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

**Report of the Ad Hoc Working Group on Further Commitments for  
Annex I Parties under the Kyoto Protocol on its resumed fifth session,  
held in Bonn from 2 to 12 June 2008**

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## **I. Opening of the session**

(Agenda item 1)

1. The resumed fifth session of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) was held at the Maritim Hotel, Bonn, Germany, from 2 to 12 June 2008. At the opening of the session, a minute of silence was observed in memory of the victims of the earthquake in the province of Sichuan, China, and of cyclone Nigris.

2. The Chair of the AWG-KP, Mr. Harald Dovland (Norway), opened the session and welcomed all Parties and observers. He also welcomed Mr. Mama Konate (Mali) as Vice-Chair and Mr. Boo-Nam Shin (Republic of Korea) as Rapporteur of the AWG-KP.

3. Mr. Dovland reminded Parties that the agenda for the fifth session had been adopted at the first part of that session, which took place in Bangkok, Thailand, from 31 March to 4 April 2008. He emphasized that the resumed fifth session of the AWG-KP was the last opportunity to advance work before the group meets in Ghana to adopt conclusions on the analysis of means that may be available to Annex I Parties to reach their emission reduction targets and on the consideration of relevant methodological issues.

## **II. Organizational matters**

(Agenda item 2)

### **Organization of the work of the session**

(Agenda item 2 (b))

4. The AWG-KP considered this sub-item at its 1<sup>st</sup> meeting, on 2 June. The Chair recalled that the AWG-KP should focus its work on agenda item 3, "Analysis of means to reach emission reduction targets and identification of ways to enhance their effectiveness and contribution to sustainable development"; and item 4, "Consideration of relevant methodological issues". He informed delegates about arrangements made for the round table on the means to reach emission reduction targets, scheduled for 2 June 2008, and for the workshop on relevant methodological issues, scheduled for 7 June.

5. Statements were made by representatives of nine Parties, including one speaking on behalf of the Group of 77 and China, one on behalf of the African Group, one on behalf of the Umbrella Group, one on behalf of the Alliance of Small Island States (AOSIS), one on behalf of the least developed countries, one on behalf of the European Community and its member States,<sup>1</sup> and one on behalf of the Environmental Integrity Group.

## **III. Analysis of means to reach emission reduction targets and identification of ways to enhance their effectiveness and contribution to sustainable development**

(Agenda item 3)

### **1. Proceedings**

6. The AWG-KP considered this item, including sub-items (a–d) together, at its 2<sup>nd</sup> and 3<sup>rd</sup> meetings, on 3 and 12 June, respectively. At the 2<sup>nd</sup> meeting, the Chair reported on the results of the

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<sup>1</sup> The position reflected in this statement was supported by Croatia, the former Yugoslav Republic of Macedonia, Bosnia and Herzegovina, and Serbia.

round table referred to in paragraph 4 above. He noted that the round table provided useful inputs for the AWG-KP to conclude the consideration of the means that may be available to Annex I Parties to reach their emission reduction targets at the first part of its sixth session.

7. Also at the 2<sup>nd</sup> meeting, statements were made by representatives of 18 Parties, including one speaking on behalf of the European Community and its member States,<sup>2</sup> and one on behalf of the Group of 77 and China.

8. At the same meeting, the Chair invited representatives of the International Civil Aviation Organization, the International Maritime Organization, the International Council for Sustainable Energy and the Climate Action Network to make statements on this item.

9. With a view to advancing work on the individual sub-items, the AWG-KP agreed to establish three contact groups to further consider:

- (a) Item 3 in general and sub-items (c), “Greenhouse gases, sectors and source categories”, and (d), “Possible approaches targeting sectoral emissions”, to be chaired by the Chair of the AWG-KP;
- (b) Sub-item (a), “Emissions trading and the project-based mechanisms”, to be co-chaired by Ms. Christiana Figueres (Costa Rica) and Mr. Nuno Lacasta (Portugal);
- (c) Sub-item (b), “Land use, land-use change and forestry”, to be co-chaired by Mr. Marcelo Rocha (Brazil) and Mr. Bryan Smith (New Zealand).

10. At the 3<sup>rd</sup> meeting, the Chair reported on the consultations by the contact group referred to in paragraph 9 (a) above. The AWG-KP considered and adopted conclusions<sup>3</sup> proposed by the Chair.

## 2. Conclusions

11. The AWG-KP continued its work on means that may be available to Annex I Parties to reach their emission reduction targets, and on identification of ways to enhance their effectiveness and their contribution to sustainable development and to the ultimate objective of the Convention as set out in its Article 2.

12. The AWG-KP held a round table on 2 June 2008 on the means that may be available to Annex I Parties to reach their emission reduction targets. The AWG-KP noted that the round table provided some useful inputs that could assist the AWG-KP in concluding its consideration of these matters at the first part of its sixth session. It took note of the summary by the Chair (see annex I) and of views and information provided by Parties during the resumed fifth session of the AWG-KP.

13. The AWG-KP agreed that consideration of land use, land-use change and forestry (LULUCF) activities in the project-based mechanisms, to be addressed as part of its work on emissions trading and the project-based mechanisms, needs to be informed by outcomes from its consideration of the issue of non-permanence and other methodological issues as part of its work on LULUCF. In addition, the AWG-KP noted the work being undertaken under decision 1/CP.13 (the Bali Action Plan), paragraph 1 (b) (iii), and that this work could be an input to the further consideration of this matter by the AWG-KP.

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<sup>2</sup> The position reflected in this statement was supported by Croatia, the former Yugoslav Republic of Macedonia, Bosnia and Herzegovina, and Serbia.

<sup>3</sup> Adopted as document FCCC/KP/AWG/2008/L.4/Rev.1.

14. The AWG-KP reiterated that, in the context of its ongoing work, it will also consider the implications for the carbon market, in particular the supply of and demand for tradable units under the Kyoto Protocol, resulting from changes to the means that may be available to Annex I Parties to reach their emission reduction targets.

#### **A. Emissions trading and the project-based mechanisms**

(Agenda item 3 (a))

##### 1. Proceedings

15. At the 3<sup>rd</sup> meeting, Ms. Figueres reported on the consultations of the contact group referred to in paragraph 9 (b) above. The AWG-KP considered and adopted conclusions<sup>4</sup> proposed by the Chair.

##### 2. Conclusions

16. In accordance with its conclusions at the first part of its fifth session, the AWG-KP considered, with due attention to improving the environmental integrity of the Kyoto Protocol, possible improvements to emissions trading and the project-based mechanisms under the Kyoto Protocol as means that may be available to Annex I Parties to reach their emission reduction targets, and the identification of ways to enhance the effectiveness of these means and their contribution to sustainable development and to achieving the ultimate objective of the Convention.

17. The AWG-KP reiterated that, in considering possible improvements to the mechanisms, due attention should be paid to promoting, inter alia, the environmental integrity of the Kyoto Protocol and the contribution of the mechanisms to sustainable development and that the use of such mechanisms should be supplemental to the implementation of domestic actions at the disposal of Annex I Parties.

