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**CONSIDERATION OF REFINED OPTIONS PAPER PREPARED  
BY THE TASK GROUP CO-CHAIRS**

(Submitted by the Co-Chairs of the Task Group on the Future Work of the IPCC)

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## **FUTURE WORK OF THE IPCC Draft Refined Options Paper**

**Prepared for the third meeting of the Task Group on the Future Work of the IPCC**

**26 October 2014, Copenhagen, Denmark**

### **Background**

The Intergovernmental Panel on Climate Change (IPCC) is the international body for assessing the science related to climate change. It was set up in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation. The IPCC embodies a unique opportunity to provide rigorous and balanced scientific information to policymakers because of its scientific and intergovernmental nature. Participation in the IPCC is open to all governments of the United Nations and WMO. It currently has 195 members. The Panel is made up of representatives of the member countries and meets in Plenary Sessions to take major decisions. The IPCC Bureau, elected by member governments, provides guidance to the Panel on the scientific and technical aspects of the Panel's work.

Rule 7 of Appendix C to the Principles Governing IPCC Work, the 'Election Rules', requires that the *'size, structure and composition of the IPCC Bureau and any Task Force Bureau will be reviewed and amended, as necessary, by the Panel at least one Session prior to the Session at which the IPCC Bureau and/or any Task Force Bureau are elected'*.

In the past the IPCC has carried out a discussion about the future of the IPCC at the end of every assessment cycle, addressing questions such as the mandate of the IPCC Working Groups, the structure and scope of future products and scheduling of IPCC products. In undertaking this kind of review the IPCC has invited comments and input from inter alia member governments and the scientific community.

At its 37<sup>th</sup> Session (Batumi, Georgia, 14-18 October 2013) the Panel decided to set up a Task Group (TG) on the Future Work of the IPCC. The mandate of this TG is to develop options and recommendations for consideration by the Panel on:

- the future products of the IPCC,
- the appropriate structure and modus operandi for the production of these IPCC products, and
- ways to ensure enhancement of the participation and contribution of developing countries in the future work of the IPCC.

In undertaking this work the TG has held two meetings. The first meeting took place back-to-back with the 39<sup>th</sup> Panel Session (Berlin, Germany, 6 April 2014) and the second meeting was held from 16 to 17 September 2014 in Geneva, Switzerland. In accordance with its terms of reference (TOR) the TG drew from multiple sources and sought the perspectives of member governments, scientists involved in the preparation of IPCC reports, IPCC observer organizations and other relevant stakeholders, including the Technical Support Units (TSUs) and the Secretariat.

The Co-Chairs of the TG (New Zealand and Saudi Arabia) submitted their first progress report to the 39<sup>th</sup> IPCC Session (IPCC-XXXIX/Doc.15) in which they committed to draft an Options Paper for discussion at the second TG meeting. In their second progress report to the 40<sup>th</sup> IPCC Session (IPCC-XL/Doc.13) the Co-Chairs indicated that they will prepare a refined Options Paper for discussion at the third TG meeting which will be held back-to-back with the 40<sup>th</sup> Session on 26 October 2014 in Copenhagen, Denmark.

The refined Options Paper is based on the above-mentioned inputs received from member governments, scientists involved in the preparation of IPCC reports, IPCC observer organizations, other relevant stakeholders such as the Technical Support Units (TSUs) and the Secretariat, as well as on the discussions and views expressed at the first and second TG meetings, and is made available as an input for consideration by the members of the TG at their meeting on 26 October 2014.

The work of the TG will be completed by the 41<sup>st</sup> Session of the IPCC (first quarter of 2015) when a Recommendations Paper of the TG will be submitted to the Panel for its consideration and decision. The Panel will have to agree at this session on the size, structure and composition of the next IPCC Bureau, which will be elected at the 42<sup>nd</sup> Session of the IPCC (second half of 2015).

