

**2013 REVISED
SUPPLEMENTARY METHODS
AND GOOD PRACTICE
GUIDANCE ARISING FROM THE
KYOTO PROTOCOL**

OVERVIEW

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1 INTRODUCTION

The *2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol (KP Supplement)* provides supplementary methods and *good practice* guidance¹ for estimating and reporting anthropogenic greenhouse gas (GHG) emissions and removals resulting from land use, land-use change and forestry (LULUCF) activities under Article 3.3 and Article 3.4 of the Kyoto Protocol for the second commitment period, 2013-2020.

The *KP Supplement* was requested by the Decision² on LULUCF of the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties Serving as the Meeting of the Parties to the Kyoto Protocol, taken in Durban in 2011. The *KP Supplement* updates Chapter 4 of the *Good Practice Guidance for Land Use, Land-Use Change and Forestry*³ (*GPG-LULUCF*), which provides supplementary methods for LULUCF activities for the first commitment period, 2008-2012. The structure and wording of Chapter 4 have been maintained wherever possible⁴.

Under the provisions of Articles 7.1 and 7.2 of the Kyoto Protocol, Parties are required to incorporate, in their annual GHG inventories and national communications, supplementary information relating to anthropogenic emissions by sources and removals by sinks of CO₂ and other greenhouse gases associated with LULUCF activities under Article 3.3 and Article 3.4 of the Kyoto Protocol⁵. For the second commitment period, the activities included under Article 3.3 are Afforestation, Reforestation, and Deforestation since 1990, which remain mandatory. Activities under Article 3.4 are Forest Management, which becomes mandatory for the second commitment period, and elective activities, namely Cropland Management, Grazing Land Management, Revegetation and Wetland Drainage and Rewetting⁶.

¹ Supplementary methods are additional guidance to produce the supplementary information needed in greenhouse gas inventories to meet the LULUCF rules for the Kyoto Protocol. Compliance with *good practice* means neither over- nor underestimates so far as can be judged, and that uncertainties are reduced so far as is practicable.

² Decision 2/CMP.7 (Land use, land-use change and forestry) contained in document FCCC/KP/CMP/2011/10/Add.1.

³ Intergovernmental Panel on Climate Change (IPCC) (2003). Penman J., Gytarsky M., Hiraishi T., Krug, T., Kruger D., Pipatti R., Buendia L., Miwa K., Ngara T., Tanabe K., and Wagner F (Eds). *Good Practice Guidance for Land Use, Land-Use Change and Forestry* IPCC/IGES, Hayama, Japan.

⁴ Consistent with the decision of the IPCC Plenary, the *KP Supplement* does not update Section 4.3 of *GPG-LULUCF*, which concerns LULUCF projects hosted by Parties listed in Annex B to the Kyoto Protocol (Joint Implementation projects) and Afforestation or Reforestation project activities hosted by Parties not listed in Annex I to the UNFCCC (Clean Development Mechanism project activities).

⁵ See Articles 3.3, 3.4, 3.7, 6 and 12 of the Kyoto Protocol (<http://unfccc.int/resource/docs/convkp/kpeng.pdf>) and Decisions 16/CMP.1, 18/CMP.1, 22/CMP.1 as contained in FCCC/KP/CMP/2005/8/Add.3, and Decision 2/CMP.7 contained in FCCC/KP/CMP/2011/10/Add.1.

⁶ LULUCF related requirements are contained in Decision 16/CMP.1 (Land use, land-use change and forestry) and Decision 2/CMP.7 (Land use, land-use change and forestry) contained in documents FCCC/KP/CMP/2005/8/Add.3, p.3 and FCCC/KP/CMP/2011/10/Add.1, p.13 respectively. Decision 2/CMP.6 contained in document FCCC/KP/CMP/2010/12/Add.1, p.5, establishes that for the second commitment period *definitions of forest, afforestation, reforestation, deforestation, forest management, cropland management, grazing land management and revegetation shall be the same as in the first commitment period under the Kyoto Protocol*. The activities are defined as follows:

“Afforestation” is the direct human-induced conversion of land that has not been forested for a period of at least 50 years to forested land through planting, seeding and/or the human-induced promotion of natural seed sources.

