



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

Seventh session

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**Item 3 of the provisional agenda**

**Consideration of the scale of emission reductions to be achieved by Annex I Parties in aggregate**

**Item 4 of the provisional agenda**

**Contribution of Annex I Parties, individually or jointly, to the scale of emission reductions to be achieved by Annex I Parties in aggregate**

**Item 5 (a), (b), (d) and (e) of the provisional agenda**

**Other issues arising from the implementation of the work programme of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol**

**Emissions trading and the project-based mechanisms**

**Land use, land-use change and forestry**

**The coverage of greenhouse gases, sectors and source categories**

**Common metrics to calculate the carbon dioxide equivalence of anthropogenic emissions by sources and removals by sinks**

**Possible elements of a text relating to issues outlined in document  
FCCC/KP/AWG/2008/8, paragraph 49**

**Note by the Chair\***

*Summary*

This document identifies possible elements of a text relating to issues outlined in document FCCC/KP/AWG/2008/8, paragraph 49. The possible elements are based on the annexes to the reports of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) at its fifth and sixth sessions, as well as on relevant submissions by Parties in 2008 and 2009. They indicate the action that needs to be taken by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol to adopt proposals relating to these issues and/or to request any follow-up work to implement such proposals. The elements identified in this note could enable Parties to move rapidly towards the development of such a text, as foreseen by the AWG-KP at its resumed sixth session.

\* This document was submitted after the due date owing to the need for further input from Parties on the submissions due by 15 February 2009.

## CONTENTS

|   | <i>Paragraphs</i> | <i>Page</i> |
|---|-------------------|-------------|
| I. INTRODUCTION .....   | 1–8               | 3           |
| A. Mandate .....  | 1–2               | 3           |
| B. Scope of the note .....  | 3–7               | 3           |
| C. Possible action by the Ad Hoc Working Group on<br>Further Commitments for Annex I Parties<br>under the Kyoto Protocol.....                           | 8                 | 4           |
| II. ELEMENTS OF A TEXT RELATING TO ISSUES IDENTIFIED<br>AT THE RESUMED SIXTH SESSION .....  | 9–37              | 4           |
| A. Introduction .....   | 9–11              | 4           |
| B. Improvements to emissions trading and the<br>project-based mechanisms.....   | 12–16             | 4           |
| C. Definitions, modalities, rules and guidelines for the<br>treatment of land use, land-use change and forestry<br>in the second commitment period..... | 17–19             | 6           |
| D. The coverage of greenhouse gases, sectors<br>and source categories.....  | 20–26             | 6           |
| E. Common metrics to calculate the carbon dioxide<br>equivalence of emissions and removals.....   | 27–31             | 8           |
| F. Other issues .....   | 32–37             | 9           |

Annexes

|  |    |
|--|----|
| I. Elements for a text on emissions trading and the project-based<br>mechanisms, and land use, land-use change and forestry..... | 11 |
| II. Amendments to Annex A to the Kyoto Protocol.....   | 16 |

## I. Introduction

### A. Mandate

1. At its resumed sixth session, the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) requested its Chair to prepare a note on possible elements of a text relating to issues outlined in document FCCC/KP/AWG/2008/8, paragraph 49, taking into account the information referred to in paragraph 2 (b) and (c) below.<sup>1</sup>
2. At the same session, the AWG-KP requested its Chair to:
  - (a) Prepare a note on possible elements for amendments pursuant to Article 3, paragraph 9, of the Kyoto Protocol (see document FCCC/KP/AWG/2009/3);<sup>2</sup>
  - (b) Further elaborate the possible improvements to emissions trading and the project-based mechanisms (see document FCCC/KP/AWG/2009/INF.2);<sup>3</sup>
  - (c) Elaborate options, elements and issues relating to land use, land-use change and forestry (LULUCF) (see document FCCC/KP/AWG/2009/INF.1).<sup>4</sup>

### B. Scope of the note

3. This note discusses the possible elements of a text relating to issues outlined in document FCCC/KP/AWG/2008/8, paragraph 49. Some of these issues directly relate to the establishment of quantified emission limitation and reduction commitments and are not addressed in this note; they are partially addressed in document FCCC/KP/AWG/2009/3.
4. The note considers the following issues:
  - (a) Improvements to emissions trading and the project-based mechanisms;
  - (b) The definitions, modalities, rules and guidelines for the treatment of LULUCF in the second commitment period;
  - (c) The coverage of greenhouse gases (GHGs), sectors and source categories;
  - (d) Common metrics to calculate the carbon dioxide (CO<sub>2</sub>) equivalence of anthropogenic emissions by sources and removals by sinks;
  - (e) Other issues, including: potential environmental, economic and social consequences, including spillover effects, of tools, policies, measures and methodologies available to Annex I Parties (hereinafter referred to as potential consequences); the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* (2006 IPCC Guidelines); possible approaches targeting sectoral emissions; approaches to limit or reduce emissions of GHGs from aviation and marine bunker fuels as a means to reach emission reduction targets; and analysis of efforts and achievements to date.
5. Possible elements for a text on the issues identified above are discussed on the basis of proposals made by Parties, as contained in the annexes to the reports of the AWG-KP at its fifth and sixth sessions, as well as relevant submissions in 2008 and 2009. The elements indicate the action that needs to be taken by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) to adopt a specific proposal and/or to request follow-up work to implement such a proposal

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<sup>1</sup> FCCC/KP/AWG/2008/8, paragraph 58.

