

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE





On-going Projects under the IPCC National Greenhouse Gas Inventories Programme

Workshop of GHG Inventories in Asia Region (Phuket, Thailand, 13 - 14 November 2003)

Kiyoto Tanabe, Technical Support Unit IPCC National Greenhouse Gas Inventories Programme

WMO UNEI

IPCC National GHG Inventories Programme

Reports & Tools for National GHG Inventories

1995: IPCC Guidelines for National GHG Inventories

1997: Revised 1996 IPCC Guidelines for National GHG Inventories & Software for the Workbook

2000: Good Practice Guidance and Uncertainty Management in National GHG Inventories (GPG2000)

2002: Database on GHG Emission Factors (EFDB)

On-going

2003: Reports on Land Use, Land-Use Change and Forestry

➤ Good Practice Guidance for LULUCF, etc.

Preparatory phase

Just Completed

2006: Revision of the Revised 1996 IPCC Guidelines (2006 IPCC Guidelines)



Revised 1996 IPCC Guidelines

> Coverage:

- ✓ 7 major Sectors: Energy, Industrial Processes, Solvent and Other Product Use, Agriculture, Land-Use Change and Forestry, Waste, Others
- ✓ Gases: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NMVOCs, CO, NOx, SO₂

➤ Volume I: Reporting Instructions

✓ General instructions, Reporting tables, Glossary, etc.

➤ Volume II: Workbook

- ✓ Step-by-step instructions with worksheets, Default values
- ✓ IPCC Software a supplement to the Workbook

> Volume III: Reference Manual

✓ Scientific background, Methodologies (Tiered approach)



Good Practice Guidance (GPG2000)

> Coverage:

- ✓ 4 major Sectors: Energy, Industrial Processes, Agriculture, Waste
- ✓ Gases:CO₂, CH₄, N₂O, HFCs, PFCs, SF₆
- **➤ Elaboration of Revised 1996 IPCC Guidelines**
- ➤ Assist countries in producing inventories:
 - that are neither over- nor underestimates so far as can be judged
 - in which uncertainties are reduced as far as practicable

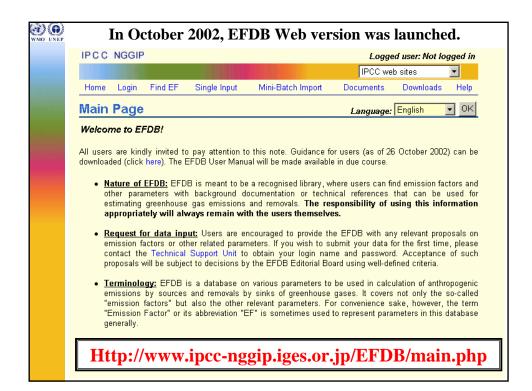
> Provide guidance on

- ✓ Choice of methods/emission factors/activity data
- ✓ Reporting and documentation
- ✓ Identification of Key Source Categories
- ✓ Quantification of Uncertainties
- ✓ QA/QC /etc.



Database on GHG Emission Factors (EFDB)

- **≻**Background
 - ✓ Reliable emissions factors crucial in producing accurate GHG inventories
 - ✓ Emission factor development costly, time consuming, requires much expertise
 - ✓ Sharing information cost-effective
 - => need for an easily accessible database on emission factors and other parameters used in inventory calculations





Database on GHG Emission Factors (EFDB)

> Nature of the EFDB

- ✓EFDB is meant to be <u>a recognised library</u> of GHG emission factors and other parameters.
- ✓ Users can find emission factors and other parameters with background documentation or technical references that can be used for estimating GHG emissions and removals.
- √ The responsibility of using this information
 appropriately will always remain with the users
 themselves.



Database on GHG Emission Factors (EFDB)

> Criteria for inclusion of new data

- ✓EFDB is open to any proposals
 - the **Editorial Board** will evaluate the data for entry to the database.
- ✓EFDB should assist countries in producing inventories that are neither over- nor underestimates so far as can be judged and in which uncertainties are reduced as far as practicable.
- ✓ To this end, the data to be included should be
 - Robust
 - Applicable
 - Documented



Database on GHG Emission Factors (EFDB)

- ➤ At present ...
 - ✓ Web-based
 - ✓ Contain only the IPCC default data and the data from CORINAIR94
 - ✓ To be populated with data from researchers/ scientists/experts, industry, other databases, ...

