

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

IPCC-XXXIII/Doc. 8
(11.IV.2011)
Agenda Item: 2
ENGLISH ONLY

**DRAFT REPORT OF THE THIRTY-SECOND SESSION
Busan, 11-14 October 2010**

(Submitted by the IPCC Secretariat)

DRAFT REPORT OF THE 32ND SESSION OF THE IPCC
Busan, Republic of Korea, 11-14 October 2010

1. OPENING OF THE SESSION

Mr Rajendra Pachauri, Chairman of the IPCC, opened the 32nd Session of the Intergovernmental Panel on Climate Change (IPCC-32) on Monday, 11 October 2010, highlighting progress on the IPCC Fifth Assessment Report (AR5), including the selection of 831 authors and review editors. He noted that the past year had been a challenging period for the IPCC, but underscored that the independent review by the InterAcademy Council (IAC) had concluded that “the IPCC can claim many accomplishments to its credit,” and that “the assessment process is successful overall.” Noting the need to take action during this Session, Mr Pachauri emphasized a government-driven and transparent process to address the recommendations of the IAC Review of the processes and procedures of the IPCC.

H.E. Mr Lee Maanee, Minister of Environment, Republic of Korea, highlighted his country’s vision of global green growth and its commitment to reduce emissions by 30% relative to business-as-usual by 2020. He also emphasized the importance of international cooperation and the need to share experiences and expertise.

Former Prime Minister Dr Han Seung-soo, Chairman of the Global Green Growth Institute (GGGI), Republic of Korea, noted that although the recent UN Framework Convention on Climate Change (UNFCCC) talks in Tianjin, China, cloud prospects for an outcome of COP-16 in Cancun, the change of public perception on the need to tackle climate change is remarkable. He noted the GGGI’s goal of assisting developing countries to develop green growth policies themselves and called for delegates to support Korea’s current bid to host the UNFCCC Conference of the Parties (COP) in 2012.

Mr Chun Byung-Seong, Administrator of the Korea Meteorological Administration (KMA), noted that Korea is not exempt from the global trend of increased extreme events that are dominating the headlines and airwaves. He discussed the KMA’s work on detailed climate change scenarios in the Korean peninsula and at the regional scale.

Mr Hur Nam-sik, Mayor of Busan, highlighted Korea’s green growth model and noted Busan is host to a number of organizations, including the Regional Coordinating Unit of the Northwest Pacific Action Plan and the Asia-Pacific Economic Cooperation Climate Center.

Mr Peter Gilruth, on behalf of Mr Achim Steiner, Executive Director of the United Nations Environment Programme (UNEP), noted that the IAC Review was requested by Mr R.K. Pachauri and Mr Ban Ki-moon. He said UNEP and WMO supported the review process, and together with Denmark, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom and the United States of America, they provided the funding to make the IAC’s independent assessment possible. He said the IAC recommendations did not touch on the roles of UNEP and WMO as hosts of the IPCC, but that UNEP is ready to assist Member States to enable implementation of the recommendations, particularly those that relate to the management structures and governance within the Secretariat. He said if so requested by Member States, UNEP could bring these matters to the attention of the next session of the UNEP Governing Council / Global Ministerial Environmental Forum in February, 2011. He said UNEP expects to be in a position to announce the new IPCC Deputy Secretary in the next few days. He said the world is looking to this Plenary and to governments to take the IPCC forward by drawing and acting on the IAC’s recommendations, or to propose and agree on other arrangements in terms of “retooling” the IPCC.

Mr Jeremiah Lengoasa, Deputy Secretary General, World Meteorological Organization (WMO), explained the history of the WMO's involvement in the core research activities that the IPCC depends on as well as the establishment of the IPCC. He said the Global Framework for Climate Services recently established by the World Climate Conference-3 in 2009 will now complement the WCRP and GCOS by ensuring delivery of climate information to the users through the development of new operational and user interface mechanisms. He highlighted that since the last IPCC Assessment Report, a relatively greater level of confidence in climate information at the global and continental scales was achieved, but there is a considerable way to go in providing reliable regional detail; secondly some aspects of climate change will be clearly inevitable, so societies have no option but to prepare appropriate adaptation strategies. He said the WMO Executive Council at its last session in June 2010 welcomed IPCC's activity on the preparation of the Fifth Assessment Report but also noted the need for a Special Report to assess the available scientific literature on sector-oriented climate services, and requested IPCC to consider the feasibility of preparing such a report. He noted that the IPCC's scientific process must continue, and said that early warnings and analysis of extreme weather events by WMO and the National Meteorological Services help meet the need for real-time assessments identified by the IAC Review. He concluded in saying that the WMO welcomes the Review by the IAC. He said the WMO's initial response to the IAC Review was that the report re-affirms the integrity, importance and validity of the IPCC's work while recognizing areas of improvement in a rapidly evolving field. He noted that the WMO has been pleased and proud to co-sponsor the IPCC with UNEP and to host the IPCC Secretariat for the past 22 years. He said the IPCC may wish to bring to the attention the outcomes of this Plenary to the Sixteenth WMO Congress to be held in Geneva (Switzerland), 16 May – 3 June 2011. He confirmed that WMO will continue its support to the IPCC in the future.

Ms Christiana Figueres, Executive Secretary of the UNFCCC, highlighted in a video address that climate change is now in the minds of people. She said this is why an accountable entity to bring climate change knowledge to the world is important. She said the IPCC brings this knowledge to the highest political levels. She noted that confusion dampened the public opinion in the last year, and affected how policymakers can respond to climate change. She welcomed the IAC Review. She said the IPCC must increase the robustness and the quality of its assessments, and that she hoped that member governments would strengthen and increase awareness on climate change. She said that once released, the Fifth Assessment Report will serve as a review process for long-term goals and she closed in saying that promises and pledges need to move towards steps – and that would no doubt happen in Cancun, Mexico at COP 16.

On the second day, the Panel started the Session with a minute of silence in memory of Mr Stephen Schneider and Mr Igor Shiklomanov, who both passed away since the last time Panel members met. The Chair suggested that the AR5 Synthesis Report (SYR) be dedicated to Stephen Schneider, who “embodied the IPCC in every sense”.

2. APPROVAL OF THE DRAFT REPORT OF THE 31st SESSION

The provisional agenda, IPCC-XXXII/Doc.1 (attached as **Annex 1**) was presented by Ms Renate Christ, Secretary of the IPCC, and the Panel proceeded to adopt the agenda. The list of participants is attached as **Annex 6**.

The draft report of the Thirty-first Session was approved with one modification to section 8.3 “Implications of decisions taken at IPCC-30”. Mr Jean Pascal van Ypersele said that the last sentence should be deleted because he understood that there was clear agreement at the Plenary to stop the work of the Task Group which had suggested recommendations for the longer-term future of the IPCC in Antalya. The modification to section 8.3 was accepted and the final version of the report is attached as **Annex 2**.

3. IPCC PROGRAMME AND BUDGET FOR 2010-2014

Ms Renate Christ, introduced documents IPCC-XXXII/Doc.3, IPCC-XXXII/Doc.3/Add.1 and Add.2, which present the status of income and expenditure for the IPCC Trust Fund as of 31 December 2009 and the budget proposals, the proposal for the establishment of a P-5 position of Senior Scientific Officer with a physical science profile as well as the interim status of income and expenditure for the Trust Fund as of 30 September 2010. Ms Renate Christ submitted for adoption by the Panel a revised 2010 and the 2011 budget, as well as a forecast budget for 2012, and indicative budgets for the period 2013-2014, that is up to the end of the current assessment period. As financial implications may arise from the IAC Review, the Panel would have the opportunity to adjust the 2011 budget and future budgets at IPCC-33. Ms Renate Christ drew the attention of the Panel to the low level of voluntary contributions as outlined in document IPCC-XXXII/Doc.3/Add.2 while emphasizing that expenditures have increased. She made a plea to countries to reinforce their financial support to the IPCC.

Ms Renate Christ informed the Panel that the Financial Task Team (FiTT) is open-ended, but has a core membership of Spain (Ms Concepción Martínez) and Sudan (Mr Ismail Elgizouli) as Co-Chairs, and representatives from the Republic of Korea (Ms Won-Tae Kwon), Maldives (Mr Amjad Abdulla), New Zealand (Mr Todd Kriebel) and the United States of America (Mr Trigg Talley) as regular members. As Ms Concepción Martínez was unable to preside over meetings of the FiTT, as she was assigned to co-chair the Governance and Management Contact Group. Mr Todd Kriebel agreed to step in as Co-Chair of the FiTT.

Australia, supported by Germany, called for addressing the structural foundations of the budget beyond government contributions and for a sound look at priorities, in particular given financial constraints in national economies around the world. Supported by Germany, he called for attention to the budgetary implications of decisions made at this Session. Clarifying a question by Belgium, Ms Christ said the Panel had decided on the voluntary nature of contributions and that it was up to the Panel to reconsider this decision. The UK, supported by Germany and the USA, called for recognition of historical contributions, including in-kind contributions such as the funding of the Technical Support Units (TSUs).

Pledges of contributions were announced from Canada, Norway, Spain and the United Kingdom.

The FiTT met on five occasions during the Session and Mr Todd Kriebel reported to the Plenary on behalf of the Task Team. He highlighted the group's recommendations to improve completeness and transparency and noted prolonged discussions on travel-related matters. The FiTT also drew attention to the fact that the Panel will be facing budgetary pressures in 2012 as a result of AR5. Switzerland and the Co-Chair of the Task Force on National Greenhouse Gas Inventories (TFI) asked for clarification on previous year expenditures and in the statement of expenditure. Proposals by the Secretariat for a Senior Science Officer, as well as two temporary positions to manage the IPCC Scholarship Programme, were not accepted.

The Plenary adopted the revised 2010 budget and proposed 2011 budget as attached and approved the budget decisions presented by the FiTT (**Annex 5**).

4. THE IPCC 5TH ASSESSMENT REPORT (AR5)

4.1 Scope, content and process for the preparation of the AR5 Synthesis Report

The scope, content and process for the preparation of the AR5 Synthesis Report (SYR) document (IPCC-XXXII/Doc.4) was first taken up in Plenary on Monday morning where participants made general statements regarding the scope, length and timing of the SYR. The discussion centered mainly on the revision of a SYR outline developed at a dedicated SYR scoping meeting held in Liège, Belgium, in August 2010, and the timetable for preparation of the SYR. The proposed outline included five topics: (1) Observed changes and their causes; (2) Future changes (in the short and long-term); (3) Responses; (4) Transformations and changes in systems; and (5) Science supporting UNFCCC Article 2.

Discussions then continued in the contact group from Tuesday through Thursday, which was co-chaired by Ms Antonina Boncheva (Mexico) and Mr Nicolas Beriot (France), with Mr David Wratt (New Zealand) serving as rapporteur.

On the placement of the 5th topic on Article 2 of the UNFCCC, delegates discussed various options. While some countries were pleased to see this topic added as a stand-alone topic in the SYR outline, other countries argued that the topic should be embedded within the structure. Moving towards a compromise solution, the idea of a box on Article 2 of the UNFCCC that could serve as a roadmap, taking readers back through the SYR to understand the new scientific findings relevant to Article 2 of the UNFCCC, was suggested. At the same time, an additional section in the outline that would cover key issues on risks and vulnerabilities was proposed. Finally the group found a compromise that included incorporating these key issues under the existing topics, and allowing for a box on Article 2 of the UNFCCC at the end of the outline.

Other issues with regard to the scope and content that were discussed include:

- A reference to impacts on the Millennium Development Goals in the topic on responses.
- The need to capture information on regional aspects.
- Overlaps in the structure.
- The titles of sections and how to improve them for example the group agreed to refer to “Mitigation and adaptation measures” instead of “responses” in Topic 3.
- That Mitigation and Adaptation should be addressed simultaneously.
- The inclusion of spillover effects of mitigation responses in Topic 3.
- Risks and merits of different geo-engineering options to the extent there is supporting literature.
- Inclusion of alternative theories, assessed in the Working Group reports.

Delegates agreed to limit the Summary for Policymakers (SPM) to up to eight pages of text, excluding tables, maps, boxes and figures, and the longer report to up to 30 pages of text, excluding tables, maps, boxes, and figures.

On timing, several countries said that the WG III report should be approved before the SYR draft is being prepared, with the Netherlands calling for moving the SYR approval date. Delegates revised the timetable for writing the SYR and postponed the adoption of the SYR by one month and agreed that the Panel would invite the UNFCCC to consider holding COP 20 as late as possible in 2014 in order to allow sufficient time for government consideration of the SYR in advance of UNFCCC COP 20. The selection of authors of the SYR Core Writing Team was also slightly postponed to ensure better allocation of resources over the different tasks. Furthermore the first CWT meeting was postponed until after the First Order Drafts of all three WGs are available. Given the extension of the timetable beyond the previously agreed 12-month period between the WG I approval and the SYR approval, the contact group suggested that a statement be added to the Synthesis Report Scoping Document saying that no new material will be included that was not

assessed in the three Working Group Reports. This would also appear in the Synthesis Report Preface.

The contact group also discussed how to leave to the authors some flexibility, while providing clear guidance on how a subject matter should be treated. It was suggested that once the core writing team goes through the scope and content of the SYR, and have made revisions using their judgment, they would submit a revised version of the SYR outline to the Plenary for information. Finally the Panel decided that the coverage of the bullets will depend on the assessment of the literature by the authors, cognizant of the page length restrictions, and that the IPCC Chair will report to the Panel on the evolution of the outline of the SYR after the zero-order draft has been produced.

The agreed SYR Scoping Document can be found in **Annex 4**.

4.2 Progress reports and schedule of AR5 related activities

Mr Ottmar Edenhofer, WG III Co-Chair, presented a proposal in the WG III progress report (document IPCCXXXII/Doc.12) to hold a cross-Working Group Expert Meeting on Geo-engineering. He said the meeting was meant to respond to the fact that, although geo-engineering as a mitigation option remains rather abstract and lacks comprehensive risk assessment, it is to be assessed by all three WGs in AR5. The meeting would discuss the scientific basis of geo-engineering, options, risks and impacts, and identify key knowledge gaps.

The Panel decided to hold an IPCC Expert Meeting on Geo-engineering as proposed in IPCCXXXII/Doc. 5. Countries discussed whether the geo-engineering meeting should be a workshop with a formal nomination process or an expert meeting without a nomination process. During the Plenary Session, countries met informally with the Working Group Co-Chairs to discuss the format of the meeting. The Panel finally requested that the Co-Chairs of the Working Groups provide National Focal Points with a list of the proposed participants in advance of the meeting to ensure full transparency and to allow for Focal Points to recommend additional participants. Following normal practice, the final decision on participation will be taken by the Co-Chairs of the Working Groups.

5. REVIEW OF THE IPCC PROCESSES AND PROCEDURES: REPORT BY THE INTERACADEMY COUNCIL

At this Session, the Panel agreed to immediately implement several recommendations of the InterAcademy Council (IAC) Review of the Processes and Procedures of the IPCC. On others, the Panel has formed Task Groups to undertake further work with a view to completion at its next Session, considering the guidance from the IAC.

On the first day of the meeting delegates briefly discussed the order of business for dealing with the IAC Review's recommendations.

On the second day, Sir Peter Williams, representing the IAC, gave a brief presentation on the major findings of the IAC Review. He took questions and provided clarification on the IAC Review.

After a brief period of debate in Plenary, contact groups were formed on IPCC Management and Governance, Conflict of Interest Policy, Communications Strategy, and IPCC Procedures. The contact groups reported back to the Panel with their recommended way forward on each area in a closing Plenary meeting. The decisions taken at the closing Plenary Session can be viewed in **Annex 3**.

5.1 Governance and Management

The IAC Review's recommendations on governance and management (IAC Chapter 4, IPCC-XXXII/Doc.7) were taken up in a contact group Co-Chaired by Ms Concepción Martínez (Spain) and Mr Chung-Kyu Park (Republic of Korea). Mr Howard Larsen (New Zealand) served as Rapporteur.

The contact group met four times from Tuesday through Thursday. In addition a smaller drafting group was formed. The following IAC proposals and issues were discussed: the IAC's proposed Executive Committee, the proposed Executive Director, terms of office of the Chair and the Working Group Co-Chairs, and the redefinition of the roles and responsibilities of the Secretariat.

The following text summarizes the discussions in the contact group and the Plenary, as well as the relevant decisions made by the Panel at its 32nd Session. The decisions taken can be viewed in Annex 3.

Concerning the IAC's recommendations for an Executive Committee, many delegates supported the establishment of an Executive Committee, which would address the need for a body that could respond quickly in moments of crisis, as well as address operational matters. However, some cautioned that rushing into establishing an Executive Committee at this Session would be premature and many delegates called for clearly identifying needs before taking a decision to establish a new body. Some countries also cautioned against potential increased bureaucracy. It was also said that the Executive Committee would strengthen the functions of the existing management structure, since most of these functions already exist within it. Some suggested addressing the Terms of Reference (ToR) for the Bureau as a starting point. Therefore, it was generally agreed that the ToR for the Executive Committee and its composition should be carefully considered, alongside with those of the IPCC Bureau, before taking a decision to establish the Executive Committee. Some delegates also suggested that the IPCC E-team serve as the basis for establishing the Executive Committee, and act as an interim Executive Committee.

On composition of the Executive Committee, divergent views were expressed regarding the inclusion of external members. The contact group also discussed whether the Executive Committee could include the heads of TSUs, IPCC Vice-Chairs, TFI Co-Chairs, and representatives of UNEP, UNFCCC, and WMO, and their potential roles.

Regarding the functions of an Executive Committee, in the contact group various delegates proposed that the committee could deal with *inter alia*: oversight of IPCC activities and preparation of the assessments; review of the effectiveness of procedures; human resource management; communications; the IPCC programme and budget; internal problems and conflicts, and facilitating cooperation between the Co-Chairs and with the IPCC Chair.

The decision on the establishment of an Executive Committee as approved in the closing Plenary is as follows:

- I. Agreed to work toward establishing a formal body to provide governance functions that are necessary between sessions of the panel, strengthen coordination activities, and have oversight of the organisation's administration and communications; according to the mandate to be agreed in the 33rd Session.*
- II. The Task Group should consider options for the implementation of the decision concerning the recommendation mentioning the establishment of an Executive Committee. These options include those for the mandate, size, composition, functions and reporting of the body referred to in this recommendation.*

III. The Task Group shall make recommendations on the options mentioned in decision II to the 33rd Session of the Panel, with a view to taking a decision.

With relation to The IPCC Secretariat, delegates discussed the IAC Review recommendation to “elect an Executive Director to lead the Secretariat and handle day-to-day operations of the organization. The term of this senior scientist should be limited to the time frame of one assessment.”

Different views were expressed in the contact group on the need for such a position and the possible functions and profile of an Executive Director and the relationship with UNEP, WMO and the broader UN system. Concern was expressed about creating confusion by using the term “Executive Director,” which is normally used in larger international organizations, such as UNEP. Several countries proposed changing the Secretary title to Executive Secretary to raise the image and prestige of the Panel and the Secretariat.

In the context of the IAC recommendation to “redefine the responsibilities of key Secretariat positions both to improve efficiency and to allow for any future senior appointments”, delegates noted the importance of understanding what the IPCC as a whole needs in terms of management and administration regarding a possible term limit, it was recalled that the Secretariat plays a critical role in maintaining institutional memory. It was also proposed that the Secretariat prepare and work on the basis of a yearly work plan approved by the proposed Executive Committee and presented to the Panel. Some delegations said the exact roles and responsibilities of those currently in the Secretariat should be evaluated before redefining functions or hiring new staff. It was noted that there was a need to strengthen the linkage between the Secretariat and the TSUs. Reinforcing cooperation between the head of the Secretariat and the Chair, and the other Bureau members was also mentioned.

In the closing Plenary, it was raised that IPCC member countries would like to see an overall evaluation of the Secretariat in the framework of the review of the IPCC processes and procedures in relation to all other elements of the IPCC organization.

The Panel agreed on the following decision text addressing the IAC Review recommendations with regard to the Secretariat:

I. Requested the Task Group to examine the role of the Secretariat in its relation with WMO, UNEP, the IPCC-Chair, the Vice-Chairs, Co-Chairs of the WGs and the TFI, and Technical Support Units. The Task Group is requested to review the responsibilities of key Secretariat positions and consider the issues associated with it and to make recommendations to the Panel at its 33rd Session. It is also requested to consider issues associated with the potential creation of a new post of an “Executive Director” to lead the Secretariat.

On the Terms of Office for the Chair and the Working Group Co-Chairs:

The IAC Report had recommended that the term of the IPCC Chair and of the Working Group Co-Chairs should be limited to the timeframe of one assessment.

In the contact group, delegates underscored the importance of continuity between assessments and carryover of the Chair’s knowledge and experience when he or she steps down, regardless of whether one or two terms are served. Other countries noted also the need for ensuring growth, dynamism and the ability to respond to change. One delegate said that although in other organizations it is common to serve two terms, 12 or more years is too long for the context in which the IPCC operates. Another country clearly stated that current terms are appropriate, and preferred not to limit the term of office to one

term. It was also noted that the term limit should not apply retroactively, given that the IPCC is now in the middle of an assessment cycle.

Furthermore, in the discussion some governments suggested that the terms of office should be slightly overlapping to allow the Chair and Working Group Co-Chairs to be involved in the work of dissemination and providing feedback on the process, or to have an IPCC Chair and Chair-elect working together. Another delegation noted the possibility of extending some functions into the next assessment period, and two countries said more discussion on this issue could be useful.

In the contact group on Thursday, delegates forwarded decision text to the Plenary and the decision was adopted at the closing Plenary Session. The Chair recused himself during the discussion on this issue and the debate on this decision during Plenary was chaired by Vice-Chair Mr Hoesung Lee (Republic of Korea).

The Panel decided to take the following decisions with regard to this issue:

- I. Requested the Task Group to consider issues related to the IAC recommendations on the term of the IPCC Chair and working group Co-Chairs, including continuity issues.*
- II. Noted that any amendments to the existing IPCC Rules of Procedure for Elections could be applied only to subsequent elections.*
- III. Requested the Task Group to report their recommendations to the 33rd Session for decision.*

On the IPCC's Conflict of Interest Policy, the IAC Report recommended that the IPCC “develop and adopt a rigorous conflict of interest policy that applies to all individuals directly involved in the preparation of IPCC reports, including senior IPCC leadership (IPCC Chair and Vice Chairs), authors with responsibilities for report content (i.e., WG Co-Chairs, coordinating lead authors (CLAs), and lead authors (LAs), Review Editors (REs), and technical staff directly involved in report preparation (e.g., staff of the TSUs and the IPCC Secretariat).”

