INTERGOVERNMENTAL PANEL ON Climate change

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FUTURE WORK OF THE IPCC

IPCC Secretariat

Synopsis of submissions by Authors, Contributing Authors and Review Editors in response to the questionnaire on the Future Work of the IPCC of 23 May 2014; Executive Heads of International and other Organizations in response to the questionnaire of 26 May 2014; and TSUs and Secretariat in response to the questionnaire of 4 June 2014

(Submitted by the IPCC Secretariat in support of the process of the Task Group on the Future Work of the IPCC)



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A. <u>What should be the future products of the IPCC</u>

1. Authors, Contributing Authors and Review Editors

Out of the 91 replies received from Authors, Contributing Authors (CA) and Review Editors (RE) the majority indicated that the IPCC should **continue to produce Assessment Reports (AR)** with a preferred cycle of every 7 to 10 years. The importance of the combination with more frequent shorter Special (topic) Reports (SR) was often stressed.

Some authors, while attaching great value to comprehensive assessment reports, stressed the need for more detailed and integrated regional assessments. One author suggested producing a mid-term report on policy and economic aspects before publication of the large AR, and a mid-term regional report with respect to adaptation. Others suggested a new form of AR, e.g. an annually updated short "status quo" report.

One author suggested having a more limited WG I report giving a global overview of new material on climate change, observational evidence from instrumentation and paleoclimate archives. There should be a new WG I-II report combining continental/sub-continental information on climate change and variability from observations and models with assessments of vulnerability and impacts. Furthermore there should be a new WG II-III report that assesses the costs of climate change impacts, adaptation and mitigation.

Many others indicated their preference for **shorter special topic reports** (SRs), sometimes in combination with the production of an AR6 Synthesis Report. One author indicated that there should be a clear shift in the reports to solutions; others indicated the importance of SRs with a regional focus.

Some authors suggested to regularly updating the Guidelines for National Greenhouse Gas (GHG) Inventories with new scientific information

The importance of more interactive websites, in order to reach the younger generation, as well as other web-based tools and videos was indicated as well by some authors. One author emphasized the importance of policy briefings and practical information.

2. Observer Organizations

Out of the 8 replies received from Observer Organizations, all but one indicated that the emphasis of the work of the IPCC should remain on the production of comprehensive ARs supplemented with occasional SRs. Some observers suggested that the IPCC should carry out regional assessments as well. One observer suggested digitalizing the available scientific information and developing web-based assessments with up-to-date information on the state of the global and regional climate.

One organization had a preference for SRs.

3. TSUs of Working Group I, Working Group II, Task Force on National Greenhouse Gas Inventories (TFI) and Synthesis Report

a. Working Group I Co-Chairs and Technical Support Unit

The IPCC should continue to produce comprehensive scientific assessment reports, which have been the cornerstone of the IPCC products and have contributed to the state of knowledge on climate change. However the amount of literature to be assessed and data to be analyzed has grown exponentially over the last 25 years, putting a burden on the scientific community and the expectation of what can be asked of those scientists that serve the IPCC in a voluntary capacity. A model could be considered in which a comprehensive report is produced over a period of 10-12 years, which would be preceded by a series of targeted cross-WG SRs. This series of SRs could include an overarching Synthesis Report and Summary for Policymakers (SPM). These additional products would be subject to the same government approval processes as are currently required for the WG Assessments, the Synthesis Report (SYR) and their SPMs.

The WGI Co-Chairs and TSU do not support proposals for fast-track assessments or continuous wiki-type updates. First, such products will not have the same high IPCC standards of scientific rigor, balance and quality. Second, they would not be different from many "assessment" products currently produced on an annual basis by other organizations. Third, the government approval process of the SPM, a key element of the success and usefulness of the IPCC for the UNFCCC and other users, would be entirely unclear in such a new mode of operation.

b. Working Group II Technical Support Unit

The IPCC should continue to produce high-quality, thoroughly reviewed reports that take full advantage of the strengths of the IPCC procedures and traditions. The distinction between ARs and SRs is no longer useful. All IPCC reports should have the same stature. The IPCC should strive to produce a steady stream of major reports, with a target of one report per year, since the current schedule is ineffective for providing information to stakeholders and a large burden on the authors, reviewers and Focal Points (FP). A stream of annual reports is proposed. The Panel should be empowered to craft a series of reports on new topics as well as of updates on established topics. Summary products should be brief and accessible. The supporting products ('full reports') should be seamlessly linked to the summary products and to the underlying literature. Each of the reports should be scoped so that a comprehensive assessment will get a manageable size (no longer than 500 pages).

