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Item 7 (b) of the provisional agenda
Methodological issues under the Convention
Revision of the UNFCCC reporting guidelines on annual inventories for Parties included in Annex I to
the Convention

Synthesis of views on issues relating to the 2006 IPCC Guidelines and the revision of the UNFCCC Annex I reporting guidelines

Note by the secretariat*

Summary

This note contains a synthesis of views submitted by Parties, including proposals on the process and timeline of the work programme established by the Subsidiary Body for Scientific and Technological Advice (SBSTA), at its thirtieth session, to revise the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories" (UNFCCC Annex I reporting guidelines). The note has been prepared to facilitate the consideration by the SBSTA, at its thirty-second session, of the process to revise the UNFCCC Annex I reporting guidelines.

^{*} This document was submitted after the due date in order to enable the secretariat to include all relevant inputs.

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I. Introduction

A. Background and mandate

- 1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its thirtieth session, agreed that the process for Parties included in Annex I to the Convention (Annex I Parties) to use the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (hereinafter referred to as the 2006 IPCC Guidelines) should be through a revision of the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories" (hereinafter referred to as the UNFCCC Annex I reporting guidelines). The SBSTA also agreed to launch a work programme in 2010 in support of this revision with a view to recommending the revised UNFCCC Annex I reporting guidelines for adoption by the Conference of the Parties (COP), for regular use commencing in 2015. The SBSTA further agreed on the scope of the work programme, covering issues related to the revision of the UNFCCC Annex I reporting guidelines and methodological issues related to reporting when using the 2006 IPCC Guidelines.²
- 2. The SBSTA, at the same session, invited Parties to submit to the secretariat, by 15 February 2010, their views on the following issues:
 - (a) The process and timeline for implementing the work programme referred to in paragraph 1 above;
 - (b) Issues related to the revision of the UNFCCC Annex I reporting guidelines;
 - (c) Methodological issues related to reporting when using the 2006 IPCC Guidelines;
 - (d) Areas in which the SBSTA may consider inviting the Intergovernmental Panel on Climate Change (IPCC) to carry out additional work and contribute to the work programme.
- 3. The SBSTA requested the secretariat to synthesize these submissions into a report for consideration by the SBSTA at its thirty-second session.
- 4. At the same session, the SBSTA requested the secretariat to organize, subject to the availability of funding, two workshops in 2010 on the work programme to consider:
 - (a) Issues related to the revision of the UNFCCC Annex I reporting guidelines;³
 - (b) Methodological issues concerning the use of the 2006 IPCC Guidelines.

B. Scope of the note

5. This note presents a synthesis of views expressed in eight submissions from Parties, which in total represent the views of 38 Parties. Submissions were received from Australia, India, Japan, Kazakhstan, Russian Federation, Singapore, Spain on behalf of the European Union and its member

¹ FCCC/SBSTA/2009/3, paragraph 99.

The scope of the work programme, as mentioned in paragraphs 2 and 3 of annex II to document FCCC/SBSTA/2009/3, is provided in annex I to this note.

³ This workshop is to be held in Bonn, Germany, on 27–28 May 2010, prior to the thirty-second session of the SBSTA.

⁴ The submissions from Parties are compiled in document FCCC/SBSTA/2010/MISC.1.

States, supported by Croatia, the former Yugoslav Republic of Macedonia, Montenegro and Serbia, and the United States of America.⁵

C. Possible action by the Subsidiary Body for Scientific and Technological Advice

- 6. This note has been prepared to facilitate consideration by the SBSTA, at its thirty-second session, of the process and timeline of the work programme, and of other considerations listed in paragraph 2 above, with a view to the SBSTA providing guidance to Parties and the secretariat on the work programme, including the timeline for completing the revision of the UNFCCC Annex I reporting guidelines, and on the use of the 2006 IPCC Guidelines, in order to enable Parties to start using the revised UNFCCC Annex I reporting guidelines on a mandatory basis in 2015.
- 7. The SBSTA may wish to prepare elements for a decision by the COP at its sixteenth session on reporting issues, including an increase in coverage by the revised UNFCCC Annex I reporting guidelines in terms of sectors, categories and gases, as well as on further development of the reporting format tables.

II. Synthesis of views expressed by Parties on the revision of the UNFCCC Annex I reporting guidelines

A. Process and timeline for the work programme

8. One of the central issues concerning the revision of the UNFCCC Annex I reporting guidelines identified by Parties in their submissions is the need to promote consistency across each Party's different reporting commitments under the Convention and under the Kyoto Protocol. The process to revise the UNFCCC Annex I reporting guidelines needs to be flexible and continuous, given that a number of relevant matters are currently under consideration by other processes under the Convention, including matters related to land use, land-use change and forestry (LULUCF), agriculture, forestry and other land use (AFOLU), global warming potentials (GWPs), coverage of gases and base year. Most Parties outlined a process and timeline for completing the revision of the UNFCCC Annex I reporting guidelines by 2012 at the latest, with a view to Parties gaining experience in using the revised UNFCCC Annex I reporting guidelines in 2013 to enable them to start using these guidelines on a mandatory basis in 2015. To that end, many Parties identified a critical path for the work programme comprising a sequence of activities and associated timelines, and outlined roles by activity for Parties, the secretariat and the Convention bodies (the COP and the SBSTA). An example of a schedule for the work programme is contained in annex II to this note.

