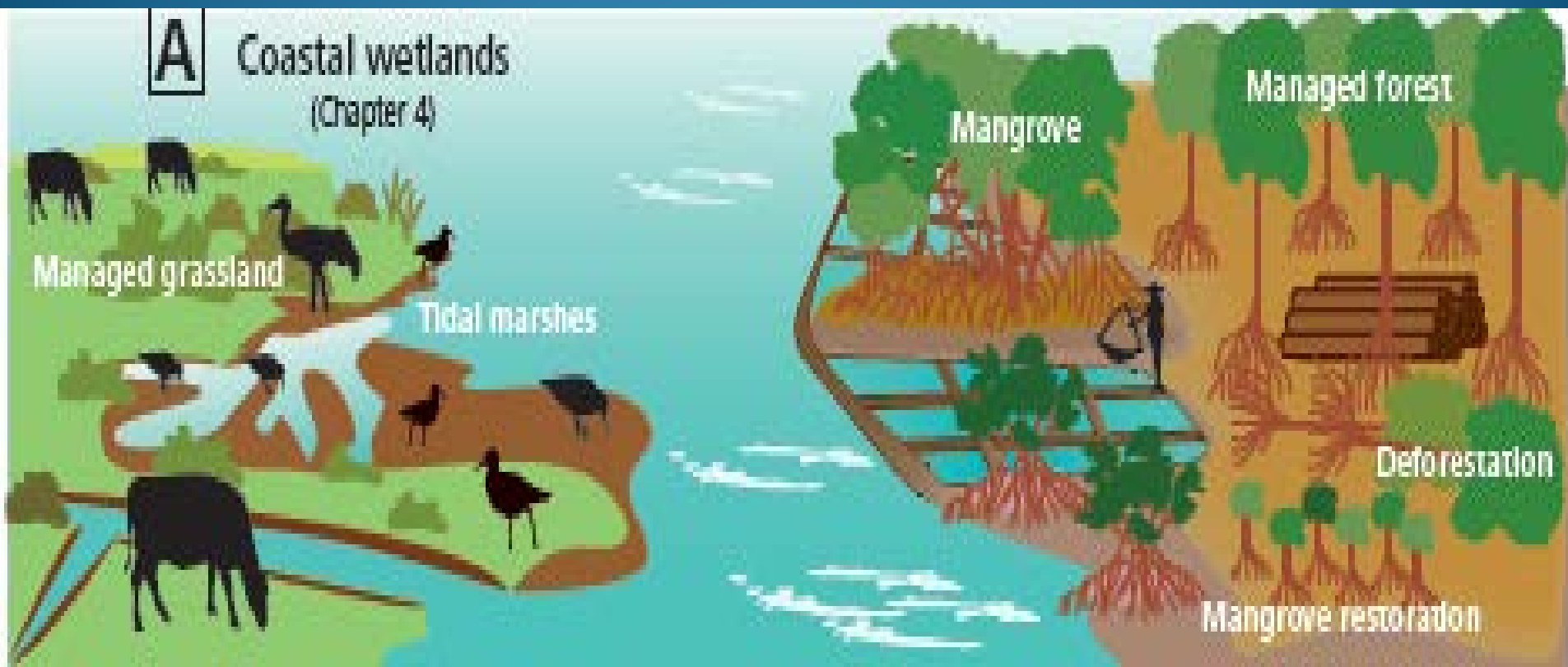


2013 IPCC Wetlands Supplement

Focus on Coastal Wetlands