<sup>2</sup> FCCC/KP/AWG/2008/8, paragraph 57.

<sup>3</sup> FCCC/KP/AWG/2008/8, paragraph 51 (b).

<sup>4</sup> FCCC/KP/AWG/2008/8, paragraph 52 (c).

(see chapter II A below). Without prejudging the contents and form of the final outcome of the work of the AWG-KP, this note also explores whether the adoption of a proposal would require an amendment to the Kyoto Protocol or the adoption of a decision by the CMP.

6. This note should be read together with documents FCCC/KP/AWG/2009/INF.1 and FCCC/KP/AWG/2009/INF.2. These documents provide background information and describe improvements and options relating to LULUCF, and emissions trading and the project-based mechanisms, respectively.

7. This note is not conceived in terms of a negotiating text. However, the elements identified could enable Parties to move rapidly towards the development of such a text, as foreseen by the AWG-KP at its resumed sixth session.<sup>5</sup> Further discussions by the AWG-KP and submissions from Parties may, to the extent that they clarify existing proposals or introduce entirely new proposals, result in the need to include possible further elements.

### **C. Possible action by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol**

8. The AWG-KP may wish to consider the information presented in this note and advance its work with a view to developing, by June 2009, a text on the issues outlined in document FCCC/KP/AWG/2008/8, paragraph 49, for adoption by the CMP at its fifth session.

## **II. Elements of a text relating to issues identified at the resumed sixth session**

### **A. Introduction**

9. Some proposals, if agreed, may require amending the Kyoto Protocol. Amendments to the Kyoto Protocol are adopted through CMP decisions and are subject to specific rules relating to the circulation of the text for any proposed amendments and their adoption and entry into force (see document FCCC/KP/AWG/2009/3).

10. Other proposals can simply be adopted through CMP decisions that state the basic principles of such proposals or revise earlier CMP decisions on the subject matter. An existing CMP decision can be revised through the replacement or deletion of text, or the insertion of new text. A new CMP decision would include this new or revised text. Alternatively, Parties may decide to consolidate decision text on the subject matter into one new CMP decision.

11. Some proposals or sets of proposals may require the subsequent development of rules, modalities or guidelines for their implementation. A request to develop them could, for instance, be directed at a subsidiary body under the Kyoto Protocol, a constituted body, or an expert group.

### **B. Improvements to emissions trading and the project-based mechanisms**

12. Possible elements for a text relating to emissions trading and the project-based mechanisms have been identified on the basis of the information contained in documents FCCC/KP/AWG/2008/5, annexes I and II, and FCCC/KP/AWG/2009/INF.2. The latter document discusses proposed improvements to emissions trading and the project-based mechanisms and identifies options to address them. Table 1 in annex I summarizes these improvements and presents suggestions for elements for a text, as referred to in paragraph 5 above.<sup>6</sup> This chapter discusses only those improvements whose formulation and level of elaboration allows an assessment of whether an amendment to the

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<sup>5</sup> FCCC/KP/AWG/2008/8, paragraph 58.

<sup>6</sup> Only possible improvements identified in document FCCC/KP/AWG/2008/5, annex I, have been included in this table, as Parties have provided limited information on how the possible improvements identified in annex II of the same document would function.

Kyoto Protocol is required. As more information on other improvements becomes available, it may be necessary to discuss further amendments to the Kyoto Protocol.

13. Improvements to the clean development mechanism (CDM) that may require amending the Kyoto Protocol include:

- (a) **Introduce sectoral crediting of emission reductions below a previously established no-lose target:**
  - (i) If the proposal were to be implemented within the CDM, new provisions would be required in Article 12<sup>7</sup> to provide for the establishment of no-lose targets, at a level below ‘business as usual’, and the restriction of crediting to emission reductions below such no-lose targets;
  - (ii) If the proposal were to be implemented through a new mechanism, a new Article establishing this mechanism would need to be added to the Kyoto Protocol. In addition, a provision would need to be added, possibly after Article 3, paragraph 12, to indicate that units from this new mechanism could be added to the assigned amounts of Annex I Parties;
- (b) **Differentiate the eligibility of Parties through the use of indicators:** eligibility criteria for Parties to participate in a new mechanism would need to be part of the provisions that establish such a mechanism. In the particular case of the CDM, an amendment to Article 12, paragraph 3, would be required with regard to which Parties may host CDM project activities (and/or particular types of such activities). In addition, in the case of Parties using certified emission reductions for compliance purposes, an amendment to Article 3, paragraph 12, may be required regarding additions to assigned amounts.

14. Improvements to joint implementation (JI) that may require amendments to the Kyoto Protocol include:

- (a) **Introduce modalities for treatment of CDM project activities upon graduation of host Parties:** an amendment to Article 12, paragraph 3(a), would be required if a Party added to Annex I were to continue hosting CDM project activities;
- (b) **Include co-benefits as criteria for the final determination for projects:** if it were to be mandatory that a JI project have co-benefits other than reductions in emissions by sources or enhancements of removals by sinks, an amendment would be required to Article 6, paragraph 1. This situation would arise because, unlike for the CDM, a sustainable development objective is not specified for JI and the inclusion of co-benefits could be considered as adding another purpose under this Article.