### Content of the Refined Options Paper

Following the TOR for the TG, the Co-Chairs have prepared the refined Options Paper based on areas of convergence with respect to:

- Products of the IPCC: Most countries and other stakeholders commented that the mandate of the IPCC to produce high quality, comprehensive, policy relevant and policy neutral scientific assessments on climate change remains important and appropriate.
- Appropriate structure for the production of these products and modus operandi: Many governments and other stakeholders thought that the current IPCC structure and modus operandi are adequate. A range of views were provided on how to improve the structure and functioning of the Technical Support Units (TSUs).
- Enhancement of the participation and contribution of developing countries: The submissions provided a range of ideas on how to enhance such participation, many of which would be mutually supportive.

The aim of this paper is to facilitate the discussion on different options for the IPCC, which should be in accordance with its role as described in paragraph 2 of the Principles Governing IPCC Work, stating that: *'The role of the IPCC is to assess on a comprehensive, objective, open and transparent basis the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation. IPCC reports should be neutral with respect to policy, although they may deal objectively with scientific, technical and socio-economic factors relevant to the application of particular policies.'*

Future work of the IPCC should continue to realize this role. The different options might represent different ways of implementing the role of the IPCC. Furthermore, the given options address issues in different ways and are not mutually exclusive. Some options have a bigger impact than others on the current procedures of the IPCC but might offer more

structural solutions too. All options should be considered in relation to their impact on the IPCC structure, the IPCC budget, and on the scientific community.

The refined Options Paper discusses the three elements successively. It summarizes the current practice and lists improvement options.

## I. Products, their timing and their usability

### Current situation

Since its establishment in 1988 the IPCC has produced five comprehensive assessments reports (ARs), containing a large amount of knowledge, which, in varying combinations, represent valuable assets for different countries, sectors, private enterprises, research communities, the media and the public. The Fifth Assessment Report (AR5) consists of the approved Summary for Policymakers (SPM), the Technical Summary (TS) and reports from each of the three IPCC Working Groups (WGs) and a Synthesis Report (SYR). Each WG report represents several years of work with the final products approved/accepted by the Panel over a period of about twelve months. In addition to the ARs, the IPCC produces Special Reports (SRs) on emerging issues, Methodology Reports (MRs) and Technical Papers (TPs). Most governments observed that there is great value in IPCC reports, including Special Reports (SRs) and Methodology Reports (MRs). In addition, most governments commented that the mandate of the IPCC to produce comprehensive, high quality, policy relevant and policy neutral scientific assessments on climate change remains important and appropriate. The unique value of the IPCC assessment is its comprehensiveness, thoroughness and credibility. However the challenge is that the amount of literature to be assessed and data to be analysed has grown exponentially since the first assessment was published in 1990. As the information available has increased, so has the scope of the report.

### Options for product types and their timing

Policymakers are interested in policy-relevant documents based on up-to-date information. Various ideas have been provided on how the IPCC could change its products and their timing to create reports that contain the most recent information.

The following options address product types and their timing:

- 1) Maintain the current 5-7 years assessment cycle of comprehensive ARs together with the three-stage review process, supplemented by SRs and MRs.
- 2) Maintain the current AR cycle for the physical science basis (Working Group I), with a possible modification to include also observed and projected climate change impacts, but deliver reports on mitigation and adaptation more frequently. The reports on mitigation and adaptation may be structured around thematic areas.
- 3) Make the Synthesis Report (SYR) the main product of the IPCC prepared on a 5-7 year timescale, for which the scoping on cross-cutting issues should start at an early stage.
- 4) Produce MRs or good practice guidance reports which would enable and assist countries and regions in preparing regional or national scientific assessments.
- 5) Produce more frequent updates while retaining the rigor and quality of the reports.