Tom Wirth
US EPA
November 6, 2014



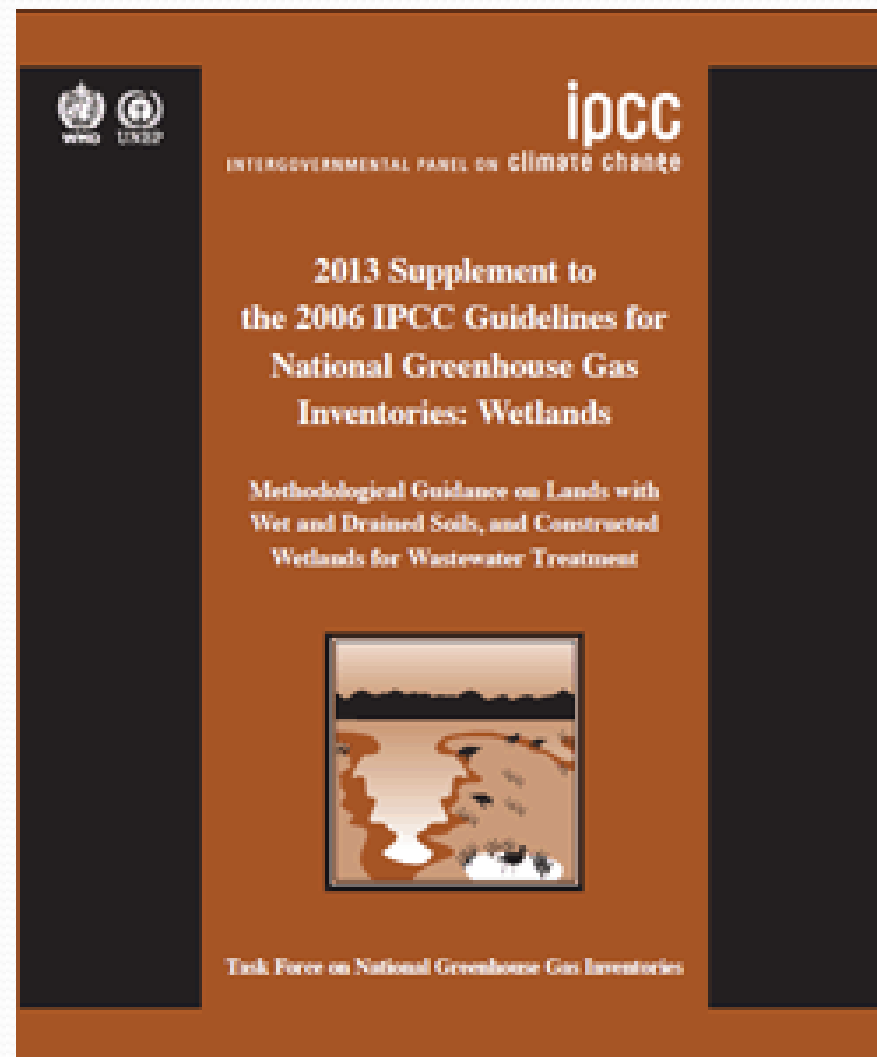
