

ipcc

INTERGOVERNMENTAL PANEL ON climate change

FORTIETH SESSION OF THE IPCC
Copenhagen, Denmark, 27-31 October 2014

IPCC-XL/Doc. 11
(25.IX.2014)
Agenda Item: 11.5
ENGLISH ONLY

OTHER PROGRESS REPORTS

IPCC carbon footprint: taking stock and moving forward

(Submitted by the IPCC Secretariat)

IPCC Secretariat

c/o WMO • 7bis, Avenue de la Paix • C.P. 2300 • 1211 Geneva 2 • Switzerland
telephone : +41 (0) 22 730 8208 / 54 / 84 • fax : +41 (0) 22 730 8025 / 13 • email : IPCC-Sec@wmo.int • www.ipcc.ch



OTHER PROGRESS REPORTS

IPCC carbon footprint: taking stock and moving forward

INTRODUCTION

The United Nations, its Programmes and its Specialized Agencies are enhancing efforts to reduce the environmental impact of their activities. Overarching initiatives such as “Greening the Blue”, under the leadership of the United Nations Environment Programme (UNEP), the Sustainable UN Facility and the “UN Climate Neutrality Strategy” developed by the UN Environment Management Group (EMG), are particularly relevant in this context. Other international organizations such as The World Bank are also stepping up their efforts towards greening their operations. In all cases, initiatives to reduce the carbon footprint of the respective organizations are a prime focus of interest. For more information on relevant UN-wide initiatives please see www.greeningtheblue.org.

At the 37th Session of the IPCC the Secretariat submitted a discussion paper (IPCC-XXXVII/Doc.10) which included an analysis of the CO₂ emissions resulting from travel of participants to a range of representative IPCC meetings in different locations around the world. The discussion paper identified five areas of priority action for IPCC to reduce its own carbon footprint:

1. The impact of meeting venue on the IPCC’s carbon footprint.
2. The use of electronic meetings in the IPCC.
3. Green meetings checklist for all future IPCC meetings.
4. Expanding the paper-smart system and steps to going paperless.
5. Offsetting carbon emissions to the extent possible.

IPCC-37 agreed that the Secretariat would continue studying and mapping out options and alternative models to reduce the carbon print of IPCC activities, taking into account the views expressed by Panel members, and that the Panel would eventually decide how to move forward on this subject when there is more clarity on the next steps.

PROGRESS ACHIEVED SO FAR

At the 39th Session of the IPCC the Secretariat submitted a progress report entitled “Update on options and measures to reduce the carbon footprint of IPCC activities” (IPCC-XXXIX/Doc.8). This progress report identified three areas where the IPCC is making progress in greening its operations:

- The use of teleconference technologies for technical meetings and meetings of the Executive Committee.
- Reducing the use of paper (including paper-smart meetings, online registration system, document management system and distribution of publications).
- Use of back-to-back meetings and other means to further reduce travel-related emissions.

Progress in these three areas has continued since the 39th Session of the IPCC.

AREAS REQUIRING FURTHER ATTENTION

In spite of the ongoing efforts enumerated in the previous section, the progress report submitted to the 39th Session of the IPCC (IPCC-XXXIX/Doc.8) identified some areas which require further attention:

1. With well over 1,000 trips per year in the current assessment cycle, IPCC’s travel-related emissions, including from Trust Fund supported travel, constitute the bulk of its carbon footprint. The following topics are related to this:

- a. Further expanding the use of electronic media for meetings (tele and videoconferencing).
 - b. Further enhancing the use of back-to-back meetings whenever possible.
 - c. Further enhancing the development of electronic workspaces for authors to facilitate access and discussion of documents, preferably on an IPCC wide applicable platform.
 - d. Considering carbon footprint criteria when selecting location and venue for meetings (see IPCC-XXXVII/Doc.11, page 3) and offsetting carbon emissions arising from IPCC activities¹.
2. The use of facilities, services and operations related to the organization of meetings such as conference services, local transport, catering and hotels have also a carbon footprint. Making use of a “green meetings checklist” (see IPCC-XXXVII/Doc.10 for examples of services which could be considered in such a checklist) could help to identify in advance potential impact and addressing them with a view of reducing the carbon footprint of the initiatives concerned.
 3. The IPCC may consider setting for itself an overall GHG reduction goal for a certain time period. In order to improve the management of its carbon footprint, the IPCC would need to improve its own emissions estimates. As there is no internationally agreed methodology in this field the IPCC may consider developing its own methodology.
 4. Some UN agencies have chosen to incorporate considerations regarding energy use, hazards risks, impacts on biodiversity and environmental health in their operations. Beyond Greenhouse Gasses (GHG), the scope of environmental management in the UN is now growing to include waste generation and water consumption. The IPCCV may consider to reflect these parameters in its goals

CONCLUSION

In his 2014 message on a Climate Neutral UN, the UN Secretary-General refers to the 5th Assessment Report of the IPCC as “a stark reminder of the need for urgent action on climate change and calls for continuous effort to promote sustainable operations, reduce GHG and move towards climate neutrality”.

The Panel is invited to provide further advice on the options identified in its Progress Report to the 39th Session (IPCC-XXXIX/Doc.8, attached as **Annex 1** for easy reference) and in particular the topics mentioned in this paper, with a view to enable the IPCC to take a proactive role regarding the basic actions recommended in the UN’s overall strategy: measure, reduce and offset. In this regard in 2011 the UN Environment Management Group (EMG) released UN guidelines for offsetting agreed by all the members of the EMG (47 UN organizations). The IPCC Secretariat invites the Panel to also consider in particular the following:

- Conducting a comprehensive carbon footprint analysis of the IPCC.
- Developing an IPCC internal strategy with clear GHG goals, targets and timeframes, including the goal of making IPCC meetings carbon neutral.
- Agreeing on budgetary requirements to achieve the above.

