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UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

**AD HOC WORKING GROUP ON FURTHER COMMITMENTS
FOR ANNEX I PARTIES UNDER THE KYOTO PROTOCOL**

Fifth session

Bangkok, 31 March to 4 April 2008, and Bonn, 2–12 June 2008

Workshop on methodological issues

Report by the chair of the workshop

I. Introduction

1. The Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG), at its resumed fourth session, requested the secretariat to organize, under the guidance of the Chair of the AWG, an in-session workshop on consideration of relevant methodological issues, including the methodologies to be applied for estimating anthropogenic emissions and the global warming potentials (GWPs) of greenhouse gases (GHGs).¹
2. The workshop was held in Bonn, Germany, on 7 June 2008, during the resumed fifth session of the AWG, and was chaired by Mr. Mama Konate, Vice-Chair of the AWG.
3. The aim of the workshop was to provide an opportunity for informal discussions on the relevant methodological issues, including the methodologies to be applied for estimating anthropogenic emissions and GWPs as identified by the AWG at its second session,² and in particular to identify the issues that the AWG may need to consider, and to start to identify options to address these issues.
4. The workshop involved input from leading international experts from the Intergovernmental Panel on Climate Change (IPCC) and provided an opportunity for Parties to present their views on the relevant issues to be addressed by the AWG. The workshop was open to all Parties and observers. It was held in an informal setting to promote interaction and in-depth consideration of the issues.
5. The workshop was organized as one session, where participants considered the following issues:

¹ FCCC/KP/AWG/2007/5, paragraph 19 (d) (iv).

² FCCC/KP/AWG/2006/4, paragraph 17 (b) (ii).

- (a) Experiences with the use of the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*, the *IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories* and the *IPCC Good Practice Guidance for Land Use, Land-use Change and Forestry*, by Annex I Parties reporting under the Kyoto Protocol;
 - (b) Possible use of the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* (hereinafter referred to as the 2006 IPCC Guidelines) and the implications of this for estimating GHG emissions and removals;
 - (c) GWP values contained in recent reports by the IPCC, including the third and fourth Assessment Reports, and possible implications of using these GWP values to estimate GHG emissions and removals;
 - (d) Possible alternatives to using GWPs to estimate aggregated GHG emissions and removals³ and the impacts of these on the assessment by Parties of the effectiveness of mitigation options by Parties.
6. In order to provide input for the discussion, the Vice-Chair of the AWG had invited the secretariat and experts to give presentations on the methodological issues, including GWPs. Experts invited were Mr. Simon Eggleston and Mr. Venkatachalam Ramaswamy from the IPCC.
7. Presentations by the experts were followed by a question and answer session. The chair of the workshop then opened the floor for an exchange of views and experiences.
8. At the closing of the workshop, the chair provided a summary of the main points discussed during the workshop.

II. Summary of discussions

A. Methodologies for estimating anthropogenic emissions and removals of greenhouse gases

9. Participants acknowledged that the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*, the *IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories* and the *IPCC Good Practice Guidance for Land Use, Land-use Change and Forestry*, currently used by Annex I Parties for reporting GHG inventories, provide a useful framework for the estimation of GHG emissions and removals in a consistent way across Parties. They also provide useful concepts and approaches, such as key category analysis and decision trees, to guide the choice of methodologies at different levels of complexity.
10. Drawing attention to the requirement in Article 4, paragraph 2(c) of the Convention, that calculations of emissions by sources and removals by sinks of GHGs should take into account the best available scientific knowledge, participants in general supported the use of the 2006 IPCC Guidelines for the preparation of Annex I Parties' GHG inventories in the second commitment period. Some participants noted that they already have some experience with the 2006 IPCC Guidelines, including for estimation of emissions of perfluorocarbons from aluminium production and for the use of methodologies not covered in the guidelines currently being used, such as methodologies to estimate emissions from carbon capture and storage.
11. Participants emphasized that any change in methodology should be made in such a way as to ensure consistency in assessing GHG emissions and removals between the first and subsequent commitment periods as well as between the Convention and its Kyoto Protocol.
12. Participants identified several points to be addressed regarding the possible use of the 2006 IPCC Guidelines for the second commitment period:

³ The estimation of aggregated GHG emissions and removals is also known as the "basket approach".

- (a) The implications of using the 2006 IPCC Guidelines on the relationship between the base year and the commitment period, on mitigation options and on future targets;
- (b) The implications of using the 2006 IPCC Guidelines with regard to recalculations of emissions and removals with a view to ensuring time-series consistency, as well as the availability of historical data and emission factors for new categories included in these guidelines, such as abandoned mines;
- (c) The need to make it possible for the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) to develop further methodological guidance, if needed, in particular to provide additional guidance on methodological issues relating to the land use, land-use change and forestry sector that may not be sufficiently covered in the 2006 IPCC Guidelines. This may include further advanced scientific understanding on managed and unmanaged land in the context of the 2006 IPCC Guidelines. It was suggested that the IPCC could be invited by the CMP to develop such further methodological guidance;
- (d) The possibility of updating emission factors without revising the entire 2006 IPCC Guidelines. One way to achieve this could be to recognize the IPCC Emission Factor Database⁴ as a source of emission factors.

13. Participants were concerned about the impacts on estimates of total national GHG emissions that may result from using the 2006 IPCC Guidelines instead of the methodologies currently applied under the Kyoto Protocol.

14. Participants noted that the consideration of methodological issues under the AWG is a cross-cutting issue and is linked to the review of Article 9 of the Kyoto Protocol. They further noted the link between methodological issues and issues considered by the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, such as measurable, reportable and verifiable nationally appropriate mitigation commitments or actions.

B. Use of global warming potentials

15. Most participants acknowledged that the new GWP values, provided by the Fourth Assessment Report (AR4) of the IPCC, reflect the most recent scientific knowledge of the impact of GHGs on global warming. They also acknowledged that the concept of GWPs should continue to be used. This concept is deemed essential given the large number of gases covered by the Kyoto Protocol, in particular the wide variety of fluorinated gases.

16. Participants noted that the choice of time horizons for GWP values has a policy relevance and that due consideration should be given to such choice. Some participants expressed the view that the current approach to the choice of time horizon should be maintained.

17. As with the application of the 2006 IPCC Guidelines, participants noted that any use of new GWP values will require recalculations of emissions and removals with a view to ensuring time-series consistency, including the base year.

18. Participants noted that possible changes in the GWPs could modify the emission profiles of countries and the relative shares of gases in the national aggregated GHG emissions. This could have implications for all Parties, in particular for Parties with a high share of non-carbon dioxide (CO₂) emissions. In addition, this could have implications for the assessment of the effects of various mitigation options and relevant policy choices.

19. Participants highlighted that the GWP values currently used do not distinguish the effect of methane of fossil or biogenic origin, which could have an impact on the emission profiles, and possibly targets, of countries.

⁴ <<http://www.ipcc-nggip.iges.or.jp/EFDB/main.php>>.

20. Some concern was expressed by participants that using GWPs in the reporting of total national GHG inventories may lead to overestimation of the effect of non-CO₂ gases on global warming, and overestimation of the effect of mitigation options and projects under the clean development mechanism that address emissions of non-CO₂ gases. They referred to the alternatives to GWPs, provided in the AR4, including global temperature potential, which is directly related to the temperature of the surface of the Earth. Some of these alternatives may provide different estimates of the effect on global warming of different GHGs compared with the estimates derived using GWPs. However, according to the IPCC such alternatives are available for only a few gases and the confidence in these alternatives is still not high.

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