2013 Supplement: Wetlands

WMO UNEP

ipcc
INTERGOVERNMENTAL PANEL ON climate change

Introduction

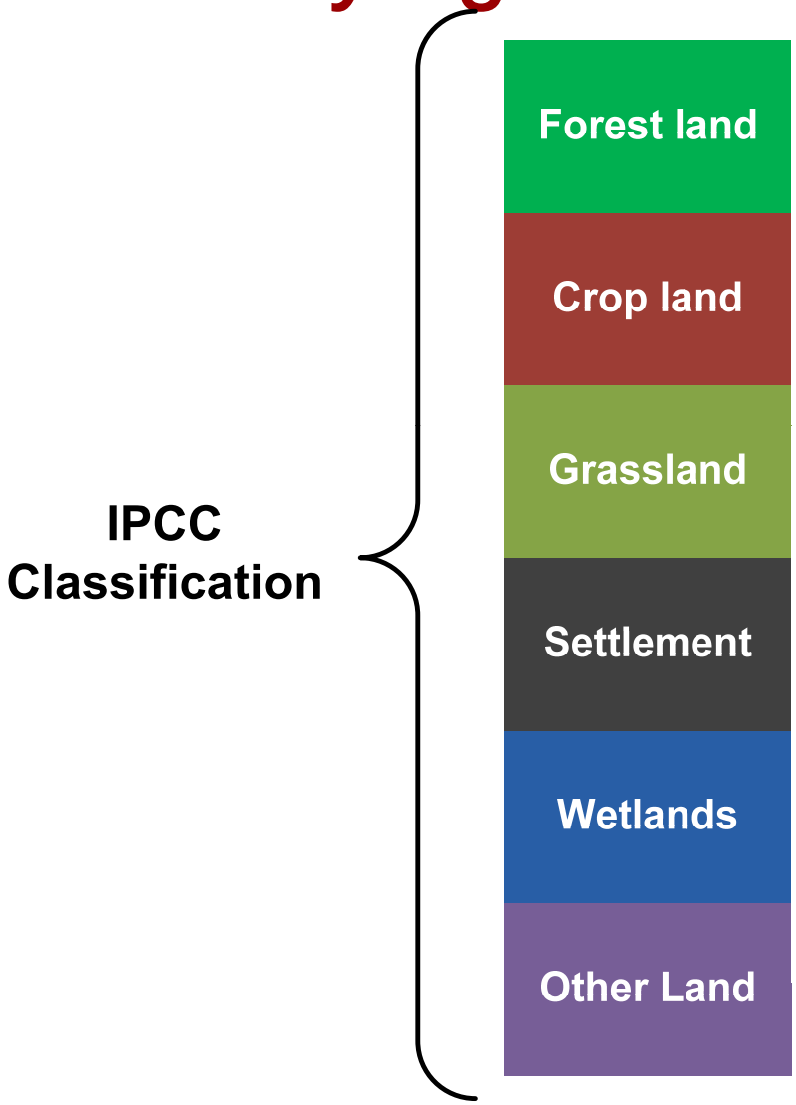
- Following the invitations to the IPCC the TFI has had 2 expert meetings:
  - IPCC Expert Meeting on HWP, Wetlands and Soil N2O 19-21 October 2010, Geneva, Switzerland
  - IPCC Expert Meeting on Scoping Additional Guidance on Wetlands, 30 March - 1 April, 2011 in Geneva, Switzerland
- This presentation outlines the approved development of the "2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands"