¹ The 4th meeting of the Issue Management group on Sustainable Management (group within the EMG structure), with a view to implementing the Statement of the UN Chief Executives Board for Coordination, « Moving towards a climate-neutral United Nations » (CEB/2007/2), recalled that UN organizations should undertake an ambitious programme aimed at first reducing GHG emissions and only consider purchasing carbon credits as a last resort. They should avoid attempting to achieve climate neutrality simply by going straight for the purchase of carbon credits.

- Considering carbon offsetting as an additional top-up initiative but not as an alternative to reduce GHG emissions and in this context requesting the Secretariat to study the feasibility of joining the offsetting program currently being undertaken by UNEP.

ipcc
INTERGOVERNMENTAL PANEL ON climate change

**THIRTY-NINTH SESSION OF THE IPCC
Berlin, Germany, 7 - 12 April 2014**

IPCC-XXXIX/Doc. 8
(7.III.2014)
Agenda Item: 9.4
ENGLISH ONLY

PROGRESS REPORTS

Update on options and measures to reduce the carbon footprint of IPCC activities

(Submitted by the IPCC Secretariat)

PROGRESS REPORTS

Update on options and measures to reduce the carbon footprint of IPCC activities

At its 37th Session in Batumi, Georgia (14-18 October 2013), the IPCC discussed the issue of reducing the carbon footprint of its activities. It was agreed that the Secretariat would continue studying and mapping out the options and alternative models to reduce the carbon footprint of IPCC activities and that the Panel would eventually decide how to move forward on this subject when there is more clarity on the next steps. The purpose of this progress report is to provide the Panel with information on what has already been done to reduce greenhouse gas (GHG) emissions at the IPCC and to serve the discussion on how the organization should proceed on a number of options to reduce the IPCC's carbon footprint in the future.

The Secretariat seeks guidance from the Panel on how to proceed on this matter, including considerations of resource implications.

Part I: Update on measures to reduce the carbon footprint of IPCC activities

Existing efforts to reduce the IPCC's Carbon Footprint

The following activities have been pursued at the IPCC in recent years:

1. Use of electronic meetings at the IPCC

The primary area of reduction in the recent past has come from increasing the use of electronic, as opposed to in-person meetings, primarily from using WebEx teleconferences. The IPCC now undertakes electronic meetings for its Executive Committee meetings and smaller author meetings, and has been increasing electronic access to individuals who request it for Lead Author meetings and TGICA meetings, among others. Most 5th Assessment Report (AR5) chapter meetings are also held via WebEx in place of in-person. Press conferences are also increasingly held electronically.

2. Reducing the use of paper at the IPCC

The IPCC has made great efforts in the AR5 cycle to reduce its consumption of paper. The IPCC started to implement paperless meetings in 2013, including most notably paperless plenary sessions since September 2013. The IPCC WGI-12 and IPCC-36 sessions (Stockholm, Sweden, 23-26 September 2013), using the papersmart system developed by the Secretariat IT Officer, was very successful and led to a papersmart IPCC-37 meeting in Batumi, Georgia. The same system will be used in plenary sessions in 2014. All documents for Bureau and Plenary sessions are now made available only electronically. In addition to this the IPCC is now implementing paperless registration systems for its Plenary and Bureau meetings.

The Synthesis Report (SYR) Technical Support Unit (TSU) uses the same papersmart system developed by the Secretariat for their meetings. Their estimate is that it has led to a reduction of 80-90% in the amount of printed paper compared to the AR4 Lead Author (LA) meetings. Other TSUs apply similar technologies that reduce the use of paper significantly. All the Working Groups (and the TFI) have authors' portals and provide meeting materials on electronic media to authors/participants rather than the printed "Conference Volume" of earlier LA meetings. WGI and WGII use Knowledge Tree, whereas the SYR team uses the IPCC Document Management System, and WGIII has a "Figures Database" which they use to design and approve figures via electronic workflow. Finally, TFI is using memory sticks and a closed website for distribution of meeting materials to reduce paper use.

The IPCC also increasingly provides memory sticks instead of hard copies of its reports at UNFCCC meetings and other events, as well as memory sticks or CD-ROMs by mail when reports are requested. However, it is still our policy to provide, on demand, hard copies of the Summaries

for Policymakers, Technical Summaries, Synthesis Reports and Technical Papers in English and in other UN languages, and CD-ROMs of the full reports, free of charge from the IPCC Secretariat. WGI and Cambridge University Press have decided it would be obsolete for the AR5 to include CD/DVDs in the back of the published books for the Fifth Assessment Report. This decision was based on current publishing practice/usage and the additional cost, time and resources needed to produce something that in the majority of cases would not be used. All the information that would be on a CD is on the website and CDs are provided for the very limited number of users who request one because they cannot download the report from the website.

3. Use of back-to-back meetings and other means to further reduce travel-related emissions

In addition to the increased use of electronic meetings leading to reductions in travel-related emissions, and the reduction in emissions due to lower paper use at the IPCC, further reductions compared to the past assessment period are presumably coming from holding increasingly more back-to-back meetings. Finally, reductions from travel-related emissions in the 5th Assessment cycle may be coming from the increased use of closed websites for author access to and discussion of documents and other resources, although this is difficult to measure.

4. Looking into optimizing the location of IPCC meetings

In 2013, the Secretariat reported to the Panel on the IPCC's carbon footprint and in particular presented an analysis regarding the relevance of the location of IPCC meetings on GHG emissions. This generated further interest in looking at options to cut the IPCC's travel related emissions, including the option of carbon offsetting.

5. Secretariat-related GHG emissions

The IPCC Secretariat is based at the WMO headquarters in one of the greenest buildings of Geneva. According to a recent peer review of the WMO's environmental management, the WMO building's GHG emissions are among the lowest in the UN system. As the IPCC Secretariat is based at the WMO headquarters, the WMO's head-count statistics are relevant to IPCC Secretariat staff as well¹. The Secretariat will explore the possibility of requesting WMO to provide the head-count figures for the IPCC Secretariat to calculate and manage the Secretariat's own carbon footprint in the future.

