

**Follow-up Comments from United States Inventory Experts on the Summary of Findings of the Reporting Group, Resulting from the *UNFCCC Expert Meeting to Assess Experiences in the Use of the Reporting and Review Guidelines*, held in Bonn Germany, 4-6 December 2001.**

This document summarizes the technical comments from US inventory staff on the findings regarding CRF table formats and the NIR proposed outline as developed by the reporting group at the 4-6 December meeting in Bonn. This informal, technical follow-up was requested by the UNFCCC Secretariat at the closure of the meeting to allow countries the opportunity to provide additional feedback on some of the detailed findings of the reporting group.

Comments are provided below for the energy and agricultural sector tables (there were no follow-up comments on the LUCF, Industrial, or Waste Sectors.) Next, comments on the proposed Uncertainty and Key Source analysis CRF tables are provided. Lastly, comments on the proposed national inventory report (NIR) outlined are provided.

We are suggesting that it be made clear in the findings from the workshop, that the amount of work required by the experts was large. Therefore many of the recommendations were products of small subgroups of experts. Because of the influence of these recommendations, it is important to clarify that further consideration may need to be given and that opportunities for more formal commentary on specific formats resulting from the findings will be provided.

Energy

1. Table 1.B.1 Fugitive Emissions from Solid Fuels—As it stands now, the IEF calculated for these coal mining sources in the CRF table is based on the final emissions divided by the activity data. The “final emissions” excludes methane that is recovered for these sources. The problem is created when these implied emission factors are used for comparative purposes during the review process. Different countries have different amounts of recovery, so that implied emission factors based on “final emissions” can result in a wide range of implied emission factors. There is therefore no common basis on which to compare the implied factors across countries, or to defaults. Also, from year-to-year, the amount of methane recovered can vary, so that implied factors can change from year-to-year based solely on recovery percentages. If such comparisons of implied factors are needed for the review, it is suggested that the IEF for these sources be based on total emissions before recovery. Otherwise, such a comparison does not have much value and inventory reviewers should be made aware of this situation in the guidance for reviewers.

**NOTE:** This same issue exists with the Landfill category and should be reviewed for any categories where there are recovered emissions.

## Agriculture CRF Tables

2. In order to eliminate confusion to both inventory preparers and reviewers, it is suggested that CO<sub>2</sub> emissions from agricultural soils be reported under LUCF only, and that, upon revision of the LUCF tables in the CRF, this be taken into account. By leaving an option to report CO<sub>2</sub> emissions under “agricultural soils”, there is a potential to duplicate or mis-report these emissions, which would be better handled under the LUCF sector. Also, this eliminates the need to create a separate set of instructions under “agricultural soils” to cover these emissions.
3. Table 4.A., 4B(a) and 4.B(b) - The suggestion to insert a direct link for livestock population data between these tables is not correct for all animal categories. The totals of cattle populations between the enteric and manure categories should NOT be equal since the young calves should not be included in the enteric fermentation inventory. In the enteric fermentation inventory, calves 0-6 months should not be included in the inventory since most of the feed energy consumed prior to weaning is derived from milk which is not fermented in the rumen (and therefore does not produce enteric methane emissions). However, these calves do produce manure and are, therefore, included in the manure management inventory. You do not want a link in the CRF tables that forces these cattle populations to be the same.
4. Table 4.A – Regarding the two pending questions raised in the Summary of Findings:
  - In regards to changing the additional info box according to GPG—Strongly suggest deferring to the NIR due to the level of complexity such a table would have.
  - In regards to applying the livestock disaggregation recommended in the GPG—the option describing disaggregation to 3 sub-categories of cattle/buffalo seems reasonable and would most likely produce a uniform quantity that can be compared across countries.
5. Table 4.B(a)—Recommend adding a footnote to the Additional information box (for Tier 2) that “This table may not be directly applicable to country-specific methods developed for MCF calculations and that in these cases, information on MCF derivation should be described in the NIR and cross-referenced in the Documentation Box provided below.” The additional information box is oriented to the Tier 2 methods utilizing the default MCF values provided in the IPCC Guidelines; there are countries that do not use the default MCF values, and the box does not fit those situations. This is a good example where detailed information is better conveyed through the NIR than in the CRF.
6. Table 4.D – This table needs to be revised to be consistent with the Good Practice guidance. Specific comments include:

The option to add additional rows for other types of N inputs under Direct Soil Emissions needs to be added. If this option is not available, the calculated total direct soil emissions in cell F8 will not be correct. For example, the United States includes soil application of sewage sludge and commercial organic fertilizers. The

U.S. listed these other materials in column B under “Other” (below row 18), but in order to ensure that the calculated total direct emissions and implied emission factors were correct, we included these N inputs in cell C9 and relabeled cell B9.

The “Additional Information” box needs to include **all** the variables listed in Good Practice, and should be set up so that additional variables can be added. It also should be reorganized so that related variables (e.g., those for crop residues) are together. FracGRAZ will vary by animal type, so it should be in an entirely separate table or have animal types listed below. Also, the data needed are fraction of each population on pasture, range, and paddock. Many of the crop variables, such as FracBURN, may vary significantly among crop types, so these too warrant a separate table. The definition of FracNCRBF is “fraction of total aboveground dry biomass of N-fixing crop that is N.” The definition of FracNCRO is “fraction of residue dry biomass that is N.” The definition of FracR is “fraction of total aboveground crop biomass that is removed from the field as crop product.”

