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Item 5 (b) of the provisional agenda

Methodological issues under the Convention

Common reporting format for land use, land-use change and forestry

**Synthesis of views from Parties on the tables of the common reporting format
for land use, land-use change and forestry in accordance with
decision 13/CP.9 and on experience with their use**

Note by the secretariat

Summary

This synthesis of views includes proposals by Parties on how to improve the structure and content of the tables of the common reporting format for land use, land-use change and forestry. The note, based on submissions by Parties (FCCC/SBSTA/2005/MISC.7), has been prepared to facilitate the consideration and possible revision of the tables during the twenty-third session of the Subsidiary Body for Scientific and Technological Advice.

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I. Introduction

A. Mandate

1. The Conference of Parties (COP), by its decision 13/CP.9,¹ decided that Parties included in Annex I to the Convention (Annex I Parties) should use the Intergovernmental Panel on Climate Change (IPCC) *Good Practice Guidance for Land Use, Land-Use Change and Forestry* (hereinafter referred as the IPCC good practice guidance for LULUCF) for preparing annual inventories under the Convention, due in 2005 and beyond. By the same decision, the COP decided to use the tables of the common reporting format (CRF) for land use, land-use change and forestry (LULUCF) categories contained in annex I to that decision, for a trial period covering inventory submissions due in 2005. The COP requested the secretariat to integrate these tables into the inventory reporting software, which was under development at that time.
2. By the same decision, the COP invited Parties to submit to the secretariat, by 15 May 2005, their views on these tables and the experiences with their use. The COP requested the secretariat to synthesize the views of Parties for consideration by the Subsidiary Body for Scientific and Technological Advice (SBSTA) at its twenty-third session.

B. Scope of the note

3. This note presents a synthesis of the views expressed in five submissions from Parties² which in total represented views of 31 Annex I Parties.

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

4. This note has been prepared to facilitate the consideration and possible revision of the tables of the CRF for LULUCF during the twenty-third session of the SBSTA.
5. The SBSTA will be invited to determine if modifications need to be made to the tables of the CRF for LULUCF of the UNFCCC reporting guidelines on annual inventories,³ and if necessary forward a draft decision for adoption by the COP at its eleventh session.
6. Parties should be aware that any substantive changes to the tables of the CRF for LULUCF arising from consideration by the SBSTA at its twenty-third session will apply for inventory submissions due in April 2007 and later.

II. Synthesis of the views expressed by Parties on the use of the tables of the common reporting format for land use, land-use change and forestry

A. Background

7. Following adoption of the tables of the CRF for LULUCF by decision 13/CP.9, the secretariat incorporated the tables into the UNFCCC reporting guidelines on annual inventories.

¹ FCCC/CP/2003/6/Add.1.

² These submissions are reproduced in FCCC/SBSTA/2005/MISC.7.

³ FCCC/SBSTA/2004/8. "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories", hereinafter referred to as UNFCCC reporting guidelines on annual inventories.

8. The secretariat developed the CRF Reporter software, as required by decision 18/CP.8.⁴ Because of the revisions to the reporting guidelines for the LULUCF sector, the CRF Reporter deployed for use by Annex I Parties in submitting the 2005 inventories did not cover the LULUCF sector. Instead, at the request of the SBSTA at its twentieth session,⁵ Annex I Parties used provisional electronic spreadsheets, prepared by the secretariat, to facilitate reporting of the LULUCF sector in 2005. These spreadsheets were intended as an interim reporting tool, pending any modifications to the tables of the CRF for LULUCF after the interim trial period. A total of 19 Annex I Parties reported their LULUCF sector inventories using this format in 2005.

9. The SBSTA, at its twentieth session, requested the secretariat to integrate the LULUCF tables into the CRF Reporter to enable Parties to use the integrated software for inventory submissions in 2006.⁶ This work progressed and a new version of the CRF Reporter will include the LULUCF sector based on the guidelines adopted by decision 13/CP.9. This new version was made available to Annex I Parties in August 2005.

10. Any substantive changes to the tables of the CRF for LULUCF in the UNFCCC reporting guidelines on annual inventories arising from consideration by the SBSTA at its twenty-third session would apply for inventory submissions due in April 2007 and beyond. This may have implications for Parties to the Kyoto Protocol that intend to submit their initial report based on the 2006 inventory submission, in particular those for which the provisions of Article 3, paragraph 7, may apply.

