Emission Factor Database (EFDB)

Regional African Workshops on REDD+ National Forest Monitoring Systems and Greenhouse Gas National Inventory Systems

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EFDB

- Library of emission factors (interpreted broadly – all parameters)
  - Default values from IPCC Guidelines
  - Data from peer-reviewed papers
  - Data from non-peer reviewed publications (government reports, industry studies etc.)
- Communication platform for distribution of new research and measurement data
- Evolves dynamically - new data from inventory compilers, researchers, industry...
  - Open to any proposals
- Data proposals are evaluated by Editorial Board (EB) for inclusion into the database using well-defined criteria
- Data users decide if data is suitable in their specific situation

Why is the EFDB needed?

- Desirably, emission factors that reflect national circumstances should be used in inventory compilation

- However, development of such emission factors is difficult - it is costly, time consuming, requires much expertise

- By sharing data/information, emission factors that take into account local conditions (national circumstances) can be obtained cost-effectively

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Further growing importance of EFDB

- In the context of revision of the UNFCCC reporting guidelines for Annex I Parties, the SBSTA32 welcomed the work of the IPCC to facilitate the use of the 2006 IPCC Guidelines, including its efforts to develop inventory software and the *Emission Factor Database*. It invited the IPCC and other relevant organizations to strengthen their efforts in this area (FCCC/SBSTA/2010/6, paragraph 76)

- In the context of REDD discussion, the SBSTA32 requested the UNFCCC secretariat to work with the IPCC on promoting the use of the IPCC *Emission Factor Database* (FCCC/SBSTA/2010/6, paragraph 40)

- In the context of national communications from non-Annex I Parties (NAI-NC), the Consultative Group of Experts (CGE):

  – Agreed on the usefulness of *Emission Factor Database*; and

  – Recommended improvement of data quality by enhancement of the sharing of country-specific emission factors through the *Emission Factor Database* among NAI Parties, as an element to be considered in a future revision of the NAI-NC Guidelines (FCCC/SBI/2011/5/Rev.1)

How to access the EFDB

- Two different applications are available.
  - **Web application**
    - For all users to carry out on-line search
    - For data providers to submit new emission factors or other parameters
  - **CDROM application**
    - For all users, in particular for those who have difficulty with Internet connection, to carry out off-line search
- The web application is the core of this system. New data will be made available in the Web application first.

EFDB web application

IPCC web sites

Home Login Find EF Single Input Mini-Batch Import Documents Downloads Help

Main Page

Language: English | OK
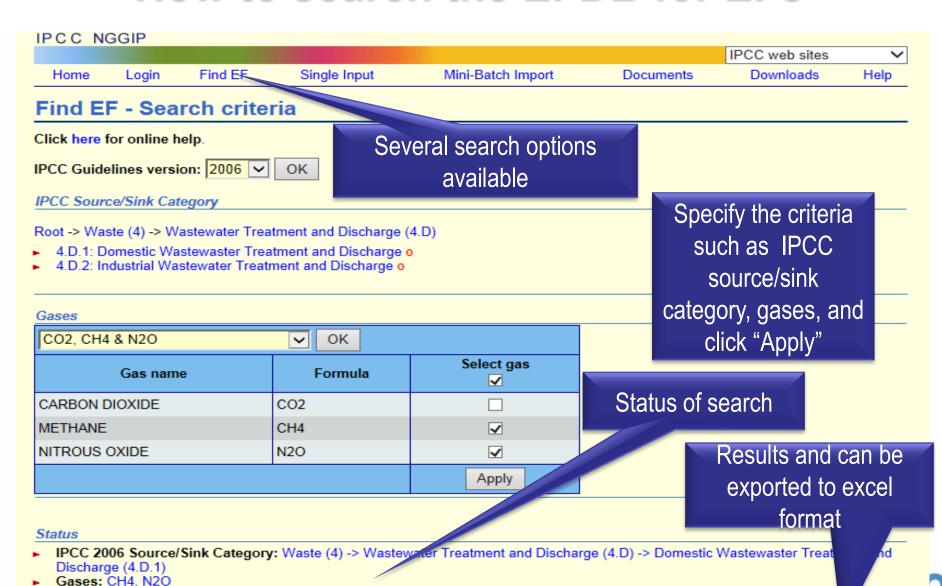
Welcome to EFDB!