This issue was first addressed in the contact group on governance and management. Recognizing that such a policy is already applied to the employees of the IPCC Secretariat, but not to other IPCC officials, authors of reports, or Technical Support Unit staff, delegates agreed that a conflict of interest policy should be developed by the IPCC, with some proposing the formation of a Task Group to address this issue with a view to adopting such a policy at the 33rd Session.

Delegates noted that addressing this issue is critical to improving the image and integrity of the IPCC, recommended establishing a process to define conflict of interest, suggested looking at models in other international organizations, and discussed the need to differentiate between the various levels of IPCC members. One delegate stressed that the IPCC is composed of volunteers and noted the importance of not excluding people who could make a valuable contribution while addressing the issue of bias and creating transparency. Overall, there was broad agreement in the contact group on the importance of adopting a conflict of interest policy and proposed text on how to develop this policy was forwarded to the Plenary where it was adopted with limited discussion.

The Panel at its 32nd Session:

- I. Agreed with this IAC recommendation.*
- II. Decided to implement a rigorous conflict of interest policy, taking into consideration the specific circumstances related to participation in IPCC activities.*
- III. Established a Task Group on Conflict of Interest Policy to propose options for such a policy, consulting with relevant organizations, for its decision at the 33rd Session.*

The issue of the qualifications of IPCC Bureau members was first addressed by the contact group on governance and management and further elaborated on in a drafting group. In the contact group, delegates took up discussion of the IAC recommendation to “develop and adopt formal qualifications and formally articulate the roles and responsibilities for all Bureau members, including the IPCC Chair, to ensure that they have both the highest scholarly qualifications and proven leadership skills.”

In this contact group, some countries noted that the current IPCC procedure for the selection of Bureau members is clear and opposed the second part of the recommendation on ensuring the highest scholarly qualifications and proven leadership skills. However, a number of other countries agreed with the recommendation and called on the IPCC to adopt it in its entirety, as the current formulation in Rule 19 of Appendix C to the Principles Governing IPCC Work only says Bureau members should have “relevant scientific expertise”. Discussion on this issue continued in a drafting group. The drafting group was unable to resolve the differences on qualifications and leadership skills and felt that the recommendation warranted further discussion. Decision text on this issue was forwarded by the contact group to the Plenary, where it was adopted without debate.

The Panel at its 32nd Session:

- I. Decided to refer this issue to the relevant Task Groups with a particular focus on roles and responsibilities for all Bureau members, including the IPCC Chair.*
- II. The Task Group on Governance and Management should report back to the Panel at the 33rd Session.*

It was agreed to establish two Task Groups: one on Governance and Management and one on Conflict of Interest Policy to prepare recommendations for consideration at the 33rd Session of the IPCC. Since time at the final Plenary meeting did not permit consideration of the terms of reference for the Task Groups, Chairman Pachauri suggested that the Terms of Reference would be elaborated on in the report of the Session and that it would follow closely the Terms of Reference of the Task Group on Procedures. The decisions taken by the Panel including Terms of Reference for the Task Groups can be found in **Annex 3**.

5.2 IPCC Procedures

The IAC Review recommendations on the IPCC's assessment processes (IAC Chapter 2, document IPCC-XXXII/Doc.7) and IPCC's evaluation of evidence and treatment of uncertainty (IAC Chapter 3, document IPCC-XXXII/Doc.7) were taken up in a contact group Co-Chaired by Eduardo Calvo Buendía (Peru) and Øyvind Christopherson (Norway). Susanna Kahm Ribiero (Brazil) acted as Rapporteur.

The contact group met five times, to consider the IPCC's procedures for evaluating evidence and treating uncertainty; handling a full range of views; author selection; sources of data and literature; the review process; procedures regarding the preparation and approval of the SPM; and handling potential errors identified after the approval of IPCC Reports. A drafting group was also established to prepare text for consideration by the Panel.

The following text summarizes the discussions in this contact group and the Plenary, as well as the relevant decisions made by the Panel at its 32nd Session:

On the use of grey literature (or non-journal based sources of data and literature):

On the General Guidance on the Use of Literature in IPCC Reports (see document IPCC-XXXII/INF.4), Mr Thomas Stocker, WG I Co-Chair, reported on the current use of this guidance note by authors of the two IPCC Special Reports that are currently underway. He noted that it provides authors with a series of questions that would help them determine if a source can be used in an IPCC report and identifies what documentation must be provided to the reviewers of the report. He said these questions should sensitize the authors on the credibility of the source, including authorship, and how the source arrives at its conclusions. To further improve this guidance and fulfill all of the IAC Review's recommendations, he noted that the WG Co-Chairs would consult with the Heads of the TSUs to prepare text on unacceptable sources of information, which would point to blogs, social networking sites, news reports on the internet, visual media and personal communication. He highlighted possible options to flag non-peer-reviewed or unpublished literature through either electronic flags in the PDF version or adding lines of reference in the text.

Issues raised in the discussion were: that grey literature must be assessed as critically as peer-reviewed journals, that authors must make a judgment on the quality of a source, and that the scope of IPCC reports has been broadened into fields that are likely to draw heavily on grey literature, such as adaptation. Countries also noted that grey literature is more easily accessible, as peer-reviewed literature is often quite expensive, that local sources of information should be taken into account, and that focal points should help identify this literature.

Delegates underscored the importance of explicit guidance on the inclusion of grey literature and for it to be implemented effectively. Several countries also noted that as the IPCC already has procedures on these issues, it should be clear to the outside world that the IPCC is now strengthens and enforces the existing procedures on the use of grey literature. One delegate also mentioned that the existing procedures do not reflect that in many cases grey literature has been extensively reviewed, noting government reports and works from the engineering field.

The Panel at its 32nd Session:

Noted that in its Report the IAC has recommended:

"The IPCC should strengthen and enforce its procedure for the use of unpublished and non-peer-reviewed literature, including providing more specific guidance on how to evaluate such information, adding guidelines on what types of literature are unacceptable, and ensuring that unpublished and non-peer-reviewed literature is appropriately flagged in the report."

The Panel agreed with this recommendation. The Panel decided to strengthen the application of its procedures on the use of unpublished and non-peer reviewed literature. It decided to implement this recommendation and further key elements through its procedures and guidance notes. The Panel noted the General Guidance on the Use of Literature in IPCC Reports (contained in IPCC-XXXII/INF.4) as revised in General Guidance on the Use of Literature in IPCC Reports which

addresses the related aspects in the IAC recommendations and decided to endorse them as a Guidance Note. The Panel urges the Co-Chairs of Working Group I, II, III and TFI to take any necessary steps to ensure that this guidance note is applied in the development of IPCC reports.

On the handling of potential errors identified after approval of IPCC reports:

Delegates noted that this issue was addressed in the IAC Review, which included analysis of the Himalayan glacier error, but did not result in an explicit IAC Review recommendation. There was broad consensus that a procedure was essential to address errors identified after approval. While emphasizing the need to minimize errors and noting that current procedures are designed to do just that, many agreed that errors are bound to occur in a process as large and as complex as the IPCC reports. Delegates noted the proposed IPCC protocol for addressing errors in previous assessment reports (IPCC-XXXII/INF.8) and noted the need to avoid bias and to address errors as rapidly as possible after they have been identified.

The Panel at its 32nd Session:

- I. Agreed on the need to establish a process for evaluating, addressing and correcting, if necessary, potential errors and further developing errata as appropriate.*
- II. The Panel noted the “Proposed IPCC Protocol for Addressing Errors in Previous Assessment Reports” which describes a clear decision tree, based on the nature of the material and the steps necessary to avoid bias, so that potential errors could be addressed as rapidly as practical.*
- III. The Panel urges the IPCC Chair, the IPCC Vice-Chairs, the Co-Chairs of Working Group I, II, III and TFI to take any necessary steps to ensure that this protocol is finalized and then used for evaluation of potential errors and developing errata as appropriate. Further analysis is to be considered by the Task Group on Procedures with the view to submit a proposal for a decision at the next Session (IPCC-XXXIII).*

On report review:

The Panel at its 32nd Session:

Noted that in its Report the IAC has recommended:

“The IPCC should adopt a more targeted and effective process for responding to reviewer comments. In such a process, Review Editors would prepare a written summary of the most significant issues raised by reviewers shortly after review comments have been received. Authors would be required to provide detailed written responses to the most significant review issues identified by the Review Editors, abbreviated responses to all non-editorial comments, and no written responses to editorial comments.”

In its decision text, the Panel agreed with this recommendation in principle.

It agreed that:

Implementation options to be considered by the Task Group on Procedures with the view to make a decision at its next Session (IPCC-XXXIII).

The Panel noted that in its Report the IAC has recommended:

“The IPCC should encourage Review Editors to fully exercise their authority to ensure that reviewers’ comments are adequately considered by the authors and that genuine controversies are adequately reflected in the report.”

The Panel agreed with this recommendation.

The Panel decided to strengthen its application of procedures, and amend them where necessary, to enable Review Editors to fully exercise their role. The Panel noted the new Guidance Note on the Role of Review Editors which addresses the related aspects in the IAC recommendations. The Panel urges the Co-Chairs of Working Group I, II, III and TFI to take steps to ensure that this guidance note is implemented in the development of its work.

On the IPCC’s evaluation of evidence and treatment of uncertainty:

Delegates addressed the IAC Review recommendations on the handling of uncertainty in IPCC reports. For the full set of recommendations see: IAC Review Chapter 3, in document IPCC-XXXII/Doc.7.

Delegates first addressed uncertainty in a contact group on Tuesday. WG II Co-Chair Christopher Field provided an overview of the draft guidance note for AR5 Lead Authors on consistent treatment of uncertainties. This guidance note is being developed by the three Working Groups (document IPCC-XXXII/INF.9), and, as such, was submitted by the Co-Chairs of the Working Groups. He noted the uncertainty guidance was under development before the IAC Review and that most of the IAC Review recommendations had already been addressed. He noted the new guidance builds on the guidance that was available to authors for the AR4 but that it is clearer, facilitates consistent application, and harmonizes implementation across Working Groups. It also addresses new dimensions and challenges. Authors will be asked to use the calibrated language to describe their certainty in “key” findings, and traceable accounts should be provided to describe evaluations of evidence and agreement.

In the discussion, governments recognized that the guidance note addresses the IAC Review recommendations, but asked for further clarification on whether the WG Co-Chairs accepted the IAC Review recommendations, and how the Co-Chairs would ensure that authors have full access to these guidelines. WG I Co-Chair Thomas Stocker reiterated that the guidance note covers most of the IAC Review recommendations, noting that five of the six recommendations have already been addressed. On the qualitative scale recommendation, he said the guidance note goes further than the IAC Review recommendation. On traceable accounting, he said the Lead Authors should be able to clearly describe how they reached conclusions. On quantitative probabilities, he said the likelihood scale worked well. Regarding the confidence scale, he noted ill-defined outcomes are flagged in the IAC Review recommendation and are addressed in the guidance note. On the likelihood scale, he said using words, in addition to probabilities, would ensure that results are more easily understood. WG III Co-Chair Ottmar Edenhofer emphasized that “confidence” is a way to synthesize evidence and agreement and stated that the guidance note provides a clear understanding and procedure on how to aggregate evidence and agreement into confidence scales.

Governments raised a number of questions: how to deal with the issue of expert judgment; how to link this guidance note to the tasks of Review Editors; and who should ensure that the calibrated uncertainty language is used properly and in a consistent manner throughout the report. Some delegates noted that further work would be required on the traceable account of uncertainty. They asked that the guidance notes be finalized and that clear reference to the Working Group’s treatment of the IAC Review recommendations should

be made. One delegate noted that the uncertainty guidelines are useful but could still lead to a variety of interpretations, and called for seeking the views of Coordinating Lead Authors (CLAs), Lead Authors (LAs) and Review Editors (REs). This issue was addressed further in a drafting group and text was forwarded by the contact group to the Plenary for adoption.

The Panel at its 32nd Session:

Noted that in its Report the IAC has made several recommendations:

“All Working Groups should use the qualitative level-of-understanding scale in their Summary for Policymakers and Technical Summary, as suggested in IPCC’s uncertainty guidance for the Fourth Assessment Report. This scale may be supplemented by a quantitative probability scale, if appropriate.”

“Chapter Lead Authors should provide a traceable account of how they arrived at their ratings for level of scientific understanding and likelihood that an outcome will occur.”

“Quantitative probabilities (as in the likelihood scale) should be used to describe the probability of well-defined outcomes only when there is sufficient evidence. Authors should indicate the basis for assigning a probability to an outcome or event (e.g., based on measurement, expert judgment, and/or model runs).”

“The confidence scale should not be used to assign subjective probabilities to ill-defined outcomes.”

“The likelihood scale should be stated in terms of probabilities (numbers) in addition to words to improve understanding of uncertainty.”

“Where practical, formal expert elicitation procedures should be used to obtain subjective probabilities for key results.”

The Panel agreed with these recommendations.

The Panel decided to improve the IPCC guidance on evaluation of evidence and treatment of uncertainty. It is implementing the six recommendations in the IAC Review as part of a broader package of updates to procedures and guidance notes. The Panel noted with appreciation the Draft Guidance Note for Lead Authors of the Fifth Assessment Report on Consistent Treatment of Uncertainties and requested the Co-Chairs of Working Group I, II and III to present the final document to the Panel at its next Session. The final document should provide more detail on traceable accounts, the evolution of the guidance since AR4 and explain how each of the six recommendations in the IAC review is addressed. The Panel urges the Co-Chairs to take any necessary steps to ensure that the guidance note is implemented in the development of its work.

On handling the full range of views:

This issue was also dealt with in the context of the guidance on handling uncertainty (see above).

The Panel at its 32nd Session:

Noted that in its Report the IAC has recommended:

“Lead Authors should explicitly document that a range of scientific viewpoints has been considered, and Coordinating Lead Authors and Review Editors should satisfy themselves that due consideration was given to properly documented alternative views.”

In its decision text, the Panel agreed with this recommendation. The Panel emphasized that handling the full range of scientific views is a core principle of the IPCC. Its procedures clearly require the representation of differing scientific viewpoints and encourages rigorous adherence by the CLAs, LAs, and REs. The Panel urged the IPCC Chair, the Co-Chairs of the Working Groups and TFI to take any necessary steps to ensure that this principle continues to be applied in the development of IPCC reports. Further implementation is to be considered by the Task Group on Procedures with the view to make a decision at its next Session (IPCC-XXXIII).

On Scoping:

The Panel at its 32nd Session:

Noted that in its Report the IAC has recommended:

“The IPCC should make the process and criteria for selecting participants for scoping meetings more transparent.”

The Panel agreed with this recommendation. Implementation plan to be determined by the Task Group on Procedures with the view to make a decision at its next Session (IPCC-XXXIII).

It was understood that as the scoping processes are now completed for the AR5, the ongoing Special Reports, and for the Synthesis Report of the AR5, these recommendations would be implemented for future scoping processes.

On Author Selection:

The Panel at its 32nd Session:

Noted that in its Report the IAC has recommended:

“The IPCC should establish a formal set of criteria and processes for selecting Coordinating Lead Authors and Lead Authors.”

The Panel agreed with this recommendation. Formal criteria are included in the existing procedures. Enhanced implementation and transparency as well as potential additional criteria and procedures to be considered by the Task Group on Procedures with the view to make a decision at its next Session (IPCC-XXXIII) for future work.

The Panel noted that in its report the IAC has recommended:

“The IPCC should make every effort to engage local experts on the author teams of the regional chapters of the Working Group II report, but should also engage experts from countries outside of the region when they can provide an essential contribution to the assessment.”

The Panel agreed with this recommendation. This is already implemented for AR5. Further implementation to be considered by the Task Group on Procedures with the view to make a decision at its next Session (IPCC-XXXIII) for future work.

On the Summary for Policymakers:

The Panel at its 32nd Session:

Noted that in its Report the IAC has recommended: “The IPCC should revise its process for the approval of the Summary for Policymakers so that governments provide written comments prior to the Plenary.”

The Panel acknowledges the importance of both written comments and inputs from the floor, both of which are current practice. No revision to the process is required.

The IPCC established a Task Group on Procedures to develop proposals on further implementation of the recommendations by 31 January 2011. Governments will be invited to comment on the proposals by 28 February 2011 to allow preparation of revised drafts for consideration by the Panel at its 33rd Session.

The full set of final Panel decisions on IPCC procedures and processes, the full Terms of Reference for the Task Group on Procedures, as well as related Appendices are included in **Annex 3**.

5.3 IPCC Communications Strategy

Delegates discussed communications in the context of the IAC Review recommendation to “complete and implement a communications strategy that emphasizes transparency, rapid and thoughtful responses and relevance to stakeholders, and includes guidelines about who can speak on behalf of the IPCC and how to represent the organization appropriately.”

After a presentation by Ms Renate Christ, IPCC Secretary, on the progress report and draft communications strategy (see section 9), and a first Plenary discussion on this topic, it was agreed that a Task Group on Communications be established to consider how to include the communications strategy in the broader perspective of the IAC Review recommendations.

In the discussions, Governments highlighted the need for the IPCC communications strategy to focus on the work of the authors, experts and the institution. Words of caution were expressed about focusing on derivative products and outreach activities related to a given IPCC report before the completion, approval and publication of such a report. The Chairman highlighted the need for proactive plans based on material that is already approved (for example the reports of the Fourth Assessment Report and upcoming Special Reports) and that the IPCC needed some additional capacity in order to react to urgent demands. Furthermore, the names of the main consulting firms (Resource Media, European Climate Foundation (ECF), New Century Media, Bell Pottinger, and Sitrick and Company) that had helped the IPCC during peak periods in the last year were provided by the Chairman.

Further discussions were taken up in a contact group, Co-Chaired by Ms Nirivololona Raholijao (Madagascar) and Mr Darren Goetze (Canada). The contact group addressed the short-term task of developing a statement of the Panel to communicate to the world what happened at this session, noting the longer-term task of developing a communications strategy for the IPCC may not be completed at this session.

Delegates also discussed who should speak on behalf of the IPCC (who should be the designated IPCC spokespeople), with the suggestion that this could be the IPCC Chair, the IPCC Vice-Chairs, the WG Co-Chairs and the TFI Co-Chairs.

Participants also raised issues related to specific guidelines developed for spokespeople. They noted that IPCC officials should not advocate particular political positions and there should be clarity on what they can discuss. Participants also stressed the need for a process to manage information requests, and the identification of spokespeople.

The group proposed that a Task Group to guide the development of the long-term communications strategy should be established.

Co-Chair Goetze reported outcomes of the contact group on Communications to Plenary, which included a draft preamble, draft decision and ToR for the Task Group established to guide the development of the communications strategy. WG I Co-Chair Thomas Stocker suggested adding to the ToR that the Task Group will seek the advice of the IPCC Chair, the IPCC Vice-Chairs, WG and TFI Co-Chairs, and the Secretariat, in order to be consistent with the ToRs of the other three Task Groups. It was decided that the work of the Task Group will be supported by the Communications team within the Secretariat. Regarding the draft preamble, it was requested to add that the assessment process is robust, and reflecting that the Panel's work rests on the contribution of thousands of scientists who contribute to it (France asked that the ToR mention that communication is required in many languages).

The final approved decision text on this topic is shown below.

The Panel at its 32nd Session:

Noted that in its report the IAC has recommended:

“The IPCC should complete and implement a communications strategy that emphasizes transparency, rapid and thoughtful responses, and relevance to stakeholders, and which includes guidelines about who can speak on behalf of IPCC and how to represent the organization appropriately.”

The Panel accepts the recommendation to develop a communication strategy. Taking into account the core products of the organization, the Strategy will clarify the scope and objectives of IPCC communication, with clear guidelines on authority, representation and identification of spokespeople.

The Panel decided to establish a Task Group to guide the development of the Communications Strategy. The first draft should be presented to the IPCC Bureau at its next Session with a view to adopting the Communication Strategy at the 33rd Session of the Panel.

The full set of final Panel decisions on the IPCC Communications Strategy and the full Terms of Reference for the Task Group on a Communications Strategy are included in **Annex 3**.

5.4 The composition of the four Task Groups

In the final Plenary session, the Panel agreed on the establishment of the following four Task Groups to further develop and implement the IAC Review's recommendations: 1) Procedures, 2) Governance and Management, 3) Conflict of Interest Policy and 4) Communications Strategy (see also item 9). These Task Groups will prepare draft decisions with regard to the IAC Review recommendations with a view to completion of their tasks at the 33rd Panel Session.

The Chairman stressed the importance of geographical balance and noted that while being open ended for operational purposes these groups should not be too large. He asked governments to raise their flags to indicate in which group(s) they wanted to participate. Given the enthusiastic response for all of the groups, the Chairman asked for the approval from the IPCC Trust Fund of 25 journeys to allow for travel of participants from developing countries and countries with economies in transition for a limited number of meetings of the four groups. Please see **Annex 3** for the Task Groups' composition (as of 17 December 2010).

The Government representative of Switzerland noted that, since the Panel now finished addressing the IAC Review and moved forward to implement the recommendations, it would be appreciated if the Chairman could send a letter to the United Nations Secretary-General, Mr Ban Ki-moon, on behalf of the Panel, explaining what steps have been taken by the IPCC thus far to improve its processes and procedures.

6. ADMISSION OF OBSERVER ORGANIZATIONS

Ms Renate Christ introduced document IPCC-XXXII/Doc. 6 and noted that eight applications of organizations for observer status with the IPCC had been reviewed by the Bureau at its 41st (Geneva, May 2010) and 42nd Session (Busan, October 2010) which met the requirements of the IPCC Policy and Process for Admitting Observer Organizations, namely: Humane Society International (HSI), New World Hope Organization, Transparency International (TI), the Preparatory Commission for the International Renewable Energy Agency (IRENA), the International Institute for Environment and Development (IIED), the Ecology Center, Gender CC – Women for Climate Justice, and the College of the Atlantic. Without objection the Panel formally accepted these organizations as observers of the IPCC.

The application from the Industrial Technology Research Institute (ITRI), which was submitted to the 30th Session of the Panel, is still pending due to reservations expressed by the Focal Point from China.

