

SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE Twentieth session Bonn, 16–25 June 2004

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

# Draft tables of the common reporting format for land use, land-use change and forestry activities under the Kyoto Protocol

## Note by the secretariat

## Summary

The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its nineteenth session, requested the secretariat to update the draft tables of the common reporting format for land use, land-use change and forestry (LULUCF) activities under the Kyoto Protocol, contained in document FCCC/SBSTA/2003/INF.11, taking into account submissions by Parties, to facilitate their further consideration by the SBSTA at its twentieth session. This note contains an updated version of these tables, a description of the structure followed and brief background information on the reporting of LULUCF activities under the Kyoto Protocol.

## CONTENTS

		Paragraphs	Page
I.	INTRODUCTION		3
	A. Mandate		3
	B. Scope of the note		3
		Subsidiary Body for Scientific and 4	3
II.	BACKGROUND		3
III.	CHANGE AND FORESTRY A	MAT FOR LAND USE, LAND-USE ACTIVITIES UNDER THE 	4

## Annex

Draft tables of the common reporting format for land use, land-use change and	
forestry activities under the Kyoto Protocol	7

# I. Introduction

## A. Mandate

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its nineteenth session, decided to consider, at its twentieth session, tables of the common reporting format (CRF) for land use, land-use change and forestry (LULUCF) activities under the Kyoto Protocol, based on the report by the Intergovernmental Panel on Climate Change (IPCC) entitled *Good Practice Guidance for Land Use, Land-Use Change and Forestry* (hereinafter referred to as the IPCC good practice guidance for LULUCF), with a view to recommending a draft decision on good practice guidance for LULUCF under the Kyoto Protocol for adoption by the Conference of the Parties (COP) at its tenth session.

2. The SBSTA, also at its nineteenth session, invited Parties to submit to the secretariat 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 requested the secretariat to update these tables, taking into account submissions by Parties (see FCCC/SBSTA/2004/MISC.1), to facilitate the further consideration of this topic by the SBSTA at its twentieth session.

## B. Scope of the note

3. This note includes updated tables of the CRF for LULUCF activities under the Kyoto Protocol based on submissions by Parties and on the tables of the CRF for the LULUCF categories for reporting under the Convention, adopted by the COP by its decision 13/CP.9. The tables included in chapter 4 of the IPCC good practice guidance for LULUCF were also taken into account when developing this document. This note also provides a brief background on the reporting of LULUCF under the Kyoto Protocol and a description of the structure of the updated tables.

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

4. The SBSTA may wish to agree upon the tables included in the annex to this document and to prepare a draft decision for consideration and adoption by the COP at its tenth session, containing a draft decision to be forwarded to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP) at its first session.

## **II. Background**

5. Article 3, paragraph 3 (Article 3.3) of the Kyoto Protocol states that the net changes in greenhouse gas (GHG) emissions by sources and removals by sinks resulting from direct human-induced land-use change and forestry activities, limited to afforestation, reforestation and deforestation since 1990, shall be used to meet the commitments under Article 3 of each Party included in Annex I to the Convention (Annex I Parties). It also states that the GHG emissions by sources and removals by sinks associated with those activities shall be reported in a transparent and verifiable manner and reviewed in accordance with Articles 7 and 8 of the Kyoto Protocol.

6. Article 3, paragraph 4 (Article 3.4) of the Kyoto Protocol provides for the COP/MOP to decide upon modalities, rules and guidelines as to how, and which, additional human-induced activities relating to changes in GHG emissions by sources and removals by sinks in the agricultural soils and the land-use change and forestry categories shall be added to, or subtracted from, the assigned amount of Annex I Parties.

7. Draft decision -/CMP.1 (*Land use, land-use change and forestry*), attached to decision 11/CP.7, contains provisions for the implementation of Article 3.3 and 3.4. This decision includes a set of

principles that govern the treatment of LULUCF activities under the Kyoto Protocol, and an annex with definitions, modalities, rules and guidelines that apply to them. Eligible activities include afforestation, reforestation and deforestation under Article 3.3 and forest management, cropland management, grazing land management and revegetation under Article 3.4.

8. Reporting requirements relating to GHG inventory information for Article 3.3 and 3.4 are contained in section I.D of the annex to draft decision -/CMP.1 (*Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol*), attached to decision 22/CP.7. These requirements were developed on the basis of draft decision -/CMP.1 (*Land use, land-use change and forestry*).

9. The COP, by its decision 13/CP.9, decided to use, for a trial period covering inventory submissions due in 2005, the tables of the CRF for the LULUCF categories for reporting under the Convention. This CRF was elaborated taking into account the IPCC good practice guidance for LULUCF and comprises 12 tables and six reporting categories; the categories are forest land, cropland, grasslands, wetlands, settlements and other lands. Sectoral background tables further divide these categories into lands that have not been subject to a land-use change since the latest report (for example, "forest land" remaining "forest land") and other lands that have been subject to a land-use change (for example, "other lands" converted into "forest land"). The tables provide a means for reporting emissions and removals from living biomass (increases, decreases and net changes), dead organic matter and soils. Five additional background tables provide a format for reporting: direct N<sub>2</sub>O emissions from nitrogen fertilization; N<sub>2</sub>O emissions from drainage of soils; N<sub>2</sub>O emissions from disturbance associated with land-use conversion to cropland; carbon emissions from agricultural lime application; and GHG emissions from biomass burning.

# III. Common reporting format for land use, land-use change and forestry activities under the Kyoto Protocol

10. In developing the tables included in the annex to this document, an effort has been made to follow the tables included in chapter 4 of the IPCC good practice guidance for LULUCF while maintaining consistency with the tables of the CRF adopted by decision 13/CP.9. An effort has also been made to include all suggested changes and/or additions included in the submissions from Parties referred to in paragraph 2 above.

11. The requirements referred to in paragraph 8 above make the reporting of GHG inventory information on LULUCF under the Kyoto Protocol different from that under the Convention. Reporting under the Kyoto Protocol has the following features:

- (a) It is activity based, limited to afforestation, reforestation, deforestation, forest management, grazing land management and revegetation;
- (b) Information on anthropogenic GHG emissions by sources and removals by sinks shall be reported for all the areas of land that encompass units of lands subject Article 3.3 activities and lands subject to elected Article 3.4 activities;
- (c) Specific provisions in the annex to draft decision -/CMP.1 (*Land use, land-use change and forestry*) require, inter alia, the reporting of the geographical locations of the areas referred to in paragraph 11 (b) above, the disaggregation of activities under Article 3.3, and the accounting and reporting of five different pools (above-ground biomass, below-ground biomass, litter, dead wood and soil organic carbon).