c. TFI Technical Support Unit

While Methodology Reports (MR) as requested by the Panel on national greenhouse gas inventories should continue to be the central products of the TFI, the scope of the TFI work may be expanded. SRs with the WGs may need to be considered to deal with some issues relating to, for example, quantification of greenhouse gas emission reduction by mitigation measures. Periodical update/revision of the Guidelines for national greenhouse gas inventories will continue to be necessary in order to meet the needs of UNFCCC in a timely manner.

d. Synthesis Report Technical Support Unit

It is proposed to produce (1) a General climate change assessment (Physical science basis plus impact projections part of WG II) in 2018. (2) A SR on Scenarios with projections of risks, costs, trade-offs for different mitigation/stabilization pathways, and its avoided damages. (3) A Synthesis Report combining the General climate assessment and the SR on Scenarios in 2018/2019. (4) Short-cycle assessments (approx. 1-2 year of work) on for example, regional assessments; sectoral assessments; new and emerging technologies; climate and development. These should be short documents of 25 pages with max. 5 pages summaries. Another idea would be: Best/Good Practice Guidance on adaptation and mitigation policies and measures, tailored to needs of specific economies/regions (1-2 year).

The products should become increasingly web-based, made suitable for tablets and smartphones, while using interactive infographics.

4. IPCC Secretariat

The Panel will have to carefully weigh the value of regular comprehensive assessments (intervals 5-7 years) against potential benefits of releasing SRs in shorter intervals (every 2 to 3 years) a report on a different topic. The user needs, in particular of UNFCCC have to be taken into account in taking such a decision. The Panel should be aware that SRs may incorporate more up-to-date information but they would only address one aspect at a time and no longer carry the authority of presenting the latest scientific information which constitutes the "IPCC brand" and distinguishes its reports from other scientific publications and reports.

If the Panel decides to continue with the current mix of comprehensive reports prepared by each WG, supplemented by SRs, it is recommended to plan the full set of products at the beginning of the cycle to prepare for full integration and coherence.

In addition to the work carried out by the TFI, the Panel may consider to prepare other MRs as requested by members of the Panel.

B. <u>What would be the appropriate structure and modus operandi for the production of these IPCC products</u>

1. Authors, Contributing Authors and Review Editors

The majority of the Authors, CAs and REs indicated that the **current structure** of the IPCC should be maintained in order to meet the high standards for quality and integrity set by the IPCC, but that the interactions between the WGs should be improved, as well as the interactions between the authors of the different WGs.

Some indicated that for REs it is important to have a strong and well-managed TSU, and that the TSU has sufficient resourcing to provide support to authors. Another indicated that the TSU should not influence the content of the report.

One author felt that the structure of the IPCC should be better explained to the wider public. He also highlighted that CLAs, LAs and members of the TSUs should be better briefed on their respective roles before the complicated report writing processes start.

One author stressed the need for more genuine peer review of draft reports.

Another author wanted to give more power to WG Co-Chairs to define report and chapter structure, since the approved outlines by the Panel were frequently not fit for purpose, he furthermore asked to reduce bureaucracy.

Another indicated that comments and answers to comments should be more accessible on the web. One author suggested reconsidering the government review in order to reject interventions that are not based on science. Another author proposed to hire a professional graphic arts team to assist in the design of figures. One author stressed the importance to treat and respect all authors equally. CLAs should be briefed that their role is to facilitate work among peers and not to govern it. The Co-Chairs should act as equals too.

One author noted that in his chapter team there were few authors with experience in the topic (industry) and stressed the importance to select the best people.

One author suggested considering deleting one draft report from the Zero, First, Second and Final Drafts. He furthermore noted that the government stage review is effectively a government review coupled with a re-review by experts and that it would be more efficient to merge the expert and government reviews.