15. Improvements to emissions trading that may require amending the Kyoto Protocol include:

- (a) **Introduce emissions trading based on sectoral targets:** if the manner of implementing sectoral emissions trading in non-Annex I Parties were to be defined in a specific way, an amendment would be required, either through amending Article 17 or adding a separate Article. A further amendment would be required for units issued under such trading schemes to be added to the assigned amounts of Annex I Parties and used for compliance with their commitments under Article 3;
- (b) **Introducing the linking of emissions trading schemes in Annex I Parties to voluntary emissions trading schemes in non-Annex I Parties:** an amendment would be required to provide for units, issued under voluntary emissions trading schemes in

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<sup>7</sup> “Article” in this document refers to Articles of the Kyoto Protocol unless otherwise stated.

non-Annex I Parties, to be added to the assigned amounts of Annex I Parties and used for compliance with their commitments under Article 3.

16. Cross-cutting improvements that may require amending the Kyoto Protocol include:
- (a) **Introduce borrowing of assigned amounts from future commitment periods:** the Kyoto Protocol does not contain any provisions on borrowing assigned amounts from future commitment periods. A new provision to introduce this concept would need to be added, possibly after Article 3, paragraph 13;
  - (b) **Extend the share of proceeds (SOP):** the Kyoto Protocol does not contain provisions for an SOP to assist developing country Parties to meet the costs of adaptation in the context of either JI under Article 6 or emissions trading under Article 17. Amendments may be needed, as extending the SOP would result in a reduction in the number of units initially available to a Party.<sup>8</sup>

### **C. Definitions, modalities, rules and guidelines for the treatment of land use, land-use change and forestry in the second commitment period**

17. Possible elements for a text relating to the definitions, modalities, rules and guidelines for the treatment of LULUCF in the second commitment period have been identified on the basis of the information contained in document FCCC/KP/AWG/2009/INF.1. That document presents proposals by Parties on issues relating to LULUCF in the second commitment period, and elaborates the possible packages of options identified at the sixth session of the AWG-KP. Table 2 in annex I summarizes these proposals and presents suggestions for elements for a text as referred to in paragraph 5 above. This chapter discusses only those options that may require an amendment to the Kyoto Protocol.

18. The Kyoto Protocol establishes an activity-based approach to LULUCF: only eligible LULUCF activities may be used to meet commitments under Article 3. Options regarding LULUCF that would not change this approach appear not to directly require amendments to the Protocol. However, amendments may be required if Parties decide to change the base year. For example, Article 3, paragraph 3, identifies 1990 as the year in relation to which net changes in carbon stocks from afforestation, reforestation and deforestation are to be measured “in each commitment period”.

19. Options that involve a shift from an activity-based to a land-based approach would require amendments to Article 3, paragraphs 3, 4 and 7, and Annex A. A shift to a land-based approach would render Article 3, paragraphs 3 and 4, irrelevant for the second commitment period and would justify their deletion. A consequence of such a shift would be the need to include LULUCF as a sector/source category in Annex A to the Kyoto Protocol, thus requiring an amendment to this Annex. Finally, the rules that determine the contribution of LULUCF to the establishment of assigned amounts, as set out in the second sentence of Article 3, paragraph 7, would need to be revised.

### **D. The coverage of greenhouse gases, sectors and source categories**

#### **1. Greenhouse gases**

20. Annex A lists the GHGs and groups of GHGs whose emissions are regulated by the provisions of Article 3, paragraph 1. It also lists sectors and source categories from which these emissions originate.

21. At the first part of its sixth session, the AWG-KP noted the new hydrofluorocarbons and perfluorocarbons that have been developed since the adoption of the Kyoto Protocol, as well as the new

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<sup>8</sup> Achieving consistency between the CDM and JI would seem to require amending these Articles to introduce provisions similar to Article 12, paragraph 8.

GHGs and groups of GHGs identified in the Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC), which include:<sup>9</sup>

- (a) Nitrogen trifluoride (NF<sub>3</sub>);
- (b) Trifluoromethyl sulphur pentafluoride (SF<sub>5</sub>CF<sub>3</sub>);
- (c) Fluorinated ethers;
- (d) Perfluoropolyethers;
- (e) Hydrocarbons and other compounds including dimethylether (CH<sub>3</sub>OCH<sub>3</sub>), methyl chloroform (CH<sub>3</sub>CCl<sub>3</sub>), methylene chloride (CH<sub>2</sub>Cl<sub>2</sub>), methyl chloride (CH<sub>3</sub>Cl), dibromomethane (CH<sub>2</sub>Br<sub>2</sub>), bromodifluoromethane (CHBrF<sub>2</sub>);
- (f) Trifluoroiodomethane (CF<sub>3</sub>I).

22. Broadening the coverage of GHGs under Annex A to include some or all of the GHGs listed in paragraph 21 above would require:

- (a) Amending Annex A to include these gases (see chapter II D 2 below);
- (b) Requesting, through a CMP decision, the revision of guidelines for reporting and review under the Convention and the Kyoto Protocol to incorporate these gases.

23. Incorporating new hydrofluorocarbons and perfluorocarbons would require only a revision to the UNFCCC reporting guidelines, as these families of gases are already included in Annex A.

## 2. Sectors and source categories

24. Amendments to Annex A to adjust the sources and source categories may be required from any decision taken with regard to:

- (a) The application of the 2006 IPCC Guidelines;
- (b) An agreement on definitions, modalities, rules and guidelines for the treatment of LULUCF in the second commitment period, as referred to in chapter II C above.

25. If the amendments to Annex A were limited to the inclusion of new GHGs or groups of gases, or to the adjustment of a few sector and source categories, including changes stemming from the possible application of the 2006 IPCC Guidelines, it would be possible to amend Annex A through the insertion of the names of the new gases and groups of gases, the deletion of old sector and source categories, and the insertion of new ones. These amendments would be marked with appropriate footnotes to indicate when the amendments were adopted, when they entered into force and for which commitment period(s) they would apply.

