



INTERGOVERNMENTAL PANEL  
ON CLIMATE CHANGE

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ENGLISH ONLY

**PROGRESS REPORT ON FUTURE WORK ON SCENARIOS**

**Report about the Expert Meeting in Noordwijkerhout**

(Submitted by the Co-chairs of the Steering Committee on New Scenarios)

**IPCC Expert Meeting on New Scenarios  
Progress Report**

Noordwijkerhout, the Netherlands, 19-21 September 2007  
Agenda Item 6.2 of IPCC-27

(submitted by the Co-chairs of the Steering Committee on New Scenarios)

**Background**

As decided at the IPCC's 25<sup>th</sup> and 26<sup>th</sup> Panel session (see Annexes 2 and 3), an IPCC Expert Meeting on New Scenarios was held in Noordwijkerhout, the Netherlands, 19-21 September 2007. The objective of the meeting was to identify requirements and plans for the development of new scenarios of emissions, climate change, impacts, vulnerability, adaptation and mitigation. The deliverables of the meeting, as requested by the Panel, were

- A proposed set of “benchmark concentration scenarios” (now renamed as ‘Representative Concentration Pathways, RCPs) that will be used in initial Earth system model runs. These pathways will be selected from the existing scientific literature and will cover a representative range of stabilization, mitigation, and reference scenarios. They will be used in Earth system models to provide simulated climate outputs;
- Plans from the relevant research communities to coordinate, organize and communicate further actions towards the development of new integrated scenarios, including institutional arrangements for coordination and scheduling of activities;
- A plan for increasing involvement of experts from developing countries and economies in transition in the development of new scenarios, including funding and organizational aspects;
- A meeting report that describes the benchmark concentration scenarios and the plans of the research community to coordinate and develop new integrated scenarios, including plans for increasing involvement of experts from developing countries and economies in transition.

The Steering Committee, consisting of 19 members drawn from each of the principal scientific communities and co-chaired by Richard Moss and Ismail Elgizouli, was responsible for the meeting program, the meeting report, and deliverables, as requested by the IPCC Panel (see Annex I for a synopsis of the meeting program).

As input for the discussions in Noordwijkerhout, a background paper was written by 20 experts in the field, after a broad consultation with other members of the scientific community and the Steering Committee. This background paper covered the current plans and thinking in the areas of climate modelling (i.e., AOGCMs and Earth system models), impacts, adaptation and vulnerability, integrated assessment modelling and emission scenarios. The paper is, or will shortly be, available at the IPCC WG III website (<http://www.mnp.nl/ipcc/> )

**Participants**

The Expert Meeting had 134 participants, including staff of the IPCC TSU WG III and staff brought in by the Steering Committee. The geographical balance was as follows:

Western Europe	48
Eastern Europe	5
North America	31
Latin America	12
Oceania	6
Asia	24
Africa	8

37 meeting participants from developing countries received support from the IPCC Trust Fund.

The New Scenarios meeting was unique in its inclusion of representatives from each of the three principal IPCC research communities (Earth System Modeling, and Impacts, Adaptation and Vulnerability, Integrated Assessment Modeling and emission scenarios) and the user community. Following the

recommendations of IPCC 26, user community participants (including representatives of the World Bank, FAO, WRCP, IGBP and other international organisations) were also invited to participate in the preparations for the New Scenario meeting.

## **Meeting Report**

The Panel decided during IPCC -26 that “the Steering Committee on the expert meeting on new scenarios should arrange an expert review of its draft meeting report on benchmark concentration scenarios and finalize the report if possible in early 2008.”

In response to this request, the Steering Committee has established a process to deliver to IPCC-28 (April 2008) a full report that has been reviewed by a broad expert group. The meeting report is being written by a team of some thirty authors selected from the new Scenarios Meeting participants and will also provide summaries of plenary and breakout group discussions and decisions, as requested by the Panel. This report will be reviewed by the scientific and user communities; reviewers will be selected from a variety of sources including:

- Meeting participants,
- Invited meeting participants who were unable to attend,
- Nominated participants who were not invited due to capacity limitations,
- Additional reviewers nominated by key members of the scientific community and approved by the Steering Committee.

