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INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

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NATIONAL GREENHOUSE GAS INVENTORIES PROGRAMME

Draft Terms of Reference, Draft Table of Contents, Draft Work Plan and the Proposed Slate of Authors for developing definitions for degradation of forest and devegetation of other vegetation types, and methodological options to inventory and report on emissions resulting from these activities (NGGIP-LULUCF Task 2)

(Submitted by the Co-Chairman of the
Task Force on National Greenhouse Gas Inventories
on behalf of the Bureau of the Task Force)

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INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

NATIONAL GREENHOUSE GAS INVENTORIES PROGRAMME

UNEP

TFB8/Doc. 6_Rev.1

DRAFT TOR, TOC, WP AND SLATE OF AUTHORS FOR TASK 2

DEFINITIONS AND METHODOLOGICAL OPTIONS TO INVENTORY EMISSIONS FROM DIRECT HUMAN-INDUCED DEGRADATION OF FORESTS AND DEVEGETATION OF OTHER VEGETATION TYPES

TERMS OF REFERENCE

In response to the decisions of the IPCC XVII and XVIII and the invitation in decision 11/CP.7 in the Marrakesh Accords, the IPCC will develop a report comprising definitions for direct human-induced degradation of forests and devegetation of other vegetation types, and methodological options to inventory and report on emissions resulting from these activities. Elaboration of the definitions, inventory methodologies and reporting requirements will base its work, inter alia, on:

- The IPCC Special Report on LULUCF,
- Any available draft report on good practice guidance and uncertainty management for the Land Use, Land-Use Change and Forestry sector,
- IPCC Good Practice Guidance Report,
- Proceedings of the joint IPCC/FAO/CIFOR/IUFRO expert meeting on harmonizing forest-related definitions for use by various stakeholders, and subsequent meetings occurring on a relevant timetable
- Relevant SBSTA/COP decisions

The purpose of this report is to respond to concerns that selection of eligible activities under Article 3.4 of the Kyoto Protocol could give rise to an unbalanced accounting if certain types of degradation or devegetation activities are not included. The report would develop definitions for direct human-induced degradation of forests and devegetation of other vegetation types, develop methods to inventory emissions from these activities and analyse the implications of different options to include the accounting of these activities under the provisions of Article 3.4 of the Kyoto Protocol, including the relation to forest management and revegetation.

The development of the methodologies would be done in close cooperation with the preparation of the report on good practice guidance and uncertainty management for the LULUCF sector to ensure consistency with the methodologies developed in this work (Table 1 - Work Plan). Any available information from the IPCC work on factoring out human-induced changes in carbon stocks and greenhouse gas emissions by sources and sinks from those due to indirect human-induced and natural effects, and effects due to past practices in forests would also be utilised in the work.

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The final result of the work would be a methodology report. This could be attached as a module in a comprehensive IPCC handbook on methods and reporting on LULUCF activities.

ANNOTATED TABLE OF CONTENTS

Chapter 1: Introduction

The report responds to the decision of IPCC-XVIII (September 2001). It will contain definitions for direct human-induced degradation of forests and devegetation of other vegetation types, implications of different options to include the accounting of these activities under the provisions of Article 3.4 of the Kyoto Protocol, including the relation to forest management and revegetation, and methods to inventory emissions from these activities.
(The structure of the report should be summarised in this chapter.)

Chapter 2: Definitions for Degradation of Forests and Devegetation of Other Vegetation Types

This section will define and describe degradation of forests and devegetation of other vegetation types and list direct human-induced activities that may cause the effects. It will include recent findings on the magnitude or scale of the effects of these activities to emissions of greenhouse gases. Natural and indirect human-induced causes of degradation and devegetation will be addressed, especially in cases where their distinction from direct human- induced causes is difficult.

