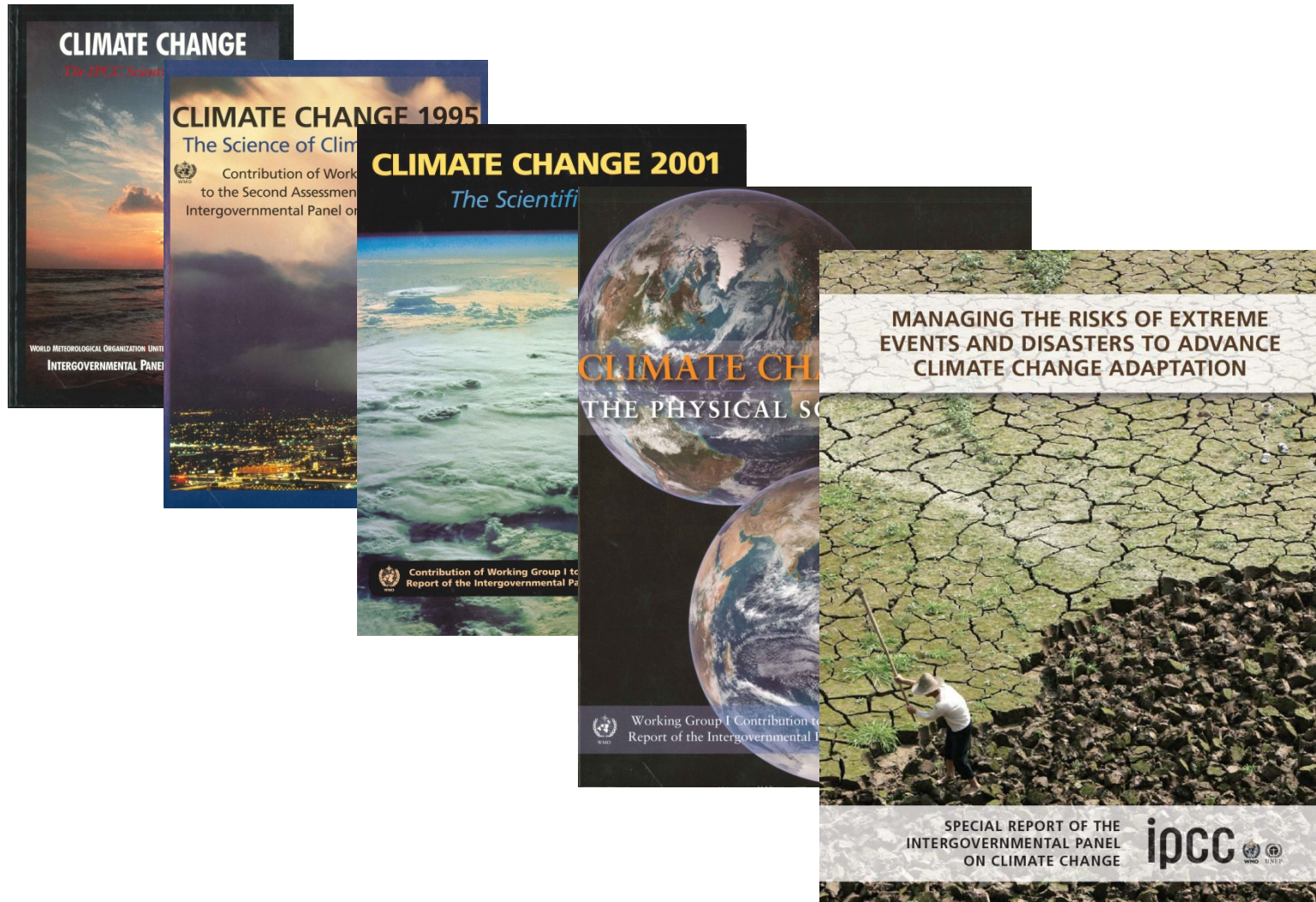
[...]