12. As a result of the above-mentioned features, the CRF tables have been drafted in such a way as to ensure that the information on anthropogenic GHG emissions by sources and removals by sinks is reported by activity and by geographical location.<sup>1</sup> The following is the general structure of the tables:

- (a) Three tables to be included in the national inventory report (NIR tables) for reporting information other than data, such as choices and methods, including:
  - (i) A summary table on activity coverage and information on choices relating to activities under Article 3.3 and elected activities under Article 3.4;
  - (ii) A land transition matrix, based on table 4.2.5 of the IPCC good practice guidance for LULUCF, to provide information on land-use changes (e.g. changes in activity) between inventory years;
  - (iii) A summary table to report information on the geographical locations reported by each Party, including area information, methods for reporting areas of land and for identifying the boundaries of each, and other characteristics of the geographical locations.
- (b) One sectoral table for reporting aggregated GHG information from Article 3.3 activities and elected activities under Article 3.4.
- (c) A set of nine sectoral background tables for reporting information on changes in carbon stocks resulting from activities under Article 3.3 and elected activities under Article 3.4, organized as follows:
  - (i) Afforestation and Reforestation are reported together: three tables allow Parties to report separately information for all geographical locations harvested and not harvested during the first commitment period, in accordance with paragraph 8 (c) of the annex to draft decision -/CMP.1 (*Article 7*), and for all areas that encompass units of land which would otherwise be included in lands subject to activities under Article 3.4, in accordance with paragraph 6 (b) (ii) of the annex to draft decision -/CMP.1 (*Article 7*);
  - (ii) Deforestation: two tables allow Parties to report separately information for all geographical locations subject to deforestation under Article 3.3, and for all areas that encompass units of land which would otherwise be included in lands subject to activities under Article 3.4, in accordance with paragraph 6 (b) (ii) of the annex to draft decision -/CMP.1 (*Article 7*);
  - (iii) Forest Management, Cropland Management, Grazing Land Management and Revegetation: one table for each activity allows Parties to report information for all areas that encompass lands subject to the activities that have been elected under Article 3.4.
- (d) A set of five sectoral background tables for reporting information on anthropogenic GHG emissions not associated with changes in carbon stocks: direct N<sub>2</sub>O emissions from nitrogen fertilization; N<sub>2</sub>O emissions from drainage of soils; N<sub>2</sub>O emissions from disturbance associated with land-use conversion to cropland; carbon emissions from lime application; and GHG emissions from biomass burning.

<sup>&</sup>lt;sup>1</sup> Geographical location refers to the boundaries of the areas that encompass units of land subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4.

13. Information on anthropogenic GHG emissions by sources and removals by sinks should be reported by geographical location. In order to facilitate the identification of all geographical locations, as well as the tracking of emissions and removals throughout commitment periods, it is proposed that an identification code be given to each location. All tables have a column for reporting this code.

14. Finally, Parties should report GHG information for all five pools identified in paragraph 21 of the annex to draft decision -/CMP.1 (*Land use, land-use change and forestry*), namely: above-ground biomass, below-ground biomass, litter, dead wood and soil organic carbon. The sectoral background tables relating to changes in carbon stocks include separate columns for each pool.

#### Draft tables of the common reporting format for land use, land-use change and forestry activities under the Kyoto Protocol

#### TABLE NIR 1. SUMMARY TABLE

Activity coverage and other information relating to activities under Article 3.3 and elected activities under Article 3.4

				Change	in carbon pool rep	orted <sup>(2)</sup>			Greenh	ouse gas sources r	eported <sup>(2)</sup>			
	Activity	Number of geographical locations <sup>(1)</sup>	Above-ground biomass	Below-ground biomass	Litter	Dead wood	Soil	Fertilization <sup>(3)</sup>	Drainage of soils under forest management	Disturbance associated with land-use conversion to croplands	Liming <sup>(4)</sup>	Bio	nass bur	ning <sup>(5)</sup>
								N <sub>2</sub> O	N <sub>2</sub> O	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
Article 3.3 activities	Afforestation and deforestation													
activities	Deforestation													
	Forest Management													
Article 3.4	Cropland Management													
activities <sup>(6)</sup>	Grazing Land Management													
	Revegetation													

(1) Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. The total number of geographical locations per activity should be reported here.

(2) Indicate R (reported), NR (not reported) or IE (included elsewhere), for each relevant activity under Article 3.3 or elected activity under Article 3.4.

(3) N<sub>2</sub>O emissions from fertilization for Cropland Management, Grazing Land Management and Revegetation should be reported in the Agriculture sector. If a Party is not able to separate fertilizer applied to Forest Land from Agriculture, it may report all N<sub>2</sub>O emissions from fertilization in the Agriculture sector.

<sup>(4)</sup> Indicate L (limestone) or D (dolomite). If limestone cannot be differentiated, report as U (undifferentiated).

(5) If CO<sub>2</sub> emissions from biomass burning are not already included under changes in carbon stocks, they should be reported under biomass burning; this also includes the carbon component of CH<sub>4</sub>. Parties that include emissions from fire under carbon stock changes should report IE (included elsewhere).

(6) The specific management practices that the Party uses to assign land to the elected activities under Article 3.4 should be described in the NIR.

#### Table NIR 1.1 Additional information Selection of parameters for defining "Forest"under the Kyoto Protocol

Parameter	Range	Selected value
Minimum land area	0.05 - 1 ha	
Crown cover	10 - 30 %	
Minimum height	2 - 5 m	
Minimum width	N/A	

## Table NIR 1.2 Additional information

Hierarchy of activities under Article 3.4. (1)

	Forest Management	Cropland Management	Grazing Land Management	Revegetation
Hierarchy				

<sup>(1)</sup> Indicate the level of hierarchy for each activity as 1 (highest), 2, 3 or 4 (lowest).

