



Task Force on National Greenhouse Gas Inventories

IPCC Emission Factor Database (EFDB)

Africa Regional Workshop on the Building of Sustainable National Greenhouse Gas Inventory Management Systems, and the Use of 2006 IPCC Guidelines for National Greenhouse Gas Inventories

Maseru, Lesotho

14–18 March 2016

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IPCC EFDB

- Library of emission factors/parameters and other relevant data
 - Default values from IPCC Guidelines
 - Data from peer-reviewed scientific papers
 - Data from other publications (government reports, industry studies etc.)

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

- Communication platform for distribution of new research and measurement data
- Evolves dynamically - data proposals (e.g. inventory compilers, researchers) and data collection efforts (e.g. expert meetings, literature search)
 - Open to any data proposals
- Data proposals evaluated by Editorial Board
- Annual Editorial Board meetings to evaluate data proposals and discuss how to enhance/improve the EFDB

Growing importance of EFDB

- In the context of National Communications from non-Annex I Parties, the Consultative Group of Experts (CGE) recommended
 - Improvement of data quality by enhancement of the sharing of country-specific emission factors through the IPCC Emission Factor Database and among Parties not included in Annex I to the Convention (**FCCC/SBI/2011/5/Rev.1**)
- New reporting guidelines on annual inventories for Annex I Parties
 - If Annex I Parties lack country-specific information, they could also use EFs or other parameters provided in the IPCC Emission Factor Database, where available, provided that they can demonstrate that those parameters are appropriate in the specific national circumstances and are more accurate than the default data provided in the 2006 IPCC Guidelines (**Decision 24/CP.19**)

How to access EFDB

- Two different applications are available
 - Web application
 - CDROM/USB/DVD application
- The web application is the core of this system. New data will be made available in the Web application first
- CDROM/USB/DVD application works with MS Access MDB file, which contains the copy of the web database
 - Can be used on a stand-alone PC

EFDB web application

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IPCC web sites

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Main Page

Language: English OK

Welcome to EFDB!

- ▶ **Nature of EFDB:** EFDB is meant to be a recognised library, where users can find emission factors and other parameters with background documentation or technical references that can be used for estimating greenhouse gas emissions and removals. **The responsibility of using this information appropriately will always remain with the users themselves.**
- ▶ **Request for data input:** Users are encouraged to provide the EFDB with any relevant proposals on emission factors or other related parameters. If you wish to submit your data for the first time, please contact the [Technical Support Unit](#) to obtain your login name and password. Acceptance of such proposals will be subject to evaluation by the EFDB Editorial Board using well-defined criteria.
- ▶ **Terminology:** EFDB is a database on various parameters to be used in calculation of anthropogenic emissions by sources and removals by sinks of greenhouse gases. It covers not only the so-called "emission factors" but also the other relevant parameters. For convenience sake, however, the term "Emission Factor" or its abbreviation "EF" is sometimes used to represent parameters in this database generally.
- ▶ **Software requirements:** It is highly recommended to use Microsoft Internet Explorer version 5.0 or higher for best performance. Alternatively Netscape Navigator version 6.0 or higher can be used. It is also recommended to have Microsoft Office 97 or higher for generating Word and Excel outputs.
- ▶ EFDB at present contains only the IPCC default data IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories, IPCC Good Practice Guidance for Land Use, Land-Use Change and Forestry, and 2006 IPCC Guidelines for National Greenhouse Gas Inventories), and data from peer-reviewed papers and other publications including National Inventory Reports (NIRs).

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Data search

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IPCC web sites

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Find EF - Search criteria

Click [here](#) for online help.

IPCC Guidelines version: 2006 OK

IPCC Source/Sink Category

Root -> Waste (4) -> Wastewater Treatment and Discharge (4.D)

- ▶ 4.D.1: Domestic Wastewater Treatment and Discharge
- ▶ 4.D.2: Industrial Wastewater Treatment and Discharge

Gases

CO2, CH4 & N2O		
Gas name	Formula	Select gas
CARBON DIOXIDE	CO2	☐
METHANE	CH4	☒
NITROUS OXIDE	N2O	☒
		Apply

Status

- ▶ IPCC 2006 Source/Sink Category: Waste (4) -> Wastewater Treatment and Discharge (4.D) -> Domestic Wastewater Treatment and Discharge (4.D.1)
- ▶ Gases: CH4, N2O
- ▶ Number of emission factors covered by your criteria: 129