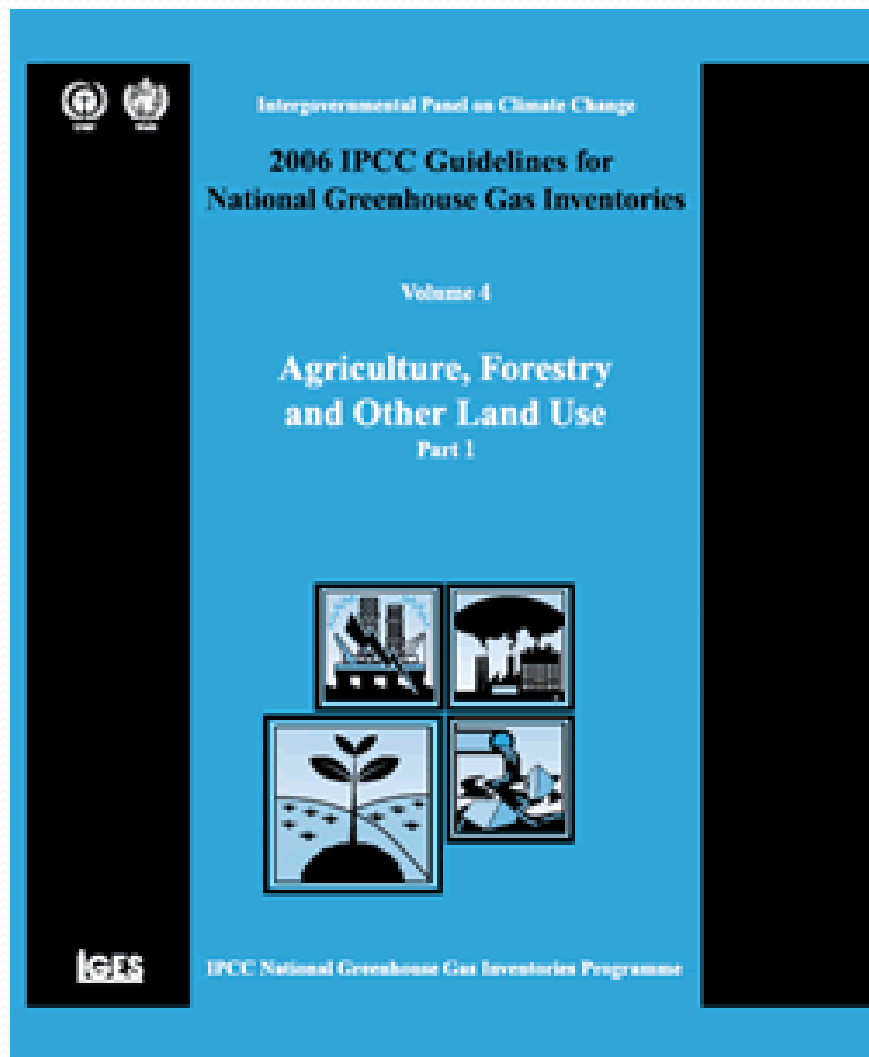
2006 IPCC Guidelines for National Greenhouse Gas Inventories