Most of the options mentioned above would have consequences for the demand IPCC puts on the scientific community. How the IPCC can create more frequent reports or updates without putting an unsustainable strain on the scientific community is a point for discussion. Revisiting the procedures for preparing Technical Papers to allow inclusion of new material was mentioned in this context. Others suggested the preparation of very focused Special Reports, which according to current procedures could be prepared within a two years period. Most governments stressed that changes to products or timing should not affect rigor, balance or quality of the reports. Most governments saw the alignment with the UNFCCC time schedule (for example as related to reviewing the UNFCCC global goal or to the length of “commitment periods”) as an important precondition for change. Governments broadly agreed that the IPCC continue preparing MRs for national GHG inventories

### **Options for cross Working Group collaboration**

Governments showed broad support for more effective cross WG cooperation. Several options were proposed to improve the cohesion and collaboration between the WGs.

- 1) Produce more SRs on cross-cutting issues (see also option above regarding thematic reports on adaptation and mitigation).
- 2) Produce Technical Papers (TPs) on cross-cutting themes.
- 3) Scope the SYR in a very early stage in order to create an outline by which cross-cutting issues are examined.
- 4) Enhance cooperation between WGs such as joint meetings, joint workshops, cross WGs collaboration at various levels of engagement i.e. between authors, and between Co-Chairs on various topics. Change the timing of the WG reports, to allow a gap between WG I and the other WGs to provide the other WGs with the time to incorporate the newest WG I findings into their reports.
- 5) Merge the three WGs into two thematic groups: Group I – climate change and its impacts and Group II – mitigation, adaptation and vulnerabilities (see also section on IPCC structure).

The options above address cross WG collaboration in different ways and address different aspects; they are not mutually exclusive. Before deciding on any particular option or options, it is important to understand what the underlying issues are.

### **Other issues raised:**

#### **Options to increase the readability and usability of assessment reports**

Most governments felt that the SPMs in future ARs should be more readable than the current SPMs. The following options have been proposed to improve the readability and the usability of the reports/SPMs.

- 1) Prepare the draft SPM text in consultation with communication or writing specialists and involve them in the approval session along with authors.
- 2) Consult users to gain more insight into how the IPCC might better tailor its products to user needs.
- 3) Establish focus groups on certain subjects, like figures, with participation of graphics and communications specialists.
- 4) Create new products like interactive graphics, animations, and simple models.
- 5) Use a common database or datasets during assessments.

These options are not mutually exclusive but rather suggestions on how to enhance the readability and user friendliness of the reports.

### **Options for digitalization**

The digital era allows new ways of sharing information and could make IPCC reports and the underlying data more readily accessible and user friendly. During the past and current cycles information technology has been used increasingly to facilitate access to the information contained in IPCC reports and to facilitate the preparation of reports. To further enhance the use of up-to-date IT technology the IPCC Secretariat has also submitted a concept paper as input to the TG considerations (see document IPCC-XL/INF.2 (Annex 1). Further suggestions discussed are listed below:

- 1) Make all referenced material available in an online database.
- 2) Publish the underlying datasets online to allow flexible use of the data.
- 3) Publish the reports online as a dynamic document. This would allow authors to update a topic when the evidence shifts. Producing a SYR and SPMs at regular intervals would provide governments and experts with the opportunity to conduct a thorough review of the material.
- 4) Create a centralized database of literature, which should have open access without copyright restrictions.
- 5) Having balanced sourcing from both developed and developing countries.

The implementation of some of the suggestions may be beyond IPCC control. Using hyperlinks to material that is not available due to copyrights would not yield the desired results. To deal with copyright issues, the Bureau could open a discussion with the main publishers. Publishing more underlying documents and data online facilitates the use of this data in other assessments, like regional assessments. It would also make the reports searchable in search engines like Google, which would make it a resource for a broader audience. Before deciding on any particular option or options, it is important to understand what the underlying issues and/or barriers are, for example, regarding publishing reports online as dynamic documents.