Final remarks

The IPCC has made large efforts in the area of paperless meetings and increasing use of electronic meetings, however little has been done about the IPCC's travel-related emissions. Part II of this report shows that the majority of emissions come from travel, including from Trust Fund supported travel. As this is the biggest contribution to the IPCC's carbon footprint from our initial analysis, our priority should be to address these emissions in the coming year. A number of options are provided in Part II of this progress report towards this goal, as well as options to reduce emissions in other areas such as via sustainable procurement practices.

No measurement and reporting based on established methodologies is currently available for the IPCC's own activities, as the IPCC is now starting to look at this option for improved management of its carbon footprint. To fill this gap would be another suggested priority for the near future.

¹ According to the WMO peer-reviewed environmental management report, in terms of total emissions per capita, WMO has a better than average performance of 5.5 tons CO₂eq./staff, compared to the UN average of 7.9 tons CO₂/staff. WMO's building-related emissions intensity was estimated at 21 kg CO₂-eq/m² with the UN average much higher at 84 kg CO₂eq/m² (figures based on 2009 data).

Part II: Options to reduce the carbon footprint of IPCC activities

The following is a presentation of future options for the reduction of the IPCC's carbon footprint, for the Panel's consideration. This set of options considers all the emissions that the IPCC is financially responsible for (following UN guidelines on the subject), therefore they include emissions from our direct activities at the Secretariat, but also those we contribute to via the purchase of air tickets, hotels and conference facilities, etc. The following set of options is based on an initial analysis conducted at the IPCC Secretariat and informed by colleagues at IPCC parent UN agencies (WMO and UNEP) and UNFCCC Secretariat.

It would be appreciated if the Panel could provide their comments on each option, as far as possible, so as to guide further our IPCC work in this area.

A. Increasing the use of electronic meetings and back-to-back meetings

1. Holding more back-to-back meetings when possible.
2. Continuation of electronic Executive Committee and other meetings.
3. Holding more press conferences electronically (without the requirement that journalists and authors have to come to the venue of the press conference), unless back-to-back with a plenary or other event. We could also aim to procure carbon neutral video-conferencing services in the future, if possible given WMO procurement regulations.
4. Connecting more and more authors to future IPCC Lead Author meetings and upcoming Core Writing Team (CWT) meetings electronically, when requested and/or necessary.
5. Connecting more and more authors and experts to future IPCC expert meetings and workshops, when requested and/or necessary.
6. Providing the option of connecting several participants electronically (currently max. 7 people via IP videoconferencing) to the IPCC Bureau meetings, when requested. The current maximum number of participants via electronic means is based on the current technical limitations in Salle A, at the WMO premises where IPCC Bureau meetings are generally held².
7. Explore the possibility of using regional hubs for remote participation in IPCC meetings such as Lead Author meetings, expert meetings, and Bureau meetings. However, it is not clear that extensive use of regional hubs will significantly reduce the IPCC's carbon footprint as travel is still required to reach regional hubs and the technical challenges might outweigh the benefits of this option.
8. When increasing the use of video conferencing as much as possible, the IPCC should attempt to keep track of flights avoided or reduced as a result.

² The Panel already took the following relevant decisions at the 37th Session:

1) Facilitated participation of Bureau members via electronic means would be in English only.

In particular, the Panel decided to amend Principle 14 of the *Principles Governing IPCC Work* as follows:

"14. Interpretation into all official UN languages shall be provided for all sessions of the IPCC meeting in plenary, of its Bureau and its Working Groups. Should members of the IPCC Bureau or government representatives participate in a session of the Bureau via video conferencing or other electronic means the interaction with these members of the Bureau and government representatives may be in English only. Such arrangements will be subject to agreement by the Bureau, in advance of the meeting, and availability of technical facilities."

2) The Panel also decided to encourage countries and institutions hosting IPCC Bureau meetings to facilitate the use of adequate technologies and facilities which allow full remote interpretation in all UN languages as they become available.

B. IPCC's papersmart system

1. Further application and development of the IPCC's papersmart system for IPCC plenary meetings.
2. Further expansion of papersmart systems, or document management systems, across the IPCC such as for future Working Group/Task Force Lead Author meetings, Synthesis Report Core Writing Team meetings, IPCC expert meetings and workshops, and Bureau meetings, for example.
3. Further continuation of mainly web-based distribution of IPCC reports, as well as continued use of USB sticks and other electronic media for the distribution of IPCC reports, with required exceptions due to varying internet access around the world.

C. Sustainable procurement

1. In most UN entities' "Greening the Blue" plans, improvements to procurement policies and practices so as to better incorporate environmental and social considerations are either under implementation or scheduled to be introduced during the period 2012-2014.
2. Based on an initial investigation, the approximate order of importance to the carbon footprint from IPCC procurement is the following: 1) travel for Trust Fund participants; 2) travel for Secretariat staff; 3) conference services and transportation at meetings; 4) printed material such as for IPCC publications, and paper-use at meetings; 5) catering services; 6) other services such as videoconferencing and IT services. Please note that the IPCC Secretariat's building-related emissions are part of the WMO's footprint.
3. Carbon-neutral services in all the above areas could be procured by the IPCC in the future, to reduce emissions from such services that are part of regular IPCC activities. There is increasingly the option in today's markets around the world of procuring carbon-neutral conference facilities as well as hotel and taxi services, for example. However, the availability of such services may be lower in certain countries or regions.
4. Under the "Greening the Blue" work of the UN, UN agencies can now utilize a number of guidelines on green procurement, including the following: a) guidance for the purchasing of catering services was issued by the Sustainable UN (SUN) facility in February 2011; b) "Buying for a Better World", a guide to sustainable procurement, was published by UNEP, ILO, UNOPS and ITC/ILO in collaboration with the HLCM Procurement Network. The report provides advice on how the purchase of products and services can support the UN's sustainability aims.
5. Develop an internal IPCC green meetings checklist, tailored to IPCC needs, but based on the "Greening the Blue" work of the UN, via a small committee composed of interested IPCC Secretariat staff, TSU staff, and relevant WMO and UNEP staff members (for example those involved in the SUN facility mentioned above). See IPCC-XXXVII/Doc. 10 for examples of services which could be considered in such a checklist.
6. Refer to the IPCC's internal green meetings checklist when deciding on a selection of possible future meeting venues for any given future IPCC meeting. This would effectively encourage the offering and use of greener conference facilities, catering services, etc. Host governments should be assured that this will not disqualify them from hosting an IPCC meeting if all of their adequate meeting venues do not meet the minimum criteria developed. The idea is to encourage the further development of green conference facilities and services around the world, but not necessarily discourage the use of existing built infrastructure.

