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Item 6 (c) of the provisional agenda Methodological issues under the Convention Revision of the UNFCCC reporting guidelines on annual inventories for Parties included in Annex I to the Convention

# Views on the revision of the UNFCCC Annex I reporting guidelines

### **Submissions from Parties**

#### Addendum

1. In addition to the four submissions contained in document FCCC/SBSTA/2010/MISC.7, one further submission has been received on 25 October 2010.

2. In accordance with the procedure for miscellaneous documents, this submission is attached and reproduced\* in the language in which it was received and without formal editing.

#### FCCC/SBSTA/2010/MISC.7/Add.1

GE.10-63091



<sup>\*</sup> This submission has been electronically imported in order to make it available on electronic systems, including the World Wide Web. The secretariat has made every effort to ensure the correct reproduction of the text as submitted.

#### Submission from the United States of America

## Methodological issues under the Convention – Revision of the UNFCCC reporting guidelines on annual inventories for Parties included in Annex I to the Convention as Invited by SBSTA 32 Conclusions

Additional Views on the Revision of the UNFCCC Annex I reporting guidelines

The SBSTA at its 32<sup>nd</sup> Session agreed to a work programme for the revision of the UNFCC Annex I reporting guidelines, and invited Parties to submit their additional views on the revision of these guidelines. SBSTA further noted that revision of the UNFCCC Annex I reporting guidelines should be based on the current UNFCCC Annex I reporting, and the U.S. welcomes the opportunity to share its views on ways the secretariat can support this process and initiate work on revisions to ensure the revised UNFCCC Annex I reporting guidelines allow future consistent use of the methodological guidance presented in the "2006 IPCC Guidelines for National Greenhouse Gas Inventories" (the 2006 IPCC Guidelines).

Overall, the U.S. believes that minimal changes are necessitated in the UNFCCC Annex I reporting guidelines. The successful compilation, submission, and publication of Annex I inventories, and continuing improvements in Annex I inventories, attest to the strength of the agreed information required in the current UNFCCC Annex I reporting guidelines. As the 2006 IPCC Guidelines represent an evolution of the methodological guidance from the Revised 1996 IPCC Guidelines to the 2000 Good Practice Guidance to the 2003 Land Use, Land-Use Change and Forestry Good Practice Guidance, all of which are already embedded in the current UNFCCC Annex I reporting guidelines, minimal revisions to the general principles and requirements in [Part I] FCCC/SBSTA/2006/9 are necessary. As such, in considering FCCC/SBSTA/2006/9, only minor revisions to the main text are necessary, and these will be discussed first before addressing Annex I and Annex II (common reporting format) of the guidelines.

In the main text of the guidelines, minimal revisions to Sections A. through E. are needed, mainly only those that update referencing IPCC guidance to reflect the use of the 2006 IPCC Guidelines in the future revised UNFCCC Annex I reporting guidelines. The U.S. continues to promote the principles and definitions in section B. as being an important foundation for inventory reporting, and has addressed the importance of these concepts in its prior submission for this agenda item. In section E., as noted previously, updates should be made to reference the 2006 IPCC Guidelines. This includes referencing guidance deemed "good practice," which is a concept the 2006 IPCC Guidelines has retained, as introduced in the 2000 Good Practice Guidance. This concept includes the use of national methodologies consistent with good practice that are considered to better reflect national situations, as described currently in section B. paragraph 10, which is still relevant for the updated guidelines to best reflect national circumstances. Finally, in section B., paragraph 12, should be updated to reference the IPCC emission factor database (EFDB) to highlight this additional tool available for inventory compilers.

In section F., aside from updating specific references to IPCC guidance to the 2006 IPCC Guidelines, there should be an inclusion of gases consistent with the latest scientific findings of the IPCC. At the end of section F., the column entitled "1995 IPCC GWP" in Table 1 should be replaced by the "100-yr" column GWP values listed in the "Global Warming Potential for Given Time Horizon" in table 2.14 of the Errata to the contribution of Working Group I to the Fourth Assessment Report of the IPCC, and this column in Table 1 should be entitled "2007 IPCC GWP." Additionally, paragraph 26 of section F. can be removed as specific guidance for this issue is now included in the 2006 IPCC Guidelines.