1. Process

- 9. Parties have outlined a process to revise the UNFCCC Annex I reporting guidelines that defines activities and milestones and, importantly, constraints and deadlines for activities within this timeline. Parties have acknowledged that a process to revise the UNFCCC Annex I reporting guidelines must consider all aspects of the current reporting guidelines, and that this revision depends, in part, on relevant negotiated outcomes of the other processes under the Convention referred to in paragraph 8 above. The progress of the work programme should not be constrained by the absence of these negotiated outcomes, but rather the negotiated outcomes could be considered in the context of the work programme and incorporated into the revised UNFCCC Annex I reporting guidelines as such outcomes become available and before the guidelines are finalized by the SBSTA.
- 10. Parties envisage that the process to revise the UNFCCC Annex I reporting guidelines will need to consider additional workshops in 2010 and 2011 to ensure that Parties have enough time to gain experience in the use of the revised UNFCCC Annex I reporting guidelines before mandatory use of these

⁵ A submission received by the secretariat from a non-governmental organization is available on the UNFCCC website at http://unfccc.int/files/national_reports/annex_i_ghg_inventories/reporting_requirements/application/pdf/ipcc_ghg_guidelines_ccsa_position_paper.pdf>.

guidelines begins in 2015. Parties noted that that such workshops could cover matters such as the consideration of the new reporting format tables and the final revised UNFCCC Annex I reporting guidelines.

- 11. Parties have expressed the view that the representation of some methodologies contained in the 2006 IPCC Guidelines could be improved and/or clarified, and that the IPCC could be invited by the SBSTA to carry out additional work in this regard. In addition, the IPCC could be invited to develop additional methodological information on specific issues (see para. 42 below), especially in the AFOLU sector, that can be considered in the context of the work programme.
- 12. There needs to be an agreed process for the SBSTA to receive and consider outcomes of IPCC expert meetings that relate to any methodological issue concerning the use of the 2006 IPCC Guidelines in the context of the work programme. Parties will need to define the 'what', 'how' and 'when' of any proposed additional work of the IPCC to enable the SBSTA to consider this information at its thirty-second session, with a view to inviting the IPCC to carry out such additional work. However, reports on recent work of the IPCC with regard to methodologies should be considered and appraised in the context of the work programme before the IPCC is invited to carry out additional work and contribute to the work programme; any SBSTA invitation to the IPCC to carry out additional work should not duplicate any proposed or existing activities of the IPCC.

2. Timeline

- 13. Parties have expressed the view that the COP should aim to adopt the revised UNFCCC Annex I reporting guidelines by its seventeenth session (2011), but no later than at its eighteenth session (2012). Further, a COP decision requesting the secretariat to prepare the reporting format tables and the common reporting format (CRF) Reporter software containing the revised UNFCCC Annex I reporting guidelines is required no later than at the sixteenth session of the COP.⁶
- 14. In addition, Parties in general have identified the timeline for the sequence of key activities in the work programme. Importantly, 2013 is identified as the year for Parties to gain experience in using the revised UNFCCC Annex I reporting guidelines, including the upgraded CRF Reporter software that is to contain the new reporting format tables based on the 2006 IPCC Guidelines. These constraints are based on the premise of ensuring that Parties have enough time before 2015 to gain experience in using the revised UNFCCC Annex I reporting guidelines, and to adapt their system(s) to these reporting guidelines and to the new reporting format tables contained in the CRF Reporter software. This approach will also allow the secretariat to address any identified issue concerning the revised UNFCCC Annex I reporting guidelines and/or implementation of these reporting guidelines in the CRF Reporter (i.e. the new reporting format tables).

B. UNFCCC Annex I reporting guidelines

15. The consideration of the UNFCCC Annex I reporting guidelines in the context of the work programme comprises two elements:

Based on experience in managing changes in the reporting format tables and releasing an upgraded CRF Reporter software, the secretariat needs six months to prepare templates for the new reporting format tables, and a further eighteen months to release a CRF Reporter that includes these new reporting format tables. If Parties require the capacity to gain experience in the use of the revised UNFCCC Annex I reporting guidelines, including the CRF Reporter, from 2013, then work on the new reporting format tables needs to commence in the second half of 2010 and a decision requesting the secretariat, subject to the availability of funding, to prepare the CRF Reporter is required no later than at the sixteenth session of the COP.

- (a) The reporting requirements and the underlying principles of transparency, accuracy, completeness, consistency and comparability, definition of the notation keys to be used in the absence of emissions data, outline of the national inventory report (NIR), etc.;
- (b) The CRF tables.
- 16. Parties expressed views on a range of issues concerning the revision of the UNFCCC Annex I reporting guidelines, which in some cases built on the views expressed in an earlier submission under the SBSTA relating to this matter. They include views on general reporting issues, the coverage of reporting, the role of previous IPCC guidelines in the revised UNFCCC Annex I reporting guidelines, the NIR and the CRF tables, with emphasis on the need for the revised UNFCCC Annex I reporting guidelines to:
 - (a) Support the reporting of annual inventory submissions that is transparent, accurate, complete, consistent and comparable, and reflects the latest information on methodologies, data and science;
 - (b) Provide clarity on the reporting obligations of Parties to ensure comparability of emission estimates across Parties, including mandatory and non-mandatory (voluntary) reporting of emissions;
 - (c) Provide guidance on the role of previous IPCC guidelines in the preparation and reporting of inventories by Annex I Parties, namely the *Revised 1996 IPCC Guidelines* for National Greenhouse Gas Inventories (hereinafter referred to as the Revised 1996 IPCC Guidelines), the IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories (hereinafter referred to as the IPCC good practice guidance) and the IPCC Good Practice Guidance for Land Use, Land-Use Change and Forestry (hereinafter referred to as the IPCC good practice guidance for LULUCF).