7. In addition to using a green checklist to guide the decision to choose a given location for an IPCC meeting, the IPCC Secretariat could also consistently encourage, assist and advise governments hosting IPCC meetings in their efforts to make these events to the greatest extent possible climate neutral. The UNFCCC has reported on their website that host governments of Climate Change talks and Climate Change Conferences since 2005 have generally been eager to work with them in this domain, and have become increasingly successful in achieving their objectives.
See: http://unfccc.int/secretariat/environmental_responsibilities/items/3539.php
8. The IPCC could add to its procurement requisitions for its major purchases, a preference for companies that are climate neutral or offer climate neutral products, such as printed material, etc., as possible in accordance with WMO procurement rules. The product can be climate neutral, or the entire company could be climate neutral.
9. Another part of this strategy or policy should be to look into what services are really necessary, and which services could be shared or otherwise lead to a reduction in emissions.

D. Optimizing the locations of IPCC meeting venues to reduce travel-related emissions

1. Further explore the impact of chosen IPCC meeting venues. The choice of venue has a major influence on the CO₂ emissions generated via participant travel to such meetings. Meetings to especially look into optimizing (in terms of a given set of participants and their origins) are: IPCC Lead Author meetings, expert meetings, and plenary meetings. See Document IPCC-XXXVII/Doc. 10 for further information about the impact of meeting venues on the total carbon footprint of any given meeting.
2. Develop an internal procedure/tool and/or policy, allowing for improved decisions regarding the IPCC's future meeting venues, taking into consideration traditional IPCC practice in this regard. In developing such a policy (tailored to IPCC needs), the IPCC could follow the guidance on Sustainable Events developed already by the UNEP SUN initiative. It should be noted that a tool has been developed already at the WMO for the analysis conducted by the IPCC Secretariat in the past year, which led to the first progress report on this subject. Meanwhile ICAO developed a very user-friendly web-based calculator that helps calculate CO₂ emissions based on information about the origin of the participants and the location of the meeting, although it is more useful for smaller meetings. Regarding an eventual policy promoting a more carbon friendly choice of locations for IPCC meetings, exceptions to such a policy would most likely have to be made in the case of venues where there are very few (or only one) possible host country option(s).
3. The above proposed internal procedure/tool/policy could be developed by a small committee of interested staff from the Secretariat and the Working Groups, and may also include other interested IPCC officials, and advice obtained from our WMO and UNEP partners, as well as any other UN agencies (such as UNFCCC) with experience in this area.
4. Using the procedure/tool/policy suggested above, make decisions on future meeting venues in consultations between both the IPCC Secretariat and the IPCC's relevant Working Group Co-Chairs.
5. While our previous study into this option appeared to recommend more meetings held at IPCC headquarters in Geneva, another option to be considered is to use the Working Group/TFI TSU home countries for some Working Group/TFI meetings, saving the need for long-haul flights at least for the relevant TSU staff members.
6. Finally, it may be noted that just like other UN entities, like the UNFCCC, it is central to the IPCC's mandate to support the intergovernmental process by arranging meetings and related travel as well as conducting work from our offices at headquarters. Therefore despite

our best efforts, there will always be a remaining balance of GHG emissions which needs to be dealt with.

E. Conducting a basic carbon footprint analysis of the IPCC

1. Sixty-three UN institutions have conducted a basic carbon footprint analysis under the UN's "Greening the Blue" initiative. IPCC emissions are currently considered under the WMO emissions as the Secretariat is located at the WMO Secretariat. The analysis is conducted by all participating UN agencies in a maximally consistent manner, based on an agreed methodology that includes all activities paid for by the organizations in the areas of (i) facilities/operations (e.g., energy consumption, refrigerants, vehicle fleets) and (ii) travel. Areas not included at present but worked on include offsite conferences funded by the organization, as well as waste generation and water consumption.
2. For more information on what the UN is doing in general to report its GHG emissions and begin activities to reduce its own emissions, see the fifth edition of the "Moving Towards a Climate Neutral UN" report (issued February 2014): www.greeningtheblue.org/resources/climate-neutrality. This report notes that the total for 2012 was 1.71 million tonnes CO₂e. About half of it was related to air travel.
3. The 2007 UN Climate Neutral Strategy commits heads of UN entities to:
 - a. Estimate their greenhouse gas emissions (GHG),
 - b. Undertake efforts to reduce GHG emissions to the greatest extent possible,
 - c. Analyze the cost implications and explore budgetary modalities of purchasing carbon offsets.
4. In 2011 the UN Environment Management Group released UN guidelines for offsetting agreed by all the members of the EMG (47 UN organizations). In 2013 the UN Chief Executives Board committed all UN system agencies to achieve measurable reductions in their environmental footprint with a special focus on facilities and operations which includes travel, procurement, etc. At the 37th session, the Panel agreed to look further into carbon offsetting options. To embark properly on this type of initiative, the first step would be to encourage WMO to continue the existing methodology supported by the UN and break the report down by department/entity. It is worth noting that the WMO peer-review report recommends that WMO apply the ERP system for tracking flights, and expenditures on flights, to store key environmental data such as emissions per flight and total emissions for departments or large meetings.
5. Another option is for the IPCC to conduct an individual carbon footprint (meaning separate from the WMO figures which are currently not yet broken down by department). However, this would come at extra cost and would have to be justified. To give an example of the cost involved in such a step, the "myclimate" performance program costs around 350 CHF/year to use their on-line based starters-analysis and reporting tool. For an individualized carbon footprint analysis, and reporting according to international standards, we obtained an estimate that it would cost around 2,000 CHF/year for the IPCC.
6. A question to look into in the future is whether the WG/TFI TSU staff is accounted for, or should be accounted for, in the numbers of their own host organizations, or whether they should somehow be accounted for with the main figures from the IPCC Secretariat and the funded participants' emission estimates, when we attempt to perform IPCC-wide carbon accounting.
7. After conducting a carbon footprint analysis for the IPCC alone, the IPCC would be able to develop its own strategy, in line with the UN's overall strategy towards a climate neutral UN.

