

**THIRTY-THIRD SESSION OF THE IPCC
Abu Dhabi, 10-13 May 2011**

IPCC-XXXIII/Doc. 15
(19.IV.2011)
Agenda Item: 10.1
ENGLISH ONLY

PROGRESS REPORT

IPCC Joint Expert Meetings and Workshops

(Submitted by the Co-Chairs of the IPCC Working Groups I, II and III)

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IPCC Joint Expert Meetings and Workshops

This report describes a joint workshop and expert meeting undertaken since IPCC-XXXII (Busan, Republic of Korea * 11-14 October 2010) and the status of the joint expert meetings to take place during the course of calendar year 2011. See <<http://ipcc-wg2.gov/meetings/>> for the proposals associated with these Panel-approved meetings.

The regional expert meetings led exclusively by Working Group II are described in its Fifth Assessment Report (AR5) status report.

The joint Working Group II/III Workshop on Socioeconomic Scenarios for Climate Change Impact and Response Assessments (Berlin, Germany * 1-3 November 2010) is addressed in the status report on Scenario Development and Coordination with the Scientific Community.

1. IPCC Joint Working Group I/II Workshop on Impacts of Ocean Acidification on Marine Biology and Ecosystems – Okinawa, Japan (17-19 January 2011)

1.1. Background and Aims of the Workshop

The Government of Japan and the Co-Chairs of Working Groups I and II submitted the proposal for this workshop. That document identified ocean acidification as a critical component of global change, potentially responsible for a wide range of impacts on ecosystems and on ecosystem services. Previous IPCC assessment reports considered biogeochemical and temperature effects of anthropogenic carbon on the oceans, but did not fully assess the direct impacts of ocean acidification, its combined effects with ocean warming on marine ecosystems and productivity, and potential feedbacks to the climate system. In addition, since the publication of the IPCC Fourth Assessment Report (AR4) in 2007, ocean acidification research, especially experimental studies of the impact of increased concentrations of seawater CO₂ on marine biology in different regions and modeling studies of future ocean environments, has been advancing rapidly. All of these aspects of ocean acidification will be more thoroughly evaluated in the IPCC AR5.

The workshop thus aimed to provide comprehensive, timely scientific information as input to the AR5 by highlighting key research on ocean acidification and its impacts and by identifying remaining gaps in understanding.

1.2. Scientific Steering Committee

A Scientific Steering Committee (SSC) for the planning and execution of the workshop was established. The SSC included Ken Caldeira (USA), Anne Cohen (USA), Richard Feely (USA), Ove Hoegh-Guldberg (Australia), Nancy Knowlton (USA), Yukihiro Nojiri (Japan), Leonard Nurse (Barbados), James Orr (France), and Hans-Otto Pörtner (Germany). The SSC developed the workshop's participant list and agenda, proposed keynote presentations, and evaluated break-out group proposals.

Working Groups I and II jointly led the SSC selection process; Working Group II led meeting planning, in close collaboration with Working Group I; and Working Group II took the operational lead for the meeting.

1.3. Participation and Output

The workshop included 82 participants, consisting of invited experts; Working Group I and II AR5 Coordinating Lead Authors, Lead Authors, and Review Editors; Working Group II Co-Chairs; Working Group I and II Bureau members; IPCC officials; and Working Group I and II TSU staff.

A report for the workshop is under development, with finalization planned by June. It will include an overall summary of the workshop's discussions and perspectives, reports from break-out group discussions and synthesis plenary presentations, the workshop agenda, break-out-group proposals, the abstracts for keynote and poster presentations, the workshop proposal, and the list of participants.

1.4. *Timing, Duration, Location, and Operational Aspects*

The workshop took place from 17-19 January 2011 in Okinawa, Japan, at Bankoku Shinryokan. The National Institute for Environmental Studies (NIES) served as the local host, with Dr. Yukihiro Nojiri the principal point-of-contact, and established a secretariat in August 2010 to help with meeting arrangements. A workshop logistics website was prepared at <http://www.cger.nies.go.jp/ipcc-oaem_okinawa/>, and a password-protected website was created for posting of workshop materials.

1.5. *Trust Fund*

24 of 30 allocated Trust Fund-supported trips were used to support developing country scientist travel to the workshop, for expert participants and Working Group Vice-Chairs and Co-Chairs. A Letter Agreement between the Ministry of Environment of Japan (MOE) and WMO/IPCC provided budgeted resources as elaborated in IPCC-XXXII/Doc.3 for both this workshop and the Working Group II AR5 First Lead Authors Meeting (Tsukuba, Japan • 11-14 January 2011).