Chapter 3: Methodological Options to Inventory Emissions from Direct Human-Induced Activities

3.1. Methodologies to estimate emissions from degradation of forests and devegetation and other vegetation types

This section will present methodological approaches that may be used to estimate annual changes in carbon stocks and emissions and removals of greenhouse gases caused by direct human-induced degradation and devegetation activities. The relationship to forest management and revegetation will be addressed taking into account any relevant material coming from the IPCC work on good practice guidance and uncertainty management for the LULUCF sector. Guidance on methodological choice, activity data collection and choice of emission factors will be given. Consistency with other reporting requirements, completeness and avoidance of double counting and the development of consistent time series will be addressed.

This section may also include some aspects of uncertainty analysis, and quality assurance/quality control specific to degradation and devegetation.

3.2. Reporting and Documentation

Tables and worksheets to facilitate computation and reporting of emissions will be presented in this section.

Chapter 4. Implications of different methodological options to accounting under the provisions of Article 3.4 of the Kyoto Protocol

An analysis of optional methods in terms of scale of applicability, costs, accuracy, and so forth will be presented.

Table 1. Work Plan for "Degradation of forests and devegetation of other vegetation types"

Date	Activity/Review/Event	Objectives	Actions	Expected Output
March 2002	TFB8	To consider the TOR, TOC and workplan To select authors/experts and reviewers for the work		Draft TOR, TOC, work plan Proposal on a slate of authors, for consideration by IPCC Panel XIX
April 2002	IPCC Bureau XXV, IPCC Panel XIX	To endorse the TOR, TOC, workplan and slate of authors/expert and reviewers		TOR, TOC, work plan Slate of authors
July 2002	First Expert Meeting (small scale) - parallel with expert meeting on Good Practice for LULUCF	To initiate work on the report on definitions and inventory methods		Zero order draft
September 2002	Second Expert Meeting (small scale) - in conjunction with expert meeting on Good Practice for LULUCF	To produce a draft report on definitions and inventory methods		First order draft
October – November 2002	COP8/SBSTA17	To present progress on the work and seek for further guidance	Presentation at SBSTA/Side-event	Any guidance from SBSTA
December 2002 – January 2003	First combined government/expert review (8 weeks)	To secure governments' and experts' views on the first draft of the report	Review by governments and experts	Views from governments and experts
March 2003	Third Expert Meeting (small scale) - parallel with expert meeting on Good Practice for LULUCF	To address/resolve issues raised by governments and experts on the draft report To develop the second draft of the report		Second order draft

May – June 2003	Second combined government/expert review (8 weeks)	To secure governments' and experts' views on the first draft of the report	Review by governments and experts	Views from governments and experts
June 2003	SBSTA18	To present progress on the work and seek for further guidance	Presentation at SBSTA/Side-event	Any guidance from SBSTA
July 2003	Fourth Expert Meeting (small scale) - in conjunction with expert meeting on Good Practice for LULUCF	- To address/resolve issues raised by governments and experts on the draft report - To develop the final draft of the report		Final draft for government consideration
September 2003	Final government consideration (6 weeks)	To facilitate governments' consideration at IPCC Panel	Governments review	Final views from governments
November 2003	TFI/IPCC Panel	To accept/approve the report		Final report
December 2003	COP9/SBSTA19	To present the report for COP/SBSTA		

Table 2. TFB Recommendations for CLAs and LAs for the LULUCF "Degradation and Devegetation" Project (Task 2).

Chapter	Role	Last Name	First Name	Country	Expertise	Remarks
STEERING GROUP						
		TFB Co-Chairs				
		GYTARSKY	Michael	Russia		
		KRUG	Thelma	Brazil		
		KRUGER	Dina	US		
		PENMAN	Jim	UK		
Chapter 1: Introduction The report responds to the decision of IPCC-XVIII (September 2001). It will contain definitions for direct human-induced degradation of forests and devegetation of other vegetation types, implications of different options to include the accounting of these activities under the provisions of Article 3.4 of the Kyoto Protocol, including the relation to forest management and revegetation, and methods to inventory emissions from these activities. ***(The structure of the report should be summarised in this chapter.)***						
		GYTARSKY	Michael	Russia	Forest, inventory, good practice	GPGAUM
		KRUG	Thelma	Brazil	Forest, remote sensing	SRLULUCF LA
		KRUGER	Dina	US	Inventory, good practice	GPGAUM "Co-chair"
		PENMAN	Jim	UK	Inventory, good practice	GPGAUM "Co-chair"

Chapter 2: Definitions for Degradation of Forests and Devegetation of Other Vegetation Types

This section will define and describe degradation of forests and devegetation and other vegetation types and list direct human-induced activities that may cause the effects. It will include recent findings on the magnitude or scale of the effects of these activities to emissions of greenhouse gases. Natural and indirect human-induced causes of degradation and devegetation will be addressed, especially in cases where their distinction from direct human- induced causes is difficult.