B. Approach

11. In this synthesis of views, issues are organized according to the specific tables of the CRF for LULUCF. Comments provided by Parties relating to the footnotes or notes to the CRF tables are indicated separately. When applicable, background information is provided to facilitate consideration of the issues by the SBSTA. Where a Party has provided specific technical comments on the provisional electronic spreadsheets, these comments have been synthesized separately and presented in the annex to this note.

12. The secretariat has made every effort not to alter the meaning expressed by the Parties by keeping as closely as possible to the Parties' original text. In cases where Parties raised similar issues, these were synthesized as one issue. In several cases, certain phrases and/or words were added or the order of sentences was changed in order to put the excerpts from the submissions into their proper context and to improve clarity. The Party providing the comment is identified.

13. The secretariat plans to present a working paper on possible technical corrections to the tables of the CRF for LULUCF and their implications for the CRF Reporter software development. This paper will be made available on the UNFCCC web site prior to the session.

C. Views on table 5: Sectoral report for land use, land-use change and forestry

Box 1: Summary of views of Parties relating to the structure and/or content of table 5 of the CRF for LULUCF

A column for reporting NMVOC emissions should be included in table 5. At present, the only place to report NMVOC emissions is under Summary 1.A, where cells are shaded out at the subsectoral level.

(Australia)

⁴ FCCC/CP/2002/7/Add.2.

⁵ FCCC/SBSTA/2004/6, paragraph 44.

⁶ FCCC/SBSTA/2004/6, paragraph 45.

Box 1: continued

Table 5 Information Items ... The use of “Other” with capitalization is incorrect. These items refer to all categories other than Forest Land and Grassland, respectively, not just the Other Land category as defined in the IPCC good practice guidance for LULUCF.

(European Community and its member States)

Table 5 appears to be a pure summary table but entries for NO_x and CO for land use categories must be entered directly in this table. It would be preferable if NO_x and CO could be entered on the respective land-use tables (5.A–5.F) alongside the changes in carbon stocks.

(New Zealand)

Background information on structure and/or content

- In the UNFCCC reporting guidelines on annual inventories, cells that have been left blank in a CRF table require entries by the Party. Slight shading in cells indicates that they are to be filled in by the software and dark shading indicates that cells are to be left blank.
- In the UNFCCC reporting guidelines on annual inventories, the other sectors (i.e. energy, industrial processes, agriculture and waste) report indirect greenhouse gases (GHGs) in the respective sectoral report tables and not in the sectoral background data tables.

**Box 2: Summary of views of Parties relating to footnotes/notes
of table 5 of the CRF for LULUCF**

Footnote 1 (and each time this footnote appears in tables 5.A–5.F): For scientific accuracy and to remove potential misinterpretation of the data, the text of the footnote should be augmented with the following sentence: “Note that carbon stock changes in a single pool are not necessarily equal to emissions or removals”.

(Canada)

For Cropland, the sum of B1 and B2 is not equal to B when liming has taken place on cropland, because liming is included in line B (from table 5 (IV)).

Proposed solution: This would benefit from clear indications in the explanatory notes of what is summarized in each column in table 5 by amending **footnote 2** to say: “CO₂ emissions from liming and biomass burning as reported in tables 5 (IV) and 5 (V) are included in this column. Therefore, totals included in main categories 5.A to 5.F may exceed the sum of the respective subcategories 5.A.1–5.F.2.”

(European Community and its member States)

Whilst the content of **footnote 3** is correct in substance, it may be misleading as it stands, because Parties could interpret it as meaning that they do not need to report on forest and grassland conversions to settlements and wetlands. Such an interpretation is inconsistent with the IPCC good practice guidance for LULUCF, which points out that land-use conversions may be a significant source of emissions, e.g. as a result of deforestation. It would be useful to move **footnote 3** from categories D and E to subcategories D.1 and E.1 respectively.

(European Community and its member States)

Note: Placement of footnote 3 in table 5 should be consistent with placement of the corresponding footnote (footnote 1) in table 5.D and table 5.E

Reporting on conversion of land to Other Land is mandatory. **Footnote 4** should be moved from category F. Other Land to subcategory F.1 Other Land remaining Other Land, as it is good practice to estimate emissions and removals associated with the conversion of all managed lands to other land.

Footnote should be replaced by the following text: “Parties do not have to prepare estimates for this category contained in Section 3.7.1 of the IPCC good practice guidance for LULUCF.”

(Canada)

(European Community and its member States)

Box 2: continued

Footnote 6: The reporting on delayed emissions from harvested wood products is not mandatory and the methodological guidance is provided in appendix 3a.1 of the IPCC good practice guidance for LULUCF.

