IPCC Developments

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The 9th Workshop on GHG Inventories in Asia (WGIA9)

"Capacity building for measurability, reportability and verifiability"

13-15 July 2011, Phnom Penh, Cambodia

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Overview

- 2013 Supplement: Wetlands
  - Background
  - Outline
  - Work programme
- Software
- Emission Factor Database
- Expert Meetings

2013 Supplement: Wetlands

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Background

- Following invitations by the UNFCCC, the IPCC's TFI has held 2 expert meetings :
  - IPCC Expert Meeting on **HWP, Wetlands and Soil N_2O** 19-21 October 2010, Geneva, Switzerland
  - IPCC Expert Meeting on **Scoping Additional Guidance on Wetlands**, 30 March - 1 April, 2011 in Geneva, Switzerland
- IPCC at its 33rd session approved the development of the:

  "2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands"

Wetlands in 2006 Guidelines

- 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.

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
  - i.e. "ORGANIC SOILS" in Forests, grasslands, croplands etc.

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 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.
  - Also look at fires, ditches and waterborne carbon
- **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

Focus of Methodologies

- Anthropogenic 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.

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 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	

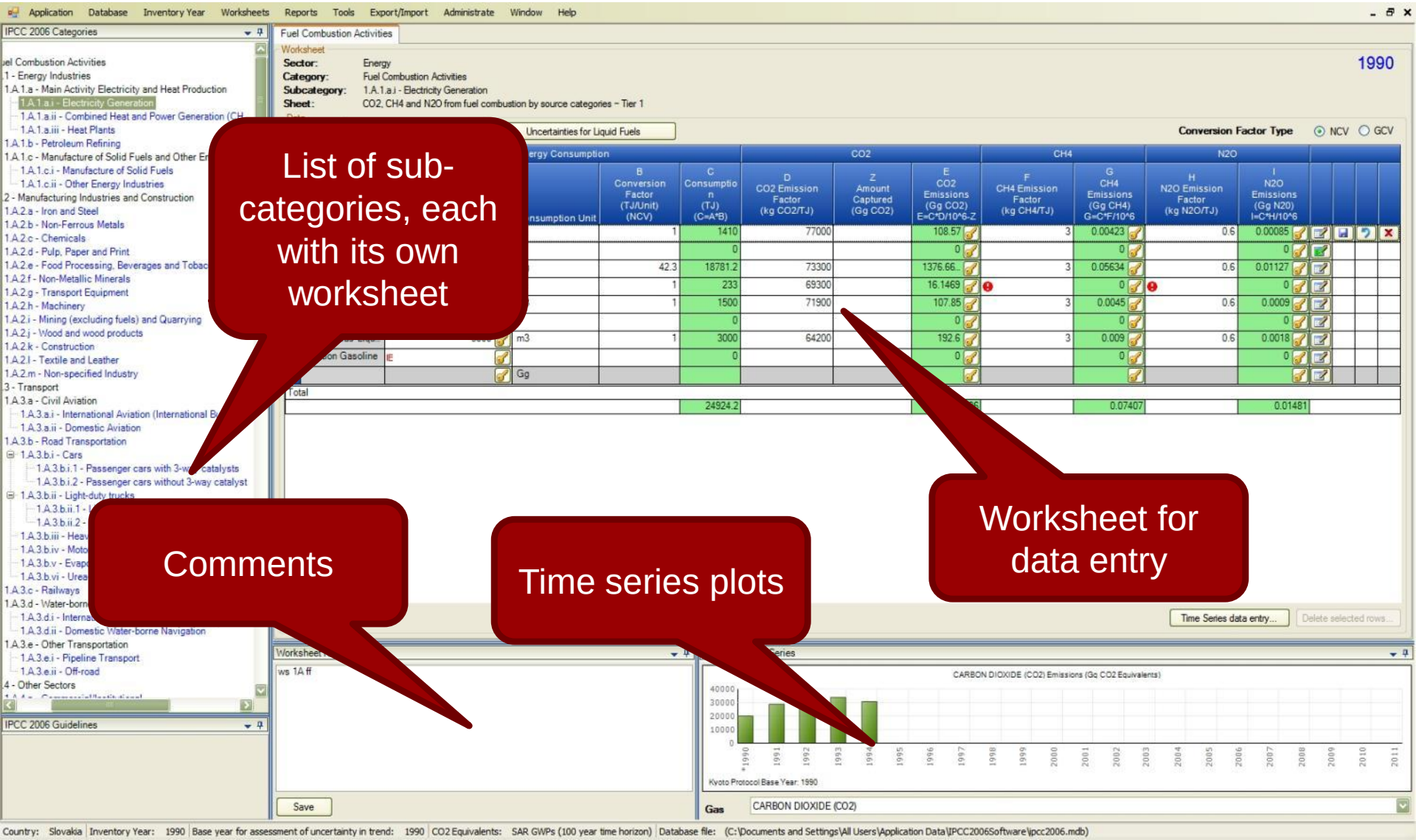
Other Issues

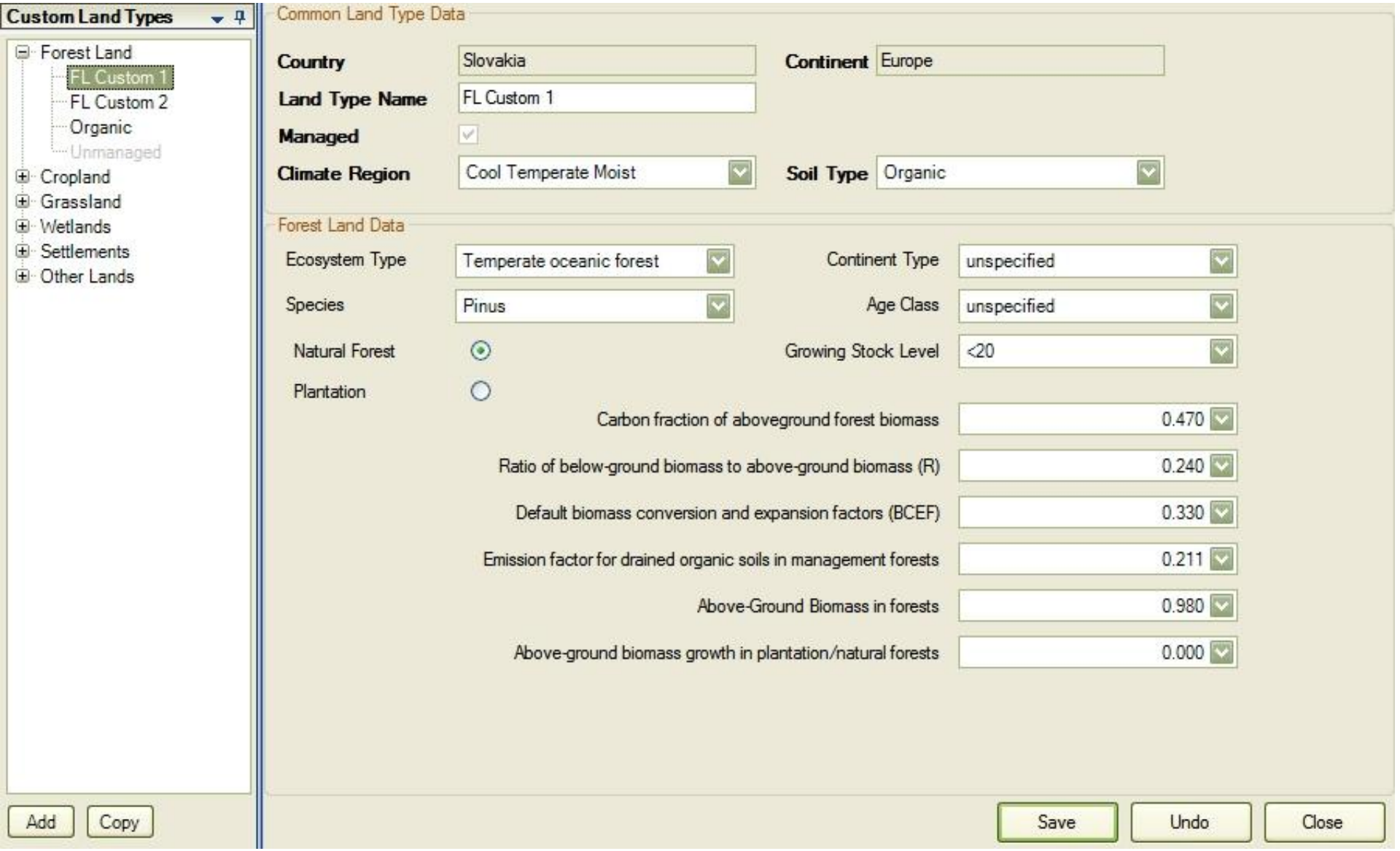
Software

- The objectives of the software are to:
  - facilitate preparation of national GHG inventories according to 2006 Guidelines either for complete inventories or for separate categories or groups of categories.
