



IPCC Emission Factor Database (EFDB) and recent developments

UN Climate Change Conference

5 December 2019

Madrid, Spain

Baasansuren Jamsranjav, IPCC TFI TSU

ipcc

INTERGOVERNMENTAL PANEL ON climate change



IPCC EFDB (1)

- Launched in 2002
- Library of emission factors and other parameters with background information
 - Default values from IPCC Guidelines
 - Data from peer-reviewed scientific papers
 - Data from other publications (e.g., national reports)
- Communication platform to share data and information that can be used for estimation of GHG emissions/removals

IPCC EFDB (2)

- Evolves dynamically: data proposals (e.g. voluntary submissions from experts) and data collection efforts (e.g. expert meetings to collect data)
- **Open to any data proposals**
 - Data proposals are considered by EFDB Editorial Board for inclusion into the EFDB
 - Criteria for inclusion of new data: **robustness, applicability and documentation**
 - Contact IPCC TFI Technical Support Unit (TSU) at ipcc-efdb@iges.or.jp

Growing importance

- 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 types of applications:
 - Web application
 - Offline application
- The web application is the core of the system. New data will be made available in the web application first
- The offline application works with MS Access MDB file which contains the copy of the web database
 - Can be used on a stand-alone PC
 - Available for download at the EFDB website

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

Web application (1)

- Upgraded in 2018

The screenshot shows the top navigation bar of the EFDB website. On the left, it says "EFDB emission factor database". On the right, there are logos for "ipcc" (Intergovernmental Panel on Climate Change), "WMO" (World Meteorological Organization), and "UNEP" (United Nations Environment Programme). Below the logos is a dropdown menu for "IPCC web sites". The navigation menu includes links for "Home", "Basic search", "Fulltext search", "Search by ID", "Documents", "Downloads", and "Help".

Main Page

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, please contact the [Technical Support Unit](#).

The data proposal should include the following documents:

- 1). Filled in [EFDB data entry form](#).
- 2). A copy of data sources (e.g., peer-reviewed journal papers).

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 the IPCC default data (Revised 1996 IPCC Guidelines, 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 journals and other publications including National Inventory Reports (NIRs). The old [CORINAIR](#) data have been removed as it is outdated.

Possible useful information (activity data, emission factors and parameters) for estimation of GHG emissions/removals can also be found in [other databases](#). The use of the other databases is the responsibility of the users.

In principle, data that do not fully meet the acceptance criteria cannot be included into EFDB. However, there are other data that do not meet the criteria but considered useful to inventory compilers, such as those derived from best available information using expert judgement, etc. To support inventory compilers in case no other information is available, an [extra page](#) has been prepared to provide EFDB users with access to such data selected by the EFDB Editorial Board. The EFDB users must carefully read the introductory note to each set of data in this page and take it into consideration when using those data.

What's new

7 November 2019 - New version of Local Offline application of the EFDB (version 2019) is available on the [Downloads](#) page.

28 June 2019 - Upcoming meetings:

- 17th Meeting of the EFDB Editorial Board (EB17), 11-14 November 2019, Osaka, Japan
- 17th Expert Meeting on Data (Agriculture) for the EFDB, 12-13 November 2019, Osaka, Japan

Web application (2)

EFDB emission factor database | EFDB emission factor database | ipcc INTERGOVERNMENTAL PANEL ON climate change | WMO | UNEP | INTERGOVERNMENTAL PANEL ON climate change | IPCC web sites

Home | **Basic search** | Fulltext search | Search by ID | Documents | Downloads | Help

Basic search

Hide IPCC Category tree | Hide status | **Select Gases** | Select Fuels | Select Type of Parameter | Choose table columns

IPCC Guidelines: 2006

- IPCC 2006 Categories
 - 1 - Energy
 - 2 - Industrial Processes and Product Use
 - 3 - Agriculture, Forestry, and Other Land Use
 - 4 - Waste**
 - 5 - Other

Status

- IPCC 2006 Source/Sink Category: Waste (4)
- Gases: (All)
- Fuels: (All + NA)
- Type of parameter: (All)

Displayed records: 1 - 20 / 1718. Export to XLS

Filter			Select Gases	Select Fuels										
EF ID	IPCC 1996	IPCC 2006	Gas	Fuel	Type of parameter	Description		Regional emissions	Value	Unit	Action			
62639	6A - Solid Waste Disposal on Land	4.A - Solid Waste Disposal	METHANE		1996 IPCC default	Municipal Solid Waste (MSW) Generation Rate	Country: USA		2.0	kg/cap/day	Detail			
62640	6A - Solid Waste Disposal on Land	4.A - Solid Waste Disposal	METHANE		1996 IPCC default	Municipal Solid Waste (MSW) Generation Rate	Country: Canada		1.81	kg/cap/day	Detail			

Search options (e.g. Basic search)

Specify gas, type of parameters etc.