Continuing with the general guidance in Section F., the ability to use notation keys in the common reporting format (CRF) tables using the guidance in paragraph 28 and 29 has provided for reporting that reflects national situations. However, more description could be provided to guide more consistent use of the notation keys. It would be helpful if the individual notation keys also included examples to help clarify the appropriate circumstances to use, for example, "not occurring" versus "not applicable." In this example, an additional solution may be to consolidate these notation keys in to a single notation key (e.g., only provide for "not applicable"). Additional description should also be included linking the use of notation keys, especially "included elsewhere" and "confidential," as information to be included in the national inventory report if use of the CRF table documentation boxes would not offer sufficient space.

Minimal changes are necessary for paragraphs 30 to 37, except for the updating of references to IPCC guidance, as this guidance has proven to be sufficient to guide inventory reporting. A further exception would be to provide further guidance on verification in paragraph 31, reflecting the increasing use of higher tier and country-specific methods in inventories. Expanded guidance could be provided, for example, to report information on country-specific models, including development of such models and independent verification or checks on its estimation techniques. In revising the inventory reporting guidance, information can be taken from recent IPCC experts meetings on higher tier methodologies.

As previously noted, the current UNFCCC Annex I reporting guidelines have been used by Annex I Parties to produce increasingly improved inventories, and part of the success has been the application of the guidelines in developing quality productions of the National Inventory Report (NIR) and common reporting format tables annually. In light of this, for the revision of the Annex I inventory reporting guidelines sections on the NIR, limited updates are necessary to the current reporting guidelines in paragraphs 38 to 43. Minimally, specific text can be clarified on issues that have been elaborated on in the 2006 IPCC Guidelines. This includes, for example, paragraph 41(c)(i) on feedstocks and non-energy use of fuels and 41 (d) on  $CO_2$  capture, areas where specific guidance is now provided in the 2006 IPCC Guidelines. In addition, the current reporting guidelines have provided clear guidance to Parties on how to assemble and submit CRF tables. Again, for revising the section on common reporting format, limited updates are necessary to the current reporting guidelines in paragraphs 44 to 50. Beyond these identified minor areas for updating the UNFCCC Annex I reporting guidelines, the existing guidance for the NIR and CRF tables on an inventory submission continues to be relevant for the revised inventory reporting guidelines.

#### Annexes

As presented in Annex I of the current UNFCCC Annex I reporting guidelines, the structure of the national inventory report has been a clear explanation of how to construct the NIR of a Party's annual inventory submission. This structure has served Parties well in promoting consistency in documenting important aspects of the emission calculations included in the inventory, and minimal revisions are necessary. To accommodate the structure of the sectors in the 2006 IPCC Guidelines, chapter 5 should be subsumed in chapter 4 (updating its title to "Industrial Processes and Product Use"). Options should be explored to combine the current chapters 6 and 7 to match the guidance for the agriculture, forestry, and other land use sector, though efforts should be made to ensure the transparency of the large amount of information presented in such a chapter. For example, a combined chapter (for "AFOLU") could include distinct NIR sections for livestock and non-CO<sub>2</sub> emission sources on land, with a distinct NIR section on land. Options can be further examined to ensure the ability of Parties to follow the latest IPCC methodological guidance, while reporting on specific groupings of source and sink categories, and the underlying data and trends occurring in them, in a clear manner. Finally, the listing for the "annexes to the national inventory report" has proven useful to providing additional information on methods and data to improve the transparency of the NIR and these annex header should be kept for the revised reporting guidelines.

The appendix to Annex I of the existing UNFCCC Annex I reporting guidelines provides sufficient additional sector reporting information that could be provided in the NIR. It is noted that the current inventory reporting guidelines state that the "list is not exhaustive," which is an important consideration to make in devoting additional time to update this appendix. The operative phrase for this appendix is that providing additional information, using the additional guidance in the appendix, depends on the "national approaches for estimating greenhouse gas emissions and removals." Such flexibility should be kept for revised inventory reporting guidelines, as the main structure of the NIR provides the appropriate framework for the reporting of inventories while allowing a Party to increase transparency as best suits its national approach.