  - assist in training and inventory review
  - harmonise reporting of greenhouse gas inventories
  - archive data and complete inventories (which may consist of estimates for a number of years).

Features

- Standalone software does not require any additional software
- Covers all inventory categories but can also be used for specific sectors
- Allows multiple users
  - Allows different parts of the inventory to be developed simultaneously
- Implements Tier 1 approaches
  - Looks like worksheets in printed version for ease of use
  - Provides default data but gives users the flexibility to use their own information
- Provides useful functions include Key Category analysis, Uncertainty analysis, import/export, reports etc.


List of sub-categories, each with its own worksheet
Comments
Time series plots
Worksheet for data entry



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Reports Tools Export/Import Administrate Window Help

Parameters | Methane Correction Factor | Activity Data | Amount Deposited | Methane Calculations | Methane Recovery | Results | Long Term stored C in SWDS

Country Slovakia

Region Europe - Eastern

Climate Zone: Boreal and temperate dry

***Approach** Waste by composition

****Activity Data** Population / GDP (Tier 1)

Starting year	1950
DOCf (fraction od DOC dissimilated)	0.50
Delay Time (months)	6
Fraction of methane (F) in developed gas	0.50
Conversion Factor, C to CH4	1.33
Oxidation Factor (OX)	0.00
Parameters for carbon storage	
% paper in industrial waste	0.00 %
% wood in industrial waste	0.00 %

DOC (Degradable organic carbon) [weight fraction, wet basis]

Food Waste	0.150
Garden	0.200
Paper	0.400
Wood and straw	0.430
Textiles	0.240
Disposable nappies	0.240
Sewage sludge	0.050