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Output table

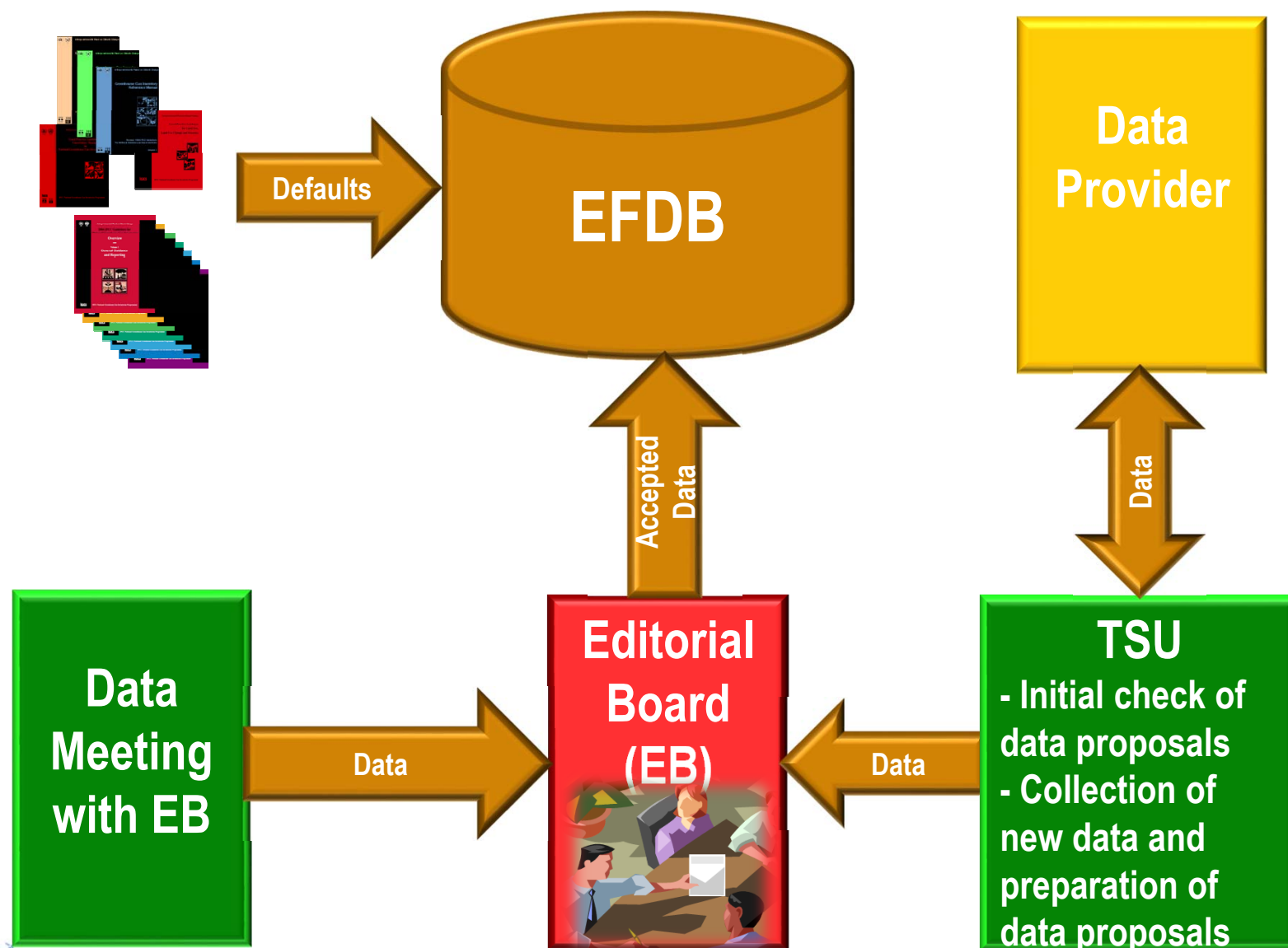
Several search options available

Specify the criteria such as IPCC source/sink category, gases, and click "Apply"

Status of search

Results can be exported to excel format

Populating EFDB



Criteria for inclusion of new data

- **Robust**

- Within the accepted uncertainty, the value is unlikely to change if there was repetition of the original measurement programme or modelling activity

- **Applicable**

- An emission factor can only be applicable if the source and its mix of technology, operating and environmental conditions and abatement and control technologies under which the emission factor was measured or modeled are clear and allow the user to see how it can be applied

- **Documented**

- Access information to the original technical reference must be provided to evaluate the robustness and applicability as described above

Enhancement and improvement of EFDB

- Data collection efforts
 - Expert meetings to collect data have been organized since 2008
 - Focus on specific sectors/categories with the aim to identify, select and approve data for inclusion into the EFDB
 - Attended by both data providers and EB members
 - 11th and 12th Expert Meetings on Data for Energy and IPPU sectors (Japan, November 2015)
 - Literature search (e.g. peer-reviewed papers)
- User-interface is being further improved

Thank you

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