“Reforestation” is the direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources, on land that was forested but that has been converted to non-forested land. For the first commitment period, reforestation activities will be limited to reforestation occurring on those lands that did not contain forest 31 December 1989.

“Deforestation” is the direct human-induced conversion of forested land to non-forested land.

“Forest management” is a system of practices for stewardship and use of forest land aimed at fulfilling relevant ecological (including biological diversity), economic and social functions of the forest in a sustainable manner.

“Cropland management” is the system of practices on land on which agricultural crops are grown and on land that is set aside or temporarily not being used for crop production.

“Grazing land management” is the system of practices on land used for livestock production aimed at manipulating the amount and type of vegetation and livestock produced.

The *KP Supplement* builds on methods and guidance provided by the *2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines)* and will be used in conjunction with the *2006 IPCC Guidelines* and with the *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands (Wetlands Supplement)*.

2 BACKGROUND

The UNFCCC Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol at its seventh session (CMP 7), held in December 2011 in Durban, South Africa, invited the IPCC to:

...review and, if necessary, update supplementary methodologies for estimating anthropogenic greenhouse gas emissions by sources and removals by sinks resulting from land use, land-use change and forestry activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol, related to this decision, on the basis of, inter alia, chapter 4 of its Good Practice Guidance for Land Use, Land-Use Change and Forestry⁷.

In response to the UNFCCC's invitation, the need to update Chapter 4 was considered at the *IPCC Scoping Meeting to consider the Invitation from UNFCCC CMP 7* that took place in Geneva in May 2012.

The IPCC at its 35th Session decided to produce the *KP Supplement* and agreed Terms of Reference, a Table of Contents and a Work Plan⁸. The Terms of Reference specified that the revision of Chapter 4 of the *GPG-LULUCF* should be consistent with the *2006 IPCC Guidelines* and with the decisions of the COP and CMP, that it should not revise or replace the *2006 IPCC Guidelines*, and that it should maintain the structure and content of the existing Chapter 4 of the *GPG-LULUCF*.

3 THE NEED TO UPDATE CHAPTER 4 OF *GPG-LULUCF*

Chapter 4 of the *GPG-LULUCF* provides supplementary methods and *good practice* guidance related to LULUCF activities, based on the general GHG inventory guidance provided in other chapters of the *GPG-LULUCF* and the rules governing the treatment of LULUCF activities in the first commitment period of Kyoto Protocol⁹. The need to review and update Chapter 4 of the *GPG-LULUCF* for the second commitment period arises because:

First, the rules for reporting and accounting of LULUCF activities for the second commitment period under the Kyoto Protocol differ in some respects from the rules for the first commitment period.

Second, updating is needed in the light of the CMP decision to use the *2006 IPCC Guidelines* for the second commitment period under the Kyoto Protocol¹⁰.

The new rules for the treatment of LULUCF in the second commitment period of the Kyoto Protocol agreed by CMP 7 contain, amongst other things, new provisions, which are not covered in the existing Chapter 4 of the *GPG-LULUCF*, on Forest Management; natural disturbances in Forest Management and Afforestation and Reforestation areas; Harvested Wood Products; and Wetland Drainage and Rewetting. Table 1 summarises the

"Revegetation" is a direct human-induced activity to increase carbon stocks on sites through the establishment of vegetation that covers a minimum area of 0.05 hectares and does not meet the definitions of afforestation and reforestation contained here.

