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SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE

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Item 3 (a) of the provisional agenda

Methodological issues

Good practice guidance for land use, land-use change and forestry

(LULUCF) activities under the Kyoto Protocol, harvested wood products

and other issues relating to LULUCF

Common reporting format and requirements for reporting annual greenhouse gas inventory information on land use, land-use change and forestry activities under the Kyoto Protocol

Submissions from Parties

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its nineteenth session, invited Parties to submit to the secretariat, by 15 February 2004, their views on the draft tables of the common reporting format (CRF) for land use, land-use change and forestry (LULUCF) activities under the Kyoto Protocol contained in document FCCC/SBSTA/2003/INF.11 and on requirements for reporting annual greenhouse gas (GHG) inventory information on LULUCF activities under the Kyoto Protocol (FCCC/SBSTA/2003/15, para. 24 (e)). The SBSTA requested the secretariat to update the draft tables of the CRF for LULUCF activities under the Kyoto Protocol, taking into account submissions by Parties, to facilitate the further consideration of this topic by the SBSTA at its twentieth session. The updated tables will be included in document FCCC/SBSTA/2004/INF.1.
2. The secretariat has received seven submissions. In accordance with the procedure for miscellaneous documents, these submissions are reproduced* in the language in which they were received and without formal editing.

* 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/2004/MISC.1

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PAPER NO. 1: ARGENTINA

Presentation of the Government of Argentina to the UNFCCC
Deadline: 15 March 2004

GUIDELINES Chapter 4 LULUCF - KYOTO REPORTING TABLES

Argentina appreciates the invitation by the SBSTA, at its nineteenth session (paragraph 5 of FCCC/SBSTA/2003/L.22), to Parties to submit their views on the draft tables of the CRF for LULUCF activities under the Kyoto Protocol contained in document FCCC/SBSTA/2003/INF.1 1 and on requirements for reporting annual GHG inventory information on LULUCF activities under the Kyoto Protocol.

Argentina mostly agrees with the contents and structure proposed for each one of tables A. 1 to A.7 and the complementary tables of tables A. 1, A.2, A.3, A.4, and A.6, because each one addresses information required by relevant provisions from draft decisions -/CMP.1 (Land use, Land-use change and Forestry) and -/CMP.1 (Article 7). Information from tables A.1 to A.7 would be summarized in Table A, which is aptly designed for that purpose.

Nevertheless, Argentina has some concerns with the interpretation of the last row in those tables. This row is labeled "N". As the meaning of "N" is not defined in particular, it can be conventionally interpreted as representing "the total number of" some countable items. Given the present structure of the tables, the same value for "N" should be entered across all (or most) columns in each table; which would be redundant. Further, in some tables the value for "N" would be meaningless, as in the column headed "Is this area of land eligible to an Article 3.4 activity?" in Tables A. 1 through A.3. Some appropriately grayed cells in the last row of each table would dispel any misinterpretation of "N".

Argentina suggests to replace, in all tables, the heading "ID of geographical location" with "ID of unit of land" (tables A.1 to A.3 and their complementary ones, corresponding to Article 3.3 activities), or "ID of land" (tables A.4 to A.7 and their complementary ones, corresponding to Article 3.4 activities),

Finally, in table A.7 the value to be reported in Column L ("CO₂-emissions from soils") was mistakenly calculated as the sum of the same-row values from columns O through K.

Articles 3.3 and 3.4 of the Kyoto Protocol require that information on emissions by sources and removals by sinks are reported in a transparent and verifiable manner. This is ensured in the tables A.1 to A.7 and their complementary ones by a column headed "ID of geographical location", where a unique identification code from every land unit reported for some particular inventory year of the first commitment period shall be entered.

It might be the case that a fraction of the area of a land unit originally assigned to an activity was replaced with a different activity, and that land-use change is such that it should be reported. In order to keep reporting transparent and verifiable, the new areas should be given unique ID geographical location codes, different from the original area's, because the latter's activity-boundaries would have disappeared for all practical purposes.

Keeping track of land units arising from changes in activity in larger units would improve the transparency and verifiability of reporting. For this purpose, the Secretary may wish to elaborate modalities for adapting Parties' ID systems for identifying land units.

PAPER NO. 2: AUSTRALIA

Views on the Draft Tables of the Common Reporting Format for Land Use, Land-Use Change And Forestry Activities Under The Kyoto Protocol - (FCCC/SBSTA/2003/INF.11)

Australian submission

15 February 2004

Australia welcomes the opportunity to make a submission on draft tables of the common reporting format for land use, land-use change and forestry (LULUCF) under the Kyoto Protocol.

Australia acknowledges the work undertaken by the UNFCCC Secretariat in developing the CRF tables for LULUCF under the Kyoto Protocol (pages 30-38, FCCC/SBSTA/2003/INF.11) and sees these as a strong basis from which to develop the final CRF tables under the Kyoto Protocol.

According to Part I (UNFCCC Reporting Guidelines on Annual Inventories) of the revised guidelines for the preparation of national communications by Parties FCCC/CP/2002/8 page 4) the CRF is designed to ensure that Annex I Parties report quantitative data in a standardised format and to facilitate comparison of inventory data and trends among Annex I Parties. Qualitative information should be included in national inventory report rather than the CRF.

Australia notes that, in addition to collecting emissions and removals information, the CRF tables developed by the UNFCCC Secretariat include columns for supplementary information such as identification of geographical location and whether units of land subject to activities under Article 3.3 would otherwise be included in land subject to elected Article 3.4 activities (FCCC/CP/2001/13/Add3, page 22). Australia is of the view that despite this information being qualitative in nature it is appropriate to include in the CRF table.

As well as the supplementary information already provided for in the CRF tables, the Marrakech Accords outline further supplementary information that needs to be provided in relation to Article 3.3 and elected Article 3.4 activities. Australia recommends that a comprehensive approach should be taken to decisions regarding the appropriate mechanism for reporting supplementary information.

Although the CRF tables are not the appropriate location for all the supplementary information required under the Kyoto Protocol there is additional supplementary information that could be included in the CRF tables, for example:

- date of onset of an activity if after 2008, as per paragraph 6d of the Annex to Decision 22/CP.7 (FCCC/CP/2001/13/Add3, page 23).
- Anthropogenic greenhouse gas emissions by sources and removals by sinks for the base year for each elected Article 3.4 activity, as per paragraph 9b of the Annex to Decision 22/CP.7 (FCCC/CP/2001/13/Add3, page 24).

DETAILED COMMENTS - Amendments to the draft CRF tables for reporting under the Kyoto Protocol

The following section provides detailed information on specific amendments to the Secretariat proposed CRF tables, requested by Australia.

Table A. - Summary table – 1 of 1, page 31

- no changes

Table A.1 – Afforestation and reforestation. Lands not harvested during the first commitment period – page 32

- The three tables (A.1, A.1.1, A.1.2) included on page 32 should be moved to separated pages.
- The columns 'E' and 'F', 'Increase of above-ground biomass' and 'Decrease of above-ground biomass', should be removed.
 - It is not necessary to report both increases and losses in biomass; net carbon change is sufficient.
- A footnote should be included for column L, 'CO₂-C emissions from organic soils' stating that 'Emissions from organic soils and liming occur as CO₂ but these are converted to carbon by dividing CO₂ emissions by 44/12.'
 - This would achieve consistency with the UNFCCC reporting tables.
- The purpose of the last two columns 'P' and 'Q' (CH₄ and N₂O emissions) and their relationship to tables A.1.1 and A.1.2 is unclear.

Table A.1.1 – Afforestation and reforestation. Lands not harvested during the first commitment period. Additional information on biomass burning – page 32

- This Table should be moved to a separate page.

Table A.1.2 – Afforestation and reforestation. Lands not harvested during the first commitment period. Additional information on fertilizers and liming – page 32

- This table should be moved to a separate page.