### Table NIR 2. LAND TRANSITION MATRIX

Area change between the previous and the current inventory year <sup>(1), (2), (3)</sup>

		Article 3.	3 activities		Article 3.4	activities		
	то	Afforestation and reforestation	Deforestation	Forest Management	Cropland Management	Grazing Land Management	Revegetation	Total
FROM					(kha)			
TROM	<u> </u>	Α	В	С	D	E	F	G
Article 3.3 activities	Afforestation and reforestation <sup>(4)</sup>							
	Deforestation							
	Forest Management							
Article 3.4	Cropland Management <sup>(5)</sup>							
activities	Grazing Land Management <sup>(5)</sup>							
	Revegetation							
Other								
Total area								

<sup>(1)</sup> This table is based on table 4.2.5 of the IPCC good practice guidance for LULUCF. It should be used to report changes of land use subject to the various activities in the inventory year. For example, the total area of geographical locations of forest that were under Forest Management in the year preceding the inventory year, and which were deforested in the inventory year, should be reported in the cell in column C and in the row of Forest Management.

<sup>(2)</sup> Some of the transitions in the matrix may not be possible and the cells concerned have been shaded.

<sup>(3)</sup> In accordance with section 4.2.3.2 of the IPCC good practice guidance for LULUCF, the value of the reported area subject to the various activities under Article 3.3 and 3.4 for the inventory year should be that on 31 December of that year.

<sup>(4)</sup> Lands subject to Afforestation or Reforestation which are deforested before the end of the commitment period should still be reported under Afforestation and Reforestation.

<sup>(5)</sup> Lands subject to Cropland Management or Grazing Land Management which, after 2008, are subject to activities other than those under Article 3.3 and 3.4, should still be tracked and reported under Cropland Management or Grazing Land Management, respectively.

# Table NIR 3. SUMMARY TABLEGeographical locations

Identification code of geographical location <sup>(1)</sup>	Total area of geographical location (kha)	Activity to which the geographical location is subject <sup>(2)</sup>	Reporting method for land area <sup>(3)</sup>	Method of identifying boundaries of the geographical location <sup>(4)</sup>	Other characteristics of the geographical location <sup>(5)</sup>
Total for the country					
[specify identification code]					
•••					

<sup>(1)</sup> Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

<sup>(2)</sup> Indicate A/R (Afforestation or Reforestation), D (Deforestation), FM (Forest Management), CM (Cropland Management), GM (Grazing Land Management) or RV (Revegetation).

<sup>(3)</sup> Indicate method 1, method 2, or a combination of both.

<sup>(4)</sup> Indicate the method followed to identify the boundaries of the geographical location as well as the coordinate system used (e.g. UTM).

<sup>(5)</sup> Specify other characteristics of the geographical location (e.g. type of vegetation or climate).

GREENHOUSE GAS SOURCE AND SINK ACTIVITIES	Net CO <sub>2</sub> emissions/ removals <sup>(3), (4)</sup>	CH4 <sup>(5)</sup>	N <sub>2</sub> O <sup>(6)</sup>
		(Gg)	
	Α	В	С
A. Article 3.3 activities			
A.1. Afforestation and Reforestation <sup>(7)</sup>			
A.1.1. Areas <sup>(8)</sup> not harvested during the first commitment period			
A.1.2. Areas <sup>(8)</sup> harvested during the first commitment period			
A.2. Deforestation			
B. Article 3.4 activities			
B.1. Forest Management			
B.2. Cropland Management			
B.3. Grazing Land Management			
B.4. Revegetation			
Information items <sup>(9)</sup>			
A.1.3. Afforestation and reforestation: areas <sup>(8)</sup> also subject to elected activities under Article 3.4			
A.2.1. Deforestation: areas <sup>(8)</sup> also subject to elected activities under Article 3.4			

#### Documentation box

Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

<sup>(1)</sup> All estimates in this table include emissions and removals from projects under Article 6 hosted by the reporting Party.

- <sup>(2)</sup> If Cropland Management, Grazing Land Management and/or Revegetation are elected, this table and all relevant tables should also be reported for the base year for these activities.
- <sup>(3)</sup> 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 CO<sub>2</sub>
- by multiplying C by 44/12 and by changing the sign for net  $CO_2$  removals to be negative (-) and net  $CO_2$  emissions to be positive (+).
- <sup>(4)</sup> CO<sub>2</sub> emissions from liming, biomass burning and drained organic soils, where applicable, are included in this column.
- (5) CH<sub>4</sub> emissions reported here for Cropland Management, Grazing Land Management and Revegetation, if elected, include only emissions from biomass burning (with the exception of

savannah burning and agricultural residue burning which are reported in the Agriculture sector). Any other CH<sub>4</sub> emissions from these activities should be reported in the Agriculture sector.

<sup>(6)</sup> N<sub>2</sub>O emissions reported here for Cropland Management, if elected, include only emissions from biomass burning (with the exception of savannah burning and agricultural residue burning which are reported in the Agriculture sector) and N<sub>2</sub>O from conversion to Cropland of lands other than Forest Land (Table 5(KP-II)3). Any other N<sub>2</sub>O emissions should be reported in the Agriculture sector.

<sup>(7)</sup> As both Afforestation and Reforestation under Article 3.3 are subject to the same provisions specified in the annex to draft decision -/CMP.1 (*Land use, land-use change and forestry*), attached to decision 11/CP.7, they can be reported together.

<sup>(8)</sup> Areas means the areas that encompass units of land subject to activites under Article 3.3.

<sup>(9)</sup> Areas subject to Afforestation, Reforestation or Deforestation under Article 3.3 also subject to elected activities under Article 3.4 are implicitly included under A.1.1, A.1.2 or A.2. They are reported here for transparency and to fulfil the requirement of paragraph 6 (b) (ii) of the annex to draft decision -/CMP.1 (*Article* 7), attached to decision 22/CP.7.

#### TABLE 5(KP-I)A.1.1. SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL

Article 3.3 activities: Afforestation and Reforestation <sup>(1), (2)</sup>

Areas not harvested during the first commitment period

GEOGRAPHIC	AL LOCATION (3)	ACTIVITY DATA				IMPLIEI	D EMISSIO	N FACTOR	s						EMIS	SIONS/REM	MOVALS			
		Total area		tock change ind biomass			tock change und biomass		Net carbon stock	STOCK	Net carbon	Carbon s grou	tock change und biomass	in above- (5), (6)		tock change und biomass		Net carbon stock	btoth	Net carbon stock
Identification code	Subdivision <sup>(4)</sup>	subject to the activity	Increase	Decrease	Net change	Increase	Decrease	Net change	change in litter <sup>(5)</sup>	change in dead wood <sup>(5)</sup>	change in soils <sup>(5)</sup>	Increase	Decrease	Net change	Increase	Decrease	Net change	change in litter <sup>(5)</sup>	change in dead wood <sup>(5)</sup>	change in soils <sup>(5)</sup>
		(kha)					(Mg C/ha	i)								(Gg C)				
		Α	В	С	D	E	F	G	H	I	J	K	L	М	N	0	Р	Q	R	S
Total for activity A	.1.1																			
[specify identification code]	[specify subdivision]																			

#### Documentation box

Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

(1) Report here information on anthropogenic greenhouse gas emissions by sources and removals by sinks since the beginning of the commitment period or the onset of the activity, whichever comes later, for all geographical locations that encompass units of land subject to Afforestation and Reforestation under Article 3.3 not harvested during the first commitment period.