"Wetland drainage and rewetting" is a system of practices for draining and rewetting on land with organic soil that covers a minimum area of 1 hectare. The activity applies to all lands that have been drained since 1990 and to all lands that have been rewetted since 1990 and that are not accounted for under any other activity as defined above, where drainage is the direct human-induced lowering of the soil water table and rewetting is the direct human-induced partial or total reversal of drainage.

⁷See paragraph 8 of Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.12.

⁸ See http://www.ipcc-nggip.iges.or.jp/home/2013KPSupplementaryGuidance_inv.html.

⁹ Decision 16/CMP.1 (Land use, land-use change and forestry) contained in document FCCC/KP/CMP/2005/8/Add.3.

¹⁰ Decision 4/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.25.

important changes in the treatment of LULUCF activities in the second commitment period of the Kyoto Protocol under Decision 2/CMP.7.

The changes required for *KP Supplement* can be classified as follows:

- *Changes stemming from the use of the 2006 IPCC Guidelines.* These include the changes needed to make the guidance in Chapter 4 consistent with the *2006 IPCC Guidelines*.
- *Changes pursuant to Decisions 2/CMP.7.* These include:
 - (i) Substantive changes reflecting the revised rules governing the treatment of LULUCF in the second commitment period of the Kyoto Protocol. These are summarised in Table 1 and include making Forest Management mandatory, provisions on Harvested Wood Products and natural disturbances, and including Wetland Drainage and Rewetting as an elective activity. The changes involve adding new guidance and updating the existing guidance including decision trees and figures;
 - (ii) Consequential changes such as making reference to the “second commitment period” and updating references to CMP decisions.

TABLE 1
TREATMENT OF LULUCF ACTIVITIES IN THE SECOND COMMITMENT PERIOD OF THE KYOTO PROTOCOL RELATIVE TO THE FIRST COMMITMENT PERIOD

Element	Second commitment period (Decision 2/CMP.7)	First commitment period (Decision 16/CMP.1)
Forest Management	<ul style="list-style-type: none"> • Accounting for Forest Management shall be mandatory, along with Article 3.3 activities, and Article 3.4 activities elected in the first commitment period¹¹. • Accounting for Forest Management shall be done on the basis of the Forest Management Reference Level¹² inscribed in the appendix to Decision 2/CMP.7¹³. • Parties shall demonstrate methodological consistency between the Forest Management Reference Level and reporting for Forest Management during the second commitment period, including in the area accounted for; in the treatment of Harvested Wood Products; and in the accounting of any emissions from natural disturbances¹⁴. • Parties shall make technical corrections, if necessary, to ensure methodological consistency between the Forest Management Reference Level and reporting for Forest Management during the commitment period, including applying IPCC methods for ensuring time-series consistency¹⁵. • Technical corrections shall be applied after adoption of the Forest Management Reference Level if the reported data used to establish it are subject to recalculations, to include in the accounting the impact of the recalculations on the reported data that have been used by the Party to set the Forest Management Reference Level¹⁶. 	<ul style="list-style-type: none"> • Forest Management is an elective activity under Article 3.4. • Accounting for Forest Management is on a gross-net basis.
Accounting of Harvested Wood Products	<ul style="list-style-type: none"> • Emissions from Harvested Wood Products removed from a Party's forests which are accounted for under Article 3.3 and Article 3.4 shall be accounted for by that Party only; imported Harvested Wood Products, irrespective of their origin, shall not be accounted by the importing Party¹⁷. • Accounting of Harvested Wood Products shall be on the basis of instantaneous oxidation¹⁸, unless other provisions set out in Decision 2/CMP.7 (summarised below) apply. • The treatment of Harvested Wood Products in the construction of a projected Forest Management Reference Level shall not be on the basis of instantaneous oxidation¹⁹. 	Harvested Wood Products not accounted for, or equivalently assumed to be instantaneously oxidised.