18. The AWG-KP agreed that its further consideration of possible improvements to emissions trading and the project-based mechanisms should not prejudice or limit other work by other bodies under the Convention and its Kyoto Protocol.

19. The AWG-KP took note of the views expressed by Parties and compiled by the Chair of the AWG-KP under his responsibility, as contained in annex II.

20. The AWG-KP agreed to continue its work, within its mandate and according to its work programme, at the first part of its sixth session so that conclusions may be adopted at that session.

21. The AWG-KP noted that a number of issues relating to emissions trading and the project-based mechanisms under the Kyoto Protocol have been identified by Parties at this session that may be considered for possible application within the current commitment period. In this context, the AWG-KP recommended that the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, at its fourth session, may consider the list of such issues, as compiled by the Chair of the AWG-KP under his responsibility, as contained in annex III, and take actions that may be appropriate.

#### **B. Land use, land-use change and forestry**

(Agenda item 3 (b))

##### 1. Proceedings

22. At the 3<sup>rd</sup> meeting, Ms. Rocha reported on the consultations of the contact group referred to in paragraph 9 (c) above. The AWG-KP considered and adopted conclusions<sup>5</sup> proposed by the Chair.

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<sup>4</sup> Adopted as document FCCC/KP/AWG/2008/L.8.

<sup>5</sup> Adopted as document FCCC/KP/AWG/2008/L.5.

## 2. Conclusions

23. In accordance with its conclusions at the first part of its fifth session,<sup>6</sup> the AWG-KP considered, with due attention to improving the environmental integrity of the Kyoto Protocol, how to address, where applicable, the definitions, modalities, rules and guidelines for the treatment of LULUCF in the second commitment period of the Kyoto Protocol, so that conclusions on this matter may be adopted at the first part of the sixth session of the AWG-KP.

24. The AWG-KP agreed to continue its work on this matter at the first part of the sixth session of the AWG-KP, taking into account the views of Parties compiled by the Chair, as contained in annex IV.

25. The AWG-KP acknowledged that further discussions on this matter should take into account the principles that govern the treatment of LULUCF, as set out in decision 16/CMP.1.

26. The AWG-KP encouraged Parties to share information to allow better assessment of the implications of the options and issues identified in annex IV, including implications for accounting, before the first part of the sixth session of the AWG-KP. To facilitate this, the AWG-KP invited Parties to submit relevant information on a voluntary and informal basis to the secretariat before the first part of the sixth session of the AWG-KP, and requested the secretariat to make the information available on the UNFCCC website as received.

27. The AWG-KP further agreed that Parties will continue to exchange their views on the implications of the options and issues identified in annex IV, including views given in presentations by Parties at the first part of the sixth session of the AWG-KP.

### **C. Greenhouse gases, sectors and source categories**

(Agenda item 3 (c))

#### **Possible approaches targeting sectoral emissions**

(Agenda item 3 (d))

##### 1. Proceedings

28. At the 3<sup>rd</sup> meeting, the Chair reported on the relevant consultations of the contact group referred to in paragraph 9 (a) above. The AWG-KP considered and adopted conclusions<sup>7</sup> proposed by the Chair.

##### 2. Conclusions

29. In accordance with its conclusions at the first part of its fifth session, the AWG-KP considered, with due attention to improving the environmental integrity of the Kyoto Protocol:

- (a) How approaches targeting sectoral emissions could be used by Annex I Parties as a means to reach their emission reduction targets;
- (b) Possible broadening of the coverage of greenhouse gases (GHGs), sectors and source categories and its implications, based on sound science;
- (c) How approaches to limit or reduce emissions of GHGs not controlled by the Montreal Protocol from aviation and marine bunker fuels could be used by Annex I Parties as a means to reach their emission reduction targets, taking into account Article 2, paragraph 2, of the Kyoto Protocol.

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<sup>6</sup> FCCC/KP/AWG/2008/2, paragraph 21 (b).

<sup>7</sup> Adopted as document FCCC/KP/AWG/2008/L.6.

30. The AWG-KP noted that approaches targeting sectoral emissions could be used by Annex I Parties as a means to reach, but not replace, their emission reduction targets.

31. The AWG-KP took note of the views expressed by Parties under these agenda sub-items and compiled by the Chair of the AWG-KP under his responsibility, as contained in annex V.

32. The AWG-KP agreed to continue its work, within its mandate and according to its work programme, at the first part of its sixth session so that conclusions may be adopted at that session.

#### **IV. Consideration of relevant methodological issues**

(Agenda item 4)

##### 1. Proceedings

33. The AWG-KP considered this item at its 2<sup>nd</sup> and 3<sup>rd</sup> meetings, on 3 and 12 June, respectively. At the second meeting, a statement was made by the representative of one Party speaking on behalf of AOSIS.

34. Also at the 2<sup>nd</sup> meeting, the Chair reminded participants of the workshop on relevant methodological issues, scheduled for 7 June. The AWG-KP agreed that this item should be considered further in the contact group referred to in paragraph 9 (a) above. At the 3<sup>rd</sup> meeting, the Chair reported on the contact group's consultations. The AWG-KP considered and adopted the conclusions<sup>8</sup> proposed by the Chair.

##### 2. Conclusions

35. The AWG-KP initiated its consideration of methodological issues, including methodologies to be applied for estimating anthropogenic emissions and the global warming potentials of GHGs, and of the possible impact thereof on the estimates of total emissions by Parties.

36. The AWG-KP held a workshop on 7 June 2008 on relevant methodological issues. The Vice-Chair of the AWG-KP chaired the workshop and provided a summary of the discussions<sup>9</sup> (see annex VI). The AWG-KP took note of the summary of views expressed by Parties at the workshop and of views and information contained in document FCCC/KP/AWG/2008/MISC.3.

37. The AWG-KP agreed to continue its work, within its mandate and according to its work programme, at the first part of its sixth session, taking into account the views of Parties compiled by its Chair, as contained in annex VII, so that conclusions on these issues may be adopted at the first part of its sixth session.

#### **V. Other matters**

(Agenda item 5)

38. No other matters were raised or considered.

#### **VI. Report on the session**

(Agenda item 6)

39. At its 3<sup>rd</sup> meeting, on 12 June, the AWG-KP considered and adopted the draft report on its resumed fifth session (FCCC/KP/AWG/2008/L.3). At the same meeting, on a proposal by the Chair, the

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<sup>8</sup> Adopted as document FCCC/KP/AWG/2008/L.7.

<sup>9</sup> <[http://unfccc.int/files/kyoto\\_protocol/application/pdf/report\\_meth\\_workshop.pdf](http://unfccc.int/files/kyoto_protocol/application/pdf/report_meth_workshop.pdf)>.

AWG-KP authorized the Rapporteur to complete the report on the session, with the assistance of the secretariat and under the guidance of the Chair.