- Another choice could be to report harvested wood products as an additional pool in table 5.A (Forest Land remaining Forest Land), or
- The text of **footnote 6** should be augmented with such additional guidance: “Reporting Parties should explain in the national inventory report (NIR) or the documentation box how the approach chosen for estimating delayed emissions from harvested wood products relates to the estimation procedures applied to forest harvesting in the category Forest Land remaining Forest Land.”

(Canada)

Note (without number): This note is rather confusing. It is trying to say that the totals will not add up with the various line items in this table because other CO₂, CH₄ and N₂O estimates that come from tables 5 (I) to 5 (V) are also rolled up here. Moreover, the last sentence is unclear as there is no separate background data table for category 5.G. We therefore suggest that the note be deleted and replaced with the following text: “Totals will not add up because CO₂, CH₄ and N₂O estimates reported in tables 5 (I) to 5 (V) are also rolled up”.

Footnote 2: If the change is made to the note (without number) as suggested above, then **footnote 2** is not needed and should be deleted.

(Canada)

Background information on footnotes and notes

- In the UNFCCC reporting guidelines on annual inventories, reporting of carbon stock changes in carbon pools is required only in tables 5.A– 5.F. Only net CO₂ emissions/removals are reported in sectoral report table 5.
- In table 5, instructions in the documentation box state that if estimates are reported under 5.G Other (e.g. Harvested Wood Products), the documentation box should be used to provide information regarding activities covered under this category and reference to the relevant section in the national inventory report (NIR).

D. Views on tables 5.A–5.F: Sectoral background data for land use, land-use change and forestry

14. Specific views by Parties are classified according to the sectoral background data tables to which the views refer. Following these specific views, cross-cutting views that apply to the entire set of sectoral background data tables for the land use categories are presented.

1. Issues relating to table 5.A: Forest land

Box 3: Summary of views of Parties relating to the structure and/or content of table 5.A of the CRF for LULUCF

Consideration should be given as to whether the reporting should distinguish organic soils from mineral soils. If that avenue is pursued, this table will have to be reformatted to provide for additional columns under Activity Data and carbon stock change in soils (see comment on tables 5.B and 5.C).

(Canada)

Background information on structure and/or content

- In tables 5.A–5.F, for the reporting of activity data, land categories may be further divided according to climate zone, management system, soil type, vegetation type, tree species, ecological zones or national land classification.

2. Issues relating to table 5.B: Cropland, and table 5.C: Grassland

Box 4: Summary of views of Parties relating to the structure and/or content of table 5.B and table 5.C of the CRF for LULUCF

The column called “Subdivision” allows Parties to voluntarily break down estimates by vegetation, soil types, ecological zones, etc., so a Party could report separately organic and mineral soils using these rows. However, the breakdown is voluntary, whereas the reporting of mineral and organic soils separately should be mandatory. It is therefore suggested to do the following changes:

- The column called “Activity Data” should be split into “Total area” and “Area of organic soils” (to allow the calculation of the specific organic soil implied emission factor (IEF))
- The IEF column “Net carbon stock change in soils per area” should be split into “Mineral soils” and “Organic soils” with a footnote against “Organic soils” as follows: “The value reported here is an emission and not a carbon stock change”
- Similarly, the column “Net carbon stock change in soils” should be split into “Mineral soils” and “Organic soils” with the same footnote as above.

(Canada)

Note: Refer to Canada’s views on table 5.A in box 3 above.

3. Issues relating to table 5.D: Wetlands

Box 5: Summary of views of Parties relating to the structure and/or content of table 5.D of the CRF for LULUCF

According to table 5.D (Wetlands remaining Wetlands), stock changes in peatland should be reported, but according to the IPCC guidelines extracted peat used for energy should not be incorporated in the LULUCF part of the inventory, and hence no reporting is required on soil stock changes except for degradation of organic matter at the surface in the peat extraction areas. However, the EU notes that peat dug for horticultural uses loses carbon perhaps 100 times more rapidly than carbon is lost from the surface degradation, and is not included in reporting in the energy sector either. This should be a matter for methodological consideration by the IPCC.

Proposed solution: IPCC should be asked to consider this issue in its further work.

(European Community and its member States)

Box 6: Summary of views of Parties relating to footnotes of table 5.D of the CRF for LULUCF

Emissions from soils in the wetlands category are not true changes in C stocks, but rather are calculated directly as CO₂ emissions because they are organic soils. Table 5.D is focused on C stock changes; therefore, a footnote could be added against relevant columns to indicate that they deal with organic soils.