An application for observer status was also received from the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations, by letter of 23 July 2010. It was proposed to consider WIPO as a participating organization of the IPCC in compliance with rule I.4 of the IPCC policy for observer organizations.

7. RULES OF PROCEDURES FOR THE ELECTION OF THE IPCC BUREAU AND ANY TASK FORCE BUREAU

The Chairman referred to document IPCC-XXXII/Doc. 18 and proposed to discuss the issue of a possible revision of the Rules of Procedures for the Election of the IPCC Bureau and Any Task Force Bureau at the 33rd Panel Session, since elements of these rules may be affected by actions to be undertaken in relation to the implementation of the IAC Review recommendations. The Panel agreed with that proposal.

8. REPLACEMENT OF MEMBERS OF THE IPCC BUREAU

The Chairman introduced documents IPCC-XXXII/Doc. 19 and Add.1 and informed the Panel that following the resignation of Mr Ogunlade Davidson (Sierra Leone) as IPCC Vice-Chair, the Government of Sierra Leone had nominated Mr. Ismail Elgizouli from Sudan to replace him. By letter dated 2 February 2010 the Secretary had sought the opinion and consent of the IPCC Members to accept the nomination of Mr Elgizouli as Acting Vice-Chair, in addition to his duties as Vice-Chair of Working Group III. By letter

dated 12 April 2010 the Secretary of the IPCC informed the Members that no objections were received and that Mr Elgizouli would be Acting Vice-Chair until elections were held at the 32nd Plenary Session. In compliance with Rule 12 of the Rules of Procedures for the Election of the IPCC Bureau and Any Task Force Bureau (hereafter: the Election Rules) Mr Elgizouli had to be confirmed in his position and needed to be elected by simple majority by the Plenary for the remainder of the term of the Bureau. Since there were no other candidates for the position, Mr Elgizouli was elected without voting in accordance with Rule 16 of the Election Rules. The Panel joined the Chairman in congratulating Mr Elgizouli for his election as IPCC Vice-Chair.

By letter dated 5 June 2010 the Secretary had informed the IPCC Members that if Mr Elgizouli would be elected as Vice-Chair of the IPCC, his position of Vice-Chair of Working Group III needed to be filled. In line with Rule 7 of the Election Rules pertaining to the need for a balanced geographic representation in the composition of the Bureau and Annex B to the Election Rules, indicating that the Bureau will include 5 representatives of Africa (Region I), the IPCC Members were invited to submit nominations. In accordance with Rule 24 a nominee may be elected without voting when there is consensus support from a region for the nominees proposed by that region. Following a meeting of the African Region, Mr Francis Yamba from Zambia was nominated for the Bureau position. He was elected without voting by the Panel as Vice-Chair of Working Group III. The Panel joined the Chairman in congratulating Mr Yamba for his Bureau election.

9. COMMUNICATIONS STRATEGY

Ms Renate Christ, IPCC Secretary, introduced the progress report and draft communications strategy (document IPCC-XXXII/Doc. 21), and noted that in 2005 the IPCC Secretariat commissioned a consulting firm – Communications & Network Consulting (CNC) - to collect Panel members' views and produce a communications strategy (document IPCC-XXIV/INF. 3) which led to the recruitment of the IPCC's first communications officer in 2006. Ms Christ highlighted the importance of IPCC communications and outreach activities, and she introduced the current temporary communications officer and three external consultants that were present at the meeting.

She explained that regular communications activities have been reported to the Panel in the form of outreach progress reports in previous years and that the Panel's input to these reports at the IPCC's Plenary sessions has been the basis for the IPCC's planned communications and outreach activities since. She highlighted ongoing activities, including participation in the UN communications group on climate change, arranging for speakers at events and conferences, and redesign of the IPCC website, and noted additional communication needs in light of recent events, in particular needs related to peak periods of attention to allow the IPCC to react quickly to emerging issues and events. She said there was a need for more proactive media work. She also said the IPCC should continue participating in seminars on specific subject areas such as the Special Reports, and side events at meetings hosted by UN agencies or other organizations. She noted the need to consider the use of frequently asked questions and interactive graphics, as well as a more active outreach role in the regions, and on-going efforts to support media training for IPCC experts and authors.

Further consultations on communication matters are described under 5.3.

10. MATTERS RELATED TO UNFCCC

Delegates took note of the information in document IPCC-XXXII/INF.1 provided by the UNFCCC Secretariat on items under consideration by the subsidiary bodies of the UNFCCC.

11. OTHER PROGRESS REPORTS

11.1 Special Report on Renewable Energy Sources and Climate Change Mitigation (SRREN)

Mr Ottmar Edenhofer, Co-Chair of Working Group III, introduced document IPCC-XXXII/Doc. 23 and informed the Panel that in order to enhance the cross-chapter consistency and quality of the SRREN, the Working Group III Co-Chairs and Vice-Chairs, as well as the Coordinating Lead Authors (CLA's) and Lead Authors (LA's), present at the 4th LA meeting which took place in Mexico City from 21-24 September 2010, had agreed to hold an extra drafting meeting. This would result in the postponement of the approval/acceptance of the report by approximately three months to late April/early May 2011.

He announced that Working Group III will do an "additional voluntary Government review" of chapter 9 for approximately 4 weeks and a "targeted expert review". In order to be able to handle the expert review comments within the tight timeline Working Group III will not send the revised Chapter 9 to all experts who had previously commented on Chapter 9 but only to a few experts.

11.2 Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX)

Mr Christopher Field, Co-Chair of Working Group II, introduced document IPCC-XXXII/Doc.10 and noted that the activities for the report are well under way and that the Third Lead Authors meeting would be held at WMO Headquarters in Geneva, Switzerland, from 25-28 October 2010. The agenda accommodates the first session of the SREX Summary for Policymakers' (SPM) core writing team. Furthermore two additional events will take place: (i) SREX Glossary Editorial Team Meeting and (ii) SREX Cross-Chapter Meeting. It is envisaged to hold the SREX approval/acceptance session from 14-17 November 2011.

11.3 Task Force on National Greenhouse Gas Inventories (TFI)

Ms Thelma Krug, Co-Chair of the TFI Bureau, gave an update on the activities of TFI. She mentioned that an Expert Meeting on Software for the IPCC 2006 Guidelines was held from 18-20 November 2009 in Geneva, Switzerland. Furthermore there had been an Expert Meeting on National Forest GHG Inventories from 23–25 February 2010 in Yokohama, Japan, an IPCC Expert Meeting on Uncertainty and Validation of Emission Inventories from 23–25 March 2010 in Utrecht, the Netherlands, and an IPCC Expert Meeting on Use of Models and Measurements in GHG Inventories from 9–11 August 2010 in Sydney, Australia. She informed the Panel that at the 32nd Session of SBSTA in June 2010 in Bonn, Germany, two decisions were taken that directly affect the TFI. Firstly, FCCC/SBSTA/2010/L.12 "Revision of the UNFCCC reporting guidelines on annual inventories to parties included in Annex I to the Convention" and secondly FCCC/SBSTA/2010/L.2 "Reducing emissions from deforestation in developing countries: approaches to stimulate action" which asks the UNFCCC Secretariat to work with the IPCC on promoting the use of the IPCC Emission Factor Database (EFDB), and report to the SBSTA at its 34th session. The TFI Co-Chairs and the TSU intend to work with the UNFCCC Secretariat in promoting the EFDB.

11.4 Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA)

The Panel took note of document IPCC-XXXII/Doc. 14 as submitted by Mr Richard Moss and Mr Jose Marengo-Orsini, Co-Chairs of the TGICA. This report highlights conclusions of

the task group related to the operation of the Data Distribution Center (DDC), review and preparation of guidelines, and initiatives to promote capacity building.

11.5 Development of new scenarios

The Panel took note of the Progress Report on Scenario development and coordination with the scientific community (document IPCC-XXXII/Doc.16), submitted by Working Group Co-Chairs Christopher Field, Ottmar Edenhofer, and Qin Dahe. The Draft Memorandum of Understanding between the Integrated Assessment Modeling Consortium (IAMC) and IPCC Working Groups II and III (document IPCC-XXXII/INF. 10) was also presented. Mr Christopher Field, Working Group II Co-Chair, confirmed that the catalytic group had agreed to disband. The link between IPCC and the scientific community on the scenario development process continues through the Co-Chairs of the Working Groups.

11.6 IPCC Scholarship Programme

Ms Renate Christ, Secretary of the IPCC, presented the progress report on the IPCC Scholarship Programme (document IPCC-XXXII/Doc. 17). She noted the impressive response to the Call for Proposals and that more than 1000 candidates fulfilled the eligibility requirements for the pilot phase of the Scholarship Programme. She called on delegates to help the Science Board and Board of Trustees in identifying potential funding partners for the programme. She noted that Ms Brenda Abrar would no longer serve the Scholarship Programme due to administrative restrictions. She asked the Plenary to agree to hire at least one staff member to manage the Scholarship Programme on a temporary basis. She indicated that the Scholarship Programme is intended to become self-financing in terms of its management.

Within the Panel, there was concern about whether the IPCC should be in the business of administering scholarships. The Chair of the IPCC noted his desire to make the most of the Nobel Peace Prize Award and use the funds for the original purpose, and said it would be disappointing to not go to the fullest extent in efforts to raise enough resources for the Scholarship Programme. He said the Programme will have huge indirect benefits for the IPCC.

Several developing countries supported the programme and stressed the importance to Least Developed Countries to help build capacity and support a new generation of scholars and scientists in these countries.

The Panel did not support financing additional human resources for the Scholarship Programme from the IPCC Trust Fund. It further suggested that the Chair explore partnering with other organizations on the administration of the Programme.

11.7 Implementation of decisions taken at the 30th Session

There was no further discussion under this agenda item.

11.8 Any other progress reports

No other progress reports were discussed under this agenda item.

12. OTHER BUSINESS

There was no other business to be discussed under this agenda item.

13. TIME AND PLACE OF THE NEXT SESSION

The 33rd Session will be held at the end of April/beginning of May 2011 in Abu Dhabi, at the kind invitation of the Government of the United Arab Emirates. This offer was accepted by the Panel with thanks.

14. CLOSING OF THE SESSION

On behalf of the Panel the Chairman expressed his sincere thanks to the Government of the Republic of Korea for hosting the Session. The 32nd Session was closed by the Chairman at 19:00 on 14 October 2010.

PROVISIONAL AGENDA

- 1. OPENING OF THE SESSION**
- 2. APPROVAL OF THE DRAFT REPORT OF THE 31st SESSION**
- 3. IPCC PROGRAMME AND BUDGET FOR 2010-2014**
- 4. THE IPCC 5TH ASSESSMENT REPORT (AR5)**
 - 4.1 Scope, content and process for the preparation of the AR5 Synthesis Report
 - 4.2 Progress reports and schedule of AR5 related activities
- 5. REVIEW OF THE IPCC PROCESSES AND PROCEDURES: REPORT BY THE INTER ACADEMY COUNCIL**
- 6. ADMISSION OF OBSERVER ORGANIZATIONS**
- 7. RULES OF PROCEDURES FOR THE ELECTION OF THE IPCC BUREAU AND ANY TASK FORCE BUREAU**
- 8. REPLACEMENT OF MEMBERS OF THE IPCC BUREAU**
- 9. COMMUNICATIONS STRATEGY**
- 10. MATTERS RELATED TO UNFCCC**
- 11. OTHER PROGRESS REPORTS**
 - 11.1 Special Report on Renewable Energy Sources and Climate Change Mitigation
 - 11.2 Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation
 - 11.3 Task Force on National Greenhouse Gas Inventories
 - 11.4 Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA)
 - 11.5 Development of new scenarios
 - 11.6 IPCC Scholarship Programme
 - 11.7 Implementation of decisions taken at the 30th Session
 - 11.8 Any other progress reports
- 12. OTHER BUSINESS**
- 13. TIME AND PLACE OF THE NEXT SESSION**
- 14. CLOSING OF THE SESSION**

REPORT OF THE 31ST SESSION OF THE IPCC
Bali, Indonesia, 26-29 October 2009

1. OPENING OF THE SESSION

The Session was held at the Bali International Convention Center, Nusa Dua, Bali, at the kind invitation of the Government of Indonesia.

Dr Rajendra Pachauri, Chairman of the IPCC, called the Session to order at 10.00 a.m. on Monday, 26 October 2009. In his opening speech, he expressed IPCC's gratitude to the Government of Indonesia for hosting the 31st Session of the IPCC and highlighted the challenges facing the Panel in this crucial period ahead of the 15th Session of the Conference of the Parties (COP-15) of the United Nations Framework Convention on Climate Change (UNFCCC) in Copenhagen. He recalled the main steps undertaken for the preparation of Fifth Assessment Report (AR5), and stressed the expectations that society and governments place in future IPCC work. He also recalled the leading role of Indonesia in climate negotiations and in the work of IPCC.

Mr Ir. Rahmat Witoelar, Chairman of the National Council on Climate Change of Indonesia, welcomed all participants and expressed his appreciation for the efforts of the Indonesian Agency of Meteorology, Climatology and Geophysics (BMKG) to ensure a successful meeting. He recalled some of the important achievements of IPCC and stressed the importance of climate science for developing countries. He suggested a few key issues for future IPCC work, including reference emission levels, update on carbon sinks, and refinement of stabilization scenarios.

Ms Sri Woro B Harijono, Director General of BMKG, welcomed all participants on behalf of herself and BMKG, recalling the importance of Bali as a venue of earlier climate negotiations. She stressed a few of the key issues that she expects the AR5 to cover, which are particularly important for the region and for Indonesia. These include a better understanding of climate change and monsoons. She also mentioned the need for IPCC to respond to questions raised by the UNFCCC.

Prof. Yan Hong, Deputy Secretary-General of WMO, in his opening address on behalf of the WMO Secretary-General, highlighted the priority expressed by the Executive Council on the issue of climate change and natural disasters. In addition to the forthcoming Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX), he urged the IPCC to properly deal with this issue within the AR5 chapters. He recalled the success of the recent World Climate Conference 3 and invited the IPCC community to get actively involved in the development of the planned Global Framework for Climate Services.

Mr Joseph Alcamo, UNEP Chief Scientist, in his opening address on behalf of the Executive Director of UNEP, confirmed the long standing support of his Organization to IPCC and summarized some of UNEP's initiatives which are complementary to IPCC's, for example the yearly review of the status of the global environment and UNEP's support to the coordination of research on climate impacts, vulnerability and adaptation. He stressed the importance of IPCC's role in view of the "avalanche of new scientific results" and "at the turbulent frontier between science and policy".

2. APPROVAL OF AGENDA AND OF THE DRAFT REPORT OF THE 30th SESSION

The Panel observed a minute of silence in memory of Mr Wolfram Krewitt, Coordinating Lead Author of the Special Report on Renewable Energy Sources and Climate Change Mitigation (SRREN), who suddenly passed away on 8 October 2009. Tribute was also rendered to Mr Vladimir Tarasenko (Belarus) who passed away at the SBSTA meeting in June 2009.

The provisional agenda, IPCC-XXXI/Doc.1, Rev.1 (attached as **Annex I**) was presented by Ms Renate Christ, Secretary of the IPCC, and adopted with item 8 pending, as no letter of resignation had been received at this stage from the IPCC Vice-Chair Mr Ogunlade Davidson. Concerns were expressed by several delegations about the consequences of possibly leaving the Vice-Chair position vacant for a long period of time. The issue was left open during the entire meeting but could not be resolved. The Netherlands reiterated the need to post documentation well ahead of Plenary Sessions, that is at least 10 days prior to the meeting.

The list of participants is attached as **Annex VI**.

The draft report of the Thirtieth Session was approved with one modification concerning the support by UK and Japan for a possible Special Report on climate change impacts on marine ecosystems including ocean acidification, inserted in the final version (attached as **Annex II**).

3. SCOPING OF THE IPCC 5TH ASSESSMENT REPORT

The Chair summarized the scoping procedure and presented a brief report of the 40th Session of the IPCC Bureau held in Geneva on 18 September 2009. Ms Renate Christ introduced to the Panel documentation prepared by the Secretariat, making use of conclusions from the scoping meeting held in Venice (13-17 July 2009), more particularly IPCC-XXXI/Doc.4, IPCC-XXXI/Doc. 4, Add.1, IPCC-XXXI/Doc. 10, IPCC-XXXI/INF. 3 and IPCC-XXXI/INF.5. The Chair invited initial comments on matters related to the overall process and scope of the AR5 including on cross-cutting matters. A number of comments were taken into account as part of subsequent Working Group (WG) Sessions, and more general aspects, revisited after those Sessions, are summarized below. A number of additional cross-cutting themes were proposed:

- Scenarios: At P-30 in Antalya, the Panel set up a Task Group to consider further activities consistent with the catalytic role of the IPCC in scenario development. The Group is co-chaired by Mr Qin Dahe (Co-Chair of WG I) and Mr Christopher Field (Co-Chair of WG II) and the membership is comprised of Mr Carlo Carraro, Ottmar Edenhofer, Ismail Elgizouli, Hoesung Lee, Leo Meyer, Richard Moss, Thomas Stocker, and Jean Pascal van Ypersele. Given the importance of this issue for all three Working Groups, it was agreed that Mr Ottmar Edenhofer would be a third Co-Chair of the Task Group.

The Chair noted that scenarios are a cross-cutting theme that is being addressed in a separate process that is already in place, including a forthcoming Expert Meeting on Socio-Economic Scenarios for Climate Change Impact and Response Assessment, to be held in the 4th quarter of 2010.

- Greenhouse gas metrics: the work initiated by the first Expert Meeting which was held in Oslo, Norway in March 2009 will be pursued under Working Group I (WG I) leadership (Thomas Stocker) with the participation of one Vice-Chair from Working Group II (WG II) and one from Working Group III (WG III). No further concept note or formal cross cutting theme was considered necessary.

- Article 2 of the UNFCCC: a contact group on issues relating to Article 2, co-chaired by Mr Øyvind Christophersen (Norway) and Mr Saut Lubis (Indonesia), was set up by the Chair.

At 3.45 p.m. on Monday 26 October the Plenary Session was suspended and the Sessions of the Working Groups convened, according to the proposed schedule. Provisions were made to allow two meetings to be held in parallel.

The 31st Session of the Plenary reconvened on Wednesday 28 October at 3.00 p.m.

- 3.1 Action taken at the Eleventh Session of Working Group I: the two Co-Chairs reported on the outcomes of the WG I meeting and presented the revised outline and the schedule of work.

For the note on WG I AR5 Annex I: Atlas of Global and Regional Climate Projections please see Annex III under the WG I outline.

- 3.2 Action taken at the Ninth Session of Working Group II: the Co-Chairs reported on the outcomes of the WG II meeting and presented the revised outline and the schedule of work.

- 3.3 Action taken at the Tenth Session of Working Group III: the three Co-Chairs reported on the outcomes of the WG III meeting and presented the revised outline and the schedule of work.

The Panel was invited to consider proposed topics, scope and approaches for cross-cutting matters and to provide further guidance as appropriate:

- Øyvind Christophersen reported on behalf of the Contact Group on Article 2 of the UNFCCC. The Panel agreed to consider Article 2 as cross-cutting theme and accepted the proposal for a cross-Working Groups meeting to be organized in early 2010, before the SYR scoping meeting. The Chair takes the responsibility for the follow up actions on this issue. As a result of proposals made by several delegations, a few modifications were made to the concept note, and are included in the final version.
- The concept notes on other cross-cutting themes were accepted.
- In the discussion few issues were highlighted, such as the need to ensure consistent treatment of gaps in knowledge, to have a consistent treatment of grey literature by all WG's, and to facilitate online access to scientific journals for scientists in developing countries. It was also agreed that guidelines to authors will be prepared by the Secretariat in due time.

On regional aspects close coordination should be ensured between WG I and WG II, and with WG III involvement on certain aspects. The WG's work-plan should allow interaction between the three WG's and the schedule of releases should enable regional details from WG III to be taken into account in the regional assessments of WG II and of the Synthesis Report.

- 3.5 The Panel reviewed proposals for workshops and expert meetings, including on cross-cutting matters and confirmed the list of meetings, their scope as well as schedule and budgetary implications as indicated on IPCC-XXXI/Doc.10. The SYR scoping meeting is now scheduled for the second half of August 2010 in Liège. Mr Christopher Field reminded the Plenary about the proposed joint GEO-IPCC workshop on "How GEOSS could serve the data needs of the climate impacts and adaptation research communities and support the IPCC assessments" presented at the two previous Bureau Sessions (BUR-XL/Doc. 5). It was agreed that some travel support, up to 10 trips, will be allocated to this workshop on contingency funds.

- 3.6 The Panel agreed on the outlines of the three Working Group contributions to the AR5 as decided by the respective Sessions of the Working Groups and decided on a revised timetable for the AR5 as follows: WG I approval Session will take place in September 2013, WG II approval Session in mid-March 2014, WG III approval Session in early April 2014, the SYR approval Session in mid-September 2014. The call for nomination of authors will be initiated in early January 2010 with a deadline set in March 2010. The decision on the list of authors will take place at the next Bureau Session scheduled in May 2010. For convenient reference, material for AR5 including Working Group outlines, cross-cutting concept notes as well as information about planned expert meetings and workshops is compiled in **Annex III**. The WG III Session for approval of the SRREN has been postponed to February 2011 and will be held in Abu Dhabi at the kind invitation of the Government of the United Arab Emirates.

4. IPCC PROGRAMME AND BUDGET FOR 2010-2014

In his introduction of the budget, the Chair referred to IPCC-XXXI/Doc. 2, Add.1, summarizing the status of the IPCC Trust Fund and 2009 contributions as of 30 September 2009. He expressed his concern about the level of contributions received so far and the likely expected imbalance of the budget by the end of year. He invited Governments who might be in a position to do so to increase their level of contributions to the IPCC Trust Fund or to contribute to the budget year 2009 in case they have not yet done so. Norway announced a special contribution for 2009 and offered to sponsor two of the forthcoming meetings for the Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation.

The Financial Task Team (FiTT) met on two occasions during the Session, and Ms Concepción Martínez, Co-Chair, reported to the Plenary on behalf of the Task Team. The Plenary approved the list of decisions proposed by the FiTT, including the new provision to support the travel of one Government representative for each IPCC Bureau Member from a developing/EIT country. The Plenary adopted the 2010 budget and took note of the budget for the following years as attached (**Annex IV**), taking into account the postponement of the 11th Session of WG III (approval of SRREN) to 2011 and the organization of the 33rd Plenary Session of the IPCC back to back with this meeting.