Table A.2 – Afforestation and reforestation. Lands harvested during the first commitment period – page 33

- Tables A.2.1 and A.2.2 should be moved to separate pages.
- The columns 'F' and 'G', 'Increase of above-ground biomass' and 'Decrease of above-ground biomass', should be removed.
 - It is not necessary to report both increases and losses in biomass; net carbon change is sufficient.
- A footnote should be included for column M, 'CO₂-C emissions from organic soils' stating that 'Emissions from organic soils and liming occur as CO₂ but these are converted to carbon by dividing CO₂ emissions by 44/12.'
 - This would achieve consistency with the UNFCCC reporting tables.
- The purpose of columns 'Q' and 'R' (CH₄ and N₂O emissions) and their relationship to tables A.2.1 and A.2.2 is unclear.

Table A.2.1 – Afforestation and reforestation. Lands harvested during the first commitment period. Additional information on biomass burning – page 33

- This table should be moved to a separate page.

Table A.2.2 – Afforestation and reforestation. Lands harvested during the first commitment period. Additional information on fertilisers and liming – page 33

- This table should be moved to a separate page.

Table A.3 – Deforestation – page 34

- Tables A.3.1 and A.3.2 should be moved to separate pages.
- The columns 'E' and 'F' 'Increase of above-ground biomass' and 'Decrease of above-ground biomass' should be removed.

- It is not necessary to report both carbon stock accumulation and loss, net carbon change is sufficient.
- A footnote should be included for column L, 'CO₂-C emissions from organic soils' stating that 'Emissions from organic soils and liming occur as CO₂ but these are converted to carbon by dividing CO₂ emissions by 44/12.'
 - This would achieve consistency with the UNFCCC reporting tables.
- The purpose of columns 'P' and 'Q' (CH₄ and N₂O emissions) and their relationship to tables A.3.1 and A.3.2 is unclear.

Table A.3.1 – Deforestation. Additional information on biomass burning – page 34

- This Table should be moved to a separate page.

Table A.3.2 – Deforestation. Additional information on fertilisers and liming – page 34

- This Table should be moved to a separate page.

Table A.4 – Forest Management – page 35

- Tables A.4.1 and A.4.2 should be moved to separate pages.
- The columns 'E' and 'F' 'Increase of above-ground biomass' and 'Decrease of above-ground biomass' should be removed.
 - It is not necessary to report both carbon stock accumulation and loss, net carbon change is sufficient.
- A footnote should be included for column L, 'CO₂-C emissions from organic soils' stating that 'Emissions from organic soils and liming occur as CO₂ but these are converted to carbon by dividing CO₂ emissions by 44/12.'
 - This would achieve consistency with the UNFCCC reporting tables.
- The purpose of columns 'P' and 'Q' (CH₄ and N₂O emissions) and their relationship to tables A.4.1 and A.4.2 is unclear.
- References to units of land should be removed from the footnotes 5 and 6.
 - The terminology for referring to Article 3.4 activities is 'lands' or 'areas of land'.

Table A.4.1 – Forest Management. Additional information on biomass burning – page 35

- This table should be moved to a separate page.

Table A.4.2 – Forest Management. Additional information on fertilizers and liming – page 35

- This table should be moved to a separate page.

Table A.5 – Cropland Management – page 36

- Footnote 1 is unclear as it currently stands and further detail should be provided including an explanation of Article 3.4 and net-net accounting.
- The columns 'E' and 'F' 'Increase of above-ground biomass' and 'Decrease of above-ground biomass' should be removed.
 - It is not necessary to report both carbon stock accumulation and loss, net carbon change is sufficient.
- A footnote should be included for column L, 'CO₂-C emissions from organic soils' stating that 'Emissions from organic soils and liming occur as CO₂ but these are converted to carbon by dividing CO₂ emissions by 44/12.'
 - This would achieve consistency with the UNFCCC reporting tables.
- The purpose of columns 'P' and 'Q' (CH₄ and N₂O emissions) is unclear.
- References to units of land should be removed from the footnotes 6 and 7.
 - The terminology for referring to Article 3.4 activities is 'lands' or 'areas of land'.

Table A.6 – Grazing Land Management – page 37

- Tables A.6.1 and A.6.2 should be moved to separate pages.
- The columns 'E' and 'F' 'Increase of above-ground biomass' and 'Decrease of above-ground biomass' should be removed.

- It is not necessary to report both carbon stock accumulation and loss, net carbon change is sufficient.
- A footnote should be included for column L, 'CO₂-C emissions from organic soils' stating that 'Emissions from organic soils and liming occur as CO₂ but these are converted to carbon by dividing CO₂ emissions by 44/12.'
 - This would achieve consistency with the UNFCCC reporting tables.
- The purpose of columns 'P' and 'Q' (CH₄ and N₂O emissions) and their relationship to tables A.6.1 and A.6.2 is unclear.
- References to units of land should be removed from the footnotes 5 and 6.
 - The terminology for referring to Article 3.4 activities is 'lands' or 'areas of land'.

Table A.6.1 – Grazing Land Management. Additional information on biomass burning – page 37

- This table should be moved to a separate page.

Table A.6.2 – Grazing Land Management. Additional information on fertilisers and liming – page 37

- This table should be moved to a separate page.

Table A.7 – Revegetation – page 38

- Tables A.7.1 and A.7.2 should be moved to separate pages.
- The columns 'E' and 'F' 'Increase of above-ground biomass' and 'Decrease of above-ground biomass' should be removed.
 - It is not necessary to report both carbon stock accumulation and loss, net carbon change is sufficient.
- A footnote should be included for column L, 'CO₂-C emissions from organic soils' stating that 'Emissions from organic soils and liming occur as CO₂ but these are converted to carbon by dividing CO₂ emissions by 44/12.'
 - This would achieve consistency with the UNFCCC reporting tables.
- The equations included for column 'L' is incorrect and should be moved to column 'N'.
- The purpose of columns 'P' and 'Q' (CH₄ and N₂O emissions) and their relationship to tables A.7.1 and A.7.2 is unclear.
- References to units of land should be removed from the footnotes 5 and 6.
 - The terminology for referring to Article 3.4 activities is 'lands' or 'areas of land'.

Table A.7.1 – Revegetation. Additional information on biomass burning. – page 38

- This table should be moved to a separate page.

Table A.7.2 – Revegetation Additional information on fertilisers and liming – page 38

- no changes

PAPER NO. 3: CANADA

Draft tables of the Common Reporting Format (CRF) for LULUCF activities under the Kyoto Protocol and requirements for reporting annual GHG inventory information on LULUCF activities under the Kyoto Protocol.

Introduction

The following submission by the Government of Canada is in response to the invitation by SBSTA, at its 19th session (Milan, December, 2003), to Parties to submit by 15 February, 2004 their views on the draft tables of the CRF for LULUCF activities under the Kyoto Protocol contained in document FCCC/SBSTA/2003/INF.11 and on requirements for reporting annual GHG inventory information on LULUCF activities under the Kyoto Protocol.

General Approach

Canada believes the following principles should inform a decision on guidance for the reporting of annual GHG inventory information on Article 3.3 and 3.4 under the Protocol:

- Reporting should be transparent, complete, fully documented and allow for an adequate review as per the review guidelines. To that end, inventory and reporting guidance should be unambiguous.
- Guidance on reporting should be entirely consistent with, and adhere to, the requirements of the Marrakech Accords, in particular those contained in the annex to decision 11/CP.7 on LULUCF and the annex to decision 22/CP.7 on Article 7 guidelines. The reporting guidance must not create obligations that are additional to those of the Kyoto Protocol and the Marrakech Accords.
- As detailed below, consistency must be ensured with the UNFCCC guidelines on reporting as agreed to by CoP8 (decision 18/CP.8) and as modified by CoP9, as well as with the *IPCC Good Practice Guidance for Land Use, Land-use change and Forestry (LULUCF)* (hereafter referred to as *Good Practice Guidance*). Canada strongly believes that Chapter 4 of the *IPCC Good Practice Guidance* adequately responds to the invitation made by CoP7 to the IPCC and should be used by Parties listed in Annex B that ratified the Kyoto Protocol for preparing inventories of activities under Articles 3.3 and 3.4.
- Finally, the reporting guidance related to LULUCF Protocol activities should be consistent with that pertaining to the sector/source categories listed in Annex A of the Kyoto Protocol.