F. Developing a target, strategy and financing

1. After conducting a carbon footprint analysis for the IPCC alone, the IPCC can develop its own strategy and in particular its own target.
2. According to the “Moving Towards a Climate Neutral UN” (2011 edition): Most organizations involved in the “Greening the Blue” initiative of the UN have identified a timeframe in which they will achieve their targets. In most cases, this timeframe is a 2-3 year period, from 2011 to 2013/14. For the majority of UN entities, emission reduction targets are based on the IPCC’s Fourth Assessment Report. However, the report points out that in most UN entities, this is being translated as between 2-5% annual reductions in total emissions. Targets are also being developed for other sustainability goals, e.g. for water and waste.
3. The IPCC could set an overall GHG reduction goal in a certain time-period. It could also set a goal for each plenary session, or major IPCC meeting. Each Working Group could also set their own goals with regards to their own activities. Finally, the IPCC could also set a goal to reduce paper waste, although the IPCC is already moving very quickly towards paperless meetings.
4. Financing measures to achieve a given target should also be addressed in the strategy developed. According to the “Moving Towards a Climate Neutral UN” (2011 edition), a variety of ways have been found to finance energy and resource efficiency measures. Examples have illustrated how a small upfront investment can result in long-term savings with a short payback period in order to obtain funds. UNEP climate neutrality is financed by a travel levy that is automatically extracted based on the GHG emissions of each travel undertaken, and goes to a climate neutral trust fund that they use to purchase GHG emissions. UNFCCC has established a similar mechanism.

G. Offsetting carbon emissions

1. At the 37th session, the Panel agreed to look further into carbon offsetting options. It was suggested to look at other UN agencies’ activities in this area.
2. One example that the IPCC may wish to model is the UNEP experience. UNEP has been carbon neutral since 2009. More information on UNEP’s experience can be found here: <http://www.greeningtheblue.org/case-study/uneps-climate-neutral-fund> and information on the UNEP/UNOPS offsetting partnership can be found here: <http://www.greeningtheblue.org/news/unep-unops-offsetting-partnership>.
3. Other experiences in the UN can be found on the following website: <http://www.greeningtheblue.org/what-the-un-is-doing> and further resources can be found here: <http://www.greeningtheblue.org/resources>
4. Advice on carbon offsetting options is available from the UN’s Issue Management Group (IMG). Since 2007 the work of implementing the strategy has been undertaken by the IMG on Environmental Sustainability Management, which is composed of individual Focal Points, each representing a different UN entity. The IMG reports to the UN Environment Management Group (EMG) and is supported by UNEP’s Sustainable United Nations (SUN) facility. Someone from the IPCC could be appointed to occasionally join the relevant IMG meetings on this topic, to allow the IPCC to learn from other UN agencies’ experiences over time. IMG meetings alternate between virtual and physical with the opportunity to join on-line. The last IMG meeting was held from 27-28 February 2014 face-to-face in Washington, D.C.; the next physical meeting is scheduled for 16-17 October 2014 in Bonn, Germany.
5. A set of recommendations is available from the IMG on the selection and purchase of carbon credits in the UN. A set of minimum requirements is set out for example that at a minimum they should be: 1) generated by a project registered as a CDM project; 2) be cancelled

within no more than 12 months from the date of contract signature; and 3) provide insurance for delivery, if credits are not issued at the time of contract signatures. The full set of recommendations from this official UN group is provided in the first Annex to this report. This approach is to be applied consistently UN-wide. However, in addition to these minimum requirements the guidelines say that UN organizations may, acting individually or collaboratively, specify additional requirements that reflect their specific mandates, aspirations and objectives.

6. It is worth noting that the IPCC Secretariat's facility-related emissions alone are insignificant compared to the travel-related emissions generated from the IPCC's procurement of travel (and hotels) for participants to attend IPCC meetings, therefore offsetting only the Secretariat's facility-related emissions would be insufficient. The UN guidance is that all emissions that the organization is financially responsible for should be accounted for. It is also worth noting that according to the information provided by the WMO the majority of the IPCC's GHG emissions comes from air travel³. This points to where the priority lies - managing better (avoiding and reducing) as well as offsetting the CO2 emissions generated from the travel of participants supported by the IPCC Trust Fund. This is on the order of around 1,000 trips per year, in the current assessment cycle.
7. It is important that the IPCC takes a proactive role to develop its own complete goal and policy for its carbon footprint, following the examples of organizations like UNEP and the UNFCCC. For example, the UNFCCC seeks to avoid and reduce its GHG emissions that are 90% from travel (for secretariat staff and funded participants) and offset its residual emissions by acquiring and cancelling carbon credits. Some other UN agencies have also undergone procurement processes for the purchase of carbon offsets, working with their own set of TOR, and acting sometimes together (UNDP and UNOPS, plus the World Bank and IFC). Some have purchased offsets via UNOPS, allowing for a process free of conflict of interest, as well as taking advantage of economies of scale (bulk purchase prices).
8. Similarly, the IPCC could establish a fund or a budget line, under the IPCC Trust Fund, for the purchase of carbon offsets. It could consider financing this fund with a small levy charged to each trip undertaken (for example for both Secretariat staff and Trust Fund participants). It could also develop a TOR for the purchase of carbon offsets, like UNEP. Then it could undertake carbon offset purchases along with UNEP via UNOPS. The IPCC carbon offset purchase TOR needs to meet IPCC's own criteria. For example, the IPCC may wish to purchase offsets with strong sustainable development co-benefits, including climate resilience benefits to the communities in question. Gold Standard CERs would ensure that these sustainable development benefits would be evaluated, monitored, and verified. Therefore, attention could be paid in the writing of the TOR to ensure that Gold Standard CERs are not seen as too expensive and therefore uncompetitive in the tender process, compared to standard CERs which are at much lower market prices today.
9. The most important consideration, beyond cost, given reputational risk to the IPCC, is not the search for the lowest prices for carbon offsets, but the search for the highest quality within an acceptable budget. The IPCC should ideally try to purchase carbon credits from projects with additional sustainable development co-benefits, and/or which provide also community climate resilience, for example.
10. Another option is to follow the UNFCCC model or work with the UNFCCC to support our purchases of offsets. First of all the secretariat's GHG emissions were generated primarily (over 90%) by the travel of its staff and funded participants, while the balance results from the operations of its HQ premises. The UNFCCC is purchasing Adaptation Fund (AF) CERs