## **VII. Closure of the session**

40. At the 3<sup>rd</sup> meeting, on 12 June, the Chair thanked the delegates for their contributions and the secretariat for its support. He emphasized that difficult negotiations await the AWG-KP at the first part of its sixth session, to be held in Accra, Ghana, from 21 to 27 August 2008. He stressed that a new spirit of cooperation would be needed for the AWG-KP to achieve the goals set out in its work programme, and encouraged Parties to come well prepared for that session.

Annex I

[ENGLISH ONLY]

**Round table on the means to reach emission reduction targets****Summary by the chair****I. Introduction**

1. At its resumed fourth session, the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) requested the secretariat, under the guidance of the Chair of the AWG-KP, to organize a round table on the analysis of means that may be available to Annex I Parties to reach their emission reduction targets and the identification of ways to enhance the effectiveness of these means and their contribution to sustainable development.<sup>1</sup>

2. The round table was held in Bonn, Germany, on 2 June 2008, during the resumed fifth session of the AWG-KP, and was chaired by Mr. Harald Dovland, Chair of the AWG-KP.

3. The aim of the round table was to gather concrete ideas from Parties on how to enhance the effectiveness of the means referred to in paragraph 1 above and their contribution to sustainable development. It built on the outcomes of a workshop on the same topic held in Bangkok, Thailand, from 1 to 3 April 2008.

4. The round table was open to all Parties and observers. It was divided into three panels as follows:

- (a) First panel: emissions trading and the project-based mechanisms;
- (b) Second panel: land use, land-use change and forestry (LULUCF);
- (c) Third panel: greenhouse gases (GHGs), sectors and source categories to be covered; and possible approaches targeting sectoral emissions.

5. Up to six experts from different Parties were invited to share concrete ideas during each panel on how to enhance the effectiveness of the means and their contribution to sustainable development. This was followed by a focused discussion in which Parties had the opportunity to present additional ideas.

6. The following issues were considered at the round table, in accordance with the conclusions adopted by the AWG-KP at the first part of its fifth session:<sup>2</sup>

- (a) Possible improvements to emissions trading and the project-based mechanisms under the Kyoto Protocol on their scope, effectiveness, efficiency, accessibility, contribution to sustainable development, capacity to generate co-benefits and the transfer of technology;
- (b) How to address, where applicable, the definitions, modalities, rules and guidelines for the treatment of LULUCF in the second commitment period;
- (c) How approaches targeting sectoral emissions could be used by Annex I Parties as a means to reach their emission reduction targets;

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<sup>1</sup> FCCC/KP/AWG/2007/5, paragraph 19 (d) (i).

<sup>2</sup> FCCC/KP/AWG/2008/2, paragraph 21.

- (d) Possible broadening of the coverage of GHGs, sectors and source categories and its implications, based on sound science;
- (e) How approaches to limit or reduce emissions of GHGs not controlled by the Montreal Protocol from aviation and marine bunker fuels could be used by Annex I Parties as a means to reach their emission reduction targets, taking into account Article 2, paragraph 2, of the Kyoto Protocol.

7. At the closing of the round table, the Chair informed participants that a report would be available on Tuesday, 3 June.

## II. Summary of discussions

### A. First panel: emissions trading and the project-based mechanisms

8. Parties reiterated their support for the continuation of emissions trading, the clean development mechanism (CDM) and joint implementation (JI) in the future and expressed a common desire to strengthen the use of these mechanisms, including through improving the regional distribution of projects under the mechanisms. Parties stressed the need for stronger emission reduction commitments to drive the demand for credits, in particular from the CDM, although some Parties also expressed concern that the supply of credits from new activities should not overwhelm market demand. Parties agreed that the use of the mechanisms should be supplemental to domestic action.

9. In relation to emissions trading, Parties identified the need to reduce differentiation in the carbon market by promoting the linking of national and regional emissions trading schemes and the broader mutual acceptance of units (fungibility) among these schemes. Some Parties also suggested that the commitment period reserve could be reduced in the second commitment period for Parties which had met their emission reduction obligations in the first period.

10. In relation to JI, some Parties noted that certain changes identified for the CDM may also apply.

11. Most of the discussion during the panel focused on the CDM. In relation to the scope of the CDM, Parties were supportive of broadening the coverage of project activities under the mechanism. In this context, some Parties mentioned in particular the LULUCF and agriculture sectors. Other Parties made more general references to all sectors and technologies.

12. In relation to the governance of the CDM, some Parties considered that the Executive Board of the CDM should focus on providing guidance, for example to Parties, designated operational entities (DOEs) and project participants, and should be less involved in specific project cases. This issue is closely related to the need to ensure that members of the Executive Board possess the appropriate expertise and to a consideration of the role of the secretariat in providing support to the Board.

13. Parties also raised issues concerning the roles of other actors in the CDM. In particular, several Parties referred to the need to ensure that the performance of DOEs is of high quality and to provide them with clear guidance as to their activities. Some Parties also mentioned that host Party governments could play stronger roles in clarifying their views on project activities and giving inputs to their development. Parties noted the link between governance issues and the work under the second review of the Kyoto Protocol pursuant to its Article 9, and that some of these issues may be relevant to the first commitment period.

14. In relation to procedural issues for the CDM, Parties emphasized the need to ensure the environmental integrity of the Kyoto Protocol and the additionality of projects, but considered that there may be alternative ways to assess the additionality of projects that may improve the efficiency in

processing cases. These alternatives include allowing more scope for projects to claim more conservative levels of emission reductions, in return for less precise project procedures, or for the additionality of certain project types to be assured through setting baselines at a macro level. The importance of ensuring the consistent treatment of similar projects under the CDM was also mentioned.

15. Some Parties also referred to the need for alternative approaches to address non-permanence in afforestation and reforestation projects under the CDM. For this purpose, it may be possible to identify approaches that simplify the accounting rules for such projects and avoid the need for temporary units.

16. In relation to the regional distribution of CDM projects, a number of suggestions were made. These included identifying and reducing barriers to projects, including LULUCF projects, in countries that currently have only a few projects or none. It was suggested that the procedures for small-scale project activities could be further simplified for projects in certain host country Parties. Others suggested allocating numbers of projects to certain host country Parties and providing capacity-building activities.

17. In relation to transforming the CDM, some suggestions were made for moving from project-based approaches to allow for sector-based approaches, including through focusing more on the programmatic CDM and sectoral CDM. Some Parties suggested that this may provide a solution to issues of additionality, transaction costs and efficiency. While there was no consensus on these points, some Parties stated that further definition of approaches should be undertaken. Some Parties suggested that discussion is also needed on sectoral crediting based on no-lose targets, emissions trading based on sectoral targets and options to enhance the contribution of the CDM to global mitigation efforts.

18. A number of cross-cutting issues, across the mechanisms, were also identified. These included a review of carry-over restrictions between commitment periods and improved transparency regarding green investment schemes. Parties also noted that the rules for emissions trading would need to be reviewed in the light of future agreed commitment structures.