¹¹ Paragraph 7 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.14

¹² The Forest Management Reference Level is a value of annual net emissions and removals from Forest Management, against which the net emissions and removals reported for Forest Management during the second commitment period, will be compared for accounting purposes. Guidance on how to construct the Forest Management Reference Level is provided by the Appendix II to Decision 2/CMP.6 contained in document FCCC/KP/CMP/2010/12/Add.1. An overview of approaches, methods and elements used in construction of Forest Management Reference Levels is provided in Section 2.7.5.1 of this supplement.

¹³ Paragraph 12 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.14

¹⁴ Paragraph 14 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.15

¹⁵ Paragraph 14 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.15

¹⁶ Paragraph 15 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.15

¹⁷ Paragraph 27 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.16

¹⁸ Paragraph 28 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.16

¹⁹ Paragraph 16 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.15

TABLE 1 (CONTINUED) TREATMENT OF LULUCF ACTIVITIES IN THE SECOND COMMITMENT PERIOD OF THE KYOTO PROTOCOL RELATIVE TO THE FIRST COMMITMENT PERIOD		
Element	Second commitment period (Decision 2/CMP.7)	First commitment period (Decision 16/CMP.1)
Accounting of Harvested Wood Products	<ul style="list-style-type: none"> • If transparent and verifiable activity data for the specified categories (paper, wood panels and sawn wood) are available, accounting of Harvested Wood Products shall be on the basis of the change in the Harvested Wood Products pool during the second and subsequent commitment periods, estimated using the first-order decay function with default half-lives provided in the Decision 2/CMP.7 (based on <i>GPG-LULUCF</i>)²⁰. • Parties may use country-specific half-lives as an alternative to those specified in Decision 2/CMP.7, or to account for Harvested Wood Products in accordance with the definitions and estimation methodologies in the most recently adopted IPCC guidelines, and any subsequent clarifications agreed by the COP, if verifiable and transparent activity data are available and the methodologies used are at least as detailed or accurate as those specified in the Decision²¹. • Harvested Wood Products resulting from Deforestation; solid waste disposal sites (where carbon dioxide emissions are separately accounted for); and wood harvested for energy purposes shall be accounted for on the basis of instantaneous oxidation²². • Emissions that occur in the second commitment period from Harvested Wood Products removed from forests prior to the start of the second commitment period shall also be accounted for. Emissions from Harvested Wood Products already accounted for during the first commitment period on the basis of instantaneous oxidation shall be excluded²³. • Parties may choose not to account for the emissions from Harvested Wood Products from forests prior to the start of the second commitment period if the Forest Management Reference Level is based on a projection and shall ensure consistency in the treatment of the Harvested Wood Products pool in the second commitment period²⁴. 	
Treatment of natural disturbances	<ul style="list-style-type: none"> • Natural disturbances are defined as <i>non-anthropogenic events or non-anthropogenic circumstances. For the purposes of this decision, these events or circumstances are those that cause significant emissions in forests and are beyond the control of, and not materially influenced by, a Party. These may include wildfires, insect and disease infestations, extreme weather events and/or geological disturbances, beyond the control of, and not materially influenced by, a Party. These exclude harvesting and prescribed burning</i>²⁵. 	All emissions and subsequent removals from natural disturbances on (units of) lands subject to Afforestation or Reforestation, or Forest Management (if elected) are to be accounted.