³ According to the latest peer-reviewed study of WMO's GHG emissions, in 2009 the earliest year for which the WMO had prepared its inventory, WMO's largest source of GHG emissions was air travel (83%), with the remainder (17%) from Buildings/ Facilities.

that represent a sample of all CDM projects. In brief the AF collects a compulsory 2% levy of CERs issued for any CDM project worldwide. These are then monetized, i.e. sold by the trustee (World Bank) on the market and at market rates. The proceeds of these sales are used by the AF to finance adaptation measures in the most vulnerable countries. By buying and cancelling AF CERs directly from the source this means that all the money paid into offsetting the IPCC's GHG emissions would also go into a "good cause", without a commercial intermediary/trader.

11. In order to collect the funds needed to purchase the AF CERs, the UNFCCC Secretariat charges a levy on all travel activities funded from the full range of sources of funding in the UNFCCC Secretariat. The levy is equivalent to the GHG emissions generated by travel activities funded from the respective account. That requires collection of data on all travel activities by account and computation of emissions (using the ICAO calculator).
12. The IPCC could choose to work with the UNFCCC Secretariat in supporting the IPCC on such AF CER purchases and cancellations. If so, based on the IPCC's own carbon footprint calculations, the UNFCCC could calculate the costs, and then purchase AF CERs for the IPCC from the AF trustee, the World Bank, with which UNFCCC has negotiated and concluded a special trading agreement. (Note the World Bank does not normally deal with small-scale "consumers", which as most of the UN organizations are). The UNFCCC would then cancel the CERs for the IPCC and provide the requisite certificates as proof of cancellation. There could be some interesting advantages of this option for the IPCC. First, administratively, as the UNFCCC Secretariat is part of the UN system, it should be possible for WMO Procurement to have AF CERs purchased by UNFCCC as a cooperating UN agency without the need for a tender exercise. Secondly, not having to go through a formal tender avoids the risk of working with a commercial entity (insurance, bankruptcy, etc.) and enhances the organization's control over the process (e.g., whether CERs are really cancelled or just retired, resold, etc.).
13. Regardless of the initial choice, TOR developed for the purchase of carbon offsets, or relevant decisions on the purchase of offsets, should be regularly revised to reflect fast evolving changes in the carbon market. A cycle of 2-3 years is recommended to allow for the changing circumstances of the market.
14. While bulk purchase (for example with UNEP, or AF CER purchase with the UNFCCC) could be convenient in terms of costs, conflict of interest concerns, and benefits from following other UN leads, the IPCC could eventually explore other ways to acquire offsets for the IPCC in possibly a more efficient way, considering the limited human resources of the IPCC. One idea could be to eventually purchase offsets directly at the point of ticket purchase to reduce time spent on this activity. However, UN colleagues have advised us that typically offsets offered by airlines/travel agents are normally not CERs. Furthermore, this option is not yet available through the WMO travel agent. It is worth mentioning also that enough choice at the point of ticket purchase may also be an issue with this option, and afterwards the IPCC may wish to cancel the CERs purchased. These services may not be offered, or may not be easy to make possible, for such an option. Nevertheless, the IPCC together with the WMO could encourage the WMO travel agent (currently AMEX) to eventually provide corporate solutions for the purchase of carbon offsets at the time of ticket purchase, including possibly offsets from Gold Standard certified projects, or the equivalent.
15. Consider conducting a full-blown study for the IPCC, by an experienced company in the field of carbon offsets, allowing for a simple inventory to be conducted as a first step, and allowing for a full exploration of opportunities for an efficient and effective procurement of carbon offsets for IPCC Trust Fund participation.
16. For other participants (not supported by the Trust Fund), the IPCC could encourage them to offset their travel to IPCC meetings on their own. Various service providers could be used, according to each person's own values and expectations. An example of such an approach

is what the Working Group II TSU did for its Lead Author meeting in Bled, Slovenia where two providers of carbon offsets were communicated to participants for their own voluntary efforts, if wished. Otherwise, an integrated box on the IPCC website could be used to allow all meeting participants to offset their emissions on their own. This could allow for a minimum level of reporting to the Panel about the amount of offsets purchased by participants voluntarily through these means. A simple list of potential offset providers (offering at least CERs, in line with the UN guidelines on offset purchases) could be provided to the participants via the website, for their own personal choice of providers and projects.