Against the column “Net carbon stock change in soils”, we suggest a footnote be added which reads:

“The value reported here is an emission and not a carbon stock change”.

(Canada)

4. Issues relating to table 5.F: Other land**Box 7: Summary of views of Parties relating to footnotes of table 5.F of the tables of the CRF for LULUCF**

Footnote 1 should be moved from the headline to subcategory F.1.

The text of the footnote should be modified as suggested for **footnote 4** in table 5.

(Canada)

(European Community and its member States)

Note: Refer to box 2 and views of Parties relating to footnote 4.

Background information on footnotes

- The text of footnote 1 in table 5.F should be consistent with footnote 4 in table 5.

**E. Views on cross-cutting issues on tables 5.A–5.F:
Sectoral background data for land use, land-use change and forestry**

15. This section summarizes views expressed by Parties relevant to the entire set of sectoral background data tables 5.A–5.F. Any decision on modifications would have to apply consistently across the set of tables.

Box 8: Summary of views of Parties relating to the structure and/or content of the sectoral background data tables

The LULUCF tables should be constructed so that emissions and removals are reported as the full molecular mass of each greenhouse gas.

The background tables should be changed so that they also present CO₂ emissions for each land-use subdivision. This arrangement would provide consistency within the sectoral tables and would help avoid double counting of carbon between tables 5.A–5.F and table 5 (V).

(Australia)

Note: Refer to similar views by Canada below.

Two columns should be added that will automatically calculate net CO₂ emissions/removals. This would clarify the linkages of C stock changes with emissions/removals, enhance transparency and facilitate the review process, while not adding to the reporting burden.

To that effect, the following editorial changes are offered:

- Replace the column title “implied emission factors” by “implied carbon stock change factors”
- Replace the column title “emissions/removals” by “change in carbon stock”
- Between the two columns referred to above, insert a new column entitled “Implied emission/removal factor per area (Mg CO₂/ha)”, to which would be attached the new proposed footnote identified with (*)
- To the far right hand side of the tables, insert a new column entitled “Net CO₂ emissions/removals” (Gg CO₂), to which would be attached the new proposed footnote identified with (*)
- The titles of the two columns “Increase” should be changed to “Gains” and the title “Decrease” should be changed to “Losses”.

(Canada)

Note: Refer to similar views by Australia above. Refer also to box 9 below for the issue raised by Canada that links changes in column information mentioned above to a new footnote.

Box 8: continued

More explanations on how to fill in area information should be provided for the transition categories “land converted to...” For this purpose, the following footnote should be added to these categories.

Include total area falling under the category in the reporting year and specify in the NIR how long land is kept in the “land converted to...” category. Note that that IPCC default value for forest land conversion is 20 years. If land is kept in the transition category for a shorter time span, Parties should explain in the NIR how delayed emissions from soil have been taken into account.

(European Community and its member States)

In each of tables 5.A to 5.F a footnote states that aggregate data can be reported for areas that have changed land type, but there is no specific place in the tables to allow this to be done. The EU suggests that, to allow Parties to report aggregate data for areas that have changed land type, the shading be removed from the subheading rows A.2, B.2, C.2, D.2, E.2 and F.2, and a button facility added to permit insertion of additional rows, if required to subdivide the data by other classifications such as ecosystem type, geographical or administrative region.

(European Community and its member States)

The tables are not truly self-explanatory. The footnotes help, but some of the critical information is “hidden” in the footnotes. For example, where tables are optional (e.g. tables 5.D, 5.E and 5.F) this should be clearly stated at the top of the table rather than recorded in a footnote. Similarly, parts of some tables are optional (e.g. table 5 (V)) and this should somehow be more clearly indicated.

(New Zealand)

Note: Refer to issues relating to footnotes expressed by Parties in boxes 2, 6, 7 and 12.

**Box 9: Summary of views of Parties relating to footnotes
of the sectoral background data tables**

A new footnote (*) for tables 5.A–5.F:

“According to the Revised 1996 IPCC Guidelines, for the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+). Net changes in carbon stocks are converted to CO₂ by multiplying C by 44/12 and changing the sign for net CO₂ removals to be negative (-) and for net CO₂ emissions to be positive (+). Note that carbon stock changes in a single pool are not necessarily equal to emissions or removals”.

(Canada)

Note: Refer to the issue raised by Canada in box 8 above that links changes in column information to this footnote.

