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UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

**SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE**

**Thirty-second session**

**Bonn, 31 May to 9 June 2010**

**Item 7 (b) of the provisional agenda**

**Methodological issues under the Convention**

**The revision of the UNFCCC reporting guidelines on annual inventories  
for Parties included in Annex I to the Convention**

## **Views on issues relating to the 2006 IPCC Guidelines and the revision of the UNFCCC Annex I reporting guidelines**

### **Submissions from Parties**

1. At its thirtieth session, the Subsidiary Body for Scientific and Technological Advice (SBSTA) agreed to launch a work programme in 2010 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” (hereinafter referred to as the UNFCCC Annex I reporting guidelines), including the common reporting format tables.
2. The SBSTA invited Parties to submit to the secretariat, by 15 February 2010, their views on: the process and timelines for implementing the work programme; issues related to the revision of the UNFCCC Annex I reporting guidelines; methodological issues related to reporting when using the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*; and areas in which the SBSTA may consider inviting the Intergovernmental Panel on Climate Change to carry out additional work and contribute to the work programme. It requested the secretariat to compile these submissions into a miscellaneous document for consideration at its thirty-second session (FCCC/SBSTA/2009/3, paras. 102–4).
3. The secretariat has received eight such submissions. In accordance with the procedure for miscellaneous documents, these submissions are attached and reproduced\* in the languages in which they were received and without formal editing.

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\* These submissions have been electronically imported in order to make them available on electronic systems, including the World Wide Web. The secretariat has made every effort to ensure the correct reproduction of the texts as submitted.

**FCCC/SBSTA/2010/MISC.1**

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\* This submission is supported by Croatia, the former Yugoslav Republic of Macedonia, Montenegro and Serbia.

PAPER NO. 1: AUSTRALIA

**AUSTRALIA**  
**Views on revision of the UNFCCC Annex I Reporting Guidelines and addressing  
methodological issues**  
**Submission to the Subsidiary Body for Scientific and Technological Advice**  
**February 2010**

At its thirtieth session in June 2009, the Subsidiary Body for Scientific and Technological Advice (SBSTA) invited Parties to submit views on a work programme to revise the UNFCCC Annex I Reporting Guidelines and address methodological issues related to reporting when using the 2006 IPCC Guidelines.<sup>1</sup> Australia welcomes the opportunity to submit our views in response to this invitation.

The focus of the SBSTA work programme, and of this submission, relates to reporting commitments of Annex I Parties under the Convention. However, annual inventories of Annex I Parties serve the dual purpose of meeting their respective reporting commitments under both the Convention and the Kyoto Protocol. The UNFCCC Annex I Reporting Guidelines likewise have the objective of assisting Annex I Parties meet reporting commitments under both the Convention and the Kyoto Protocol.<sup>2</sup> While not addressed in this submission, further consideration of the UNFCCC Annex I Reporting Guidelines and methodological issues is likely to be required by Parties in relation to the outcomes from ongoing considerations under the UNFCCC. In particular, we consider there is a need to promote consistency across each Party's different reporting commitments to the greatest extent possible.

The content of this submission builds on core considerations concerning the 2006 IPCC Guidelines outlined in Australia's submission of February 2009.<sup>3</sup>

The submission is structured so as to provide a general overview of Australia's views on the work program and methodological issues with detailed considerations included in the following attachments:

1. Issues related to the revision of the UNFCCC Annex I Reporting Guidelines
2. Methodological issues related to reporting when using the 2006 IPCC Guidelines
3. Areas for the IPCC to contribute to the work programme
4. Implementation of the work programme

**OVERVIEW OF AUSTRALIA'S VIEWS ON THE WORK PROGRAMME AND  
METHODOLOGICAL ISSUES**

The UNFCCC reporting guidelines need to assist Parties report national greenhouse gas (GHG) inventories consistent with the provisions of the Convention and its overarching objective. National GHG inventories must be policy relevant and assist in meeting the Convention's objective. The UNFCCC Annex I Reporting Guidelines need to underpin reporting by Parties of national GHG inventories that contain the best possible estimates of anthropogenic emissions and removals and which reflect the latest science and available methods.

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<sup>1</sup> FCCC/SBSTA/2009/3 paragraphs 93-107 refer, available at <http://unfccc.int/resource/docs/2009/sbsta/eng/03.pdf>

<sup>2</sup> Paragraph 1(a) on page 4 of document FCCC/SBSTA/2006/9 refers.

<sup>3</sup> Australia's February 2009 submission is contained in document FCCC/SBSTA/2009/MISC.3 and is available at [www.climatechange.gov.au/en/government/initiatives/unfccc/submissions](http://www.climatechange.gov.au/en/government/initiatives/unfccc/submissions).

The UNFCCC Annex I Reporting Guidelines must also provide clarity about the reporting obligations of Annex I Parties to encourage comparability of estimates across Parties and to minimise uncertainties both for Parties and for the work of expert review teams.

Decisions on coverage and primary reporting issues need to be settled in sufficient time to enable agreement, trial and successful implementation of the final reporting formats prior to their regular use in 2015. In some cases, additional information or guidance should be sought from the IPCC to inform the development of the UNFCCC Annex I Reporting Guidelines.

### **Coverage and Primary Reporting Issues**

A number of critical coverage and primary reporting issues are under consideration by Parties. Decisions on these issues will impact on the final form of the reporting guidelines and are preconditions for the work on elements such as reporting formats. Australia suggests that the work programme should aim to have agreement on these issues, described below, at the COP at its sixteenth session (December 2010).

#### Coverage of sources and gases

The 2006 IPCC Guidelines not only update the existing methods and default emission factors they also present methods for estimating emissions from additional source categories and gases, and new reporting frameworks. Parties need to agree the sectors; source categories and gases to be reported by national GHG inventories and to document this in the UNFCCC Annex I Reporting Guidelines (see Attachment 1 to this submission).

#### Mandatory and non-mandatory categories/gases

- The reporting guidelines should explicitly note whether indirect emissions of CO<sub>2</sub> and indirect N<sub>2</sub>O emissions from the atmospheric deposition of nitrogen in NO<sub>x</sub> and NH<sub>3</sub> are voluntary or mandatory.

#### Global Warming Potentials

The UNFCCC Annex I Reporting Guidelines currently specify that 100 year global warming potentials (GWPs) from the IPCC's Second Assessment Report should be used to aggregate emissions. The IPCC's Fourth Assessment Report provides revised GWPs and GWP values for additional F-gases. Consideration is being given under the UNFCCC to updating the GWPs to reflect the improved scientific understanding of the impacts of the covered gases and enable coverage of additional F-gases in the national GHG inventories.

#### Non-anthropogenic emissions and inter-annual variability in the AFOLU sector

The Convention requires that Parties report on anthropogenic emissions and removals. It is generally agreed that the managed land proxy used in the 2006 IPCC Guidelines has shortcomings as a means of identifying anthropogenic emissions. For some countries, like Australia, the managed land proxy will lead to emissions and removals estimates dominated by natural effects. In addition, inter-annual variations driven by natural effects may swamp the changes in emissions due to mitigation. The unintended consequences of the managed land proxy do not provide governments with a policy incentive to implement comprehensive mitigation action.

The 2006 IPCC Guidelines provide the methods for estimating all emissions and removals in a given year on managed lands. Consequently Parties should agree alternative approaches for reporting to ensure the best possible estimates of anthropogenic emissions are included in the national GHG inventories. It is Australia's view that the revision to the UNFCCC Annex I Reporting Guidelines should allow Parties, with the capacity to do so, to remove the non-anthropogenic emissions and removals in the AFOLU sector associated with natural disturbances and climate variability (see Attachment 2 of this submission).

## **Additional Issues for Revision of the UNFCCC Annex I Reporting Guidelines**

### Role of previous IPCC guidelines

The UNFCCC Annex I Reporting Guidelines will need to clearly explain the role (if any) previous IPCC guidelines/guidance will play in inventory submissions from 2015 onward. For example, will default emission factors (EF) and methods from the Revised 1996 IPCC Guidelines still be considered appropriate or must they be replaced with those from the 2006 IPCC Guidelines? Having a single IPCC default EF rather than three would provide clarity for inventory preparation and for the UNFCCC expert review process.

### Common Reporting Format Tables

It is Australia's view that in developing new CRF tables to accommodate the 2006 IPCC Guidelines, the existing CRF tables should be the starting point. The current tables could be modified to reflect the 2006 IPCC Guidelines sector structures, new source categories etc and any COP decisions on reporting and coverage issues (eg. global warming potentials). This approach will provide the consistency needed to maintain time-series integrity, as far as possible, in the review process.

### Other reporting considerations

Attachment 1 to this submission outlines some additional reporting considerations in relation to the presentation of national totals, the structure of the National Inventory Report and guidance on use of notation keys.

### **Issues requiring further IPCC guidance**

Additional information or guidance from the IPCC is needed to inform inventory preparation and the UNFCCC Annex I Reporting Guidelines in three areas as follows (see Attachment 3 to this submission for more detail).

#### Factoring out non-anthropogenic emissions

A number of approaches to removing non-anthropogenic emissions were identified at the IPCC workshop on the managed land proxy held in May 2009. In an effort to improve the estimates of anthropogenic emissions, the IPCC should be requested to further investigate tier-appropriate methods and to develop supplementary guidance for implementing these methods, building on, and updating the work done in response to Decision 22/CP.7 (paragraph 3).

#### Good practice elaboration of Tier 3 methods

The 2006 Guidelines provide little guidance for Tier 3 methods, leaving countries with uncertainties that can only be resolved through inventory review processes. Elaboration of the IPCC guidelines will be important to underpin development of these methods, which are technically demanding and often Party-specific.

#### Guidance on methods and reporting of carbon added to soil

There is growing interest in the application of products such as biochar to store carbon in agricultural soils. Guidance is needed on how emissions and removals associated with these types of products should be estimated and reported in the national GHG inventories.

### **Work Programme**

An important consideration in developing a work programme for the revision of the UNFCCC Annex I Reporting Guidelines is the need to allow both the Parties and the UNFCCC Secretariat time to prepare their systems to transition to the new reporting guidelines and tables.

It is Australia's view that the work programme should be prepared with the aim of having revised UNFCCC Annex I Reporting Guidelines for adoption by the COP at its seventeenth session (2011) (see Attachment 4). Adoption in 2011 would provide an opportunity for Parties to trial the use of the revised UNFCCC Annex I Reporting Guidelines, CRF tables and 2006 IPCC Guidelines in 2003, prior to their implementation in 2015.