²⁰ Paragraph 29 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.16-17

²¹ Paragraph 30 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.17

²² Paragraphs 31 & 32 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.17

²³ Paragraph 16 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.15

²⁴ Paragraph 16 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.15

²⁵ Paragraph 1(a) of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.13

TABLE 1 (CONTINUED) TREATMENT OF LULUCF ACTIVITIES IN THE SECOND COMMITMENT PERIOD OF THE KYOTO PROTOCOL RELATIVE TO THE FIRST COMMITMENT PERIOD		
Element	Second commitment period (Decision 2/CMP.7)	First commitment period (Decision 16/CMP.1)
Treatment of natural disturbances	<p>The following provisions apply to those Parties wishing to make use of the natural disturbance provisions:</p> <ul style="list-style-type: none"> • Parties may exclude from the accounting of Afforestation and Reforestation and Forest Management (either annually or at the end of second commitment period) emissions from natural disturbances that in any single year exceed a Forest Management background level provided certain conditions are met. Any subsequent removals during the commitment period on the lands affected by natural disturbance shall also be excluded from accounting. Emissions from disturbances may only be excluded in years where those emissions are above the background level plus the margin where a margin is needed²⁶. • Parties shall provide country-specific information in their national inventory report for 2015²⁷ on the background level of emissions associated with natural disturbances that have been included in their Forest Management Reference Level; how the background level has been estimated; and information on how to avoid the expectation of net credits or net debits during the commitment period²⁸. • Parties shall account for emissions associated with salvage logging and shall not exclude from accounting emissions from natural disturbances on those lands that are subject to land-use change following the disturbance²⁹. • Parties shall calculate the net emissions and removals subject to those provisions and shall provide transparent information on³⁰: <ul style="list-style-type: none"> • Identification of all lands subject to natural disturbance (including their geo-referenced location, year, and types of disturbances); • How annual emissions resulting from disturbances and the subsequent removals in those areas are estimated. • Parties shall also provide transparent information that³¹: <ul style="list-style-type: none"> • Shows that no land-use change has occurred on lands for which the natural disturbance provision is applied and explains the methods and criteria for identifying any future land-use changes on those land areas during the commitment period; • Demonstrates that occurrences were beyond the control of, and not materially influenced by, the Party in the commitment period by demonstrating practicable efforts to prevent, manage or control the occurrences; • Demonstrates the efforts taken to rehabilitate, where practicable, the land for which the natural disturbance provisions are applied; and • Shows that salvage logging emissions were not excluded from accounting. 	

²⁶ Paragraph 33 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.17-18

²⁷ According to Decision 2/CMP.8, Annex I, paragraph 1.(k)(ii) contained in document FCCC/KP/CMP/2012/13/Add.1, p.17, the information on the estimation of the background level is to be included in the report to facilitate the calculation of the assigned amount pursuant to Article 3, paragraphs 7bis, 8 and 8bis, of the KP for the second commitment period.

²⁸ Paragraph 33 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.17-18

²⁹ Paragraph 33 of Annex of Decision 2/CMP.7 contained in document FCCC/KP/2011/10/Add.1, p.18

³⁰ Paragraph 34 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.18

³¹ Paragraph 34 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.18

TABLE 1 (CONTINUED)
TREATMENT OF LULUCF ACTIVITIES IN THE SECOND COMMITMENT PERIOD OF THE KYOTO PROTOCOL RELATIVE TO THE FIRST COMMITMENT PERIOD