Footnote 2 of tables 5.A and 5.B and **footnote 3** of tables 5.C, 5.D, 5.E and 5.F:

Replace these footnotes by the following language: “In all cases where the good practice guidance methods used give separate estimates of gains and losses, these estimates should be reported”.

(Canada)

Footnote 3 of tables 5.A and 5.B, **footnote 2** of table 5.C and **footnote 4** of tables 5.D, 5.E and 5.F:

Replace the term “increases” by “gains” and “decreases” by “losses”.

(Canada)

Background information on footnotes

- The addition of footnotes or changes to footnotes proposed in box 9 above is dependent on associated changes to the structure and/or content of tables 5.A–5.F noted in box 8 above.

**F. Views on tables 5 (I)–5 (V):
Sectoral background data for land use, land-use change and forestry**

16. This set of sectoral background data tables for LULUCF is for reporting CO₂ and non-CO₂ emissions from management activities (N fertilization, drainage of soils, land-use conversion to cropland, agriculture lime application, and biomass burning). Parties provided views on specific tables as well as cross-cutting views for the set of tables as a whole. Here, the specific views are provided first, followed by the cross-cutting views.

1. Issues relating to table 5 (I): Direct N₂O emissions from N fertilization

**Box 10: Summary of views of Parties relating to the structure and/or content
of table 5 (I) of the CRF for LULUCF**

Table 5 (I) would be named more accurately as “Direct N₂O emissions from N fertilization of forest land”.

(New Zealand)

Background information on structure and/or content

- In table 5 (I), Parties may report under G. Other (non-specified sources), in addition to the Forest Land category, whereas N₂O emissions from N fertilization of cropland and grassland are reported in the Agriculture sector.

2. Issues relating to table 5 (II): N₂O emissions from drainage of soils

**Box 11: Summary of views of Parties relating to the structure and/or content
of table 5 (II) of the CRF for LULUCF**

This table should be renamed “Non-CO₂ emissions from drained soils and flooded lands” and include both N₂O and CH₄ emissions from drained soils in forest land and wetlands (as it stands) but with the inclusion of flooded lands.

- Activity data columns would then be split between area of drained soils and area of flooded lands (kha)
- The implied emission factor column would be split between N₂O-N and CH₄-C per area drained or per area flooded
- The emissions column would be split between N₂O and CH₄ (Gg). CH₄ estimates would be rolled up automatically into table 5 (N₂O)
- The Wetlands category (line D) could be simply subdivided into “Organic soils” and “Flooded lands”.

(Canada)

Table 5 (II) would be named more accurately as “N₂O emissions from drainage of forest soils”. This would reduce confusion between the Agriculture and LULUCF tables.

(New Zealand)

Background information on structure and/or content

- In table 5 (II), Parties may choose to report N₂O emissions from the drainage of soils from two land-use categories, Forest Land and Wetlands, for both organic and mineral soils, if they wish to do so.

**Box 12: Summary of views of Parties relating to footnotes of Table 5 (II)
of the CRF for LULUCF**

Footnote 1: The text is not consistent with how other non-mandatory categories are treated in the rest of the CRF tables for LULUCF. Canada suggests deleting the words "...are not addressed in the Revised 1996 IPCC Guidelines, but..." and adding another sentence as follows (on the model of footnote 3 of table 5 for example): "Parties do not have to prepare estimates for categories contained in appendices 3a.2, 3a.3 and 3a.4 of the IPCC good practice guidance for LULUCF, although they may do so if they wish".

(Canada)

3. Issues relating to table 5 (V): Biomass burning

**Box 13: Summary of views of Parties relating to the structure and/or content of
table 5 (V) of the CRF for LULUCF**

In order to avoid an overestimation in the case where CH₄ emissions are reported in table 5(V) (and estimates of C in tables 5.A–5.F include biomass burning), the CH₄-C should be subtracted from C stock changes before calculating the total CO₂ emissions/removals for that specific land category. We suggest adding a column to each of the tables 5.A to 5.F to capture the total CO₂ emissions/removals. This value should then be the sum of the changes in stocks from the five carbon pools (or soil organic emissions where applicable) minus 12/16 of the CH₄ mass reported in table 5 (V).

This mass balance reconciliation could be done automatically through the CRF Reporter provided Parties indicate whether carbon estimates reported in tables 5.A to 5.F include carbon losses from biomass burning, either as CO₂-C or as CH₄-C, or both.