1. General reporting issues

- 17. A number of overarching issues raised by Parties with respect to a revision of the UNFCCC Annex I reporting guidelines concern the ability to:
 - (a) Identify and remove inconsistencies and ambiguities contained in the current reporting guidelines with respect to, for example, whether reporting is mandatory or non-mandatory;
 - (b) Clarify and provide guidance to Parties on the coverage of reporting (categories, gases and years), and defining total net emissions given that the LULUCF sector is aggregated with agriculture as AFOLU in the 2006 IPCC Guidelines;
 - (c) Access guidance on how to ensure time-series consistency when applying new or revised methodologies introduced by the 2006 IPCC Guidelines, particularly in situations when the Party may not have activity data to estimate emissions using these methodologies for earlier years of the inventory time series.
- 18. It was recognized that changes introduced by the 2006 IPCC Guidelines will present the need for the revised UNFCCC Annex I reporting guidelines to define total net emissions and removals. The current reporting guidelines provide for the reporting of total net emissions and removals as "with LULUCF" and "without LULUCF". Further, some Parties expressed a view that the revised UNFCCC

Parties were invited by the SBSTA at its twenty-sixth session to submit views to the secretariat on their experiences in using the 2006 IPCC Guidelines and further considerations related to a revision of the UNFCCC reporting guidelines. Submissions from Parties are compiled in document FCCC/SBSTA/2009/MISC.3.

Annex I reporting guidelines should allow Parties to continue reporting emissions from agriculture and emissions and removals from the LULUCF sector separately.

- 19. It was also recognized that while the 2006 IPCC Guidelines include GWPs from the IPCC Third Assessment Report, the IPCC includes in its Fourth Assessment Report revised GWPs for the gases covered in the current UNFCCC Annex I reporting guidelines and GWPs for new gases. In addition, Parties will need to identify in the work programme a process to consider negotiated outcomes from other processes under the Convention on GWPs, the coverage of gases and other related issues and their subsequent incorporation into the revised UNFCCC Annex I reporting guidelines.
- 20. Specific issues were raised concerning the need for the revised UNFCCC Annex I reporting guidelines to provide additional guidance on notation keys, reporting a value of zero, and the number of significant figures to be used in the reporting of emissions data in the reporting format tables. A number of Parties expressed the view that the definitions for notation keys contained in the current reporting guidelines need to be clarified further, including by providing examples to ensure that they are used appropriately by Parties and consistently between Parties. For example, the CRF Reporter software currently does not allow Parties to report a value of zero, which causes problems for Parties where there is a net change in carbon stock in the LULUCF sector that cannot be reported in the sectoral background data tables.

2. Coverage of reporting

- 21. The 2006 IPCC Guidelines introduce new sectors, categories and gases, and also present variations in methodologies when compared with previous IPCC guidelines. Parties have acknowledged that the revision of the UNFCCC Annex I reporting guidelines will need to address these new developments, with some Parties expressing the view that the coverage of these developments in the revised UNFCCC Annex I reporting guidelines is subject to discussion and agreement by Parties in other processes under the Convention. Parties have also expressed the view that changes or new categories and gases introduced by the 2006 IPCC Guidelines will need to be managed in the context of the new reporting format tables and the CRF Reporter software, noting that this activity is on the critical path of allowing Parties to gain experience in using the revised UNFCCC Annex I reporting guidelines in 2013. Other issues concerning the 2006 IPCC Guidelines identified by Parties include the coverage of fluorinated gases (F-gases), lack of clarity on mandatory and non-mandatory reporting of some categories, methodological issues concerning the coverage of emissions within or across sectors, and changes in methodologies introduced by the 2006 IPCC Guidelines.
- 22. The 2006 IPCC Guidelines introduce new categories and also provide updated methodologies for Parties to use in preparing emission estimates for all years of the inventory time series. Some Parties have suggested that the revised UNFCCC Annex I reporting guidelines must provide guidance to Parties on how to address and/or manage data issues concerning the need to recalculate emission estimates backwards to the base year using the new methods in order to ensure time-series consistency.
- 23. The coverage of years in the reporting of an inventory time series needs to be revisited. The reporting of inventory years from the base year to beyond 2012 will place strain on the physical limits of the current CRF Reporter software with regard to the volume of data to be generated and managed by this software.
- 24. Parties have raised issues concerning the coverage and reporting of F-gases, including:
 - (a) Which of the F-gases covered in the 2006 IPCC Guidelines should be included in the revised UNFCCC Annex I reporting guidelines;
 - (b) The need to review the coverage of F-gases in the current UNFCCC Annex I reporting guidelines to confirm whether they are still being produced and/or used;