5. ADMISSION OF OBSERVER ORGANIZATIONS

Mr Gilles Sommeria introduced new applications for Observer Organizations as outlined in IPCC-XXXI/Doc. 5. Consistent with the IPCC Policy and Process for Admitting Observer Organizations, the list of new applicants had been reviewed by the Bureau at its 40th Session, and was presented to the Plenary. He also informed the Panel of four organizations who joined the list of UN participating organizations since the 30th Session, namely the United Nations Human Settlements Programme (UN-HABITAT), the United Nations University (UNU), the World Food Programme (WFP) and the United Nations Development Fund for Women (UNIFEM). The Panel formally accepted as new observers the Global Biodiversity Information Facility (GBIF), the International Council for Local Environmental Initiatives (ICLEI) and the African Center of Meteorological Applications (ACMAD). It also accepted as observer Energy Research Austria, which accreditation had been deferred at the 30th Session.

Mr Andrej Kranjc (Slovenia), on behalf of the Task Group which he co-chaired with Mr Hiroshi Ono (Japan), presented the revised proposal by the European Community (EC) for a special observer status as outlined in IPCC-XXXI/Doc. 6, and indicated that the Task Group supported the proposal. The Chairman noted that the proposal was in conformity with IPCC procedures and the Panel accepted the revised proposal (**Annex V**).

Ms Elisabeth Lipiatou expressed her thanks on behalf of the EC to the IPCC for accepting the new status of the EC.

6. MATTERS RELATED TO UNFCCC

Ms Rocio Lichte, on behalf of the UNFCCC Secretariat, provided an update on climate change negotiations, noting the short remaining time until COP-15 in Copenhagen in December 2009. She expected an active participation of the IPCC, as provider of supporting information, in the preparatory meeting to be held in Barcelona the first week of November and in Copenhagen. She also conveyed the message that the UNFCCC looks forward to the engagement of IPCC in SBSTA-32, which will be held in Bonn in July 2010 and to the outcome of the two IPCC Special Reports under preparation. Several Members acknowledged the importance of IPCC participating at the right level in UNFCCC meetings and Mrs Renate Christ provided complementary information on the planned participation in Barcelona and in Copenhagen.

7. RULES OF PROCEDURES FOR THE ELECTION OF THE IPCC BUREAU AND ANY TASK FORCE BUREAU

Ms Renate Christ introduced the documents IPCC-XXXI/Doc.15 and IPCC-XXXI/Doc.18, and, in the absence of the Co-Chairs of the Task Group which was set up on the election rules by the Panel at its 30th Session and co-chaired by the USA and Mauritius, the representative of the United Kingdom provided a brief progress report. A number of issues were raised by Members but it was agreed that further consultations were needed before decisions could be taken on the subject. The Chair invited governments to send their comments to the Secretariat, which will prepare a revised document for P-32.

8. IMPLEMENTATION OF DECISIONS TAKEN BY IPCC-30

8.1 Involving developing/EIT country scientists: Mr Masaya Aiba, on leave from Mitsubishi Research, presented on behalf of the Secretariat the results of the survey he had conducted, in consultation with IPCC Vice-Chairs, on the involvement of developing/EIT country scientists in IPCC work, as outlined in IPCC-XXXI/INF1. Mr Jean Pascal van Ypersele, IPCC Vice-Chair, summarized the recommendations made by the IPCC Vice-Chairs as a result of the above survey and comments received from Bureau Members, as outlined in IPCC-XXXI/Doc.11. A number of delegates responded positively to the recommendations, particularly to the need to involve Focal Points more actively in the nomination process and to give explicit responsibility to Bureau Members in ensuring regional balance. In conclusion, Mr Jean Pascal van Ypersele invited delegates to send additional suggestions to IPCC Vice-Chairs, who will update their proposal for the 32nd Plenary Session. Ms Renate Christ indicated that the Secretariat will send proper guidance to Focal Points when issuing the next call for authors in January 2010. She also invited Governments to provide information on their nomination process to the Secretariat, as it could serve as examples for other countries.

8.2 Use of the full range of electronic technologies including searchable version of the Fourth Assessment Report (AR4): Mr Thomas Stocker reported on behalf of the Task Group set up on this matter at the 30th Session, as outlined in IPCC-XXXI/Doc.12. He stressed that certain communication materials should not be developed or distributed by the IPCC, unless compatible with the assessment process. Mr Jean Pascal van Ypersele suggested that the Co-Chairs of TGICA be involved in the activities mentioned in the document.

8.3 Issues to be addressed in the longer term: Mr Jean Pascal van Ypersele reported on behalf of the Task Group on the future of IPCC on some of the longer term issues

raised, and suggested to re-address those issues in more depth two years before the end of the fifth assessment cycle.

9. PROGRESS REPORTS

- 9.1 Special Report on Renewable Energy Sources and Climate Change Mitigation: Mr Ottmar Edenhofer, on behalf of the WG III co-chairs, gave a short briefing on the on-going activities (IPCC-XXXI/Doc.8). Mr Ralph Sims will replace Mr Wolfram Krewitt as Lead Author.
- 9.2 Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation: Mr Vicente Barros, on behalf of WG II Co-Chairs, gave a short briefing on the on-going activities (IPCC-XXXI/Doc.7).
- 9.3 Task Force on Inventories (TFI): Ms Thelma Krug, on behalf of the Task Force Co-Chairs, presented the activities of the Task Force, as outlined in IPCC-XXXI/Doc.9.
- 9.4 Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA): Mr Richard Moss, on behalf of the Co-Chairs, reported on the Task Group activities, as outlined in IPCC-XXXI/Doc.14.
- 9.5 Development of new scenarios: Mr Christopher Field provided a short oral report on this activity on behalf of the Catalytic Group, mentioning the extension of the Representative Concentration Pathways (RCP) to the year 2300 and the development of more complete socio-economic story lines for each scenario. Mr Richard Moss, reported on the work of the Integrated Assessment and Climate Modeling communities, and indicated that three RCP's are now finalized for use by modelers, and the upcoming release of the fourth one, RCP 6. The Panel requested that the Catalytic Group prepare a written report for next Plenary, addressing the status of RCP's, their extension to the year 2300, the coordination between the Integrated Assessment and Climate Modeling communities, and involvement of TGICA.
- 9.6 IPCC Peace Prize Scholarship Fund: Ms Renate Christ reported on progress made with the development and use of the Trust Fund initiated with the Nobel Peace Prize money, as outlined in IPCC-XXXI/Doc. 13. The Panel expressed appreciation of progress made so far. The proposed title for this activity: "IPCC Climate Education Programme" raised some objections and may need to be revised. Some concerns were also raised with respect to the criteria to be required from possible funding sources. The Programme is scheduled to be formally launched in December 2009 during COP-15 in Copenhagen.
- 9.7 Any other progress reports: Ms Christ reported on IPCC outreach activities, as outlined in IPCC-XXXI/Doc.16. A specific effort is planned for COP-15 with the preparation of leaflets describing some of the key IPCC activities.

10. TIME AND PLACE OF THE NEXT SESSION

The Republic of Korea formally offered to host the 32nd Session of the IPCC from 11 to 14 October 2010 in Busan. This offer was accepted by the Panel with thanks.

11. CLOSING OF THE SESSION

The Session was closed by the Chair at 13.00 on 29 October 2009.

**AGREED REFERENCE MATERIAL FOR THE
IPCC FIFTH ASSESSMENT REPORT**

- Working Group I outline
- Working Group II outline
- Working Group III outline
- Concept notes on Cross-Cutting issues
- AR5 Expert Meetings and Workshops

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

Summary for Policy Makers

Technical Summary

Chapter 1: Introduction

Executive Summary

- Rationale and key concepts of the WG1 contribution
- Treatment of uncertainty
- Climate change projections since FAR

Frequently Asked Questions

Chapter 2: Observations: Atmosphere and Surface

Executive Summary

- Changes in surface temperature and soil temperature
- Changes in temperature, humidity and clouds
- Changes in atmospheric composition
- Changes in radiation fields and energy budget
- Changes in hydrology, runoff, precipitation and drought
- Changes in atmospheric circulation, including wind
- Spatial and temporal patterns of climate variability
- Changes in extreme events, including tropical and extratropical storms

Frequently Asked Questions

Chapter 3: Observations: Ocean

Executive Summary

- Changes in ocean temperature and heat content
- Ocean salinity change and freshwater fluxes
- Sea level change, ocean waves and storm surges
- Ocean biogeochemical changes, including ocean acidification
- Changes in ocean surface processes
- Changes in ocean circulation
- Spatial and temporal patterns of ocean variability

Frequently Asked Questions

Chapter 4: Observations: Cryosphere

Executive Summary

- Changes in ice sheets, including mass balance
- Changes in ice shelves
- Changes in glaciers and ice caps
- Sea ice variability and trends
- Snow and ice cover variability and trends
- Changes in frozen ground
- Dynamics of ice sheets, ice shelves, ice caps, glaciers and sea ice

Frequently Asked Questions

Chapter 5: Information from Paleoclimate Archives

Executive Summary

- Characteristics of early instrumental, documentary and natural climate archives
- Reconstruction of radiative forcing and climate response
- Reconstruction of regional variability and extremes
- Abrupt climate changes and their regional expression
- Sea level and ice sheets: patterns, amplitudes and rates of change
- Paleoclimate perspective on irreversibility in the climate system
- Paleodata-model intercomparisons

Frequently Asked Questions

Chapter 6: Carbon and Other Biogeochemical Cycles

Executive Summary

- Past changes in CO₂, CH₄, N₂O and biogeochemical cycles
- Recent trends in global and regional sources, sinks and inventories, including land use change
- Processes and understanding of changes, including ocean acidification
- Interactions between the carbon and other biogeochemical cycles, including the nitrogen cycle
- Projections of changes in carbon and other biogeochemical cycles
- Greenhouse gas stabilisation
- Carbon cycle – climate feedbacks and irreversibility
- Geoengineering involving the carbon cycle

Frequently Asked Questions

Chapter 7: Clouds and Aerosols

Executive Summary

- Observations of clouds and their representation in models
- Coupling of clouds, water vapour, precipitation and the large-scale circulation
- Cloud and water vapour feedbacks and their effects on climate sensitivity
- Observations of aerosols and their representation in models
- Aerosol types including black carbon: chemistry, sources, sinks and distribution
- Direct and indirect aerosol forcing and effects, including contrails and cosmic rays
- Aerosol-cloud-precipitation interactions
- Geoengineering involving clouds and aerosols

Frequently Asked Questions

Chapter 8: Anthropogenic and Natural Radiative Forcing

Executive Summary

- Natural radiative forcing changes: solar and volcanic
- Anthropogenic radiative forcing, including effects from land surface changes
- Effects of atmospheric chemistry and composition
- Spatial and temporal expression of radiative forcing
- Greenhouse gas and other metrics, including Global Warming Potential (GWP) and Global Temperature Change Potential (GTP)

Frequently Asked Questions

Chapter 9: Evaluation of Climate Models

Executive Summary

- The hierarchy of climate models: from global to regional
- Downscaling methods
- Assessing model performance, including quantitative measures and their use
- New model components and couplings
- Representation of processes and feedbacks in climate models
- Simulation of recent and longer term records
- Simulation of regional patterns, variability and extremes

Frequently Asked Questions

Chapter 10: Detection and Attribution of Climate Change: from Global to Regional

Executive Summary

- Evaluation of methodologies
- Atmospheric and surface changes
- Changes in ocean properties
- Cryosphere changes
- Extreme events
- Pre-instrumental perspective
- Implications of attribution for projections

Frequently Asked Questions

Chapter 11: Near-term Climate Change: Projections and Predictability

Executive Summary

- Predictability of interannual to decadal climate variations and change
- Projections for the next few decades
- Regional climate change, variability and extremes
- Atmospheric composition and air quality
- Possible effects of geoengineering
- Quantification of the range of climate change projections

Frequently Asked Questions

Chapter 12: Long-term Climate Change: Projections, Commitments and Irreversibility

Executive Summary

- Scenario description
- Projections for the 21st century
- Projections beyond the 21st century
- Regional climate change, variability and extremes
- Forcing, response and climate sensitivity
- Climate change commitment and inertia
- Potential for abrupt change and irreversibility in the climate system
- Quantification of the range of climate change projections

Frequently Asked Questions

Chapter 13: Sea Level Change

Executive Summary

- Synthesis of past sea level change and its components
- Models for sea level change
- Projections of globally averaged sea level rise
- Projections of the regional distribution of sea level change
- Extreme sea level events
- Potential ice sheet instability and its implications
- Multi-century projections

Frequently Asked Questions

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

Annex II: Glossary

Annex III: Acronyms and Regional Abbreviations

Annex IV: List of Authors

Annex V: List of Reviewers

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Note on WG I AR5 Annex I: Atlas of Global and Regional Climate Projections:

Annex I: Atlas of Global and Regional Climate Projections is an integral part of the Working Group I (WG I) contribution to the IPCC Fifth Assessment Report (AR5). It will provide comprehensive information on a selected range of variables (e.g., temperature and precipitation) for a few selected time horizons (e.g., 2020, 2050, and 2100) for all regions and, to the extent possible, for the four basic RCP scenarios. These results are derived from the Global Comprehensive Climate Models participating in the WCRP CMIP5 coordinated experiment. Material from similar multi-model regional climate modeling projects will be provided, to the extent possible, in Supplementary Material for the appropriate WG I Chapters, where results from those projects are assessed.

In addition, numerical fields corresponding to the figures together with the specification of the data sources and the description of how the figures were constructed will be included in Annex I.

The information used in Annex I will be based on material assessed in WGI Chapters 11, 12 or 14. Each Figure in Annex I will have a caption that will include a reference to the location in the assessment report where the underlying information is assessed and vice versa. Thus each figure will be a part of the chapter in which it is assessed.

Annex I: Atlas of Global and Regional Climate Projections will be produced by an **Editorial Team** consisting of 2 members of the Lead Author Teams of each of WGI Chapters 11, 12 and 14. This Editorial Team is assisted by an **Advisory Board** consisting of 2 WGI Vice-Chairs and an invited member of the WGII AR5 Lead Author Team.

The content of Annex I will be part of the review process of the specific chapters from which it is drawn. This review process is overseen by a **Review Editor Team** consisting of one Review Editor of each of WGI Chapters 11, 12 and 14.

Outline of the Working Group II Contribution to the Fifth Assessment Report Climate Change 2014: Impacts, Adaptation, and Vulnerability

Table of Contents

Summary for Policymakers Technical Summary

Each sectoral and regional chapter will include a standard set of topics that are referred to as [CONTEXT] in each chapter outline:

- Observed impacts, with detection and attribution
- Projected integrated climate change impacts, with regional variation by scenario and time slice
- Assessing impacts, vulnerabilities, and risks
 - o Vulnerabilities to key drivers (including extremes)
 - o Economic, social, and environmental context for uncertain futures under alternative development pathways
 - o Multiple interacting stresses
 - o Uncertainty
 - o Valuation of impacts and adaptation
 - o Key vulnerabilities
- Adaptation and managing risks
 - o Adaptation needs and gaps (based on assessed impacts and vulnerabilities)
 - o Practical experiences of adaptation, including lessons learned
 - o Observed and expected barriers to adaptation
 - o Observed and expected limits to adaptation
 - o Facilitating adaptation and avoiding maladaptation
 - o Planned and autonomous adaptation
 - o Potential and residual impacts
 - o Thresholds and irreversible changes
- Case studies
- Research and data gaps

Each chapter will include an executive summary, FAQs, and references

PART A: GLOBAL AND SECTORAL ASPECTS

Context for the AR5

1. Point of departure
 - The setting
 - Major conclusions of WGII AR4
 - Major conclusions of Special Report on *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*
 - Major conclusions of WGI AR5
2. Foundations for decisionmaking
 - Key concepts
 - Impacts, adaptation, and vulnerabilities on a range of scales
 - Assessing impacts, vulnerabilities, and risks
 - o Multi-metric valuation
 - o Treatment of uncertainty
 - o Key vulnerabilities
 - Managing risks
 - Climate-resilient pathways: adaptation, mitigation, and sustainable development Interactions

Natural and Managed Resources and Systems, and Their Uses

3. Freshwater resources

- Diversity of world water resources and their sensitivity to climate change
[CONTEXT]
- Cryosphere
- Interactions among water resources, human activities, and the built environment
- Water management, water security, and sustainable development

4. Terrestrial and inland water systems

- Diversity of world ecosystems and their sensitivities to climate change: from the mountains to the coast, from the tropics to the poles
 - o Intensively managed systems: forestry, fiber, and fuel production
 - o Wildlands and extensively managed systems
 - o Protected and conservation areas[CONTEXT] {for each ecosystem}
- Ecosystem services
- Interactions among ecosystems; land use, land-use change and forestry; and other human activities
- Vulnerability of carbon pools, bio-energy implications, and carbon management potentials
- Threats to human activities, infrastructure, and biodiversity

5. Coastal systems and low-lying areas

- Diversity of world ecosystems and their sensitivities to climate change
[CONTEXT] {for each ecosystem}
- Ecosystem services
- Interactions among ecosystems, human activities, and the built environment
- Sea-level rise, changes in coastal dynamics, and threats to human activities, infrastructure, agriculture, and biodiversity

6. Ocean systems

- Diversity of world ecosystems and their sensitivities to climate change
[CONTEXT] {for each ecosystem}
- Ecosystem services
- Water property changes, including temperature and ocean acidification
- Interactions between ecosystems and human activities
- Threats to human activities and biodiversity

7. Food production systems and food security

- Food production: farming, livestock, and fisheries and their sensitivities to climate change
[CONTEXT]
- Food systems: processing, distribution, and access
- Food security and the means to achieve it

Human Settlements, Industry, and Infrastructure

8. Urban Areas

[CONTEXT]

- Urbanization processes, sustainable habitats, and climate change risks
- Urban micro-climates, including urban heat islands
- Civic services and infrastructure
- Housing and settlements
- Economic base
- Development plans and development pathways, including social capital
- Urban planning, management, and governance
- Landscape and regional interconnections

9. Rural Areas

[CONTEXT]

- Landscape and regional interconnections (including migration)
- Housing and settlements
- Economic base and livelihoods
- Infrastructure
- Social capital and resilience

10. Key economic sectors and services

[CONTEXT]

- Networked infrastructure, including transportation, energy, water, and sanitation
- Industry and manufacturing
- Tourism
- Social and other economic services
- Market impacts (supply chains, systemic risks, and insurance)

{Food production, building on Chapter 7}

Human Health, Well-Being, and Security

11. Human health

[CONTEXT]

- Determinants of health: current and future trends
- Health outcomes and their sensitivity to climate change
 - o Extreme events
 - o Air quality
 - o Foodborne and waterborne diseases
 - o Vectorborne and zoonotic diseases
 - o Malnutrition
- Water quality, availability, and sanitation
- Children and other vulnerable populations
- Health inequalities, gender, and marginalized populations

12. Human security

[CONTEXT]

- Social and economic activities, including employment
- Education
- Inequalities, gender, and marginalized populations
- Culture, values, and society
- Indigenous peoples
- Local communities
- Local and traditional knowledge
- Migration and population displacement
- Conflict
- Community resilience

13. Livelihoods and poverty

[CONTEXT]

- Chronic and transient poverty
- Effects of climate change responses on poverty
- Interactions between climate change and poverty-reduction initiatives
- Inequalities, gender, and marginalized populations

Adaptation

14. Adaptation needs and options

- Synthesis of adaptation needs and options
- International, national, and sectoral assessments, including National Adaptation Programmes of Action (NAPAs)
- Measuring adaptation
- Addressing maladaptation

15. Adaptation planning and implementation

- Local, national, regional, and global strategies, policies, and initiatives
- Technology development, transfer, and diffusion
- Financing for adaptation
- Insurance and social protection
- Knowledge sharing, learning, and capacity building
- Institutional arrangements: public- and private-sector stakeholders and priorities
- Links between adaptation and development
- Decision support tools and methods
- Adaptation status and indicators

16. Adaptation opportunities, constraints, and limits

- Cross-sectoral synthesis
- Limits to adaptation, including ethical dimensions and resources
- Interactions among limits
- Effects of alternative mitigation pathways on adaptation
- Ancillary social and ecological effects of adaptation

17. Economics of adaptation

- Adaptation costs and benefits at global, national, sectoral, and local levels
- Inter-relationships between adaptation costs and residual damage
- Economic instruments to provide incentives
- Using market-based approaches for adaptation decisionmaking
- Ancillary economic effects

Chapters 14-17 will include case studies of, e.g., Least Developed Countries, indigenous peoples, and other vulnerable countries and groups

Multi-Sector Impacts, Risks, Vulnerabilities, and Opportunities

18. Detection and attribution of observed impacts

- Integration of observed impacts across sectors and regions
- Attribution of observed impacts across sectors and regions

19. Emergent risks and key vulnerabilities

- Multiple interacting systems and stresses
- Indirect impacts, transboundary impacts, and impacts over longer distances
- Key vulnerabilities, aggregate impacts, thresholds, irreversible changes, and reasons for concern

20. Climate-resilient pathways: adaptation, mitigation, and sustainable development

- Multi-metric valuation
- Ecosystem services and biodiversity threats
- Consumption patterns, lifestyles, behavior, culture, education, and awareness
- Human well-being
- Adaptation, mitigation, and sustainable development, including tradeoffs and cobenefits

PART B: REGIONAL ASPECTS

{Subtitle: Contribution of IPCC WGII Incorporating Inputs from IPCC Working Group I “The Physical Science Basis” and Working Group III “Mitigation of Climate Change”}

This part will include analyses of consistently defined sub-regions and crossregional hotspots (e.g., Mediterranean, megadeltas), based on the availability of regional information.