## **ATTACHMENT 1. ISSUES RELATED TO THE REVISION OF THE UNFCCC ANNEX I REPORTING GUIDELINES**

### *Transition issues*

#### **Transition to use of the 2006 IPCC Guidelines**

Annex I Parties to the Kyoto Protocol are required to report emissions and removals consistent with the IPCC's Revised 1996 Guidelines and associated good practice guidance (2000, 2003) for their 2010-14 inventory submissions.

The work programme to review the UNFCCC Annex I Reporting Guidelines was launched by SBSTA30 with a view to implementing the 2006 IPCC Guidelines for regular use starting in 2015. The 12 month period 2014-2015 is likely to be a resource-intensive period for Annex I Kyoto Protocol Parties as it coincides with the true-up period of the first commitment period. Implementation of the 2006 IPCC Guidelines will require significant additional work including estimating new sources/gases, and implementing new methods and revised reporting structures.

#### Capacity for transition

The work programme suggested by Australia provides for a trial use of the revised UNFCCC Annex I Reporting Guidelines in 2013. This trial will enable those Parties with capacity to develop dual reporting systems to begin implementation of the 2006 IPCC Guidelines and revised reporting requirements. This will assist Parties prepare for the transition in 2015.

However, not all Parties will have capacity for dual reporting and consideration needs to be given to providing assistance (including training and tools) to assist these Parties.

#### **Role of previous IPCC guidelines/guidance**

The UNFCCC Annex I Reporting Guidelines will need to clearly explain the role (if any) previous IPCC guidelines/guidance will play in post 2014 submissions. For example, will default emission factors (EFs) and methods from the Revised 1996 IPCC Guidelines still be considered appropriate or must all default EFs and methods be replaced with those from the 2006 IPCC Guidelines? Having a single IPCC default EF rather than three would provide clarity for inventory preparation and for the UNFCCC expert review process.

The IPCC has established the IPCC emission factor database (EFDB)<sup>4</sup> to provide a library of emission factors and other parameters that can be used for estimating GHG emissions and removals. In reviewing the reporting guidelines Parties may wish to consider the role of the IPCC EFDB as a means of updating default emission factors.

### *Coverage and primary reporting issues*

#### **Mandatory and non-mandatory 2006 IPCC Guidelines categories/gases**

The UNFCCC Annex I Reporting Guidelines should clearly identify which source categories/gases identified in the 2006 IPCC Guidelines are mandatory and which are not.

#### Indirect emissions of CO<sub>2</sub>

Volume 1 of the 2006 IPCC Guidelines indicates the CO<sub>2</sub> emissions associated with atmospheric oxidation of methane, carbon monoxide and non-methane volatile organic compounds "could be included

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<sup>4</sup> <http://www.ipccnggip.iges.or.jp/EFDB/main.php>

in national inventories”. The use of “could” implies that reporting is voluntary. The UNFCCC Annex I Reporting Guidelines should make the optional nature of the reporting explicit. The language in the 2006 IPCC Guidelines is likely to be open to interpretation.

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

In previous IPCC guidance, atmospheric deposition is only calculated from nitrogen sourced from the agriculture sector. The 2006 IPCC Guidelines extend this practice to all sectors.

Volume 1 (section 7.3.1) of the 2006 IPCC Guidelines provides methods for estimating atmospheric deposition emissions from non-AFOLU sectors. The section states that these methods “need only be applied where data on NO<sub>x</sub> and NH<sub>3</sub> emissions from these sources are available eg. from the inventories identified in section 7.2”. Section 7.2 directs users to the EMEP/CORINAIR methods for estimating NO<sub>x</sub>.

This would imply that reporting is only mandatory for Parties preparing EMEP/CORINAIR inventories or the like. Clarification about the treatment of this source will be required in the UNFCCC Annex I Reporting Guidelines.

In addition, the 2006 IPCC Guidelines are unclear in explaining where these emissions are to be reported. Atmospheric deposition from AFOLU sources of nitrogen appears to remain as an AFOLU reporting category (3.C.5 *Indirect N<sub>2</sub>O Emissions from Managed Soils*), but the guidelines also state that atmospheric deposition emissions arising from all sectors are to be reported in category 5.A. *Indirect N<sub>2</sub>O Emissions from the Atmospheric Deposition of Nitrogen in NO<sub>x</sub> and NH<sub>3</sub>*. If these emissions are to be included, the UNFCCC Annex I Reporting Guidelines/CRF tables should clearly document where these emissions are to be reported to avoid double counting.

#### **Global Warming Potentials**

The UNFCCC Annex I Reporting Guidelines currently specify that 100 year global warming potentials (GWPs) from the IPCC’s Second Assessment Report should be used to aggregate emissions. The IPCC’s Fourth Assessment Report provides revised GWPs and GWP values for additional F-gases. Consideration is being given under the UNFCCC to updating the GWPs to reflect the improved scientific understanding of the impacts of the covered gases and enable coverage of additional F-gases in the national GHG inventories.

#### **Reporting of non-anthropogenic emissions**

The Convention requires that Parties report on anthropogenic emissions and removals. The approaches and methods described in the 2006 IPCC Guidelines for the AFOLU sector will, for some Parties, lead to the inclusion of significant non-anthropogenic emissions and large annual variability in reported emissions such that the effects of policy measures and longer term trends are masked. It is Australia’s view that if the policy relevance of the national GHG inventories is to be maintained then any revision to the UNFCCC Annex I Reporting Guidelines should allow Parties, with the capacity to do so, to remove the non-anthropogenic emissions and removals associated with natural disturbance and climate variability (see Attachment 2 of this submission - methodological issue associated with reporting using the 2006 IPCC Guidelines).

#### *Additional reporting issues*

#### **Common Reporting Format Tables**

Parties have invested significant effort in developing the current CRF tables. These CRF tables were modified from the Revised 1996 IPCC Guidelines reporting tables to make them more user-friendly and practical for compilation and review purposes (e.g. introduction of implied EFs and other background information). The reporting tables provided in the 2006 IPCC Guidelines do not include these



enhancements. In addition, Australia has identified a number of other issues with the IPCC reporting tables, including inconsistencies between the estimation methods and reporting tables and the ability to report an emission under multiple categories.

It is Australia's view that in developing new CRF tables to accommodate the 2006 IPCC Guidelines the current CRF tables should be the starting point. The current tables could be modified to reflect the 2006 IPCC Guidelines sector structures, new source categories etc and any COP decisions on reporting and coverage issues (eg. global warming potentials).

In developing new CRF tables, Australia would also note that Parties will need to make available additional funding to the Secretariat to redevelop the CRF report software and other information technology infrastructure.

### **Presentation of national totals**

Currently the UNFCCC Annex I Reporting Guidelines through the CRF tables define national total GHG emissions "with" and "without LULUCF". As the 2006 IPCC Guidelines merged the Agriculture and LULUCF sectors into a single sector – AFOLU – consideration needs to be given to whether this practice continues with the revised reporting guidelines and CRF tables.

With the 2006 IPCC Guidelines it will not be possible to report a "without LULUCF" total which is entirely consistent with the existing approach as there has been a fragmentation of the Revised 1996 IPCC Guidelines reporting categories which makes direct mapping back problematic.

- For example under the 2006 IPCC Guidelines "prescribed burning of savannas" would be split over the grasslands and forest lands categories and "field burning of agricultural residues" as well as savanna burning emissions would be distributed across the 'land remaining' and 'land converted to' sub-categories.

Parties will need to consider how to address these issues if they wish to continue reporting totals "with" and "without LULUCF".

### **Outline and elements of national inventory reports**

Considerable experience has now been gained by Annex I Parties in the preparation of National Inventory Reports (NIR).

Australia has found that the structure of the NIR contained in Annex 1 of the UNFCCC Annex I Reporting Guidelines has provided a sound basis for presenting information in a transparent and comparable way. While the structure could be further improved with some minor changes Australia would, however, caution against the development of too many new sub-heading levels as these become too prescriptive and do not allow the NIR structure to be adapted to national circumstances.

#### Chapter 1

Although a national inventory system is only a requirement under the Kyoto Protocol, the key elements of a national system are reflected in the required content for chapter 1 of the NIR. Given that a "national inventory system" for preparation of inventories is also of relevance under the Convention, the structure of Chapter 1 could be improved if this was recognized and the structure of the chapter modified, for example, to more closely match the reporting structure for a national system under the Protocol reporting requirements. This would only require minor changes to the current structure.

As part of the revision it is also suggested that the "treatment of confidentiality issues" be moved from section 1.6 (QA/QC). A more logical place for this information would be section 1.4 (methods and data) or equivalent section of any new structure.

### Sectoral Chapters (3-9)

The new sector structure of the 2006 IPCC Guidelines will require these chapters to be renamed and renumbered. The information in the associated appendix (additional guidance on sectoral reporting to be included in the corresponding section of the NIR) will require a comprehensive revision.

### Annexes

Australia also proposes that Annex 1 Key categories, Annex 5 Completeness and Annex 7 uncertainty tables are renumbered Annex 1, 2 and 3 respectively.

### **Notation keys**

The UNFCCC Annex I Reporting Guidelines provide clear guidance on how notation keys should be applied to emission and removals within the CRF tables. It would be useful if additional guidance could be provided in relation to use of notation keys for activity data and, most particularly, information in background tables. As there would appear to be differing views amongst experts on the appropriate notation – for example where background data items are not relevant to the methods used – it would assist Parties in populating the new CRF tables if agreed approaches for these sorts of situation could be documented in the reporting guidelines or in footnotes to the CRF tables.

## **ATTACHMENT 2. METHODOLOGICAL ISSUES RELATED TO REPORTING WHEN USING THE 2006 IPCC GUIDELINES**

For Australia, the key methodological issues associated with reporting when using the 2006 IPCC Guidelines are in relation to the agriculture, forestry and other land use (AFOLU) sector.

The Convention requires that Parties report on anthropogenic emissions and removals. The approaches and methods described in the 2006 guidelines will, for some Parties, lead to the inclusion of significant non-anthropogenic emissions and annual variability in reported emissions such that the effects of policy measures and longer term trends are masked.

The impact on Parties' inventories is variable depending on their choice of methodology tier. Parties that use Tier 3 methods, which can reflect climate variability, will be the most seriously affected.

Tier 3 methods provide estimates of greater certainty than lower tiers and have the potential to provide greater information on the effect of policies and changes to activities and land management. However, unless appropriate mechanisms for smoothing climate-based inter-annual variability and factoring out stochastic events can be implemented Parties will be discouraged from uptake of higher tier methods.

Australia believes the UNFCCC Annex I Reporting Guidelines should allow Parties to remove non-anthropogenic emissions from natural disturbance and climate variability so that the emissions due to activity changes, policies, and management changes can be identified and reported.

