



Second Meeting of the Issue Management Group on a Climate Neutral UN

**24 November 2008, New York, DC-2 Building, Room 2330
9 am – 5 pm**

Background note

1. Greenhouse gas inventories

a. Emissions from air travel

i. Accounting for non-CO₂ gases

1. The statement made by the Chief Executives Board on Coordination on moving towards a Climate Neutral UN committed the UN system to estimate by 2009 its greenhouse gas emissions in a manner consistent with accepted international standards.

2. Preliminary data suggest that air travel is responsible for the main part of the CO₂ footprint from UN headquarter and UN centers. However, the full climate impact of air travel goes beyond the effect of CO₂ emissions alone. For example, aircraft emit nitrogen oxides (NO_x) which tend to increase the level of ozone and reduce the level of methane, both of which are greenhouse gases. Aircraft also contribute to water condensation in the atmosphere which has a warming effect. There is still considerable scientific uncertainty about the scale and dynamics of these effects.

3. In response to a request from the International Civil Aviation Organization (ICAO), the Intergovernmental Panel on Climate Change (IPCC) prepared a Special Report on Aviation and the Global Atmosphere in 1999. This report estimated the overall climate impact of aviation to be between two to four times larger than that of the CO₂ emissions alone. It used a Radiative Forcing Index (RFI) in these estimates. The RFI for aircraft in 1992 was estimated to be 2.7 with aviation's total contribution to radiative forcing being approximately 3.5%.

4. More recent data in the 2007 IPCC Fourth Assessment Report suggests an RFI of 1.9 for aircraft in 2005 and aviation's contribution being at 3.0%. The report also noted that the RFI should not be used for measuring emissions since it does not account for the length of the time the gases stay in the atmosphere.¹ Other metrics such as Global Warming Potential (GWP) and Global Temperature Potential (GTP) could be considered as alternatives.

¹ The IPCC Fourth Assessment Report in 2007 states that the RFI "...should not be used as an emission metric since it does not account for the different residence times of different forcing agents". It also says that "Radiative forcing is a measure of the influence that a factor has in altering the balance of incoming and outgoing energy in the Earth-atmosphere system and is an index of the importance of the factor as a potential climate change mechanism. Positive forcing tends to warm the surface while negative forcing tends to cool it. In this report, radiative forcing values for 2005 relative to pre-industrial conditions defined at 1750 and are expressed in watts per square meter (W m⁻²)"

5. The UN system has opted to use the WRI/WBCSD GHG Protocol, which only takes into account the CO₂ emissions from air travel. The ICAO secretariat informed the EMG secretariat that in recognition of the significant legal, reputation, and budgetary considerations of promoting the use of a methodology where basic scientific consensus has not yet been reached, ICAO's calculator at this time only computes CO₂. However, several governmental and non-governmental institutions estimate the total climate impact from air travel by multiplying the CO₂ emissions by a factor. The factors currently used vary from 1.8 to 3.

6. The choice of whether or not to use a factor to account for the total climate impact of air travel and the value of the factor will have implications for the size of the UN system's total greenhouse gas footprint. It will in turn impact the cost of purchasing emission offsets and the relative importance of air travel in emission reduction policies.

7. The UN system would need to take a policy decision on whether it will estimate the total climate impact from its air travel or only take into account the CO₂ emissions for the time being. The current scientific uncertainty and the potential cost implications of offsetting would suggest taking into account the CO₂ emissions only. However, the seriousness of the climate change challenge and the need for the UN to lead by example by maintaining high environmental credibility would suggest estimating the total climate impact.

8. Should a multiplying factor be chosen by the UN system for estimating the total climate impact, the scientific uncertainties and shortcomings of the RFI suggest that this ought to be a provisional decision. The most recent IPCC data suggests a value of 1.9. This decision should be reviewed when new information from the IPCC becomes available, either estimates or alternative metrics.

9. Participants will be invited to present their views at this meeting on whether or not the UN system should estimate the total climate impact of its air travel from the outset.

10. As this issue will be discussed at the senior level officials meeting of the EMG in Poznan on 10th December, the IMG may wish to invite written submissions on the issue by 28 November in preparation for that meeting.