21. Regional context

- Introduction
- Information on observed climate changes and relevant non-climate factors
- Regional projections: added value and limitations
- Similarities and pertinent differences in systems across regions
- Cross-regional hotspots

Regional Chapters

- 22. Africa
- 23. Europe
- 24. Asia
- 25. Australasia
- 26. North America
- 27. Central and South America
- 28. Polar Regions
- 29. Small Islands
- 30. Open Oceans

Chapter structure (22-30)

- Introduction
- Major conclusions from previous assessments
[CONTEXT] {with sub-regional information}
- Adaptation and mitigation interactions
- Inter- and intra-regional impacts
- Multi-sector synthesis

Appendix I: Glossary

Appendix II: Acronyms

Appendix III: Contributors to the IPCC WGII Fifth Assessment Report

Appendix IV: Reviewers of the IPCC WGII Fifth Assessment Report

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**Working Group III:
AR5 Outline Agreed by WG III Plenary**

Table of Contents
Summary for Policy Makers
Technical Summary
Frequently Asked Questions (extracted from the chapters below)

I. INTRODUCTION

1. Introductory Chapter

- Lessons learned from AR4
- New challenges for the AR5
- Historical, current and future trends
- The mitigation challenges
-

II. FRAMING ISSUES

2. Integrated Risk and Uncertainty Assessment of Climate Change Response Policies

- Risk perception
- Risk and uncertainty in climate change
- Metrics of uncertainty and risk
- Managing uncertainty, risk and learning
- Tools for analyzing uncertainty and risk
- Frequently asked questions

3. Social, Economic and Ethical Concepts and Methods

- Assessing methods of policy choice
- Ethical and socio-economic principles
- Metrics of costs and benefits
- Economics, rights and duties
- Justice, equity and responsibility
- Behavioural economics and culture
- Policy instruments and regulation
- Technological change
- Frequently asked questions

4. Sustainable Development and Equity

- Determinants, drivers and barriers
- Mitigative capacity and mitigation
- Links to adaptive capacity and adaptation
- Development pathways
- Consumption patterns and carbon accounting
- Integration of framing issues in the context of sustainable development
- Implications for subsequent chapters
- Frequently asked questions

III. PATHWAYS FOR MITIGATING CLIMATE CHANGE

5. Drivers, Trends and Mitigation

- Global trends in stocks and flows of greenhouse gases and short-lived species
- Key drivers of global change
- Production, consumption and trade patterns
- Contribution of technological change to mitigation
- Contribution of behavioural change to mitigation
- Co-benefits and tradeoffs of mitigation including air pollution
- Carbon and radiation management and other geoengineering options including environmental risks
- The system perspective: linking sectors, technologies and consumption patterns
- Frequently asked questions

6. Assessing Transformation Pathways

- Tools of analysis
- Climate stabilization: Concepts, costs and implications for the macroeconomy, sectors and technology portfolios, taking into account differences across regions
- Integrating long- and short-term perspectives
- Integrating technological and societal change
- Sustainable development and transformation pathways, taking into account differences across regions
- Risks of transformation pathways
- Integrating sector analyses and transformation scenarios
- Frequently asked questions

7. Energy Systems

[Note: All sections should consider regional specificities including as appropriate to developed and developing countries and economies in transition.]

- Energy production, conversion, transmission and distribution
- New developments in emission trends and drivers
- Resources and resource availability
- Mitigation technology options and practices (including energy efficiency)
- Infrastructure and systemic perspectives
- Climate change feedback and interaction with adaptation
- Technological, environmental and other risks and uncertainties; and social acceptability
- Co-benefits, tradeoffs, spill-over effects
- Barriers and opportunities (technological, physical, financial, institutional, cultural, legal, etc.)
- Sustainable development and behavioural aspects
- Costs and potentials
- Gaps in knowledge and data
- Frequently asked questions

8. Transport

[Note: All sections should consider regional specificities including as appropriate to developed and developing countries and economies in transition.]

- Freight and passenger transport (land, air, sea and water)
- New developments in emission trends and drivers
- Mitigation technology options and practices (including energy efficiency)
- Infrastructure and systemic perspectives
- Climate change feedback and interaction with adaptation

- Technological, environmental and other risks and uncertainties; and social acceptability
- Co-benefits, tradeoffs, spill-over effects
- Barriers and opportunities (technological, physical, financial, institutional, cultural, legal, etc.)
- Sustainable development and behavioural aspects
- Costs and potentials
- Gaps in knowledge and data
- Frequently asked questions

9. Buildings

[Note: All sections should consider regional specificities including as appropriate to developed and developing countries and economies in transition.]

- Commercial, residential and public buildings
- New developments in emission trends and drivers
- Mitigation technology options and practices (including energy efficiency)
- Infrastructure and systemic perspectives
- Climate change feedback and interaction with adaptation
- Technological, environmental and other risks and uncertainties; and social acceptability
- Co-benefits, tradeoffs, spill-over effects
- Barriers and opportunities (technological, physical, financial, institutional, cultural, legal, etc.)
- Sustainable development and behavioural aspects
- Costs and potentials
- Gaps in knowledge and data
- Frequently asked questions

10. Industry

[Note: All sections should consider regional specificities including as appropriate to developed and developing countries and economies in transition.]

- New developments in extractive industries, manufacturing and services (including tourism)
- New developments in emission trends and drivers
- Material substitution, material reuse and waste
- Mitigation technology options and practices (including efficiency improvements, household and industry waste)
- Infrastructure and systemic perspectives
- Climate change feedback and interaction with adaptation
- Technological, environmental and other risks and uncertainties; and social acceptability
- Co-benefits, tradeoffs, spill-over effects
- Barriers and opportunities (technological, physical, financial, institutional, cultural, legal, etc.)
- Sustainable development and behavioural aspects
- Costs and potentials
- Gaps in knowledge and data
- Frequently asked questions

11. Agriculture, Forestry and Other Land Use (AFOLU)

[Note: All sections should consider regional specificities including as appropriate to developed and developing countries and economies in transition.]

- Introduction to integrated assessment of AFOLU
- Emission trends (including agricultural productivity) and drivers

- Competition and opportunities for land-use (energy, food, feed and timber production; housing, nature conservation, biodiversity and other land uses)
- Mitigation technologies and practices in forestry, agriculture (e.g. biochar) and livestock farming
- Mitigation effectiveness (non-permanence: human and natural impacts; displacement; saturation)
- Systemic perspectives (including integrated land-use assessment)
- Synergies, tradeoffs and interactions with adaptation and other mitigation options
- Climate change feedback, natural disturbance and extreme events
- Environmental and other risks and uncertainties
- Co-benefits, tradeoffs, spill-over effects
- Opportunities and barriers (technological, physical, financial, institutional, cultural, legal, etc.)
- Sustainable development and behavioural aspects
- Costs and potentials
- Gaps in knowledge and data
- Frequently asked questions

12. Human Settlements, Infrastructure and Spatial Planning

[Note: All sections should consider regional specificities including as appropriate to developed and developing countries and economies in transition.]

[Note: Working Group III Plenary suggests that the WG III Bureau and the authors have the mandate to revisit the structure and the title of the bullets in this chapter based on the outcome of the Expert Meeting on “Human Settlements and Infrastructure” to be held in 2010.]

- Urbanisation challenges and opportunities for climate change mitigation
- Settlement structures, density, forms and lifecycle assessments
- Infrastructure, spatial planning and mitigation
- Lifestyle changes and efficiency
- Waste
- Water/energy nexus
- Human settlements and climate change: Experiences across countries
- Frequently asked questions

IV. ASSESSMENT OF POLICIES, INSTITUTIONS AND FINANCE

13. International Cooperation: Agreements and Instruments

- Introduction
- Framing concepts and an assessment of means for international cooperation
- International agreements: Examples and lessons for climate policy
- Multilateral and bilateral agreements across different scales
- Climate policy architectures
- Mechanisms for technology and knowledge development, transfer, diffusion
- Capacity building
- Linkages between international and national policies
- Linkages between international and regional cooperation
- Interactions between climate change mitigation policy and trade
- Performance assessment on policies and institutions including market mechanisms
- Investment and finance
- The role of public and private sectors and public-private partnership
- Frequently asked questions

14. Regional Development and Cooperation

- Introduction
- Opportunities and barriers of regional cooperation
- Current development patterns and goals
- Energy and development
- Urbanisation and development
- Consumption and production patterns in the context of development
- Low carbon development: Opportunities and barriers
- Links between mitigation, adaptation and development
- Investment and finance
- The role of public and private sectors and public-private partnership
- Frequently asked questions

15. National and Sub-national Policies and Institutions

- Introduction
- Characteristics and classification of policy instruments and packages
- Approaches and tools used to evaluate policies and institutions
- Research and development policy
- Assessment of the performance of policies and measures in developed and developing countries taking into account development level and capacity
- Framework: Role of institutions and governance
- Capacity building
- National, state and local linkages
- Links to adaptation
- Synergies and tradeoffs among policies
- Assessing policy design options
- Investment and finance
- The role of public and private sectors and public-private partnership
- The role of stakeholders including NGOs
- Frequently asked questions

16. Cross-cutting Investment and Finance Issues

- Financing low-carbon investments, opportunities, key-drivers and barriers
- Financing developed countries' mitigation activities
- Financing mitigation activities in and for developing countries including for technology development, transfer and diffusion
- Financing infrastructure and institutional arrangements
- Synergies and tradeoffs between financing mitigation and adaptation
- Directing and leveraging private financing
- Innovative financing
- Approaches and scale of financing at national, regional and international level in short-, mid- and long-term
- Enabling environments
- Frequently asked questions

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FIFTH ASSESSMENT REPORT

Concept notes on Cross-Cutting issues¹

Consistent Evaluation of Uncertainties and Risks (CCM)

Background and scope

The quality of the uncertainty guidance notes for AR4 was recognized, but it was noted that their application has been uneven across and within Working Groups. Aspects of risks have not been treated consistently among Working Groups.

Further, the increased awareness and concern of policy makers regarding low-probability, high-consequence events, and the increased interest in risk assessment and risk management was recognized, even though these concepts are understood differently in different disciplines and Working Groups.

The overarching goal of refining and conveying consistent information on uncertainty and risk is to serve as a useful input for decision making on climate change.

Working Group involvement

All three Working Groups are and should continue to be involved, with the Co-Chairs of the Working Groups taking the lead.

Suggested approach

- The Working Group Co-Chairs to discuss their needs for guidance in the area of risk and uncertainty, and engage a process for updating and extending the existing guidance prior to the first LA meeting of each Working Group;
- The distinction between likelihood and confidence and the use of the confidence scale needs to be further clarified;
- The guidance paper to include a discussion of the meaning and significance of risk, specifically to address the treatment of low-probability, high-consequence events;
- Concerning risk assessment and risk management, to use a common language among Working Groups and Special Reports, without being prescriptive regarding its application;
- Once authors have been designated, for each Working Group to designate a small group of authors in order to ensure communication, coordination, and consistency of this issue across Working Groups and throughout the assessment process;
- Early on in the guidance development process, to use concrete case studies to test the approach recommended to deal with uncertainty and risk.

¹ Cross-Cutting Methodology (CCM)
Cross-Cutting Theme (CCT)

Costing and Economic Analysis (CCM)

Background

Economic analysis has been widely applied across the climate change domain – analyses of the economic cost of climate-related damages, the costs and benefits of mitigation options, the costs and benefits of adaptation options, the economic implications of policy design and instrument choice, the economic consequences of alternative architectures for international treaties on climate policy, and the economics of decision-making under uncertainty are primary examples. Past IPCC Reports have assessed these analyses, and this tradition will continue in the AR5.

Scope

The application of common economic fundamentals and measurement processes to analyses of adaptation and mitigation depends on the constraints that define their context. Even though these analyses accommodate enormous diversity in context, common fundamentals suggest that common criteria can be applied in the assessment of the resulting disparate literature. The point is not to decide whether the underlying analytical approach of any specific study is right or wrong; it is, instead, to judge the degree to which its specific application recognizes, to the extent practicable, elements that have played critical roles in driving results in one direction or another. The scope of this CCM would also comprise matters related to finance and investment.

Working Group Involvement Coverage

Costing and economic analysis will permeate the work of Working Groups II and III. Exploiting common language and common fundamentals should help in making the confidence assessments of economic conclusions that will be offered in both Reports more comparable and more transparent than in the past.

Suggested Approach

An Expert Meeting is proposed to assist authors in conducting their upcoming work. The expert meeting will not conduct a comprehensive assessment of literatures involved. It will, instead, work to incorporate a diverse set of views and to suggest how assessment frameworks can be created so that confidence levels drawn from economic analyses of all types can be more comparable. If the Meeting were scheduled after the author teams had been assembled but before the writing had begun, Lead Authors who will be responsible for the economic and valuation parts of the various chapters in both Working Groups could attend, participate, and begin the collaborative relationships that will, themselves, facilitate integration. The Expert Meeting should produce a volume that contains invited papers, discussant comments, and summaries of subsequent audience discussions. A Guidance Paper could then be created based on the content of the Meeting Report and other documents. This Paper would be designed to promote quality in the assessment of economic literature included across the various chapters of Working Groups II and III as well as consistency in judgments of quality across multiple chapters and both Working Groups. Elements of the guidance paper might even be incorporated into the both Working Group contributions to the AR5.

Regional Aspects (CCM)

Background and Scope

At its 30th Session held in Antalya, Turkey, in April 2009, the IPCC decided that much greater attention was required to improve the treatment of regional issues in AR5. The scoping meeting was also tasked to consider options for a more detailed regional division. The Scoping meeting took note of the following documents: the guidance paper on regional issues prepared for AR4, the report of the Task Group on the Future of IPCC (IPCC-XXX/Doc. 10), the draft report of the 30th session of the IPCC, the compromise proposal on the improved treatment of regional information in AR5 (AR5-SCOP/INF.3), and a document titled "Consideration of regional division for the IPCC AR5" prepared by the IPCC Secretariat for this meeting.

Reflection of Regional Information in the AR5 Working Groups

In order to improve the treatment of regional information in AR5, for the benefit of all users of the AR5 reports, it is suggested that the WGII contribution is split in two parts, completed at the same time and subject to a single review and SPM/TS approval process (There would be only one SPM and one TS, both included in each part, so that the overall context is present in each part.):

General title: *Vulnerability, Impacts, and Adaptation*

- Part A scope and subtitle: *"Global and sectoral aspects"*
- Part B scope and subtitle: *"Regional aspects"*. The cover for this Part would also mention: *"Contribution of IPCC WGII, incorporating inputs from IPCC Working Group I "The Physical Science Basis" and Working Group III "Mitigation of Climate Change"*

For further details see outline of the Working Group II report contained in IPCC-WG-II:9th /Doc.2.

To make this regional Part possible, a number of suggestions were made:

- Ensure consistency in the presentation and transfer of regional information on observed and projected climate changes (including changes in extreme events), future scenarios, and mitigation and adaptation issues between Working Groups I, II and III;
- Holding an IPCC Workshop or an Expert Meeting on Regional Aspects of Climate Change jointly between Working Groups I, II and III at an appropriate stage of the development of the AR5 would be very useful to help achieving this consistency, increase the knowledge base from region specific literature and promote mutual understanding around the regional aspects. One possibility is to organize it in conjunction with a TGICA meeting;
- As in AR4, make use of detailed case studies in specific regions ("hot spots") that focus on different aspects of the climate issue, often spanning different Working Groups;
- Offer mechanisms for making the most efficient use of regional expertise on chapters in different Working Groups requiring the transfer and presentation of regional information, e.g.: WGI and WGIII nominate authors who would be willing to review, from the outset, draft regional chapters in WGII; A small number of Lead Authors from one Working Group accustomed to working in an interdisciplinary perspective be nominated as "Attending" Contributing Authors for another Working Groups. At the invitation of the Co-Chairs they can attend relevant parts of LA meetings (they would be LA in one WG and CA in another WG);
- Make the draft texts of Part A of WGII available in a timely manner to WGIII so that WGIII can take into account the latest information available for integrated assessment. Similarly, timely exchanges of relevant draft texts between WGI and WGII will be useful.
- Promote the use of Geographical Information Systems (GIS) and Internet tools to present and communicate regional information both during AR5 preparation (for technical exchange) and after its completion (for outreach), and could possibly be aided by TGICA and DDC.

- Consider scheduling the WGII final plenary after both WGI and WGIII have completed their volumes. This would allow the WGI and WGIII material to be available in an approved form, and allow the WGI and WGIII author teams and TSUs to be able to contribute effectively with their material to the regional Part B of the WGII report. This would facilitate the effective contribution of WGIII to the regional WGII Part B, and the approval process of this Part B, so that WGIII-related material in WGII Part B can be founded on already approved WGIII material. This is particularly important given the number of WGII chapters.

Suggested approach for the division of the world into regions

For the division of the world into regions to be used in AR5 a number of different criteria, depending of the kind of analysis intended or the discipline concerned need to be considered, while noting that there is no regional division which can satisfy perfectly all needs. A number of principles were suggested, including: no area should be left out of the division, and the sum of the parts should cover the entire globe; a geographical approach is suggested to divide the world into regions, with additional sub-regional information as feasible.

Some of the advantages of such an approach are that it is easy to communicate and widely recognized, and that geography does not change fast. Users can easily know where they can find the information immediately relevant to them. Any other disaggregation (for example socio-economic) could be incorporated in those regions. This is also consistent with AR4.

A regional division and an indicative regional subdivision has been proposed for the regional Part B, but it is suggested that the regional subdivision be finalized by the chapter authors after the Workshop/Expert meeting suggested in section 7.2. For further details see outline of the Working Group II report contained in Section C.

Water and the Earth system: changes, impacts and responses (CCT)

Background

The title was changed from “*Hydrological cycle*” to “*Water and Earth system: changes, impacts and responses*” to better reflect the main interests of stakeholders. There needs to be more consistency among Working Groups and more involvement of WGIII on this topic.

Scope

The following outlines the main variables and activities that should be covered. These are broken into areas relevant to the three IPCC Working Groups. It is recommended that all three Working Groups undertake a synthesis of their components of this CCT.

Working Group involvement

WG I – There should be a comprehensive assessment of information available on variables related to the water cycle including observations, modeling capabilities, attribution of the changes to causes, predictions from daily to decadal time scales, projections of the longer term future, and an assessment of all of these for use by decision makers. Variables of particular interest include the following: precipitation; temperature; water vapor; extremes; runoff, river flow, discharge into the oceans; water storage, soil moisture, lakes, ground water; drought, evaporation; sea level; cryosphere changes; and air pollution. There is a need to use observations to evaluate models and factor these results into model projections, because there are still limitations in simulating precipitation. Simulation needs to be improved of the diurnal cycle, tropical storms, ENSO, and other phenomena. Down-scaling uncertainties need to be properly accounted. Issues include observational networks that are becoming degraded, especially for *in situ* observations, and the science on the attribution of changes to variables beyond temperature should be advanced.

WG II – Stakeholder needs should be addressed by:

- *defining the main drivers of change.* In addition to changes in climatic variables, non-climatic drivers include increasing population and water demand, economic development, urbanization; changing diet and lifestyle; and governance on water.
- *addressing fresh water issues on regional scales through observations, attribution, predictions and projections of impacts on the following:* resources; agriculture, food security, fisheries; human well-being, security; desertification, erosion; built environment; infrastructure; ecosystems; sea level; lake storage, ground water, frozen ground; snow cover, glaciers and ice caps, river and lake ice; rivers; trans-boundary aquifers (relationships between ground and surface water, aquifer recharge); extreme frequency and intensity; water quality; virtual water.
- *identifying vulnerabilities of fresh water systems.*
- *addressing coping strategies and responses* including short and long term adaptation.
- *addressing sustainable development.*

WG III - Water and climate change mitigation issues include:

- low carbon energy: bioenergy, biofuels (use of water, added pollution); nuclear power (cooling); hydro power; co-benefits and tradeoffs; side effects of solar, wind, etc.
- land use change: sequestration of carbon; fires.
- infrastructure: energy/water efficiency, energy recovery; technology;
- potential changes in precipitation and water quality with some geoengineering options
- questions exist on whether CCS would have side effects
- non-conventional water: (desalination, etc.).

Suggested approach

Working Group II should have the lead in addressing this CCT, but all three Working Groups need to be included. All Working Groups should recognize the need for a water cycle theme and provide appropriate insights, including on regions and extremes. There is a need to ensure exchange of information and coordination of information among the three Working Groups and accomplish the coordination among Working Groups. The most appropriate and effective way of doing this would be developed by the Co-Chairs (e.g. designated contributing authors). Links should be established with other activities including the special report on extreme events, the CCT on regions, and the planned “*Human Settlement and Infrastructure*” expert meeting; and water related extreme events should be taken into account at the proper level in each chapter. It is not expected that a new Technical Paper would come from this activity.

Carbon Cycle including ocean acidification (CCT)

Background

The carbon cycle is a central component of the Earth system. It integrates multiple forcings, responses and feedbacks related to climate change over a range of different time-scales, concerns additional biogeochemical cycles and is therefore a theme of paramount importance for all Working Groups of the AR5, as well as for the Synthesis Report. Since the completion of the IPCC-TAR, ocean acidification has been identified as a further critical and direct consequence of increasing atmospheric GHG concentrations – a full assessment of it will have to be presented by AR5. Multiple types of active management of the carbon cycle are now envisaged by many governments. Given the emergence of substantial new scientific literature on these themes, it is recommended that all the issues described in this document are reviewed and updated by all AR5 WGs, and that a mechanism is put in place to ensure this coverage, as well as ensuring the avoidance of inconsistencies between different sections of the assessment.

Scope

- Major *issues* concerning CO₂, CH₄ and N₂O including ocean acidification, feedback mechanisms between biogeochemical cycles and climate, and aspects of land use and land management including competition between bioenergy and food production, etc;
- *process* knowledge including direct CO₂ effects ('fertilization') on physiology and functioning of land ecosystems, variability of carbon pools, ocean acidification, the marine biological pump, nutrient interactions with terrestrial and marine carbon dynamics, interactions among CO₂ effects, climate, and other stressors, carbon feedbacks from land/ocean ecosystems to climate;
- *knowledge of past dynamics* of biogeochemical cycles, ocean pH, anthropogenic GHG emissions, including budgets of CO₂, CH₄, N₂O, DIC and other quantities;
- *present day budgets* with improved attribution to different sources and sinks;
- *projections* of atmospheric CO₂, other GHGs and ocean pH including of relevant feedbacks, the longer-term (beyond 2100) scope, and reversibility;
- sensitivity of major carbon pools to changes in climate, land use etc. including stratification by climate zones (land and ocean) and major regional case studies (coral reefs, Amazon forest, polar oceans);
- impacts of changing biogeochemistry on biological productivity, food web structure, biological resources, fisheries, crops, fibre, bioenergy;
- carbon management for mitigation, changes in energy systems with implications for biogeochemistry and climate, urban carbon metabolism, impacts from agroindustrial system development to GHG emissions from transport, packaging and distribution.
- It is likely that further issues related to global biogeochemistry and climate arise during the coming few years – these will have to be considered as well by the AR5 assessment.