- Overview
- Vol 1: General Guidance and Reporting
- Vol 2: Energy
- Vol 3: Industrial Processes and Product Use (IPPU)
- Vol 4: Agriculture, Forestry and Other Land Use (AFOLU)
- Vol 5: Waste

*To be used for reporting
to the UNFCCC in 2015*

IPCC Guidance for Wetlands



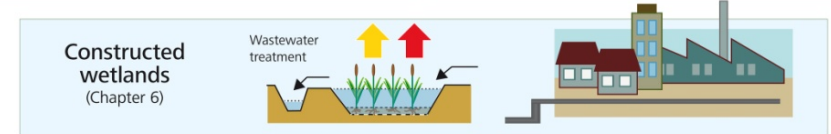
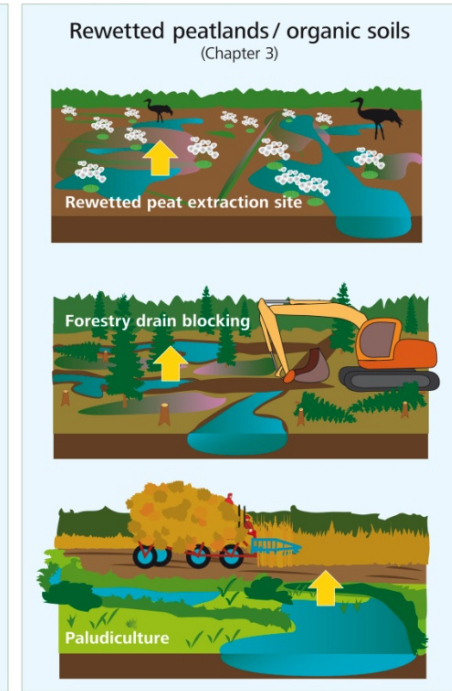
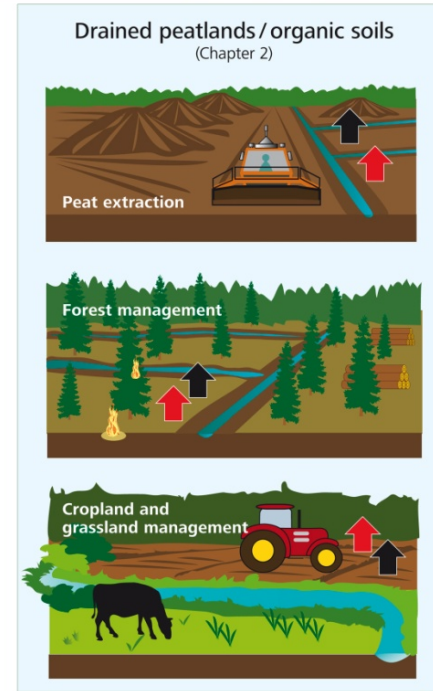
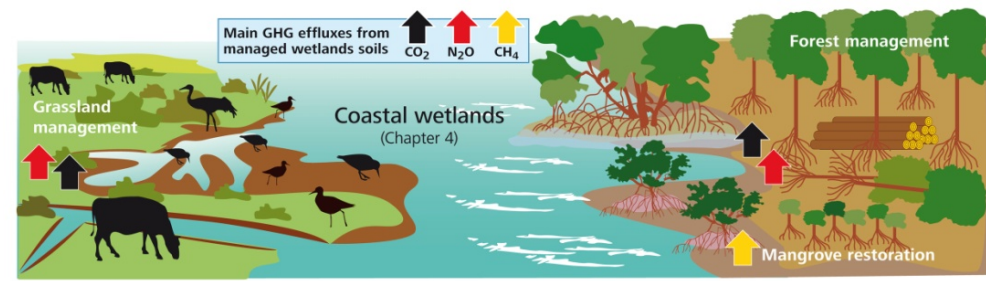
Wetlands Guidance in the 2006 IPCC Guidelines AFOLU Volume

- Emissions Across Multiple Land-Use Categories (Cropland, Grassland, Forest Land):
 - Drained Organic Soils—CO₂ and N₂O emissions (e.g., converted wetlands)
 - Inland Wetlands Mineral Soils—CO₂ and CH₄ (management, drainage, rewetting, rice)
- Emissions Within the Wetlands Land-Use Category:
 - Peatlands—CO₂ and N₂O Emissions from conversion, extraction and horticultural application of peat
 - Land Converted to Flooded Land (e.g., Reservoirs)—CO₂ emissions
 - Guidance on CH₄ is provided in an appendix

Chapter Outline of Wetlands

Supplement

Chapter 1: Introduction
Chapter 2: Drained Inland
Organic Soils
Chapter 3: Rewetted Organic
Soils
Chapter 4: Coastal Wetlands
Chapter 5: Inland Wetland
Mineral Soils
Chapter 6: Constructed
Wetlands for Wastewater
Treatment
Chapter 7: Cross-cutting Issues
and Reporting



Chapter 4: Coastal Wetlands



- Coastal wetlands: mangroves, tidal marshes and seagrass meadows
- Coastal wetlands generally excluded due to “Managed Land Proxy”
 - MLP in 2006 Guidelines states that all emissions and removals from “managed” lands are anthropogenic and included in a country's NIR
 - Wetlands were only considered “managed” if the water level was raised or lowered through human intervention—generally excluding coastal areas and the potentially large source of non-anthropogenic GHGs
 - MLP was updated in the Wetlands Supplement to allow inclusion of specific activities
- New and updated guidance/data for coastal areas
 - CO₂ emissions and removals on mineral and organic soils
 - Default data for estimation of C stock changes in mangrove living biomass and dead wood
 - N₂O from aquaculture use
 - CH₄ from rewetting, revegetation and creation of coastal wetlands