Element	Second commitment period (Decision 2/CMP.7)	First commitment period (Decision 16/CMP.1)
Treatment of emissions from harvest and conversion of forest plantations to non-forest lands	<ul style="list-style-type: none"> • Parties may include in the accounting of Forest Management under Article 3.4 anthropogenic greenhouse gas emissions by sources and removals by sinks resulting from the harvest and conversion of forest plantations, accounted for under Forest Management, to non-forest land, provided that all of the following requirements are met³²: • The forest plantation was first established through direct human-induced planting and/or seeding of non-forest land before 1 January 1990, and, if re-established, that this last occurred on forest land through direct human-induced planting and/or seeding after 1 January 1960. • A new forest of at least equivalent area as the harvested forest plantation is established through direct human-induced planting and/or seeding of non-forested land that did not contain forest on 31 December 1989. • A debit under Article 3.4 would be generated if the newly established forest does not reach at least the equivalent carbon stock that was contained in the harvested forest plantation at the time of harvest, within the normal harvesting cycle of the harvested forest plantation. • All lands and associated carbon pools subject to the provision shall be identified, monitored and reported, including the georeferenced location and the year of conversion and accounted for as Forest Management under Article 3.4 and not under Article 3.3. 	<ul style="list-style-type: none"> • Emissions and /or removals from all Afforestation and Reforestation are to be reported and accounted for under Article 3.3. • Emissions and/or removals from harvest and conversion of forest plantations are to be accounted for under Deforestation.
Inclusion of Wetland Drainage and Rewetting as an elective activity under Article 3.4	<ul style="list-style-type: none"> • Wetland Drainage and Rewetting was added as a new elective activity under Article 3.4 by Decision 2/CMP.7³³. • Wetland Drainage and Rewetting is defined as <i>a system of practices for draining and rewetting on land with organic soil that covers a minimum area of 1 hectare. The activity applies to all lands that have been drained since 1990 and to all lands that have been rewetted since 1990 and that are not accounted for under any other activity as defined in this annex where drainage is the direct human-induced lowering of the soil water table and rewetting is the direct human-induced partial or total reversal of drainage</i>³⁴. • Estimation methodologies for Wetland Drainage and Rewetting shall be based on the most recently adopted or encouraged IPCC guidelines and any subsequent clarifications agreed by the COP³⁵. • Accounting for Wetland Drainage and Rewetting shall be done on a net-net basis³⁶, while avoiding double counting³⁷. 	<p>Wetland Drainage and Rewetting is not part of the elective activities under Article 3.4³⁸.</p>

³² Paragraph 37-39 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.19.

³³ Paragraph 10 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.14.

³⁴ Paragraph 1(b) of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.13.

³⁵ Paragraph 11 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.14.

³⁶ Paragraph 12 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.14.

³⁷ Paragraph 10 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.14.

³⁸ Wetlands subject to drainage and rewetting since 1990 could potentially be included in any other Article 3.3 or 3.4 activity under the rules in the first commitment period (see Sections 1.1, 1.2 and 2.12).

TABLE 1 (CONTINUED) TREATMENT OF LULUCF ACTIVITIES IN THE SECOND COMMITMENT PERIOD OF THE KYOTO PROTOCOL RELATIVE TO THE FIRST COMMITMENT PERIOD		
Element	Second commitment period (Decision 2/CMP.7)	First commitment period (Decision 16/CMP.1)
Other changes	<ul style="list-style-type: none"> Parties shall report and account for all emissions from conversion of natural forests to planted forests³⁹. 	No explicit provision but included under Forest Management.

4 STRUCTURE AND CONTENT OF THE *KP SUPPLEMENT*

The *KP Supplement* maintains the structure and general content of Chapter 4 in *GPG-LULUCF*. Wherever necessary, it replaces references to the *GPG-LULUCF* with those of *2006 IPCC Guidelines*, and adds additional material to existing sections or adds new sections where required by the new rules. It updates Chapter 4 of the *GPG-LULUCF* to be consistent with the *2006 IPCC Guidelines* but does not revise or replace the *2006 IPCC Guidelines*.

There are two chapters in the *KP Supplement* corresponding to the first two main sections of Chapter 4 of the *GPG-LULUCF*:

Chapter 1: Introduction

This chapter deals with overview of steps to estimate and report supplementary information for Article 3.3 and 3.4 activities; general rules for categorisation of lands under Articles 3.3 and 3.4 activities; and the relationship between Annex I national inventories and Article 6 projects⁴⁰. Updates include:

- (i) Changes to steps for reporting supplementary information and the general rules for categorisation of lands under Articles 3.3 and 3.4 lands including the reporting hierarchy of activities, due to Forest Management being made a mandatory activity and inclusion of Wetland Drainage and Rewetting as an elective activity under Article 3.4; and
- (ii) Updating decision trees and figures to reflect Decision 2/CMP.7.