- (c) The base year for reporting of F-gas emissions;
- (d) The need to continue with the reporting of potential emissions of F-gases.
- 25. Parties have expressed the view that the revised UNFCCC Annex I reporting guidelines must provide clarity on whether reporting emissions from a category is mandatory or non-mandatory. Parties may wish to clarify the following examples identified by Parties:
 - (a) Indirect carbon dioxide (CO₂) emissions and whether the reporting of such emissions is mandatory;
 - (b) Nitrous oxide (N₂O) emissions from atmospheric deposition of nitrogen oxide and ammonia and clarity on where these N₂O emissions are to be reported;
 - (c) Clarification, in the context of reporting under the AFOLU sector, of whether the accounting of emissions from an agriculture category that is mandatory in the current IPCC good practice guidance remains mandatory when required to be reported under the AFOLU construct and in a non-mandatory LULUCF activity;
 - (d) Whether reporting of emissions for which methodologies are provided only in the appendices of the 2006 IPCC Guidelines is mandatory.
- 26. In the context of coverage of reporting, specific methodological issues have been raised with regard to the energy, waste and AFOLU sectors. Regarding the allocation to the energy sector of emissions from waste used for energy purposes and emissions from waste combustion associated with energy recovery on the basis of avoiding double counting, one Party expressed the view that this may not help to minimize double counting. On the AFOLU sector, a methodological issue was mentioned on the reporting of non-anthropogenic emissions (from natural disturbance and climate variability) and the managed land proxy. The view was expressed that the revised UNFCCC Annex I reporting guidelines should allow Parties to remove emissions resulting from natural disturbance and climate variability on the basis that reported anthropogenic emissions from activity changes, policies and management changes are what need to be identified in emission estimates.
 - 3. Role of previous IPCC guidelines and the IPCC Emission Factor Database
- 27. Parties have identified that the revision of the UNFCCC Annex I reporting guidelines will need to clarify or define the role, if any, of the Revised 1996 IPCC Guidelines, the IPCC good practice guidance and the IPCC good practice guidance for LULUCF in the preparation of inventories, and the relationship between the 2006 IPCC Guidelines and the UNFCCC Annex I reporting guidelines. Also, a number of Parties have suggested that the work programme should define the role, if any, of the IPCC Emission Factor Database in the revised UNFCCC Annex I reporting guidelines.
- 28. The 2006 IPCC Guidelines introduce variations to methodologies when compared with the previous IPCC guidelines. While it was acknowledged that the 2006 IPCC Guidelines contain the latest information on methodologies, data and science, some Parties have identified a need for the revised UNFCCC Annex I reporting guidelines to provide guidance to Parties on the variations in methodologies introduced by the 2006 IPCC Guidelines (e.g. AFOLU and treatment of inter-annual variability).

4. National inventory report

29. The NIR is a key element of reporting by Parties under the Convention. The UNFCCC Annex I reporting guidelines set out an outline for the reporting of information in the NIR and also provide guidance as to the specifics of information required to be reported. The NIR is used by expert review teams to confirm the transparency, accuracy, completeness, consistency and comparability of a Party's inventory, and, as such, the NIR is a pivotal element of the expert review process under the Convention. In 2009 the secretariat prepared an outline of the annotated NIR for reporting of supplementary

information required under Article 7, paragraph 1, of the Kyoto Protocol, including for reporting of information on the national system.

- 30. A key issue identified by Parties relating to the NIR is the recognition that the national system is not only an element of the preparation of an inventory under the Kyoto Protocol; it is also important for preparing inventories under the Convention. Parties expressed a view that the revised UNFCCC Annex I reporting guidelines under the Convention should take into consideration the reporting provisions on national systems under the Kyoto Protocol, with a view to ensuring consistency between the two streams on the same element.
- 31. Parties presented numerous suggestions on improving the utility of the NIR with a focus on its outline:
 - (a) Revise the NIR outline to take into account changes introduced by the use of the 2006 IPCC Guidelines as the basis for preparing and compiling an inventory, including new categories;
 - (b) Limit the amount of sub-headings in the outline, as this is considered to restrict the capacity of the NIR to be adapted to national circumstances;
 - (c) Move "treatment of confidentiality issues" from the section on quality assurance/quality control to the section on "methods and data":
 - (d) Revise the order of annexes.
- 32. Parties also expressed views on the definition of notation keys, which have been covered earlier in this note (see para. 20 above).

5. Reporting format tables

- 33. Annex I Parties have gained experience in the use of the CRF tables contained in the current UNFCCC Annex I reporting guidelines. In 2004 these tables were integrated into the CRF Reporter software to ease the increasing reporting requirements for Annex I Parties. The CRF tables were revised in 2006 to reflect changes agreed by Parties in reporting under the Convention concerning the LULUCF sector, and in 2008 with respect to additional reporting requirements concerning supplementary information required under the Kyoto Protocol (activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol).
- 34. The secretariat has gained much experience in change management with respect to the CRF tables and their subsequent integration into the CRF Reporter. If Parties require the capacity to gain experience in the use of the revised UNFCCC Annex I reporting guidelines, including the upgraded CRF Reporter, from 2013, then work on the new reporting format tables needs to commence in the second half of 2010, at the latest, and work on the upgraded CRF Reporter needs to commence in 2011.
- 35. Parties expressed the view that the current CRF table template should be considered as a basis for developing the new reporting format tables, and that this activity should comprise the following:
 - (a) A review of the current CRF tables to identify, if any, improvements in these templates and in their intended utility;
 - (b) Appraise changes introduced by the 2006 IPCC Guidelines and their impact on the CRF tables, including impact analysis (dimensional, business logic, etc.).