Working Group involvement

An important role will likely be played by the WGI chapter on carbon cycle and other biogeochemical cycles: it should assess the full range of Earth system wide implications for climate change of changing biogeochemistry. WGII and WGIII should implement suitable sections to summarize this, as well as accounting for any outstanding issues as they are relevant for the respective WG.

Suggested approach

Coordination meetings (e.g., after completion of the zero-order draft from all WGs) may be held to ensure implementation of the goals stated above. No specific "product" is being envisaged, rather adequate coverage of biogeochemistry and ocean acidification issues across the AR5 are of high importance.

Ice Sheets and Sea-Level Rise (CCT)

Background

The potential significant contribution of the ice sheets to future sea-level rise has raised concern about the implications for adaptation and mitigation policy options. To build on the experience gained in the AR4, there is strong interest in ensuring good communication between all three Working Groups (WGs).

Scope

The focus of the cross-cutting theme was on sea-level rise and its implication for coastal zone and island adaptation and vulnerability. A particularly important focus was the heavily populated megadeltas. For understanding the adaptation issues, there is a need for scenarios of sea-level rise, including the upper and lower end of the range and not just the central estimates. The regional distribution of sea-level rise and trends in extreme events and surface waves (both amplitude and direction) were recognized as important issues. There are also potential implications for mitigation policy.

Working Group involvement

WGI and WG II (and potentially WG III) have strong interest in this cross-cutting theme. Leadership would depend on the appointment of lead authors but would naturally lie in either or both of WGI and WG II. A range of issues will be addressed in the appropriate WGI and WGII chapters.

Suggested approach

Mechanisms for ongoing communication across the Working Groups proposed were:

- exchange of outlines between WGI and WG II;
- video conferences between relevant lead authors. The IPCC budget may need to consider providing financial support to ensure adequate regional representation;
- explore the ability to use the IPCC Data Distribution Centre as a resource to facilitate inter-WG data exchange.

The Co-Chairs of WGI will propose to the Panel at its 31st Session an IPCC Workshop on Sea Level Rise and Ice Sheet Instability to be held in June 2010.

Joint lead authors or joint lead author meetings were not seen as essential. No need for a guidance paper or Technical Paper was identified.

There is a need to ensure optimum use is made of authors' time and to facilitate attendance and the communication of outcomes with Working Groups. IPCC Lead Author participation in the relevant workshops should be encouraged.

Mitigation, Adaptation and Sustainable Development (CCT)

Background

This cross-cutting theme was addressed in both WGII and WGIII of the IPCC Fourth Assessment Report (AR4). It addresses the ways that processes, responses and outcomes affect for individuals, communities, social-ecological systems, etc., which are experiencing climate change within the context of multiple, interacting stresses. The theme includes not only assessments of the economic, social and environmental costs and benefits of responses to climate change, but the human security implications for present and future generations.

Scope

This CCT can be considered an overarching framework for considering climate change impacts, adaptation, and vulnerability. Within the AR5, this theme involves identifying the linkages between adaptation and mitigation; and assessing the social, economic, and ecological consequences of adaptation and mitigation responses, evaluating implications for sustainable development, while at the same time highlighting the new challenges to sustainable development raised by climate change. Attention would be paid to all relevant sectors, technologies and practices including biodiversity, land use planning and development, lifestyle and behavioral changes and geo-engineering.

Working groups involved

The theme is very relevant to both WGII and WGIII, and to the SYR. There is a need to coordinate and integrate approaches and outputs among the chapters and groups.

Suggested approach

Questions that can be considered within assessments in both WGII and WGIII:

- How do climate change responses influence a wider transition to sustainability and resilience?
- How do adaptation and mitigation policies and strategies influence vulnerability and equity? What are the implications for sustainable development (SD)?
- What types of strategies and approaches to poverty reduction and disaster risk reduction contribute to mitigation, adaptation & SD?
- How does a “sustainable” development pathway influence adaptation and mitigation?
- What is the role of transversal sectors such as energy, transport, tourism, agriculture, and fisheries
- What types of approaches and tools are being used to evaluate costs and benefits, of adaptation and mitigation measures from the perspective of SD? (i.e., what are the “co-costs” and “co-benefits”?)
- Are the metrics and values that are being used to evaluate impacts and responses explicit and transparent?

The relationship and interactions among mitigation, adaptation & SD could be framed and discussed up front in WGII, WGIII and the SYR, and assessed in the concluding chapters or sections. The empirical evidence on the consequences of adaptation and mitigation policies including synergies and conflicts and strategies for SD could also be assessed in relevant chapters. Human and societal implications and significance for SD could be included in each sectoral and thematic chapter that discusses responses to climate change. Equity dimensions of climate change responses and implications for SD could be raised in the introductory chapters of both WGs and in the SYR. Finally, individual authors that take an integrated perspective could be included in key chapters in WGII, WGIII and the SYR, and there is a need for interactions and consultations among CLAs and LAs within and among WGII, WGIII and the SYR. Inputs for dealing with this theme would also be provided from the proposed expert meeting on “*Human Settlements and Infrastructure*”.

Issues related to Article 2 of the UNFCCC

Aim

The aim of this Cross Cutting Theme is to provide comprehensive and consistent scientific information in the AR5 that is relevant to and informs the consideration of Art. 2 of the UNFCCC, including key vulnerabilities and development.

Background

The United Nations Framework Convention on Climate Change (UNFCCC)'s Article 2 states:

"The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner."

Document IPCC-XXXI/Doc. 4 (*Scoping of the IPCC 5th Assessment Report – Background, Cross cutting issues and AR5 Synthesis Report*) addresses the treatment of Cross Cutting Themes in the AR5. Document IPCC-XXXI/INF.3 (*Scoping of the IPCC 5th Assessment Report Cross cutting issues – Previous IPCC work related to Article 2 of the UNFCCC*) provides further background on how previous IPCC reports have addressed issues related to Article 2 of the UNFCCC. Furthermore, Document AR5-SCOP/INF. 2 (*Treatment of Cross Cutting Themes (CCTs) in TAR and AR4, and Questionnaire Result*) provides an evaluation of the treatment of the cross-cutting issues in the Third Assessment Report (TAR) and the Fourth Assessment Report (AR4). The AR4 CCT "Key vulnerabilities (including issues relating to Article 2 of the UNFCCC)" was covered by this report.

The Expert Meeting on the Science to Address UNFCCC Article 2 including Key Vulnerabilities was held in Buenos Aires, Argentina in 2004 ("IPCC Expert Meeting on The Science to Address UNFCCC Article 2 including Key Vulnerabilities" Expert Meeting – Long and Short Report). The Expert Meeting considered how this issue could be incorporated in AR4, particularly for an integrated treatment of the subject across the three Working Groups.

Scope

This cross-cutting theme is to provide comprehensive and consistent scientific information, drawing from the assessments of the working groups in the AR5 that are relevant to and inform the consideration of Art.2 of the UNFCCC. The theme is very relevant to all working groups, and to the synthesis report. There is a need to coordinate approaches and outputs among the chapters and groups. An initial consideration of relevant material in each working group and the cross cutting issues is outlined in the following indicative list:

WGI

- Anthropogenic and natural radiative forcing; detection and attribution of climate change: from global to regional
- Near-term and long-term climate change projections, including sea level change and regional aspects
- Abrupt climate change, extremes and irreversible climate change
- Scenarios/stabilisation levels, including rate of change
- Other relevant issues

WGII

Related to different magnitudes and rates of climate change under stabilization and other scenarios, including regional aspects, information on:

- Emergent risks and key vulnerabilities
 - Aggregate impacts, thresholds, irreversible changes, and reasons for concern
- Natural and managed resources and systems, and their uses
- Food production systems and food security
- Human settlements, industry, and infrastructure
- Adaptation opportunities, constraints, and limits
- Adaptation planning and implementation
- Climate-resilient pathways: adaptation, mitigation, and sustainable development
- Other relevant issues

WGIII

- Integrated risk and uncertainty assessment of climate change response policies
- Drivers, trends and mitigation
- Climate stabilization: concepts, costs and implications for the macro-economy, sectors and technology portfolios, taking into account differences across regions
- Sustainable development and transformation pathways, taking into account differences across regions
- Integrating long and short-term perspectives
- Integrating technological and societal changes
- Social, economic and ethical concepts and methods
- International cooperation: agreements & instruments
- Regional development and cooperation
- National and sub-national policies and institutions
- Cross-cutting investment and finance issues
- Other relevant issues

There are a number of cross-cutting issues including:

- Linkages and feedbacks between and among: greenhouse gas emissions, atmospheric greenhouse gas concentrations, temperature increase, precipitation, ocean acidification, sea level rise, impacts, adaptation, mitigation and sustainability
- Consistent use of scenarios and treatment of uncertainties and risks throughout the three working group reports

Working group involvement

This CCT involves WGI, WGII and WGIII. All three working groups are asked to provide comprehensive and consistent scientific information pertaining to the consideration of Article 2 of the UNFCCC and to draw from their contributions to these issues.

Suggested approach

Due to the importance of this CCT, the relationship and interactions related to this cross cutting theme between and within the three working group reports should be discussed up front and in the Lead Author meetings of the WGI, WGII, WGIII and the SYR, and assessed in concluding chapters or sections. It is proposed that the indicative list of topics above could be further developed at the scoping meeting of the SYR in 2010 based on the approved scoping documents of the AR5.

It is proposed to arrange a Cross Working Group meeting early 2010. This meeting could provide further guidance including on the arrangement of an expert meeting on this Cross Cutting Theme. This group would prepare a progress report to inform subsequent lead author meetings and for further consideration by the panel at its 32nd session. The progress report would further provide recommendations from the cross working group on the arrangement of an expert meeting on this cross cutting theme.

FIFTH ASSESSMENT REPORT

Expert Meetings and Workshops²

PLANNED AR5 EXPERT MEETINGS AND WORKSHOPS (OVERVIEW)

Title	Proposed by Working Groups involved	Related to CCM/ CCT or new scenarios	Time	Duration	Location	Participants	Proposal attached
IPCC Expert Meeting on Detection and Attribution Related to Anthropogenic Climate Change	WGI / WGII Co-Chairs		14-16 Sep.09 (Already Held)	3 days	Geneva, Switzerland	40	✓
IPCC Expert Meeting on Assessing and Combining Multi Model Climate Projections	WGI / WGII Co-Chairs		25-27 Jan 2010	2.5-3 days	Boulder, CO, USA	40	✓
Expert Meeting on Human Settlement, Water, Energy and Transport Infrastructure - Mitigation and Adaptation Strategies	WGIII Co-Chairs	Mitigation, adaptation and sustainable development	March/ April 2010	tbd	tbd	80	✓
IPCC Workshop on Sea Level Rise and Ice Sheet Instabilities	WGI Co-Chairs	Ice sheets and sea level rise	21-24 June 2010 (tbc)	4 days	Malaysia (tbc)	120	✓
IPCC Workshop on Socioeconomic Scenarios for Climate Change Impact and Response Assessments	Joint WGII / WGIII	New scenarios	Oct 2010 (tbd)	3-4 days	tbd	70	✓
Expert Meeting on consistent evaluation of uncertainties and risks	WGII, possibly involving all WGs	Consistent evaluation of uncertainties and risks	Nov 2010 (tbd)	2 days	tbd	tbd	
IPCC Workshop on Impacts of Ocean Acidification on Marine Biology and Ecosystems	Government of Japan, WGI / WGII Co-Chairs	Carbon cycle including ocean acidification	Feb 2011 (tbd)	tbc	Japan	100	✓
Expert Meeting on Economic Analysis, Costing Methods and Ethics	WG III/WG II Co-Chairs	Costing and economic analysis	March 2011 (tbd)	3 days (tbd)	tbd	70 (tbd)	✓
Other expert meetings and workshops							
Joint IPCC-NRC expert meeting on RCP-2	WG II	New Scenarios	2010	tbd	tbd	tbd	
Expert meetings on bottom-up/top/down	WG III	WG III	4x2 days, back to back with LA meetings			LA s	
Regional expert meetings	WG II	to support Part B of WGII	2011-2012	tbd	tbd	tbd	
Expert meetings with business and NGOs	WG III, possibly other WGs	to support AR5 review process	tbd	tbd	tbd		
GEO-IPCC Expert Consultation: "How GEOSS could serve the data needs of the climate impacts and adaptation research communities and support the IPCC assessments"	WGII	General support	17-19 May 2010	3 days	Geneva, Switzerland	40	✓

² For any updates please consult the IPCC Website

Decisions taken by the Panel at its 32nd Session

With regards to the Recommendations resulting from the
Review of the IPCC Processes and Procedures by the InterAcademy Council (IAC)

Busan, Republic of Korea, 11-14 October 2010

Preamble:

The IPCC welcomes the IAC's Review. Its recommendations will be important to improve the way the IPCC works and how it is governed on behalf of the thousands of scientists who conduct careful, thorough assessments on all aspects of climate change and on behalf of the global community that utilizes its work.

The IPCC is taking decisive action to respond to these recommendations in a way that is transparent and open, and ensures that the highest quality assessments are produced and made available to the international community.

At its 32nd Session, the Panel agreed to immediately implement many of the recommendations. On others, the Panel has formed Task Groups to undertake further work with a view to completion at its next Session, in line with guidance from the IAC.

The IAC Review highlights the contribution the IPCC has made to improve the understanding of the scientific, technical and socio-economic aspects of climate change, and the commitment of the world's leading scientists and other experts to a robust assessment process.

The work of preparing the Fifth Assessment Report (AR5) remains on course and will benefit from the Panel's decisions on the IAC recommendations.

Contents

This document presents the Panel's decisions relevant to the IAC's Review of the Processes and Procedures of the IPCC and terms of reference (TOR) and work plan for the Task Groups established to consider issues further and prepare proposals for consideration and decision by the Panel at its next Session (IPCC-XXXIII) scheduled to be held in the first half of 2011.

- 1 **Decisions by the Panel on Procedures** relevant to the IAC's Review and their recommendations in
 - Chapter 2 "Evaluation of IPCC's Assessment Processes" and
 - Chapter 3 "IPCC's Evaluation of Evidence and Treatment of Uncertainty"
 - TOR for the Task Group on Procedures
- 2 **Decisions by the Panel on Governance and Management** relevant to the IAC's Review and their recommendations in Chapter 4 "Governance and Management"
 - TOR for the Task Group on Governance and Management
 - TOR for the Task Group on Conflict of Interest Policy
- 3 **Decisions by the Panel on a Communications Strategy** as relevant to the IAC's Review and their recommendations in Chapter 4 "Governance and Management"
 - TOR for the Task Group on a Communications Strategy
- 4 **The Task Groups and their Composition**

Appendices

1. "General Guidance on the Use of Literature in IPCC Reports"
2. "General Guidance on the Role of Review Editors"
3. "Proposed IPCC Protocol for Addressing Errors in Previous Assessment Reports"
4. "Draft Guidance Note for Lead Authors of the Fifth Assessment Report on Consistent Treatment of Uncertainties"

1 DECISIONS BY THE PANEL ON PROCEDURES

The Panel welcomed and acknowledged the recommendations and suggestions by the IAC on the IPCC's assessment process (Chapter 2 and 3 of the IAC Report), and made the following specific decisions:

Scoping

The Panel noted that in its report the IAC has recommended:

"The IPCC should make the process and criteria for selecting participants for scoping meetings more transparent."

The Panel agreed with this recommendation

Implementation plan to be determined by the Task Group on Procedures with the view to make a decision at its next Session (IPCC-XXXIII).

Author Selection

The Panel noted that in its report the IAC has recommended:

"The IPCC should establish a formal set of criteria and processes for selecting Coordinating Lead Authors and Lead Authors."

The Panel agreed with this recommendation

Formal criteria are included in the existing procedures. Enhanced implementation and transparency as well as potential additional criteria and procedures to be considered by the Task Group on Procedures with the view to make a decision at its next Session (IPCC-XXXIII) for future work.

The Panel noted that in its report the IAC has recommended:

"The IPCC should make every effort to engage local experts on the author teams of the regional chapters of the Working Group II report, but should also engage experts from countries outside of the region when they can provide an essential contribution to the assessment."

The Panel agreed with this recommendation

This is already implemented for AR5. Further implementation to be considered by the Task Group on Procedures with the view to make a decision at its next Session (IPCC-XXXIII) for future work.

Sources of Data and Literature

The Panel noted that in its report the IAC has recommended:

"The IPCC should strengthen and enforce its procedure for the use of unpublished and non-peer-reviewed literature, including providing more specific guidance on how to evaluate such information, adding guidelines on what types of literature are unacceptable, and ensuring that unpublished and non-peer-reviewed literature is appropriately flagged in the report."

The Panel agreed with this recommendation

The Panel decided to strengthen the application of its procedures on the use of unpublished and non-peer reviewed literature. It decided to implement this recommendation and further key elements through its procedures and guidance notes. The Panel noted the General Guidance on the Use of Literature in IPCC Reports (contained in IPCC-XXXII/INF.4) as revised in General Guidance on the Use of Literature in IPCC Reports (**Appendix 1**) which addresses the related aspects in the IAC recommendations and decided to endorse them as a Guidance Note. The Panel

urges the Co-Chairs of Working Group I, II, III and TFI to take any necessary steps to ensure that this guidance note is applied in the development of IPCC reports.

Handling the Full Range of Views

The Panel noted that in its report the IAC has recommended:

“Lead Authors should explicitly document that a range of scientific viewpoints has been considered, and Coordinating Lead Authors and Review Editors should satisfy themselves that due consideration was given to properly documented alternative views.”

The Panel agreed with this recommendation

The Panel emphasizes that handling the full range of scientific views is a core principle of the IPCC. Its procedures clearly require the representation of differing scientific viewpoints and encourages rigorous adherence by the CLAs, LAs, and REs. The Panel urges the IPCC Chair, the Co-Chairs of the Working Groups and TFI to take any necessary steps to ensure that this principle continues to be applied in the development of IPCC reports. Further implementation to be considered by the Task Group on Procedures with the view to make a decision at its next Session (IPCC-XXXIII).

Report Review

The Panel noted that in its report the IAC has recommended:

“The IPCC should adopt a more targeted and effective process for responding to reviewer comments. In such a process, Review Editors would prepare a written summary of the most significant issues raised by reviewers shortly after review comments have been received. Authors would be required to provide detailed written responses to the most significant review issues identified by the Review Editors, abbreviated responses to all non-editorial comments, and no written responses to editorial comments.”

The Panel agreed with this recommendation in principle

Implementation options to be considered by the Task Group on Procedures with the view to make a decision at its next Session (IPCC-XXXIII).

The Panel noted that in its report the IAC has recommended:

“The IPCC should encourage Review Editors to fully exercise their authority to ensure that reviewers’ comments are adequately considered by the authors and that genuine controversies are adequately reflected in the report.”

The Panel agreed with this recommendation

The Panel decided to strengthen its application of procedures, and amend them where necessary, to enable Review Editors to fully exercise their role. The Panel noted the new Guidance Note on the Role of Review Editors (**Appendix 2**) which addresses the related aspects in the IAC recommendations. The Panel urges the Co-Chairs of Working Group I, II, III and TFI to take steps to ensure that this guidance note is implemented in the development of its work.

Summary for Policymakers

The Panel noted that in its report the IAC has recommended:

“The IPCC should revise its process for the approval of the Summary for Policymakers so that governments provide written comments prior to the Plenary.”

The Panel acknowledges the importance of both written comments and inputs from the floor, which are current practice. No revision to the process is required.

Procedure for the handling of potential errors identified after approval of IPCC reports

IAC discussion and suggestion in the Box analyzing the Himalayan glacier error (IAC Report page 22). Discussion of time required for a response on Himalayan glacier error (IAC Report page 54).

The Panel agreed on the need to establish a process for evaluating, addressing and correcting, if necessary, potential errors and further developing errata as appropriate.

The Panel noted the “Proposed IPCC Protocol for Addressing Errors in Previous Assessment Reports” (**Appendix 3**) which describes a clear decision tree, based on the nature of the material and the steps necessary to avoid bias, so that potential errors could be addressed as rapidly as practical.

The Panel urges the IPCC Chair, the IPCC Vice-Chairs, the Co-Chairs of Working Group I, II, III and TFI to take any necessary steps to ensure that this protocol is finalized and then used for evaluation of potential errors and developing errata as appropriate. Further analysis to be considered by the Task Group on Procedures with the view to submit a proposal for a decision at the next Session (IPCC-XXXIII).

IPCC’s Evaluation of Evidence and Treatment of Uncertainty

The Panel noted that in its report the IAC has made several recommendations:

“All Working Groups should use the qualitative level-of-understanding scale in their Summary for Policymakers and Technical Summary, as suggested in IPCC’s uncertainty guidance for the Fourth Assessment Report. This scale may be supplemented by a quantitative probability scale, if appropriate.”

“Chapter Lead Authors should provide a traceable account of how they arrived at their ratings for level of scientific understanding and likelihood that an outcome will occur.”

“Quantitative probabilities (as in the likelihood scale) should be used to describe the probability of well-defined outcomes only when there is sufficient evidence. Authors should indicate the basis for assigning a probability to an outcome or event (e.g., based on measurement, expert judgment, and/or model runs).”

“The confidence scale should not be used to assign subjective probabilities to ill-defined outcomes.”

“The likelihood scale should be stated in terms of probabilities (numbers) in addition to words to improve understanding of uncertainty.”

“Where practical, formal expert elicitation procedures should be used to obtain subjective probabilities for key results.”

The Panel agreed with these recommendations

The Panel decided to improve the IPCC guidance on evaluation of evidence and treatment of uncertainty. It is implementing the six recommendations in the IAC Review as part of a broader package of updates to procedures and guidance notes. The Panel noted with appreciation the Draft Guidance Note for Lead Authors of the Fifth Assessment Report on Consistent Treatment of Uncertainties (**Appendix 4**) and requested the Co-Chairs of Working Group I, II and III to present the final document to the Panel at its next Session. The final document should provide more detail on traceable accounts, the evolution of the guidance since AR4 and explain how each of the six recommendations in the IAC Review is addressed. The Panel urges the Co-Chairs to take any necessary steps to ensure that the guidance note is implemented in the development of its work.