All users are kindly invited to pay attention to this note. Guidance for users (as of 26 October 2002) can be downloaded (click here). The EFDB User Manual will be made available in due course.

- **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 decisions 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.

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

How to search the EFDB for EFs
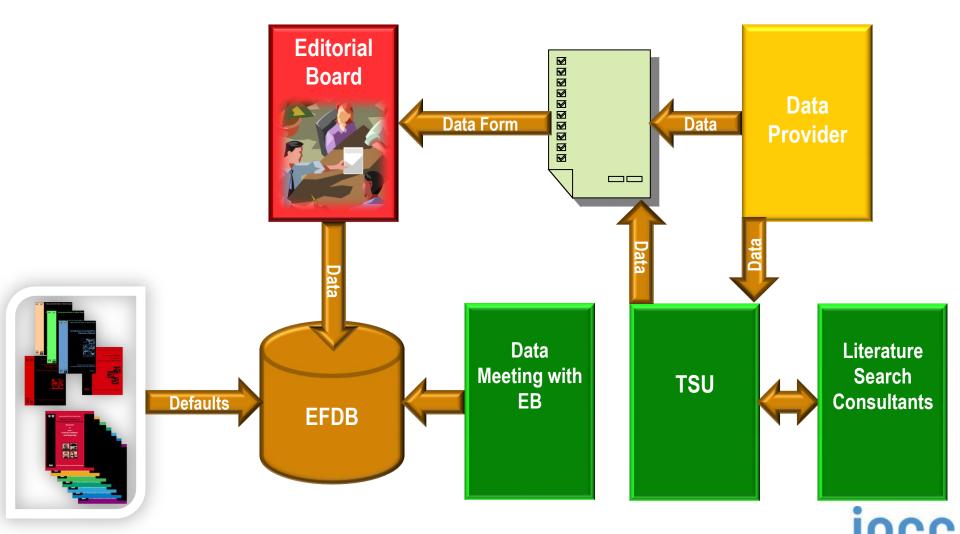
EFDB local CDROM application

- Can be operated locally (on a stand-alone PC).

- EFDB Local CDROM application works with MS Access MDB file, which contains the copy of the on-line web database.

- For detailed guidance, see the **User Guide for Local CDROM application**.

**IPCC EFDB 2.2
&
Guidelines for National Greenhouse Gas Inventories**
November 2010

Includes 2006 IPCC Guidelines for National Greenhouse Gas Inventories & earlier 1996 Revised Guidelines for National Greenhouse Gas Inventories and all Good Practice Guidance

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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.
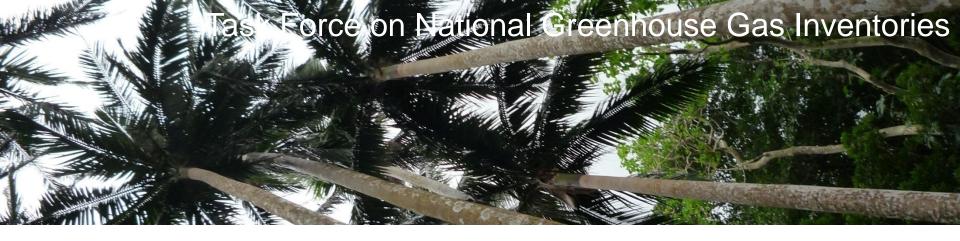
Enhancement and improvement of EFDB

- Continuing efforts for data collection

  – Data can be proposed by anyone – welcomed!!

  – Meetings to collect data have been convened every year

    - Data on forestry, especially biomass expansion factors (Buenos Aires, November 2008)

    - Data on livestock & Data on soil carbon (Santiago, June 2009)

    - Data on soil N_2O (São Paulo, December 2010)

    - Data on energy sector (Mumbai, October 2011)

    - Data on waste sector (Langkawi, October 2012)

    - Data on agriculture sector & Data on F-gas (Ghent, November 2013)

- The default data (up-to-date data/information) provided in the *Wetlands Supplement* and *KP Supplement* which were adopted/accepted by the IPCC37 in Batumi, Georgia ,14-18 October 2013 will be included in the EFDB

- User-interface is being further improved