26. If, however, the changes in sector and source categories were extensive (e.g. resulting from the application of a different approach to LULUCF and matching the sector and source categories to those of the 2006 IPCC Guidelines), Annex A would not be amended through insertions and deletions, but through replacing the entire list of sector and source categories. As there will be a need to refer to the original formulation of Annex A beyond 2012, Parties may wish to consider adopting an Annex A bis and adjusting references as appropriate (see annex II).<sup>10</sup>

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<sup>9</sup> FCCC/KP/AWG/2008/5, paragraph 34.

<sup>10</sup> References to Annex A bis would need to be incorporated in Article 3, paragraphs 1 and 7; Article 4, paragraph 1; Article 5, paragraph 3; and Article 21, paragraphs 5 and 7.

### **E. Common metrics to calculate the carbon dioxide equivalence of emissions and removals**

27. Article 5, paragraph 3, states that the global warming potentials (GWPs) used to calculate the CO<sub>2</sub> equivalence of anthropogenic emissions by sources and removals by sinks of GHGs listed in Annex A shall be those accepted by the IPCC and agreed upon by the Conference of the Parties (COP) at its third session.<sup>11</sup>

28. At the first part of its sixth session, the AWG-KP considered GWPs, taking into consideration the new information available from the IPCC AR4, and acknowledged that there are common metrics other than GWPs that could be used to calculate the CO<sub>2</sub> equivalence of anthropogenic emissions by sources and removals by sinks.<sup>12</sup> The following options were considered by the AWG-KP:

- (a) Update GWPs with latest values from the IPCC;
- (b) Use a time horizon other than 100 years;
- (c) Apply an alternative common metric, such as global temperature potentials (GTPs).

29. Updating GWPs with latest IPCC values as well as using a time horizon other than 100 years, as referred to in paragraphs 28 (a) and (b) above, would require:

- (a) Specifying the new GWPs and/or the time horizon through a CMP decision;
- (b) Requesting, through a CMP decision, the revision of guidelines for reporting and review under the Convention and the Kyoto Protocol to incorporate the new GWPs.

30. Applying a metric other than GWPs, as referred to in paragraph 28 (c) above, would require:

- (a) Amending Article 5, paragraph 3, to refer to such a metric;
- (b) Specifying values for such a metric through a CMP decision;
- (c) Requesting, through a CMP decision, the revision of guidelines for reporting and review under the Convention and the Kyoto Protocol to incorporate such a metric.

31. The amendment to Article 5, paragraph 3, would consist of removing the reference to GWPs and replacing it with the alternative common metric that Parties agree to use (e.g. GTPs). Since it will be necessary to refer to Article 5, paragraph 3, beyond 2012, Parties may wish to reflect any new common metrics for the second commitment period in an Article 5, paragraph 3 bis, and to amend Article 5, paragraph 3, by limiting its applicability to the first commitment period. Article 5, paragraph 3, and Article 5, paragraph 3 bis, could read as follows:

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<sup>11</sup> Decision 2/CP.3 reaffirms that the GWPs used by Parties should be those provided by the IPCC in its Second Assessment Report based on the effects of the GHGs over a 100-year time horizon.

<sup>12</sup> FCCC/KP/AWG/2008/5, paragraph 44.

### Article 5

3. **For the first commitment period** the global warming potentials used to calculate the carbon dioxide equivalence of anthropogenic emissions by sources and removals by sinks of greenhouse gases listed in Annex A shall be those accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties at its third session. Based on the work of, *inter alia*, the Intergovernmental Panel on Climate Change and advice provided by the Subsidiary Body for Scientific and Technological Advice, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall regularly review and, as appropriate, revise the global warming potential of each such greenhouse gas, taking fully into account any relevant decisions by the Conference of the Parties. ~~Any revision to a global warming potential shall apply only to commitments under Article 3 in respect of any commitment period adopted subsequent to that revision.~~

3 bis. **For the second [and subsequent] commitment period[s]** the  $Y^{13}$  used to calculate the carbon dioxide equivalence of anthropogenic emissions by sources and removals by sinks of greenhouse gases listed in Annex A [**bis**]<sup>14</sup> shall be those accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties at its  $Z^{th15}$  session. Based on the work of, *inter alia*, the Intergovernmental Panel on Climate Change and advice provided by the Subsidiary Body for Scientific and Technological Advice, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall regularly review and, as appropriate, revise the  $Y$  of each such greenhouse gas, taking fully into account any relevant decisions by the Conference of the Parties. Any revision to a  $Y$  shall apply only to commitments under Article 3 in respect of any commitment period adopted subsequent to that revision.

### F. Other issues

32. The consideration of other issues identified in document FCCC/KP/AWG/2008/8, paragraph 49, may result in the identification of additional elements. These issues include those described in paragraphs 33–37 below.

33. **Potential consequences:** At its resumed sixth session, the AWG-KP agreed that its work on potential consequences should be guided and informed by Article 2, paragraph 3, and Article 3, paragraph 14.<sup>16</sup> Such work will build on relevant decisions of the COP and the CMP and relevant work under way in other bodies and processes under the Convention and its Kyoto Protocol.