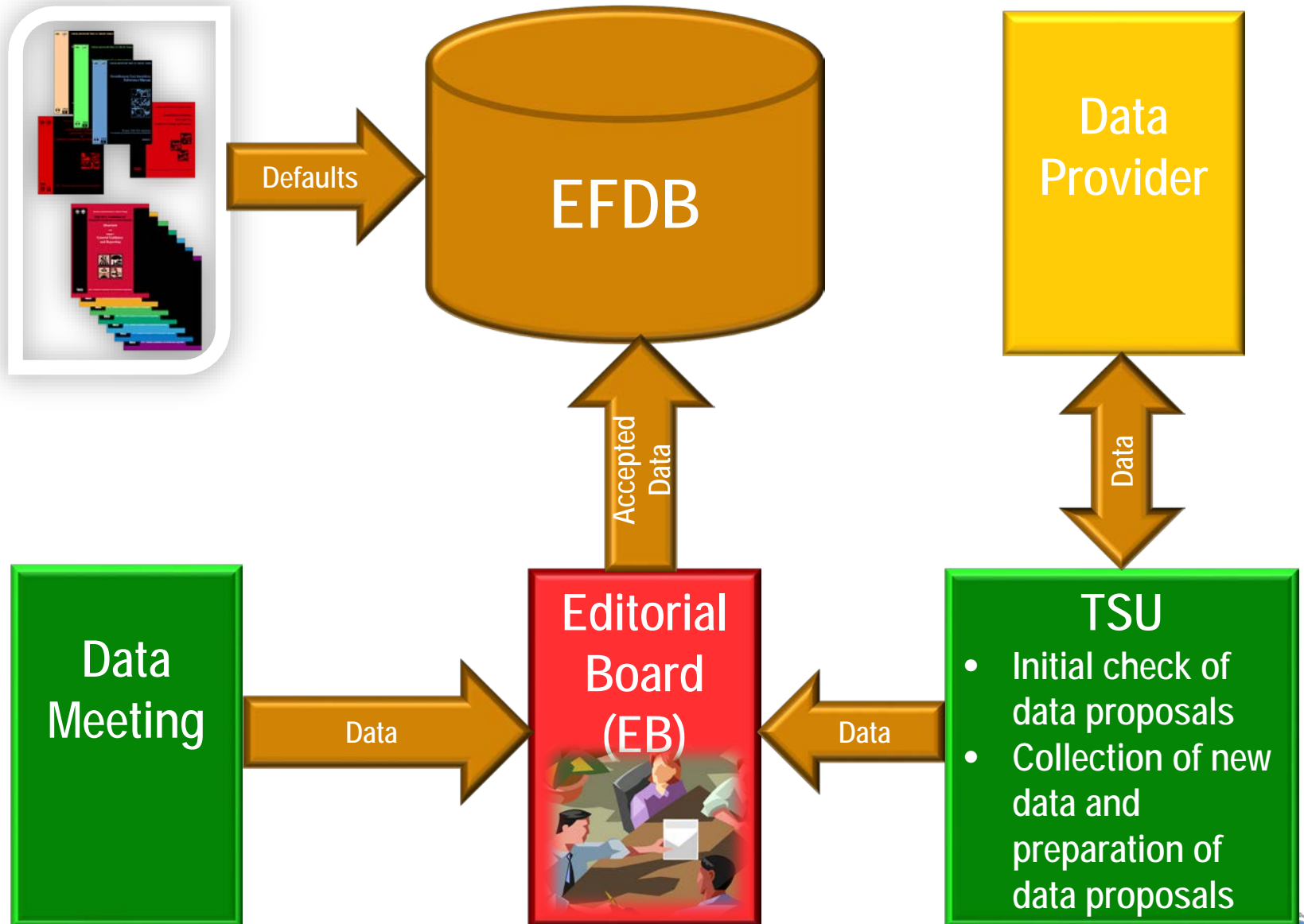
Status of search

To narrow down search results

Details of data

Results can be exported in Excel

Populating EFDB (1)



Populating EFDB (2)

- Expert meetings to collect data (Data Meetings) 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 experts/data providers and Editorial Board members
 - 17th Data Meeting (DM17) was held on 12-13 November 2019 in parallel with 17th Meeting of Editorial Board (11-14 November 2019) in Osaka, Japan. Focused on data for Agriculture sector.
- Literature search (e.g. peer-reviewed journals, National Inventory Reports)

Enhancement and improvement of EFDB

- Upgraded new offline version of the EFDB was released in November 2019
 - available for 3 different platforms: Windows, Mac and Linux
 - does not require any installation procedures (directly executable after downloading and extracting)
- More than 500 new data were accepted by the Editorial Board in 2019 for inclusion into the EFDB
- Default data of the *2019 Refinement* will be included
- User-interface is being further improved

Thank you

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

<https://www.ipcc-nggip.iges.or.jp/EFDB/main.php>

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WMO



UNEP