Background

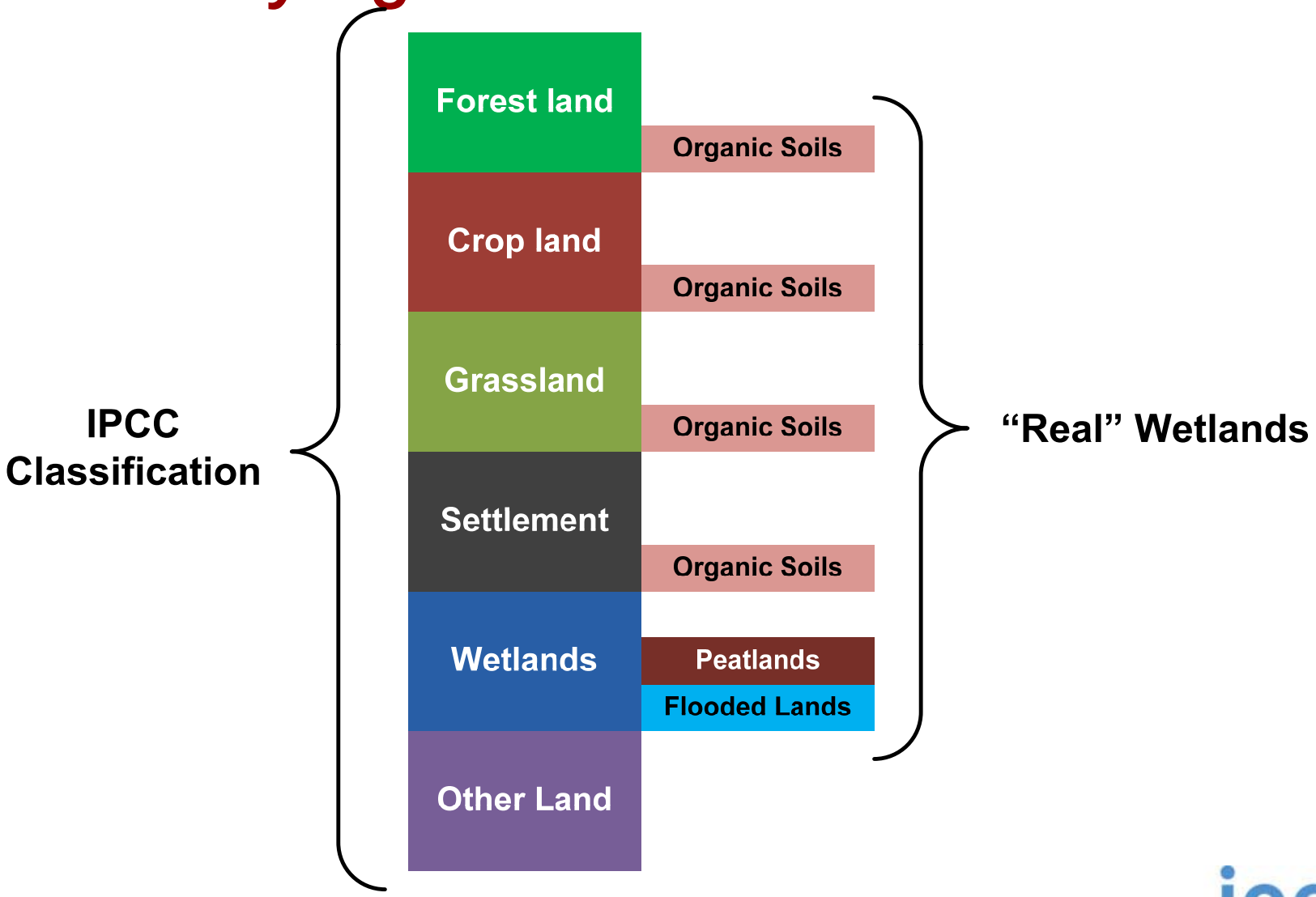
Wetlands

- The 2006 IPCC Guidelines note that the guidance on wetlands is incomplete.
- When the Wetlands chapter in the 2006 IPCC Guidelines was compiled there was insufficient scientific information available to complete methodologies for all sub-categories, and so methods are only available for some emissions from flooded lands; harvesting of peatlands and some organic soils.
- Recent IPCC Expert Meetings agree that guidance can now be provided with the exception of flooded lands.

Classifying land



Classifying land



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_2O	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_2O	Section 7.2.2.2	Included Elsewhere [3]

NOTES:

[1] CO_2 emissions from *Flooded land Remaining Flooded land* are covered by carbon stock change estimates of land uses and land-use change (e.g., soils) upstream of the .Flooded Land

[2] Methane emission from peatlands is negligible after drainage during conversion and peat extraction.

[3] N_2O emissions from are included in the estimates of indirect N_2O from agricultural or other run-off, and waste water.

What is covered in 2006 Guidelines:

- Lands converted to flooded lands (e.g. reservoir creation)
- Peat drainage and extraction
- Wetlands drained and converted to other land types

Agreed Terms of Reference and Chapter Outline

ipcc
INTERGOVERNMENTAL PANEL ON climate change
WMO UNEP

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 earlier guidelines including the the Revised 1996 IPCC Guidelines, the IPCC Good Practice Guidance and 2006 IPCC Guidelines for National Greenhouse Gas Inventories. 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

1- INTRODUCTION

- Coherence and compatibility with 2006 Guidelines.
- What is covered by the 2006 Guidelines and what are the gaps it identifies?
- Definitions & Coverage (coastal wetlands, peatlands and other freshwater wetlands) and
  - Definition and delineation of wetlands taking into account the RAMSAR definitions
  - Completeness and potential overlaps
  - Roles and functions of constructed wetlands
  - Flooded lands are NOT covered (such as reservoirs)
- Significance of human activities on wetlands emissions and removals.
  - (Estimation of anthropogenic emissions and removals. Annex could include examples)
- Assessment of data available (current and historical) for wetland types of the world

Methodological Chapters

2 – CROSS-CUTTING GUIDANCE ON ORGANIC SOILS

3 – REWETTING AND RESTORATION OF PEATLANDS

4 – COASTAL WETLANDS

5 - OTHER FRESHWATER WETLANDS

6 - CONSTRUCTED WETLANDS – Wastewater Treatment

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.

7 – GOOD PRACTICE AND IMPLICATIONS FOR REPORTING

- General Good Practice Issues
  - Quality and quantity of data
  - Completeness, Time Series consistency, QA/QC
- Completeness, Time-series consistency, QA/QC for wetlands as a whole
- Need for, and how to, maintain 2006 Reporting Approaches
- Reporting according to the 2006 Guidelines
- Mapping Wetlands emissions into 2006 Guidelines reporting
- Areas for further work
- Worksheet

Work Plan

May 2011	IPCC 33	Approved
June 2011	Nomination of Authors	Nominations Open
Aug 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 2nd 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	

WMO UNEP

ipcc
INTERGOVERNMENTAL PANEL ON climate change

Thank you!

WMO UNEP

ipcc
INTERGOVERNMENTAL PANEL ON climate change