17. A modular approach could be conducted as well, for example the IPCC could start by offsetting emissions for a major upcoming meeting (e.g. a future plenary session) and then either develop a full policy at that point, once experience has been gained, or offset the next major meeting, and another, until a full and longer-term policy is finally decided upon.
18. Eventually the UN expects all agencies to move towards emission reductions and carbon neutrality. To start moving steadily in this direction, it is suggested that the IPCC begin to purchase offsets in the next year so that we start the 6th Assessment Cycle with action for both avoidance and reduction of emissions, and carbon offsetting for the residual emissions when emissions can not be avoided otherwise.
19. Furthermore, to avoid reputational risk, it is recommended to consider the purchase, from the very beginning, of only the best quality offsets available on the market at any one time, therefore the following approach could be recommended: 1) at least CERs from CDM projects as this is a UN-backed scheme; 2) following all recommendations by the UN's IMG regarding the purchase of carbon offsets; and 3) adding additional requirements to the IPCC's TOR for carbon offset purchases such as the evaluation and monitoring of sustainable development benefits as requested by Gold Standard (GS) certification (Gold Standard CERs), to ensure offsets used by the IPCC have contributed to building more climate resilient communities. Currently, the best option would be the combination of CERs (CDM-certified) and GS for carbon offset projects. This combination is the highest international quality standard possible today. The average cost for CERs⁴ is between 20-25 CHF/ton and for GS CERs between 23-27 CHF/ton. The prices of credits vary greatly in today's market depending on which standards they meet and which types of projects they are. Another option is to start with purchasing AF CERs for the reasons mentioned before, including the fact that the by buying and cancelling AF CERs directly from the source all the money spent by the trust fund goes into a "good cause".
20. Based on initial experience, develop over time a full IPCC policy on carbon offsets, and develop provisions for the regular review of any proposed IPCC policy on carbon offsetting.

H. Other measures to consider regarding reducing emissions from air travel

1. Class of travel matters in terms of any organization's carbon footprint, especially organizations with more than 50% of their footprint coming from business travel. It is recommended reducing the class of travel where possible by encouraging staff based on new UN air travel rules that allow 12 hours off, if flying economy in place of business class.
2. The WMO peer-review paper notes that a unified, agency wide effort to offset some flight emissions for a meeting or a project can be realized by charging a small tax on flights. But the question of where this money should go, and what climate projects this money should be spent on then comes up in any case.

⁴ Here we are referring to CERs used for voluntary offsetting of carbon footprints, and not the average CER price on the compliance market today (which is currently less than 1 USD).

3. Another recommendation from is to book flights early with cut-off at 2-3 weeks prior to mission. This can allow for the best availability of the most direct routes, thereby saving emissions and money.
4. Finally, wherever the rail infrastructure is good and reliable, short-haul flights could be replaced by rail travel.

I. Other measures to consider to reduce the environmental footprint of the IPCC

1. As for waste management, the WMO strategy to reduce waste in the Secretariat would be applied progressively as the strategy and plans are better developed. Currently 9 different waste types are subject to selective sorting by WMO. WMO has contracted three companies to collect and dispose three sets of waste. WMO has also assigned the sub-contractors in charge of the cafeteria and for cleaning, to take care of waste related to their activities, however for the time-being no specific policy or strategy seems to exist for waste management or for implementing the 3 R's (Reduce, Re-use and Recycle) within the WMO.
2. It might be worth mentioning that the IPCC Working Groups' efforts over the past years for the 5th Assessment cycle to provide authors and TGICA members from developing countries and EIT with access to electronic libraries via the libraries of the TSU's university or institute host may be also contributing to the reduction of paper use in these countries as well as helping them to conduct quality IPCC assessment work. Continuing this practice into the 6th AR cycle, and in-between for TGICA members, could be considered as a positive contribution to the IPCC's carbon footprint as well.
3. Future IT tool development in the IPCC may further reduce the use of paper lowering energy consumption and waste. The development of more interactive and user-friendly websites, interactive IPCC books (e-books), etc. may also contribute to the reduction of the IPCC's carbon footprint, while enhancing climate education.
4. The design of IPCC websites should further take into consideration the use of paper from printing of material from the website.
5. Use of interactive web portals in the future, combined with more electronic chapter meetings, may also help reduce the number of in-person Lead Author meetings that are required to put together an IPCC Assessment Report, thereby reducing air travel.

ANNEX 1

Carbon Credits - Recommendations for selection and procurement

BACKGROUND

The Working Group on Offsetting was established at the 1st meeting of the **Issue Management Group on Sustainability Management (IMG)** on 9-10 February 2010. Offsetting means the purchase of carbon credits to compensate for greenhouse gas emissions generated by UN operations, in particular facility operations and official travel. Carbon credits are tradable certificates representing one tonne of CO₂ equivalent, which an organization purchases to offset its own emissions.

The IMG Working Group on Offsetting included the following members: Georgina Stickels (WFP), Judith Moore (World Bank), Anne Fernqvist (UNDP), Steven Giwa (IAEA), Victor Ogbunike (SCBD), Lorenzo Gavilli (ICAO), Lova Andre Nilsson (UNEP), Mirjam Steglich (UNEP) and John Miller (UNESCO). Oliver Buhler (UNFPA) and Dragoslav Jovanovic (UNFCCC) joined in May, David Sturt (UNFCCC) and Niels Ramm (UNOPS) in June.

The Working Group on Offsetting was tasked with:

- a) reviewing modalities for common offsetting
- b) preparing a guide on offsetting for UN organizations
- c) providing guidance on funding aspects for offsetting
- d) developing recommendations for EMG with regards to offsetting

The following text was approved at the 4th meeting of IMG on 10 March 2011.

RECOMMENDATIONS RELATED TO CARBON OFFSETTING

As stated by the EMG Senior officials meeting in September 2009 and reiterated in September 2010¹, the work of moving towards a climate neutral UN should be carried out as an integral part of the sustainability management efforts within each UN organization.

In light of this, and with a view to implementing the Statement of the Chief Executives Board for Coordination, “Moving towards a climate-neutral United Nations” (CEB/2007/2), the IMG recalls that UN organizations should undertake an ambitious programme aimed at *first reducing* GHG emissions and only consider purchasing carbon credits as a last resort. They should avoid attempting to achieve climate neutrality simply by going straight for the purchase of carbon credits.