### **Managed Lands and Anthropogenicity**

The 2006 IPCC Guidelines include two fundamental changes from the Revised 1996 IPCC Guidelines. The first is the move away from an activity based approach to estimating emissions and removals to a land based approach. The second is to define anthropogenic as all emissions and removals from managed lands ("the managed land proxy").

Australia is supportive of moves to estimating and reporting emissions on a comprehensive land basis as this leads to more complete estimates of emissions and removals. The activity based approaches in the revised 1996 IPCC guidelines focus on positive management changes, which risks an asymmetrical treatment that ignores the impact of negative management practices.

The shift to the land based approach in combination with the managed land proxy was initiated with the changes introduced in the IPCC good practice guidance for LULUCF (IPCC 2003). Parties have now gained greater experience in the use of the IPCC good practice guidance for LULUCF and this has highlighted some unintended consequences of these approaches – namely the inclusion of significant non-anthropogenic emissions and inter annual variability in the emission estimates.

For example, Australia has approximately 440 Mha of "managed" grasslands and all C stock changes on these lands are to be reported. The vast majority of the grasslands occur in inland Australia and are used for low density grazing which involves minimal intervention. Given the large areas involved, very small changes in biomass or soil carbon at the hectare level can result in significant changes at the national level, when estimated using a Tier 3 methodology. With no change in land management practice, the emissions and removals from the grass component can range from a net source of 304 Mt to and net sink of 221 Mt, entirely due to climate variability. Inclusion of this level and range of non-anthropogenic emissions and removals makes an inventory including this sector of little policy relevance. The unintended consequences of the managed land proxy do not provide governments with a policy incentive to implement comprehensive mitigation action.

The use of managed land as a proxy for anthropogenic effects was adopted in part due to the difficulties in factoring out anthropogenic from non-anthropogenic effects. However, following scientific advances, more countries are adopting or contemplating the adoption of Tier 3 methods incorporating modelling.

For countries using Tier 3 methods based on accurate modelling, factoring out non-anthropogenic emissions such as those from drought may provide a better alternative for identifying anthropogenic emissions than the managed land proxy alone.

While Tier 3 methods are the most suited to separating out these effects, they are also the most affected by them. When emissions are estimated using Tier 1 and Tier 2 methods the emission factors are fixed. This minimises the impact of the managed land proxy as only the activity data will reflect non-anthropogenic changes. Tier 3 methods based on actual measurement/sampling or modelling will reflect anthropogenic and non-anthropogenic changes in both the activity data and emission rates.

Australia believes the UNFCCC Annex I Reporting Guidelines should allow those Parties using Tier 3 methods, and with the capacity to do so, to remove these non-anthropogenic emissions and removals. A number of possible approaches to factoring out non-anthropogenic emissions were identified at the IPCC workshop on the managed land proxy held in May 2009. The IPCC should be invited to further investigate tier appropriate methods and to develop supplementary guidance in implementing these methods, building on, and updating the work done in response to Decision 11/CP.7 (paragraph 3).

### **Inter annual variability**

Another feature of the 2006 IPCC Guidelines which leads to reporting of greater inter-annual variability is the removal of provisions for smoothing in the AFOLU sector. In Australia's experience, variations in climatic conditions from year-to-year lead to substantial annual variations in the rate of net carbon emissions and removals. This effect is particularly prominent in countries like Australia where rainfall is often a limiting factor in plant growth.

There are a range of approaches to smoothing inter-annual variability, based on intensity of estimation methods (Tier 1, 2 or 3) and national circumstances. In the Revised 1996 IPCC Guidelines, rolling averages can be used to smooth volatility in accounts derived from factors such as short term climate variability. However, Volume 1 of the 2006 IPCC Guidelines requests annual reporting and removes provisions for rolling averages. This means that Parties would have no opportunity to smooth variability in the reporting process to reflect the underlying trends due to human management practices.

To deal with this Volume 4 of the 2006 IPCC Guidelines suggests that input (activity) data be collected over longer intervals – effectively using sparse sampling to mask variability. Such a practice is far less transparent, and potentially less robust, than averaging actual annual outputs – an approach which would appear more consistent with the intent of Volume 1.

Like the situation with the managed land proxy, the impact of this reporting change disadvantages Parties using the most-intensive (Tier 3) methodologies (see discussion below), and makes the inventories of those Parties that report using annual climate data, and the inventories of those that use longer-term averages, less comparable.

### **Effect of Selection of Tier for Emissions Estimation**

The reported annual emissions estimates under the 2006 IPCC Guidelines will differ significantly according to the choice of estimation Tier and collection frequency of activity data.

As presented in the 2006 Guidelines, the selection of a Tier brings an analytic artefact that will affect both the time-series variability and quantum of emissions reported annually. The use of either Tier 1 or Tier 2, by using static emissions factors over time, will 'smooth' the time-series variability from effects of climate variability. In contrast, Tier 3, by use of frequent repeated measurements or models, will express annual variability. Also, inventories based on Tier 3 methods with annual activity data will reflect any positive or negative correlation between activity data and emissions rates. These correlations will not be reported when using time-series averaged activity data and Tier 1 and Tier 2 emission factors.

Any averaging of time-series activity data will also smooth annual variability and when coupled with the use of static emissions factors, will not reflect that annual variability present in a Tier 3 annual inventory. This difference is unavoidable given the methods available for emissions estimation. There is consequently a case for smoothing of Tier 3 emissions estimates to an equivalent dampening of annual fluctuations as will be derived from Tier 1 and Tier 2 methods. This could be done by the use of running means to stabilise trends in inventory time-series.

Australia suggests that the IPCC may wish to consider work to investigate the implications of tier selection in regards to emissions estimated and the comparability of Parties' inventories.

## **ATTACHMENT 3. AREAS FOR THE IPCC TO CONTRIBUTE TO THE WORK PROGRAMME**

*Areas in which the SBSTA may consider inviting the IPCC to carry out additional work and contribute to the work programme.*

### **Good practice methods for excluding non-anthropogenic emissions and removals in the AFOLU sector.**

The managed land proxy and land based approach used in the AFOLU sector in the 2006 IPCC Guidelines will, as an unintended consequence, lead to the inclusion of significant non-anthropogenic emissions and removals in the national inventories. As the Convention only requires reporting of anthropogenic emissions and removals, the IPCC should be invited to further investigate tier-appropriate methods for removing non-anthropogenic emissions and removals and to develop the necessary good practice guidance for the implementation of these methods.

### **Good practice elaboration for Tier 3 methods**

With scientific and technological advances such as improvements to earth observation technology, more countries are adopting or considering adopting Tier 3 methods. The 2006 Guidelines provide little guidance for Tier 3 methods, leaving countries with uncertainties that can only be resolved through inventory review processes.

Elaboration of the IPCC guidelines will be important to Parties developing these methods, which are technically demanding, and often Party specific. Elaboration will create certainty for Parties, as adherence to properly elucidated good practice guidance should remove uncertainty as to how the guidelines will be applied during inventory review.

Australia understands that the IPCC, through the Task Force on National Greenhouse Gas Inventories work programme, will be running a workshop in the second half of 2010 to consider use of Tier 3 models. Australia looks forwards to the discussions at this upcoming workshop.

### **Guidance on estimating and reporting of carbon added to soil**

There is growing interest in the application of products such as biochar to store carbon in agricultural soils. Biochar is a type of charcoal produced from heating natural organic materials (e.g. crop waste, wood chip, municipal green waste or manure) in an oxygen-limited environment. These charcoal products are very stable and have the potential to provide long-term carbon storage in soils and generate additional productivity benefits under certain environmental conditions.

The type of feedstock and techniques used in producing biochar are likely to affect its properties, both in terms of its permanence and environmental benefits. Guidance is needed on how emissions and removals associated with these types of products should be estimated and reported in the national greenhouse gas inventories.

Australia proposes that the SBSTA invite the IPCC to develop guidance on the estimation and reporting of storage of carbon, and subsequent emissions, in products used for agricultural soil augmentation, including biochar.

#### **ATTACHMENT 4. IMPLEMENTATION OF THE WORK PROGRAMME**

*Views on the process and timelines for implementing the work programme for the revision of the UNFCCC Annex I reporting guidelines, including CRF tables, with a view to recommending revised UNFCCC reporting guidelines for adoption by the Conference of the Parties, for regular use starting in 2015.*

Past experience has shown that negotiations on reporting guidelines and common reporting format (CRF) tables can take a considerable amount of time. A major constraint to the length of these discussions is the need to allow Parties time to prepare their inventory systems to transition to the new reporting guidelines and tables. The UNFCCC Secretariat will also require sufficient time to redevelop and test the CRF reporter software in preparation for the 2015 inventory submission.

Based on these considerations, it is Australia's view that the work programme should be prepared with the aim of having revised UNFCCC Annex I Reporting Guidelines and CRF tables for adoption by the Conference of the Parties, ideally, at its 17<sup>th</sup> session (2011) but no later than the 18<sup>th</sup> session (2012).

Adoption in 2011 would provide time for Parties to use the revised UNFCCC Annex I Reporting Guidelines, CRF tables and 2006 IPCC Guidelines on a trial basis prior to their implementation for regular use in 2015. Australia believes it is critical to build time to trial the implementation of the revised reporting guidelines into the schedule.

Table 1 outlines Australia's proposed timeline and process for implementing the work programme.