(2) As both Afforestation and Reforestation under Article 3.3 are subject to the same provisions specified in the annex to draft decision -/CMP.1 (Land use, land-use change and forestry), attached to decision 11/CP.7, they can be reported together.

(3) Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

(4) Geographical locations may be further divided according to climate zones, management system, soil type, vegetation type, tree species, ecological zones or national land classification. Complete one row for each subdivision.

<sup>(5)</sup> The signs for estimates of increases in carbon stocks are positive (+) and of decreases in carbon stocks are negative (-).

(6) 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.

Country Year Submission

#### TABLE 5(KP-I)A.1.2. SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL Article 3.3 activities: Afforestation and Reforestation <sup>(1), (2)</sup>

Areas harvested during the first commitment period

GEOGRAPHICA	L LOCATION <sup>(3)</sup>	ACTIVITY DATA				IMPLIED	EMISSION	FACTORS							EMISS	SIONS/REM	OVALS				
		Total area		tock change and biomass			tock change ind biomass		Net carbon stock	stock	Net carbon stock	Carbon s grou	tock change and biomass			stock change und biomass		Net carbon stock	Net carbon stock change in	Net carbon stock	
Identification code	Subdivision <sup>(4)</sup>		activity	Increase	Decrease	Net change	Increase	Decrease	Net change	change in litter <sup>(5)</sup>	change in dead wood <sup>(5)</sup>	change in soils <sup>(5)</sup>	Increase Decrease		Net change	Increase	Decrease	Net change	change in litter <sup>(5)</sup>	dead wood <sup>(5)</sup>	change in soils <sup>(5)</sup>
		(kha)					(Mg C/ha)									(Gg C)					
		Α	В	С	D	Е	F	G	H	I	J	K	L	М	N	0	Р	Q	R	S	
Total for activity A.1.2																					
[specify identification code]	[specify subdivision]																				
	•••																				

#### Documentation box

Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

(1) Report here information on anthropogenic greenhouse gas emissions by sources and removals by sinks since the beginning of the commitment period or the onset of the activity, whichever comes later, for all geographical locations that encompass units of land subject to Afforestation and Reforestation under Article 3.3 harvested during the first commitment period.

(2) As both Afforestation and Reforestation under Article 3.3 are subject to the same provisions specified in the annex to draft decision -/CMP.1 (Land use, land-use change and forestry), attached to decision 11/CP.7, they can be reported together.

(3) Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

(4) Geographical locations may be further divided according to climate zones, management system, soil type, vegetation type, tree species, ecological zones or national land classification. Complete one row for each subdivision.

<sup>(5)</sup> The signs for estimates of increases in carbon stocks are positive (+) and of decreases in carbon stocks are negative (-).

(6) 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 5(KP-I)A.1.3. SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL

#### Article 3.3 activities: Afforestation and Reforestation (1), (2)

Areas also subject to elected activities under Article 3.4 (information item)

GEOGRAPHICA	L LOCATION <sup>(3)</sup>	ACTIVITY DATA				IMPLIED	EMISSION	FACTORS							EMISS	IONS/REM	OVALS			
		Total area		tock change Ind biomass			tock change ind biomass		Net carbon stock	Net carbon stock	Net carbon stock		tock change Ind biomass <sup>(</sup>			tock change ind biomass		Net carbon stock	Net carbon stock	Net carbon stock
Identification code	Subdivision <sup>(4)</sup>	subject to the activity	Increase	Decrease	Net change	Increase	Decrease	Net change	change in litter <sup>(5)</sup>		change in soils <sup>(5)</sup>	Increase	Decrease	Net change	Increase	Decrease	Net change	change in litter <sup>(5)</sup>	change in dead wood <sup>(5)</sup>	change in soils <sup>(5)</sup>
		(kha)					(Mg C/ha)									(Gg C)				
		Α	В	С	D	E	F	G	H	I	J	K	L	М	N	0	Р	Q	R	S
Total for activity A.1.3																				
[specify identification																			1	
code]	[specify subdivision]																		ļ'	

#### Documentation box

Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

(1) Areas subject to Afforestation or Reforestation under Article 3.3 also subject to elected activities under Article 3.4 are implicitly included under A.1.1 or A.1.2. They are reported here for transparency and to fulfill the requirement of paragraph 6 (b) (ii) of the annex to draft decision -/CMP.1 (*Article* 7), attached to decision 22/CP.7. Report here information on anthropogenic greenhouse gas emissions by sources and removals by sinks since the beginning of the commitment period or the onset of the activity, whichever comes later, for all geographical locations that encompass units of land subject to Afforestation under Article 3.4 which would otherwise be included in land subject to elected activities under Article 3.4.

(2) As both Afforestation and Reforestation under Article 3.3 are subject to the same provisions specified in the annex to draft decision -/CMP.1 (Land use, land-use change and forestry), attached to decision 11/CP.7, they can be reported together.

(3) Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

(4) Geographical locations may be further divided according to climate zones, management system, soil type, vegetation type, tree species, ecological zones or national land classification. Complete one row for each subdivision.

<sup>(5)</sup> The signs for estimates of increases in carbon stocks are positive (+) and of decreases in carbon stocks are negative (-).

(6) 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.