A few authors suggested introducing a disconnection between the current WGs and proposed to publish the "downsized" more compact WG I report two years before the newly combined WG I-II report, which would be followed two years later with the new WG II-III report. This staggered rotation would allow a new IPCC report to come out every two years, keeping the issue in the public eye, as opposed to an AR emerging about every seven years.

Some of the authors that had expressed their preference for shorter and simpler reports suggested adapting report content to the appropriate public through films, videos, multimedia and exhibitions about IPCC products. The Secretariat/TSUs could maintain databases of authors and their specific areas of expertise, which would give them the possibility to bring together author groups for specific reports. The timeframe for production could then be more rapid. The structure of author groups with CLAs, LAs and REs could remain the same with occasional in-person meetings.

One author noted that with briefer and more targeted reports, the role of the current WG structure could change and become more fluid and that other, more adaptable structures should be put in place. He furthermore noted that the IPCC should continue to increase its process of transparency. Along with consensus findings, a record of significant divergences of viewpoints among authors, if any, should be published. This would increase IPCC's credibility, understanding and acceptance by the broader public. He also suggested making the intergovernmental part of the process more accessible to accredited media, notably the plenaries where SPM wording is ironed out (author-government sessions).

Another scientist noted that authors of each report should be given more autonomy than had been accorded to chapter authors in ARs and that the role of REs had to be reconsidered as well. The prescribed role of RE, to screen the detailed review comments, is of secondary importance compared to what should be the most important task: helping the chapter authors to find the best possible logic and structure for the chapter or report.

One author noted that at SPM approval plenaries governments need to be fair in their judgment of the work of the scientists.

One author suggested having a standing panel of experts based on broad themes or topics. The plenary identifies key topics on an annual basis. Scientists from the panel are selected and conduct the assessment, with one round of expert review and one round of government review only. Another author proposed to introduce a system of self-nomination of experts to participate in the IPCC work through an open web-based system.

Another indicated that the Secretariat should be strengthened and that TSUs should be created for individual reports.

One author stressed the need to assess to which extend there has been a dominance of authors from developed countries and an overreliance on experts from English speaking countries, which made the inclusion of peer-reviewed scientific literature in other languages than English more difficult. Based on the results of that assessment, concrete policy recommendations should be made to guarantee the inclusion of peer-reviewed literature in other languages than English as many governments had already suggested.

Another indicated that the present structure for the production of SRs should remain the same.

2. Observer Organizations

Most observers noted that the current WGs structure and mandate is adequate to deliver the ARs, SRs and MRs. One observer noted that there should be better cooperation and integration between WGs and that there should be adjustments to the composition of the Bureau (number of members of the Asia Region should be increased by at least 2) and to the structure and support of TSUs (balanced representation between developed and developing countries).

Another observer suggested to constitute broad based WGs with focus on: assessing the state of the global and regional climate; ecological, social (including gender) and economic impacts of climate change; and policy supporting measures.

A number of observers stressed the usefulness of SRs as in-between ARs products, and supported the continued preparation of such SRs. A great number of possible topics were mentioned, such as economic impact of inaction, expected climate and economic impacts on a specific region, climate financing, response measures, on urban 21st century, urban-rural linkages, low carbon growth potential and related incentives-tradeoffs, or on extreme events and renewables (updates), food/water security, Arctic amplification, short lived climate pollutants. However, the preparation of shorter Special and regional Reports must maintain the same quality standards, level of autonomy and non-biased approach that is currently followed by the IPCC in the preparation of the ARs.

IPCC should improve the transparency of report texts under consideration, for example by making a file available with agreed text after each day; IPCC should consider producing an annual update of its ARs (IPIECA) and maintain a central common database with available literature with balanced sourcing of information from developed and developing countries.

Regional components of the ARs should get more attention; initiatives such as PROVIA (with UNEP and WMO support) could be a source of input. There is also the need to involve more experts from business and the energy sector in the report preparation.

3. TSUs of Working Group I, Working Group II, Task Force on National Greenhouse Gas Inventories (TFI) and Synthesis Report

a. Working Group I Co-Chairs and Technical Support Unit

The WG I Co-Chairs and TSU support the current three WG structure, but would also support the proposals for a condensed structure that would result in two WGs – one WG focusing on the physical science aspects and impacts of climate change from global to regional, and a second WG focusing on the solution space, including adaptation and mitigation.