34. **2006 IPCC Guidelines:** At the first part of its sixth session, the AWG-KP acknowledged that the application of the 2006 IPCC Guidelines for the second commitment period of the Kyoto Protocol should be subject to any decisions of the COP and the CMP that result from the consideration of these guidelines by the Subsidiary Body for Scientific and Technological Advice at its thirtieth session.<sup>17</sup> The application of these guidelines would require revising the reporting and review guidelines under the Convention and the Kyoto Protocol.

35. **Possible approaches targeting sectoral emissions:** Some improvements to emissions trading and the project-based mechanisms target sectoral emissions (see chapter II B above and annex I). Other options mentioned by Parties include sectoral bottom-up analysis to inform the discussion on mitigation potential of Annex I Parties, and complementary sector-specific goals for these Parties.

<sup>13</sup> Where  $Y$  is the common metric to calculate the CO<sub>2</sub> equivalence of anthropogenic emissions by sources and removals by sinks.

<sup>14</sup> To be included if an Annex A bis is adopted.

<sup>15</sup> Where  $Z$  is the session when the CMP agrees on the common metrics to be used.

<sup>16</sup> FCCC/KP/AWG/2008/8, paragraph 32.

<sup>17</sup> FCCC/KP/AWG/2008/5, paragraph 42.

36. **Approaches to limit or reduce emissions from aviation and marine bunker fuels:** Article 2, paragraph 2, requires Annex I Parties to pursue limitation or reduction of emissions of GHGs from aviation and marine bunker fuels working through the International Civil Aviation Organization and the International Maritime Organization, respectively. Parties have agreed to consider how these approaches could be used by Annex I Parties as means to reach their emission reduction targets.<sup>18</sup>

37. **Analysis of efforts and achievements to date:** At its resumed sixth session, the AWG-KP agreed to conduct work on the analysis of efforts and achievements to date, including during the first commitment period.<sup>19</sup> This issue has not been considered so far and, hence, it is not possible to present suggestions to address this element and possible further work.

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<sup>18</sup> FCCC/KP/AWG/2008/2, paragraph 21 (e).

<sup>19</sup> FCCC/KP/AWG/2008/8, paragraph 49 (c) (xii).

## Annex I

## Elements for a text on emissions trading and the project-based mechanisms, and land use, land-use change and forestry

Table 1. Emissions trading and the project-based mechanisms

| Proposals for improvements   | Possible elements for a text   |
|--|--|
| <b><i>I. Clean development mechanism</i></b>   |  |
| A. Include other land use, land-use change and forestry (LULUCF) activities                          | <ul style="list-style-type: none"> <li>• Include new LULUCF activities in the clean development mechanism (CDM) through a decision of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) and clarify the nature of the means to address the issue of non-permanence</li> <li>• Request the development of modalities and procedures for the new activities through a CMP decision</li> </ul>  |
| B. Introduce a cap for newly eligible LULUCF activities  | <ul style="list-style-type: none"> <li>• Introduce caps through a CMP decision</li> </ul>  |
| C. Include carbon dioxide capture and storage  | <ul style="list-style-type: none"> <li>• Include carbon dioxide capture and storage in the CDM through a CMP decision</li> <li>• Request the development of modalities and procedures for the new activities through a CMP decision</li> </ul>   |
| D. Include nuclear activities  | <ul style="list-style-type: none"> <li>• Include nuclear activities in the CDM through a CMP decision and clarify that Annex I Parties may use certified emission reductions (CERs) from nuclear activities to meet their commitments under Article 3</li> <li>• Request the development of modalities and procedures for the new activities through a CMP decision</li> </ul>   |
| E. Introduce sectoral CDM for emission reductions below a baseline defined at a sectoral level       | <ul style="list-style-type: none"> <li>• Include sectoral activities in the definition of “project activity” under the CDM through a CMP decision and clarify the nature of sectoral activities for CDM purposes</li> <li>• Request the development of modalities and procedures for these project activities through a CMP decision</li> </ul>  |
| F. Introduce sectoral crediting of emission reductions below a previously established no-lose target | <ul style="list-style-type: none"> <li>• Amend the Kyoto Protocol, through either the CDM or a new mechanism to allow for no-lose targets; if a new mechanism is established, ensure that there is a provision in the Kyoto Protocol that allows units from this mechanism to be used for compliance with commitments under Article 3 (see para. 13 (a) of this document)</li> <li>• Clarify the nature of sectoral crediting below no-lose targets</li> <li>• Request the development of modalities and procedures for sectoral crediting through a CMP decision</li> </ul> |