Country Year Submission TABLE 5(KP-I)A.2. SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL Article 3.3 activities: Deforestation <sup>(1)</sup>

GEOGRAPHICA	L LOCATION <sup>(2)</sup>	ACTIVITY DATA				IMPLIED	EMISSION	FACTORS							EMISS	IONS/REM	OVALS			
		Total area	Carbon s grou	tock change Ind biomass	in above- (4), (5)	Carbon s grou	tock change nd biomass	in below- (4), (5)	Net carbon stock	Net carbon stock	Net carbon stock change in	Carbon s grou	tock change Ind biomass	in above- (4), (5)		tock change ind biomass		Net carbon	Net carbon stock	Net carbon
Identification code	Subdivision <sup>(3)</sup>		Increase	Decrease	Net change	Increase	Decrease	Net change	change in	change in	soils (4)	Increase	Decrease	Net change	Increase	Decrease	Net change	stock change in litter <sup>(4)</sup>		stock change in soils <sup>(4)</sup>
		(kha)					(Mg C/ha)									(Gg C)				
		Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S
Total for activity A.2.																				
[specify identification code]	[specify subdivision]																			

#### Documentation box

Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

(1) Report here information on anthropogenic greenhouse gas emissions by sources and removals by sinks since the beginning of the commitment period or the onset of the activity, whichever comes later, for all geographical locations that encompass units of land subject to Deforestation under Article 3.3.

(2) Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

(3) Geographical locations may be further divided according to climate zones, management system, soil type, vegetation type, tree species, ecological zones or national land classification. Complete one row for each subdivision.

<sup>(4)</sup> The signs for estimates of increases in carbon stocks are positive (+) and of decreases in carbon stocks are negative (-).

(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 5(KP-I)A.2.1. SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL

#### Article 3.3 activities: Deforestation<sup>(1)</sup>

Areas also subject to elected activities under Artcile 3.4 (information item)

GEOGRAPH	ICAL LOCATION <sup>(2)</sup>	ACTIVITY DATA				IMPLIED	EMISSION	FACTORS	5						EMISS	IONS/REM	OVALS			
		Total area		tock change nd biomass			tock change nd biomass		Net carbon	Net carbon stock	Net carbon		tock change ind biomass			tock change Ind biomass		Net carbon	Net carbon stock	Net carbon
Identification code	Subdivision <sup>(3)</sup>	subject to the activity	Increase	Decrease	Net change	Increase	Decrease	Net change	stock change in litter <sup>(4)</sup>	change in dead wood (4)	stock change in soils <sup>(4)</sup>	Increase	Decrease	Net change	Increase	Decrease	Net change	stock change in litter <sup>(4)</sup>	change in dead wood <sup>(4)</sup>	stock change in soils <sup>(4)</sup>
		(kha)					(Mg C/ha)									(Gg C)				
		Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S
Total for activit	ty A.2.1.																			
[specify identification code]	[specify subdivision]																			
	[specify subarvision]																			

#### Documentation box

Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

(1) Areas subject to Deforestation under Article 3.3 also subject to elected activities under Article 3.4 are implicitly included under A.2.1. They are reported here for transparency and to fulfil the requirement of paragraph 6 (b) (ii) of the annex to draft decision -/CMP.1 (*Article* 7), attached to decision 22/CP.7. Report here information on anthropogenic greenhouse gas emissions by sources and removals by sinks since the beginning of the commitment period or the onset of the activity, whichever comes later, for all geographical locations that encompass units of land subject to Deforestation under Article 3.3 which would otherwise be included in land subject to elected activities under Article 3.4.

(2) Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

(3) Geographical locations may be further divided according to climate zones, management system, soil type, vegetation type, tree species, ecological zones or national land classification. Complete one row for each subdivision.

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

(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.

Country Year Submission TABLE 5(KP-I)B.1. SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL Elected Article 3.4 activities: Forest Management <sup>(1)</sup>

GEOGRAPHICA	L LOCATION <sup>(2)</sup>	ACTIVITY DATA				IMPLIED	EMISSION	FACTORS							EMISS	IONS/REM	OVALS			
	Subdivision <sup>(3)</sup>	Total area	Carbon s grou	Carbon stock change in above- ground biomass <sup>(4), (5)</sup>		Carbon stock change in below- ground biomass <sup>(4), (5)</sup>		Net carbon	Net carbon stock	Net carbon	Carbon stock change in above- ground biomass <sup>(4), (5)</sup>			tock change ind biomass		Net carbon	Net carbon stock	Net carbon		
Identification code		subject to the activity	Increase	Decrease	Net change	Increase	Decrease	Net change		change in dead wood (4)			Decrease	Net change	Increase	Decrease	Net change	stock change in litter <sup>(4)</sup>	change in dead wood <sup>(4)</sup>	stock change in soils <sup>(4)</sup>
		(kha)		(Mg C/ha)							(Gg C)									
		Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S
Total for activity B.1																				
[specify identification code]	[specify subdivision]																			

#### Documentation box

Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

(1) If Forest Management has been elected, report here information on anthropogenic greenhouse gas emissions by sources and removals by sinks since the beginning of the commitment period or the onset of the activity, whichever comes later, for all geographical locations that encompass land subject to Forest Management under Article 3.4.

(2) Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

(3) Geographical locations may be further divided according to climate zones, management system, soil type, vegetation type, tree species, ecological zones or national land classification. Complete one row for each subdivision.

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

(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 5(KP-I)B.2 SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL Elected Article 3.4 activities: Cropland Management <sup>(1), (2)</sup>

17

Country Year Submission

	APHICAL ATION <sup>(3)</sup>	ACTIVITY DATA				IMP	LIED EMIS	SSION FAC	TORS							E	MISSIONS	/REMOVA	LS							
Identification code	Subdivision <sup>(4)</sup>	Total area subject to the activity		tock change ind biomass			tock change nd biomass		Net carbon stock change in	Net carbon stock change in dead wood	Net carb change i			tock change ind biomass			tock change nd biomass		Net C stock change in litter <sup>(5)</sup>	Net carbon stock change in dead	Net carb change i					
coue					_	_	(kha)	Increase	Decrease	Net change	Increase	Decrease	Net change	litter <sup>(5)</sup>	(5)	Mineral soils	Organic soils	Increase	Decrease	Net change	Increase	Decrease	Net change	nuer	wood <sup>(5)</sup>	Mineral soils
		(kha)					(Mg	C/ha)					(Gg C)													
		A	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U				
Total for activit	ty B.2																									
[specify identification code]	[specify subdivision]																									

#### Documentation box

Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

(1) If Cropland Management has been elected, report here information on anthropogenic greenhouse gas emissions by sources and removals by sinks since the beginning of the commitment period or the onset of the activity, whichever comes later, for all geographical locations that encompass land subject to Cropland Management under Article 3.4

(2) If Cropland Management has been elected, this table and all relevant tables should also be reported for the base year for Cropland Management.

(3) Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

(4) Geographical locations may be further divided according to climate zones, management system, soil type, vegetation type, tree species, ecological zones or national land classification. Complete one row for each subdivision.