Based on *inter alia* the input received from WG I authors and the broader scientific community, a number of changes are proposed to the modus operandi in order to ensure the continued success of the IPCC:

- Taking the sheer amount of work into account, serious consideration should be given to providing additional support for the authors volunteering their time, especially to CLAs. The provision of an assistant or post-doc for CLAs should be considered to become a standard approach in future assessments. Nominations of CLAs by governments should come with a commitment of continued support throughout the assessment cycle (financial or other).
- The expert review component has grown from a peer-review by experts to a world-wide, internet-based review without a clear definition of 'expert'. The number of comments submitted rose to an all-time high (54,677 for the WG I report, TS and SPM), of which there were many non-substantive comments which caused major frustrations to an already overburdened author team. It is proposed to amend the procedures to allow authors to not respond in detail to non-substantive comments, as well as to clarify the criteria to ensure that experts submitting a review have similar standards and scientific expertise as the team of authors.
- Throughout the WG I AR5 process, authors and REs alike have struggled with the current role of the RE. Many expressed concern with the role, questioning the general usefulness of the role as currently defined. Some REs suggested expanding their role, whereas many authors commented that the REs were more of a hindrance than a help and that some REs pushed their own views. It is suggested to discuss if the role of RE still serves its purpose.

b. Working Group II Technical Support Unit

With the proposed schedule of one report per year, each of comparable status, there should be benefits from identifying separate developed and developing country Co-Chairs for each report. This would mean shorter terms for Co-Chairs and the opportunity for more scientists to gain the

experience and recognition that come from being an IPCC Co-Chair. There should also be a separate set of Vice-Chairs for each report, thus replacing the current WG Vice-Chairs in the Bureau. The Co-Chair from the developing country should get top-level science support. The Trust Fund should secure at least one scientist to be co-located with the developing country Co-Chair. Developed country Co-Chairs should continue to be supported by a science team funded by their country. With shorter term tenure for each Co-Chair, there would be real advantages to centralizing some of the operational and logistical aspects of the work of the TSUs in the Secretariat, such as meeting logistics, figure preparation, web-sites and publication production.

All CLAs should be supported by a co-located post-doc level scientist working on the chapter. Developed countries should support post-docs for their CLAs. The Trust Fund should support postdocs for CLAs from developing countries or from countries with economies in transition. In the early stages of the preparation of each report there should be a briefing/training for CLAs.

c. TFI Technical Support Unit

The current procedures for the preparation, review, acceptance, adoption, approval and publication of IPCC reports, as contained in Appendix A to the Principles Governing IPCC Work, worked well for the production of TFI reports such as the 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, and the 2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol. However, it is felt that there is room for improvement of the procedures with respect to the production of MRs which are different in nature from ARs and SRs, especially with respect to the review process.

d. Synthesis Report Technical Support Unit

The proposed General climate change assessment should be produced by a WG Natural Sciences assessment (combination of WG I plus impacts part of WG II). A WG Adaptation and Mitigation for products proposed by the TSU of the Synthesis Report (see section A. III.d. above).

4. IPCC Secretariat

After 25 year it would be prudent to thoroughly review the current mandates of the WGs and adjust scope and mandate with a view to enhance cooperation and coherence among the WGs and scientific disciplines. The Panel may wish to consider an adjustment of the mandates of the three WGs or a restructuring by e.g. only having two WGs. A recurring issue is the coordination between WGs and the coherent treatment of cross-cutting issues. Additional efforts and potential changes in governance and management are required to enhance the coordination and coherence throughout the assessment cycle.

The terms of reference of Bureau members are rather general. The Panel may wish to define them better, e.g. with regards to reaching out to the scientific community in regions or taking care of cross-cutting matters.

The Executive Committee (ExCom) should deal less with administrative and general coordination matters, and should instead focus more on scientific and technical matters of cooperation and coordination.

The Panel may wish to consider how to enhance the involvement of IPCC observer organizations, including identification of experts and literature and dissemination of IPCC knowledge, in particular in developing countries.