Management Activities in Coastal Wetlands and Relevant Guidance in IPCC Wetlands Supplement

Activity	Coastal Vegetation Types Affected*	Subactivity	New/Updated Guidance or Data Provided in Coastal Wetland Chapter of Wetlands Supplement
Activities Relevant to CO₂ Emissions and Removals			
Forest Management	M	Planting, thinning, harvest, wood removal, fuelwood removal and charcoal production. Including conversion to or from Forest Land	Updates to 2006 GLs default data for estimation of C stock changes in biomass and dead wood pools
Extraction	M, TM, SGM	Excavation to construct port, harbor or marina; filling or dredging to raise elevation of land	New guidance and data provided for estimation of CO ₂ emissions and removals from organic and mineral soils
	M, TM	Construction of aquaculture facilities	
	M, TM	Construction of salt production facilities	
Drainage	M, TM	Agriculture, forestry, mosquito control	
Rewetting, revegetation and creation	M, TM	Conversion from drained to saturated soils by restoring hydrology and vegetation	
Revegetation	SGM	Reestablishment of vegetation on undrained soils	
Activities Relevant to non-CO₂ Emissions			
Aquaculture (use)	M, TM, SGM	N ₂ O emissions from aquaculture use	New guidance for estimating N ₂ O emissions from aquaculture use
Rewetting, revegetation, and creation	M, TM, SGM	CH ₄ emissions from rewetting, revegetation and creation of wetlands	New guidance for estimating CH ₄ emissions from rewetting, revegetation and creation of M, TM, SGM

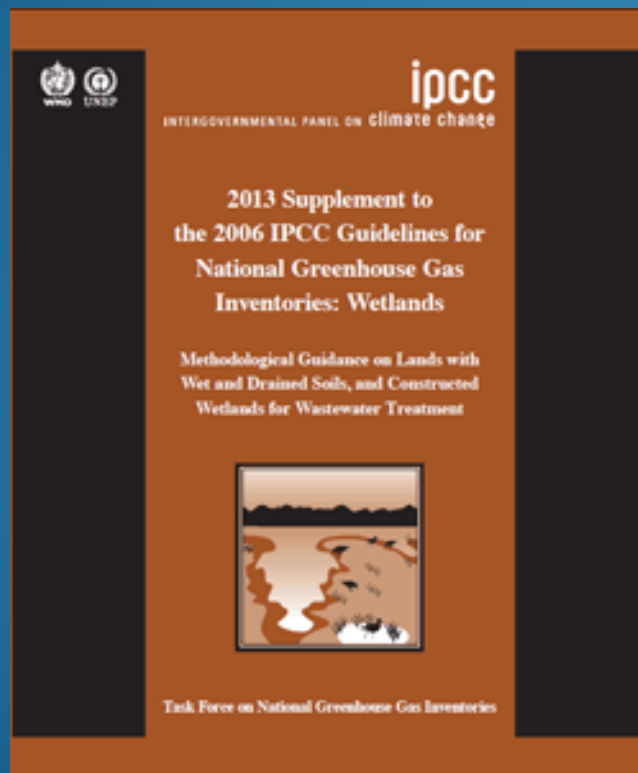
*M=Mangroves, TM= Tidal Marsh, SGM=Sea Grass Meadows

Adoption of the IPCC Wetlands Supplement in US GHG Inventory

- The UNFCCC has said that countries should “gain experience” in the use of the Wetlands Supplement over the coming years
- At present there is no requirement to implement the new methods/sources from the Supplement
- The US plans to begin this process and incorporate all of the new guidance over a 3-5 year period depending on resources and support from other government agencies and outside organizations
- We look forward to your input in this process

To obtain a copy of the 2013 IPCC Wetlands Supplement:

<http://www.ipcc-nggip.iges.or.jp/public/wetlands/>



Thanks for listening

Tom Wirth
Wirth.tom@epa.gov