For Annex II, while the revision to the UNFCCC Annex I reporting guidelines to accommodate the use of the 2006 IPCC Guidelines would seem to entail large changes in the CRF tables, it should be noted instead that the current CRF tables can already accommodate how source and sink categories are treated in the 2006 IPCC Guidelines in most sectors. In this case, limited major changes are needed, though some parts of the CRF tables can be improved, beyond changes necessitated by the use of the 2006 IPCC Guidelines. The focus will first be on those sectors requiring the least amount of change, namely energy and waste. The more significant changes in approach in the 2006 IPCC guidelines, that is the expanded coverage in industrial processes and the reorganized guidance for agriculture, forestry and other land use, will be discussed later.

To start, the current CRF tables for energy are broadly acceptable for reporting emissions from the energy sector using the 2006 IPCC Guidelines. The additional subcategories that have been introduced could lead to an expansion in the

formats of the CRF tables for certain categories. However, it should be noted that the "other" subcategories offer an appropriate place to provide such disaggregated subcategory information. Additionally, in using the CRF Reporter to compile CRF tables, that software has the ability to allow comparability of these subcategories in the energy sector. In the energy sector, the expansion of subcategories and introduction of overly specific disaggregation can limit the opportunities to report emissions given national approaches. In these regards, the use of existing tools, such as the CRF Reporter, may limit the need for specific revisions to the CRF tables. Beyond any limited edits to the categorization of fuel combustion activities and fugitive emissions from fuels, an additional category for carbon dioxide transport and storage will need to be added to the CRF tables. In addition, the data tables for non-energy products from fuels should be transferred to the industrial process CRF tables. However, the addition and movement of these categories remains the only large change needed in the current CRF tables in the current UNFCCC Annex I reporting guidelines for the energy sector, which, on the whole, are appropriate for reporting when using the 2006 IPCC Guidelines.

The coverage in the waste sector in the 2006 IPCC Guidelines is fundamentally similar to prior guidance, so, with the exception of the inclusion of biological treatment of solid waste, or composting, the CRF tables as currently constructed in the existing UNFCCC Annex I reporting guidelines are sufficient to allow future reporting in a similar manner. Minimal revisions are necessary in this case.

For the sectoral reporting in the CRF tables for industrial processes and agriculture, forestry, and other land use further considerations will need to be made. The CRF tables themselves are structured in a manner that will still allow for mostly complete reporting. However, the approaches and coverage in the methodological guidance in the 2006 IPCC Guidelines do offer some changes that should be reflected in any revised CRF tables. Ideally, the organization of the revised CRF tables themselves would stay similar to the current tabular alignment, but with the necessary, but not disruptive, alterations in the structures. In the case of these remaining sectors, the approach should be to open the CRF tables up to consider the revisions without advancing to full revisions until certain considerations are addressed.

In the industrial processes sector, as noted previously, the CRF tables for "solvent and other product use" (i.e., Table 3 and Table 3.A-D) should be moved in to and condensed within an appropriate section of the industrial processes tables. With the new guidance for industrial process source categories in the 2006 IPCC Guidelines, an expansion of the tables will be necessary, with some of these newly expanded tables consolidating or contracting tables formally included in the energy sector CRF tables. Also, the expansion in the coverage of greenhouse gases, consistent with information provided in the IPCC Fourth Assessment Report, will necessitate an expansion of the CRF tables. The current CRF tables have expansive information on particular species of some categories of these industrial gases. It is unclear if expansive disaggregation improves transparency in reporting of these individual species of gases, as these industrial gases can only be reported as confidential in applications of particular equipment. For example, the CRF tables currently provides an entry for an "unspecified mix of listed HFCs" and, separately, an "unspecified mix of listed PFCs." Confidentiality concerns may require reporting of combined HFCs and PFCs emissions in to a single "unspecified mix" grouping. It would be helpful in this example, and provide additional transparency and clarity, if a

single "unspecified mix of listed HFCs and PFCs" were added to the CRF tables to reflect such circumstances. Given these lessons learned in reporting using the existing CRF tables, further consideration can be made on how to alter the CRF tables to include new gases while still transparently allowing reporting of these industrial gases.