**Table 1** (continued)

| <b><i>I. Clean development mechanism</i></b>   |   |
|--|---|
| G. Introduce crediting on the basis of nationally appropriate mitigation actions (for non-Annex I Parties)                                 | <ul style="list-style-type: none"> <li>• Include nationally appropriate mitigation actions in the definition of “project activity” under the CDM through a CMP decision, and clarify the nature of such actions for CDM purposes</li> <li>• Request the development of modalities and procedures for the crediting of nationally appropriate mitigation actions through a CMP decision</li> </ul> |
| H. Ensure environmental integrity and assess additionality through the development of standardized, multi-project baselines                | <ul style="list-style-type: none"> <li>• If necessary, clarify that standardized, multi-project baselines may be used for these purposes under the CDM through a CMP decision</li> </ul>  |
| I. Ensure environmental integrity and assess additionality through the development of positive or negative lists of project activity types | <ul style="list-style-type: none"> <li>• Provide for positive or negative lists through a CMP decision and clarify the nature of criteria to be used for this purpose</li> <li>• Request the development of lists and modalities through a CMP decision</li> </ul>  |
| J. Differentiate the eligibility of Parties through the use of indicators  | <ul style="list-style-type: none"> <li>• Amend Article 12, paragraph 3, to determine the eligibility of Parties to host CDM project activities; amend Article 3, paragraph 12, in relation to the addition of CERs to assigned amounts (see para. 13 (b) of this document)</li> </ul>   |
| K. Improve access to CDM project activities by specified host Parties  | <ul style="list-style-type: none"> <li>• Introduce specific measures to improve access by specified host Parties through a CMP decision</li> <li>• Request the development of further modalities and procedures for these measures through a CMP decision</li> </ul>  |
| L. Include co-benefits as criteria for the registration of project activities  | <ul style="list-style-type: none"> <li>• Introduce, through a CMP decision, specific measures to promote or ensure the consideration of co-benefits in the development and registration of CDM project activities</li> <li>• Request the development of modalities and procedures through a CMP decision to amend modalities and procedures for the CDM</li> </ul>                                |
| M. Introduce multiplication factors to increase or decrease the CERs issued for specific project activity types                            | <ul style="list-style-type: none"> <li>• Include and apply multiplication factors through a CMP decision</li> <li>• Request the development of modalities and procedures for multiplication factors through a CMP decision</li> </ul>   |
| <b><i>II. Joint implementation</i></b>   |   |
| A. Introduce modalities for treatment of CDM project activities upon graduation of host Parties  | <ul style="list-style-type: none"> <li>• Amend the Kyoto Protocol to allow a Party that becomes an Annex I Party to continue hosting CDM project activities; and/or provide for the conversion of CDM project activities to joint implementation (JI) projects through a CMP decision</li> <li>• Request the development of modalities for graduation through a CMP decision</li> </ul>           |
| B. Include nuclear activities  | <ul style="list-style-type: none"> <li>• Include nuclear activities under JI through a CMP decision and clarify that Annex I Parties may use emission reduction units from these activities to meet their commitments under Article 3</li> <li>• Request the development of guidelines for the new activities through a CMP decision</li> </ul>   |

Table 1 (continued)

| <b>II. Joint implementation</b>  |   |
|--|---|
| C. Include projects that reduce greenhouse gas emissions from deforestation and forest degradation                                     | <ul style="list-style-type: none"> <li>No action by the CMP may be required as projects that reduce GHG emissions from deforestation and forest degradation are not currently excluded from JI</li> </ul>   |
| D. Ensure environmental integrity and assess additionality through the development of positive or negative lists of project types      | <ul style="list-style-type: none"> <li>Provide for positive or negative lists through a CMP decision and clarifying the nature of criteria to be used for this purpose</li> <li>Request the development of lists and guidelines through a CMP decision</li> </ul>   |
| E. Include co-benefits as criteria for the final determination for projects  | <ul style="list-style-type: none"> <li>Introduce, through a CMP decision, specific measures to promote the consideration of co-benefits in the development and final determination of JI projects; amend Article 6 to include co-benefits as an additional criteria for the final determination of projects</li> <li>Request the development of guidelines for these measures through a CMP decision</li> </ul> |
| <b>III. Emissions trading</b>  |   |
| A. Introduce emissions trading based on sectoral targets   | <ul style="list-style-type: none"> <li>Amend the Kyoto Protocol to provide for sectoral emissions trading in non-Annex I Parties and for units from such trading schemes to be used for compliance with commitments under Article 3 (see para. 15 (a) of this document)</li> <li>Request the development of modalities for sectoral emissions trading through a CMP decision</li> </ul>                         |
| B. Introduce emissions trading on the basis of nationally appropriate mitigation actions (for non-Annex I Parties)                     | <ul style="list-style-type: none"> <li>If necessary, clarify that CERs issued on the basis of nationally appropriate mitigation actions may be the subject of emissions trading</li> </ul>  |
| C. Introduce the linking of emissions trading schemes in Annex I Parties to voluntary emissions trading schemes in non-Annex I Parties | <ul style="list-style-type: none"> <li>Amend the Kyoto Protocol to provide for allowances from emissions trading schemes in non-Annex I Parties to be used for compliance with commitments under Article 3 (see para. 15 (b) of this document)</li> <li>Request the development of modalities for linking through a CMP decision</li> </ul>   |
| <b>IV. Cross-cutting issues</b>  |   |
| A. Relax or eliminate carry-over (banking) restrictions on Kyoto units   | <ul style="list-style-type: none"> <li>Specify new limits, if any, through a CMP decision</li> </ul>  |
| B. Change the limit on the retirement of temporary certified emission reductions and long-term certified emission reductions           | <ul style="list-style-type: none"> <li>Specify the limits, if any, through a CMP decision</li> </ul>  |
| C. Introduce borrowing of assigned amounts from future commitment periods  | <ul style="list-style-type: none"> <li>Amend Article 3 to provide for borrowing</li> <li>Request the development of modalities and limits, if any, for borrowing, through CMP decision</li> </ul>   |
| D. Extend the share of proceeds (SOP)  | <ul style="list-style-type: none"> <li>Amend Articles 6 and 17 to apply an SOP to these Articles</li> <li>Request the development of modalities for the implementation of the SOP through a CMP decision</li> </ul>   |