The timeline for drafting and review of the meeting report is:

Sep 19 – 22:	Expert Meeting, Noordwijkerhout, the Netherlands
Oct 4 – Nov 2:	Authors prepare drafts of their respective report sections, working in section teams.
Nov 6 – Nov 23:	Authors review and propose revisions to full report.
Nov 26 – Dec 7:	Section teams make final revisions.
Dec 10 – Dec 14:	Secretariat formats report and sets up web site for broader report review.
Dec 17 – Jan 23:	5-week review period.
Jan 24 – Feb 1:	Secretariat compiles comments and sends them to author teams and Steering Committee
Feb 4 – March 7:	Authors finalize section drafts.
March 10 – 14:	Secretariat compiles final report and posts it on web site.
March 17:	Report completed and distributed via web site.

## **Annex 1: Program of the IPCC Expert Meeting on New Scenarios**

Day One (Wednesday, September 19, 2007)

The first day was devoted to plenary presentations:

### Panel 1.

**Hans Bolscher, Ministry of Environment, the Netherlands**

*A Policymaker's Perspectives on Scenarios*

**Rajenda Pachauri, Chair IPCC**

*Welcome and Overview*

**Leo Meyer, head TSU WG III**

*Previous IPCC scenarios and decisions; purposes of the expert meeting*

**Richard Moss, co-chair Steering Committee**

*Overview of process for scenario development and application*

### Panel 2.

**Jae Edmonds, Joint Global Change Research Institute**

*Phases of scenario development and application*

**Kathy Hibbard, NCAR**

*Earth system modeling: preliminary scenario requirements*

**Nebojsa Nakicenovic (IIASA),**

*Options for benchmarks*

**Jean Pascal van Ypersele (Univ. Catholique de Louvain)**

*Available scenarios*

### Panel 3.

**John Mitchell, Met Office Hadley Centre**

*ESM approach to long-term scenarios (2100 and beyond): Coupled climate-carbon cycle experiments*

**Tim Carter, Finnish Environment Institute**

*IAV approach to long-term scenarios: impacts, vulnerability, and long-term adaptation needs*

**John Weyant, Stanford University**

*Mitigation policy and IAM approach to long-term scenarios: policy analysis and mitigation requirements*

### Panel 4.

**Masa Kimoto, CCSR**

*ESM approach to near-term scenarios (~2030): High-resolution modeling focusing on extreme events, regional climate, and interactive chemistry*

**Roger Jones, CSIRO**

*IAV approach to near-term scenarios: adaptation planning and management*

**Fatih Birol, IEA**

*Mitigation policy and IAM approach to near-term scenarios: baselines, air pollutants, transitions, and developing country dynamics*

**Emilio LaRovere, Federal University of Rio de Janeiro**

*Regional modeling and applications: relationship to global scenarios*

All presentations are available at the closed participants' website: please contact Sander Brinkman ([sander.brinkman@zonnet.nl](mailto:sander.brinkman@zonnet.nl)) for details.

Day Two (Thursday, September 20, 2007)

On the second day (Thursday September 20), each participant was assigned to a disciplinary breakout group based on his or her expressed preferences. The topics of the breakout sessions were:

- Earth System Modeling
- Integrated Assessment Modeling
- Impacts, Adaptation and Vulnerability
- User Perspectives

Each group discussed, from its own perspective, the proposals in the background paper regarding proposed plans for scenario development, proposed organisation and timing, inputs and deliverables, questions regarding the reference concentration pathways and the involvement of developing countries. A dedicated, interdisciplinary session on the reference concentration pathways was held on the evening of Day Two.