CRF Tables

Canada would like to thank the Secretariat for producing prior to SBSTA 19 the document FCCC/SBSTA/2003/INF.11. The extensive quality work done on *Good Practice Guidance* by the IPCC Task Force on National Inventories and the outcome of the CoP9 negotiations should also be taken into account.

The IPCC tables in Chapter 4 and the Convention tables agreed to in Milan have already been extensively discussed and reviewed by Parties. Hence, in theory, they should have the support of a majority of Parties. Further, lessons learned from the negotiation of the UNFCCC LULUCF CRF tables should prove useful as Parties tackle development of the KP tables.

Canada is of the view that the Tables contained in section 4.2.4.3 of the *IPCC Good Practice Guidance* as well as those CRF tables agreed to by CoP9 for reporting of LULUCF under UNFCCC and contained in document FCCC/SBSTA/2003/L.22/Add.1, with appropriate modifications and additions, should provide the basis of the new CRF tables for reporting LULUCF under the Protocol.

The following includes a subset¹ of the proposed tables. It is worthwhile mentioning some key considerations both on the structure of the CRF set and the content:

1. All of the CRF tables, except the Summary Table, should include a breakdown of lands by geographical locations of the boundaries of the areas that encompass units of lands subject to Article 3.3 and lands subject to Article 3.4, as per the Marrakech Accords requirements (FCCC/CP/2001/13/Add.3, page 22 paragraph 6b)). Further, units of land under Article 3.3 that are also subject to elected Article 3.4 should be distinguished from other Article 3.3 lands and ought to be reported in separate tables, contrary to what is proposed in document FCCC/SBSTA/2003/INF.11. This is because the stratification for reporting the geographical locations for those lands might not match that chosen to report the rest of the corresponding Article 3.3 lands.
2. Separate line items are needed in all tables, where relevant, for Article 3.3 lands that are also subject to elected Article 3.4 activities to fulfill the requirements of the Marrakech Accords, as noted above. In the Summary Table these are reported as information items since they are already implicitly included under the national totals for A/R harvested during the 1st CP, A/R not harvested during the 1st CP or Deforestation.
3. In our view, it would be futile to try to incorporate into a single table all the estimates, “implied emissions factors” and activity data for all the sources and sinks related to one activity. Hence, Canada believes separate tables are needed for CO₂ emissions from liming, GHG emissions from biomass burning, N₂O emissions from disturbance associated with deforestation to cropland and N₂O emissions from drainage of soils under forest management (where applicable). Those tables can be patterned after the CRF tables already agreed to in Milan for LULUCF reporting under the Convention.
4. All estimates reported in these tables should include the GHG emissions and removals from any joint implementation (JI) projects under Article 6 hosted by the reporting Party, contrary to what is suggested in the document FCCC/SBSTA/2003/INF.11. According to the Marrakech Accords, emissions reduction units (ERUs) are not new or additional units but rather are created by converting assigned amount units (AAUs) or removal units (RMUs) (i.e. they come out of total national accounts). Hence there will be no problem of double counting emissions/removals from JI projects and they should be included in the national totals for LULUCF activities.
5. CRF tables should be submitted annually for the 5 inventory years of the commitment period starting with the 2008 inventory submitted no later than 15 April, 2010. In addition, for Cropland Management (CM), Grazing land Management (GM) and Revegetation (RV), if elected, all relevant tables should also be reported for the base year estimates.
6. As mentioned in a footnote to Table 2 (this is also valid for Tables 3 to 10), it is important to note that, following *Good Practice Guidance*, section 4.2.3.2, the area subject to the various LULUCF activities (used for the calculations and reported in the CRF tables) should be held constant for the entire inventory year and be equal to its value on December 31st of that year. The area subject to an activity can only be changed on January 1st of the year in which the activity occurs. This ensures that changes in C stocks and emissions reported for a particular year are not due to a change in the area subject to the activity during that year.
7. The issue of CO₂ emissions from drained organic soils (in A/R, FM and Deforestation to croplands and grasslands) deserves some consideration. Indeed it is unclear whether the estimates of changes in C stocks (reported in the proposed Tables 2 to 7) include them implicitly. *Good Practice*

¹ Note that Tables 3 to 7 are not included in this submission. They should be almost identical to Table 2 in their format. Nor are Tables 9 and 10 included here as they should be similar to Table 8. All Tables should also have a documentation box and, where relevant, some cells should be shaded.

Guidance treats them as actual emissions, not as changes in C stocks. They perhaps deserve to be reported in a separate table if Parties do not include them in their estimates of changes in C stocks in Tables 2 to 7. We suggest that this issue be raised with the IPCC representatives present at SBSTA 20.

*List of CRF Tables needed*²

- Table 1- Summary Table (by GHG and by activity)**
- Table 2- Afforestation (A) and Reforestation (R) not harvested during 1st CP (Carbon- CO₂)**
- Table 3- A and R harvested during 1st CP (Carbon- CO₂)**
- Table 4- A and R also subject to elected 3.4 activities (Carbon- CO₂)**
- Table 5- Deforestation (D) (Carbon- CO₂)**
- Table 6- D that is also subject to elected 3.4 activities (Carbon- CO₂)**

It should be noted that non-CO₂ emissions from sources listed in Annex A of the KP occurring on lands deforested since 1990 that are subject to CM, GM or RV (e.g. N₂O from fertilizers...) should be reported in the agriculture sector although CO₂ and C stock changes on those lands are reported under D (this should be included in a footnote to Table 6).

- Table 7- Forest Management (FM) (if elected) (Carbon- CO₂)**
- Table 8- Cropland Management (CM) (if elected) (Carbon- CO₂)**
- Table 9- Grazing land Management (GM) (if elected) (Carbon- CO₂)**
- Table 10- Revegetation (RV) (if elected) (Carbon- CO₂)**
- Table 11- Liming (CO₂ emissions)**

This would apply to all activities. Liming emissions from CM, GM and RV are not reported under the Agriculture sector.

- Table 12- Direct N₂O emissions from N fertilization**

This applies to A/R and FM only. For CM, GM and RV, these emissions should be reported in the Agriculture sector.

- Table 13- Biomass burning (CO₂, CH₄ and N₂O) for all activities.**

Note that double counting of CO₂ and of the carbon portion of CH₄ with changes in C stocks already reported elsewhere should be avoided. Estimates reported in this table also exclude burning of agricultural residues and savannah burning which are included and reported under the Agriculture sector.

² Note that these proposed tables reflect Canada's initial views.

Table 14- N₂O emissions from disturbance associated with land-use conversion to croplands

This table builds on Table 5(III) of the CRF for the UNFCCC LULUCF. The method is provided in Chapter 3 of Good Practice Guidance (see section 3.3.2.3.1 page 3.98). When the initial land use is forest land, estimates should be included under the Deforestation totals reported in the Summary table. They should be reported even if cropland management is not elected as an activity under Article 3.4. Note that this source is not included in the Agriculture sector and does not include N₂O emissions from fertilization before nor after land conversion. For conversion to cropland from a land use other than forest land- although Good Practice Guidance is silent on the issue- these N₂O emissions should be reported under CM, if elected.

A technical issue that should be considered relates to the length of the transition period after the conversion during which such N₂O emissions should be reported. Canada would suggest that they should be reported as long as CO₂ emissions from soils associated with the conversion are reported, as these processes are linked. After this transition period, one would assume that they are reported under the Agriculture sector. This question should also perhaps be raised with the IPCC at SBSTA 20.

Table 15- N₂O emissions from drainage of soils under forest management

This applies to both organic and mineral soils for forest management (if elected). Reporting of these emissions is optional under UNFCCC (Forestland remaining forestland) as per Chapter 3 of Good Practice Guidance. The methodological basis is contained in Appendix 3a.2. Reporting of this source for Article 3.4 of the Kyoto Protocol should also be optional. Note that N₂O emissions from drained cropland and grassland soils are reported in the Agriculture Sector under cultivation of histosols.