**Table 2. Land use, land-use change and forestry**

| <b>Proposals on issues relating to LULUCF</b>   | <b>Possible elements for a text</b>   |
|---|---|
| <b><i>I. Definitions</i></b>  |   |
| A. Land-use flexibility fix <sup>a</sup>  | <ul style="list-style-type: none"> <li>Allow land-use flexibility through a decision of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) that revises decision 16/CMP.1</li> </ul> |
| <b><i>II. Article 3, paragraph 3</i></b>  |   |
| A. Extend the afforestation/reforestation credit and debit rule to the second commitment period | <ul style="list-style-type: none"> <li>Extend the application of decision 16/CMP.1 through a CMP decision</li> </ul>  |
| B. Remove the afforestation/reforestation credit and debit rule                                 | <ul style="list-style-type: none"> <li>Remove the provision through a CMP decision that revises decision 16/CMP.1</li> </ul>  |
| <b><i>III. Article 3, paragraph 4</i></b>   |   |
| A. Remove caps applicable to forest management (FM)   | <ul style="list-style-type: none"> <li>Remove caps through a CMP decision that revises decision 16/CMP.1 by deleting the appendix to that decision</li> </ul>   |
| B. Change caps applicable to FM   | <ul style="list-style-type: none"> <li>Adopt new caps for FM through a CMP decision that revises the appendix to decision 16/CMP.1</li> </ul>   |
| C. Account for FM through the use of a base-year period   | <ul style="list-style-type: none"> <li>Apply a base-year period to FM through a CMP decision that revises decision 16/CMP.1</li> </ul>  |
| D. Account for FM through the use of bars   | <ul style="list-style-type: none"> <li>Apply the use of bars to FM through a CMP decision that revises decision 16/CMP.1</li> </ul>   |
| E. Account for FM through the use of a discount factor  | <ul style="list-style-type: none"> <li>Apply and specify the discount factor for FM through a CMP decision that revises decision 16/CMP.1</li> </ul>  |
| F. Account for FM through the use of ex-post adjustments  | <ul style="list-style-type: none"> <li>Apply ex-post adjustments to FM through a CMP decision that revises decision 16/CMP.1</li> <li>Request the development of rules and guidelines through a CMP decision</li> </ul>           |
| G. Account for FM through the use of forward-looking baselines for FM                           | <ul style="list-style-type: none"> <li>Apply forward looking baselines to FM through a CMP decision that revises decision 16/CMP.1</li> <li>Request the development of rules and guidelines through a CMP decision</li> </ul>     |
| H. Account for FM through the use of carry-over systems   | <ul style="list-style-type: none"> <li>Apply carry-over to FM through a CMP decision that revises decision 16/CMP.1</li> <li>Request the development of rules and guidelines through a CMP decision</li> </ul>                    |
| I. Account for FM through the use of global insurance mechanisms                                | <ul style="list-style-type: none"> <li>Apply global insurance mechanisms to FM through a CMP decision that revises decision 16/CMP.1</li> <li>Request the development of rules and guidelines through a CMP decision</li> </ul>   |
| J. Apply a net-net approach to the accounting of FM   | <ul style="list-style-type: none"> <li>Apply net-net accounting to FM through a CMP decision that revises decision 16/CMP.1 and deletes the appendix to that decision</li> </ul>  |

<sup>a</sup> For a definition of land-use flexibility fix see document FCCC/KP/AWG/2009/INF.1.

Table 2 (continued)

| <b>III. Article 3, paragraph 4</b>   |  |
|--|--|
| K. Apply rolling averages to the accounting of FM  | <ul style="list-style-type: none"> <li>Apply rolling averages through a CMP decision that revises decision 16/CMP.1</li> </ul>   |
| L. Allow temporary removal from accounting of areas subjected to natural disturbances.                               | <ul style="list-style-type: none"> <li>Allow temporary removal of these areas through a CMP decision that revises decision 16/CMP.1</li> </ul>   |
| M. Change the nature of some or all activities under Article 3, paragraph 4, from voluntary to compulsory            | <ul style="list-style-type: none"> <li>Specify the voluntary nature of activities under Article 3, paragraph 4, in a CMP decision that revises decision 16/CMP.1</li> </ul>  |
| N. Adding new activities (for example, wetlands management)  | <ul style="list-style-type: none"> <li>Include definitions for new activities through a CMP decision that revises decision 16/CMP.1</li> <li>Request the development of rules and guidelines through a CMP decision</li> </ul>   |
| <b>IV. Other issues</b>  |  |
| A. Simplify the reporting of land use, land-use change and forestry (LULUCF)   | <ul style="list-style-type: none"> <li>Request the simplification of the reporting guidelines through a CMP decision</li> </ul>  |
| B. Include the accounting of harvested wood products   | <ul style="list-style-type: none"> <li>Allow accounting of harvested wood products, including the specification of an accounting approach, through a CMP decision that revises decision 16/CMP.1</li> <li>Request the development of rules and guidelines for the accounting of harvested wood products through a CMP decision and, subsequently, request revisions to the UNFCCC guidelines for reporting and review under the Convention and the Kyoto Protocol</li> </ul> |
| C. Apply land-based accounting   | <ul style="list-style-type: none"> <li>Delete Article 3, paragraphs 3 and 4, and amend Article 3, paragraph 7, and Annex A</li> <li>Request the development of new definitions, modalities, rules and guidelines for LULUCF</li> </ul>   |
| D. Limit the use of the LULUCF sector/LULUCF activities for compliance with commitments under Article 3, paragraph 1 | <ul style="list-style-type: none"> <li>Limit the use of LULUCF through a CMP decision that revises decision 16/CMP.1</li> </ul>  |

