

Development of IPCC Guidance on Wetlands

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Background

- IPCC Expert Meeting on HWP, Wetlands and Soil N₂O, Oct 2010
 - recommended ... additional methodological guidelines for the rewetting and restoration of peatland; emissions from fires, ditches and waterborne carbon; and constructed wetlands for waste water disposal...
- SBSTA 33 (Dec 2010) invited the IPCC to produce
 - Additional guidance on wetlands “focusing on the rewetting and restoration of peatland, with a view to filling in the gaps in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories”
- IPCC Scoping Meeting on Additional Guidance on Wetlands, 2011
 - Produced Terms of Reference and Chapter Outline
- As a result the IPCC has approved the development of the “2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands”

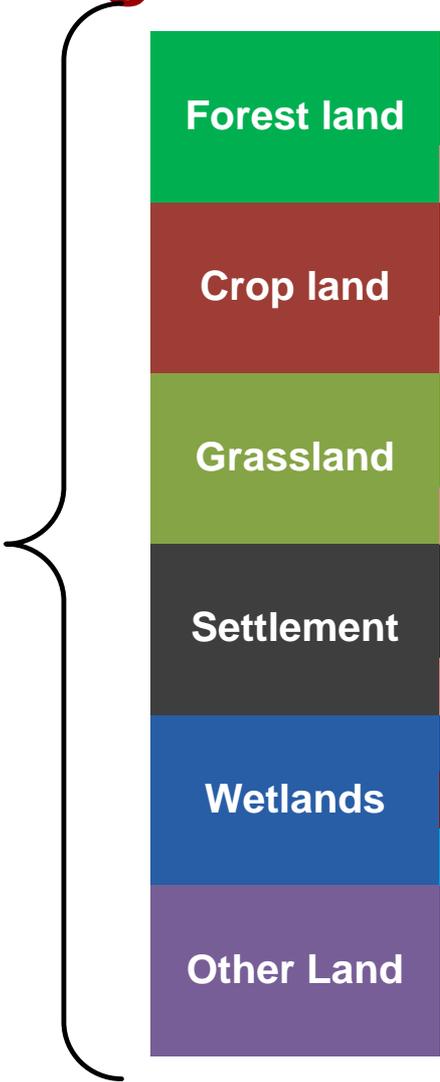
Existing Guidance

Wetlands

- The 2006 IPCC Guidelines themselves note that the guidance on wetlands is incomplete.
- When the Wetlands chapter in the 2006 IPCC Guidelines was produced there were insufficient scientific information available for many categories, and so methods are only available for
 - some emissions from flooding lands;
 - harvesting of peatlands
 - and some organic soils.
- Still cannot address gaps in flooded lands.

Classifying land

**IPCC
Classification**



Existing Guidance Under Wetlands

Land-use category/GHG	Peatlands (peat extraction)	Flooded Land
Wetlands Remaining Wetlands		
CO ₂	Section 7.2.1.1	Included Elsewhere ¹
CH ₄	Negligible ²	Appendix 3
N ₂ O	Section 7.2.1.2	Included Elsewhere ³
Lands Converted to Wetlands		
CO ₂	Section 7.2.2.1	Section 7.3.2.1 and Appendix 2
CH ₄	Negligible ²	Appendix 3
N ₂ O	Section 7.2.2.2	Included Elsewhere ³
<p>NOTES:</p> <p>¹ CO₂ emissions from <i>Flooded land Remaining Flooded land</i> are covered by carbon stock change estimates of land uses and land-use change (e.g., soils) upstream of the .Flooded Land</p> <p>² Methane emission from peatlands is negligible after drainage during conversion and peat extraction.</p> <p>³ N₂O emissions from are included in the estimates of indirect N₂O from agricultural or other run-off, and waste water.</p>		

Agreed Terms of Reference and Chapter Outline

Aim

“To develop additional national-level inventory methodological guidance, including default emission factor values, on wetlands to address the gaps identified in the 2006 IPCC Guidelines”

Scope

- does not revise or replace the 2006 IPCC Guidelines, but provides a reference that complements and is consistent with these Guidelines.
- will be completed before the 39th session of SBSTA in 2013,
- will be consistent with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and earlier guidelines as well as good practice guidance. Recent advances in science will be taken into account.
- will contain the methodological guidance to fill the gaps identified in the 2006 IPCC Guidelines in the subcategories of peatland rewetting and restoration as well as anthropogenic emissions and removals from additional coastal and freshwater wetland types.
- **does not cover flooded lands** (such as reservoirs).