- 36. Areas identified by Parties for consideration in the context of developing new reporting format tables include:
 - (a) Assessment of the utility of additional information tables and whether there is any added value in continuing to attach these to the main reporting format tables;
 - (b) Review of the value and utility of implied emission factors contained in sectoral background data tables for some categories;
 - (c) Identification of improvements in the current CRF table templates that can be applied to a new reporting format template based on the 2006 IPCC Guidelines;
 - (d) Years of the inventory time series to be covered in an inventory submission;
 - (e) New categories (e.g. CO₂ transport and storage) and gases (e.g. F-gas species), and changes (e.g. venting and flaring, combustion of feedstock fuel) introduced by the 2006 IPCC Guidelines need to be appraised with a view to identifying business logic, mapping and subsequent analysis of the impact on the current CRF tables;
 - (f) Continuation of the use of separate CRF tables for agriculture and LULUCF, with an aggregate sectoral report CRF table for the AFOLU sector. This issue is also relevant for the cross-cutting CRF tables (recalculations, summary tables and trend tables);
 - (g) Reporting worksheets attached to the 2006 IPCC Guidelines only provide reporting of AFOLU emissions and removals derived from the carbon gain–loss method, whereas the current CRF tables provide reporting of emissions and removals derived from the carbon stock change method.
- 37. Parties expressed the view that preparing and developing the new reporting format tables is on the critical path of the schedule of activities to revise the UNFCCC Annex I reporting guidelines. Parties may wish to explore this key activity with a view to agreeing on when work on the new reporting format tables is to commence, and roles and responsibilities, and to decide whether additional workshops are required to facilitate progress of their development. Parties will need to bear in mind that the CRF Reporter will need to be upgraded in order to implement the revised UNFCCC Annex I reporting guidelines.

C. Methodological issues

- 38. Methodological issues concerning the use of the 2006 IPCC Guidelines have, in part, been raised earlier in this note in the context of "coverage of reporting" (see paras. 21–26 above), including:
 - (a) The managed land proxy as a basis for estimating emissions and removals from AFOLU activities;
 - (b) Factoring out of non-anthropogenic emissions from emissions and removal estimates in the AFOLU sector;
 - (c) Treatment of inter-annual variability in the AFOLU sector;
 - (d) Effect of using a higher-tier method on the emission estimate;
 - (e) Other issues, including additional work of the IPCC, that are outlined in paragraphs 41–43 below.
- 39. In 2009 the IPCC held an expert meeting on revisiting the use of managed land as a proxy for estimating national anthropogenic emissions and removals. The report of this meeting is not yet available on the IPCC website, but should be considered in the context of the work programme when it does become available. A related issue is emissions from non-anthropogenic sources and whether these

emissions should be factored out of emissions from managed land in the AFOLU sector. The 2006 IPCC Guidelines removed the provision for Parties to smooth the impact of annual variability on estimates of emissions and removals from the AFOLU sector. This is of more relevance for higher-tier methods in estimating emissions and removals from AFOLU. These issues should be covered by the work programme.

40. The effect of using higher-tier methods on emissions is an issue raised in the context of comparability of emission estimates between Parties. However, whether this is an issue for the revised UNFCCC Annex I reporting guidelines needs to be considered in the context of the work programme, as a Party's choice of methodological tier is based on its national circumstances and capacity to prepare an inventory using a higher-tier method.

D. Additional work of the Intergovernmental Panel on Climate Change

- 41. Parties have identified numerous areas of the work programme where the IPCC could be invited to carry out additional work and provide supplementary guidance, including on clarifying and/or improving methodologies, and exploring methodologies for emission sources/sinks that are currently not available in the 2006 IPCC Guidelines. Parties could appraise each item mentioned in paragraph 42 below with a view to ascertaining the merit of exploring the issue further, and agree on the importance of the issue in the context of Parties reporting inventories using the revised UNFCCC Annex I reporting guidelines.
- 42. Areas identified by Parties for the IPCC to carry out additional work and develop additional methodological information include:
 - (a) The use of earth observation technology (e.g. satellite use, remote sensing) in estimating emissions and removals from the AFOLU sector;
 - (b) The use of higher-tier methods and reporting thereon;
 - (c) Factoring out emissions from non-anthropogenic sources in the AFOLU sector;
 - (d) Emissions from deforestation, as this activity is not considered separately in the 2006 IPCC Guidelines;
 - (e) Estimating and reporting of emissions and removals of carbon stored in agricultural soils;
 - (f) Estimating emissions from harvested wood products (HWPs) and reporting thereon.
- 43. Areas identified by Parties for the IPCC to carry out additional work on methodologies include:
 - (a) Clarifying methodologies and reporting of indirect CO₂ emissions;
 - (b) LULUCF methodologies for the next commitment period (the 2006 IPCC Guidelines does not contain a chapter corresponding to chapter 4 of the IPCC good practice guidance for LULUCF), with a focus on HWPs and factoring out emissions from natural disturbance;
 - (c) Development of calculation methods to estimate emissions from wetlands management and peatland;
 - (d) Emissions from oceans (other land-use);
 - (e) Disposal of equipment containing chlorinated carbons.