19. A number of Parties raised the need for increased funding for adaptation purposes and supported an extension of the share of proceeds under the CDM to emissions trading and JI in this regard. However, other Parties, while also mindful of the need to increase such funding, did not consider that the market-based mechanisms were an appropriate source of such funding.

20. Some Parties stressed that the AWG-KP should bear in mind linkages between some of the issues identified during the panel and issues being addressed under other processes, notably the Ad Hoc Working Group on Long-term Cooperative Action under the Convention and the second review of the Kyoto Protocol pursuant to its Article 9. Other Parties also referred to the guidance provided by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol to the Executive Board, as a way to enhance the effectiveness of some aspects of the CDM.

### **B. Second panel: land use, land-use change and forestry**

21. Parties reiterated their support for the continuation of LULUCF activities as means for Annex I Parties to reach their emission reduction targets. Some Parties noted that the definitions, modalities, rules and guidelines for LULUCF in the first commitment period provide limited incentive for Parties to realize the full potential of the sector and to promote sustainable land management.

22. Parties stressed the importance of ensuring the environmental integrity of the Kyoto Protocol and recognized the important role of the principles contained in decision 16/CMP.1.

23. Most Parties considered that any modifications should aim at simpler and more transparent definitions, rules and modalities. Other Parties emphasized the importance of maintaining consistency

with the rules that apply to LULUCF in the first commitment period, as well as to LULUCF in the general context of the Convention and its Kyoto Protocol.

24. Several Parties emphasized the need to consider carefully the implications of any modifications to the rules that currently apply to LULUCF. Some Parties emphasized the need to focus on anthropogenic emissions and removals by excluding emissions from natural disturbances, sinks for natural processes, and indirect effects of climate change and age-structure legacy. Concrete proposals to address inter-annual variability and natural disturbances were presented by some Parties. Proposals presented by Parties can be broadly summarized as follows:

- (a) Small adjustments to the current definitions, rules and modalities;
- (b) Amendments to current rules, including:
  - (i) Harmonizing the accounting for all activities under Article 3, paragraph 4, of the Kyoto Protocol (Article 3.4);
  - (ii) Identifying alternative ways to account only for direct anthropogenic emissions and removals resulting from forest management, for example discounting factors and forward-looking baselines;
  - (iii) Making activities under Article 3.4 compulsory;
  - (iv) Including additional activities under Article 3.4, for example wetland restoration;
  - (v) Modifying the current treatment of harvested wood products and addressing biofuels;
  - (vi) Changing the base year or consideration of base year period;
- (c) A more inclusive approach to LULUCF, aiming at a broad coverage of land. Some Parties suggested that similar accounting to that used in other sectors be introduced by including the LULUCF sector in Annex A to the Kyoto Protocol.

25. Some Parties suggested that the eligibility activities under the CDM be expanded after the first commitment period.

26. Most Parties emphasized the importance of agreeing on the definitions, modalities, rules and guidelines for LULUCF before agreeing on further commitments for Annex I Parties.

### **C. Third panel: greenhouse gases, sectors and source categories to be covered; and possible approaches targeting sectoral emissions**

#### **1. Greenhouse gases, sectors and source categories**

27. Parties generally shared the view that the current approach under the Kyoto Protocol to GHGs, sectors and source categories should continue to be applied.

28. Some Parties suggested that additional gases could be included in Annex A to the Kyoto Protocol, for example, nitrogen trifluoride and the group of fluorinated ethers. Some Parties acknowledged that, while these gases have high global warming potentials (GWPs), they represent a small share of global GHG emissions. Other Parties noted that the phasing out of gases controlled by the Montreal Protocol could lead to a significant increase in the use of these GHGs as substitutes for ozone-depleting substances.

29. A number of Parties suggested that, in discussions on the inclusion of additional gases, due consideration should be given to the availability of methodologies to assess these gases and the GWPs that are provided by the Intergovernmental Panel on Climate Change. Other Parties also referred to the need for scientific evidence that these gases are of direct anthropogenic origin. They also noted that the reporting of any newly included gases should be comparable and consistent with the current reporting framework under the Kyoto Protocol.

30. One Party noted that the coverage of sectors under Annex A to the Kyoto Protocol could be expanded by including the LULUCF sector.

## 2. Emissions from aviation and marine bunker fuels

31. Parties noted that the current provisions of the Kyoto Protocol exclude emissions from international aviation and maritime transport from national totals. Some Parties suggested that the AWG-KP should explore options on how to include these emissions in national totals.

32. Some Parties suggested that options for limiting or reducing emissions from international aviation and maritime transport under Article 2, paragraph 2, of the Protocol would need to apply to all Parties, in accordance with the principles of the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO). Other Parties stressed that discussions under the AWG-KP should be strictly focused on Annex I Parties, bearing in mind the principles of the Convention.

33. A range of views was expressed on the role of different United Nations bodies. Several Parties expressed the view that ICAO and IMO should take the lead on all issues relating to the limitation or reduction of emissions from international aviation and maritime transport. Other Parties suggested that work on this issue could be carried out through cooperation between the UNFCCC, ICAO and IMO. One Party further proposed that the UNFCCC could develop specific reduction or limitation targets, while ICAO and IMO could provide the technical expertise on how such targets could be achieved.

34. One Party made a specific suggestion of specific measures that could contribute to the reduction of emissions from international maritime transport. The proposal involved establishing a legally binding instrument under IMO (with reduction or limitation targets defined under the UNFCCC), for which a number of different approaches for maritime transport could be considered, such as emission caps and emissions trading or other market-based measures.

35. One Party expressed the view that, in order to advance on issues related to emissions from international aviation and maritime transport, progress should be made with regard to discussions on Article 2, paragraph 3, of the Kyoto Protocol. Another Party expressed disagreement with the notion of assigning responsibility for emissions from maritime transport according to the national flag carried by the ship.

## 3. Approaches targeting sectoral emissions

36. Several Parties stressed that discussions on possible approaches targeting sectoral emissions within the AWG-KP should take place in the context of further commitments for Annex I Parties under the Kyoto Protocol. They suggested that a broader consideration of this issue lies outside the scope of the AWG-KP and cited, in particular, discussions on cooperative sectoral approaches and on finance and technology to support sectoral efforts in developing countries.

37. Some Parties further specified that the AWG-KP should limit its discussions to possible approaches targeting sectoral emissions as means for Annex I Parties to reach their emission reduction targets. Such discussions may focus only on sectors within and among Annex I Parties.

38. Parties generally shared the view that approaches targeting sectoral emissions should not replace nationwide targets but should instead complement them. Some Parties stressed that these approaches should not lead to commitments for non-Annex I Parties or be used to impose trade barriers.

39. A number of Parties noted the need for clarity on what is meant by “sectors”. In this context, some Parties stated that discussions could focus on those sectors that are a significant source of anthropogenic GHG emissions, referring to the energy, transport, aluminum, iron and steel, and cement sectors. One Party stated that singling out sectors would not be acceptable.