<sup>(5)</sup> The signs for estimates of increases in carbon stocks are positive (+) and of decreases in carbon stocks are negative (-).

(6) 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.

<sup>(7)</sup> Because there are no changes in carbon stocks in organic soils, the value reported here is an emission of CO<sub>2</sub>.

TABLE 5(KP-I)B.3 SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL Elected Article 3.4 activities: Grazing Land Management <sup>(1), (2)</sup>

GEOGRA LOCA	APHICAL ΓΙΟΝ <sup>(3)</sup>	ACTIVITY DATA				IMPI	LIED EMIS	SSION FAC	TORS							E	MISSIONS	REMOVA	LS							
Identification code	Subdivision <sup>(4)</sup>	Total area subject to the activity	Total area subject to the activity	Total area subject to the activity	Carbon st grou	tock change ind biomass	e in above- (5), (6)	Carbon st grou	tock change nd biomass	(5), (6)	Net carbon stock change in	Net carbon stock change in dead wood		on stock n soils <sup>(5)</sup>	Carbon st grou	ock change nd biomass	in above- (5), (6)	Carbon s grou	tock change nd biomass	: <b>in below-</b> (5), (6)	Net C stock change in litter <sup>(5)</sup>	Net carbon stock change in dead	Net carb change i			
code								(kha)	(kha)	(kho)	Increase	Decrease	Net change	Increase	Decrease	Net change	litter <sup>(5)</sup>	(5)	Mineral soils	Organic soils	Increase	Decrease	Net change	Increase	Decrease	Net change
		(kha)					(Mg	C/ha)					(Gg C)													
		Α	В	С	D	E	F	G	H	I	J	K	L	М	N	0	Р	Q	R	S	Т	U				
Total for activi	ty B.3																									
[specify identification code]	[specify subdivision]																									

#### Documentation box

Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

(1) If Grazing Land Management has been elected, report here information on anthropogenic greenhouse gas emissions by sources and removals by sinks since the beginning of the commitment period or the onset of the activity, whichever comes later,

for all geographical locations that encompass land subject to Grazing Land Management under Article 3.4.

(2) If Grazing Land Management has been elected, this table and all relevant CRF Tables should also be reported for the base year for Cropland Management.

(3) Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

(4) Geographical locations may be further divided according to climate zones, management system, soil type, vegetation type, tree species, ecological zones or national land classification. Complete one row for each subdivision.

<sup>(5)</sup> The signs for estimates of increases in carbon stocks are positive (+) and of decreases in carbon stocks are negative (-).

(6) 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.

<sup>(7)</sup> Because there are no changes in carbon stocks in organic soils, the value reported here is an emission of CO<sub>2</sub>.

TABLE 5(KP-I)B.4 SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL Elected Article 3.4 activities: Revegetation <sup>(1), (2)</sup>

GEOGRA LOCA	APHICAL TION <sup>(3)</sup>	ACTIVITY DATA				IMP	LIED EMIS	SION FAC	TORS							Е	MISSIONS	/REMOVA	LS			
Identification code	Subdivision <sup>(4)</sup>	Total area subject to the activity	Carbon st grou	tock change and biomass	in above- (5), (6)		tock change nd biomass		Net carbon stock change in	Net carbon stock change in dead wood				tock change ind biomass			tock change nd biomass		Net C stock change in litter <sup>(5)</sup>	Net carbon stock change in dead	Net carb change i	
couc			Increase	Decrease	Net change	Increase	Decrease	Net change	litter <sup>(5)</sup>	(5)	Mineral soils	Organic soils	Increase	Decrease	Net change	Increase	Decrease	Net change	inter	wood <sup>(5)</sup>	Mineral soils	Organic soils <sup>(7)</sup>
		(kha)					(Mg	C/ha)					(Gg C)									
		Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U
Total for activi	ty B.4																					
[specify identification code]	[specify subdivision]																					

#### Documentation box

Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

(1) If Revegetation has been elected, report here information on anthropogenic greenhouse gas emissions by sources and removals by sinks since the beginning of the commitment period or the onset of the activity, whichever comes later, for all geographical locations that encompass land subject to Revegetation under Article 3.4.

<sup>(2)</sup> If Revegetation has been elected, this table and all relevant tables should also be reported for the base year for Revegetation.

(3) Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

(4) Geographical locations may be further divided according to climate zones, management system, soil type, vegetation type, tree species, ecological zones or national land classification. Complete one row for each subdivision.

<sup>(5)</sup> The signs for estimates of increases in carbon stocks are positive (+) and of decreases in carbon stocks are negative (-).

(6) 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.

<sup>(7)</sup> Because there are no changes in carbon stocks in organic soils, the value reported here is an emission of CO<sub>2</sub>.

# TABLE 5(KP-II)1 SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL Direct N<sub>2</sub>O emissions from N fertilization <sup>(1), (2)</sup>

	ACTIVITY DATA	IMPLIED EMISSION FACTOR	EMISSIONS
Identification code of geographical location <sup>(3)</sup>	Total amount of fertilizer applied (Gg N/year)	$N_2 O\text{-}N$ emissions per unit of fertilizer $\left(kg \; N_2 O\text{-}N/kg \; N\right) \;^{(4)}$	N2O (Gg)
	Α	В	С
A.1.1. Afforestation/Reforestation not harvested during the first commitment period			
[specify identification code]			
A.1.2. Afforestation/Reforestation harvested during the first commitment period			
[specify identification code]			
B.1. Forest Management			
[specify identification code]			
Information item <sup>(5)</sup>			
A.1.3. Afforestation/Reforestation: areas also subject to elected activities under Article 3.4			
[specify identification code]			

#### Documentation box

Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

<sup>(1)</sup> N<sub>2</sub>O emissions from fertilization for Cropland Management, Grazing Land Management and Revegetation should be reported in the Agriculture sector. If a Party is not able to separate fertilizer applied to Forest Land from Agriculture, it may report all N<sub>2</sub>O emissions from fertilization in the Agriculture sector. This should be explicitly indicated in the documentation box.

<sup>(2)</sup> Direct N<sub>2</sub>O 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 N<sub>2</sub>O emissions from Afforestation and land under Forest Management are estimated as part of the total indirect emissions in the Agriculture sector based on the total amount of fertilizer used in the country.

 $^{(3)}$  In the calculation of the implied emission factor, N<sub>2</sub>O emissions are converted to N<sub>2</sub>O-N by multiplying by 28/44.