## **II. Organization of the IPCC**

### **Current situation**

The IPCC is currently organized in three WGs and a Task Force (TF). They are assisted by TSUs, which are hosted and financially supported by the government of the developed country Co-Chair of that WG/TF. Developing country Co-Chairs receive annually 50,000 CHF each for administrative and other support. The IPCC as a whole is supported by a Secretariat, which is hosted by WMO. Staff and other expenditures are funded by the IPCC Trust Fund, within the annual budget approved by the IPCC. WMO and UNEP provide one senior position each for the IPCC Secretariat. The Secretariat prepares documentation and organizes Sessions of the IPCC and its institutions (e.g. Bureau, ExCom). It manages the IPCC Trust Fund, and provides information management, outreach, and communication with IPCC members. The TSUs provide scientific, technical and organizational support to their respective IPCC WGs and support their Co-Chairs and Vice-Chairs. Broad terms of reference for Secretariat and TSUs were agreed by the Panel at its 35th Session (Geneva, Switzerland, 6-9 June 2012).

Coordinating Lead Authors (CLAs) and Lead Authors (LAs) for IPCC reports are selected by the relevant WG or TF Bureau, under general guidance provided by the Session of the WG, from experts nominated by governments and participating organizations, and other experts known from their publications. None of the authors receive payment from the IPCC.

Depending on the outcome of the discussions on the future products of the IPCC, most governments understand that the assessment cycle, structure, and organization of the IPCC will need to be aligned with that and adapted accordingly. While many governments felt such structural issues could be looked at after considering future products, several governments mentioned that the current Bureau structure, size and modus operandi were generally suitable.

No specific options were given to change the Bureau structure, other than changes that might lead to increased representation from developing countries. This issue is discussed later in the paper. Some suggestions were made regarding better defining the terms of reference (TOR) for the Bureaux, and ensuring that the selection procedure of the Bureaux is transparent.

### **Options for IPCC Structure**

These preliminary options will need to be revisited after there is more clarity on the future work of the IPCC.

- 1) Retain the current IPCC structure of the three WGs and the Task Force on National Greenhouse Gas Inventories (TFI).
- 2) Set up two WGs, namely one WG dealing with the physical science basis and impacts of climate change (combination of the current WG I and elements of WG II) and a second WG dealing with vulnerability, adaptation and mitigation (combination of the current WG II and elements of WG III). Retain the TFI.
- 3) Retain three WGs and TFI but expand the mandate of WG I to include observed and projected impacts.
- 4) Further clarify roles of the IPCC Secretariat, TSUs, and the Executive Committee (ExCom), regarding, for example, administrative, operational and general coordination matters.
- 5) Continue cooperation with other UN bodies through the IPCC Secretariat, and enhance as feasible and as required, in particular with regards to capacity building, regional assessments and identification of developing country experts.

### **Options for the IPCC Secretariat and TSUs**

These options should be read in conjunction with the section on involvement of developing countries (DCs). In general governments supported a more coherent structure with a clear division of responsibilities, which would enhance cooperation among TSUs and with the IPCC Secretariat and reduce redundancies and overlap.

The following options to achieve that were discussed:

- 1) International recruitment of professional TSU staff – selection, performance appraisal and contract extension by both Co-Chairs of a WG/TF, with involvement of the IPCC Chair and Secretary of the IPCC.
- 2) Group the TSUs with or close to the Secretariat to achieve higher coordination of administrative and operational activities, and avoid duplication of work.
- 3) A TSU could be comprised of both developing and developed country institutes and managed by the two Co-Chairs of a WG/TF. Financing could be sourced from several countries and be managed and coordinated by the IPCC Secretariat or the institutions involved.
- 4) Locate one or more TSUs in developing countries.
- 5) Lay down at the beginning of a cycle the respective roles and responsibilities, as well as reporting lines, between the IPCC Secretariat and TSUs in order to facilitate operations throughout the cycle, enhance cooperation and reduce redundancies. Details may be laid down in Memoranda of Understanding (MoUs) between the TSUs or their host organizations and the Secretariat. I.e. the Secretariat should be responsible for overall coordination, budget, meeting logistics, IT, administrative and communications/outreach tasks, while the TSUs should support the scientists in preparing their reports and support the WGs Bureaux and authors.
- 6) In order to divide the workload, SRs could have a designated TSU working in collaboration with the WGs/TF TSUs.
- 7) Have the TSUs managed by the Secretariat and under the IPCC Chair.