40. A distinction was drawn between approaches at national and transnational levels, on the one hand, and sectoral efforts and sectoral agreements on the other. One Party suggested that the AWG-KP should focus on national efforts. Another Party stressed that information at the sectoral level could be used to determine national emission reduction targets, following a bottom-up approach.

41. Some Parties noted that possible approaches targeting sectoral emissions can assist in directing technologies and actions into specific sectors. One Party presented some suggestions for targeting sectoral emissions, namely: sector-specific targets; agreements to phase out inefficient technologies; and technical regulations and standards. This Party further noted that different alternatives would apply to different sectors.

Annex II

[ENGLISH ONLY]

**Views expressed by Parties on possible improvements to emissions trading and the project-based mechanisms under the Kyoto Protocol, as means that may be available to Annex I Parties to reach their emission reduction targets, compiled by the Chair of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol**

This annex is the compilation of views of Parties and does not prejudge any actions by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol.

## I. Clean development mechanism

### A. Scope

1. Modification of the scope of the clean development mechanism (CDM):
  - (a) Include other land use, land-use change and forestry (LULUCF) activities;<sup>1</sup>
  - (b) Introduce a cap for eligible LULUCF activities;<sup>2</sup>
  - (c) Include carbon dioxide capture and storage;<sup>3</sup>
  - (d) Include nuclear activities;
  - (e) Introduce sectoral CDM for emission reductions below a baseline defined at a sectoral level;
  - (f) Introduce sectoral crediting of emission reductions below a previously established no-lose target;
  - (g) Introduce crediting on the basis of nationally appropriate mitigation actions.

### B. Effectiveness and efficiency

2. Enhancements to the supervisory role of the Executive Board of the CDM:

Introduce a different supervisory structure and institutional arrangement in case of modification of the scope of the CDM.
3. Enhancements to the efficiency of the Executive Board:

Ensure equitable representation of Parties on the Executive Board through changes to the modalities and procedures for the CDM.

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<sup>1</sup> Discussion to be informed by outcomes of the consideration of non-permanence and other methodological issues.

<sup>2</sup> Discussion to be informed by outcomes of the consideration of non-permanence and other methodological issues.

<sup>3</sup> This issue is being considered by the Subsidiary Body for Scientific and Technological Advice under its work on carbon dioxide capture and storage in geological formations as CDM project activities. This item is listed without prejudging or limiting that consideration for the first commitment period.

4. Role of the secretariat:

Shift the function of the secretariat to support the Executive Board to another organization.
5. Designated operational entities (DOEs):

Introduce alternative institutional arrangements to replace DOEs.
6. Broaden the role of host Party governments.
7. Alternative ways to ensure environmental integrity and assess the additionality of projects:
  - (a) Develop standardized, multiple-project baselines;
  - (b) Establish additionality at the macro level;
  - (c) Exempt certain project types from the additionality test;
  - (d) Introduce criteria for projects that would have happened anyway.

#### **C. Accessibility<sup>4,5</sup>**

8. Differentiate the treatment of Parties under the CDM:
  - (a) Define eligible Parties through use of indicators;
  - (b) Improve access to CDM projects by certain host Parties.
9. Differentiate the treatment of types of projects by Party.

#### **D. Contribution to sustainable development, capacity to generate co-benefits and the transfer of technology**

10. Enhance the contribution of the CDM to sustainable development, as approved by the host Party:

Allocate proportions of the demand for certified emission reductions (CERs) to specific project types (high sustainable development component) and/or specific groups of Parties.
11. Increase the demand for afforestation and reforestation projects:

Define alternative accounting rules for afforestation and reforestation projects.<sup>6</sup>
12. Increase the co-benefits of CDM projects (e.g. energy efficiency):

Include co-benefits (e.g. monetary, other) as a project assessment criterion.
13. Restrict CDM to bilateral CDM projects.

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<sup>4</sup> Equitable regional distribution is being considered by the Subsidiary Body for Implementation under its work on the preparation for the second review of the Kyoto Protocol pursuant to its Article 9.

<sup>5</sup> Non-permanence and other methodological issues are being considered by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol under its work on LULUCF.

<sup>6</sup> Non-permanence and other methodological issues are being considered by the AWG-KP under its work on LULUCF.

14. Alternatives to the current application of global warming potentials (GWPs):
  - (a) Introduce multiplication factors for emission reductions to determine CERs from certain technologies;
  - (b) Replace the application of GWPs with the application of global temperature-change potentials (GTPs).<sup>7</sup>
15. Increase the technology transfer of the CDM (North–South, South–South, within a country):
 

Include technology transfer as a project assessment criterion.

## **II. Joint implementation**

### **A. Scope**

16. Modalities for graduation of Parties from CDM projects to joint implementation (JI) projects.
17. Consistency of approaches to LULUCF activities:<sup>8</sup>
  - (a) Ensure approaches for LULUCF projects under JI are in line with the treatment of LULUCF under Article 3, paragraphs 3 and 4, of the Kyoto Protocol;
  - (b) Introduce approaches to LULUCF projects under JI that are parallel to the treatment of afforestation and reforestation activities under the CDM.
18. Modification of the scope of JI:
  - (a) Include activities to reduce emissions from deforestation and degradation;<sup>9</sup>
  - (b) Introduce crediting on the basis of nationally appropriate mitigation actions.

### **B. Effectiveness and efficiency**

19. Enhancements to the supervisory role of the Joint Implementation Supervisory Committee (JISC):
 

Introduce a different supervisory structure and institutional arrangement in case of modification of the scope of the JI.
20. Enhancements to the efficiency of the JISC:
 

Ensure equitable representation of Parties on the JISC through changes to the guidelines for JI.
21. Role of the secretariat:
 

Shift the secretariat's function to support the JISC to another organization.

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<sup>7</sup> GWPs are being considered by the AWG-KP under its work on greenhouse gases, sectors and source categories.

<sup>8</sup> Non-permanence and other methodological issues are being considered by the AWG-KP under its work on LULUCF.

<sup>9</sup> Non-permanence and other methodological issues are being considered by the AWG-KP under its work on LULUCF.

22. Accredited independent entities (AIEs):  
Introduce alternative institutional arrangements to replace the AIEs.
23. Broaden the role of host Party governments.
24. Alternative ways to ensure environmental integrity and assess the additionality of projects:
- (a) Establish additionality at the macro level;
  - (b) Exempt certain project types from the additionality test;
  - (c) Introduce criteria for projects that would have happened anyway.

### **C. Accessibility<sup>10</sup>**

25. Differentiate the treatment of Parties under the JI:
- (a) Define eligible host Parties through use of indicators;
  - (b) Improve access to JI projects by certain host Parties.
26. Differentiate the treatment of types of projects by host Party.