Possible action by the IMG

Invites members, in preparation for the senior level officials meeting of the EMG in Poznan on 10 December, to make written submissions by 28 November on whether or not the UN system should estimate the total climate impact of its air travel from the outset using a multiplier of 1.9.

ii. Data collection systems

11. Data from travel are the most onerous and time-consuming to collect, but also are of central importance owing to the large share that these emissions contribute to totals. It is important to establish streamlined, reliable and automated systems for collection of these data to reduce the effort required and to ensure that data sets are complete, consistent, accurate and reliable.

12. The data required are individual trips listed separately with mode of transport, and exact routing and class in the case of air travel. The UNEP travel tool demonstrated at the September workshops requires the routing to be expressed using 3-letter IATA airport codes.

13. Some UN system organizations obtain travel data directly from the travel agent that works with that organization, while others obtain it from the organization's electronic enterprise resource planning (ERP) system. Several different ERPs are currently in use in the UN system, including IMIS, Atlas, SAP and PeopleSoft.

14. Generating the data from the ERP system has the advantage of providing a level of confidence in the accuracy of the travel data and also insulates against changes in the travel agency following the periodic bidding process, and the learning process that would accompany a change in partner.

15. Work is underway in cooperation with the ICAO secretariat to document current ERP systems and to explore the extent to which the required data can easily be extracted from the systems currently in use. Findings so far are varied, with some ERPs yielding data in the required format, but in others, without the full routing, without mode of travel, or with the airport destination expressed in words rather than the 3-letter code. Attempts are underway to overcome these problems.

16. The data collection system can be improved by ensuring that the data are entered in full and in the correct format at the time the travel request is made, which would require such information to be provided to travel chiefs in the organizations and then implemented by travel assistants and other staff. It may add some time to the task of arranging travel.

17. An alternative would be to make programming modifications to the existing ERPs to capture the data required or else to make it more user-friendly to record the required data.

18. Discussions have been initiated with staff working on developing the UN's new ERP system to ensure that travel data requirements are included.

Possible action by the IMG

Recommends that the EMG request that travel chiefs to provide data in the required format and train travel staff accordingly.

Recommends that the EMG request that the new ERP system be designed so as to automatically collect relevant information.

iii. The ICAO Carbon Calculator

19. The UN system has adopted the GHG Protocol of the WRI/WBCSD as its methodology for calculating greenhouse gas emissions. The GHG Protocol includes a methodology for calculating emissions from air travel. The air travel tool that UNEP provided at the September workshops is based upon this methodology.

20. The International Civil Aviation Organization (ICAO) developed through its Committee on Aviation Environmental Protection (CAEP) a Carbon Emissions Calculator that estimates the carbon dioxide emissions from air travel. The Calculator was made available to the public in June 2008 through the ICAO web site together with details of its methodology, which uses the most recent data on aircraft types, route specific data, passenger load factors and cargo carried.

21. ICAO is in the process of developing an interface to the Calculator that will enable organizations to compute their CO₂ emissions directly from reports from the data management systems in place across the UN system. A prototype of this tool is now available that supports data from IMIS. This prototype will be tested, and ongoing discussions with offices using ATLAS and other systems will continue.

22. At the IMG meeting, participants will hear a presentation from ICAO on the ICAO Carbon Calculator and on progress with the interface.

Possible action by the IMG

Decides to adopt the ICAO Carbon Calculator for use by all EMG members.

b. Minimum agreed boundary

i. Projects

23. There have been some questions on whether projects are included in the minimum agreed boundary. Paragraph 27 of the UN Climate Neutral strategy states that “At this point, the inventory exercise should be limited to the operations of UN offices and staff and not cover projects implemented by external entities.” “Projects implemented by external entities” are activities that are not included in the budget and accounting system of the organization.

24. Therefore activities that are implemented by the UN system and funded through extra-budgetary sources *are* within the minimum agreed boundary. However, grants provided to other institutions are not part of the footprint. This is consistent with the operational control criterion of the GHG Protocol. It should be noted that the CEB decision further limits the minimum agreed boundary to “facility operations and travel”.

Possible action by the IMG

Recalls that UN Climate Neutral Strategy states that at this point, the inventory exercise should be limited to the operations of UN offices and staff and not cover projects implemented by external entities;

Further recalls that the CEB decision further limits the minimum agreed boundary to “facility operations and travel”;

Agrees that activities in the form of projects implemented by the UN system and funded through extra-budgetary sources *are* within the minimum agreed boundary, while grants provided to other institutions are not part of the footprint.

ii. Field offices

25. There have been some questions among EMG members about whether GHG emissions from field offices are included in the minimum agreed boundary.