**Table 1: Proposed timeline and process to implement the work programme for revision of the UNFCCC Annex I Reporting Guidelines Activity**

<b>Activity</b>	<b>Objective</b>	<b>Date</b>
Workshop	<p>Workshop on issues relating to revision of UNFCCC Reporting Guideline and methodological issues concerning the use of the 2006 IPCC Guidelines.</p> <ul style="list-style-type: none"> <li>• Consideration of Parties' submissions</li> <li>• Develop the work programme for revising the UNFCCC Annex I Reporting Guidelines including a schedule of activities and timelines</li> <li>• Identify coverage and reporting issues that will require negotiated outcomes from SBSTA/COP and methodological issues that can be submitted to IPCC for further guidance</li> </ul>	May 2010
SBSTA 32	<p>SBSTA to</p> <ul style="list-style-type: none"> <li>• agree implementation of the work programme to revise the UNFCCC Annex I Reporting Guidelines</li> <li>• consider coverage and reporting issues requiring negotiated outcomes (inter alia GWPs, gases and sources to be covered, reporting approaches) and develop draft text/decisions on these issue if possible</li> <li>• issue invitation to IPCC to carry out work to support work programme with a view to reporting at or before SBSTA 34.</li> </ul>	June 2010
<b>Activity</b>	<b>Objective</b>	<b>Date</b>
Workshop	<p>Workshop on addressing methodological issues related to reporting when using the 2006 IPCC Guidelines</p> <ul style="list-style-type: none"> <li>• Consider methodological and reporting issues, including consideration of any outputs from the IPCC work programme</li> <li>• If required, develop terms of reference for additional IPCC work</li> </ul>	November 2010
SBSTA 33	<p>SBSTA to</p> <ul style="list-style-type: none"> <li>• consider outcomes of workshop on methodological issues</li> <li>• further consider coverage and reporting issues requiring negotiated outcomes and draft decisions for consideration by the COP</li> <li>• if necessary, issue invitation to IPCC to undertake additional work</li> </ul>	December 2010
COP 16	<p>COP to</p> <ul style="list-style-type: none"> <li>• Make decisions on reporting and coverage issues. To not achieve outcomes on these issues at COP 16 would delay subsequent work programme.</li> <li>• Request the Secretariat, with the assistance of experts, to prepare draft CRF tables based on current CRF format adapted for 2006 IPCC Guidelines requirements and relevant COP 16 decision for consideration at SBSTA 34</li> <li>• Invite IPCC, if necessary, to develop supplementary guidance for the implementation of decisions</li> </ul>	December 2010



<b>Activity</b>	<b>Objective</b>	<b>Date</b>
Workshop	Workshop on text and CRF tables of UNFCCC Annex I Reporting Guidelines <ul style="list-style-type: none"> <li>• Consider revisions to text of reporting guidelines and CRF tables</li> </ul>	Early April 2011
Secretariat	Secretariat provide draft CRF tables	Early May 2011
SBSTA 34	SBSTA to <ul style="list-style-type: none"> <li>• consider outcomes of workshop on reporting guidelines and any outputs from IPCC work programme and agree on draft text and tables.</li> <li>• call for Parties' views on draft text and CRF tables for consideration at SBSTA 35</li> </ul>	June 2011
Party submission	Party submissions on draft text and CRF tables	September 2011
Workshop	Workshop to consider Party submissions and recommend changes to draft reporting guidelines and CRF tables	Late October 2011
SBSTA 35	SBSTA to consider workshop outcomes and agree revised UNFCCC Annex I Reporting Guidelines Draft decision on adoption of revised reporting guidelines for consideration at COP17	December 2011
Workshop	Workshop on addressing methodological issues related to reporting when using the 2006 IPCC Guidelines <ul style="list-style-type: none"> <li>• Consider methodological and reporting issues, including consideration of any outputs from the IPCC work programme</li> <li>• If required, develop terms of reference for additional IPCC work</li> </ul>	November 2010
SBSTA 33	SBSTA to <ul style="list-style-type: none"> <li>• consider outcomes of workshop on methodological issues</li> <li>• further consider coverage and reporting issues requiring negotiated outcomes and draft decisions for consideration by the COP</li> <li>• if necessary, issue invitation to IPCC to undertake additional work</li> </ul>	December 2010
COP17	COP adopts revised UNFCCC Annex I Reporting Guidelines <ul style="list-style-type: none"> <li>• Request the Secretariat to revise CRF reporter software and associated tools, with beta versions to be available for trial by December 2012</li> <li>• Invite Parties to trial use of revised reporting guidelines and CRF reporter software and provide submissions on their experiences for consideration at SBSTA 39</li> </ul>	December 2011
Secretariat	Beta version of CRF reporter software available	December 2012
Parties	Trial use of revised reporting guidelines and CRF software	2013
Party submission	Submission on Parties' experiences with revised reporting guidelines and CRF software	Sept/Oct 2013

<b>Activity</b>	<b>Objective</b>	<b>Date</b>
Party submission	Submission on Parties' experiences with revised reporting guidelines and CRF software	Sept/Oct 2013
SBSTA 39	Consider Parties' submissions and agree, if required, changes to revised UNFCCC Annex I Reporting Guidelines/CRF tables	December 2013
COP 19	If required, adopt changes to revised UNFCCC Annex I guidelines/CRF tables	December 2013
Secretariat	CRF reporter software completed	August 2014
Party submission	1st inventory submission under revised reporting guidelines	15 April 2015
COP17	<p>COP adopts revised UNFCCC Annex I Reporting Guidelines</p> <ul style="list-style-type: none"> <li>• Request the Secretariat to revise CRF reporter software and associated tools, with beta versions to be available for trial by December 2012</li> <li>• Invite Parties to trial use of revised reporting guidelines and CRF reporter software and provide submissions on their experiences for consideration at SBSTA 39</li> </ul>	December 2011
Secretariat	Beta version of CRF reporter software available	December 2012

PAPER NO. 2: INDIA

**India's submission on Inter Governmental Panel on Climate Change Guidelines for National Greenhouse Gas Inventories**

The Subsidiary Body for Scientific and Technical Advice (SBSTA) at its 30<sup>th</sup> session invited Parties to submit to the Secretariat by 15<sup>th</sup> February 2010 information or views on the issues listed in paragraph 103 of the Document No.FCCC/SBSTA/2009-3. This submission provides the initial reaction of India's perspective on these issues.

**(a) The process and timelines for implementing the work programme referred to in paragraph 101 above:**

India fully acknowledges the steps taken by SBSTA to launch a Work Programme in 2010 for revision of the UNFCCC Annex I reporting guidelines including the common reporting format with a view to recommending revised UNFCCC guidelines for adoption by the COP and use of these guidelines with effect from 2015. The timeline appears to be in order. However, the draft revised guidelines may be finalized for consideration of SBSTA at its first Meeting in 2013. This will give scope to Parties to review the guidelines based on the lesson learnt during past years.

**(b) Issues related to the revision of the UNFCCC Annex I reporting guidelines:**

Annex I Parties have been following the existing guidelines for the purpose of reporting of GHG as per the requirement under the Convention. The proposed revision like coverage of gases, categorization of source and sink and presentation of national total would be helpful to determine the extent of GHG loading in the atmosphere. The reporting guideline should mandate Annex I Parties to report their annual GHG inventories. A strong linkage should be established between the reporting under Convention and accounting under Kyoto Protocol so as to determine the responsibility of the Party.

India wishes to discuss further the items for revision '(f) to (j) :

- (f) Revision of the common reporting format tables;
- (g) Linkage between inventory reporting and a national inventory system;
- (h) The relationship between the 2006 IPCC Guide lines of the Intergovernmental Panel for Climate Change and UNFCCC reporting guidelines;
- (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.

**(c) Methodological issues related to reporting when using the 2006 IPCC Guidelines:**

India welcomes the updation and availability of the 2006 IPCC guidelines which provides improvement over the 1996 IPCC (revised) guidelines. The 2006 guidelines have provided elaborated framework for the estimation and reporting of GHG emission, new methodological approaches, integrated guidance for good practice and cross-cutting issues.

Currently India is engaged in preparation of second National Communication and exploring the possibilities of using on a voluntary basis the 2006 IPCC guidelines for preparation of GHG inventories relating to agriculture ,forestry other land use (AFOLU). The new guidelines are data intensive and the developing countries generally do not have data required by the new guidelines. India is therefore calling for consideration of adequate training and capacity building in developing countries to prepare

the inventories and preparation of their future National Communication Reports using the 2006 IPCC guidelines.

**(d) Areas in which the SBSTA may consider inviting the IPCC to carry out additional work and contribute to the work programme:**

The 2006 IPCC guidelines for preparation of National Green House Gas Inventories cover the categories like energy, industrial processes and product use; agriculture; forestry and other land use and waste. While the existing 2006 IPCC guidelines are quite exhaustive the SBSTA may invite IPCC to carry out additional work and to contribute the work programme on the following areas:

- Emission of Ozone Depleting Substances and substitutes from the Banks (industrial process and product-use).
  - Emission from Ocean (other land-use).
  - Recovery, recycle and reuse (waste).
- Disposal of equipment containing chlorinated carbons (waste).

PAPER NO. 3: JAPAN

**SBSTA 32**

**Submission with Respect to the revision of the UNFCCC Annex I reporting guidelines  
(February 2010)**

The SBSTA invited Parties to submit to the secretariat, by 15 February 2010, their views on the following issues for compilation into a miscellaneous document:

- (a) The process and timelines for implementing the work programme on the revision of the UNFCCC Annex I reporting guidelines;
- (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 IPCC to carry out additional work and contribute to the work programme.

Japan welcomes the opportunity to submit the following comments on these issues.

Please also refer to Japan's submission on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories submitted February 2009 (<http://unfccc.int/resource/docs/2009/sbsta/eng/misc03.pdf>) which is also relevant in considering the future revision of the UNFCCC Annex I reporting guidelines.

The process and timelines for implementing the work programme

- Because the rules for the next commitment period was not decided on during COP 15, there is a possibility that the revision of the UNFCCC Annex I reporting guidelines may continue beyond 2011. In addition, issues that have significant implications on the reporting under the UNFCCC during the next commitment period may become apparent in the process of actually applying the 2006 IPCC Guidelines. Therefore, the timeline for the revision of the reporting guidelines should be flexible and continuous.
- As the rules on inventories for the next commitment period have yet to be decided, the revision of the reporting guidelines should begin in areas that will not be affected by the outcome of the negotiations in the AWG-KP, for example, starting with the CRF tables for emission sources.
- (Subject to the availability of resources,) two workshops are planned in 2010: the workshop addressing key issues relating to the revision of the UNFCCC Annex I reporting guidelines in the first half of 2010 and the one on methodological issues relating to reporting when using the 2006 IPCC Guidelines in the second half of 2010. Japan hopes that the revision work will make good progress during the workshops. In order to carry out the revision work efficiently, it is preferable that discussion of the revision be concentrated on in workshops before negotiation such as SBSTA.

Issues related to the revision of the UNFCCC Annex I reporting guidelines

- Definitions of the scope of gases, sectors, GWP, base years, and other issues included in the guidelines should be revised in response to the results of the discussions on the post-2012 framework.
- To facilitate smooth compilation of GHG inventories, the guidelines should improve the clarity of definitions of all notation keys and include examples. Also, as new emission sources are added in the 2006 IPCC Guidelines, there is a serious concern that additional burdens relating to maintaining completeness will be even greater than now. Consequently, it may be, for example, necessary to examine the criteria for "emissions that need not be included in the inventory (i.e. not a problem even if emissions reported as "NE"=Not Estimated)" and alleviate the burdens. Relating to this, it is necessary to consider the possibility of adding a new notation key such as "CI

(=considered insignificant).”