### **D. Contribution to sustainable development, capacity to generate co-benefits and the transfer of technology**

27. Enhance the contribution of JI to sustainable development, as approved by the host Party:  
Allocate proportions of the demand for emission reduction units to specific project types (high sustainable development component) and/or specific groups of Parties.
28. Increase the co-benefits of JI projects (e.g. energy efficiency):  
Include co-benefits (e.g. monetary, other) as a project assessment criterion.
29. Restrict JI to bilateral JI projects.
30. Alternatives to the current application of GWPs:
- (a) Introduce multiplication factors for emission reductions to determine emission reduction units from certain technologies;
  - (b) Replace the application of GWPs with the application of GTPs.<sup>11</sup>
31. Increase the technology transfer of JI:  
Include technology transfer as a project assessment criterion.

## **III. Emissions trading (Article 17)**

### **A. Scope**

32. Introduce emissions trading based on sectoral targets.

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<sup>10</sup> Non-permanence and other methodological issues are being considered by the AWG-KP under its work on LULUCF.

<sup>11</sup> GTPs are being considered by the AWG-KP under its work on greenhouse gases, sectors and source categories.

33. Introduce emissions trading on the basis of nationally appropriate mitigation actions.
34. Linking to voluntary national/regional/sectoral emissions trading schemes in non-Annex I Parties.

#### **B. Effectiveness and efficiency**

35. Linking of national and regional emissions trading schemes.
36. Broader mutual acceptance of units (fungibility):
  - (a) Review restrictions on the access to and use of certain Kyoto unit types;
  - (b) Greater convertibility among Kyoto unit types.
37. Commitment period reserve (CPR):
  - (a) Eliminate the CPR provisions;
  - (b) Lower CPR levels in subsequent commitment periods for Annex I Parties that meet their commitment in the previous commitment period;
  - (c) Raise or maintain CPR levels.
38. Transparency of emissions trading markets:

Options to encourage disclosure of information on transaction of Kyoto unit types.
39. Role of the secretariat:

Shift the function of the secretariat to support the international transaction log to another organization.

#### **C. Accessibility**

#### **D. Contribution to sustainable development, capacity to generate co-benefits and the transfer of technology**

### **IV. Cross-cutting issues**

40. Review of carry-over restrictions:
  - (a) Issues related to banking;
  - (b) Ensure consistency of carry-over rules for removal units;
  - (c) Change the limit on the retirement of temporary CERs (tCERs) and long-term CERs (lCERs);<sup>12</sup>
  - (d) Introduce borrowing of assigned amounts from future commitment periods.

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<sup>12</sup> Non-permanence and other methodological issues are being considered by the AWG-KP under its work on LULUCF.

41. Reduce the number of unit types established under the Kyoto Protocol.
42. Extend the share of proceeds.<sup>13</sup>
43. Introduce a mid-commitment period “true-up” process.

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<sup>13</sup> This issue is being considered by the SBI under its work on the preparation for the second review of the Kyoto Protocol pursuant to its Article 9.

Annex III

[ENGLISH ONLY]

**Issues relating to emissions trading and the project-based mechanisms that may be considered for possible application within the current commitment period, compiled by the Chair of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol**

This annex is the compilation of views of Parties and does not prejudge any actions by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol.

**I. Clean development mechanism****A. Scope****B. Effectiveness and efficiency**

1. Enhancements to the supervisory role of the Executive Board of the clean development mechanism (CDM):
  - (a) Delegate technical decision-making to the secretariat, on the basis of rules and relevant best practices, to allow the Executive Board to move away from case-by-case decision-making;
  - (b) Enhance the transparency of decision-making by the Executive Board by providing the rationale for decisions;
  - (c) Change the manner in which requests for the review of project activities are made;
  - (d) Introduce a process for appeals in relation to decisions by the Executive Board;
  - (e) Extend privileges and immunities to individuals serving as Executive Board members.<sup>1</sup>
2. Enhancements to the efficiency of the Executive Board:
  - (a) Enhance the consistency of decision-making by the Executive Board;
  - (b) Ensure that members of the Executive Board possess appropriate expertise as defined in paragraph 8 of the annex to decision 3/CMP.1.
3. Role of the secretariat:
  - (a) Enhance the role of the secretariat through delegation of technical decision-making;
  - (b) Ensure the neutrality of the secretariat;
  - (c) Introduce measures to improve the management of support to the Executive Board.
4. Designated operational entities (DOEs):
  - (a) Ensure that the Executive Board provides clear guidance to DOEs on their roles;

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<sup>1</sup> This issue is being considered by the Subsidiary Body for Implementation under its work on the preparation for the second review of the Kyoto Protocol pursuant to its Article 9.

- (b) Enhance the quality and consistency of assessments by DOEs, in particular in relation to environmental integrity;
  - (c) Introduce penalties for poor-quality performance of DOEs;
  - (d) Reduce barriers to the entry of new DOEs;
  - (e) Facilitate regional distribution of DOEs.
5. Alternative ways to ensure environmental integrity and assess the additionality of projects:
- (a) Develop benchmarks, based on conservative assumptions;
  - (b) Make baseline setting more objective and robust;
  - (c) Remove investment additionality from the additionality test;
  - (d) Introduce improved measures for testing environmental and social impacts;
  - (e) Remove perverse incentives created by CDM project eligibility that inhibit climate-friendly national policies;
  - (f) Develop a system to deal with unintended consequences of CDM projects.

### **C. Accessibility<sup>2,3</sup>**

6. Continuously identify and reduce barriers to the development of CDM projects in countries with few projects.
7. Simplify further the modalities and procedures for small-scale project activities.
8. Enhance capacity-building and enabling environments:

Establish a capacity-building role for the Executive Board.

### **D. Contribution to sustainable development, capacity to generate co-benefits and the transfer of technology**

9. Enhance programmatic CDM.
10. Increase the co-benefits of CDM projects (e.g. energy efficiency):
- Introduce ways to address barriers to projects with high environmental co-benefits (e.g. targeted capacity-building).

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<sup>2</sup> Equitable regional distribution is being considered by the SBI under its work on the preparation for the second review of the Kyoto Protocol pursuant to its Article 9.

<sup>3</sup> Non-permanence and other methodological issues are being considered by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol under its work on land use, land-use change and forestry.

## II. Joint implementation

### A. Scope

### B. Effectiveness and efficiency

11. Enhancements to the supervisory role of the Joint Implementation Supervisory Committee (JISC):
  - (a) Delegate technical decision-making to the secretariat, on the basis of rules and relevant best practices, to allow the JISC to move away from case-by-case decision-making;
  - (b) Enhance the transparency of decision-making by the JISC by providing the rationale for decisions;
  - (c) Change the manner in which requests for the review of project activities are made;
  - (d) Introduce a process for appeals in relation to decisions by the JISC;
  - (e) Extend privileges and immunities to individuals serving as JISC members.<sup>4</sup>
12. Enhancements to the efficiency of the JISC:
  - (a) Enhance the consistency of decision-making by the JISC;
  - (b) Ensure that members of the JISC possess appropriate expertise as defined in paragraph 10 of the annex to decision 9/CMP.1.
13. Role of the secretariat:
  - (a) Enhance the role of the secretariat through delegation of technical decision-making;
  - (b) Ensure the neutrality of the secretariat;
  - (c) Introduce measures to improve the management of support to the JISC.
14. Accredited independent entities (AIEs):
  - (a) Ensure that the JISC provides clear guidance to the AIEs on their roles;
  - (b) Enhance the quality and consistency of assessments by AIEs, in particular in relation to environmental integrity;
  - (c) Introduce penalties for poor-quality performance of AIEs;
  - (d) Reduce barriers to the entry of new AIEs;
  - (e) Facilitate regional distribution of AIEs.
15. Alternative ways to ensure environmental integrity and assess the additionality of projects:
  - (a) Develop benchmarks, based on conservative assumptions;
  - (b) Make baseline setting more objective and robust;

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<sup>4</sup> This issue is being considered by the SBI under its work on the preparation for the second review of the Kyoto Protocol pursuant to its Article 9.