Requirements for reporting annual GHG inventory information on LULUCF activities under the Kyoto Protocol

It is fundamental to recall that the thrust of the requirements for reporting annual GHG inventory information on Article 3.3 and 3.4 activities is contained in the already agreed Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol, Section I: Reporting of Supplementary information under Article 7, Paragraph 1. These guidelines are contained in the Annex to the draft decision-/CMP.1 (Article 7) attached to Decision 22/CP.7 of the Marrakech Accords (FCCC/CP/2001/13.Add.3 page 21). We would like to stress that reporting guidance should be entirely consistent with these guidelines, must not introduce any additional reporting requirements, and should build on the UNFCCC guidelines on reporting and review adopted by CoP8 and amended by CoP9. In Canada's view, it should also draw any relevant help from the check list provided in Table 4.2.4B of section 4.2.4.3 (*Reporting and Documentation*) of the IPCC *Good Practice Guidance*.

Canada contends that in order to fulfill the requirements of the Marrakech Accords and of *Good Practice Guidance*, the National Inventory Report (NIR) should contain a specific chapter on Article 3.3 and 3.4 LULUCF activities which would be structured into sections particular to each Article 3.3 and elected Article 3.4 activity. For each activity, the section should start with a description of the general approach taken to monitor and report emissions and removals from this activity. Other information that should be reported include, *inter alia*:

- land related information: this includes the geographical location of the boundaries of the areas that encompass units of land subject to activities under Article 3.3 and land subject to Article 3.4 (such as a map, GIS files or a database with geographical coordinates...) and the approach taken to identify and report lands subject to the activities. Land related information also includes land-use change data for example in the form of a land-transition matrix;
- information on methods and approaches to estimate emissions and removals;

- uncertainty estimates, using relevant guidance from Chapters 4 and 5 of *Good Practice Guidance*, and in a fashion consistent with the Annex A sources;
- any other information specific to the activity that would enhance transparency and fulfill the reporting requirements of the Marrakech Accords and *Good Practice Guidance*.

Appropriate references to other relevant chapters/sections of the NIR (in particular Chapter 7 on LULUCF) should be made to avoid repetitions.

Parties could also report emissions of CO, NMVOCs and NO_x from Article 3.3 and 3.4 in the NIR, as appropriate, although these precursors' emissions will not be part of the actual accounting for RMUs.

In concluding, it is highly critical that the LULUCF information reported in the NIR and the new CRF tables, and application of the IPCC *Good Practice Guidance* fulfill Parties' reporting requirements under the Article 7.1 guidelines of the Marrakech Accords. Canada is looking forward to working with other Parties on this matter, hoping that the twentieth session of SBSTA will recommend a draft decision for adoption by the CoP at its tenth session.

TABLE 1 - SUMMARY OF GREENHOUSE GAS EMISSIONS AND REMOVALS BY ARTICLE 3.3 AND 3.4 ACTIVITIES ^{(3) (7)}

Country
Year
Submission

ARTICLES 3.3 AND 3.4 ACTIVITIES	Net CO ₂ emissions/ removals ⁽¹⁾⁽²⁾	CH ₄ ⁽⁵⁾	N ₂ O ⁽⁶⁾
	(Gg CO ₂)	(Gg)	(Gg)
A.1 Afforestation and reforestation lands not harvested during the first commitment period ⁽⁴⁾			
A.2 Afforestation and reforestation lands harvested during the first commitment period ⁽⁴⁾			
A.3 Deforestation			
A.4 Forest management (if elected)			
A.5 Cropland management (if elected)			
A.6 Grazingland management (if elected)			
A.7 Revegetation (if elected)			
Information items ⁽⁸⁾			
Afforestation and reforestation lands subject to elected 3.4 activities			
Deforestation lands subject to elected 3.4 activities			

⁽¹⁾ 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 by changing the sign for net CO₂ removals to be negative (-) and net CO₂ emissions to be positive (+).

⁽²⁾ CO₂ emissions from liming, biomass burning and drained organic soils, where applicable, are also included in this column.

⁽³⁾ All estimates in this table include emissions and removals related to any Article 6 project hosted by the reporting Party.

⁽⁴⁾ As afforestation and reforestation are treated the same way, they can be reported together.

⁽⁵⁾ For Cropland Management, Grazingland Management and Revegetation, if elected, CH₄ emissions reported here only include biomass burning emissions (with the exception of savannah burning and agricultural residue burning which are reported in the Agriculture sector). Any other CH₄ emissions from those activities should be reported in the Agriculture Sector.

⁽⁶⁾ For Cropland Management, if elected, N₂O emissions reported here only include biomass burning emissions (with the exception of savannah burning and agricultural residue burning which are reported in the Agriculture Sector) and N₂O from conversion to cropland of lands other than forestlands (Table 14). Any other N₂O emissions should be reported in the Agriculture Sector.

⁽⁷⁾ If Cropland management, Grazing land management and/or Revegetation are elected, this Table and all relevant CRF Tables should also be reported for the base year for those activities.

⁽⁸⁾ Article 3.3 lands that are subject to elected Article 3.4 activities are already implicitly included under A1, A2 and/or A3. They are reported here for transparency and to fulfill the requirements of the Marrakech Accords.

TABLE 2 AFFORESTATION AND REFORESTATION LANDS NOT HARVESTED DURING THE 1ST COMMITMENT PERIOD (C STOCK CHANGE AND ASSOCIATED CO₂) ⁽²⁾

Country
Year
Submission

LAND AREA		IMPLIED EMISSION FACTORS					EMISSIONS/REMOVALS									
Geographical location ⁽¹⁾	Area subject to activity ⁽⁶⁾ (kha)	Carbon stock change in living biomass per area ^{(3) (4)}			Net carbon stock change in dead organic matter per area ^{(3) (5)}	Net carbon stock change in soils per area ⁽³⁾	Carbon stock change in above ground biomass ^{(3) (4)}			Net C stock change in below ground biomass ^{(3) (4)}			Net C stock change in litter ⁽³⁾	Net carbon stock change in dead wood ⁽³⁾	Net carbon stock change in soils ⁽³⁾	
		Increase	Decrease	Net change			Increase	Decrease	Net change	Increase	Decrease	Net change				
		(Mg C/ha)					(Gg C)									
Serial No.	ID															
1																
2																
3																
...																
N																
Total for the activity																

⁽¹⁾ Geographical locations refer to the boundaries of the areas that encompass units of lands subject to Article 3.3 and lands subject to Article 3.4 activities (FCCC/CP/2001/13/Add.3 p.22 paragraph 6b)). Note that the sum of the areas of all geographical locations should equal the total terrestrial area of the country.

⁽²⁾ As afforestation and reforestation are treated the same way, they can be reported together.

⁽³⁾ The signs for estimates of increases in carbon stocks are positive (+) and of decreases in carbon stocks are negative (-).

⁽⁴⁾ CO₂ emissions and removals (carbon stock increase and decrease) should be listed separately except in cases where, due to the methods used, it may be technically impossible to separate information on increases and decreases.

⁽⁵⁾ dead organic matter includes the sum of dead wood and litter

⁽⁶⁾ As per GPG section 4.2.3.2, the area subject to the various 3.3 and 3.4 activities should be held constant for the entire inventory year and be equal to its value on December 31st of that year. The area can only be changed on January 1st of the year in which the activity occurs.