26. The CEB statement commits the UN to include in its inventory the GHG emissions from “our headquarters and United Nations centres for our facility operations and travel”.

27. The text of the UN Climate Neutral Strategy on field offices reads:

“Field offices and shared space

35. There is significant variation between UN agencies with regard to the number and size of offices located away from headquarters. UN agencies should include the GHG emissions of all field offices in the inventory. Data collection for inventory purposes may be more difficult in hardship duty stations, or duty stations with rented space. In the case of field offices where data is not readily available, estimates of GHG emissions could be made based on clearly defined assumptions and proxies, such as emissions per square metre of office space. In cases where UN agencies share office space, each organization’s share of total electricity consumption can be estimated on the basis of square metres of office space or other emissions-sharing criteria.”

28. An earlier paragraph on setting the boundary provides the following qualification:

“28. In setting the boundary, key considerations will be data availability and what is practical and manageable. As an overall strategy, organizations should aim to cover large emissions sources first, and to refine and improve the inventory and boundary over time. An initially overly ambitious coverage could become unmanageable in terms of data collection and the staff resources required.”

29. The GHG Protocol provides default data on emission factors, but if UN agencies encounter difficulties in obtaining actual activity data in some field offices, the data gaps can be overcome by

estimating emissions using proxies (e.g. typical amounts of electricity used in a particular geographical location, possibly expressed in kWh/capita or kWh/m²).

30. While scattered data exist for individual proxy indicators, the EMG secretariat has so far not managed to find any systematic compilation of proxy data for duty stations located around the world that would allow the estimation of GHG emissions from offices. The EMG proposes to work further on gathering such information, or else to compile a table of proxy data based on information reported through our own system-wide inventory exercise.

Possible action by the IMG

Agrees that “headquarters and United Nations centres” includes all field offices, and that where data gaps exist for these offices, estimates will be made based on proxies.

iii. Other issues

31. There have also been questions on whether or not to include in the minimum agreed boundary emissions from shipping, and mail and courier.

32. By paragraph 39 of the UN Climate Neutral Strategy, the EMG agreed not to include emissions from “electricity losses, courier, mail and shipping” in the current minimum agreed boundary. Organizations are free to include these emissions on a voluntary basis if they so wish.

33. The UN Climate Neutral Strategy is silent on the question of fuel consumption from military aircraft, armoured personnel carriers and other military equipment. Given that the CEB decision limits the exercise to “facility operations and travel” it is proposed to exclude from the minimum agreed boundary emissions from fuel consumption from military equipment.

Possible action by the IMG

Takes note of the clarification not to include in the minimum agreed boundary GHG emissions from electricity losses, courier, mail, shipping and fuel consumption from military equipment, noting that emissions from these sources may be included on a voluntary basis by organizations.

c. A common UN greenhouse gas calculator

34. Several UN agencies have developed individual Excel spreadsheet to calculate greenhouse gas emissions based on the tools and methodology of the GHG Protocol. One example is the UNEP calculator which was made available to participants at the September workshops. An exercise is currently underway to bring together the best features of all the calculators into a single product that could be used by all UN agencies. The following members are contributing to this

exercise, while any others are invited to join if they so wish: FAO, IFC, UNDP, UNEP, the World Bank and WRI.

35. This calculator will:

- be simple and user-friendly, customized to UN system agency needs, and specially oriented towards users with little experience in GHG accounting;
- include basic instructions on which data to report, point towards reliable data sources and how to handle data gaps by suggesting common estimation methods;
- ensure consistency with the GHG Protocol and the minimum agreed boundary of the UN
- improve ease of data collection;
- provide default emission factors;
- create a common and efficient reporting platform;
- ensure transparency, consistency and traceability;
- facilitate the UN system-wide aggregation of GHG data;
- provide a vehicle for accuracy and continuous data improvement;
- provide a tool for emissions reductions target setting; and
- stimulate early action.

36. Two products are proposed. It is expected that an Excel sheet calculator will be ready by the end of the year. A draft version will be demonstrated at the IMG meeting.

37. A more detailed on-line version will take longer to develop, but will enable field offices to report remotely. Aggregation and data management will become simpler. Information on specific emission factors can be included on the password protected the climate neutral knowledge sharing website.