Day Three (Friday, September 21, 2007)

On the third day participants could choose for interdisciplinary breakout groups, which were:

- Benchmark emission pathways
- Organizational framework for development of new integrated scenarios
- Approaches for providing downscaled climate and socio-economic information for IAV assessment
- Regional/national assessment of mitigation opportunities in the context of global scenarios

These groups have formulated detailed recommendations and decisions for each of the topics mentioned in the group title. Results of both the second and third day breakout groups were presented and discussed in the plenary.

Day Four (Saturday, September 22, 2007)

On Saturday 22 September, a selected group of participants began the process of drafting the meeting report. The writing team of approximately 20 members collaborated to create an outline of the reports main sections, and later worked in smaller groups to define the content of each subsection of the report. Since the question of representative concentration pathways was not resolved during the New Scenarios Meeting, the writing team agreed to include in the report a full account of key questions, main research issues, and proposed methods by which unresolved issues would be addressed and settled in a timely manner.

## **Annex 2: Decision taken by the Panel at its 26th Session**

- (1) The Panel recalls its support for decoupling the climate modeling work from the emission scenario development work, in order to allow climate modelers a quick start with their work after the completion of the AR4.
- (2) As an appropriate option to the development of an IPCC Technical Paper on Benchmark Emission Scenarios as decided at its 25th Session, the Panel now requests the Steering Committee on New Scenarios to prepare a few benchmark concentration scenarios through the IPCC Expert Meeting 19-22 September 2007 in Noordwijkerhout, The Netherlands. These benchmark concentration scenarios should be compatible with the full range of stabilization, mitigation and baseline emission scenarios available in the current scientific literature.
- (3) The Steering Committee for the expert meeting on new scenarios should produce a report on concentration benchmark scenarios originating from this Expert meeting that:
  - a. adequately address the role of aerosols, short-lived greenhouse gases, land use, and the socioeconomic background of the benchmarks;
  - b. takes into account the needs of the user communities including the impact, adaptation and vulnerability modelers
  - c. enables access to relevant data for the climate modelers
- (4) The Steering Committee on the expert meeting on new scenarios should arrange an expert review of its draft meeting report on benchmark concentration scenarios and finalize the report if possible in early 2008. The report would have the status of 'Supporting Material' to the IPCC in keeping with established practice.
- (5) The summary of the meeting report on benchmark concentration scenarios should be translated into all UN languages.

### **Annex 3: Report on IPCC's 26<sup>th</sup> Panel session**

“The Chair informed that the Steering Committee on Scenarios established after IPCC-25 had been preparing for the expert meeting, which would take place from 19-22 September 2007, in the Netherlands. He introduced a proposal to prepare a few benchmark concentration scenarios instead of a Technical Paper on Benchmark Emission Scenarios, as requested by the Panel at its 25th Session, to accommodate the evolving requests from the science community, and asked for a decision by the Panel.

All countries taking the floor supported the proposal and made the following suggestions:

- Broader sponsorship with other organizations such as WCRP and IGBP including joint publication of the meeting report and leadership by the science community
- Participation of experts from developing countries and geographical balance
- Consistencies between concentration scenarios and emission scenarios, and between the working group reports and the expert meeting report
- Broader user communities, including other research communities and governments, and needs of developing country research communities
- To arrange for translation and dissemination of the meeting report, as this would be an IPCC Supporting Material, but subject to peer review

The Chair, assisted by Mr. Leo Meyer, head of the Working Group III Technical Support Unit, addressed and clarified the above concerns, including peer review, but not IPCC review of the meeting report, the role of the Steering Committee, broader sponsorship and participation. He acknowledged the importance of translation of the meeting report and agreed that the IPCC Trust Fund take the budgetary implication for translation of the summary of the meeting report in 2008.

With these clarifications, the Panel approved the Chair's proposal and its inclusion of translation of the summary of the meeting report on benchmark concentration scenarios as its decision attached in Annex 4 (Appendix 1 in this report).”