TABLE 8- CROPLAND MANAGEMENT (IF ELECTED UNDER 3.4)

Country
Year
Submission

LAND AREA		IMPLIED EMISSION FACTORS					EMISSIONS/REMOVALS								
Geographical location ⁽¹⁾	Area subject to activity ⁽²⁾ (kha)	Carbon stock change in living biomass per area ^{(3) (5)}			Net carbon stock change in dead organic matter per area ^{(3) (4)}	Net carbon stock change in soils per area ⁽³⁾	Carbon stock change in above ground biomass ^{(3) (5)}			Net C stock change in below ground biomass ^{(3) (5)}			Net C stock change in litter ⁽³⁾	Net carbon stock change in dead wood ⁽³⁾	Net carbon stock change in soils ⁽³⁾
		Increase	Decrease	Net change			Increase	Decrease	Net change	Increase	Decrease	Net change			
Serial No.	ID	(Mg C/ha)					(Gg C)								
1															
	Mineral soils														
	Organic soils														
2															
	Mineral soils														
	Organic soils														
3															
	Mineral soils														
	Organic soils														
...															
N															
	Mineral soils														
	Organic soils														
Total for the activity															
	Mineral soils														
	Organic soils														

⁽¹⁾ Geographical locations refer to the boundaries of the areas that encompass units of lands subject to Article 3.3 and lands subject to Article 3.4 activities (FCCC/CP/2001/13/Add.3 p.22 paragraph 6b)).

Note that the sum of the areas of all geographical locations should equal the total terrestrial land area of the country.

⁽²⁾ As per GPG section 4.2.3.2, the area subject to the various 3.3 and 3.4 activities should be held constant over the entire inventory year and be equal to its value on December 31st of that year. The area can only be changed on January 1st of the year in which the activity occurs.

⁽³⁾ The signs for estimates of increases in carbon stocks are positive (+) and of decreases in carbon stocks are negative (-).

⁽⁴⁾ dead organic matter includes the sum of dead wood and litter

⁽⁵⁾ CO2 emissions and removals (carbon stock increase and decrease) should be listed separately except in cases where, due to the methods used, it may be technically impossible to separate information on increases and decreases.

TABLE 11 C EMISSIONS FROM LIME APPLICATION

Country
Year
Submission

Article 3.3 and 3.4 Activity	Geographical location ⁽¹⁾		ACTIVITY DATA		IMPLIED EMISSION FACTORS		EMISSIONS	
			Total amount of lime applied		Carbon emission per unit of lime		Carbon	
			(Mg/yr)		(Mg C/Mg)		(Gg)	
	Serial No.	ID	Limestone	Dolomite	Limestone	Dolomite	Limestone	Dolomite
A and R not harvested	1							
	2							
	3							
	...							
Total activity								
A and R harvested	1							
	2							
	3							
	...							
Total activity								
A and R subject to elected 3.4 activity	1							
	2							
	3							
	...							
Total activity								
Deforestation	1							
	2							
	3							
	...							
Total activity								
D subject to elected 3.4 activity	1							
	2							
	3							
	...							
Total activity								
Forest Management (if elected)	1							
	2							
	3							
	...							
Total activity								
Cropland Management (if elected)	1							
	2							
	3							
	...							
Total activity								
Grazingland Management (if elected)	1							
	2							
	3							
	...							
Total activity								
Revegetation (if elected)	1							
	2							
	3							
Total activity								

(1) Geographical locations refer to the boundaries of the areas that encompass units of lands subject to Article 3.3 and lands subject to Article 3.4 activities (FCCC/CP/2001/13/Add.3 p.22 paragraph 6b)).

TABLE 12 DIRECT N₂O EMISSIONS FROM FERTILIZATION ^{(1) (2)}

Country
Year
Submission

Article 3.3 and 3.4 Activity	Geographical location ⁽⁴⁾		ACTIVITY DATA		IMPLIED EMISSION FACTOR		EMISSIONS	
			Total amount of fertilizer applied		N ₂ O-N emissions per unit of fertilizer		N ₂ O	
	Serial No.	ID	(Gg N/yr)		(kg N ₂ O-N/kg N) ⁽³⁾		(Gg)	
A and R not harvested during 1st CP	1							
	2							
	3							
	...							
	Total activity							
A and R harvested during 1st CP	1							
	2							
	3							
	...							
	Total activity							
A and R subject to elected 3.4 activity	1							
	2							
	3							
	...							
	Total activity							
Forest Management (if elected)	1							
	2							
	3							
	...							
	Total activity							

⁽¹⁾ N₂O emissions from fertilization for CM, GM and RV (if elected) should be reported in the Agriculture Sector.

⁽²⁾ Direct N₂O emissions from fertilization are estimated using equations 3.2.17 and 3.2.18 of the IPCC good practice guidance for LULUCF based on the amount of fertilizers applied to land under forest management.

The indirect N₂O emissions from A/R and land under forest management are estimated as part of the total indirect emissions in the Agriculture sector based on the total fertilizers used in the country.

⁽³⁾ In the calculation of the implied emission factor, N₂O emissions are converted to N₂O-N by multiplying by 28/44.

⁽⁴⁾ Geographical locations refer to the boundaries of the areas that encompass units of lands subject to Article 3.3 and lands subject to Article 3.4 activities (FCCC/CP/2001/13/Add.3 p.22 paragraph 6b)).

TABLE 13 GHG EMISSIONS FROM BIOMASS BURNING

Country
Year
Submission

Article 3.3 and 3.4 Activity	Geographical location ⁽¹⁾		ACTIVITY DATA			IMPLIED EMISSION FACTOR			EMISSIONS		
			Description ⁽²⁾	Unit	Values	CO ₂	CH ₄	N ₂ O	CO ₂ ⁽⁴⁾	CH ₄ ⁽⁴⁾	N ₂ O
			ha or kg dm			(Mg/activity data unit)			(Gg)		
	Serial No.	ID									
A and R not harvested during 1st CP	1		Controlled burning								
			Wildfires								
	2		Controlled burning								
			Wildfires								
	3		Controlled burning								
		Wildfires									
		...									
			Total activity								
			Controlled burning								
			Wildfires								
A and R lands harvested during 1st CP	1		Controlled burning								
			Wildfires								
	2		Controlled burning								
			Wildfires								
	3		Controlled burning								
		Wildfires									
		...									
			Total activity								
			Controlled burning								
			Wildfires								
A and R lands subject to elected Article 3.4 activities	1		Controlled burning								
			Wildfires								
	2		Controlled burning								
			Wildfires								
	3		Controlled burning								
		Wildfires									
		...									
			Total activity								
			Controlled burning								
			Wildfires								
Deforestation	1		Controlled burning								
			Wildfires								
	2		Controlled burning								
			Wildfires								
	3		Controlled burning								
		Wildfires									
		...									
			Total activity								
			Controlled burning								
			Wildfires								
Deforestation lands subject to elected Article 3.4 activities	1		Controlled burning								
			Wildfires								
	2		Controlled burning								
			Wildfires								
	3		Controlled burning								
		Wildfires									
		...									
			Total activity								
			Controlled burning								
			Wildfires								
Forest Management	1		Controlled burning								
			Wildfires								
	2		Controlled burning								
			Wildfires								
	3		Controlled burning								
		Wildfires									
		...									
			Total activity								
			Controlled burning								
			Wildfires								
Cropland Management ⁽⁵⁾	1		Controlled burning								
			Wildfires								
	2		Controlled burning								
			Wildfires								
	3		Controlled burning								
		Wildfires									
		...									
			Total activity								
			Controlled burning								
			Wildfires								
Grazingland Management ⁽⁶⁾	1		Controlled burning								
			Wildfires								
	2		Controlled burning								
			Wildfires								
	3		Controlled burning								
		Wildfires									
		...									
			Total activity								
			Controlled burning								
			Wildfires								
Revegetation ⁽⁵⁾⁽⁶⁾	1		Controlled burning								
			Wildfires								
	2		Controlled burning								
			Wildfires								
	3		Controlled burning								
		Wildfires									
		...									
			Total activity								
			Controlled burning								
			Wildfires								

⁽¹⁾ Geographical locations refer to the boundaries of the areas that encompass units of lands subject to Article 3.3 and lands subject to Article 3.4 activities (FCCC/CP/2001/13/Add.3 p.22 paragraph 6b).
⁽²⁾ Parties should report both controlled/prescribed burning and wildfires emissions, where appropriate, in a separate manner.
⁽³⁾ For each activity, activity data should be selected between area burned or biomass burned. Units for area will be ha and for biomass burned kg dm. The implied emission factor will refer to the selected activity data with an automatic change in the units.
⁽⁴⁾ If CO₂ emissions from biomass burning are not already included in Tables 2 to 10, they should be reported here. This also includes the Carbon component of CH₄. This should be clearly documented in the documentation box and in the NIR.
 Double counting should be avoided. Parties that include all carbon stock changes in the Tables 2 to 10 should report IE (included elsewhere) in the CO₂ column.
⁽⁵⁾ Burning of agricultural residues is included in the Agriculture sector.
⁽⁶⁾ GHG emissions from prescribed savannah burning are reported under the Agriculture sector.