38. The EMG secretariat will make a short presentation on the draft calculator. An informal working session will take place immediately after the conclusion of the IMG, from 17h00-18h00; organizations that are interested in contributing to this exercise are invited to participate.

Possible action by the IMG

Agrees to a two-track process whereby:

- an Excel sheet calculator will be prepared by the end of the year and
- a more detailed on-line version will be developed in 2009 enabling field offices to report remotely

Recommends that organizations continue to support these efforts according to their individual capacities.

d. The climate-neutral knowledge sharing website

39. A climate-neutral knowledge sharing website is under preparation which will bring together tools, methodologies, best practice, documents, case studies and more. It will include a public part as well as a password-protected section reserved for EMG members. The latter part will provide a space for climate-neutral focal points to share internal documents such as draft inventories, values

of specific emission factors with an indication of rationale, individual bidding documents, and a discussion forum for asking questions, etc.

40. A revised and finalized outline is now available and will be populated over the coming weeks.

Possible action by the IMG

Takes note of the opportunity to utilize the climate-neutral knowledge sharing website space for climate-neutral focal points to share internal documents such as draft inventories, values of specific emission factors with an indication of rationale, individual bidding documents, and a discussion forum for asking questions,

2. Emissions reductions

41. According to a survey conducted at the September workshops, some ten agencies have developed strategies outlining how they will reduce their greenhouse gas emissions, of which seven have already begun implementing some measures. Seven organizations have made specific events that they have organized as climate-neutral events through the purchase of offsets.

42. The Sustainable United Nations (SUN) facility now provides support to some 45 organizations, offices and networks, assisting to identify and implement opportunities for emission reductions. According to data received through these channels the following observations are made:

- i. More organizations than indicated in the September survey are actively pursuing emission reduction (at central or local levels). At least 25 organizations/offices are in the process of reducing emissions. There could be a section on progress in emissions reductions efforts in an overall report on implementing the CEB decision to be prepared by each organization prior to December 2009.
- ii. In some cases emission reduction take place without a GHG emission baseline having been established, which means that the organization cannot quantify or take credit for achieved emission reductions. While this has no impact on the achieved emission reductions, it may be seen as a lost opportunity for the organization to take credit.
- iii. In some cases, regional and field offices have moved ahead without waiting for the headquarters to take action. There is a clear need for a few organizations to take stronger leadership from the headquarters' side.
- iv. At the same time, in duty stations where several offices are co-located, there are benefits from coordinated action at the local level. This is the case in Panama, in ESCAP in Bangkok, and the "One UN" efforts in Hanoi, Cambodia, and Malawi.
- v. While many opportunities for emission reduction are individual and specific, there are some areas where policy changes or policy recommendations from the common UN system level are required:

- a. Travel: The current policy does not support travel in the most sustainable mode, only in the most economical and direct mode. It would be helpful to add to existing policies a requirement to consider travel alternatives that minimize the footprint of the mission.
- b. Information and Communication Technologies (ICT): ICT present the greatest opportunities for reducing travel and improved efficiency through better alternative means of communication. This, however, requires a coherent approach to providing staff with access to modern means of communication (e.g. mobile equipment including laptops with web cameras, personalized video links, and voice-over IP phones), as well as equipping larger UN offices with standardized high-quality video-conferencing equipment. There is a need for a unified approach, possibly redirecting savings from reduced travel to investments in ICT infrastructure.
- c. Procurement: Current UN procurement policies could be strengthened to better support sustainable procurement. SUN and EMG have worked so far with the HLCM procurement network to revise current policies. While the HLCM procurement network has been supportive of this work, there has been reluctance among some agencies arising from views expressed in their governing bodies, namely developing country concerns that sustainable procurement will be a barrier to access to the UN market. A sustainable procurement “Practice Note” has nevertheless been approved by the HLCM stating that “*UN organizations commit to making sustainable procurement their standard practice progressively and in full respect of the right of access to the UN market for suppliers from developing countries and countries with economies in transition*”. Furthermore a joint EMG/HLCM programme of work to advance sustainable procurement in the UN is gradually being implemented.

43. SUN is in the process of developing the following tools to support emissions reductions, with deadlines for publication as indicated in the table below. All of these will be made available through the climate-neutral knowledge sharing website and through other relevant networks in the UN (INFM, ICT network etc).