- (c) Remove investment additionality from the additionality test;
- (d) Introduce improved measures for testing environmental and social impacts;
- (e) Remove perverse incentives created by joint implementation (JI) project eligibility that inhibit climate-friendly national policies;
- (f) Develop a system to deal with unintended consequences of JI projects.

#### **C. Accessibility<sup>5</sup>**

16. Continuously identify and reduce barriers to the development of JI projects in countries with few projects.

17. Enhance capacity-building and enabling environments:

Establish a capacity-building role for the JISC.

#### **D. Contribution to sustainable development, capacity to generate co-benefits and the transfer of technology**

18. Allow programmatic JI.

19. Increase the co-benefits of JI projects (e.g. energy efficiency):

Introduce ways to address barriers to projects with high environmental co-benefits (e.g. targeted capacity-building).

### **III. Emissions trading (Article 17)**

#### **A. Scope**

#### **B. Effectiveness and efficiency**

#### **C. Accessibility**

#### **D. Contribution to sustainable development, capacity to generate co-benefits and the transfer of technology**

### **IV. Cross-cutting issues**

20. Improve the procedure of inscribing commitments for Annex I Parties in Annex B to the Kyoto Protocol.<sup>6</sup>

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<sup>5</sup> Non-permanence and other methodological issues are being considered by the AWG-KP under its work on LULUCF.

<sup>6</sup> This issue is being considered by the SBI under its work on the preparation for the second review of the Kyoto Protocol pursuant to its Article 9.

Annex IV

[ENGLISH ONLY]

**Options and issues for consideration relating to land use, land-use change and forestry, compiled by the Chair of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol**

This annex is the compilation of views of Parties and does not prejudice any actions by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol.

Cross-cutting issues to be considered when exploring the options and issues identified by Parties in the paragraphs below: consistency; continuity from the current rules; factoring out, including age structure and indirect climate change effects; inter-annual variability; natural disturbances; symmetry in the accounting of emissions and removals; sustainable forest management; and co-benefits, including biodiversity.

1. The range of options and issues identified by Parties for consideration:
  - (a) Activity-based approach based on Article 3, paragraphs 3 and 4, of the Kyoto Protocol:
    - (i) Few changes:
      - a. Legally required;<sup>1</sup>
      - b. Definitions, modalities, rules and guidelines that apply in the first commitment period that could carry over to the second commitment period;
    - (ii) More changes:
      - a. Legally required; and
      - b. Article 3, paragraph 4, forest management:
        - i. Moving to net-net and including emissions and removals from forest management in the base year;
        - ii. Moving to net-net and estimating base year emissions and removals using a base period;
        - iii. Moving to net-net and applying forward-looking baselines;
        - iv. Remaining gross-net and applying discount factors;
        - v. Other;
    - (iii) Many changes:
      - a. Legally required; and
      - b. Article 3, paragraph 4, forest management (options as above); and
      - c. Other activities under Article 3, paragraph 4:
        - i. Estimating base year emissions and removals using a base period;
        - ii. Applying forward-looking baselines;

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<sup>1</sup> When only legally required changes are considered, the current treatment of the activities will be retained.



Annex V

[ENGLISH ONLY]

**Views of Parties on possible approaches targeting sectoral emissions and on greenhouse gases, sectors and source categories to be covered, compiled by the Chair of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol**

This annex is the compilation of views of Parties and does not prejudice any actions by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP).

**Possible approaches targeting sectoral emissions**

1. Approaches targeting sectoral emissions in Annex I Parties could assist Annex I Parties in reaching their national emission reduction targets and could cover both producing and consuming sectors. These approaches should lead to a real benefit for the climate.
2. Approaches targeting sectoral emissions, within the mandate of the AWG-KP and according to its work programme, should not:
  - Replace national targets of Annex I Parties;
  - Lead to commitments for non-Annex I Parties;
  - Constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.
3. Types of approaches targeting sectoral emissions, within the mandate of the AWG-KP and according to its work programme, include:
  - Bottom-up sectoral analysis to inform the discussion on mitigation potentials of Annex I Parties;<sup>1</sup>
  - Cooperative sectoral approaches supported and enabled by finance and technology;
  - Sectoral crediting in non-Annex I Parties;<sup>2</sup>
  - Complementary sector-specific goals for Annex I Parties.

**Greenhouse gases, sectors and source categories to be covered**

1. Ensure a comprehensive coverage of greenhouse gases (GHGs), sectors and source categories based on the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (AR4).
2. Ensure the environmental integrity of the Kyoto Protocol.

**A. Greenhouse gases**

1. Consider possible implications of adding new gases for:
  - Mitigation potentials of Annex I Parties;
  - The carbon market, in particular the supply and demand for tradable units under the Kyoto Protocol;

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<sup>1</sup> Relevant for discussions on mitigation potential.

<sup>2</sup> Relevant for discussions on emissions trading and the project-based mechanisms under agenda item 3 (a).

- National action in Annex I Parties.
2. Based on the above implications, consider adding to Annex A to the Kyoto Protocol, taking into account the availability of methodologies for estimating anthropogenic emissions and global warming potentials or any other metric:
- The new GHGs in the group of hydrofluorocarbons and perfluorocarbons referred to in the AR4;
  - The new GHGs or groups of GHGs including fluorinated ethers and perfluoropolyethers referred to in the AR4.

### **B. Sectors and source categories**

1. Consider the possible implications of broadening the coverage of sectors and source categories, taking into account:
- The results of consideration of adding new GHGs or groups of GHGs;
  - The results of consideration of the application of the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*;
  - The results of the consideration of the definitions, modalities, rules and guidelines for the treatment of land use, land-use change and forestry in the second commitment period.
2. Based on the above implications, make any necessary changes to the coverage of sectors and source categories under Annex A to the Kyoto Protocol.