Three IPCC Working Groups (WGs)

- ❖ **WG I** assesses the *physical science basis* of the climate system and natural and anthropogenic climate change. **(Release 27 September 2013)**
- ❖ **WG II** assesses the *vulnerability* of socio-economic and natural systems to climate change, negative and positive *impacts* of climate change, and options for *adapting* to it. **(Release 31 March 2014)**
- ❖ **WG III** assesses options for *mitigating climate change* through limiting or preventing greenhouse gas emissions and enhancing activities that remove them from the atmosphere. **(Release 12 April 2014)**
- ❖ **Synthesis Report** has contributions from all three Working Groups.

(Release 31 October 2014)

IPCC WGI Reports to date (1990–2012)



IPCC AR5 Working Group I
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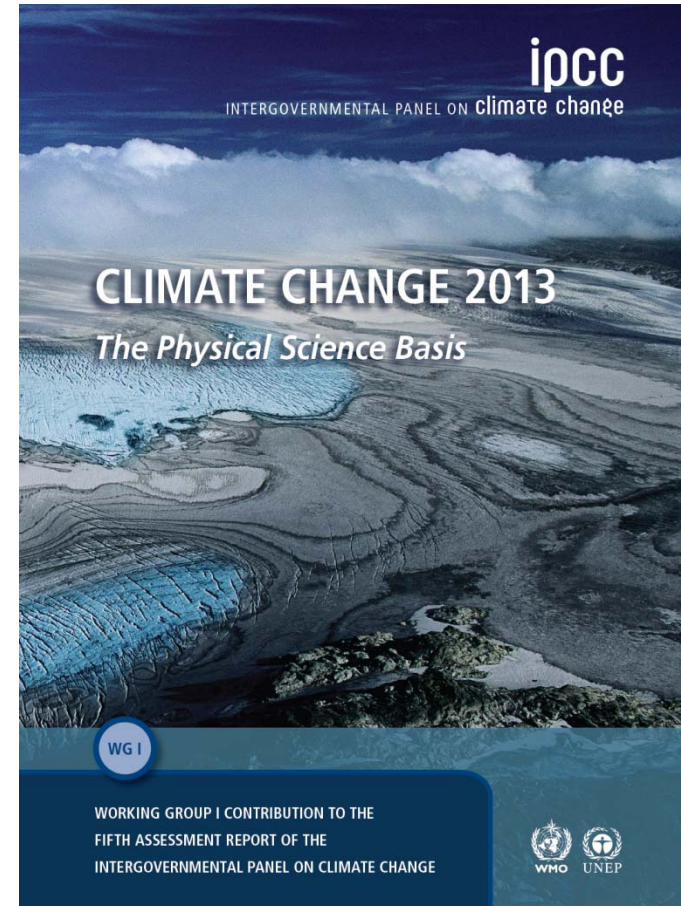
What are the elements of the WGI Assessment Report?