III. Issues for further consideration

- 44. In view of the information contained in this note, it is clear that the work programme has much to cover within a very constrained timeline. In addition, as noted by Parties, the work programme must be flexible to allow the consideration of negotiated outcomes from other processes under the Convention when such outcomes become available. In this context, Parties may wish to consider the following:
 - (a) Agreement by the SBSTA, at its thirty-second session, on:
 - (i) The process and timeline of the work programme for finalizing the revised UNFCCC Annex I reporting guidelines by the end of 2012;
 - (ii) A pathway that clearly defines and sequences activities, roles and responsibilities with respect to these activities, and constraints and milestones;
 - (iii) Key methodological issues to be considered by Parties, including issues concerning the use of the 2006 IPCC Guidelines;
 - (iv) Additional work of the IPCC to contribute to the work programme in 2010 and early 2011;
 - (v) Whether any additional workshops under the work programme are required in 2011:
 - (b) Identification of other constraints on the timeline for completing the work programme by the end of 2011;
 - (c) Identification of a process or processes that must be in place to facilitate Parties gaining experience in the use of the revised UNFCCC Annex I reporting guidelines in 2013;
 - (d) Identification of capacity-building opportunities that can be considered by the work programme, with a view to facilitating the use by Annex I Parties of the revised UNFCCC Annex I reporting guidelines, and the use by all Parties of the 2006 IPCC Guidelines.

Annex I

Elements of the work programme for the revision of the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories"

- 1. The Subsidiary Body for Scientific and Technological Advice identified a range of issues related to the revision of the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories" (hereinafter referred to as UNFCCC Annex I reporting guidelines) and methodological issues related to reporting when using the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (hereinafter referred to as the 2006 IPCC Guidelines), as described in paragraph 2 of this document.
- 2. The revision of the guidelines should cover, inter alia:
 - (a) Time-series consistency and recalculations with respect to applying the methodologies contained in the 2006 IPCC Guidelines;
 - (b) Mandatory and non-mandatory reporting requirements;
 - (c) Coverage of gases to be reported by Parties (indirect emissions and additional gases);
 - (d) Sectors and source/sink categories;
 - (e) Presentation of national totals;
 - (f) Revision of the common reporting format tables;
 - (g) Linkages between inventory reporting and a national inventory system;
 - (h) The relationship between the 2006 IPCC Guidelines and previous guidelines of the Intergovernmental Panel on Climate Change;¹
 - (i) The transition period from the current to the revised UNFCCC Annex I reporting guidelines, including the flexibility allowed to Parties included in Annex I to the Convention undergoing the process of transition to a market economy in accordance with Article 4, paragraph 6, of the Convention;
 - (j) Outline and elements of national inventory reports.
- 3. Consideration of the methodological issues related to reporting when using the 2006 IPCC Guidelines should cover, inter alia:
 - (a) Agriculture, forestry and other land-use issues related to the reporting of anthropogenic emissions and removals such as: treatment of emissions and removals from natural disturbance, and inter-annual variability between the 2006 IPCC Guidelines, the *Good Practice Guidance for Land Use, Land-Use Change and Forestry* and the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories;* and managed land proxy;
 - (b) Carbon dioxide capture and storage;
 - (c) Options for updating or adding default parameters;

Such as the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, the Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories and the Good Practice Guidance for Land Use, Land-Use Change and Forestry.

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- (d) Indirect carbon dioxide and indirect nitrous oxide emissions;
- (e) Elaboration of good practice guidance for the use and reporting of tier 3 approaches.

Annex II

Example of a schedule for the work programme for the revision of the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories"

	2010
Workshop 1	Parties to address issues relating to the revision of the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories" (hereinafter referred to as the UNFCCC Annex I reporting guidelines) and methodological issues pertaining to the use of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (hereinafter referred to as the 2006 IPCC Guidelines). Parties to recommend a process and timeline for the work programme and
GD GE 1 22	schedule of activities.
SBSTA 32	 The Subsidiary Body for Scientific and Technological Advice (SBSTA) at its thirty-second session to: Agree to the process and timeline for the work programme and schedule of activities, including a process to incorporate into the revised UNFCCC Annex I reporting guidelines the negotiated outcomes from other processes under the Convention, when agreed by Parties (e.g. coverage of reporting, sectors, categories and gases); Invite Parties to submit by 1 September 2010 additional views on the revision of the UNFCCC Annex I reporting guidelines; Request the secretariat to prepare by [xx] October 2010 the first draft of the revised UNFCCC Annex I reporting guidelines for consideration by Parties at SBSTA 33; Invite the Intergovernmental Panel on Climate Change (IPCC) to carry out additional work on [] for consideration by Parties in workshop 2 and/or 3; Invite the secretariat to prepare a first draft of the reporting format tables (RFTs) for Parties to consider [in workshop 3].
IPCC	Expert meeting on higher detail in inventories.
Workshop 2 SBSTA 33	Parties to address methodological issues identified by Parties in workshop 1 and consider any outcomes of IPCC expert meetings. Parties to recommend the inclusion in the revised UNFCCC Annex I reporting guidelines of any recommendations and conclusions either coming out of the IPCC expert meetings or from Parties on any issue concerning the use of and/or reporting using the methodologies contained in the 2006 IPCC Guidelines (hereinafter referred to as additional methodological information). The SBSTA at its thirty-third session to:
2821 A 33	 Consider the revised UNFCCC Annex I reporting guidelines prepared by the secretariat, and note placeholders for incorporation of information from ongoing work on [] elements of the reporting guidelines yet to be agreed by Parties (e.g. negotiated outcomes from other processes under the Convention and new RFTs); Agree to include in the revised UNFCCC Annex I reporting guidelines