- In the calculations for the AFOLU sector, there are possible cases where amount of emissions happen to coincide with amount of removals or where stock volumes at two points of time become the same. In such cases, the results of estimation of net emissions and removals would become “0”. These cases in any way do not indicate that emissions and removals do not exist or that estimation is not being performed, thus, the significance of the figure is distinct from the figure “0”. This distinction needs to be taken into account in the CRF reporting table and reporting software.
- There should be clear guidance on the use of significant digits in the estimation and reporting of emissions and removals.
- Regarding the CRF tables, the AFOLU sector worksheet contained in the Annex to the 2006 IPCC Guidelines consists only of the sheet that deals with the gain–loss method, but a CRF reporting table that is also applicable for the stock change method, of which usage is authorized under the 2006 IPCC Guidelines, needs to be formulated.
- In the consideration of emissions with and without LULUCF, some caution will need to be taken in newly reallocating mandatorily accounted emission sources in the agricultural sector to a category of optional accounting under LULUCF sector.

#### Methodological issues related to reporting

- There should be clear indication of whether indirect CO<sub>2</sub> and indirect N<sub>2</sub>O emissions should be included in national total GHG emissions. If they are to be included, there needs to be additional guidance from the IPCC on methodologies for estimating emissions of CO, NMVOC, NO<sub>x</sub> and NH<sub>3</sub>.
- The Revised 1996 IPCC Guidelines, GPG 2000, and 2006 IPCC Guidelines call for the allocation of greenhouse gas emissions from waste that are used as energy and waste combustion associated with energy recovery in the energy sector. According to the 2006 IPCC Guidelines, the rationale behind reporting the emissions from waste that had been used as energy and waste combustion associated with energy recovery in the energy sector is quoted as “to prevent double counting and errors in the counting sector”, but Japan has experienced that even if the said emissions were not reported in the energy sector, it is possible to avoid “double counting and errors in the counting sector”. With respect to whether the emissions from waste associated with energy use and recovery should be counted in the energy sector or in the waste sector, it may be necessary to continue to make further consideration carefully at IPCC and COP.

#### Areas for the IPCC to carry out additional work

- Methodologies for indirect emissions
  - If indirect CO<sub>2</sub> and N<sub>2</sub>O are to be included in the national total GHG emissions, there needs to be additional guidance for the methodologies of indirect emission estimates.
- Additional Guidelines for Satellite Use
  - Taking into account the recent advances in knowledge and technology on satellite use, it would be appropriate for the IPCC to undertake tasks to create a technical paper under UNFCCC or create additional guidelines under IPCC.
- Development of Calculation Methods Relating to Wetlands
  - Further work is needed on developing methodologies relating to wetlands management practices, drainage, wetlands degradation and rewetting.
- Improvement in Calculations Relating to N<sub>2</sub>O Emissions from Soil
  - With respect to N<sub>2</sub>O emissions from soil, several issues surrounding the calculation methods were raised in the IPCC AFOLU sector meeting held in May 2008. It is desirable to reflect the solutions to these issues to the extent possible in preparing the inventories.
- Differences in Results of HWP Calculation Tiers

- Japan made an examination of calculation methods based on each approach to HWP by using the 2006 IPCC Guidelines. As issues faced in the process, significant differences were observed that would overturn the results of emissions / removals depending upon the use of Tier 1 or higher Tier in the estimation. This implies that additional guidance should be considered on what data is transparent and verifiable for use in HWP methodologies.
- LULUCF methodologies for the next commitment period
  - Because there are no chapters in the 2006 IPCC Guidelines that correspond to Chapter 4 of the current GPG-LULUCF, there may be a need for guidance pertaining to the LULUCF rules for the next commitment period, depending on the outcome of negotiations. Below are two examples:
    - ✧ HWP accounting methodologies under the Protocol
    - ✧ Methodologies for factoring in or out of natural disturbance / *Force majeure*.

PAPER NO. 4: KAZAKHSTAN

**Ministry of Environment Protection of the Republic of Kazakhstan**

**Submission of the views on the Intergovernmental Panel on Climate Change guidelines for national greenhouse gas inventories (SBSTA)**

Kazakhstan welcomes the opportunity to make a submission of **views on the Intergovernmental Panel on Climate Change guidelines for national greenhouse gas inventories (SBSTA)**. This submission is pursuant to the invitation of SBSTA's thirtieth session FCCC/SBSTA/2009/L.11. Although Kazakhstan has not yet undertaken thus far the development of its Third National Communication and we plan to start this year. Therefore, the views reported below draw from the experience of local experts that have been introducing the old Guidelines.

**a) The process and timelines for the working program realization referred to in paragraph 6 of documents FCCC/SBSTA/2009/L.11**

We support the process and timelines of the working program realization for 2010, however as we suppose, it would be effective to send a representative from Kazakhstan to take a part in such a meeting. Moreover, we recommend to include in the Working program an issue on rising national potential with organizing a set of workshop, which would give the possibility for experts to discuss methodological issues of the revised guideline and share experience on using new Guideline 2006. It seems useful to raise a point on making easier an inventory process by unifying calculation methods and emission coefficients.

**b) Issues related to the revision of the UNFCCC Annex I reporting guidelines**

Inventory methods included in the IPCC Guideline 2006 and Report on emissions and sinks are based on the Decisions of the Parties. Reporting frames and format is an important think for Kazakhstan. In this regard, we could proceed with discussions on the reporting rules under AWG-KP on LULUCF. For the Post-Kyoto, it is necessary to include new elements of carbon sinks calculation in land-use for arid systems. These calculations are important for Kazakhstan in assessing emissions and sinks and solving issues on adaptation to climate change as well.

**c) Methodological issues related to reporting when using the 2006 IPCC Guidelines**

We are not sure that the 2006 IPCC Guidelines should consider the emissions of non-direct GHG and other precursor gases, such as NO<sub>x</sub>, NMVOCs and CO, since these emissions are under control of the other international agreement as UNECE Convention on Long-Range Transboundary Air Pollution. The using of the new Guidelines may be required to modify the Common Reporting Format tables.

**d) Areas in which the SBSTA may consider inviting the IPCC to carry out additional work and contribute to the working program.**

We think the IPCC may undertake to study and research opportunities on including new calculating elements in the revised Guideline. Kazakhstan has little experience in using new Guideline 2006. And in its practical implementation some needs in national data that unavailable today may arise in fact. Therefore, Kazakhstan supports SBSTA's proposal to search for supplementary work for IPCC to generalize results of new research and world practice in using Guideline 2006 for GHG emission assessment in separate projects and results verification in emission calculation.



PAPER NO. 5: RUSSIAN FEDERATION

**Представление Российской Федерации по вопросу Руководств Межправительственной группы экспертов по изменению климата для национальных инвентаризаций парниковых газов**  
*(в соответствии с нотой Секретариата о представлениях стран информации от 9 февраля 2010 года)*

1. Российская Федерация признает важность представления Сторонами РКИК ООН, являющимися развивающимися странами, своих намерений по участию в Приложении 2 к проекту «Копенгагенского соглашения».

Российская Федерация предлагает РКИК ООН поручить Межправительственной группе экспертов по изменению климата (далее – МГЭИК) провести работу по оценке сопоставимости прилагаемых усилий всеми Сторонам РКИК ООН по снижению антропогенной нагрузки на глобальную климатическую систему, и проведения последующей оценки его эффективности.

В связи с этим, предлагаем в течение 2010 года разработать и представить Сторонам РКИК ООН результаты этих оценок усилий стран, представивших предложения к Приложению 2 «Копенгагенскому соглашению» и их переводу в формат, предложенный странами, представившими предложения к Приложению 1: количественные сокращения антропогенных эмиссий парниковых газов (в эквиваленте CO<sub>2</sub>) по отношению к заданному базовому году.

2. Российская Федерация подтверждает свою позицию о начале использования с 2015 года на постоянной основе Руководств МГЭИК 2006 года, однако, мы продолжаем отмечать нецелесообразность включения новых газов в отчетность, принимая во внимание ограниченность их производства и применения, а также наметившуюся тенденцию к сокращению запасов и соответствующих потенциальных выбросов этих веществ к 2015 году.

**Submission of the Russian Federation under the issues arising from the issue regarding IPCC  
Guidelines for national greenhouse gas inventories.  
*Referring to Message to Parties on early submission of information and views  
(ODES/COP15/10, 9 February 2010)***

1. Russian Federation recognizes the importance of submission by the developing country Parties, which are the Parties to the UNFCCC, of their intentions on the participation in the Annex II of the project of Copenhagen Agreement.

Russian Federation proposes that the UNFCCC should request that the Intergovernmental Panel on Climate Change should assess the comparability and subsequent efficiency of the efforts undertaken so far by all the UNFCCC Parties with the aim at reducing the anthropogenic pressure on climate system.

With this, we propose that such assessment should result in transition of the Parties' submissions for the Annex II of the Copenhagen Agreement into format comparable with the submissions for the Annex I of the Copenhagen Agreement, which is the quantitative reduction of equivalent greenhouse gas anthropogenic emissions with the reference to the base year. Furthermore, we propose that the outcome of such assessment should be made available to the UNFCCC Parties within the 2010.

2. Russian Federation confirms its position on the use of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories on the permanent basis starting from 2015. However, we keep on indicating of inexpediency of inclusion new gases in the reporting because of limited scale of their production and consumption along with descending trends in their stocks and corresponding potential emissions by the 2015.

PAPER NO. 6: SINGAPORE

**INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE GUIDELINES FOR NATIONAL  
GREENHOUSE GAS INVENTORIES (SBSTA)**

**SUBMISSION FROM SINGAPORE**

[In relation to: Areas in which the SBSTA may consider inviting the IPCC to carry out additional work and contribute to the work programme]

1 We propose that IPCC undertakes further study to advise on methodologies for the accounting of carbon in the treatment of peatlands and wetlands, towards better estimation of carbon storage/sequestration. Although peatlands cover only 3% of global land area, they contain almost 30% of all carbon on the land, and about 60% of the world's wetlands contain peat. As a whole, these two ecosystems are noted to be important carbon stores in the world, containing more organic carbon than other terrestrial ecosystems. Peatlands, especially tropical peatlands, can pose a major fire hazard as they can continue to burn for an indefinite period, even underground. So understanding the carbon storage in peat towards climate change mitigation under REDD+ and LULUCF would be most relevant to the efforts of the global community to address climate change. Results from IPCC will serve as a further guidance towards the accounting of these ecosystems.