The only permanent structure with institutional memory and legitimation as UN office is the IPCC Secretariat. TSUs and other help are of a temporary nature and are hosted by governments or research institutions. In the current cycle TSUs had a number of staff members which dealt with administrative and operational activities which are normally carried out by the Secretariat. This led often to duplication of work, lengthy coordination and interventions by the Secretariat to ensure that IPCC and WMO rules are duly observed. There should be a clearer delineation of roles and responsibilities between the Secretariat and the TSUs, which prime function is to support the scientists in preparing the reports and provide scientific support to the WG Bureaux and authors. Currently TSUs are financed by governments of the developed country Co-Chair and the TSU of

the Synthesis Report by contributions from a few countries. The Panel may consider ways to improve support to all Co-Chairs and agree on specific guidance on how a TSU should be established and managed.

The following suggestions might be considered:

- The hosting of a TSU by developing countries or a consortium of countries, possibly even involving developed and developing countries should be encouraged and facilitated.
- The vacancy for the post of TSU Head and professional staff should be announced internationally. The TSU Head should be selected jointly by the WG/TFB Co-Chairs, the IPCC Chair and the Secretary. All other staff should be selected jointly by the Co-Chairs. UN core competencies and values, such as respect for diversity, should be included in the selection criteria. For the performance appraisal of the TSU Head the views should be sought from the Co-Chairs as well as from the IPCC Chair and Secretary.
- It is suggested to align the job description, classification and titles of TSU staff with those used in the UN system.
- A Memorandum of Understanding (MoU) between the TSUs or their host organizations and the IPCC Secretariat should clarify respective roles and responsibilities and facilitate operations throughout the cycle.
- An 'Operations Committee' chaired by the Secretary of the IPCC should be installed to discuss administrative and other matters of coordination to facilitate the cooperation. It could meet more often at the beginning of the assessment cycle and later only as required.
- A coherent IPCC information and IT environment (see Annex 1 to the Secretariat submission in the collation document for the second meeting of the Task Group).

C. <u>Ways to ensure enhancement of the participation and contribution of developing</u> <u>countries in the future work of the IPCC</u>

1. Authors, Contributing Authors and Review Editors

One author noted that there is significant involvement of developing country LAs. Some of them are good researchers, but they often suffer because of lack of resources and opportunities. They face barriers such as limited access to the scientific literature etc. It is necessary to try to identify the high quality researchers from developing countries in the process and support their work.

Others stressed the importance that the IPCC should continue to actively recruit developing country researchers and subsidize their travel and other key aspects of their participation. Others suggested that the richer developing countries should contribute to the IPCC Trust Fund and cover the cost of LAs from these countries themselves. In selecting authors, the focus should be on the academic merit and English language skills rather than geographical balance.

One author noted that it was more important to have developing countries' involvement in plenaries than in the process of assessing scientific literature. In the plenaries they are generally silent. This should be strengthened through awareness raising and capacity building, as is done for UNFCCC negotiations.

Another suggested bringing in younger scientists from developing countries during the report writing process to do special post-doc authorship terms with established authors.

Some authors remarked that unfortunately many of the participants from developing countries had a difficult time contributing as extensively to the report as those from wealthier countries, and that it was unfortunate but true that many of the developing country participants had less experience working in a fast-paced egalitarian English language environment at the leading edge of science and often lacked the confidence to make themselves heard and contribute. A possible solution might be to hold regional 'pre-meetings' with developing country authors in which they practice working in the IPCC style. Others suggested other capacity building and training sessions as well.

One author remarked that this is a difficult topic as the best scientists are needed to write the reports and that per definition developing countries have few of them. Some were imposed on the chapters to attempt to be inclusive, but if they did not have the appropriate background they could not contribute very much. Another author noted that although participation of developing countries

is required, in most of these countries the level of climate science is not high enough to participate in WG I, but they could participate in WG II and III.

Another author mentioned that it could be a target of bringing at least 33% of members in each chapter from developing countries. One author noted that there should be a commitment of richer countries for capacity building in developing countries together with funds for networking for participants from developing countries (travel, conference attendance).

E-technology could be used for virtual conferences involving partners from developing countries. One author suggested that the IPCC should reinstate the parallel process of self-nomination of authors for the AR6. This process was done for the AR4. Some (possibly many) developing countries have no proper process of nominating authors; to some extent the problem lies with the national Focal Point. Thus it is necessary that the announcement for self-nomination of authors be made on the IPCC website and other scientific networks.

One author recommended setting up a special task team with strong representation of developing country authors to discuss this important topic.