Proposed Chapter Outline

OVERVIEW CHAPTER

Chapter 1 – INTRODUCTION

Chapter 2 – CROSS-CUTTING GUIDANCE ON ORGANIC SOILS

Chapter 3 – REWETTING AND RESTORATION OF PEATLANDS

Chapter 4 – COASTAL WETLANDS

Chapter 5 – OTHER FRESHWATER WETLANDS

Chapter 6 – CONSTRUCTED WETLANDS – Wastewater Treatment

Chapter 7 – GOOD PRACTICE AND IMPLICATIONS FOR
REPORTING

General Issues

- Coverage and gaps in the 2006 Guidelines
- Definitions (coastal wetlands, peatlands and other freshwater wetlands)
 - Taking into account the RAMSAR definitions
 - How to ensure completeness without overlaps
 - Roles and functions of constructed wetlands
- Coherence, compatibility and integration with 2006 Guidelines.
- Significance of human activities on wetlands emissions and removals.
- General Good Practice Issues
 - Quality and quantity of data, Completeness, Time Series consistency, QA/QC
- Reporting in the context of 2006 Guidelines

Structure of methodological guidance

- Methodological Issues
 - Choice of Method: decision trees and definition of tiers.
 - Choice of Emission Factor
 - Choice of Activity Data
 - Completeness
 - Developing a Consistent Time Series
- Uncertainty Assessment
 - Emission Factor Uncertainties
 - Activity Data Uncertainties
- QA/QC, Reporting & Documentation

Focus of Methodologies

- Activities that may be significant for individual categories of wetlands include:
 - clearance (followed by biomass combustion, filling, drainage, aquaculture, conversion to agriculture);
 - changes in hydrology;
 - application of waste water;
 - restoration and fires.
- The impacts of these need specific methodologies particularly for soils.

Nomination and Selection of Authors

- Invitation for nominations of author have been sent to
 - Governments
 - Observer Organisations of the IPCC
- **Deadline is 30th JUNE**
- The Bureau of the TFI will select a slate of authors:
 - scientific, technical and socio-economic expertise;
 - geographical representation
 - previous experience in IPCC;
 - gender balance.
- The Bureau may add additional authors to fill gaps

Work Plan

May 2011	IPCC 33	Approved
June 2011	Nomination of Authors	Nominations Open
July 2011	TFB select Authors	Selection by TFB
Nov 2011	1st Author Meeting	To develop zero order draft
Feb 2012	2nd Author Meeting	To develop first order draft for review
Apr – May 2012	1st Expert Review	8 weeks review by experts
July 2012	3rd Author Meeting	Consider comments and 2 nd draft
Oct 2012	Literature cut-off date	
Oct – Nov 2012	2nd Expert & Government Review	8 weeks review
Feb 2013	4th Author Meeting	Consider comments and final draft
April – May 2013	Government Consideration	
2013 (tbc)	Adoption/acceptance by IPCC	

Emission Factor Database (EFDB)

- All default values agreed for the 2013 Supplement will be added to the EFDB
- Data on emission factors applicable at higher tiers can be entered into the EFDB at any time
- Any information on factors found by the 2013 Supplement Authors should be considered for inclusion in the EFDB

Principles and Procedures

- The IPCC is revising its principles and procedures and these will apply to the production of the 2013 Guidelines
- Interim procedures have been introduced by the TFI and will be replaced and updated by the IPCC guidance as it is agreed. They cover:
 - Conflict of Interest
 - Confidentiality and Transparency
 - Roles and Responsibilities of Authors
 - Specific TFI style and approaches

Conclusions

- The IPCC will produce the “2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands”
 - Finish in 2013
 - Will cover all wetlands except flooded lands (e.g. reservoirs)
- Nominations for authors have opened



Thank you!