### **Emissions from aviation and maritime bunker fuels**

1. Limiting or reducing emissions from aviation and marine bunker fuels as a means for Annex I Parties to reach their emission reduction targets in accordance with Article 2, paragraph 2, of the Kyoto Protocol.
2. Scope of limiting or reducing emissions from aviation and marine bunker fuels as a means for Annex I Parties to reach their emission reduction targets in accordance with Article 2, paragraph 2, of the Kyoto Protocol:
- The International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) to take the lead; emissions to continue to be reported separately from national totals in accordance with the UNFCCC and Kyoto Protocol reporting guidelines;
  - UNFCCC to agree on mitigation objectives; ICAO and IMO to implement these objectives;
  - UNFCCC to take the lead by allocating emissions to national totals; ICAO and IMO to provide technical expertise.
3. Need for progress on discussions on Article 2, paragraph 3, of the Kyoto Protocol.
4. Apply economic instruments to emissions from aviation and marine bunker fuels as a source of revenue to finance, inter alia, adaptation and reduction of emissions from deforestation and forest degradation in developing countries.]

Annex VI

[ENGLISH ONLY]

**Workshop on methodological issues****Summary by the chair****I. Introduction**

1. The Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP), at its resumed fourth session, requested the secretariat to organize, under the guidance of the Chair of the AWG-KP, 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).<sup>1</sup>
2. The workshop was held in Bonn, Germany, on 7 June 2008, during the resumed fifth session of the AWG-KP, and was chaired by Mr. Mama Konate, Vice-Chair of the AWG-KP.
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-KP at its second session,<sup>2</sup> and in particular to identify the issues that the AWG-KP 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-KP. 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:
  - (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 removals<sup>3</sup> and the impacts of these on the assessment by Parties of the effectiveness of mitigation options by Parties.

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

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

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

6. In order to provide input for the discussion, the Vice-Chair of the AWG-KP 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:
  - (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 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 Database<sup>4</sup> 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-KP 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 this 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 (CO<sub>2</sub>) 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.

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-CO<sub>2</sub> gases on global warming, and overestimation of the effect of mitigation options and projects under the clean development mechanism that address emissions of non-CO<sub>2</sub> 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 confidence in these alternatives is still not high.

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

Annex VII

[ENGLISH ONLY]

**Views of Parties on relevant methodological issues, compiled by the Chair of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol**

This annex is the compilation of views of Parties and does not prejudice any actions by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol.

**General**

1. Ensure consistency and comparability of reporting between the first and subsequent commitment periods of the Kyoto Protocol and between reporting under the Convention and its Kyoto Protocol.
2. Use the best available scientific knowledge and proven methodologies.

**Methodologies for estimation of greenhouse gas emissions**

1. Consider the implications of applying the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* (hereinafter referred to as the 2006 IPCC Guidelines) for, inter alia:
  - The estimation of emissions and removals of new source categories;
  - Time-series consistency;
  - Recalculations;
  - Accounting, in particular in relation to the base year.
2. Based on the above implications, consider the application of the 2006 IPCC Guidelines.<sup>1</sup>
3. Reflect the results of considering the application of the 2006 IPCC Guidelines in the UNFCCC reporting guidelines for national greenhouse gas (GHG) inventories.<sup>2</sup>
4. Consider the need for additional methodological guidance, inter alia, relating to the consideration of the definitions, modalities, rules and guidelines for land use, land-use change and forestry in the second commitment period.

**Global warming potentials**

1. Continue to allow flexible mitigation strategies applicable to different GHGs (e.g. so-called “basket approach”) using appropriate common metrics.

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<sup>1</sup> This may need to reflect the results of the consideration of the definitions, modalities, rules and guidelines for the treatment of land use, land-use change and forestry in the second commitment period.

<sup>2</sup> The application of the 2006 IPCC Guidelines would need to be in accordance with any decisions of the Conference of the Parties and Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol resulting from the consideration of these guidelines by the Subsidiary Body for Scientific and Technological Advice at its thirtieth session.

2. Consider the implications of updating global warming potential (GWP) values with the most recent information from the Intergovernmental Panel on Climate Change and of using different time horizons (20, 100 and 500 years) on:

- Total GHG emissions in terms of carbon dioxide (CO<sub>2</sub>) equivalents of Annex I Parties;
- The shares of different GHGs in total national emissions in terms of CO<sub>2</sub> equivalents;
- Mitigation potentials of Annex I Parties;
- The project-based mechanisms.

3. Consider the implications of applying global temperature potentials (GTPs) as a new metric, taking into consideration the availability of robust methodologies that could be used in a timely manner, on:

- Total GHG emissions in terms of CO<sub>2</sub> equivalents of Annex I Parties;
- The shares of different GHGs in total national emissions in terms of CO<sub>2</sub> equivalents;
- Mitigation potentials of Annex I Parties;
- The project-based mechanisms.

4. Based on the above implications, consider the application of appropriate common metrics including GWPs and GTPs.

Annex VIII**Documents before the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol on its resumed fifth session****Documents prepared for the session**

FCCC/KP/AWG/2008/1	Provisional agenda and annotations. Note by the Executive Secretary
FCCC/KP/AWG/2008/2	Report of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol on the first part of its fifth session, held in Bangkok from 31 March to 4 April 2008
FCCC/KP/AWG/2008/MISC.1 and Add.1–4	Views and information on the means to achieve mitigation objectives of Annex I Parties
FCCC/KP/AWG/2008/MISC.2 and Add.1	Views on the organization of the round table on means to reach emission reduction targets of Annex I Parties. Submissions from Parties
FCCC/KP/AWG/2008/MISC.3	Views and information on relevant methodological issues relating to the analysis of means to achieve mitigation objectives. Submissions from Parties
FCCC/KP/AWG/2008/INF.1	Provisions of the Kyoto Protocol and decisions by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol relating to the means to reach emission reduction targets of Annex I Parties. Note by the secretariat
FCCC/KP/AWG/2008/L.2	Analysis of means to reach emission reduction targets and identification of ways to enhance their effectiveness and contribution to sustainable development. Draft conclusions proposed by the Chair
FCCC/KP/AWG/2008/L.3	Draft report of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol on the second part of its fifth session
FCCC/KP/AWG/2008/L.4/Rev.1	Analysis of the means to reach emission reduction targets and identification of ways to enhance their effectiveness and contribution to sustainable development. Revised draft conclusions proposed by the Chair
FCCC/KP/AWG/2008/L.5	Land use, land-use change and forestry. Draft conclusions proposed by the Chair
FCCC/KP/AWG/2008/L.6	Greenhouse gases, sectors and source categories to be covered, and possible approaches targeting sectoral emissions. Draft conclusions proposed by the Chair
FCCC/KP/AWG/2008/L.7	Consideration of relevant methodological issues. Draft conclusions proposed by the Chair
FCCC/KP/AWG/2008/L.8	Emissions trading and the project-based mechanisms. Draft conclusions proposed by the Chair

FCCC/KP/AWG/2008/CRP.1

Round table on the means to reach emission reduction targets.  
Summary by the Chair

**Other documents before the session**

FCCC/KP/AWG/2007/5

Report of the Ad Hoc Working Group on Further Commitments  
for Annex I Parties under the Kyoto Protocol on its resumed  
fourth session, held in Bali from 3 to 15 December 2007

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