Another author suggested, apart from Trust Fund support for developing country authors and training and guidance for CLAs, to have a TSU hosted by a developing country.

2. Observer Organizations

All observer organizations supported the idea of a strong participation of developing countries in the work of the IPCC. Some of the suggestions mentioned were the following:

- Strengthened support for developing country Co-Chairs (e.g. through co-hosting and hosting of TSUs in developing countries).
- Support for developing country Bureau members and authors.
- Ways and means to utilize and enhance involvement of Bureau members and Co-Chairs from developing countries in their respective regions.
- Access to literature and facilitation of assessment of literature in languages other than English.
- Ways to contribute to capacity building and knowledge sharing in developing countries, including expansion of the IPCC Scholarship Programme.

One observer suggested that the IPCC should identify scientific institutions and organizations in developing countries. These could act as regional nodes for fostering and facilitating the participation and contribution of the scientific community from developing countries. Some of these regional nodes could serve as TSUs in the preparation of specific reports on topics of regional interest.

3. TSUs of Working Group I, Working Group II, Task Force on National Greenhouse Gas Inventories (TFI) and Synthesis Report

a. Working Group I Co-Chairs and Technical Support Unit

The participation and contribution of experts from developing countries is a key component of the IPCC. The WG I Co-Chairs and TSU would seek early and more involvement by experts from developing countries. In order to get more participation from these experts, an increased involvement by the Focal Points is needed. The additional participation by Focal Points in all steps of the IPCC assessment process from scoping to nominations and from reviewing to outreach would significantly and immediately increase the participation and contribution of developing country experts.

b. Working Group II Technical Support Unit

The Trust Fund should support a scientific position (postdoc-level or above) plus administrative assistance for the developing country Co-Chair, as well as for each CLA from a developing country or economy in transition. The shorter 3-4 year tenure for Co-Chairs should improve the attractiveness of being a Co-Chair. Author nominations should be considered by relevant scientific organizations. Furthermore the IPCC should raise funds for a competitive fellowship program that

would allow some developing country authors to arrange for a few months of salary, so that they can take time away from their regular jobs to focus on their contribution to the IPCC.

c. TFI Technical Support Unit

It is highlighted that a relatively high level of participation and contribution of experts from developing countries has already been attained in some TFI activities (e.g. the Editorial Board of the Emission Factor Database). Sometimes the TFI experienced difficulties in their communications with the IPCC Focal Points of developing countries. Regular communication between the Secretariat and the Focal Points will be necessary in order for the Secretariat and the TSUs to have an updated list of national Focal Points. Furthermore the establishment and regular update of a roster of experts who are potentially available for IPCC work was suggested.

d. Synthesis Report Technical Support Unit

Develop and implement summer schools (training programmes, courses) for young scientists from developing countries, aimed at increasing the number of LAs in IPCC products. These courses could entail: how to do a scientific assessment in the science / policy interface; how to deal with broad ranges of views and uncertainties; improve writing, communication and presentation skills. Courses could be hosted by existing universities / scientific institutions. Funds need to be raised.

4. IPCC Secretariat

Chapter scientists played an important role in the recent AR5 and the continuation is encouraged in a way that ensures that they really serve all CLAs and LAs. Ways to engage more young developing country scientists in this role should be sought, either through IPCC Trust Fund support, a dedicated fund or other arrangements. The terms of reference of Bureau members might be amended to highlight and strengthen their role to reach out in their regions and identify authors and reviewers, relevant literature and institutions, and to organize outreach and communication events.

IPCC expert meetings and workshops could be organized to gather information in areas and regions, including where there is not sufficient information in the peer reviewed literature. Such meetings can offer an efficient way to allow experts from developing countries to present their knowledge and contribute to the IPCC process. Conducting workshops in other languages than English could enhance the effectiveness in gathering regional information. In addition to expert meetings/workshops, capacity building meetings could be used to enhance developing country participation. These meetings could be carried out by or in cooperation with partner organizations, from within the UN family or IPCC observer organizations.

The IPCC Scholarship Programme, including an alumni network involving past and current scholars and IPCC authors, may become an efficient instrument to encourage young scientists from developing countries to get involved in IPCC work.