(4) Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

(5) Areas subject to Afforestation or Reforestation under Article 3.3 also subject to elected activities under Article 3.4 are implicitly included under A.1.1 or A.1.2. They are reported here for transparency and to fulfil the requirement of paragraph 6 (b) (ii) of the annex to draft decision -/CMP.1 (*Article 7*), attached to decision 22/CP.7.

## TABLE 5(KP-II)2 SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL

N<sub>2</sub>O emissions from drainage of soils <sup>(1), (2)</sup>

	ACTIVITY DATA	IMPLIED EMISSION FACTOR	EMISSIONS
Identification code of geographical location <sup>(3)</sup>	Area of drained soils (kha)	N <sub>2</sub> O-N per area drained (kg N <sub>2</sub> O-N/ha) <sup>(4)</sup>	N <sub>2</sub> O (Gg)
	А	В	С
B.1. Forest Management			
Total for organic soils			
Total for mineral soils			
[specify identification code]			
Organic soils			
Mineral soils			

### **Documentation box**

Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

 $^{(1)}$  Methodologies for estimating N<sub>2</sub>O 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 should be reported if Forest Management is elected under Article 3.4.

 $^{(2)}$  N<sub>2</sub>O emissions from drainage of soils include those resulting from Forest Management. N<sub>2</sub>O emissions from drained Cropland and Grassland soils are covered in the Agriculture sector under Cultivation of histosols.

<sup>(3)</sup> Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

<sup>(4)</sup> In the calculation of the implied emission factor,  $N_2O$  emissions are converted to  $N_2O$ -N by multiplying by 28/44.

# TABLE 5(KP-II)3 SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL $N_2O$ emissions from disturbance associated with land-use conversion to cropland <sup>(1), (2)</sup>

Country Year Submission

	ACTIVITY DATA	IMPLIED EMISSION FACTOR	EMISSIONS
Identification code of geographical location <sup>(3)</sup>	Land area converted	N <sub>2</sub> O-N per area converted <sup>(4)</sup>	N <sub>2</sub> O
	(kha)	(kg N <sub>2</sub> O-N/ha)	(Gg)
	A	B	С
A.2. Deforestation <sup>(5)</sup>			
Total organic soils			
Total mineral soils			
[specify identification code]			
Organic soils <sup>(6)</sup>			
Mineral soils <sup>(6)</sup>			
B.2. Cropland Management <sup>(7)</sup>			
Total organic soils			
Total mineral soils			
[specify identification code]			
Organic soils (6)			
Mineral soils (6)			
Information items <sup>(8)</sup>			
A.2.1. Deforestation: areas also subject to elected activities under Article 3.4 <sup>(5)</sup>			
Total organic soils			
Total mineral soils			
[specify identification code]			
Organic soils <sup>(6)</sup>			
Mineral soils (6)			

#### Documentation box

Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

<sup>(1)</sup> Methodologies for N<sub>2</sub>O 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. N<sub>2</sub>O emissions from fertilization in the preceding land use and new land use should not be reported here. Parties should avoid double counting with N<sub>2</sub>O emissions from drainage and from cultivation of organic soils reported in Agriculture under Cultivation of histosols.

<sup>(2)</sup> According to the IPCC good practice guidance for LULUCF N<sub>2</sub>O emissions from disturbance of soils are only relevant for land conversions to Cropland. N<sub>2</sub>O emissions from Cropland Management when Cropland is remaining Cropland are included in the Agriculture sector.

(3) Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

<sup>(4)</sup> In the calculation of the implied emission factor, N<sub>2</sub>O emissions are converted to N<sub>2</sub>O-N by multiplying by 28/44.

(5) N<sub>2</sub>O emissions associated with Deforestation followed by the establishment of cropland should be reported under Deforestation even if Cropland Management is not elected under Article 3.4. If a Party has elected Cropland Management, emissions from this activity should be reported also under Deforestation areas also subject to elected activities under Article 3.4.

<sup>(6)</sup> Parties may separate data for organic and mineral soils, if they have data available.

(7) This includes N<sub>2</sub>O emissions in land subject to Cropland Management from disturbance of soils due to the conversion to Cropland of lands other than Forest Lands.

<sup>(8)</sup> Areas subject to Deforestation under Article 3.3 also subject to elected activities under Article 3.4 are implicitly included under A.2. They are reported here for transparency and to fulfil the requirement of paragraph 6 (b) (ii) of the annex to draft decision -/CMP.1 (*Article 7*), attached to decision 22/CP.7.

#### TABLE 5(KP-II)4 SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL Carbon emissions from lime application<sup>(1)</sup>

Country Year Submission

	ACTIVITY DATA	IMPLIED EMISSION FACTOR	EMISSIONS
Identification code of geographical location <sup>(2)</sup>	Total amount of lime applied (Mg/year) A	Carbon emission per unit of lime (Mg C/Mg) B	Carbon (Gg) C
A.1.1. Afforestation/Reforestation: areas not harvested during the first commitment period <sup>(3), (4)</sup>			
Total for limestone			
Total for dolomite			
[specify identification code] Limestone (CaCO <sub>3</sub> )			
Dolomite (CaMg(CO <sub>3</sub> ) <sub>2</sub> )			
A.1.2. Afforestation/Reforestation: areas harvested during the first commitment period <sup>(3), (4)</sup>			
Total for limestone			
Total for dolomite			
[specify identification code] Limestone (CaCO <sub>3</sub> )			
Dolomite (CaMg(CO <sub>3</sub> ) <sub>2</sub> )			
A.2. Deforestation <sup>(3), (4)</sup>			
Total for limestone			
Total for dolomite			
[specify identification code]			
Limestone (CaCO <sub>3</sub> ) Dolomite (CaMg(CO <sub>3</sub> ) <sub>2</sub> )			
B.1. Forest Management <sup>(3), (4)</sup>			
Total for limestone			
Total for dolomite			
[specify identification code]			
Limestone (CaCO <sub>3</sub> )			
Dolomite (CaMg(CO <sub>3</sub> ) <sub>2</sub> )			
 B.2. Cropland Management <sup>(3), (4)</sup>			
Total for limestone			
Total for dolomite			
[specify identification code]			
Limestone (CaCO <sub>3</sub> )			
Dolomite (CaMg(CO <sub>3</sub> ) <sub>2</sub> )			
 B.3. Grazing Land Management <sup>(3), (4)</sup>			
b.5. Grazing Land Management Total for limestone			
Total for dolomite			
[specify identification code]			
Limestone (CaCO <sub>3</sub> )			
Dolomite (CaMg(CO <sub>3</sub> ) <sub>2</sub> )			
 n.t. n			
B.4. Revegetation <sup>(3), (4)</sup> Total for limestone			
Total for turestone Total for dolomite			
[specify identification code]			
Limestone (CaCO <sub>3</sub> )			
Dolomite (CaMg(CO <sub>3</sub> ) <sub>2</sub> )			
Information items <sup>(5)</sup>			
A.1.3. Afforestation/Reforestation areas also subject to elected activities under Article 3.4 <sup>(3), (4)</sup> Total for limestone			
Total for unestone Total for dolomite			
[specify identification code]			
Limestone (CaCO <sub>3</sub> )			
Dolomite (CaMg(CO <sub>3</sub> ) <sub>2</sub> )			
A.2.1. Deforestation: areas also subject to elected activities under Article 3.4 <sup>(3), (4)</sup>			
Total for limestone Total for dolomite			
[specify identification code]			
[specify identification code] Limestone (CaCO <sub>3</sub> )			
Dolomite (CaMg(CO <sub>3</sub> ) <sub>2</sub> )			