	CLA	LIU	Shirong	China	Forest/ecosystem modelling; forest management; degradation of forest	
	CLA	SCHULTE	Andreas	Germany	Forest management / conservation; degradation of forest; rehabilitation of forest	
	LA	DAKA	Julius P.	Zambia	Soils, GIS	
	LA	KOBAYASHI	Shigeo	JAPAN	Forest ecosystem; forest degradation	
	LA	LAWSON	Gerald John	UK	Forest/ecosystem modelling; forest management; land cover change; forest degradation	
	LA	LUND III	H. Gyde	US	Forest; resource inventory; information needs assessment and advanced technologies	SR LULUCF CA

Chapter 3: Methodological Options to Inventory Emissions from Direct Human-Induced Activities

This section will present methodological approaches that may be used to calculate annual changes in carbon stocks and emissions and removals of greenhouse gases caused by degradation and devegetation activities. The relationship to forest management and revegetation will be addressed taking into account any guidance in the IPCC work on good practice guidance and uncertainty management for the LULUCF sector. Guidance on methodological choice, activity data collection and choice of emission factors will be given. Consistency with other reporting requirements, completeness and avoidance of double counting and the development of consistent time series will be addressed.

This section may also include some aspects of uncertainty analysis, quality assurance/quality control specific to degradation and devegetation, and reporting and documentation.

	CLA	GONZÁLEZ	Sergio Patricio Emanuel	Chile	GHG inventory	Familiarity with Revised 1996 IPCC Guidelines
	CLA	KARJALAINEN	Timo	Finland	Forest; modelling carbon dynamics; KP process; inventory expert; HWP	SR LULUCF CLA
	LA	BIRDSEY	Richard	US	Forest inventory; forest degradation	SR LULUCF LA
	LA	HERNANDEZ	Tomas	Mexico	Forest degradation; ghg inventory	
	LA	SCHOLES	Robert	South Africa	African savannas; nutrient cycles; climate change	SR LULUCF CLA
	LA	TAKAHASHI	Masamichi	JAPAN	Land cover change; forest ecosystem; forest soils (degradation)	

Chapter 4. Implications of different methodological options to accounting under the provisions of Article 3.4 of the Kyoto Protocol An analysis of optional methods in terms of scale of applicability, costs, accuracy, and so forth will be presented.						
4	CLA	RICHARDS	Gary	Australia	inventory expert, KP process	
4	CLA	KAINJA	Samuel	Malawi	GHG inventory; forest management	
4	LA	ARANA PARDO	Juan Ivar	Bolivia	GHG inventory	
4	LA	BOEHM	Marie	Canada	Land cover change; soil degradation	
4	LA	MICHALAK	Roman	Poland	Forest inventory	

Table 3. Summary of TFB Recommendations for CLAs and LAs for the LULUCF "Degradation and Devegetation" Project (Task 2), by WMO Region.

WMO Region	No. of CLAs	No. of LAs	Total
1. Africa	1	2	3
2. Asia	1	2	3
3. South America	1	2	3
4. North and Central America	-	3	3
5. South-West Pacific	1	-	1
6. Europe	2	3	4
Total	**6**	**12**	**17**

Table 4. Summary of TFB Recommendations for CLAs and LAs for the LULUCF "Degradation and Devegetation" Project (Task 2), by country type.

Country Type	No. of CLAs	No. of LAs	Total
Developing countries	3	4	7
EITs	-	1	1
Developed countries	3	7	9
Total	**6**	**12**	**17**