Within the CRF tables for agriculture, forestry, and other land use, there are opportunities to keep the tabular structures generally consistent with the existing CRF tables, while providing additional information in line with the guidance in the 2006 IPCC Guidelines. For example, the area of managed and unmanaged forest land could be listed out for reporting such activity data in the CRF tables. As a further example, additional tables could provide space for possible reporting of land use transitions, in coordination with NIR information on how much land was transferred into and out of categories following each of the transition types. Including such information in the CRF tables to report this activity data would allow for greater transparency in understanding the reporting of emissions and removals from land use categories.

Furthermore, at least organizationally, there could be a consolidation for the  $N_2O$  emissions listings, which are now scattered in various CRF Tables. While keeping any such changes in line with the 2006 IPCC Guidelines, the tables could provide the ability to allow reporting on either a country basis or a land use basis to better match country-specific methods. Such changes in the CRF tables would need to be made with an eye to promote transparency in the reporting of such approaches.

Finally, for the CRF tables for agriculture, forestry, and other land use, an expansion of the CRF tables would allow for more complete reporting of HWPs. For example, adding a separate area for imports and exports in the CRF tables would improve transparency in the reporting for this category.

Finally, for revising the CRF tables, consideration will also need to be made for the summary tables. In general, the summary tables have served well in this role in the current UNFCCC Annex I reporting guidelines, and minimal changes are necessitated for revised reporting guidance. Some structural changes will be necessitated by the issues raised previously regarding the sector tables themselves. There will also need to be alignment with the structure and references in the NIR with the summary reports for methods and emission factors, recalculations, and notation key information. Yet, these should not represent major changes in how the tables look or function. Further consideration can be made on table "Summary 2" in organizing the sectors to represent input values to mimic the current UNFCCC Annex I reporting guidelines quantification of "with" or "without" land-use, land-use change and forestry. In this area, in a manner like the explanations provided throughout this submission, the revisions should aim to keep the fundamental approach of the current CRF tables consistent for the revised reporting guidelines. This could, in this example, be accomplished by structuring table "Summary 2" as:

- 1. Energy
- 2. Industrial Processes and Product Use

- 3i. Agriculture, Forestry, and Other Land Use Livestock (3A3C8 of 2006 IPCC Guidelines); Aggregate Sources and Non-CO<sub>2</sub> Emission Sources on Land (3C2, 3C3, 3C4, 3C5, 3C6, 3C7, 3C8 of 2006 IPCC Guidelines)
- 3ii. Agriculture, Forestry, and Other Land Use Land (3B of 2006 IPCC Guidelines); Aggregate Sources and Non-CO<sub>2</sub> Emission Sources on Land (3C1 of 2006 IPCC Guidelines); Other (3D of 2006 IPCC Guidelines)
- 4. Waste
- 5. Other

The organization of the CRF tables in the current UNFCCC Annex I reporting guidelines allows a clear summation of the categories in the "Summary 2" table to present "Total  $CO_2$  Equivalent Emissions without Land Use, Land-Use Change and Forestry" and "Total  $CO_2$  Equivalent Emissions with Land Use, Land-Use Change and Forestry." Using the categorization presented here, this clear summation can be replicated in the "Summary 2" table of the revised inventory reporting guidelines by including the 1., 2., 3i., 4., and 5 sector categories in the former total, and all the sector categories (i.e., 1., 2., 3i., 3ii., 4, and 5) in the latter total. Such discussion could continue on this issue to further elaborate how a revised CRF table "Summary 2" could best reflect these categorizations and the summation of them.

Taking these comments in to mind, the Secretariat should initiate preliminary work on such revisions as highlighted to provide an initial revised draft which SBSTA could include in its deliberations on this issue. As noted in the conclusions for the 32<sup>nd</sup> session of SBSTA, the current UNFCCC Annex I reporting guidelines should serve as the basis for revisions of reporting guidelines, and first efforts to make appropriate alterations to the current guidelines will facilitate SBSTA's considerations.