Documentation box Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

<sup>(1)</sup> Carbon emissions from agricultural lime application are addressed in equation 3.3.6 and 3.4.11 of the IPCC good practice guidance for LULUCF.
 <sup>(2)</sup> Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.
 <sup>(3)</sup> If Parties are not able to separate lime application for different geographical locations, they should include liming for all geographical locations in the total.
 <sup>(4)</sup> A Party may report aggregate estimates for total lime application when data are not available for for limestone and dolomite.
 <sup>(5)</sup> Areas subject to Afforestation, Reforestation or Deforestation under Article 3.3 also subject to elected activities under Article 3.4 are implicitly included under A.1.1, A.1.2 or A.2. They are reported hear for transcatence and to fulfil the requirement of paraterianh 6 (h) (ii) of the annex to draft decision -/CMP.1 (Article 7), attached to decision 22/CP.7.

here for transparency and to fulfil the requirement of paragraph 6 (b) (ii) of the annex to draft decision -/CMP.1 (Article 7), attached to decision 22/CP.7.

#### TABLE 5(KP-II)5 SECTORAL BACKGROUND DATA FOR LAND USE, LAND-USE CHANGE AND FORESTRY UNDER THE KYOTO PROTOCOL GHG emissions from bi ass burnin

Country Year Submission

									Submission
		ACTIVITY DATA	L	IMPLI	ED EMISSION F.	ACTOR		EMISSIONS	
	Description <sup>(2)</sup>	Unit	Values	CO <sub>2</sub>	CH4	N <sub>2</sub> O	CO2 (3)	CH4 <sup>(3)</sup>	N <sub>2</sub> O
Identification code of geographical location <sup>(1)</sup>	Area (AB) or biomass burned (BB)	ha or kg dm		(N	Ig/activity data u	nit)		(Gg)	
A.1.1. Afforestation/Reforestation not harvested during the first commitment period <sup>(4)</sup>									
Total for controlled burning									
Total for wildfires									
[specify identification code]									
Controlled burning			-						
Wildfires									
 A.1.2. Afforestation/Reforestation not harvested during the first commitment period <sup>(4)</sup>									
Total for controlled burning									
Total for wildfires									
[specify identification code]									
Controlled burning									
Wildfires									
A.2. Deforestation <sup>(4)</sup>									
Total for controlled burning									
Total for wildfires									
[specify identification code]									
Controlled burning									
Wildfires									
B.1. Forest Management <sup>(4)</sup>									
Total for controlled burning									
Total for wildfires									
[specify identification code] Controlled burning									
Wildfires									
B.2. Cropland Management <sup>(4), (5)</sup>									
Total for controlled burning									
Total for wildfires									
[specify identification code]									
Controlled burning									
Wildfires									
B.3. Grazing Land Management <sup>(4), (6)</sup>									
b.s. Grazing Land Management Total for controlled burning									
Total for wildfires									
[specify identification code]									
Controlled burning									
Wildfires									
B.4. Revegetation <sup>(4)</sup>									
Total for controlled burning Total for wildfires									
[specify identification code]									
Controlled burning Wildfires									
Information items <sup>(7)</sup>									
A.1.3. Afforestation/Reforestation: areas also subject to									
elected activities under Article 3.4 <sup>(4)</sup> Total for controlled burning									
Total for wildfires									
[specify identification code]									
Controlled burning									
Wildfires									
 A.2.1. Deforestation: areas also subject to elected									
A.2.1. Deforestation: areas also subject to elected activities under Article 3.4 <sup>(4)</sup>									
Total for controlled burning									
Total for wildfires [specify identification code]									
Controlled burning									
Wildfires									
	1	1							

#### Documentation box Parties should provide detailed explanation on the land use, land-use change and forestry sector in chapter 7: Land use, land-use change and forestry (CRF sector 5) of the NIR. Use this documentation box to provide references to relevant sections of the NIR if any additional details are needed to understand the content of this table.

(1) Geographical location refers to the boundaries of the areas that encompass units of lands subject to activities under Article 3.3 and lands subject to elected activities under Article 3.4. Complete one row for each defined geographical location.

(2)

For each activity, activity data should be selected between area burned (AB) or biomass burned (BB). Units will be ha for area burned, and kg dm for biomass burned. The implied emission factor will refer to the

selected activity data with an automatic change in the units (1) If CO2 emissions from biomass burning are not already included in Tables 5(KP-I)A.1.1 to 5(KP-I)B.4, 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. Parties that include all carbon stock changes in the carbon stock tables (5(KP-I)A.1.1 to 5(KP-I)B.4) should report IE (included elsewhere) in the CO<sub>2</sub> column.

(4) Parties should report controlled/prescribed burning and wildfires emissions separately, where appropriate. (5)

Burning of agricultural residues is included in the Agriculture sector.

(6) Greenhause gas emissions from prescribed savannah burning are reported in the Agriculture sector.

(7) Areas subject to Afforestation, Reforestation or Deforestation under Article 3.3 also subject to elected activities under Article 3.4 are implicitly included under A.1.1, A.1.2 or A.2. They are reported here for transparency and to fulfil the requirement of paragraph 6 (b) (ii) of the annex to draft decision -/CMP.1 (Article 7), attached to decision 22/CP.7.