Industrial Waste	0.150

Methane generation rate constant (k) [1 / years]

Food Waste	0.060
Garden	0.050
Paper	0.040
Wood and straw	0.020
Textiles	0.040
Disposable nappies	0.050
Sewage sludge	0.050
Industrial Waste	0.050

* The bulk waste option is suitable for countries without data or with limited data on waste composition, but with good information on bulk waste disposed at SWDS. Default values are estimated as a function of the climate zone.

** In case of "Population / GDP" use "Activity Data" sheet to estimate amount of waste deposited to SWDS based on Population and GDP.
In case of "National statistics" enter amounts directly into "Amount deposited" sheet.

Future

- New version is now available on TFI website at http://www.ipcc-nggip.iges.or.jp/support/support.html.

  We welcome your comments!
- Expert meeting on Software, August 2011, Japan
  - to introduce the new software and run training session
- Expert meeting on Software, December 2011, Brazil
  - to review the first officially released software
- We aim to release the first version of the software before the end of 2011

Emission Factor Database

- The EFDB is a resource for inventory compilers, providing access to potentially useful data, emission factors and other parameters, which they can use to improve their estimates.
- We are putting increasing effort into adding more data into the EFDB across all sectors
- If you have data you can share please let us know.

http://www.ipcc-nggip.iges.or.jp/EFDB/main.php

Expert Meetings

- Expert Meeting on use of Facility Level Data will be held in New Zealand next week.
- The Bureau of the TFI will consider its future work programme and is considering further work on forests.
- If you have any suggestions let me know.

Thank you!

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