Review progress of the work programme and agree, if required, and subject to availability of funding, to hold additional workshops recommended by Parties. 2011 IPCC If invited, other expert meetings on methodological issues Parties to consider the new RFTs prepared by the secretariat, and address any outstanding methodological issues concerning the use of the 2006 IPCC Guidelines. Where applicable, consider in the context of the revised UNFCCC Annex I reporting guidelines negotiated outcomes from other processes under the Convention. Parties to recommend: New RFTs to be incorporated into the upgraded CRF Reporter that may contain placeholders for elements under negotiation in other processes under the Convention (e.g. global warming potentials); Inclusion in the revised UNFCCC Annex I reporting guidelines of additional methodological information on any outstanding issue[s] concerning the use of and/or reporting using the methodologies contained in the 2006 IPCC Guidelines; The inclusion in the revised UNFCCC Annex I reporting guidelines (including new RFTs) of negotiated outcomes from other processes under the Convention. SBSTA 34 The SBSTA at its thirty-fourth session to: Agree on the new RFTs; Agree to include in the revised UNFCCC Annex I reporting guidelines all or part of the additional methodological information recommended by Parties [in workshop [3]]; Agree to include in the revised UNFCCC Annex I reporting guidelines (including the new RFTs) negotiated outcomes from other processes under the Convention; Invite Parties to submit to the secretariat, by [xx] May 2013, information on their experiences in the use of the revised UNFCCC Annex I reporting guidelines (including the new RFTs) negotiated outcomes from other processes under the Convention; The SBSTA at its thirty-fifth session to review progress of the work programme and agree, if required, and subject to availability of funding, to hold additional workshops recommended by Parties. SESTA 35 Secretariat to release on [xx] October 2012 an u		 provisions for reflecting all or part of the additional methodological information recommended by Parties in workshop 2; Request the secretariat to update the revised UNFCCC Annex I reporting guidelines accordingly; Request the secretariat, subject to the availability of funding, to prepare by [xx] October 2012 an upgraded CRF Reporter based on the revised UNFCCC Annex I reporting guidelines to allow Parties to gain experience in the use of these reporting guidelines in 2013; 			
Parties to consider the new RFTs prepared by the secretariat, and address any outstanding methodological issues concerning the use of the 2006 IPCC Guidelines. Where applicable, consider in the context of the revised UNFCCC Annex I reporting guidelines negotiated outcomes from other processes under the Convention. Parties to recommend: New RFTs to be incorporated into the upgraded CRF Reporter that may contain placeholders for elements under negotiation in other processes under the Convention (e.g. global warming potentials); Inclusion in the revised UNFCCC Annex I reporting guidelines of additional methodological information on any outstanding issue[s] concerning the use of and/or reporting using the methodologies contained in the 2006 IPCC Guidelines; The inclusion in the revised UNFCCC Annex I reporting guidelines (including new RFTs) of negotiated outcomes from other processes under the Convention. SBSTA 34		subject to availability of funding, to hold additional workshops			
Procedure If invited, other expert meetings on methodological issues					
Workshop 3 Parties to consider the new RFTs prepared by the secretariat, and address any outstanding methodological issues concerning the use of the 2006 IPCC Guidelines. Where applicable, consider in the context of the revised UNFCCC Annex I reporting guidelines negotiated outcomes from other processes under the Convention. Parties to recommend: New RFTs to be incorporated into the upgraded CRF Reporter that may contain placeholders for elements under negotiation in other processes under the Convention (e.g. global warming potentials); Inclusion in the revised UNFCCC Annex I reporting guidelines of additional methodological information on any outstanding issue[s] concerning the use of and/or reporting using the methodologies contained in the 2006 IPCC Guidelines; The inclusion in the revised UNFCCC Annex I reporting guidelines (including new RFTs) of negotiated outcomes from other processes under the Convention. SBSTA 34 The SBSTA at its thirty-fourth session to: Agree on the new RFTs; Agree to include in the revised UNFCCC Annex I reporting guidelines all or part of the additional methodological information recommended by Parties [in workshop [3]]; Agree to include in the revised UNFCCC Annex I reporting guidelines (including the new RFTs) negotiated outcomes from other processes under the Convention; Invite Parties to submit to the secretariat, by [xx] May 2013, information on their experiences in the use of the revised UNFCCC Annex I reporting guidelines (including the new RFTs) negotiated outcomes from other processes under the Convention; The SBSTA at its thirty-fifth session to review progress of the work programme and agree, if required, and subject to availability of funding, to hold additional workshops recommended by Parties.					