TABLE 14 N₂O EMISSIONS FROM DISTURBANCE ASSOCIATED WITH LAND CONVERSION TO CROPLAND ⁽²⁾⁽³⁾

Country
Year
Submissi

Article 3.3 and 3.4 Activity	Geographical location ⁽¹⁾		ACTIVITY DATA	IMPLIED EMISSION FACTOR	EMISSIONS
			Land Area Converted	N ₂ O-N per area converted	N ₂ O
	Serial No.	ID	(kha)	(kg N ₂ O-N/ha) ⁽⁵⁾	(Gg)
Deforestation ⁽⁴⁾	1				
		(6) Organic soils			
		(6) Mineral soils			
	2				
		Organic soils			
		Mineral soils			
	3				
		Organic soils			
		Mineral soils			
		...			
		Total activity			
		Organic soils			
		Mineral soils			
Deforestation lands subject to elected 3.4 activity	1				
		Organic soils			
		Mineral soils			
	2				
		Organic soils			
		Mineral soils			
	3				
		Organic soils			
		Mineral soils			
		...			
		Total activity			
		Organic soils			
		Mineral soils			
Cropland Management (if elected) ⁽³⁾⁽⁷⁾	1				
		Organic soils			
		Mineral soils			
	2				
		Organic soils			
		Mineral soils			
	3				
		Organic soils			
		Mineral soils			
		...			
		Total activity			
		Organic soils			
		Mineral soils			

⁽¹⁾ Geographical locations refer to the boundaries of the areas that encompass units of lands subject to Article 3.3 and lands subject to Article 3.4 activities (FCCC/CP/2001/13/Add.3 p.22 paragraph 6b)).

⁽²⁾ Methodologies for N₂O emissions from disturbance associated with land-use conversion to croplands are based on equations 3.3.14 and 3.3.15 of the IPCC good practice guidance for LULUCF. N₂O emissions from fertilization in the preceding land use and new land use should not be reported here. Parties should avoid double counting with N₂O emissions from drainage and from cultivation of organic soils reported in Agriculture under Cultivation of histosols.

⁽³⁾ According to the IPCC good practice guidance for LULUCF N₂O emissions from disturbance of soils are only relevant for land conversions to cropland. N₂O emissions from cropland management when cropland is remaining cropland are included in the Agriculture sector.

⁽⁴⁾ N₂O emissions associated with forest conversion to cropland should be reported even if CM is not elected under Article 3.4. If CM is elected under 3.4, these emissions are also reported under Deforestation lands subject to elected 3.4 activities.

⁽⁵⁾ In the calculation of the implied emission factor, N₂O emissions are converted to N₂O-N by multiplying by 28/44.

⁽⁶⁾ Parties can separate between organic and mineral soils, if they have data available.

⁽⁷⁾ This includes N₂O emissions from disturbance of soils due to the conversion to cropland of lands other than forest lands.

TABLE 15 N₂O EMISSIONS FROM DRAINAGE OF SOILS ^{(2) (3)}

Country
Year
Submissi

Article 3.3 and 3.4 Activity	Geographical location ⁽¹⁾		ACTIVITY DATA	IMPLIED EMISSION FACTOR	EMISSIONS	
			Area of drained soils	N ₂ O-N per area drained	N ₂ O	
			(kha)	(kg N ₂ O-N/ha) ⁽⁴⁾	(Gg)	
	Serial No.	ID				
Forest Management	1					
		<i>Organic soils</i>				
			<i>Mineral soils</i>			
	2					
		<i>Organic soils</i>				
			<i>Mineral soils</i>			
	3					
		<i>Organic soils</i>				
			<i>Mineral soils</i>			
	...					
		Total activity				
		<i>Organic soils</i>				
		<i>Mineral soils</i>				

⁽¹⁾ Geographical locations refer to the boundaries of the areas that encompass units of lands subject to Article 3.3 and lands subject to Article 3.4 activities (FCCC/CP/2001/13/Add.3 p.22 paragraph 6b)).

⁽²⁾ Methodologies for estimating N₂O emissions from drainage of soils are not addressed in the Revised 1996 IPCC Guidelines, but are addressed for forest soils in Appendix 3a.2 of the IPCC good practice guidance for LULUCF (equation 3a.2.1). They can be reported if forest management is elected under Article 3.4.

⁽³⁾ N₂O emissions from drained cropland and grassland soils are covered in the Agriculture sector under Cultivation of histosols.

⁽⁴⁾ In the calculation of the implied emission factor, N₂O emissions are converted to N₂O-N by multiplying by 28/44.

PAPER NO. 4: IRELAND ON BEHALF OF THE EUROPEAN COMMUNITY AND
ITS MEMBER STATES AND SUPPORTED BY THE FOLLOWING
ACCEDING STATES: ESTONIA, LATVIA, SLOVAKIA AND
SLOVENIA

**SUBMISSION BY IRELAND ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS
MEMBER STATES**

**THIS SUBMISSION IS ALSO SUPPORTED BY THE FOLLOWING ACCEDING STATES:
ESTONIA, LATVIA, SLOVAKIA & SLOVENIA,**

Dublin, February, 2004

**Subject: Views on the draft tables of the common reporting format tables (CRF) for
LULUCF activities under the Kyoto Protocol contained in
FCCC/SBSTA/2003/INF.11 and on requirements for reporting annual GHG
inventories on LULUCF activities under the Kyoto Protocol as requested in
FCCC/SBSTA/2003 L.22 5**

Overview

One of the key principles in the development of the CRF reporting tables currently being used by Annex 1 Parties (sectoral summaries and reports) was to follow and maintain consistency with current IPCC tables and reporting recommendations wherever possible. Furthermore, the additional reporting tables (sectoral background data tables) in the CRF developed for individual IPCC sectors to provide more detailed information have been shown to be very useful for comparability purposes during inventory reviews.

This basic approach to reporting GHG inventory data was successfully followed in the development of CRF tables for LULUCF reporting under the Convention at COP9, taking into account the IPCC Good Practice Guidance for LULUCF (LULUCF GPG). The EU believes that the principle of consistency with IPCC and the provision of additional information should again be the basis for the development of CRF tables used to report annual GHG inventories on LULUCF activities under the Kyoto Protocol.

The IPCC LULUCF GPG provides detailed and internationally reviewed tables (Tables 4.2.5, 4.2.6a, 4.2.6b, 4.2.6c and 4.2.7) for reporting GHG emissions and removals and related information. The EU view is that these tables and Chapter 4 of the GPG on reporting and documentation for LULUCF (especially section 4.2.4.3) should form the basis for further discussions at SBSTA 20 on CRF tables for reporting on LULUCF activities under the Kyoto Protocol. However, the elaboration of reporting tables at SBSTA 20 should be restricted to the activities under Article 3.3 and 3.4 of the Kyoto Protocol. Reporting on Article 6 of Kyoto Protocol activities will be project based.

Given the wide range and complexities of the factors that will determine Parties' reporting on activities covered by Article 3.3 and 3.4 of the Kyoto Protocol, the EU believes that the standard CRF reporting tables should be supported by additional tables that would summarise pertinent information underlying choice of activities and corresponding land allocation. In addition, it is necessary to further specify the contents of those sections of the National Inventory Report (NIR) that deal with activities under Articles 3.3 and/or 3.4, in a similar way as at COP9 (FCCC/SBSTA/2003/L.22/Add.1) for the reporting on LULUCF under the Convention. Table 4.2.4.B of the GPG for LULUCF, which provides an overview of issues that have to be addressed in reporting on Article 3.3 and 3.4 activities by Parties, forms a basis for discussion of more specific NIR requirements.