PAPER NO. 7: SPAIN ON BEHALF OF THE EUROPEAN UNION  
AND ITS MEMBER STATES

**SUBMISSION BY SPAIN AND THE EUROPEAN COMMISSION ON BEHALF OF THE  
EUROPEAN UNION AND ITS MEMBER STATES**

**This submission is supported by Croatia, the Former Yugoslav Republic of Macedonia,  
Montenegro and Serbia.**

Madrid, 12 February 2010

**Subject: Intergovernmental Panel on Climate Change guidelines for national greenhouse gas  
inventories (SBSTA)**

**This submission was prepared following the request of SBSTA at its 30th session to submit views  
on:**

- a) **The process and timelines for implementing the work programme for the revision  
of the UNFCCC Annex I reporting guidelines;**
- 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 IPCC to carry out additional  
work and contribute to the work programme**

**The process and timelines for implementing the work programme**

The SBSTA conclusions from its 30<sup>th</sup> session already include some key milestones for the  
implementation of the work programme on the revision of the UNFCCC reporting guidelines for Annex I  
national greenhouse gases inventories.<sup>1</sup>

- Regular use of the revised UNFCCC reporting guidelines should start for the elaboration of the  
inventory submission in 2015 for the reporting year 2013 (paragraph 6 of FCCC/SBSTA/2009/L.11),
- In addition to the regular SBSTA sessions, the work should be performed in two workshops in 2010,  
one in the first half of the year, and the other one in the second half. The first workshop should  
address key issues relating to the revision of the UNFCCC Annex I reporting guidelines and the  
second one should address the methodological issues related to reporting when using the 2006 IPCC  
Guidelines.

***Use of the revised UNFCCC reporting guidelines***

The regular use of the revised UNFCCC reporting guidelines should start with the submission due by  
15 April 2015 for the reporting year 2013. It has to be taken into account that the final CRF reporting  
software should be available in time for the use by reporting Parties and the timing should allow for  
testing, corrections of errors and a resolution of technical problems.

A future accounting structure of emissions reductions will need to fix base year/period or reference  
year/period emissions and removals for a future commitment period similar as under the Kyoto Protocol,  
either for international purposes or for domestic purposes. Such fixing of base year emissions for the

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<sup>1</sup> FCCC/SBSTA/2009/L.11

establishment of final limitation/ reduction targets should take into account the methodological changes arising from the implementation of the 2006 IPCC guidelines. For such a process, Parties will need to have the revised UNFCCC reporting guidelines ready in time for the recalculations of emissions and removals time series. Therefore the revised UNFCCC reporting guidelines should be agreed at the latest at COP 17 in 2011 followed by an update of the CRF reporting software by mid 2012.

### *1<sup>st</sup> Workshop*

The EU suggests that the first workshop on key issues relating to the revision of the UNFCCC Annex I reporting guidelines (hereafter UNFCCC reporting guidelines) should enter into a more detailed discussion of the text of the UNFCCC guidelines for national GHG inventories and CRF tables. This discussion should identify the parts of the UNFCCC reporting guidelines that may need to be revised including any new elements that may need to be added as well as outdated sections that may no longer be essential based on the proposals from Parties' submissions. Each paragraph of the UNFCCC reporting guidelines could be checked, whether and which changes would potentially apply, without yet discussing the exact legal drafting. The workshop should also discuss the structure of the CRF tables and identify the need for modifications to the current ones. A submission after the first workshop and SBSTA 32 should subsequently requests Parties' proposals for revisions to the text of the UNFCCC reporting guidelines for GHG inventories in time to compile an INF-Document with the proposed revisions prior to the second workshop.

During the workshops and meetings, discussions could take place in parallel sessions on the text of the UNFCCC reporting guidelines and on the CRF reporting tables to advance both parts of the guidance at the same time.

*Table 1 Proposed schedule for work on revised UNFCCC reporting guidelines for GHG inventories*

<b>Year</b>	<b>When</b>	<b>Task</b>
2010	First half 2010	First workshop, focus revision of UNFCCC reporting guidelines
2010	June 2010	SBSTA 32: <ul style="list-style-type: none"> <li>• Discuss results of first workshop</li> <li>• Discuss work programme</li> <li>• Discuss work programme of 2<sup>nd</sup> workshop</li> <li>• Request to Parties for submissions on proposals draft revised legal text for the revision of the UNFCCC reporting guidelines</li> <li>• Invitation to the IPCC for further methodological work</li> </ul>
2010	Before 2 <sup>nd</sup> Workshop	Submission providing draft revised legal text for the revision of the UNFCCC reporting guidelines and the CRF tables
2010	Second half 2010	Second workshop, focus on methodological issues related to reporting when using the 2006 IPCC Guidelines
2010	November / December 2010	SBSTA 33/ COP 16: discussion on draft revised legal text of UNFCCC reporting guidelines and CRF tables
2010-2011		IPCC expert meetings depending on SBSTA invitations and IPCC's work schedule
2011	June 2011	SBSTA 34: continued discussion on draft revised legal text of UNFCCC reporting guidelines and CRF tables
2011		UNFCCC Workshop to consider the outcomes of further methodological work by IPCC
2011	December 2011	SBSTA 35 / COP 17: Completion of the discussions on and adoption of revised UNFCCC reporting guidelines for GHG inventories
2012	Mid 2012	Preparation of revised CRF reporter software

## ***SBSTA 32***

The discussions at SBSTA 32 should address the outcome of the first workshop and request for submissions on draft revised legal text for the revision of the UNFCCC reporting guidelines and the CRF tables before the second workshop. In addition, the SBSTA should discuss the methodological issues related to reporting when using the 2006 IPCC Guidelines addressed in Parties' submissions and the work programme. Parties should also discuss what type of action will be necessary to address these methodological issues. In particular, the SBSTA should identify the issues where the IPCC should be invited to perform additional work, and where methodological clarifications should be developed under the SBSTA.

In the view of the EU, additional requests for further IPCC work should not trigger a full scale revision process of the 2006 IPCC guidelines, but should facilitate the use of the 2006 IPCC Guidelines in the context of the UNFCCC. Some expert meetings related to issues in the 2006 IPCC Guidelines have already taken place in the recent past.

If the IPCC were to be invited to develop further methodological guidance, this would result in an approximately two year process in accordance with the IPCC procedures. Another option would be to invite IPCC to organize expert meetings on certain issues that would result in recommendations from those meetings. SBSTA would subsequently need to consider and incorporate these recommendations in the revised UNFCCC reporting guidelines on GHG inventories. Any potential invitations to the IPCC to carry out additional methodological work or to contribute to the work programme should be discussed during the first workshop. Invitations to the IPCC should be agreed at the 32<sup>nd</sup> session to ensure that results will be available in time to be appropriately integrated into the work programme.

### ***2<sup>nd</sup> workshop***

As agreed in 2009, the second workshop should deal with methodological issues related to reporting when using the 2006 IPCC Guidelines. The 2<sup>nd</sup> workshop should provide for time to discuss Parties' proposals, in particular those that can be addressed as part of the work on the revised UNFCCC reporting guidelines and for which Parties' do not see the need for additional methodological work by the IPCC. The workshop could also consider the recommendations and results from previous IPCC expert meetings held related to the 2006 IPCC Guidelines. The workshop may also consider the revision of UNFCCC reporting guidelines and the CRF tables in parallel to the methodological discussions, taking into account any agreements of the workplan at SBSTA 32 and the 2<sup>nd</sup> submissions by Parties as proposed above.

The need for additional workshops or pre-session consultations in 2011 should be considered at COP 16 taking into account the status of work achieved until the end of 2010. The proposed work programme is without prejudice to any additional needs for revisions of the UNFCCC reporting guidelines resulting from the negotiations on a future emission reduction framework at COP 16 or beyond.

## **Issues related to the revision of the UNFCCC Annex I reporting guidelines**

The UNFCCC reporting guidelines on annual inventories have proven to be very useful for the reporting and the review of national GHG inventories under the Convention. The general principles and approach of the UNFCCC reporting guidelines should be kept and the revision should only amend the existing guidelines in areas as necessary. In the view of the EU, such specific areas include inter alia the following:

## **General considerations**

The changes introduced in the 2006 IPCC Guidelines require the revision of the guidance for the structure and content of the National Inventory Report (NIR), e.g. the inclusion of a new category on CO<sub>2</sub> transport and storage also has to be addressed in this part of the UNFCCC guidance.

Reporting of emissions in source categories for which estimation methods in the 2006 IPCC Guidelines are in appendices due to the limited availability of scientific information, should **not** be mandatory in the UNFCCC guidelines on annual inventories in line with existing practices.

Experiences from the UNFCCC review of national GHG inventories should be considered and taken into account in the revision of the UNFCCC reporting guidelines. Revision of the UNFCCC guidelines is needed to remove any inconsistency or ambiguity with regard to which reporting requirements are mandatory and which are non-mandatory and to ensure that the basic requirements under the guidelines match those that have become established through ERT recommendations in the annual review reports.

The revision of the UNFCCC reporting guidelines should also implement additional improvements apart from the use of the 2006 IPCC Guidelines. For example, the current guidelines under the Convention do not address the establishment and reporting on the national inventory system, which is only a requirement under the Kyoto Protocol, even though the reporting of essential elements of the national system (institutional arrangements, QA/QC plan, record keeping) are basic components of the NIR. Given that the national inventory system is a key general element for the preparation of national GHG inventories, this should also be specifically recognized in the Convention reporting guidelines. The revised UNFCCC reporting guidelines should aim at strengthening national systems and transparency of reporting on national systems as a means to ensure the quality and continuous improvement of GHG inventories.

## **Scope of gases**

### F-gases

The scope of greenhouse gases reported in national GHG inventories should be extended to cover additional fluorinated gases, which are identified and included in the 2006 IPCC Guidelines and for which the IPCC 4th Assessment Report provides GWPs.

In the EU's view, in particular nitrogen trifluoride (NF<sub>3</sub>), fluorinated Ethers (HFEs), perfluoropolyethers as well as new HFCs and PFCs should be included in the reporting. For these substances Parties should agree on a more recent year than 1990 from which onwards these substances should be reported, if their production and use on commercial scale has started only after 2000.

New classes of substances such as HFEs should be reported as a group and not separately for each single substance in the CRF. Further details would be provided in the NIR.

The SBSTA should also assess whether all individual F-gases currently included in the Annex of the UNFCCC reporting guidelines are still being produced and/or used. Some individual chemical species are not reported by any Party and may have become irrelevant in practice.