Terms of reference for a Task Group on Procedures

The Panel welcomed and acknowledged the recommendations and suggestions by the IAC on the IPCC's assessment process (Chapters 2 and 3 of the IAC Report) and decided to establish an inter-sessional Task Group on Procedures to develop proposals on further implementation of the recommendations. The Task Group is specifically requested to address, inter alia, the issues listed in Annex I to this decision and propose amendments, including Appendix A to the Principles Governing IPCC work and relevant Guidance Documents, if necessary, by *31 January 2011*. Governments will then be invited to provide comments on the proposals *by 28 February 2011* to allow preparation of a revised draft for consideration and decisions by the Panel at its next Session (IPCC-XXXIII).

The Task Group on Procedures is open to participation by the members of the IPCC and consists of Armenia, Australia, Bolivia, Botswana, Brazil, Canada, Chile, Denmark, Germany, India, Iran (Islamic Republic of), Japan, Maldives, Netherlands (The), New Zealand, Niger, Norway, Peru, Saudi Arabia, South Africa, Swaziland, Switzerland, Thailand, and USA

The Task Group will seek the advice of the IPCC Chair, the IPCC Vice-Chairs, Working Group and TFI Co-Chairs and the Secretary. The duration of the Task Group is until the IPCC's 33rd Session unless decided otherwise.

Annex I

The Task Group should address the issues listed below as mentioned in the IAC recommendations (Chapters 2 and 3), IPCC responses at its 32nd Session and IPCC-XXXII/Doc. 22. For each of the issues the Task Group should establish a timetable for action, consider resource implications and identify responsibilities for implementation. It should propose amendments to the Appendix A to the Principles Governing IPCC Work and relevant guidance documents if needed taking into account decisions made at IPCC-XXXII.

Chapter 2: Evaluation of IPCC's Assessment Process

Scoping

1. Recommendation: The IPCC should make the process and criteria for selecting participants for scoping meetings more transparent.

Author Selection

2. Recommendation: The IPCC should establish a formal set of criteria and processes for selecting Coordinating Lead Authors and Lead Authors.

3. Recommendation: The IPCC should make every effort to engage local experts on the author teams of the regional chapters of the Working Group II report, but should also engage experts from countries outside of the region when they can provide an essential contribution to the assessment.

Sources of Data and Literature

4. Recommendation: The IPCC should strengthen and enforce its procedure for the use of unpublished and non-peer-reviewed literature, including providing more specific guidance on how to evaluate such information, adding guidelines on what types of literature are unacceptable, and ensuring that unpublished and non-peer-reviewed literature is appropriately flagged in the report.

Handling the Full Range of Views

5. Recommendation: Lead Authors should explicitly document that a range of scientific viewpoints has been considered, and Coordinating Lead Authors and Review Editors should satisfy themselves that due consideration was given to properly documented alternative views.

Report Review

6. Recommendation: The IPCC should adopt a more targeted and effective process for responding to reviewer comments. In such a process, Review Editors would prepare a written summary of the most significant issues raised by reviewers shortly after review comments have been received. Authors would be required to provide detailed written responses to the most significant review issues identified by the Review Editors, abbreviated responses to all non-editorial comments, and no written responses to editorial comments.

7. Recommendation: The IPCC should encourage Review Editors to fully exercise their authority to ensure that reviewers' comments are adequately considered by the authors and that genuine controversies are adequately reflected in the report.

Summary for Policymakers

8. Recommendation: The IPCC should revise its process for the approval of the Summary for Policymakers so that governments provide written comments prior to the Plenary.

Procedure for the handling of potential errors identified after approval of IPCC reports

IAC discussion and suggestion: Box analyzing of Himalayan glacier error (IAC Report page 22).
Discussion of time required for a response on Himalayan glacier error (IAC Report page 54).

Chapter 3: IPCC's Evaluation of Evidence and Treatment of Uncertainty

9. Recommendation: All Working Groups should use the qualitative level-of-understanding scale in their Summary for Policymakers and Technical Summary, as suggested in IPCC's uncertainty guidance for the Fourth Assessment Report. This scale may be supplemented by a quantitative probability scale, if appropriate.

10. Recommendation: Chapter Lead Authors should provide a traceable account of how they arrived at their ratings for level of scientific understanding and likelihood that an outcome will occur.

11. Recommendation: Quantitative probabilities (as in the likelihood scale) should be used to describe the probability of well-defined outcomes only when there is sufficient evidence. Authors should indicate the basis for assigning a probability to an outcome or event (e.g. based on measurement, expert judgment, and/or model runs).

12. Recommendation: The confidence scale should not be used to assign subjective probabilities to ill-defined outcomes.

13. Recommendation: The likelihood scale should be stated in terms of probabilities (numbers) in addition to words to improve understanding of uncertainty.

14. Recommendation: Where practical, formal expert elicitation procedures should be used to obtain subjective probabilities for key results.

2 DECISIONS BY THE PANEL ON GOVERNANCE AND MANAGEMENT

The Panel and its Executive Committee

The Panel noted that in its report the IAC has recommended:

“The IPCC should establish an Executive Committee to act on its behalf between Plenary sessions. The membership of the Committee should include the IPCC Chair, the Working Group Co-Chairs, the senior member of the Secretariat, and 3 independent members, including some from outside of the climate community. Members would be elected by the Plenary and serve until their successors are in place.”

The Panel at its 32nd Session:

- I. Agreed to work toward establishing a formal body to provide governance functions that are necessary between sessions of the panel, strengthen coordination activities, and have oversight of the organisation’s administration and communications; according to the mandate to be agreed in the 33rd Session.
- II. The Task Group should consider options for the implementation of the decision concerning the recommendation mentioning the establishment of an Executive Committee. These options include those for the mandate, size, composition, functions and reporting of the body referred to in this recommendation.
- III. The Task Group shall make recommendations on the options mentioned in decision II to the 33rd Session of the Panel, with a view to taking a decision.

The Secretariat

The Panel noted that in its report the IAC has recommended:

“The IPCC should redefine the responsibilities of key Secretariat positions both to improve efficiency and to allow for any future senior appointments.”

“The IPCC should elect an Executive Director to lead the Secretariat and handle day-to-day operations of the organization. The term of this senior scientist should be limited to the timeframe of one assessment.”

The Panel at its 32nd Session:

- I. Requested the Task Group to examine the role of the Secretariat in its relation with WMO, UNEP, the IPCC-Chair, the Vice-Chairs, Co-Chairs of the WGs and the TFI, and Technical Support Units. The Task Group is requested to review the responsibilities of key Secretariat positions and consider the issues associated with it and to make recommendations to the Panel at its 33rd Session. It is also requested to consider issues associated with the potential creation of a new post of an “Executive Director” to lead the Secretariat.

The IPCC Chair; Working Group Co-Chairs

The Panel noted that in its report the IAC has recommended:

“The term of the IPCC Chair should be limited to the timeframe of one assessment.”
“The terms of the Working Group Co-Chairs should be limited to the timeframe of one assessment.”

The Panel at its 32nd Session:

- I. Requested the Task Group to consider issues related to the IAC recommendations on the term of the IPCC Chair and working group Co-Chairs, including continuity issues.
- II. Noted that any amendments to the existing IPCC Rules of Procedure for Elections could be applied only to subsequent elections.
- III. Requested the Task Group to report their recommendations to the 33rd Session for decision.

Conflict of Interest Policy

The Panel noted that in its report the IAC has recommended:

“The IPCC should develop and adopt a rigorous conflict of interest policy that applies to all individuals directly involved in the preparation of IPCC reports, including senior IPCC leadership (IPCC Chair and Vice Chairs), authors with responsibilities for report content (i.e., Working Group Co-Chairs, Coordinating Lead Authors, and Lead Authors), Review Editors, and technical staff directly involved in report preparation (e.g., staff of Technical Support Units and the IPCC Secretariat).”

The Panel at its 32nd Session:

- I. Agreed with this IAC recommendation.
- II. Decided to implement a rigorous conflict of interest policy, taking into consideration the specific circumstances related to participation in IPCC activities.
- III. Established a Task Group on Conflict of Interest Policy to propose options for such a policy, consulting with relevant organisations, for its decision at the 33rd Session.

The IPCC Bureau

The Panel noted that in its report the IAC has recommended:

“The IPCC should develop and adopt formal qualifications and formally articulate the roles and responsibilities for all Bureau members, including the IPCC Chair, to ensure that they have both the highest scholarly qualifications and proven leadership skills.”

The Panel at its 32nd Session:

- I. Decided to refer this issue to the relevant Task Groups with a particular focus on roles and responsibilities for all Bureau members, including the IPCC Chair.
- II. The Task Group on Governance and Management should report back to the Panel at the 33rd Session.

Terms of reference for a Task Group on Governance and Management

The Panel welcomed and acknowledged the recommendations and suggestions by the IAC on the IPCC's governance and management (Chapter 4 of the IAC Report) and decided to establish an inter-sessional Task Group on Governance and Management to develop proposals related to the recommendations by the IAC and the decisions taken at the 32nd Session as listed above. The Task Group is specifically requested to address, inter alia, the issues listed in Annex II to this decision and propose amendments, including to the Principles Governing IPCC Work, and its Appendices, and other relevant documents, if necessary, by *31 January 2011*. Governments will then be invited to provide comments on the proposals *by 28 February 2011* to allow preparation of a revised draft for consideration and decisions by the Panel at its next Session (IPCC-XXXIII). Matters related to conflict of interest policy will be addressed by a dedicated "Task Group on Conflict of Interest Policy" as described below.

The Task Group on Governance and Management is open to participation by the members of the IPCC and initially consists of Belgium, Canada, China, Cuba, France, Germany, India, Iran (Islamic Republic of), Italy, Japan, Lesotho, Maldives, Mali, Netherlands (The), New Zealand, Norway, Peru, Republic of Korea, Russian Federation, Saudi Arabia, Serbia, Slovenia, South Africa, Spain, Sweden, UK, and USA. The Task Group will elect its Co-Chairs to coordinate its work.

The Task Group will seek the advice of the IPCC Chair, the IPCC Vice-Chairs, Working Group and TFI Co-Chairs, and the Secretary. The duration of the Task Group is until the IPCC's 33rd Session unless decided otherwise.

Annex II

The Task Group on Governance and Management should address the issues listed below as mentioned in the IAC recommendations (Chapter 4 of the IAC Report), IPCC responses at its 32nd Session and IPCC-XXXII/Doc. 22. For each of the issues the Task Group should establish a timetable for action, consider resource implications and identify responsibilities for implementation. It should propose amendments to the Principles Governing IPCC Work, its Appendices, and other relevant documents if needed taking into account decisions made at IPCC-XXXII.

Chapter 4: Governance and Management

The Panel and its Executive Committee

1. Recommendation: The IPCC should establish an Executive Committee to act on its behalf between Plenary sessions. The membership of the Committee should include the IPCC Chair, the Working Group Co-chairs, the senior member of the Secretariat, and 3 independent members, including some from outside of the climate community. Members would be elected by the Plenary and serve until their successors are in place.

The IPCC Chair

2. Recommendation: The term of the IPCC Chair should be limited to the timeframe of one assessment.

The IPCC Bureau

3. Recommendation: The IPCC should develop and adopt formal qualifications and formally articulate the roles and responsibilities for all Bureau members, including the IPCC Chair, to ensure that they have both the highest scholarly qualifications and proven leadership skills.

4. Recommendation: The terms of the Working Group Co-chairs should be limited to the timeframe of one assessment.

The Secretariat

5. Recommendation: The IPCC should redefine the responsibilities of key Secretariat positions both to improve efficiency and to allow for any future senior appointments.

6. Recommendation: The IPCC should elect an Executive Director to lead the Secretariat and handle day-to-day operations of the organization. The term of this senior scientist should be limited to the timeframe of one assessment.

Terms of reference for a Task Group on Conflict of Interest Policy

The Panel welcomed and acknowledged the recommendations and suggestions by the IAC on the IPCC's conflict of interest policy (as discussed in Chapter 4 of the IAC Report) and decided to establish an inter-sessional Task Group on Conflict of Interest Policy as discussed in Chapter 4 of the IAC Report to develop proposals on further implementation of the IAC recommendations and decision taken by the Panel at its 32nd Session. The Task Group is specifically requested to address, inter alia, the issues listed in Annex III to this decision and propose amendments, including to the Principles Governing IPCC Work and relevant documents, if necessary, by 31 January 2011. Governments will then be invited to provide comments on the proposals by 28 February 2011 to allow preparation of a revised draft for consideration and decisions by the Panel at its next Session (IPCC-XXXIII).

The Task Group is open to participation by the members of the IPCC and consists of: Bangladesh, China, Guinea Bissau, Malaysia, New Zealand, Slovenia, Sudan, UK and USA. The Task Group will elect its Co-Chairs to coordinate its work.

The Task Group will seek the advice of the IPCC Chair, the IPCC Vice-Chairs, Working Group and TFI Co-Chairs and the Secretary. The duration of the Task Group is until the IPCC's 33rd Session unless decided otherwise.

Annex III

The Task Group should address the issues listed below as mentioned in the IAC recommendations (Chapter 4), IPCC responses at its 32nd Session and IPCC-XXXII/Doc. 22. For each of the issues the Task Group should establish a timetable for action, consider resource implications and identify responsibilities for implementation. It should propose amendments to the Principles Governing IPCC work and relevant documents if needed taking into account decisions made at IPCC-XXXII.

Chapter 4: Governance and Management

Conflict of Interest Policy

1. Recommendation: The IPCC should develop and adopt a rigorous conflict of interest policy that applies to all individuals directly involved in the preparation of IPCC reports, including senior IPCC leadership (IPCC Chair and Vice Chairs), authors with responsibilities for report content (i.e., Working Group Co-Chairs, Coordinating Lead Authors, and Lead Authors), Review Editors, and technical staff directly involved in report preparation (e.g., staff of Technical Support Units and the IPCC Secretariat).

3 DECISIONS BY THE PANEL ON A COMMUNICATIONS STRATEGY

The Panel noted that in its report the IAC has recommended:

“The IPCC should complete and implement a communications strategy that emphasizes transparency, rapid and thoughtful responses, and relevance to stakeholders, and which includes guidelines about who can speak on behalf of IPCC and how to represent the organization appropriately.”

The Panel accepts the recommendation to develop a communication strategy.

Taking into account the core products of the organization, the Strategy will clarify the scope and objectives of IPCC communication, with clear guidelines on authority, representation and identification of spokespeople.

The Panel decided to establish a Task Group to guide the development of the Communications Strategy. The first draft should be presented to the IPCC Bureau at its next Session with a view to adopting the Communication Strategy at the 33rd Session of the Panel.

Terms of reference for a Task Group on a Communications Strategy

The Task Group on the IPCC Communications Strategy will, taking into account the core scientific review and assessment role of the IPCC and its scientific and intergovernmental nature, guide the development of a comprehensive and concise communications strategy that:

- Defines the scope of IPCC communications, including about (a) the results and products of assessments, (b) errors, corrections and other issues arising from the work of IPCC, and (c) improving understanding of the processes and governance of IPCC;
- Provides guidance regarding whether balanced communications materials derived from IPCC products that have been approved or accepted by the Panel should be developed, and under what circumstances;
- Articulates a set of general objectives for IPCC communications, including its website, emphasizing transparency, rapid and thoughtful responses, political neutrality, and relevance to stakeholders;
- Identifies targeted audiences and stakeholders, recognizing their diversity of languages;
- Includes guidelines on who can speak on behalf of IPCC and how and when authorized spokespersons should represent the organization appropriately, as well as how communication materials will be authorized; and
- Addresses any potential conflicts of interest regarding communications.

The Task Group will seek the advice of the IPCC Chair, the IPCC Vice-Chairs, Working Group and TFI Co-Chairs and the Secretary. The Task Group membership is open to representatives of governments that are members of the IPCC. The Task Group consists of Belgium, Canada, France, Gambia, Germany, Iran (Islamic Republic of), Japan, Madagascar, Mexico, Netherlands (The), Norway, Saudi Arabia, Senegal, UK, USA, and Zambia. The Task Group will elect its Co-Chairs to coordinate its work.

The work of the Task Group will be supported by the Communications team within the Secretariat.

The Task Group will produce a first draft of the Strategy for consideration at the first Bureau meeting in 2011, with a view to the Panel adopting the Strategy at its 33rd Session.

4 THE TASK GROUPS

The Task Groups are open to participation by the members of the IPCC. Via a show of hands at the closing Plenary Session, country participation of the four Task Groups dealing with a) Procedures, b) Governance and Management, c) Conflict of Interest Policy and d) Communications Strategy was agreed, and is provided below.

The Task Groups will elect their Co-Chairs in due-time.

To facilitate the work of the Task Groups, the Panel decided on the 14th of October, 2010 that 25 trips would be allocated from the IPCC Trust Fund budget for travel to any necessary meetings for the four established groups.

The four Task Groups will report back to the Panel at its 33rd Session. The duration of the Task Groups' mandates is until the IPCC's 33rd Session, unless decided otherwise.

List of Task Groups formed at IPCC-XXXII and initial Composition

Task Group on Procedures

Armenia, Australia, Bolivia, Botswana, Brazil, Canada, Chile, Denmark, Germany, India, Iran (Islamic Republic of), Japan, Maldives, Netherlands (The), New Zealand, Niger, Norway, Peru, Saudi Arabia, South Africa, Swaziland, Switzerland, Thailand, and USA

Task Group on Governance and Management

Belgium, Canada, China, Cuba, France, Germany, India, Iran (Islamic Republic of), Italy, Japan, Lesotho, Maldives, Mali, Netherlands (The), New Zealand, Norway, Peru, Republic of Korea, Russian Federation, Saudi Arabia, Serbia, Slovenia, South Africa, Spain, Sweden, UK, and USA

Task Group on Conflict of Interest Policy

Bangladesh, China, Guinea Bissau, Malaysia, New Zealand, Slovenia, Sudan, UK and USA

Task Group on Communications Strategy

Belgium, Canada, France, Gambia, Germany, Iran (Islamic Republic of), Japan, Madagascar, Mexico, Netherlands (The), Norway, Saudi Arabia, Senegal, UK, USA, and Zambia

SCOPING DOCUMENT

Scope, Content and Process for the Preparation of the Synthesis Report (SYR) of the IPCC Fifth Assessment Report (AR5)

Background

At its 28th Session, Budapest, 9-11 April 2008 the Panel agreed to do a Synthesis Report and at its 30th Session, Antalya, 21-23 April 2009 agreed that the scoping of the AR5 SYR should start with the first scoping meeting. In line with that decision a broad outline for the AR5 Synthesis Report was developed at the AR5 Scoping Meeting held in Venice, 13-17 July 2009. A dedicated scoping meeting for the Synthesis Report was held in Liège, Belgium from 24-27 August 2010, from which the Liège Scoping Document IPCC-XXXII/Doc. 4 was produced for the 32nd Session of the Panel.

The following scoping document was developed at the 32nd Session from discussions based on the Liège Scoping Document.

I. SCOPE

As defined in the IPCC procedures, the SYR would synthesize and integrate material contained within IPCC Assessment Reports and Special Reports. The SYR would be based exclusively on material contained in the three Working Group Reports and Special Reports produced during the 5th or previous Assessment Cycles. It would be written in a “non-technical style suitable for policymakers and address a broad range of policy-relevant, but policy-neutral questions”. The SYR should be largely self-contained, but guide readers to the underlying material if they wish to look further.

The primary audience for the SYR would be policymakers, in particular from governments, advisors to policymakers, and experts. However, it is recognized that others will also make use of the report.

The proposed SYR would consist of two parts:

1. Summary for Policymakers (SPM): up to 8 pages of text excluding the tables, maps, boxes and figures
2. Longer Report: up to 30 pages of text excluding the tables, maps, boxes and figures

The SYR publication would also contain annexes such as a glossary, list of authors, reviewers, Review Editors, and an index.

The AR5 SYR would be self contained and published as a stand-alone publication in the six official UN languages. It would be accompanied by a DVD, which contains the SYR (SPM and longer report), the contributions of the three IPCC Working Groups to the AR5 in English, and the summaries of these reports (SPM and Technical Summary) in all official UN languages. Automatic hyperlinks to references from the SYR (and its SPM) to the longer Working Group reports will be available on the DVD/off-line version and the web-based version of the reports. There will also be full traceability in the referencing for the AR5 in the hard copies of all the reports, including the SPM of the SYR.

II. CONTENT

The following structure for the AR5 SYR is proposed.

The topic and box headings and the structure for the SYR, outlined here, are agreed. However, flexibility is provided to the SYR writing team in the development of the proposed content (list of bullets) provided here as guidance, and not as a constraint. All bullets will be considered by the core writing team (CWT). The coverage of the bullets will depend on the assessment of the literature by the authors, cognizant of the page length restrictions. The IPCC Chair will report to the Panel on the evolution of the outline of the SYR after the zero order draft has been produced.

The core writing team may note submissions by governments containing their views and questions on the SYR, including IPCC-XXXII/INF.3 and IPCC-XXXI/INF.5. The SYR would be based exclusively on material contained in the three Working Group Reports and Special Reports produced during the 5th or previous Assessment Cycles.

Cross Cutting Themes and Methodologies (CCT and CCM) need to be given careful attention throughout the report, and particular attention must be paid to specific issues requiring consistent treatment in the SYR.

III. SYR OUTLINE

FOREWORD

The Chairman's foreword will describe the history of the report, its structure, and the relationship to the other AR5 reports, how detailed information on topics and regions can be accessed and how it has been cross-referenced. It will describe who the intended users are. It will also state how the cross cutting themes and methodologies used in the AR5 are addressed in the SYR.

INTRODUCTION

- Rationale
- Framing the climate and human systems
- Major challenges
- Treatment of confidence, risk and uncertainty

TOPIC 1 – Observed Changes and their Causes

- Pre-instrumental environmental changes, their effects and their causes
- Recent observed changes in the climate system
- Observed effects and impacts
- Past and recent drivers of climate change
- Attribution of climate changes, impacts, effects and drivers
- Human activities affecting climate drivers
- Historical transformational dynamics of societies and lessons to be learned
- Observed vulnerability to shifts in extreme-events and other climatic changes

TOPIC 2 - Future Climate Changes, Impacts, and Risks

Drivers of future climate change

- Description of Representative Concentration Pathways (RCPs) and scenarios used in AR5 (including comparison with the Special Report on Emissions Scenarios (SRES) and previous Assessment Reports)
- Anthropogenic (primarily) and physical factors that lead to a change in climate (e.g., emissions, land-use change, population, etc.)