2. IPCC Joint Working Group II/III Expert Meeting on Human Settlement, Water, Energy and Transport Infrastructure - Mitigation and Adaptation Strategies – Calcutta, India (22-24 March 2011)

2.1. *Background and Aims of the Workshop*

The Co-Chairs of Working Group II and III proposed this expert meeting as laid out in IPCCXXXI/Doc.10. Today more than half of the global population lives in urban areas, and all future population growth is expected to take place in urban areas. As a result, a significant and increasing percentage of global GHG emissions originate from human settlements. The concentration of population, industry, commerce, and infrastructure assets also makes human settlements particularly vulnerable to impacts of climate change. The expert meeting aimed to identify key issues of this domain to be covered in AR5 – particularly cross-cutting issues between Working Groups II and III. The meeting identified core research gaps and new entry points to trigger adaptation and mitigation. Furthermore, the 31st Plenary of the IPCC asked the Expert Meeting to scope the structure of AR5 WGIII Chapter 12.

2.2. *Scientific Steering Group*

A Scientific Steering Group (SSG) for the planning and execution of the workshop was established. The SSG included Ying Chen (China), Stephan Pauleit (Germany), Atiq Rahman (Bangladesh), Patricia Romeo-Lankao (USA), Joyashree Roy (India), David Satterthwaite (UK), Karen Seto (USA), Frederick Van der Ploeg (UK), Thomas Wilbanks (USA), Peter Zhou (Botswana) as well as the following bureau members of Working Groups II and III: Amjad Abdulla (Maldives), Ottmar Edenhofer (Germany), Chris Field (USA), Ramon Pichs-Madruga (Cuba) and Youba Sokona (Mali). The SSG developed the workshop's participant list and agenda, proposed keynote presentations, and evaluated break-out group proposals.

The Working Groups jointly led the SSG selection process; Working Group III led the planning and implementation of the meeting in close collaboration with Working Group II.

2.3. Participation and Output

43 experts attended the meeting, of which 10 were Working Group II AR5 Lead Authors and 11 Working Group III AR5 Lead Authors. Further 9 IPCC office-holders took part. The meeting confirmed the importance of human settlements, infrastructure, and spatial planning to be broadly covered in AR5 and the opportunities to link adaptation and mitigation. Besides the themes identified as cross-cutting between the two working groups and the informal contacts established between authors of Working Groups II and III, an author team was established to write a Good Practice Guidance Paper by summer 2011 aimed at instructing AR5 authors and ensuring a consistent treatment of the meeting's topics across Working Groups II and III. Further, the following preliminary outline for AR5 Working Group III Chapter 12 was developed:

- Urbanisation challenges and opportunities for climate change mitigation
- Settlement structures, density, forms, and lifecycle assessments
- Infrastructure, spatial planning, and mitigation
- Lifestyle changes and efficiency
- Mitigation potential of waste (e.g. methane from landfills and incineration)
- Water/energy nexus
- Human settlements and climate change: Experiences across countries

There was a consensus among the meeting's participants to transfer the decision on the final structure of Chapter 12 to the chapter team at the Working Group III First AR5 Lead Author Meeting. The Working Group III Co-Chairs agreed to follow this advice.

2.4. Timing, Duration, and Location

Originally scheduled for April 2010, the meeting had to be postponed on very short notice due to the volcanic ash cloud that led to major disruptions of air traffic at that time. The rescheduled meeting took place on 22-24 March 2011 in Calcutta, India. The Global Change Programme of the Jadavpur University kindly served as the local host, with Prof. Joyashree Roy as the principal point-of-contact.

2.5. Trust Fund

30 Trust Fund-supported trips (across all Working Groups) were allotted to support journeys for experts from developing countries and countries with economies in transition including Co-Chairs and Vice-Chairs from Working Groups II and III.

3. IPCC Joint Working Group I/II/III Expert Meeting on Geoengineering – Lima, Peru (20-22 June 2011)

3.1. Background and Aims of the Workshop

The Co-Chairs of Working Groups I, II and III proposed this expert meeting to the 32nd session of the IPCC, held in October 2010 in Busan, as laid out in IPCCXXXII/Doc. 5. Geoengineering is to be assessed in all three WG contributions to the IPCC's Fifth Assessment Report. Despite advancing research on geoengineering, the understanding of its physical science basis is still limited, studies of geoengineering as a mitigation option remain preliminary, and a comprehensive risk assessment of possible impacts is lacking. The purpose of the Expert Meeting is to discuss the scientific basis of geoengineering options, risks, and impacts, as well as its role within the portfolio of response options to anthropogenic climate change including an evaluation of appropriate governance mechanisms, and to identify key knowledge gaps. The meeting will serve as a platform for exchange and discussion among experts from different disciplines in order to better address this important cross-WG issue and to encourage the consistent treatment of geoengineering options across the Working Groups.