### Indirect CO<sub>2</sub> and N<sub>2</sub>O emissions

Apart from fluorinated gases, the 2006 IPCC Guidelines clarify and extend the scope of GHG inventories in relation to the indirect emissions of CO<sub>2</sub> and N<sub>2</sub>O. For indirect CO<sub>2</sub> emissions from NMVOC the 2006 IPCC Guidelines provide a default parameter for the fraction of carbon in NMVOC which allows a calculation of CO<sub>2</sub> inputs from NMVOC emissions. The 2006 IPCC Guidelines include guidance for estimating N<sub>2</sub>O emissions resulting from nitrogen deposition of all anthropogenic sources of NO<sub>x</sub> and NH<sub>3</sub>. Only agricultural sources of nitrogen were considered in the Revised 1996 IPCC Guidelines. Possible changes to reporting of indirect emissions in annual inventories in line with the 2006 IPCC

Guidelines should also be addressed under the scope of the revised UNFCCC reporting guidelines on annual inventories.

### **Potential F-gas emissions**

The UNFCCC reporting guidelines on annual inventories require the reporting of potential emissions of HFCs, PFCs and SF<sub>6</sub> from all Annex I Parties for those source categories where the concept of potential emissions applies. The estimation of potential F-gas emissions is dropped in the 2006 IPCC Guidelines and replaced by new Tier 1 approaches resulting in actual emissions. Therefore the requirement to report potential F-gas emissions should be removed from the UNFCCC reporting guidelines on annual inventories.

### **Addressing the AFOLU sector / Definition of national total GHG emissions with and without LULUCF**

In the 2006 IPCC Guidelines, the previous sectors “agriculture” and “land use, land use change and forestry (LULUCF)” were merged into one sector “AFOLU”. For reporting purposes under the Convention, it seems preferable to keep the two sectors separate in the reporting tables in order to have consistent time series of emissions and removals. Inventories should guide policy makers in the decisions on mitigation policies and from this perspective it is also useful to continue reporting on agriculture emissions separately from emissions from LULUCF. Continued separation of agriculture and LULUCF is necessary to be able to define national total GHG emissions with and without LULUCF, as provided in the CRF summary tables. The aggregate “national total GHG emissions without LULUCF” is the single most important indicator of national emissions and is used for several purposes, including presenting information on emission trends in inventories or review reports.

Therefore the EU suggests keeping the sectors agriculture and LULUCF separate in the revised UNFCCC reporting guidelines, in particular in the CRF tables. In the discussions on the CRF tables the allocation of individual source categories to these sectors should be clearly defined taking into account data availability and time series consistency with the existing reporting.

### **Revision of the Global Warming Potentials (GWPs)**

The current UNFCCC reporting guidelines use the GWPs from the IPCC’s second assessment report. The 2006 IPCC Guidelines propose to use the GWPs provided in the IPCC third assessment report. Meanwhile the IPCC 4th assessment report (AR4) provided updated GWPs for all GHG. Table 1 “1995 IPCC global warming potentials (GWP) values based on the effects of greenhouse gases over a 100-year time horizon” of the UNFCCC Guidelines on annual inventories should therefore be replaced by the most recently updated and extended table of GWPs from the AR4.

### **Recalculations and time-series consistency**

Changes as regards the structure of the reporting, new source categories and revised methodologies require recalculation of the time series of GHG emissions to avoid time series inconsistencies.

Recalculations due to the implementation of the 2006 IPCC Guidelines should be addressed in the UNFCCC reporting guidelines. In this respect a further analysis is required whether all revisions in methodologies, additions of new source categories and changes in allocations to specific source categories can be recalculated backwards with available datasets and without increasing uncertainties of the emission trends compared to the existing reporting guidance. The revised UNFCCC guidelines should address specific situations where recalculations are not meaningful or feasible for the entire time series.



### **The IPCC emission factor database**

The IPCC emission factor database (EFDB) at <http://www.ipcc-nggip.iges.or.jp/EFDB/main.php> is a recognised library, where users can find emission factors and other parameters with background documentation and/or technical references. The objective of the EFDB is to disseminate the most up-to-date scientific information on emission factors and other parameters for use in national GHG inventories. Many emission factors and parameters change with time and default parameters presented in the 2006 IPCC Guidelines could already be outdated in 2015 when the 2006 IPCC Guidelines will become mandatory under the Convention.

The EU would like to discuss a flexible future approach for updating and improvement of guidance on emission factors and similar parameters making use of the IPCC EFDB. Such approach could change the IPCC emission factor database from a recognised library to a tool for dissemination of updated default emission factors and parameters. Updates for the IPCC default emission factors and parameters could be recommended by scientific experts and be reviewed by experts and thereafter approved by Parties. The EU would like to discuss further the process such a flexible approach with other Parties and the IPCC. The approach could be incorporated in the revision of the UNFCCC reporting guidelines. If Parties agree to a new approach for updating emission factors, this could also result in an invitation to IPCC for further work in relation to the EFDB.

### **Revision of the common reporting format (CRF)**

The implementation of the 2006 IPCC Guidelines will require changes in the CRF reporting tables. The EU believes that this part of the revision of the UNFCCC reporting guidelines will be the most time-consuming part of the future work and adequate time should be allocated in the work programme. While the 2006 IPCC Guidelines only provide a source category structure, the CRF includes a more comprehensive reporting approach with tables at different levels of detail including activity data (AD), implied emission factors (IEFs) and other background information. Such information has to be developed for some of the new source categories included in the 2006 IPCC Guidelines.

The revision of the CRF reporting format should take into account the importance of time-series consistency, data availability as well as resource requirements for the implementation of the changes in the reporting categories. The EU believes that the changes to the source category structure in the CRF should be kept to a minimum necessary, e.g. to take into account additional source categories. Small revisions of the source category definitions and allocation may lead to a large amount of work for the recalculations without significant gains in accuracy or transparency of emission data. In such cases, the EU would prefer to keep the existing reporting categories.

Apart from the implementation of the 2006 IPCC guidelines, the revision should evaluate the usefulness of the current reporting tables for the review of information and introduce appropriate changes, e.g. related to the information required as additional information in the CRF background tables or related to the usefulness of certain IEFs.

Issues that should be discussed and addressed in the revision of the CRF tables include:

#### **General**

Each submission currently adds one year to the reported time series and recalculates all previous years back to 1990 (or earlier for some Parties). If the existing reporting practice is kept, the CRF tables will cover 25 years in 2015 and 30 years in 2020. This large number of years will consume resources of Parties and the UNFCCC secretariat to correctly address and assess each single past year independent of the fact whether the information for all individual years is used for any purpose. The revision of the CRF should discuss potential ways to rationalize the reporting related to historic years without jeopardizing the principle of time series consistency (e.g. whether for the years before 2000 or 2005, reporting in 5-year intervals would be sufficient).

### Energy

- The reporting of CO<sub>2</sub> transport and storage in the energy sector should be included in the CRF tables. New background tables need to be developed for this purpose. There may be several options for reporting, e.g., CO<sub>2</sub> transport and storage could be reported in a separate background table, or transport of CO<sub>2</sub> could also be part of fugitive emissions. It should also be discussed how transparent reporting on captured and stored amounts of CO<sub>2</sub> can be achieved, e.g. by using a mass balance approach for reporting.
- The reporting of CH<sub>4</sub> emissions from abandoned coal mines should be included under fugitive emissions from energy.
- In the 2006 IPCC Guidelines fugitive emissions from venting and flaring are separate subcategories under the oil and natural gas subcategories and there is no longer an option for reporting of combined flaring from oil and gas. This option is currently used by a considerable number of countries and it should be further discussed whether sufficient data is available to implement this separation or whether the combined category should be kept. A split to subcategories which mainly increases the amount of reporting of “IE” (included elsewhere) may not improve the reporting system.
- In the 2006 IPCC Guidelines emissions from combustion of feedstock fuel use were moved from energy to industrial processes and product use in specific cases. This change has to be further considered in the revision of the UNFCCC reporting guidelines in relation to time-series consistency and the inventory review and whether the change allows for a consistent tracking of all fuel uses reported in the inventory and in energy balances as part of the UNFCCC review.
- The EU believes that the level of disaggregation of emissions from Manufacturing industries and construction proposed in the 2006 IPCC Guidelines may go beyond the data availability among Parties. Differences in category definitions between the IPCC guidelines and those used for domestic emission trading schemes or for economic analysis may further complicate the implementation of the required sub-sectors.
- The source categories for civil aviation and navigation have been redefined and comprise international and domestic emissions in the 2006 IPCC Guidelines as well as military emissions. The EU prefers the current way of separate reporting of emissions from domestic and international aviation. In addition “remaining mobile emissions” have been redistributed to the various transport modes. These changes need further consideration in relation to the reporting of transport emissions, and may not be necessary in the CRF. It should also be further discussed whether it is possible from the point of view of data availability to further split emissions from military or multilateral operations into additional subcategories. As many Parties already face problems in filling these categories, further disaggregation may not be possible.

### Industrial processes

- The merging of sectors “industrial processes” and “solvents and other product use” to the sector “Industrial processes and Product use” should be reflected in the CRF tables.
- The process on harmonisation of reporting formats and requirement of other international processes such as the UNECE should be taken into consideration in revising the CRF tables. Comparability among the different reporting schemes is important also from the point of view of efficient use of resources.
- It has to be discussed how new source categories under industrial processes and product use will be addressed in the reporting tables.
- Some source categories under industrial processes were reorganized and this should also be considered in relation to time-series consistency.
- Entry cells and categories for new fluorinated gases should be included in the CRF structure.

### AFOLU/ LULUCF - Agriculture

- The CRF structure should keep the background tables and the sectoral tables for agriculture and LULUCF separate (see section 0).

- New source categories for agriculture and for land based emissions and removals (e.g. CO<sub>2</sub> emissions from urea fertilization or CO<sub>2</sub> emissions from peatlands) should be considered and addressed.
- Additional tables may also be needed to deal with the reporting on harvested wood products.

## **Methodological issues related to reporting when using the 2006 IPCC Guidelines**

In general the EU believes that the methodologies provided in the 2006 IPCC Guidelines are solid, scientific-based and comprehensive. Any additional methodologies or significant revisions of methodologies would require a thorough science-based elaboration process by IPCC. The EU would, however, like to invite the IPCC to carry out some further work as **outlined in section 0** of this submission.

Also, Volume 1 “General Guidance and reporting” of the 2006 IPCC Guidelines touch on areas related to reporting and accounting of emissions. These are also key areas in the UNFCCC reporting guidelines. In these areas, Parties may modify the guidance provided by the IPCC to design reporting guidelines that achieve the objectives of the Convention with an efficient use of Parties’ resources.

The EU is open to discuss other Parties’ views on other methodological issues arising from the 2006 IPCC Guidelines.