### **Options for selection of and support to CLAs and LAs and improving the writing and review process**

It is widely acknowledged that IPCC assessments are quite demanding on CLAs and LAs.

Options concerning the support to CLAs and LA's include:

- 1) Assist the LAs in their tasks with information technology, for instance with reference management.
- 2) Appoint full time research assistants to support the work of the TSUs and/or the CLAs.
- 3) Further enhance the use of chapter scientists to support the writing and review process
- 4) Expand the list of contributing authors.
- 5) Initiate an open (online) process to identify experts (in addition to the official government-led current practice of nominations by IPCC) to increase inclusiveness in the selection of experts.
- 6) Explore ways to broaden the review process, while managing the comments in an efficient manner.
- 7) Exploring ways to enhance collaboration with other relevant international organizations and assessment bodies (UNEP, IPBES, IEA, etc.) in producing SRs, MRs or TPs in partnership with those bodies.
- 8) Expand cooperation with regional institutes and universities from developing countries in particular.

These options are not mutually exclusive, but they all have budgetary implications.

If the IPCC decides to produce more products, the demands on the scientific community will grow. The above-mentioned options could help manage the time demands on CLAs and LAs. The selection of authors and management of the review process was extensively discussed and the Secretariat was requested to write a letter to the FPs with a questionnaire requesting them to identify the biggest challenges, as well as best practices in identifying experts and managing the review process. The point was also made that developed countries had many potential experts, but they were often too busy to offer their time to the IPCC. On the other hand, the potential experts in the developing world could not afford volunteering as they lacked both financial, human and technical resources.

### **III. Involvement of developing countries**

#### **Current situation**

For a range of reasons there is still relatively less input (including involvement of scientists and the use of non-English language literature) from developing countries into the IPCC process, despite measures that have already been implemented including Trust Fund Support for travel of developing country experts and the Co-Chairing arrangements for the WGs and TF. Additionally the IPCC Scholarship Programme supports young scientists from developing countries in their doctoral studies.

A range of suggestions has been made to improve the involvement of developing countries in the future work of the IPCC, most of which could be combined with many other suggestions. These options do not exclude the importance of a dialogue with developing countries in order to identify and analyze in depth their key bottlenecks, problems and needs that should be addressed in order to seek attainable solutions for the next IPCC assessment cycle. This paper provides options for the training and support for scientists, accessing non-English language literature and stronger involvement in the Bureaux and TSUs.

#### **Options to improve support for DC Co-Chairs, participation in the Bureaux and TSUs**

Governments and other stakeholders have made a number of suggestions that could help improve the involvement of developing countries in the Bureaux and the TSUs. Some of the options presented under IPCC structure, in particular with respect to organization of TSUs and recruitment of TSU staff are very relevant in this context. Some of these options and measures are further elaborated below:

- 1) Institutionalize cooperation between the TSUs and the IPCC Secretariat to secure professional support of the scientific assessment process, increase efficiency and effectiveness and exploit synergies.
- 2) Employ more experts from developing countries in the TSUs through international recruitment of staff. Capacity building for scientists from developing countries could happen by way of secondments at the TSUs.
- 3) Give stronger support to Co-Chairs from developing countries including hosting a TSU in one of their respective countries or locating the TSU for a WG/TF in more than one country, while exploring alternative funding arrangements e.g. by a consortium of countries.
- 4) Revise if necessary the terms of reference for the Bureaux to ensure more active participation of Bureau members from developing countries.
- 5) Give more responsibility to Co-Chairs and other Bureau members to engage developing countries in TSUs, author teams and as reviewers.

With regards to enhancing developing country involvement in TSUs a main topic seems to be how to ensure a stable financial situation. Therefore the discussion should focus on this relationship and on ways to be flexible and innovative on this topic, while ensuring clarity by the time nominations and offers for TSU support are made.