> Future of the EFDB

- ✓ CD-ROM version: annually or biannually;
- ✓ Success depending on input from the global scientific and inventory society;
- ✓ Continuous improvement on the content and functionality experiences and feedback important



Reports on Land Use, Land-Use Change and Forestry (LULUCF Programme)

- **Background**
 - ✓ Invitation to the IPCC in the Marrakesh accords LULUCF (Land use, land-use change and forestry) Decision 11/CP.7 (at COP7 in November 2001)
 - ✓IPCC response in three tasks:
 - Good Practice Guidance for LULUCF (Task 1)
 - Definitions and inventory methodologies for 'Degradation of forests and devegetation of other vegetation types" (Task 2)
 - Practicable methodologies for factoring out direct human-induced effects from the others (Task 3)

Adopted/accepted at IPCC XXI (Vienna, 3-7 Nov 2003)



Reports on Land Use, Land-Use Change and Forestry (LULUCF Programme)

Task 1:

Good Practice Guidance for LULUCF

- ➤ Complements the IPCC 1996 Guidelines and existing Good Practice Guidance (GPG2000)
- **≻**Contents:
 - Chapter 1: Overview
 - Chapter 2: Consistent representation of land areas
 - Chapter 3; LUCF Sector Good Practice Guidance
 - Chapter 4: Supplementary methods and Good Practice Guidance arising from the Kyoto Protocol
 - Chapter 5: Cross-cutting issues



Reports on Land Use, Land-Use Change and Forestry (LULUCF Programme)

Task 2:

Definitions and methodological options for degradation of forests and devegetation of other vegetation types

- ➤ Builds on Task 1 methodologies
- ➤ Table of contents:
 - ✓ Chapter 1: Overview
 - ✓ Chapter 2: Options for Definitions of Forest Degradation and Devegetation of Other Vegetation Types
 - ✓ Chapter 3: Methodological Options for Estimating Emissions from Forest Degradation and Devegetation
 - ✓ Chapter 4: Implications of Definitional Options for Forest Degradation and Devegetation under Article 3.4 of the Kyoto Protocol



Reports on Land Use, Land-Use Change and Forestry (LULUCF Programme)

Task 3:

Development of practicable methodologies for factoring out direct human-induced changes in carbon stocks and greenhouse gas emissions by sources and removals by sinks from those due to indirect human-induced and natural effects (such as those from CO₂ fertilisation or nitrogen deposition), and effect due to past practices in forests

- ➤ Challenging Good science is not available for development of comprehensive methodologies for factoring out.
- ➤ IPCC XXI decided to forward the Scientific Statement to SBSTA SBSTA19 in December 2003 is expected to consider this issue.



Revision of the 1996 IPCC Guidelines (2006 IPCC Guidelines)

Background

- ✓ Revised 1996 IPCC Guidelines and GPG reports
 - Guidelines about ten year old partly obsolete
 - Three sets of reports one user-friendly set
 - EFDB complement to the GLs and GPG
 - Experience in the use
- ✓ SBSTA 17 (October November 2002)– invitation to the IPCC – by early 2006
- ✓ IPCC Inventory Task Force Bureau 9th session (late November 2002) plan for the revision
- ✓ IPCC XX (February 2003) endorsed preparatory steps for the revision



Revision of the 1996 IPCC Guidelines (2006 IPCC Guidelines)

➤ Scoping Meeting on the project

- ✓ A expert group scoping meeting on the project was held on 16-18 September 2003 in Geneva to develop draft TOR, TOC and Work Plan.
- ✓ Various key issues were discussed:
 - Scope of gases
 - Scope of source/sink categories
 - New sources/sinks
 - Restructuring new and existing sources/sinks
 - Methodological updates/improvements
 - Improving user-friendliness, linking project level/entity level reporting and national inventories, etc.



Revision of the 1996 IPCC Guidelines (2006 IPCC Guidelines)

> Development in the future

- ✓IPCC Inventory Task Force Bureau, at its 11th session (19 September 2003), considered the draft TOR, TOC & Work Plan based on the outcomes of the scoping meeting.
- ✓ Draft TOR, TOC & WP (IPCC-XXI/Doc.10) was endorsed with some amendments by the IPCC XXI (Vienna, 3-7 November 2003).
- ✓ Nomination and selection of the authors is envisaged from November 2003 February 2004.
- ✓ Writing will start in Spring 2004 with a view to completion in early 2006 to meet SBSTA invitation.

Revision of IPCC guidelines and development of database for emission factors Mr. Kiyoto Tanabe