New RFTs to be incorporated into the upgraded CRF Reporter that may contain placeholders for elements under negotiation in other processes under the Convention (e.g. global warming potentials); Inclusion in the revised UNFCCC Annex I reporting guidelines of additional methodological information on any outstanding issue[s] concerning the use of and/or reporting using the methodologies contained in the 2006 IPCC Guidelines; The inclusion in the revised UNFCCC Annex I reporting guidelines (including new RFTs) of negotiated outcomes from other processes under the Convention. SBSTA 34 The SBSTA at its thirty-fourth session to: Agree to include in the revised UNFCCC Annex I reporting guidelines all or part of the additional methodological information recommended by Parties [in workshop [3]]; Agree to include in the revised UNFCCC Annex I reporting guidelines (including the new RFTs) negotiated outcomes from other processes under the Convention; Invite Parties to submit to the secretariat, by [xx] May 2013, information on their experiences in the use of the revised UNFCCC Annex I reporting guidelines, including the upgraded CRF Reporter. SBSTA 35 The SBSTA at its thirty-fifth session to review progress of the work programme and agree, if required, and subject to availability of funding, to hold additional workshops recommended by Parties. 2012 SBSTA 36 Secretariat to release on [xx] October 2012 an upgraded CRF Reporter based on the revised UNFCCC Annex I reporting guidelines. Parties to gain experience in using the revised UNFCCC Annex I reporting guidelines.		Parties to consider the new RFTs prepared by the secretariat, and address any outstanding methodological issues concerning the use of the 2006 IPCC Guidelines. Where applicable, consider in the context of the revised UNFCCC Annex I reporting guidelines negotiated outcomes from other			
Agree on the new RFTs; Agree to include in the revised UNFCCC Annex I reporting guidelines all or part of the additional methodological information recommended by Parties [in workshop [3]]; Agree to include in the revised UNFCCC Annex I reporting guidelines (including the new RFTs) negotiated outcomes from other processes under the Convention; Invite Parties to submit to the secretariat, by [xx] May 2013, information on their experiences in the use of the revised UNFCCC Annex I reporting guidelines, including the upgraded CRF Reporter. SBSTA 35 The SBSTA at its thirty-fifth session to review progress of the work programme and agree, if required, and subject to availability of funding, to hold additional workshops recommended by Parties. SBSTA 36 Secretariat to release on [xx] October 2012 an upgraded CRF Reporter based on the revised UNFCCC Annex I reporting guidelines. Parties to gain experience in using the revised UNFCCC Annex I reporting guidelines.		 New RFTs to be incorporated into the upgraded CRF Reporter that may contain placeholders for elements under negotiation in other processes under the Convention (e.g. global warming potentials); Inclusion in the revised UNFCCC Annex I reporting guidelines of additional methodological information on any outstanding issue[s] concerning the use of and/or reporting using the methodologies contained in the 2006 IPCC Guidelines; The inclusion in the revised UNFCCC Annex I reporting guidelines (including new RFTs) of negotiated outcomes from other processes 			
SBSTA 35 The SBSTA at its thirty-fifth session to review progress of the work programme and agree, if required, and subject to availability of funding, to hold additional workshops recommended by Parties. 2012 SBSTA 36 Secretariat to release on [xx] October 2012 an upgraded CRF Reporter based on the revised UNFCCC Annex I reporting guidelines. Parties to gain experience in using the revised UNFCCC Annex I reporting guidelines.	SBSTA 34	 Agree on the new RFTs; Agree to include in the revised UNFCCC Annex I reporting guidelines all or part of the additional methodological information recommended by Parties [in workshop [3]]; Agree to include in the revised UNFCCC Annex I reporting guidelines (including the new RFTs) negotiated outcomes from other processes under the Convention; Invite Parties to submit to the secretariat, by [xx] May 2013, information on their experiences in the use of the revised UNFCCC 			
SBSTA 36 Secretariat to release on [xx] October 2012 an upgraded CRF Reporter based on the revised UNFCCC Annex I reporting guidelines. Parties to gain experience in using the revised UNFCCC Annex I reporting guidelines.	SBSTA 35	The SBSTA at its thirty-fifth session to review progress of the work programme and agree, if required, and subject to availability of funding, to			
Secretariat to release on [xx] October 2012 an upgraded CRF Reporter based on the revised UNFCCC Annex I reporting guidelines. Parties to gain experience in using the revised UNFCCC Annex I reporting guidelines.		2012			
based on the revised UNFCCC Annex I reporting guidelines. Parties to gain experience in using the revised UNFCCC Annex I reporting guidelines.	SBSTA 36				
guidelines.		based on the revised UNFCCC Annex I reporting guidelines.			
SDS1A 3/	SBSTA 37				

2013			
	Parties to continue to gain experience in using the revised UNFCCC Annex I reporting guidelines.		
	Parties submit to the secretariat by [xx] May 2013 information on their experiences in using the revised UNFCCC Annex I reporting guidelines.		
SBSTA 38	 The SBSTA at its thirty-eighth session to: Consider the experiences of Parties in using the revised UNFCCC Annex I reporting guidelines; Request the secretariat to prepare by [xx] October 2013 the final version of the revised UNFCCC Annex I reporting guidelines. 		
SBSTA 39	The SBSTA at its thirty-ninth session to prepare a draft decision for adoption by the Conference of the Parties at its nineteenth session on the use of the revised UNFCCC Annex I reporting guidelines on a mandatory basis commencing in 2015.		
COP 19	Adopt the revised UNFCCC Annex I reporting guidelines.		
2014			
	Secretariat to release on [xx] August 2014 a final version of the upgraded CRF Reporter based on the revised UNFCCC Annex I reporting guidelines.		
2015			
	Parties to commence reporting, on a mandatory basis, greenhouse gas inventories using the revised UNFCCC Annex I reporting guidelines.		