Chapter 2: Methods for estimation, measurement, monitoring and reporting of LULUCF activities under Articles 3.3 and 3.4

This chapter includes generic and activity-specific methodological guidance on area identification, stratification and reporting, and estimation of carbon stock changes and non-CO₂ GHG emissions. Some new sections have been added and the existing guidance in Chapter 4 of *GPG-LULUCF* has been extensively revised and expanded to reflect the changes stemming from Decision 2/CMP.7 and the use of the *2006 IPCC Guidelines*. Main changes include:

- (i) Revision of the section on Disturbances (Section 2.3.9; Section 4.2.3.6 in Chapter 4 of *GPG-LULUCF*) in the light of the new rules regarding the treatment of emissions from natural disturbances in Afforestation, Reforestation and Deforestation and Forest Management lands;
- (ii) Addition of new sections on Forest Management Reference Level (Section 2.7.5), Technical Corrections (Section 2.7.6) and Carbon Equivalent Forests (Section 2.7.7);
- (iii) Addition of a new section on Harvested Wood Products (Section 2.8); and
- (iv) Addition of a new section on Wetland Drainage and Rewetting (Section 2.12).

Table 2 shows the Table of Contents of the *KP Supplement*. New sections added in the *KP Supplement* relative to Chapter 4 of the *GPG-LULUCF* are shown by an asterisk (*).

³⁹ Paragraph 5 of Annex to Decision 2/CMP.7 contained in document FCCC/KP/CMP/2011/10/Add.1, p.13.

⁴⁰ The discussion of projects contained in the *KP Supplement* is about avoidance of double accounting with Articles 3.3 and 3.4 and does not represent an update of the material in the Section 4.3, Chapter 4 of the *GPG-LULUCF* (Projects).

TABLE 2
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Chapter 2: Methods for estimation, measurement, monitoring and reporting of LULUCF activities under Articles 3.3 and 3.4	2.1 Relationship between UNFCCC land-use categories and Kyoto Protocol (Articles 3.3 and 3.4) activities 2.2 Generic methodologies for area identification, stratification and reporting <ul style="list-style-type: none"> 2.2.1 Reporting requirements 2.2.2 Reporting Methods for lands subject to Article 3.3 and Article 3.4 activities 2.2.3 Reporting Methods for lands subject to additional accounting provisions for CP2 * 2.2.4 Relationship between Approaches in Chapter 3, Volume 4 of the <i>2006 IPCC Guidelines</i> and Reporting Methods in Section 2.2.2 2.2.5 Choice of Reporting Method 2.2.6 How to identify lands in general 2.3 Generic methodological issues for estimating carbon stock changes and non-CO ₂ GHG emissions <ul style="list-style-type: none"> 2.3.1 Pools to be reported 2.3.2 Years for which to estimate carbon stock changes and non-CO₂ GHG emissions 2.3.3 Correct implementation of C stock change estimation methods when areas are changing* 2.3.4 Relationship between measurement and reporting intervals 2.3.5 Interannual variability* 2.3.6 Choice of method 2.3.7 Factoring out indirect, natural and pre-1990 effects 2.3.8 Reference Levels* 2.3.9 Disturbances 2.4 Other generic methodological issues <ul style="list-style-type: none"> 2.4.1 Developing a consistent time series 2.4.2 Recalculation of time series* 2.4.3 Uncertainty assessment 2.4.4 Reporting and documentation 2.4.5 Quality Assurance and Quality Control 2.4.6 Verification 2.5 Afforestation and Reforestation <ul style="list-style-type: none"> 2.5.1 Definitional issues and reporting requirements 2.5.2 Choice of methods for identifying lands subject to direct human-induced Afforestation/ Reforestation 2.5.3 Choice of methods for estimating carbon stock changes and non-CO₂ GHG emissions 2.6 Deforestation <ul style="list-style-type: none"> 2.6.1 Definitional issues and reporting requirements 2.6.2 Choice of methods for identifying lands subject to direct human-induced Deforestation 2.6.3 Choice of methods for estimating carbon stock changes and non-CO₂ GHG emissions