It is therefore suggested that two boxes be attached to each of the tables 5.A to 5.F to that effect, as follows:

“Box 1: Do the estimates reported in this table include C losses as CO₂ from biomass burning?
(Answer Yes/No)”

If Parties answer “yes” in this box, it will also mean that they report IE (included elsewhere) in the CO₂ column of table 5 (V) (as per footnote 4 of that table). This provides for an additional cross check.

“Box 2: Do the estimates reported in this table include C losses as CH₄ from biomass burning?
(Answer Yes/No)”

If Parties answer “yes” in this box, the subtraction as explained above will be operated automatically.

(Canada)

Note: This view by Canada is cross-linked with reporting of estimates in tables 5.A–5.F.

In table 5 (V), entering burnt biomass in “kg dm” does not seem to be the logical choice of units.

(New Zealand)

Background information on structure and/or content

- If CO₂ emissions from biomass burning are not already included in tables 5.A–5.F, these emissions should be included in table 5 (V). Parties should clearly document this in the documentation box and in the NIR.
- For activity data in table 5 (V), Parties provide a description of whether it is area burned or biomass burned, then the unit is reported either as ha or kg dm, followed by the value.

**Box 14: Summary of views of Parties relating to footnotes
of table 5 (V) of the CRF for LULUCF**

The text of the **footnote 4** as it appears in document FCCC/SBSTA/2004/8 was cut. The following words are missing: "...changes in the carbon stock tables (5.A, 5.B, 5.C, 5.D, 5.E, and 5.F) should report IE (included elsewhere) in this column".

Insert a new footnote after footnote 4 (further to cross-cutting comment on Biomass Burning above):
 "It is possible that, due to the estimation method used, estimates in tables 5.A to 5.F include carbon losses as CH₄ due to burning. If so, Parties will have ticked the appropriate box in the corresponding table 5.A to 5.F and the CH₄-C component will be automatically subtracted from the total C to avoid double counting".

(Canada)

The text of the **footnote 5** should be replaced by the following: "Agricultural residue burning is reported in the Agriculture sector".

(Canada)

Background information on footnotes

- The addition of a new footnote after footnote 4 is dependent on possible changes to the content of tables 5.A–5.F and table 5 (V) as proposed by Canada in box 13 above.
- In the UNFCCC reporting guidelines on annual inventories, table 4.F (Agriculture sector) reports on "Field burning of agricultural residues".

4. Cross-cutting views/issues expressed by Parties on the use of tables 5 (I)–5 (V)
of the CRF for LULUCF

**Box 15: Summary of views of Parties relating to the structure and/or content
of tables 5 (I)–5 (V) of the CRF for LULUCF**

Tables 5 (I)–5 (V): The convention is that emissions are reported as positive in these tables whereas in tables 5.A–5.B *emissions = decrease in C stock* are reported as negative. The relevant footnotes could be used to clarify this further.

Proposed solution: To help avoid mistakes, a note of sign rule should be included in a new footnote: "emissions are reported as positive".

(European Community and its member States)

Table 5 (I) and 5 (III): These tables should be merged to simplify reporting, and to fix problems created by presenting only "A. Forest Land" and "G. Other (please specify)" in table 5 (I).

- Since only Forest and Other are included, all the N₂O from any other category is reported in the "Other" category rather than the category it is actually reported in. This leads to these emissions being listed under "Other" in the summary sheets Summary 1.A and Summary 2.
- Table 5 (I) should be updated to include all IPCC LULUCF categories. If this is done, then table 5 (III) is no longer necessary.

(United States of America)

G. Views on other common reporting format tables relating to land use, land-use change and forestry

17. Parties also provided views on the use of other tables of the CRF in relation to the reporting of LULUCF data and information. Most of their views dealt with the structure and/or content of these other tables, with a few remarks on footnote changes to accompany the proposed changes in content of the tables.

1. Views relating to table 8: Recalculation

Box 16: Summary of views of Parties relating to structure and/or content of table 8 of the CRF for LULUCF

Due to the important changes introduced in LULUCF sector, it would be helpful to separate recalculation information in a supplementary table based on the new LULUCF CRF. This should enable transparent reporting of recalculations, and should have provision for comparing totals with those calculated and reported using the old table 5 CRF. In addition, Parties should explain the differences in the NIR.

(European Community and its member States)

The cells against rows 5A to 5G (LULUCF) in the three columns called "Impact of recalculation on total emissions" should be shaded (for each of the three gases) (refer to footnote 2). Moreover, the title of the column should be rephrased "Impact of recalculation on total emissions excluding LULUCF".