#### Proposed CRF Table for Uncertainty Analysis

7. The inclusion of an uncertainty table in the CRF should be reconsidered. Uncertainty analysis in the CRF may cause unnecessary distractions to a review team, and will present quantified uncertainty data with credibility beyond what would be useful to thoroughly assess a Party’s inventory submission. For example, for many sources there will not be a simple uncertainty estimate for “emission factor” or “activity data” to present in the suggested table, as there are emission models involved, or multiple phases of development in the factor and activity data. In many cases it will be an oversimplification and futile exercise to try and create singular uncertainties for emission factor/activity data to fill in the suggested table fields.

Uncertainty reporting is probably better left in the NIR and other supplemental materials that would be available to the reviewers. Such documentation would allow for a complete discussion of the uncertainty development for each source category. It is not necessary to standardize uncertainty analysis information in the CRF tables.

#### Proposed CRF Table for Reporting Key Sources

8. The Table suggested in paragraph 24 of Working Paper #6 should be modified before finalization. The table should be simplified to show what the key sources are and how they were determined. Ranking tables showing the quantified results of level and trend analysis would be better presented in the NIR, where all pertinent tables can be provided together. It is not possible to show all this information clearly on one table, since the rank order of the categories based on level or trend may differ. Also, the identification of “Tier 1 or Tier 2” should not be a one record line item at the top of the table. In all likelihood, inventory agencies will have uncertainty information on

some categories but not on others. It is suggested that there be a field (column) in the table added that identifies the Tier level of the key source analysis for each source category. In this way, reviewers can tell for any individual source category whether the key source analysis was weighted by an uncertainty estimate.

#### Proposed Outline for NIR

9. The proposed table of contents for the NIR (included as “Attachment 1” to the Summary of Findings from the Reporting Group) covers all the key elements of an NIR. However, it should be made clear that the suggested outline is primarily the product of only a small subgroup at the workshop. In addition, we suggest that the outline be modified as follows:
  - The Introduction section lists ‘institutional arrangements’ as a discussion item. If ‘institutional arrangements’ refers to the various agencies and collaborative processes used to compile the inventory, it probably does not make sense to have this discussion in the Introduction from most readers standpoint. These are procedural details that are not appropriate right up front in the document and would be better provided as part of an annex or in the Parties QA/QC Plan.
  - Suggest removing “Chapter 2: Inventory Preparation Process”, and instead have an Introduction chapter that covers the basic framework under which the inventory is prepared, and that includes items 1 and 2 currently listed under Chapter 2 (items 3 and 4 are suggested under a new chapter on recalculations and changes listed in comment below).
  - Chapter 3 materials appear to be redundant of the Executive Summary. It is suggested that this chapter be deleted.
  - Suggest removing Subsection 4.1 and 4.3. Chapter 4 as shown has the potential to be repetitive, and in some cases, the topics would be better addressed under the sector chapters. For example, the items for "Methodologies used" and "Tier approaches generally used", really do not present useful information to readers and should be removed. The potential is to go in too deep of a discussion at this point in the report, which is not necessary since these items will be covered source-by-source later on. The NIR must be an extremely efficient document for both preparers and users, and it is to be used hand-in-hand with the CRF, so there should not be a necessity to repeat tables (like Summary Table 3) in the NIR.
  - It is suggested that “Recalculations” be made its own chapter and be called “Recalculations and Changes from Previous Year’s Inventory”. Through successive NIRs, this allows the country a place to describe the changes from year to year. Also, items 3 and 4 from Chapter 2 can be placed here.
  - It is suggested that subsection 4.4 be removed, and “Key Source Analysis” should be made its own chapter or a separate Annex. General uncertainty assessments should not be discussed here, and allow uncertainty discussions to be covered under each source category. If uncertainty is used as part of the level or trend analysis under Key Source determination, then it is sufficient to simply

- acknowledge that in the chapter for Key Source Analysis, and refer to individual source discussions for the results of those uncertainty assessments.
- Instead of providing one chapter (Chapter 5) to cover the bulk of the report and all source category discussions, it would be more practical and efficient from an editorial standpoint to have one chapter for each sector, then have individual source categories discussed under each of the sector chapters. As it stands now in the proposed outline, 4<sup>th</sup> level headings are being shown, with the likelihood that 5<sup>th</sup> level or higher level headings would be necessary to follow the outline—from a document preparation standpoint, forth and fifth level headings should be avoided wherever possible.
10. While the outline will be extremely beneficial to provide to Parties for guidance in developing their NIR, it is also suggested that samples of effective NIRs (either in total or sections) be made available upon release of the new guidelines. It is one thing to see a topic listed in the outline, but what would be significantly more helpful to inventory preparers (especially those preparing NIRs for the first time) would be examples of what are deemed representative of ‘good’ write-ups. This would, in effect, help define ‘good practice’ for NIR development, by providing real examples of the type of information that should be discussed under each sub-heading in the outline. Otherwise, without some examples there is the strong possibility, even with the outline, that the NIRs will be inconsistent.