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	2.7.1 Definitional issues and reporting requirements
	2.7.2 Choice of methods for identifying lands subject to Forest Management
	2.7.3 Choice of methods for estimating carbon stock changes and non-CO ₂ GHG emissions
	2.7.4 Methods to address natural disturbance*
	2.7.5 Forest Management Reference Levels*
	2.7.6 Technical Corrections for accounting purposes*
	2.7.7 Carbon Equivalent Forests*
	2.8 Harvested Wood Products (HWP)*
	2.8.1 Initial steps to estimate the HWP contribution*
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	2.8.3 Tier 2: First order decay*
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	2.8.5 Consideration of the HWP pool in FMRLs*
	2.8.6 Uncertainty assessment*
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	2.9 Cropland Management
	2.9.1 Definitional issues and reporting requirements
	2.9.2 Base year
	2.9.3 Choice of methods for identifying lands subject to Cropland Management activities
	2.9.4 Choice of methods for estimating carbon stock changes and non-CO ₂ GHG emissions
	2.10 Grazing Land Management
	2.10.1 Definitional issues and reporting requirements
	2.10.2 Base year
	2.10.3 Choice of methods for identifying lands subjected to Grazing Land Management
	2.10.4 Choice of methods for estimating carbon stock changes and non-CO ₂ GHG emissions
	2.11 Revegetation
	2.11.1 Definitional issues and reporting requirements
	2.11.2 Base year
	2.11.3 Choice of methods for identifying lands
	2.11.4 Choice of methods for estimating carbon stock changes and non-CO ₂ GHG emissions
	2.12 Wetland Drainage and Rewetting*
2.12.1 Definitional issues and reporting requirements*	
2.12.2 Base year*	
2.12.3 Choice of methods for identifying lands*	
2.12.4 Choice of methods for estimating GHG emissions and removals*	

*New sections added in the *KP Supplement* relative to Chapter 4 of the *GPG-LULUCF* are shown by an asterisk (*).

5 POLICY RELEVANCE

For Kyoto Protocol reporting, The *KP Supplement* aims to provide guidance for the operationalization of the agreement set out in Decision 2/CMP.7. On some specific points, the *KP Supplement*:

- provides guidance on estimating and reporting anthropogenic emissions and removals. It does not deal with accounting, in other words, the rules by which the UNFCCC uses reported information to assess how Parties are complying with commitments, except in so far as accounting rules need to be reflected in guidance on emissions and removals estimation and reporting. The *KP Supplement* aims to be consistent with the decisions of the COP and CMP but not to extend them. The word *shall* is therefore used below only when decisions are quoted directly.
- provides advice on achieving transparency where, in continuing to apply the 16/CMP.1 definition of forest, certain types of land such as fruit orchards, grazed savannas, urban trees, and some types of plantations, are excluded, e.g. to achieve consistency with reporting to Food and Agriculture Organization of the United Nations (FAO) and with national forest inventories.
- clarifies the guidance on hierarchies between Article 3.3 and Article 3.4 activities, but maintains the prioritisation in the ordering of Deforestation under Article 3.3. This has the consequence (revealed by secondary classification) that Deforestation land can contain trees, if it has been subsequently subject to Afforestation and Reforestation. The approach shows transparently the sequences that have occurred.
- provides guidance, for those Parties wishing to make use of the natural disturbance provisions, that emissions and removals on lands affected by natural disturbances would need to be removed from accounting unless they are from salvage logging or there is land-use change. This is consistent with Decision 2/CMP.7 and reflects the difficulty in practice of separating on any particular land the emissions and removals due to a disturbance from other emissions and removals.
- avoids making judgements about rules beyond the second commitment period, for example concerning land-use change occurring after the end of the second commitment period on land to which natural disturbance provisions were applied, and hence emissions excluded, during the second commitment period.