For consistency with other tables presenting information both "with and without LULUCF sector", we suggest that this table also contain information on the impact of recalculations on total emissions including GHGs from LULUCF. Hence we suggest a column be added for each of the three gases called "Impact of recalculation on total emissions including LULUCF" (this time the LULUCF cells should not be shaded of course).

(Canada)

2. Views relating to table 10: Emission trends (All GHGs and summary)**Box 17: Summary of views of Parties relating to the structure and/or content of table 10 of the CRF for LULUCF**

Reporting of non-CO₂ gases from LULUCF should be made consistent with that of CO₂ from this sector. In sheet 1 of table 10, total net CO₂ emissions are reported *both with and without* LULUCF. In sheet 2 and 3, however, total CH₄ and N₂O emissions, respectively, are reported *with* the LULUCF sector only. They should also be reported *without LULUCF* as well.

Moreover, the reporting of LULUCF in sheet 5 – especially non-CO₂ gases – is inconsistent with other summary tables such as Summary 1.A, 1.B and Summary 2, as well as the recalculation table (table 8 (a)). We believe GHG trends should be presented in a similar fashion (to Summary 1 and 2).

The trends would be more meaningful if they were presented *with and without LULUCF* (i.e. net CO₂ equivalent), rather than only *with and without net CO₂ from LULUCF*.

Therefore we suggest the following changes:

Sheet 2 of table 10:

- delete the top row “Total CH₄ emissions”
- after row 7 (Other), insert two rows entitled:
 - o “Total CH₄ emissions including CH₄ from LULUCF”
 - o “Total CH₄ emissions excluding CH₄ from LULUCF”

Sheet 3 of table 10:

- delete the top row “Total N₂O emissions”
- after row 7 (Other), insert two rows entitled:
 - o “Total N₂O emissions including N₂O from LULUCF”
 - o “Total N₂O emissions excluding N₂O from LULUCF”

Sheet 5 of table 10:

- Split the CH₄ row into two rows entitled:
 - o “CH₄ emissions including CH₄ from LULUCF”
 - o “CH₄ emissions excluding CH₄ from LULUCF”
- Split the N₂O row into two rows entitled:
 - o “N₂O emissions including N₂O from LULUCF”
 - o “N₂O emissions excluding N₂O from LULUCF”
- Still in the top table (on sheet 5 of table 10), the first Total row should read: “Total (including LULUCF)” and the second Total row should read: “Total (excluding LULUCF)”.

(Canada)

Box 18: Summary of views of Parties relating to footnotes of table 10 of the CRF for LULUCF

Footnote 3 of table 10 could be either deleted or kept with the following modification: delete “CO₂”.

(Canada)

Footnote 6 of table 10 should be deleted (because non-CO₂ would be treated the same way as CO₂). Similarly, **footnote 5** of table Summary 2 would need to be deleted.

(Canada)

Background information on footnotes

- These issues on footnotes should be considered with Canada’s proposal for changes in content/structure of CRF table 10 in box 17 above.

Annex

Synthesis of the views expressed by Parties on the use of the provisional electronic spreadsheets of the common reporting format for land use, land-use change and forestry

This annex covers additional views expressed by Parties relating to the provisional electronic spreadsheets and formula functions in the interim reporting tool. It has been provided to allow for better understanding of the other views/issues raised in the first part of the document.

Table: Issues relating to software and/or formulae

Summary of views/issues of Parties	Related background information
<p><u>Table 5: Sectoral report for LULUCF</u></p> <p>The information items on “Forest Land converted to Other Land-Use Categories” and “Grassland converted to Other Land-Use Categories” in table 5 should be populated automatically where Parties have filled in area estimates in tables 5.A–5.F.</p> <p style="text-align: right;"><i>(New Zealand)</i></p>	<p>The CRF Reporter can be programmed to allow for automatic population of these information items. If so, the cells for reporting these two information items in table 5 of the UNFCCC reporting guidelines on annual inventories will have to be lightly shaded.</p>
<p><u>Table 5: Sectoral report for LULUCF</u></p> <p>The secretariat should check the formulae for NO_x and CO to ensure that the inclusion of notation keys does not trigger 0 total emissions, which linked in to Summary 1.A.</p> <p style="text-align: right;"><i>(United States of America)</i></p>	<p>This issue on aggregating notation keys applies also to the other sectors in the inventory. The formula functions in the CRF Reporter that ensure the proper aggregation of notation keys (without triggering zeroes) for the other sectors also apply to the LULUCF sector.</p>
<p><u>Table 5.A: Sectoral background data for LULUCF – Forest land</u></p> <p>There are no format changes recommended for this table, but the secretariat should check the Excel formulae for total area to ensure that areas for different pools are not added together. Currently, the formula appears to be double-counting areas.</p> <p style="text-align: right;"><i>(United States of America)</i></p>	<p>In table 5.A of the interim reporting tool, the current formula for activity data on “Total Forest Land (kha)” is the summation of “total area for Forest Land remaining Forest Land” and “total area for Land converted to Forest Land”.</p>
<p><u>Table 5 (III): N₂O emissions from disturbance associated with land-use conversion to cropland</u></p> <p>The formula included in cell D10 is: D10=SUM(D11;D14;D17;D20;D23). This is wrong and results in double counting of the emissions. The total N₂O emissions under B.2 Lands converted to Cropland and under B. Cropland must be the same, i.e. cell D10 should just repeat the result from cell D11.</p> <p style="text-align: right;"><i>(European Community and its member States)</i></p>	<p>This formula error has been noted and will be corrected accordingly in the CRF Reporter.</p>