In support of the specific request of the CEB/2007/2, to “*analyse the cost implications and explore budgetary modalities – including consulting with governing bodies as needed – of purchasing carbon offsets to eventually reach climate neutrality*”, the IMG recommends the following :

¹ www.unemg.org/MeetingsDocuments/EMGSeniorOfficialsMeetings/2009/tabid/1330/Default.aspx

1. Each UN organization should prepare a draft plan on how offsets could be financed, procured and accounted for, and submit it for the consideration of its Senior Management by July 2012. Subject to the decision of Senior Management, and with reference to the Strategy for a climate-neutral UN, the plan might be adopted internally, be submitted to the governing body for consideration, or be rejected. Whatever the outcome, each EMG member should clearly document and communicate to the EMG its final position on climate neutrality;
2. In organizations where offsetting is approved, the objective should be to become climate neutral in all their operations. The boundary definitions agreed for UN greenhouse gas inventories² should apply also for the climate neutral objective. Some flexibility will be permitted for organization-specific opportunities and constraints, e.g. an organization might choose to offset only the emissions related to Headquarters as a first step;
3. Organisations may consider a time-bound target for when to start offsetting so as to support emission reduction efforts and provide focus for the work towards a climate neutral UN;

Quality of offsets

4. The IMG follows the “Strategy for a climate-neutral UN” (EMG/AM.07/06/Rev.1) which states that: “the UN’s choice of offsets [...] should meet the levels defined under the Kyoto mechanisms at the very least”. In addition it recommends that offsets procured by UN organisations should:
 - a. at a minimum be generated by a project registered as a Clean Development Mechanism (CDM) project at the time of signing a procurement contract;
 - b. be cancelled within no more than 12 months from date of contract signature;
 - c. provide insurance for delivery if credits are not issued at time of contract signature;
5. UN organizations may, acting individually or collaboratively, specify additional requirements that reflect their specific mandates, aspirations or objectives. These could include specifying the CDM Gold Standard, or specifying projects located in nominated countries, such as in Least Developed Countries or requiring the use or exclusion of specific technologies such as energy efficiency, solar power, or re-forestation;

Procurement of carbon credits

6. There should be no requirement for central procurement of carbon credits: each UN organization should be individually responsible for the procurement of carbon credits related to that organization;
7. At the same time, UN organizations should be free to work together and jointly invite tenders/requests for quotations/requests for proposals for the supply of carbon

² UN GHG inventory boundaries are specified in the *Strategy for a climate-neutral UN* (2007). UN Environment Management Group. EMG/AM.07/06/Rev.1. or in *United Nations GreenHouse Gas Calculator. User Manual 1.0.* (2009). UNEP Environment Management Group, UN Department of Field Support and the World Resource Institute.

credits as and when their interests coincide (as happens at present for procurement of other goods and services) ;

8. UN organizations are encouraged to include in the contract document a clause allowing for the contract to be extended to other UN organizations, should the contractor wish to do this;

Finance

Agencies may encounter resistance from donors/member states to the prospect of their funds being used for the purposes of procuring carbon credits rather than for delivering core business aims. The IMG recommends that the EMG review the following options for providing central support to raising funds for the purpose of offsetting:

9. The EMG secretariat to support and coordinate UN fund raising efforts for the purpose of offsetting through the provision of a fundraising facility; and/or
10. The EMG to consider the possibility of creating a multi-donor UN Trust Fund to assist in UN system efforts to finance the purchase of carbon credits. The management of the Trust Fund could be supported by a UN-wide offsetting facility (service) that UN organizations could choose, but would not be obliged, to use;
11. The EMG to explore the creation of system-wide Long Term Agreements;

Support functions

It is essential that UN offset procurement be carried out correctly and that UN staff be made aware of and understand the UN climate neutral commitment. System-wide technical assistance for the procurement of offsets should be provided, for which purpose the IMG submits for EMG consideration the following possibilities:

12. Establishment of a UN Helpdesk to provide support and information on suitable CDM projects and advice on procurement/contractual issues. Organizationally, such a helpdesk could be housed within SUN;
13. Provision of training on offsetting for all UN Climate Neutral/Sustainability Focal Points. This training could be tasked to SUN;
14. Exchange of ideas, experience and advice relating to various aspects of offsetting (types of offsets, contractual/procurement issues, financial implications and fundraising, training, communication) could be facilitated and supported via Greening the Blue and/or the UN Global Marketplace. These sites could host examples/case studies, provide a secure area for sharing information, facilitate meetings and workshops;
15. Organization of a UN-wide campaign to raise awareness and create understanding and commitment “towards a climate neutral UN”, including offsetting;

The EMG may also want to consider any alternative hosts for the above functions and which funding mechanism would best secure their sustainability.

Legal and related issues

16. Legal advice is required to clarify the issue of possible diversion of Official Development Assistance (ODA) funds and any other legal or financial issues (e.g. contractual restrictions on use of funding) before UN organizations can proceed to implement offsetting on a wider scale. This clarification should be undertaken on an

organization by organization basis to account for differing constitutional and operational rules (e.g. some organizations are entirely ODA funded, others are not);

Other

17. It is essential that adequate financial and staff resources be committed to ensure that the emissions of each UN organization are accurately measured and can be reduced as far as possible before resorting to the purchase of carbon credits;
18. The strategy for a climate-neutral UN will need to evolve in accordance with significant developments in the offsetting sector or other relevant contextual changes. Areas to be closely monitored include:
 - a. The development of the offset market post 2012. It should be noted that all recommendations above are based on the assumption that there will still be carbon trading within CDM or other similar schemes.
 - b. The possible introduction of national carbon taxes directed at consumers and carbon taxes at airports directed at travellers. Introduction of such taxes might require revised methodologies for UN GHG inventories to avoid “double payment”.