3.2. Scientific Steering Group

A Scientific Steering Group (SSG) for the planning and execution of the expert meeting was established. The SSG includes Jason Blackstock (Canada), Olivier Boucher (UK/France), Ken Caldeira (USA), Nicolas Gruber (Switzerland), David Keith (Canada), and David Victor (USA), as well as the Co-Chairs of Working Groups I, II and III. The SSG developed the meeting's participant list and agenda, proposed keynote presentations, and evaluated break-out group proposals.

The Working Groups jointly led the SSG selection process; Working Group III leads meeting planning, in close collaboration with the other Working Groups; and Working Group II has taken the operational lead for the meeting.

3.3. Participation and Output

The meeting will include about 40 invited expert participants, including Lead Authors of relevant AR5 chapters in the contributions of all Working Groups.

The meeting will serve as a platform for exchange and discussion among experts from different disciplines in order to better address this important cross-WG issue and to encourage consistent approaches to assessment of geoengineering across the WGs.

3.4. Timing, Duration, and Location

The meeting will last 2.5 days and is scheduled for 20-22 June 2011 in Lima, Peru. The Foreign Affairs Ministry is kindly serving as the local host, with Minister Alberto Hart the principal point-of-contact. Operational plans to support the meeting are advancing.

3.5. Trust Fund

25 Trust Fund-supported trips (across all Working Groups) have been allotted to support journeys for experts from developing countries and countries with economies in transition including Co- and Vice-Chairs from all Working Groups.

4. IPCC Joint Working Group II/III Expert Meeting on Economic Analysis, Costing Methods and Ethics – Lima, Peru (23-25 June 2011)

4.1. Background

The Co-Chairs of Working Groups II and III submitted the proposal for this expert meeting. That document identified costing methods and economic analyses as cross-cutting methodologies that will figure prominently in the contributions of Working Groups II and III to the AR5. It specified the need for a joint Working Group II/III expert meeting to review existing methods and to identify common assessment criteria for literature employing economic analyses in the context of climate change, including the ethical dimensions of such analyses.

4.2. Aims of the Meeting

Economic analyses are widely applied in research related to climate change. Primary examples are valuation of climate-related impacts, including monetary valuation and use of alternative metrics; consideration of costs, benefits, co-benefits, risks, behavioral dimensions, and uncertainties in the context of adaptation and mitigation options; and the economic implications of policy design and instrument choice, as well as ethical dimensions of such analyses. Literature incorporating economic analyses will be assessed across the chapters of Working Groups II and III in the AR5.

To support these assessment efforts, there is increasing recognition of the need to discuss approaches for:

- Addressing the challenges and limitations associated with representing climate impacts and the costs and benefits of adaptation and mitigation in monetary terms
- Characterizing impacts and policy benefits using alternative metrics
- Assessing the dimensions of ethics and equity in estimations and aggregations of the costs of mitigation, adaptation, and residual damages
- Measuring risk and valuing information.

The Expert Meeting will assemble a diverse set of expert views to discuss these issues and the results of existing research, to highlight key issues, and to identify remaining uncertainties, providing important input for the AR5.

4.3. *Scientific Steering Group*

An SSG for the planning and execution of the expert meeting has been established, taking into account the need for balanced scientific expertise, as well as geographical and developed/developing country representation. The SSG includes John Broome (United Kingdom), Muyeye Chambwera (Zimbabwe), Purnamita Dasgupta (India), Edgar Gutiérrez-Espeleta (Costa Rica), Andrew Haines (United Kingdom), Stéphane Hallegatte (France), Michael Hanemann (USA), Geoff Heal (USA), Charles Kolstad (USA), Howard Kunreuther (USA), Jiahua Pan (China), Robert Scholes (South Africa), Ronaldo Seroa de Motta (Brazil), and Gary Yohe (USA).

Meeting planning is currently underway, focusing on development of the meeting's participant list, agenda, invited keynote presentations, break-out group proposals, and intended product.

Working Groups II and III jointly selected the SSG; Working Group II is leading meeting planning, in collaboration with Working Group III; and Working Group II has taken the operational lead for the meeting.

4.4. *Participation and Output*

The meeting will include about 70 invited expert participants, including Lead Authors of relevant AR5 chapters in the Working Group II and III contributions.

The Expert Meeting aims to develop recommendations for employing common language and common assessment frameworks in the contributions of Working Groups II and III to the AR5. Such guidance will contribute substantially to making assessments of economic analyses and the degree of certainty in resulting findings more consistent and comparable than in the past.

4.5. *Timing, Duration, and Location*

The meeting is scheduled for 23-25 June 2011 in Lima, Peru. The Foreign Affairs Ministry is serving as the local host, with Minister Alberto Hart the principal point-of-contact. Operational plans to support the meeting are advancing.

4.6. *Trust Fund*

30 Trust Fund-supported trips (across all Working Groups) have been allotted to support developing country scientist travel to this meeting.