<p><u>Summary 3: Summary report for methods and emission factors used</u></p> <p>The HFC/PFC/SF₆ columns for methods and emission factors for LULUCF should have dark shading because they are not relevant.</p> <p style="text-align: right;"><i>(United States of America)</i></p>	<p>In the UNFCCC reporting guidelines on annual inventories,^a the columns for HFCs, PFCs and SF₆ in Summary 3 (sheet 2 of 2) have dark shading for the LULUCF sector. The shadings will apply accordingly in the CRF Reporter as well.</p>
<p><u>Table 7: Summary overview for key categories</u></p> <p>Problems in combining Sector 5 data with other sectors for analyses of key categories where net flux may have a positive or a negative sign should be resolved when the new format Sector 5 tables are combined with the existing CRF tables for other sectors. It may be sensible to integrate the new CRF and the CRF software for the other sectors.</p> <p style="text-align: right;"><i>(European Community and its member States)</i></p>	<p>In table 7 of the UNFCCC reporting guidelines on annual inventories, Parties report key categories of emissions and removals, both excluding and including LULUCF.</p>
<p><u>Table 10: Emissions trends</u></p> <p>This table is potentially confusing because so many different things have been combined in the same table: The headline says <i>Emission trends (CO₂)</i>, but CH₄ and N₂O have to be reported in the same table and it is unclear whether to report Gg of the respective gases or Gg CO₂-equivalent. In the last row, where Gg CO₂-equivalents are to be reported, the reference to Summary 1.A in footnote 2 appears incorrect.</p> <p>Footnote 2 (in table 10): In the last row of table 10 (emission summary measured in CO₂-equivalent) there is a reference to table Summary 1.A. This gives an error if the figures are copied, because the figures in Summary 1.A are given in Gg of the gases not in Gg CO₂-equivalent. Correct footnote as follows: “Fill in net emissions/removals as reported in table Summary 2”.</p> <p style="text-align: right;"><i>(European Community and its member States)</i></p>	<p>In the UNFCCC reporting guidelines on annual inventories, table 10 has four sheets allowing for the reporting of trends of CO₂, CH₄, N₂O, F-gases separately and a fifth sheet for the trends of the CO₂ equivalent of these gases.</p> <p>In the UNFCCC reporting guidelines on annual inventories, footnote 2: “Fill in net emissions/removals as reported in table Summary 1.A”, refers to reporting of CO₂ (Gg) trends in the LULUCF sector (sheet 1 of 5). Sheet 5 of table 10 requires the reporting of the trend of CO₂ equivalent (Gg) emissions/removals from the LULUCF sector and, as noted in footnote 7 of that table, includes net CO₂, CH₄ and N₂O from LULUCF.</p>
<p><u>Table 10: Emissions Trends (Summary)</u></p> <p>Footnote 1 indicates that the “Base year” column should be filled in only by those Parties with economies in transition that use a base year different from 1990, but the formula in the column for Change from 1990 to latest reported year calculates this change from the Base Year column. Therefore, the base year column had to be set equal to the 1990 column in order to prevent an error in the Changes column. Either the footnote or the formula should be changed.</p> <p style="text-align: right;"><i>(United States of America)</i></p>	<p>The formula functions for calculating “Change from 1990 (or base year) to latest reported year (%)” will be adjusted accordingly in the CRF Reporter version 2, taking into consideration Parties with 1990 as the base year and Parties with base year other than 1990.</p>

^a See document FCCC/SBSTA/2004/8. “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 reporting guidelines on annual inventories.