Basis of projections

- Earth system, vulnerabilities, impacts, and economic models, and their validity
- Uncertainty and confidence

Projections of future changes and risks

- Climate futures: mean, variability, and extremes
- Committed climate change, abrupt changes, irreversibility
 - High impact / low probability events
- Changes and impacts on systems, sectors, and regions
 - Ecosystems, food production, and sustainable economic development (Article 2 of the UNFCCC)
- Direct and aggregate costs
- Relationships between risks and vulnerabilities with temperature, levels, timing, and pathways for stabilization of greenhouse gas concentrations / cumulative emissions

TOPIC 3 - Adaptation and Mitigation Measures

Response options

- Observed responses
 - Drivers, outcomes and implications
- Adaptation and mitigation responses (including regional and sectoral perspectives):
 - Options, including technologies, and related policies and measures
 - Capacities and their determinants
 - Costs and benefits, including co-benefits, trade-offs, and spillover effects
 - Barriers, constraints, and limits, including inertia
 - Cross-cutting issues and aggregate responses
- Interactions between adaptation, mitigation, and development, including equity and ethics
- Geo-engineering – possible role, options, risks and status

Enabling factors and addressing barriers, constraints, and limits including regional considerations

Note: this part should address only the factors related to specific options but not address systemic aspects

- International and regional collaboration
- Governance and institutional arrangements
- Investment, finance and financial instruments
- Changes in lifestyles and behavioural patterns
- Innovation, and technology research, development, deployment, diffusion and transfer
- Information, monitoring and evaluation to support decision-making

TOPIC 4 - Transformations and Changes in Systems

Note: This topic takes a systems perspective in addressing climate change response strategies and policies.

Overview of transformation pathways

- Interpreting scenarios and their pathways including regional and sectoral aspects across different stabilization levels (timeframes and emission pathways for different stabilization levels)

- Mitigation and adaptation strategies - characteristics, risks and interactions
- Systems, costs, investment strategies, and trade flows
- Avoided damages under adaptation and mitigation
- Benefits and co-benefits, tradeoffs and spillover effects (mitigation, adaptation and sustainable development); Possible reference to Millennium Development Goals (MDGs)
- Societal changes

Strategic approaches: common and specific systemic changes across the pathways

- Technology change (RD&D, technology transfer, role of private sector)
- Societal changes
- Policy, governance and institutional (including international) arrangements
- Investment and finance
- Capacity building: mechanisms and strategies
- Equity and ethical dimensions
- Diversity of values and priorities
- Co-benefits, tradeoffs, obstacles and barriers

Box - Information relevant to Article 2 of the UNFCCC

Note: this box will not duplicate information presented in former topics; cross-references should be made to the corresponding data in previous topics.

- Preamble preventing prescriptive interpretation
- Relationship of risks and key vulnerabilities to levels, timing and pathways for stabilization of greenhouse gas concentrations (including regional information)
- Relationship to cumulative emissions and budgets
- Timeframes and pathways for stabilization of greenhouse gas concentrations

Ecosystems, Food Production and Sustainable Economic Development

- Allowing ecosystems to adapt naturally
- Ensuring food production is not threatened
- Enabling economic development to proceed in a sustainable manner (including regional information)

Annexes

- User guide and access to more detailed information
- Glossary
- Acronyms, chemical symbols; scientific units; country groupings
- List of Authors
- List of Reviewers and Review Editors
- Index
- List of all publications of the IPCC

IV PREPARATION OF THE SYR

Writing Team

The IPCC Chair would lead the Core Writing Team (CWT). In accordance with the IPCC Procedures the members of the CWT would be nominated by the IPCC Chair in consultation with the Co-Chairs of the Working Groups. The composition of the writing team would be agreed by the Bureau.

Time schedule

In order to start the synthesis report process in a timely manner, the implementation of the decisions of IPCC-32 on the SYR will be taken up by the IPCC Chair and WG Co-Chairs at the time of the IPCC-34 Session in November 2011. This discussion will include criteria for composition and selection of members of the core writing team and extended writing team.

- The members of the core writing team (CWT) and members of the extended writing team would be chosen in March 2012, after the second Lead Author meetings of the three Working groups. By that time, the Co-Chairs and writing teams will have sufficient oversight as to efficiently divide the workload.
- CWT-1 should be held in mid 2012 (when all 1st-order drafts of the WG Reports are available) the writing of the Zero-order draft SYR would start. A progress report for the next Session of the Panel (scheduled Sept/Oct 2012 tbd) will be prepared.
- Between January and March 2013 the Zero-order draft of the SYR will be reviewed by the authors of the AR5 Working Group Reports.
- CWT-2 would meet in mid 2013 to consider the comments on the Zero-order draft and start writing the first draft SYR based on the 2nd-order drafts of the Working Group Reports, including development of integrated graphics, figures and tables.
- CWT-3 (scheduled for January 2014 after the final drafts of all Working Group contributions are available) will produce a draft SYR.
- CWT-3bis should be a small targeted meeting held back-to-back with the Approval Session of WGIII (April 2014) and revise the first draft based on the outcome of this Session and produce a second-order draft for expert government review.
- The expert/government review will take place in May/June 2014 (8 weeks).
- CWT-4 (scheduled early July) would consider the review comments and prepare the final draft SYR.
- The final draft would be submitted to governments and participating organizations at least 8 weeks before the Session of the Panel that adopts/approves the AR5 SYR.
- Adoption and approval of the SYR and its SPM will take place by end of October 2014 to allow making available an advanced copy of the longer report and the SPM of the AR5 SYR prior to the UNFCCC COP 20.
- The Panel invites the UNFCCC to consider holding COP 20 as late as possible in order to allow sufficient time between the SYR approval Session and its availability for UNFCCC COP 20.
- Printing, Translation and Distribution of the AR5 should be ready in February or March by early 2015.

Management of the SYR

The IPCC Chair will chair the writing team and provide overall guidance to the development of the SYR. The management of the SYR will be considered at a future plenary.

IPCC TRUST FUND PROGRAMME AND BUDGET

Decisions taken by the Panel at its 32nd Session

Based on the recommendations of the Financial Task Team, the Panel:

1. Thanked the Secretariat of IPCC for the Statement of contributions and expenditure as of 30 September 2010, as contained in document IPCC-XXXII/Doc.3/Add.2.
2. Approved the modifications proposed by the Secretariat to the 2010 budget:
 - postponement of 3 meetings to 2011
 - reduction from 65 journeys to 57 journeys for WGI AR5 LA 1
 - addition of budget line for external audit.
3. Approved the 2011 budget with the following additions: one day for the 33rd Session of the IPCC, one SRREN CLA meeting to deal with consistency, a budget line for external audit and 25 trips to cover travel costs of the 4 Task Groups established to implement the recommendations of the IAC Report.
4. Noted the 33rd Session of the IPCC may be held separately from the WGIII Session for accepting and approval of SRREN.
5. Noted the forecast budget for 2012 and the indicative budget for the two following years 2013-2014, up to the end of the Fifth Assessment cycle, as proposed in IPCC-XXXII/Doc.3 and the need to align the budget with any matters arising from Panel decisions in relation to the IAC report at the 33rd Session of the IPCC.
- 6a. Requested that the IPCC Chair write to the Secretary General of WMO to stress the importance of effective and efficient travel arrangements for the conduct of IPCC business.
- 6b. Called on developed country members of the Panel to be prepared to pay the travel costs for experts from their country as has been practiced in the past.
7. Requested that the Secretariat maintain a list of all in-kind activities, to the extent feasible, (e.g, TSUs), as an appendix to future budgets so as to improve the transparency and completeness of the IPCC Programme and Budget.
8. Requested the Secretariat to maintain a list of underlying costing assumptions as an appendix to future budget documents so as to improve transparency and completeness.
9. Requested that the Secretariat provide a strategic program and budget presentation to the Financial Task Team at the 33rd Session of the IPCC that examines projected income, project budget and project expenditure by source for the duration of the Fifth Assessment cycle.
10. Expressed its gratitude to the WMO and UNEP for their contributions to IPCC Trust Fund and for financing one position each, and to WMO for hosting the Secretariat.
11. Expressed its gratitude to governments, including those from developing countries, for their generous contributions to the IPCC Trust Fund, with special thanks to governments which support the TSUs and a number of IPCC activities, including data centres, meetings and outreach actions.

12. The Panel noted the importance of ensuring alignment of the programmes with the budget across the Fifth Assessment cycle. The budget of 2011 is increasing and will exceed CHF 10,000,000. The Panel noted the pressures of resource needs on the budget will increase along the course of the Fifth Assessment period and any financial implications that may arise from the IAC report. The Panel requests that countries maintain their generous contribution in 2010 and 2011 and invites governments, which may be in a position to do so, to increase their level of contributions to the IPCC Trust Fund or to contribute in case they have not yet done so. The Panel requested that the Chair and Secretariat work closely with governments to seek contributions by conducting fundraising efforts and report back to the 33rd Session of the IPCC.

TABLE 5

2010 REVISED BUDGET ADOPTED BY IPCC-XXXII

Activity	Purpose	DC/EIT support	Other Expenditure	Sub-total
Governing bodies				
IPCC-32	programme and budget	540,000	210,000	750,000
3 days	various	120 journeys		
Bureau	2 sessions and	351,000	125,400	476,400
4 days	consultations	78 journeys		
TFB	1 session	40,500	6,075	46,575
		9 journeys		
SBSTA/COP/JWG		67,500		
and other UN meetings		15 journeys		67,500
SUB-TOTAL				1,340,475
Lead Authors, scoping and expert meetings for reports agreed by Panel				
WG I AR5	CLA/LA meeting	256,500	38,475	294,975
LA 1		57 journeys		
WG II AR5 *	CLA/LA meeting	472,500	70,875	0
LA 1		105 journeys		
Scoping meeting for AR5 SYR		180,000	27,000	207,000
		40 journeys		
Sea level rise/ice sheet workshop	AR5 workshop (WG I)	180,000	27,000	207,000
		40 journeys		
Multi Model Climate Projections	AR5 expert meeting (WG I/II)	72,000	10,800	82,800
		16 journeys		
Expert meeting on ocean acidification *	expert meeting (WG II)	135,000	20,250	0
		30 journeys		
Expert meeting on human settlements *	expert meeting (WG III)	135,000	20,250	0
		30 journeys		
Cross-WG Mtg on Art. 2	cross-WG meeting	45,000	6,750	51,750
		10 journeys		
Cross-WG Mtg on uncertainties and risks	cross-WG meeting	45,000	6,750	51,750
		10 journeys		
SRREN expert meetings and LA 3 and 4	2 CLA/LA mtgs, 2 expert mtg	706,500	105,975	812,475
		157 journeys		
SREX	2 CLA/LA meetings and	459,000	68,850	527,850
LA 2 and 3	1 expert meeting (case studies)	102 journeys		
SUB-TOTAL				2,235,600
Other scoping meetings, expert meetings and workshops				
New Scenarios	2 expert meetings	180,000	27,000	207,000
		40 journeys		
TGICA	2 meetings	63,000	9,450	72,450
		14 journeys		
EFDB Board	1 meeting	94,500	14,175	108,675
		21 journeys		
EFDB Expert meeting	2 meetings	90,000	13,500	103,500
		20 journeys		
TFI Software review	1 meeting	90,000	13,500	103,500
		20 journeys		
UNFCCC-TFI contingency		90,000	13,500	103,500
		20 journeys		
TFI Expert meetings	2 expert meetings on IPCC 2006 guidelines	180,000	27,000	207,000
		40 journeys		
Issues arising from using the IPCC 2006 guidelines		45,000	6,750	51,750
		10 journeys		
SUB-TOTAL				957,375
Other Expenditures				
EFDB maintenance	update/management			7,000
2006 GL software	software development			60,000
Outreach				400,000
Webconferences	licence and equipment			12,000
Secretariat				1,300,000
External Audit				20,000
Co-Chairs				250,000
SUB-TOTAL				2,049,000
TOTAL				6,582,450

* Postponed to 2011

TABLE 6

PROPOSED BUDGET FOR 2011 ADOPTED BY IPCC-XXXII

Activity	Purpose	DC/EIT support	Other Expenditure	Sub-total
Governing bodies				
WG III, 11th Session; 4 days	approval and acceptance of SRREN	540,000 120 journeys	280,000	820,000
IPCC-33 4 days, back-to-back with WG III	programme and budget various	270,000 60 journeys	280,000	550,000
Joint WG I/II 4 days	approval and acceptance of SR on extreme events	540,000 120 journeys	280,000	820,000
IPCC-34 2 days, back-to-back with WG I/II Session	programme and budget various	270,000 60 journeys	140,000	410,000
Bureau 4 days	2 sessions and consultations	351,000 78 journeys	125,400	476,400
TFB	1 session	40,500 9 journeys	6,075	46,575
Task Groups (4)	Implementation of IAC recommendations	112,500 25 journeys	16,875	129,375
SBSTA/COP/JWG and other UN meetings		67,500 15 journeys		67,500
SUB-TOTAL				3,319,850
Lead Authors, scoping and expert meetings for reports agreed by Panel				
WG I AR5 LA 2	CLA/LA meetings	256,500 57 journeys	38,475	294,975
WG II AR5 LA 1* and 2	CLA/LA meetings	936,000 208 journeys	140,400	1,076,400
WG II AR5 regional expert meetings	to support part B of WG II	450,000 100 journeys	67,500	517,500
WG III AR5 LA 1	CLA/LA meeting	486,000 108 journeys	72,900	558,900
Expert meeting on economics, costing	WG II & III	135,000 30 journeys	20,250	155,250
AR5 cross cutting issues and SYR	expert and SYR CWT meetings	180,000 40 journeys	27,000	207,000
LA 4 SREX	1 CLA/LA meeting and prep CLA mtg before Session	202,500 45 journeys	30,375	232,875
SREX approval session	preparatory meeting CLAs, REs, Bureau members	45,000 10 journeys	6,750	51,750
SRREN	CLA meeting (consistency)	58,500 13 journeys	8,775	67,275
SRREN approval session	preparatory meeting CLAs, REs, Bureau members	99,000 22 journeys	14,850	113,850
Expert meeting on ocean acidification *	expert meeting (WG II/I)	135,000 30 journeys	20,250	155,250
Expert Meeting on Human Settlements and Infrastruc.*	Expert meeting (WG II/III)	135,000 30 journeys	20,250	155,250
Expert Meeting on Geoengineering	Expert Meeting (WG I/II/III)	112,500 25 journeys	16,875	129,375
SUB-TOTAL				3,715,650
Other scoping meetings, expert meetings and workshops				
New Scenarios	1 expert meeting	180,000 40 journeys	27,000	207,000
TGICA	2 meetings	63,000 14 journeys	8,820	71,820
EFDB Board	1 meeting	94,500 21 journeys	14,175	108,675
EFDB Expert meeting	2 meetings	90,000 20 journeys	13,500	103,500
TFI Expert meeting Wetlands	1 meeting	108,000 24 journeys	16,200	124,200
TFI Expert meeting Bottom-up Inventory Compilation	1 meeting	108,000 24 journeys	16,200	124,200
TFI Expert meeting Software	1 meeting	108,000 24 journeys	16,200	124,200
2006 GL Related Issues Japan	1 meeting	45,000 10 journeys	0	45,000
TFI Expert meeting UNFCCC Needs	contingency for 1 expert meeting	108,000 24 journeys	16,200	124,200
SUB-TOTAL				1,032,795
Other Expenditures				
EFDB maintenance	update/management			7,000
2006 GL software	software development			30,000
Publication	SRREN publication/translation			200,000
Outreach				400,000
Webconferences	licences & communication costs			50,000
Secretariat				1,400,000
External audit				20,000
SYR TSU	1 professional staff member			100,000
Co-Chairs				250,000
SUB-TOTAL				2,457,000
TOTAL				10,525,295

* Approved in 2010 but postponed to 2011

TABLE 7

FORECAST BUDGET FOR 2012 NOTED BY IPCC-XXXII

Activity	Purpose	DC/EIT support	Other Expenditure	Sub-total
Governing bodies				
IPCC-35 3 days	programme and budget various	540,000 120 journeys	210,000	750,000
Bureau 4 days	2 sessions and consultations	351,000 78 journeys	125,400	476,400
TFB	1 session	40,500 9 journeys	6,075	46,575
SBSTA/COP/JWG and other meetings		67,500 15 journeys		67,500
SUB-TOTAL				1,340,475
Lead Authors, scoping and expert meetings for reports agreed by Panel				
WG I AR5 LA 3	CLA/LA meeting	288,000 64 journeys	43,200	331,200
WG II LA 3	CLA/LA meetings	576,000 128 journeys	86,400	662,400
WG III LA 2 and 3	CLA/LA meetings	1,035,000 230 journeys	155,250	1,190,250
AR5 cross cutting issues and SYR	experts and SYR CWT meetings	180,000 40 journeys	27,000	207,000
SUB-TOTAL				2,390,850
Other scoping meetings, expert meetings and workshops				
New Scenarios	1 expert meeting	180,000 40 journeys	27,000	207,000
TGICA	2 meetings	63,000 14 journeys	9,450	72,450
EFDB Board	1 meeting	94,500 21 journeys	14,175	108,675
EFDB Expert meeting	2 meetings	90,000 20 journeys	13,500	103,500
TFI Expert meetings	contingency for 3 expert meetings	261,000 58 journeys	39,150	300,150
SUB-TOTAL				791,775
Other Expenditures				
EFDB maintenance	update/management			7,000
2006 GL software	software maintenance			6,000
Publication(contingency)	possible SR on extreme events			200,000
Outreach				400,000
Webconferences	licences & communication costs			50,000
Secretariat				1,400,000
External audit				20,000
SYR TSU	1 professional staff member			200,000
Co-Chairs				250,000
SUB-TOTAL				2,533,000
TOTAL				7,056,100

TABLE 8

INDICATIVE BUDGET FOR 2013 NOTED BY IPCC-XXXII

Activity	Purpose	DC/EIT support	Other Expenditure	Sub-total
Governing bodies				
IPCC-36 2 days	programme and budget various	540,000 120 journeys	140,000	680,000
WG I Session 4 days	approval AR5 WG I Report	540,000 120 journeys	280,000	820,000
Bureau	2 sessions and consultations	351,000 78 journeys	125,400	476,400
TFB	1 session	40,500 9 journeys	6,075	46,575
SBSTA/COP/JWG and other meetings		67,500 15 journeys		67,500
SUB-TOTAL				2,090,475
Lead Authors, scoping and expert meetings for reports agreed by Panel				
WG I AR5 LA 4	CLA/LA meeting	288,000 64 journeys	43,200	331,200
WG I Session	preparatory meeting before Plenary	45,000 10 journeys	6,750	51,750
WG II LA 4	CLA/LA meeting	576,000 128 journeys	86,400	662,400
WG III LA 4	CLA/LA meeting	553,500 123 journeys	83,025	636,525
AR5 SYR	SYR CWT meetings	180,000 40 journeys	27,000	207,000
SUB-TOTAL				1,888,875
Other scoping meetings, expert meetings and workshops				
TGICA	2 meetings	63,000 14 journeys	9,450	72,450
EFDB Board	1 meeting	94,500 21 journeys	14,175	108,675
EFDB Expert meeting	2 meetings	90,000 20 journeys	13,500	103,500
TFI Expert meetings	contingency for 3 expert meetings	261,000 58 journeys	39,150	300,150
SUB-TOTAL				584,775
Other Expenditures				
EFDB maintenance	update/management			7,000
2006 GL software	software maintenance			6,000
Publications	WG I publication/translation			300,000
Outreach				400,000
Webconferences	licences & communication costs			50,000
Secretariat				1,400,000
External audit				20,000
SYR TSU	1 professional staff member			200,000
Co-Chairs				250,000
SUB-TOTAL				2,633,000
TOTAL				7,197,125

TABLE 9

INDICATIVE BUDGET FOR 2014 NOTED BY IPCC-XXXII

Activity	Purpose	DC/EIT support	Other Expenditure	Sub-total
Governing bodies				
IPCC-37 (or 38) 6 days	Approval/adoption AR5 SYR various	540,000 120 journeys	420,000	960,000
WG II Session 4 days	Approval AR5 WG II Report	540,000 120 journeys	280,000	820,000
WG III Session 4 days	Approval AR 5 WG III Report	540,000 120 journeys	280,000	820,000
Bureau 4 days	2 sessions and consultations	351,000 78 journeys	125,400	476,400
TFB	1 session	40,500 9 journeys	6,075	46,575
SBSTA/COP/JWG and other meetings		67,500 15 journeys		67,500
SUB-TOTAL				3,190,475
Lead Authors, scoping and expert meetings for reports agreed by Panel				
WG II Session	preparatory meeting before Plenary	67,500 15 journeys	10,125	77,625
WG III Session	preparatory meeting before Plenary	157,500 35 journeys	23,625	181,125
AR5 SYR	CWT meeting and preparatory CWT meeting before Panel	135,000 30 journeys	20,250	155,250
SUB-TOTAL				414,000
Other scoping meetings, expert meetings and workshops				
TGICA	2 meetings	63,000 14 journeys	9,450	72,450
EFDB Board	1 meeting	67,500 21 journeys	10,125	77,625
EFDB Expert meeting	2 meetings	90,000 20 journeys	13,500	103,500
TFI Expert meetings	contingency for 3 expert meetings	261,000 58 journeys	39,150	300,150
SUB-TOTAL				553,725
Other Expenditures				
2006 GL software	software maintenance			6,000
EFDB maintenance	update/management			7,000
Publications	WG II/III			600,000
Outreach				400,000
Webconferences	licences & communication costs			30,000
Secretariat				1,400,000
External audit				20,000
SYR TSU	1 professional staff member			200,000
Co-Chairs				250,000
SUB-TOTAL				2,913,000
TOTAL				7,071,200



INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

**THIRTY-SECOND SESSION OF THE
INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE
Busan, 11-14 October 2010**

LIST OF PARTICIPANTS

N.B.	(H)	- Head of Delegation
	(B)	- Bureau member

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