### **Options to increase developing country participation:**

Governments and other stakeholders have made a number of suggestions that could help improve the involvement of experts from developing countries in the production of IPCC reports as well as a more active involvement of developing countries in the review process and other aspects of IPCC work, such as:

- 1) Ensure a mixture of experts and provide them with adequate training.
- 2) Increase the number of expert meetings and workshops in developing countries to enhance the visibility of the IPCC.
- 3) Explore ways to broaden the nomination of authors and expert involvement in the review processes.

On many occasions the role of the FPs from DCs was highlighted in engaging experts from DCs, not only for the TSUs or the Bureau, but also when it comes to author nominations. Some countries emphasized that DCs should try to be more active at IPCC Sessions and other meetings, i.e. not only increase the number (quantity) of DC participants, but also provide a more substantive contribution to the work of the IPCC (quality support).

### **Options for accessing non-English language literature**

Governments and other stakeholders have suggested the following options to enhance the inclusion of non-English language literature in IPCC assessment reports and other products:

- 1) Establish (or use existing) regional committees or networks to improve access to non-English language literature.
- 2) Approach authors of such literature to provide expert opinion or specific inputs on particular topics.
- 3) Extend the range of MRs to support regional and national assessments and research in developing countries.
- 4) Identify, in consultation with governments and international agencies, relevant government reports and literature published in languages other than English, in particular from developing countries. A UN-based language service could assist in translating such documents and authors of such literature could be approached to provide expert opinion or specific inputs on relevant topics.

For these options, the IPCC would need to discuss what falls within its mandate and with which organizations it could cooperate to deliver better coverage of literature that is not published in English. (In general the need for accessing non-English literature was considered as important in order to produce more balanced reports. Several suggestions have been made for the IPCC to establish a common database containing this literature. The question of grey literature was also mentioned several times and the need to find ways to integrate it into IPCC assessments was stressed).

## Options for support and training of (young) scientists

Balanced author teams are a desirable element for producing a balanced assessment. To improve the participation of authors from developing countries, the following options were mentioned:

- 1) Provide more funding to young scientists in developing countries and economies in transition to participate in IPCC work.
- 2) Increase the share of young scientists from developing countries in the staff of TSUs.
- 3) Provide support for developing country scientists and experts to enhance and share regional research and knowledge as part of IPCC outreach activities. The support could include holding conferences, workshops and meetings for sharing knowledge and enhance capacity building, and partnering with academic institutions in developing countries to provide training in climate assessment (using WGs reports as learning and teaching resources in universities for example).
- 4) Develop a training programme or summer school for younger skilled researchers from DCs to participate as junior scientific staff at each TSU. (See paragraph below).

Regarding bullet point 4 above (and to some extent bullet point 3) one of the main questions that need to be answered is if educating young scientists and investing in scientific capacity and infrastructure are within the mandate of the IPCC and if the IPCC is the appropriate organization for this task. Governments have suggested that there are other organizations better suited and more experienced in this area, such as WMO, UNEP, UNESCO, the Future Earth Secretariat, and existing regional cooperation mechanisms such as the Asia-Pacific Network for Global Change Research (APN) and academic institutions. These organizations could be an essential part of practical implementation of these options, as they are already engaged in this area of work.

## Conclusion

This refined Options Paper organizes and presents options based on input by different IPCC stakeholders. It can be seen as a series of menus with options that often are not mutually exclusive, but that are interrelated and can support each other. Some suggestions on support for scientists from developing countries could also help relieve the pressure on CLAs and LAs. Opening up literature and data will make the IPCC products more accessible and usable, and would also support research in developing countries.

Some follow-up steps were suggested:

- For the IPCC Chair to send a letter to all national FPs (early 2015) requesting them to share their experience with respect to their biggest challenges encountered as well as best practices to identify experts and authors who might contribute to the work of the IPCC.
- For the Secretariat to prepare a questionnaire to be annexed to the above-mentioned letter to the national FPs.
- For the Secretariat and TSUs to exchange experience and best practices to inform future TSUs.