D. Other matters

1. Authors, Contributing Authors and Review Editors

A number of different opinions and views were expressed such as:

- The IPCC has become so concerned about the scientific validity of its reports, that although they are technically correct, they have very little capacity to be digested and discussed among non-scientists (including policymakers). The IPCC should reconsider its directives regarding report content and language.
- Holding meetings in exotic and hard-to-reach places is embarrassing. The IPCC could greatly reduce its carbon footprint (and costs in time and money) if meetings were held in central locations with major airports. However, another author found this an incentive since all the work is done on a voluntary basis.

- The format of the Plenary sessions should be reconsidered. Some authors were disappointed about the antagonistic, constrained and unconstructive manner in which the discussions took place. One author remarked that the recent approval of the SPMs seems to have been more subject to politics than before. Another remarked that in his view (he attended since 2000) Plenaries have become more politicized. They were more about ensuring that the science was correct, but increasingly appear to being used to position national interests for forthcoming UNFCCC COP negotiations. Another expressed concern about the removal of some graphics during approval Plenaries of two SPMs (WGs II and III) and proposed that graphics should be communicated well in advance beyond the current process of review of SPM drafts. One author suggested replacing the current SPM by a scientific summary of the CLAs.
- Improve the Conflict of Interest (COI) disclosure process. Since the recent introduction of the COI policy, the reporting should become more transparent by making the completed COI forms available to the public.
- IPCC needs to remain the authoritative voice on climate related issues. This monumental assessment institution is a remarkable invention, but it must not become a dinosaur. It cannot be allowed to become too large and unwieldy. In the early days short, insightful technical reports were produced that filled a gap. The organization needs to become more agile and be able to respond to criticism and correct errors or unclear statements rapidly.

2. Observer Organizations

A number of different opinions and views were expressed such as:

- Enhancement of cooperation with UN bodies and other relevant international organizations. Include both human-induced and natural climate change phenomena in IPCC's work, including their interactions.
- Recognize the IPCC as a boundary organization between science and policy and stimulating the science-policy debate, it has also the potential to become a science public boundary organization.
- Further develop and communicate IPCC Principles and Procedures, including guaranteeing scientific integrity, transparency throughout the whole assessment cycle and publication process, as well as user-friendliness.
- Ensure clarity and widespread agreement on the role of the IPCC and its position in the UN system, as well as the role of civil society and other stakeholders in its work.

3. TSUs of Working Group I, Working Group II, Task Force on National Greenhouse Gas Inventories (TFI) and Synthesis Report

a. Working Group I Co-Chairs and Technical Support Unit

On 25 April 2014, the WG I Co-Chairs and TSU invited all WG I CLAs, LAs and REs to complete an online questionnaire about their experience of working on the WG I contribution to the IPCC AR5, their views on the scope, size and frequency of IPCC ARs, the scale of the task, the assessment process itself and cross-WG interactions. It was anticipated that the results and feedback received would not only provide valuable learning for the next IPCC Co-Chairs and TSUs working with the WG I community, but also help inform the work of the Task Group on the Future Work of the IPCC. A synopsis of the results that highlights the common themes and key conclusions is provided as an Appendix to the WG I Co-Chairs and TSU submission that can be found in the collation of comments prepared for the second meeting of the Task Group. The synopsis of results contains a number of other matters that are supported by the Co-Chairs and TSU of WG I.

b. Working Group II Technical Support Unit

IPCC leadership: the IPCC should consider shifting from a single Chair to a model with more sharing of leadership. A possible model is two Co-Chairs, one coming from a developed and another from a developing country. Another model could be a sequenced leadership, with a Chair, past Chair and Chair-elect. In these models it is not necessary to preserve the posts of IPCC Vice Chairs. The ExCom should continue to be composed of the Chair (or Co-Chairs, or Chair, past Chair and Chair-elect) plus the WG Co-Chairs, and (if maintained) the IPCC Vice-Chairs. With a new set of report-specific-vice-chairs for each report, there will automatically be some level of annual turnover in the Bureau, which will broaden participation and sustain historical memory. The Secretary of the IPCC should report to the ExCom, which will make recommendations concerning salary and retention.

The role of TGICA should be reconsidered.

c. TFI Technical Support Unit

No comments.

d. Synthesis Report Technical Support Unit

No comments.

4. IPCC Secretariat

No comments.