Tables for Kyoto Protocol Reporting

The principal requirements governing the consistent and effective reporting of information in the CRF for LULUCF activities under Articles 3.3 and 3.4 include:

- (a) Applicable activities, the estimates of their associated emissions and removals and the manner in which they are reported should reflect the Marrakesh Accords and the methodological instructions provided in the IPCC GPG for LULUCF. Further interpretations of the Marrakesh Accords should be avoided;
- (b) Emissions and removals due to Article 3.3 and 3.4 activities must be clearly separated from emissions from the sources listed in Annex A to the Kyoto Protocol;
- (c) The information to be reported annually for Article 3.3 and 3.4 Kyoto Protocol activities during the commitment period is supplementary to that required annually under the Convention;
- (d) Reporting in respect of elected cropland management, grazing land management and revegetation under article 3.4 is required for the base year;
- (e) The CRF tables should, to the extent possible, be consistent with CRF reporting tables under the Convention adopted at COP9, with respect to terminology and overall structure;
- (f) Areas of land under articles 3.3 and 3.4, will need to be tracked over time, consistent with the approaches taken in the Marrakesh accords for land identification taking into account the hierarchies chosen for elected 3.4 activities under the Kyoto Protocol, during the first commitment period and beyond;
- (g) The information in CRF tables should facilitate the assessment of whether potential double counting has been avoided.

The proposed reporting tables in the IPCC GPG for LULUCF (Tables 4.2.6a, 4.2.6b, 4.2.6c and 4.2.7), adapted as appropriate, taking into account (e) above, and general consistency with other sectors, would largely meet the overall reporting requirements. To report emissions from biomass burning of forests on areas of land under articles 3.3 and 3.4 of the Kyoto Protocol a separate table in addition to the IPCC tables would be useful for transparency and comparability purposes. The elaboration of such a table should be based on Table 5(V) of the CRF for land-use, land-use change and forestry (FCCC/SBSTA/2003/L.22/Add.1) and table A.1.1 of document FCCC/SBSTA/2003/INF.11. Table 5(I) on direct N₂O emissions from N fertilization and Table 5(II) on N₂O emissions from drainage of soils, where these are reported, are also relevant as the bases for elaborating reporting tables for forestry emissions under the Kyoto Protocol. Table 5(IV) on carbon emissions from agricultural lime application from the CRF tables for LULUCF should also have a corresponding background table for Kyoto Protocol reporting in order to enhance transparency and comparability.

The EU believes that it would be useful for the CRF covering activities under Articles 3.3 and 3.4 of the Kyoto Protocol to include two additional tables as follows:

1. An introductory table that provides an overview of all relevant choices taken by a Party under Articles 3.3 and 3.4 of the Kyoto Protocol. The table would specify the elected activities under Article 3.4 (if any), the choice of specific parameters for forest definition, and/or the hierarchy among elected 3.4 activities, pools reported or not reported for each activity (see proposed table and documentation box appended with this submission).
2. A land area/activity matrix based on IPCC Table 4.2.5. This table would serve as a link between the standard tables for reporting emissions/removals and the introductory table proposed in 1 above. It would also provide a means to check for double counting and would be useful for tracking land area allocation to Article 3.3 and 3.4 activities over time.

Taking into account the general requirements and proposals outlined above, the EU believes that the IPCC LULUCF GPG and tables for Convention reporting agreed at COP9, Milan should form the basis for reporting LULUCF activities under Articles 3.3 and 3.4 of the Kyoto Protocol. It is important that the tables for reporting areas of land under Articles 3.3 and 3.4 should specify the method used according to section 4.2.2.2 of the IPCC LULUCF GPG. Parties using reporting Method 1 should describe the sampling method in the National Inventory Report (NIR). Parties using reporting Method 2 may include additional data on individual units of land.

ARTICLE 3.3 AND ARTICLE 3.4 ACTIVITIES UNDER THE KYOTO PROTOCOL
TABLE A DEFINITIONS AND ACTIVITY COVERAGE

Country
Year
Submission

	Article 3.3 Activities			Article 3.4 Activities ¹																					
	Afforestation	Reforestation	Deforestation	Forest Management ²	Cropland Management ²	Grazing land Management ²	Revegetation ²																		
Hierarchy for Article 3.4 activities²																									
Activity land area (ha)																									
Reporting method for land area ³																									
Number of geographical areas ⁴																									
Boundary reference system ⁵																									
Pool reported ⁶	P1	P2	P3	P4	P5	P1	P2	P3	P4	P5	P1	P2	P3	P4	P5	P1	P2	P3	P4	P5	P1	P2	P3	P4	P5
Greenhouse gases reported ⁷	Biomass burning																								
	Fertilization																								
	Liming ⁸																								
	Other source/activity																								

Carbon Pools	
P1	Above ground biomass
P2	Below ground biomass
P3	Litter
P4	Dead wood
P5	Soil

- The management practices that define Article 3.4 activities should be described in the NIR
- Enter 1, 2, 3, 4 as appropriate under Article 3.4 Activities to indicate their election and hierarchy
- Indicate GPG Method 1 or Method 2 or a combination of both
- Number of distinct geographical areas for which boundaries are described, for which emissions/removals
- Indicate type of boundary identification used (raster, vector) and
- Specify R (reported) or NR (not reported) for the relevant
- Specify CO₂, CH₄ and N₂O, as appropriate, for each relevant
- Specify limestone or dolomite

Documentation box for parameters for forest definition for Kyoto reporting	
Parameter	
Minimum area (ha)	
Crown cover (%)	
Minimum height (m)	

PAPER NO. 5: JAPAN

**Japan's view on the Draft Tables of Common Reporting Format
for LULUCF Activities under the Kyoto Protocol**

1. A footnote regarding debit resulting from harvesting during the first commitment period following afforestation and reforestation should be added

The draft tables of the Common Reporting Format (CRF) for Land Use and Land-Use Change and Forestry (LULUCF) activities under the Kyoto Protocol (FCCC/SBSTA/2003/INF.11 Annex IV) have a format to separate information on afforested and reforested lands into information on lands not harvested during the first commitment period (Table A.1) and that on lands harvested during the first commitment period (Table A.2), to be consistent with draft decision -/CMP.1 (*Land use, land-use change and forestry*) Annex paragraph 4, which states, "For the first commitment period, debits resulting from harvesting during the first commitment period following afforestation and reforestation since 1990 shall not be greater than credits accounted for on that unit of land."

However, footnotes in the draft tables do not explain how this debit calculation is to be made. Therefore, a footnote should be added which reads, "When debits resulting from harvesting during the first commitment period following Afforestation and Reforestation since 1990 are equal to or greater than credits accounted for on that unit of land, estimates of emissions/removals should be 0."

2. A table for key category analysis should be added to the draft tables of CRF

The draft tables of CRF do not include a table for key category analysis. This table should be added, the same way as in the CRF tables for reporting under the UNFCCC, because key category analysis is essential for the choice of the calculation method.

3. Parties should be allowed to report estimates of the amount of limestone and dolomite used at the aggregate level in the CRF

In the draft tables of the CRF, activity data used for estimations of CO₂ emissions from liming are separated into limestone and dolomite use.

However, this separation is not required according to the IPCC Good Practice Guidance for LULUCF (LULUCF-GPG). In addition, COP9 decided to allow reporting of total amount only, in the CRF for reporting under the UNFCCC (FCCC/SBSTA/2003/L.22 Add.1 p.14 Table 5(IV), footnote (4)). Therefore, a row named "total amount of lime applied" should be added, with a footnote noting "A party may report aggregate estimates for total lime applications when data are not available separately for limestone and dolomite".