Annex II**Amendments to Annex A to the Kyoto Protocol****Possible amendments to Annex A**

*Option 1: Additional gases are added (no other amendments)*

**Annex A****Greenhouse gases**

Carbon dioxide (CO<sub>2</sub>)

Methane (CH<sub>4</sub>)

Nitrous oxide (N<sub>2</sub>O)

Hydrofluorocarbons (HFCs)

Perfluorocarbons (PFCs)

Perfluorinated compounds<sup>1</sup>

    Sulphur hexafluoride (SF<sub>6</sub>)

    Nitrogen trifluoride (NF<sub>3</sub>)<sup>1</sup>

    Trifluoromethyl sulphur pentafluoride (SF<sub>5</sub>CF<sub>3</sub>)<sup>1</sup>

Fluorinated ethers<sup>1</sup>

Perfluoropolyethers<sup>1</sup>

Hydrocarbons and other compounds<sup>2</sup>

    Dimethylether (CH<sub>3</sub>OCH<sub>3</sub>)<sup>1</sup>

    Methylene chloride (CH<sub>2</sub>Cl<sub>2</sub>)<sup>1</sup>

    Methyl chloride (CH<sub>3</sub>Cl)<sup>1</sup>

    Dibromomethane (CH<sub>2</sub>Br<sub>2</sub>)<sup>1</sup>

    Trifluoroiodomethane (CF<sub>3</sub>I)<sup>1</sup>

**Sectors/source categories**

Energy

    Fuel combustion

        Energy industries

        Manufacturing industries and construction

        Transport

        Other sectors

        Other

    Fugitive emissions from fuels

        Solid fuels

        Oil and natural gas

        Other

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<sup>1</sup> Gases added to Annex A by an amendment that entered into force on xxx pursuant to decision X/CMP.5. The amendment applies to the second and subsequent commitment periods.

<sup>2</sup> Methyl chloroform (CH<sub>3</sub>CCl<sub>3</sub>) and bromodifluoromethane (CHBrF<sub>2</sub>), which are listed in paragraph 21 of this document, are not included here because they are controlled by the Montreal Protocol.

Industrial processes

- Mineral products
- Chemical industry
- Metal production
- Other production
- Production of halocarbons and sulphur hexafluoride
- Consumption of halocarbons and sulphur hexafluoride
- Other

Solvent and other product use

Agriculture

- Enteric fermentation
- Manure management
- Rice cultivation
- Agricultural soils
- Prescribed burning of savannas
- Field burning of agricultural residues
- Other

Waste

- Solid waste disposal on land
- Wastewater handling
- Waste incineration
- Other

*Option 2: Additional gases are added and sector and source categories are adjusted to match the sector and source categories included in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories*

### **Annex A bis<sup>1</sup>**

#### **Greenhouse gases**

Carbon dioxide (CO<sub>2</sub>)  
Methane (CH<sub>4</sub>)  
Nitrous oxide (N<sub>2</sub>O)  
Hydrofluorocarbons (HFCs)  
Perfluorocarbons (PFCs)  
Perfluorinated compounds  
    Sulphur hexafluoride (SF<sub>6</sub>)  
    Nitrogen trifluoride (NF<sub>3</sub>)  
    Trifluoromethyl sulphur pentafluoride (SF<sub>5</sub>CF<sub>3</sub>)  
Fluorinated ethers  
Perfluoropolyethers  
Hydrocarbons and other compounds including  
    Dimethylether (CH<sub>3</sub>OCH<sub>3</sub>)  
    Methylene chloride (CH<sub>2</sub>Cl<sub>2</sub>)  
    Methyl chloride (CH<sub>3</sub>Cl)  
    Dibromomethane (CH<sub>2</sub>Br<sub>2</sub>)  
    Trifluoroiodomethane (CF<sub>3</sub>I)

#### **Sectors/source categories**

##### Energy

Fuel combustion activities  
    Energy industries  
    Manufacturing industries and construction  
    Transport  
    Other sectors  
    Non-specified

Fugitive emissions from fuels  
    Solid fuels  
    Oil and natural gas  
    Other emissions from energy production

Carbon dioxide transport and storage  
    Transport of CO<sub>2</sub>  
    Injection and storage  
    Other

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<sup>1</sup> Added by an amendment that entered into force on xxx pursuant to decision X/CMP.5. The amendment applies to the second and subsequent commitment periods.

## Industrial processes and product use

- Mineral industry
- Chemical industry
- Metal industry
- Non-Energy products from fuels and solvent use
- Electronics industry
- Product uses as substitutes for ozone depleting substances
- Other product manufacture and use
- Other

## Agriculture, forestry and other land use

## Livestock

- Enteric fermentation
- Manure management

## Land

- Forest land
- Cropland
- Grassland
- Wetlands
- Settlements
- Other land

Aggregate sources and non-CO<sub>2</sub> emissions sources on land

- Greenhouse gas emissions from biomass burning
- Liming
- Urea application
- Direct N<sub>2</sub>O emissions from managed soils
- Indirect N<sub>2</sub>O emissions from managed soils
- Indirect N<sub>2</sub>O emissions from manure management
- Rice cultivation
- Other

## Other

- Harvested wood products
- Other

## Waste

- Solid waste disposal
- Biological treatment of solid waste
- Incineration and open burning of waste
- Wastewater treatment and discharge
- Other

## Other

- Indirect N<sub>2</sub>O emissions from the atmospheric deposition of nitrogen in NO<sub>x</sub> and NF<sub>3</sub>
- Other

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