Report

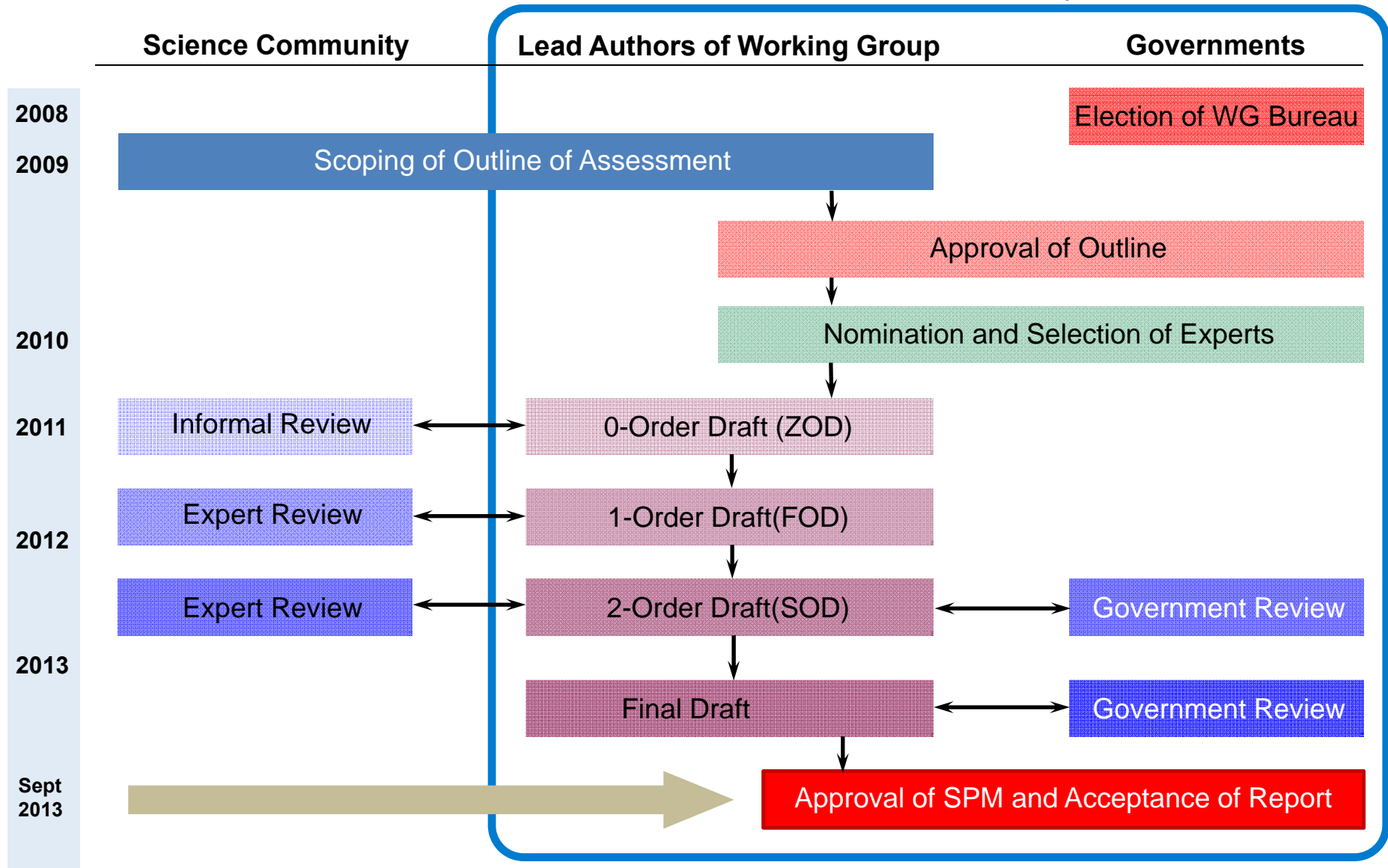
14 Chapters, Annexes, Supplementary Material

Technical Summary

Summary for Policymakers



IPCC Process (WGI):



Characteristics of IPCC reports

- ❖ **Authors nominated by governments**, observer organisations
- ❖ Selection of chapter teams **based on expertise**
- ❖ Attention to regional and and gender balance
- ❖ Drafts are developed with **multiple rounds of review**
- ❖ **Line-by-line approval** of Summary for Policymakers by governments; participation by authors ensures consistency and robustness

Treatment of uncertainties

- ❖ How to determine uncertainty?
- ❖ How to display uncertainty?
- ❖ How to formulate uncertainty?
- ❖ How to communicate uncertainty?

Revised IPCC Guidance Note on the Consistent Treatment of Uncertainties for AR5

(the result of an IPCC cross-WG meeting, July 2010)

Use of literature sources

- ❖ IPCC assesses all available scientific-technical literature
- ❖ priority is given to **peer-reviewed** literature
- ❖ emphasis is placed on the **assurance of the quality of all literature** cited
- ❖ other sources may provide essential information, esp. for adaptation and mitigation (WGs II & III)
- ❖ extra responsibility for author teams to ensure quality and validity of such sources

Facts about the WGI Contribution to IPCC AR5

- ❖ **209 Lead Authors** and 50 Review Editors from 39 countries
- ❖ Over **600 Contributing Authors**
- ❖ More than **2 million gigabytes** of numerical data from climate models
- ❖ Over **9200 scientific publications** cited;
more than three-quarters new since 2007
- ❖ 1089 expert reviewers from **55 countries** and 38 governments
- ❖ **54,677 review comments**
- ❖ Will be approved by up to **195 countries** in September 2013

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Further Information
www.climatechange2013.org

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