Assessment tools & templates	Indicative release dates
Initial screening methodology	AVAILABLE
Building performance assessment format	AVAILABLE
Office Culture Questionnaire	AVAILABLE
GHG Reduction Action Plan Template	AVAILABLE
Building/facilities	
Facilities Management Guide	MARCH 2009
Procurement of Sustainable Buildings Guide / Technology Source Book	MAY 2009
Life Cycle Budgeting Tool	EARLY 2009
Field Companion	END 2009
Green ICT guide	DEC 2009 (through ICT network)
Procurement	
Sustainable procurement guide, booklet and training suite	MARCH 2009
Product guidelines for furniture, paper stationery and cleaning services	MARCH/APRIL 2009
Other product guidelines	DEC 2009

Vehicles guidelines	MAY 2009
Organizational management & culture	
Green Meeting Guide	DEC 2008
Sustainable travel guide	MARCH 2009
Sustainable Culture Guru – Part 1	APRIL 2009
Sustainable Culture Guru – Part 2,3...	MID-LATE 2009
Other output	
SUN Expert Network	FEBRUARY 2009
Quick-guide to emission reductions	JANUARY 2009

Possible action by the IMG

Request the EMG secretariat, with the support of SUN and other interested members and organizations, to develop a proposal for consideration by the EMG on common emission reduction targets for the UN system, recommendations for changes to common policies and administrative rules influencing the ability of individual UN organizations to reduce their emissions, and proposals for the financing of emission reductions.

Requests the EMG secretariat to develop a proposal for centralized common decision-making in shared office space on energy-efficiency investment decisions and other common reduction measures.

Request SUN to prepare an information note on recommended video-conferencing equipment which will include technical specifications and a recommendation for purchase by the UN to ensure harmonization.

Requests that the EMG recommend the adoption of sustainable procurement measures that will assist the UN to move towards climate-neutrality.

3. Budgetary implications and modalities for offsets

44. The CEB decided to analyze the cost implications and explore budgetary modalities — including consulting with governing bodies as needed — of purchasing carbon offsets to eventually reach climate neutrality.

45. The CEB further to make this commitment with a view to achieving the goal of climate neutrality at a date to be set in the future, by reducing emissions first and then offsetting the remainder through the purchase of offsets from the Clean Development Mechanism, that meet high international standards of additionality, transparency and verification and which promote sustainable development in developing countries.

46. Participants at the IMG are invited to provide a report on the discussions within their organizations on the budgetary implications and modalities for offsets, including consultations with governing bodies.

47. The administrative procedure for the purchase of offsets depends on the amount of the contract. For amounts below USD30,000 a request for quotation can be used (the procedure for which can take several weeks), whereas amounts greater than this require a full invitation to bid (whose procedure can take 2-3 months).

48. Based on useful contributions from several organizations, a template for the terms of reference for a request for quotation is under preparation, tailored to the UN format and prepared in consultation with the Purchase and Transport Section of the UN Office in Geneva. This text will be made available to EMG members for their use.

49. To retain full impartiality and avoid bias in the process of selection of companies providing offsets to the UN, the step of identifying and registering vendors as potential recipients of solicitation documents and advertisements is already being carried out independently by the Purchase and Transport Section of the United Nations Office in Geneva.

50. Discussion could be initiated in December within the Common Procurement Activities Group (CPAG) for UNOG and specialized agencies of the United Nations system in Geneva with a view to conducting a full invitation to bid, the results of which could be made available to the full EMG membership.

Possible action by the IMG

Takes note of the work carried out so far to facilitate the purchase of offsets by those organizations that may be in a position to do so, taking into account consultations with governing bodies.

Invites the EMG to consider at its upcoming meeting in December the question of budgetary implications and modalities for offsets, including governing body consultations.

4. Future work and recommendations on implementation

51. The EMG secretariat will make a presentation on future directions and schedule of work including milestones for 2009.

Possible action by the IMG

Request the EMG to adopt a schedule of work for 2009, including a process for reporting on implementation of all aspects of the CEB decision by December 2009.

Requests the EMG to provide further guidance on mechanisms for monitoring implementation of the policy changes needed to move the UN towards climate neutrality, including on ICT, HR, facilities management, meetings and procurement.
