



# Emission Factor Database (EFDB)

Side-event of the IPCC Task Force on National GHG Inventories  
UNFCCC COP21

*4 December 2015, Paris, France*

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**ipcc**

INTERGOVERNMENTAL PANEL ON climate change

# What is EFDB?

- Emission Factor Database (EFDB) is an electronic library of greenhouse gas emission factors/parameters (EFs):
  - *default values from IPCC Guidelines*
  - *data from peer-reviewed papers*
  - *data from non-peer reviewed publications (governmental reports, industry studies, etc.)*
- Available for free:
  - *off-line: CD/DVD/USB*
    - *the latest DVD/CD version (ver.2.5) is included in the DVDs distributed at COP21*
  - *on-line: <http://www.ipcc-nggip.iges.or.jp/EFDB/main.php>*
    - *no need for a password to search for data in the EFDB*

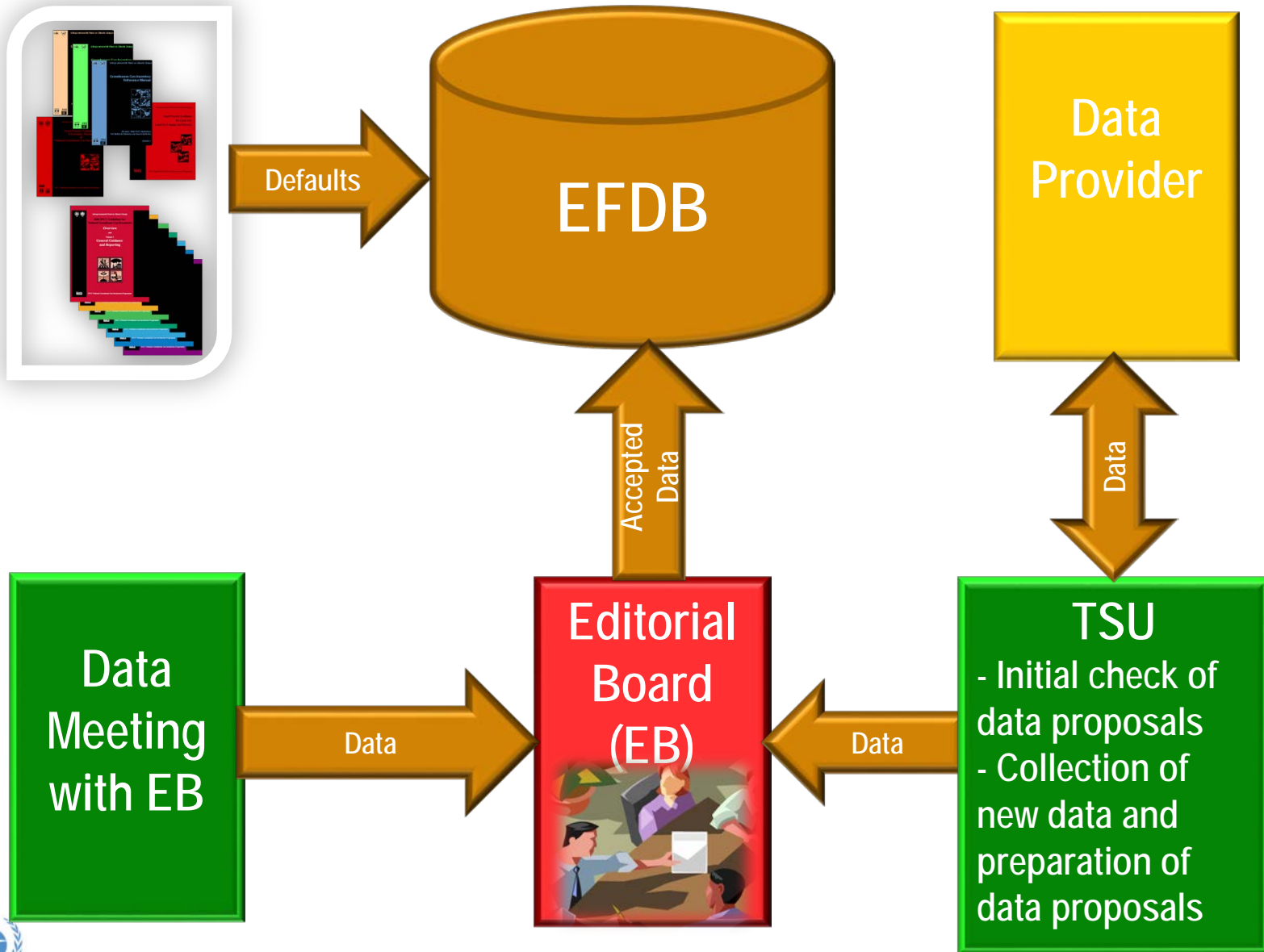
# Why is EFDB needed?