## **Areas in which the SBSTA may consider inviting the IPCC to carry out additional work and contribute to the work programme**

### **Harvested Wood Products (HWP)**

While the new chapter 12 on Harvested Wood Products in the 2006 IPCC Guidelines considerably advanced the understanding of the emission estimation and reporting of HWP, it does not present a sufficient basis for the inventory reporting and review process.

The current chapter defines reporting requirements for different accounting options for HWPs. The methods used to estimate net emissions from wood products due to changes in the harvested wood products pool should be consistent with the general accounting approach for HWP to be agreed under the COP or the COPMOP. The approach may e.g., require separate identification of wood produced domestically. The 2006 IPCC Guidelines do not provide unambiguous estimation methods for different tiers with clear system boundaries as for other source/sink categories. Therefore, the methodological guidance on the estimation of HWPs provided in the 2006 IPCC Guidelines is not fully applicable for future reporting and review purposes and will need some refinement once an accounting approach for HWP is agreed.

The HWP chapter includes also some guidance which is not in line with the general guidance for other parts of the GHG inventory, e.g. the definition of significance and insignificance of a category and the guidance on the key category approach. Also, the chapter on HWPs does not seem to be fully consistent with the estimation approaches provided in the waste chapter 8. Some terms are not appropriately defined and for others different definitions may exist in other chapters. The section on QA/QC does not follow very closely the type of guidance provided for other source categories. In general the mix of reporting requirements for a number of different out-dated accounting approaches makes it difficult to follow and understand the methodological guidance provided.

Therefore SBSTA at its 32<sup>nd</sup> session should invite the IPCC to consolidate the methodological description in the chapter on Harvested Wood Products and revise it especially with respect to a future accounting approach to be decided by the COP.

### **Wetlands**

The negotiations have seen greatly increased interest in emissions estimation associated with wetlands. The methodologies for wetlands (including peatlands) in the 2006 IPCC Guidelines are not complete and it would be useful to review the state of inventory science in order to develop methodologies for the missing parts, e.g. for CH<sub>4</sub> emissions from wetlands and for the estimation of emissions and removals from wetland restoration. It should also be considered whether additional advice might be needed to avoid double counting of wetland emissions with other categories.

### **Methodological guidance on remote sensing and emissions from deforestation**

Deforestation is not a separate category in the 2006 Guidelines. The IPCC could be invited provide additional guidance to deal with emissions from deforestation separately, and to improve the user-friendliness of the methodological guidance in this area.

The IPCC could also be invited to update guidance on remote sensing. Significant general guidance on the use of remote sensing data has been developed at international level recently.<sup>2</sup> An integration of such guidance in the 2006 IPCC Guidelines could improve the usefulness of the guidelines. Also there may be the need for better default information on carbon densities, including in the presence of forest degradation, and for how to estimate carbon stock changes associated with degradation and sustainable management of forests.

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<sup>2</sup> E.g. GOF-C-GOLD 2009: Sourcebook of methods and procedures for monitoring and reporting anthropogenic GHG emissions and removals caused by deforestation, gains and losses of C stocks in forests remaining forests, and forestation. GOF-C-GOLD Report version COP15-1, (GOF-C-Gold Project Office, Natural Resources Canada, Alberta, Canada)

PAPER NO. 8: UNTITED STATES OF AMERICA

**Submission of the United States of America  
Methodological issues under the Convention –  
Intergovernmental Panel on Climate Change guidelines for national  
greenhouse gas inventories  
as Invited by SBSTA 30 Conclusions**

Views on the Work Programme to Revise the UNFCCC Annex I Reporting Guidelines

The SBSTA at its 30<sup>th</sup> Session agreed to launch a work programme in 2010 for the revision of the UNFCCC Annex I reporting guidelines, and invited Parties to submit their views on issues related to this future work programme. The U.S. notes the importance of the work programme to integrate the methodological improvements published in the 2006 IPCC Guidelines for future inventory reporting and hopes for a quick resolution to outstanding issues as the work programme advances towards its completion. The U.S. further notes the fundamental need for the reporting of the most accurate greenhouse gas emissions and removal data under the UNFCCC, and views the Annex I inventory reporting guidelines as instrumental to that need.

In regards to issues related to the revision of the Annex I reporting guidelines and methodological issues related to reporting when using the 2006 IPCC Guidelines, the U.S. notes these issues are inter-related, and a revision of the Annex I reporting guidelines should closely meet the scope and logic of new technical guidance on calculation methodologies from the IPCC on estimating emissions and removals. Furthermore, the U.S. believes that any revision of the UNFCCC Annex I reporting guidelines must conform to and continue the principles of transparency, accuracy, completeness, consistency, and comparability in inventory reporting. The use of the 2006 IPCC Guidelines can provide the technical basis, through its comprehensive approach to emission calculation methodologies, to form the foundation of revised Annex I reporting guidelines. The work programme, in considering the revision of the Annex I reporting guidelines and reporting when using the 2006 IPCC Guidelines, should take into account the complementary relationship between the 2006 IPCC Guidelines, and the previous technical guidance from the IPCC that forms the foundation of the current Annex I reporting guidelines (i.e., the Revised 1996 IPCC Guidelines, the 2000 IPCC Good Practice, and the 2003 IPCC Good Practice for Land Use, Land-Use Change and Forestry). The 2006 IPCC Guidelines provide the technical basis by which Parties will estimate emissions and removals, so their consideration within the work programme is the manner in which those estimated emissions and removals will be reported under the Convention.

As the use of the 2006 IPCC Guidelines can support the provisions of accuracy and completeness in inventory reporting, the work programme can focus on considerations for the remaining principles when

using the calculation methodologies and the extensive source and sink categories in the 2006 IPCC Guidelines. Parties may also consider in the work programme if further support or exchange of experience is necessary to help some Parties implement new or improved methodologies, or to collect data to report on new source and sink categories.

Provisions of comparability can be continued through the basic structure of the National Inventory Report (NIR) as it currently exists in the Annex I reporting guidelines. The work programme can focus the limited improvement needed for this existing structure in considering the NIR for the revised reporting guidelines. This may include consolidating information to be reported in the NIR chapters, and expansion on the use of annexes to provide further information, such as for categories estimated using higher tiers. The Common Reporting Format (CRF) tables also provide a solid basis for assessing comparability, and the work programme should consider efforts already undertaken by the IPCC to formulate tabular data structures out of the format of the 2006 IPCC Guidelines. However, the work programme should also acknowledge the need for a certain amount of flexibility, or consideration, in the revised CRF tables to encourage Parties to continuously advance calculation methodologies to the most rigorous Tier 3 methodologies provided for in the 2006 IPCC Guidelines. Because of the calculation provisions within many Tier 3 methodologies, the CRF tables in the revised Annex I reporting guidelines will need to allow for Parties to continuously enhance their calculation estimates, without constraining reporting of such higher tier estimations. It is in the use of higher tier methodologies that the work programme should consider the necessary balance between accuracy that comes with the use of such higher tiers, with the reporting constraints necessary for comparability.

An area the work programme should focus sufficient attention is in regards to the principle of consistency. As the 2006 IPCC Guidelines have introduced alterations in approaches to calculating emissions estimates for some categories, the revised Annex I reporting guidelines will need to consider how diverse and differing data collection and calculation approaches should be reported going back to 1990. Many Parties will be unable to consistently use the new technical guidance from the IPCC across all years of reporting due to data collection constraints, yet the work programme should conceive of a way this information can best be reported, and how new approaches can be adopted, in the revised Annex I reporting guidelines.

The work programme should further devote its energies to developing the most appropriate manner forward to continue to instill the principle of transparency in the revised Annex I reporting guidelines. At its core, the work programme can address solutions that may arise from reporting when using the 2006 IPCC Guidelines by focusing efforts on the promotion of transparency throughout inventory systems,

from the compilation process to the reporting of emissions and removals in inventories by Annex I Parties. At its most basic, the principle of transparency can be linked back to the other principles of accuracy, completeness, comparability, and consistency within Annex I inventories reported through the revised Annex I reporting guidelines.

In regards to the process and timelines that the work programme should engage in to complete its work, the U.S. believes that these issues should be agreed upon by the SBSTA at its 32<sup>nd</sup> session. Ideally, Annex I Parties would have sufficient time to revise their existing inventory systems to integrate revised reporting requirements. As Annex I Parties will continue to compile and submit inventories under the existing reporting guidelines, the transition should be gradual enough to not disrupt existing systems nor lead to whole scale alterations in systems suddenly. Additionally, through the use of existing database infrastructure for reporting, namely the CRF Reporter, the Secretariat, working with Parties, could begin to allow integration of data elements between existing data reporting and revised data reporting structures. The use of data configuration technology and existing database infrastructures can allow Parties to continue their focus on reporting inventories under the existing reporting guidelines, while simultaneously testing the revised reporting guidelines with limited resource expenditure.

The U.S. believes that there are some areas where further efforts by the IPCC can contribute to the work programme, but notes the short timeline for the future adoption of revised Annex I reporting guidelines. However, SBSTA should also be cognizant of the additional work already undertaken by the IPCC in its numerous experts meetings, and the conclusions of the experts from those IPCC experts meetings. The work programme's approach to dealing with the methodological considerations for reporting inventories should take into consideration the findings of the experts at previous meetings, such as the Expert Meeting on Revisiting the Use of Managed Land as a Proxy for Estimating National Anthropogenic Emissions and Removals and the Expert Meeting on the Science of Alternative Metrics. In addition, SBSTA, in developing its work programme, should incorporate conclusions from the IPCC experts meetings already scheduled in 2010. These meetings include the Expert Meeting on Revisiting on National Forest GHG Inventories - a Stock Taking, the Expert Meeting on Uncertainty & Validation of Emission Inventories, and the Expert Meeting on Higher Detail in Inventories. The findings from these previous experts meetings should assist the work programme in reducing the burdens of its numerous duties, as well as guide the work programme's approach to revisions to Annex I reporting. Requests to the IPCC should not duplicate prior or future efforts of the IPCC. As time is short for the work programme to conclude its work, it should leverage the IPCC's previous, current, and planned future work in attempting to answer questions the revisions may raise within the work programme.

Annex I annual inventory reporting guidelines provide the foundation for the reporting of the most transparent, accurate, complete, consistent, and comparable emissions and removal data under the UNFCCC. The revisions to the Annex I reporting guidelines undertaken through the work programme should take in to account Parties' years of experience in reporting such data in national inventory reports and common report format tables. The efforts of the new work programme should focus on how data on emissions and removals can best be reported under the Convention by Annex I Parties, both given the structure of current reporting and given the improved understandings in emissive characteristics of activities, as well as Parties' capability to best estimate emissions from such activities through the latest technical guidance from the IPCC.

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