4. Carbon pools should be allowed to simplify into three types, the same way as in the CRF for reporting under the UNFCCC

The draft tables of CRF provide five columns for five types of carbon pools (i.e. above ground biomass, below ground biomass, dead wood, litter, and soil organic carbon). This is because the Marrakesh Accords requires parties to account for the five types of carbon pools. On the other hand, the chapter 3 of the LULUCF-GPG theoretically allows aggregated calculation of more than one pool, for example, deadwood and litter pools in forest land remaining forest land at tier 2 level with equation

3.2.11. In this case, an ex-post separation into two pools may likely increase uncertainty and reduce accuracy. Therefore, it should be made possible to aggregate the carbon pools into the level of three types (i.e. living biomass, dead organic matter, and soil), the same way as in the CRF for reporting under the UNFCCC.

5. Aggregated calculation and omission of pools might be allowed

The Marrakesh Accords specify that “A Party may choose not to account for a given pool in a commitment period, if transparent and verifiable information is provided that the pool is not a source” as indicated in the footnote of the draft tables of CRF.

Considering the elaborated chapter 3 of the LULUCF-GPG, in particular, the definition and technical understanding of carbon flows among deadwood, litter, and soil organic carbon pools, Japan believes that sound science of the LULUCF-GPG implies that individual reporting for these three pools are unnecessary when these three (or possibly two) pools altogether are proven not to be net sources to the atmosphere. While the verification of these non-source pools depends on the development of tier 2 and/ or 3 methods by each Party, this collective estimation and reporting of zero value might be consistent with the Marrakesh Accords and may also contribute to eliminating uncertainties of the inventory. If this is the case for a Party, any relevant information or reference to its NIR should be entered in the documentation box.

6. It is preferable that footnotes on the draft tables of CRF should be quoted directly from LULUCF-GPG as much as possible, the same way as those of CRF under UNFCCC decided at COP9

Japan recognizes that the LULUCF-GPG is consistent with the Marrakesh Accords and that it has fairly incorporated Parties’ comments, and is properly structured. In order to avoid any confusion or possible error, the wording in the draft tables of CRF including its footnotes should be consistent with that in the LULUCF-GPG (i.e. “geographical location of the boundaries” issue).

PAPER NO. 6: NEW ZEALAND

This submission is prepared in response to the invitation by SBSTA [FCCC/SBSTA/2003/L.22 paragraph 5] to submit views on the draft tables of the CRF for LULUCF activities under the Kyoto protocol contained in document FCCC/SBSTA/2003/INF.11 and on requirements for reporting annual GHG inventory information on LULUCF activities under the Kyoto Protocol.

New Zealand recognises and appreciates the considerable efforts made by the Secretariat to produce the draft tables (Annex IV of FCCC/SBSTA/2003/INF.11 refers) for consideration at SBSTA19, using the methodological guidance provided by the IPCC Good Practice Guidance for Land Use, Land-use Change and Forestry. New Zealand also recognises that the IPCC Good Practice Guidance for LULUCF had tightly constrained timelines and that it was a very large document for Parties to fully review prior to SBSTA19.

The draft tables provided in document FCCC/SBSTA/2003/INF.11 provide a good basis to begin discussion of the format for the tables to report LULUCF activities under the Kyoto Protocol, and we welcome the opportunity to work with other Parties at SBSTA20 in order to finalise these tables at this session. As with the CRF tables agreed at SBSTA19/COP9 for reporting under the UNFCCC where the CRF tables are to have a trial period for one year, it would make sense to encourage Parties to somehow “trial” the Kyoto Protocol CRF tables before the beginning of the commitment period, in order that these tables properly function in practice once reporting under the Kyoto Protocol begins.

Regarding the related reporting requirements, document FCCC/SBSTA/2003/INF.11 notes the reporting requirements for LULUCF activities already agreed in decisions 19/CP.7 and 22/CP.7. New Zealand welcomes the opportunity at SBSTA20 to discuss with other Parties whether the existing reporting requirements are sufficient, given that they already provide for the integration of good practice guidance into reporting under the Kyoto Protocol.

PAPER NO. 7: SWITZERLAND

In response to the call for comments at the 19th session of the SBSTA concerning Annex IV of document FCCC/SBSTA/2003/INF.11, Switzerland presents the following views:

1. Reporting under the Kyoto Protocol on LULUCF activities should strictly be based on the IPCC Good Practice Guidance for LULUCF.
2. For activities under Article 3.4, methodologies for area identification according to chapter 4.2.2 are to be applied. As also stated in table 4.2.2 of the IPCC Good Practice Guidance for LULUCF, the approaches 1 and 2 are only of limited applicability. Moreover, Switzerland believes that the CRF should make this clear and encourage all Annex I Parties to follow only approach 3. According to chapter 4.2.3.4, the same tier or a higher tier should be used as the one that was used in the UNFCCC GHG inventory. As a consequence, we believe tier 1 to be only appropriate for reporting on litter, dead wood and soil organic carbon stocks, given it has been demonstrated that their net change in carbon stocks is zero.
3. Tables 4.2.6 in the IPCC Good Practice Guidance for LULUCF do not include columns “increase of above-ground biomass” and “decrease of below-ground biomass”. Using a stock change approach as used in higher tiers, provides net change and does not provide increase and decrease of above-ground biomass. Therefore, a single column for the net changes is needed, which merges the columns for increase and decrease. We believe this to be a critical issue, since the CRF must not encourage Parties to use lower tiers where not appropriate. For the case that Parties would wish to retain separate columns for increase and decrease, we would recommend that at least column G is not coloured and footnote 6 of table A1, A2 and A3 should read as follows: “Parties using a stock-change method (equation 3.1.2 of draft Good Practice Guidance for LULUCF) do not need to provide estimates for both decreases and increases in carbon stocks from above-ground biomass. For the choice of methods Parties are to be cognizant of the considerations elaborated in section 4.2.3.4 of the IPCC Good Practice Guidance for LULUCF”.
4. The CRF in UNFCCC/SBSTA/2003/INF.11 does not specify how emissions and removals from projects shall be reported. The IPCC Good Practice Guidance uses a separate table for projects under Article 6. It should be clearly stated where and how emissions and removals of activities according to Article 6 should be reported. In particular it needs to be stated clearly, whether projects have to be identified by their own project-specific ID of geographical location or whether they could also be included together with non-project lands in an area with an ID which is not project-specific. For reasons of transparency and verifiability we wish to have only the first option in the CRF.
5. According to table A.1 it has to be indicated, whether land afforested or reforested but not harvested during the first commitment period is also eligible to an Article 3.4 activity. Consequently, in the summary table after row A.1 a new row is to be inserted, which reads: “Afforestation and Reforestation: Lands not harvested and subjected to elected activities under Article 3.4” and contains analogous information as the row, which follows row A.2. Furthermore the labelling of the latter should be changed to the following: “Afforestation and Reforestation: Lands harvested and subjected to elected activities under Article 3.4”.
6. Switzerland has the view, that relevant country-specific data as defined in the Kyoto Protocol and in the Marrakesh Accords should be integrated in the CRF. We believe this to be also in the spirit of Articles 3.3 and 3.4 of the Kyoto Protocol, which demand that "(...) The greenhouse gas emissions by sources and removals by sinks associated with those activities shall be reported in a transparent and verifiable manner (...) each Party included in Annex I shall provide data to establish its level of carbon stock and to enable an estimate to be made of its changes. (...) taking into account uncertainties, transparency in reporting, verifiability, (...)". Concerning the Marrakesh Accords see

e.g. paragraphs 3(a), 3(b) and 3(c) in the Annex to draft decision -/CMP.1 (Articles 5.1), contained in FCCC/CP/2001/13/Add.3, pp.4-5. For these reasons, we propose to introduce a small cover sheet giving an overview and summarizing the following country-specific data:

- Elected activities under Article 3.4
- Forest definition
- Total forest area
- Total cropland area
- Total grassland area
- Total revegetation area if revegetation is elected
- Chosen method of land area identification (IPCC GPG LULUCF)
- Cap for forest management if elected (Art. 3.4 and 6)
- Current carbon stock in managed forests if forest management is elected
- Current carbon stock in cropland if cropland management is elected
- Current carbon stock in grassland if grazing land management is elected
- Current carbon stock in revegetation lands if revegetation is elected

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