- Quality of GHG inventories depends on reliable EFs and activity data
- EFs that reflect national circumstances should be used in inventory compilation
- Development of national EFs is costly, time consuming, and requires much expertise
- By sharing data/information EFs can be obtained cost-effectively
- An easily accessible public EFDB would help to improve the quality of national GHG inventories and facilitate data sharing by inventory compilers, experts, scientists worldwide

# The objective of the EFDB

To be an always up-to-date companion for the IPCC Guidelines for National Greenhouse Gas Inventory that is seen as a worldwide resource for greenhouse gas inventory developers

# 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 modelled 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

# EFDB Search Function

IPCC NGGIP

IPCC web sites

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

## Find EF - Search criteria

Click [here](#) for online help.

IPCC Guidelines version: 2006 OK

Several search options available

### 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

Specify the IPCC category and gases. Click "Apply"

### Gases

CO2, CH4 & N2O OK

Gas name	Formula	Select gas
CARBON DIOXIDE	CO2	<input type="checkbox"/>
METHANE	CH4	<input checked="" type="checkbox"/>
NITROUS OXIDE	N2O	<input checked="" type="checkbox"/>
		Apply

Status of search

### Status

- ▶ IPCC 2006 Source/Sink Category: Waste (4) -> Wastewater Treatment and Discharge (4.D)
- ▶ Gases: CH4, N2O
- ▶ Number of emission factors covered by your criteria: 391

Results can be exported to excel format

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Output table



# EFDB Output Table

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## Find EF - Results

Click [here](#) for online help.

Status

- ▶ IPCC 2006 Source/Sink Category: Waste (4) -> Wastewater Treatment and Discharge (4.D)
- ▶ Gases: CH4, N2O

Displayed records: 1 - 10 / 391.



<< Back to criteria

Filter														Apply filter
Active Filters														
EF ID	IPCC 1996	IPCC 2006	Gas	Description	Technologies / Practices	Parameters / Conditions	Region / Regional Conditions	Abatement / Control Technologies	Other properties	Value	Unit	Data provider	Source of data	Action
62835	6B - Wastewater Handling	4.D - Wastewater Treatment and Discharge	METHANE	Fraction of Wastewater Treated			Country: South Africa			10	%	IPCC	Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories (Table 6-9 on Page 6.27 of the Reference Manual)	<a href="#">Detail</a>
62836	6B - Wastewater Handling	4.D - Wastewater Treatment and Discharge	METHANE	Fraction of Wastewater Treated			Country: Afghanistan			1	%	IPCC	Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories (Table 6-9 on Page 6.27 of the Reference Manual)	<a href="#">Detail</a>
62837	6B - Wastewater Handling	4.D - Wastewater Treatment and Discharge	METHANE	Fraction of Wastewater Treated	Lagoons		Country: Colombia			3	%	IPCC	Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories (Table 6-9 on Page 6.27 of the Reference Manual)	<a href="#">Detail</a>



# EFDB and UNFCCC process

- In the context of the UNFCCC reporting guidelines 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, para 12 Annex I)*

- In the context of national communications from non-Annex I Parties (NAI-NC):

*Consultative Group of Experts (CGE) agreed on the usefulness of the 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)*

# Responsibility and Contribution

- The responsibility of appropriate use of the EFDB information will always remain with the users themselves
- Success of the EFDB depends on your contribution!  
*If you have your own data on EFs or would like to give a feedback on the content and functionality, please contact the Technical Support Unit (TSU) by e-mail: [ipcc-efdb@iges.or.jp](mailto:ipcc-efdb@iges.or.jp)*



**Thank you for your time and attention:)**