



Task Force on National Greenhouse Gas Inventories

## Emission Factor Database (EFDB)

29 November 2010, Cancun, Mexico  
UNFCCC COP16 Side Event

**ipcc**  
INTERGOVERNMENTAL PANEL ON climate change

## Need for Emission Factor Database (EFDB)

- IPCC Guidelines contain global or regional default values (for Tier 1) based on the best science when guidelines were compiled
- Higher tier estimates need country-specific factors based on:
  - ❖ Situation in country, methods, management etc
  - ❖ Latest science and best practice elsewhere
  - ❖ Latest mitigation being applied
- However
  - ❖ it is expensive to measure all these so use appropriate literature or experience in similar situations
  - ❖ Emission factors and other parameters may not be easily accessible



## EFDB

- A library:
  - ❖ Documented Emission Factors (interpreted broadly – all parameters)
    - Peer reviewed
    - Non-peer reviewed (government reports, industry studies etc.)
    - In any language (need English abstract)
  - ❖ Information about when and where this data may be applicable
  - ❖ Evolves dynamically - new data from inventory compilers, researchers, industry...
  - ❖ Communication platform for distribution new research and measurement data
  - ❖ Data evaluated by Editorial Board (EB)
- However the user **MUST** decide if this is suitable in their specific situation

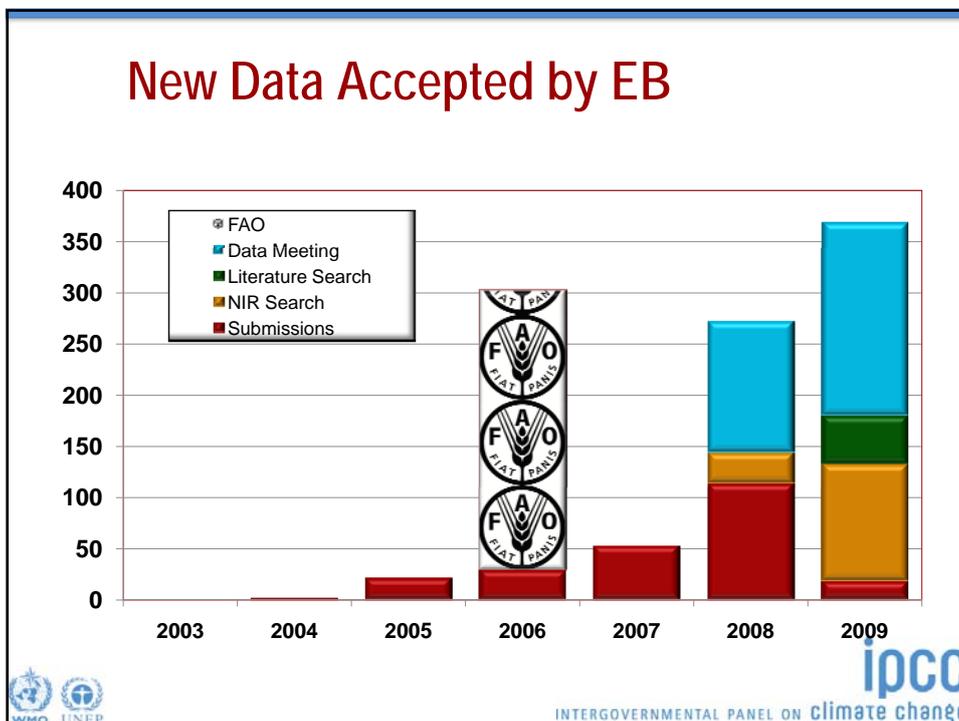
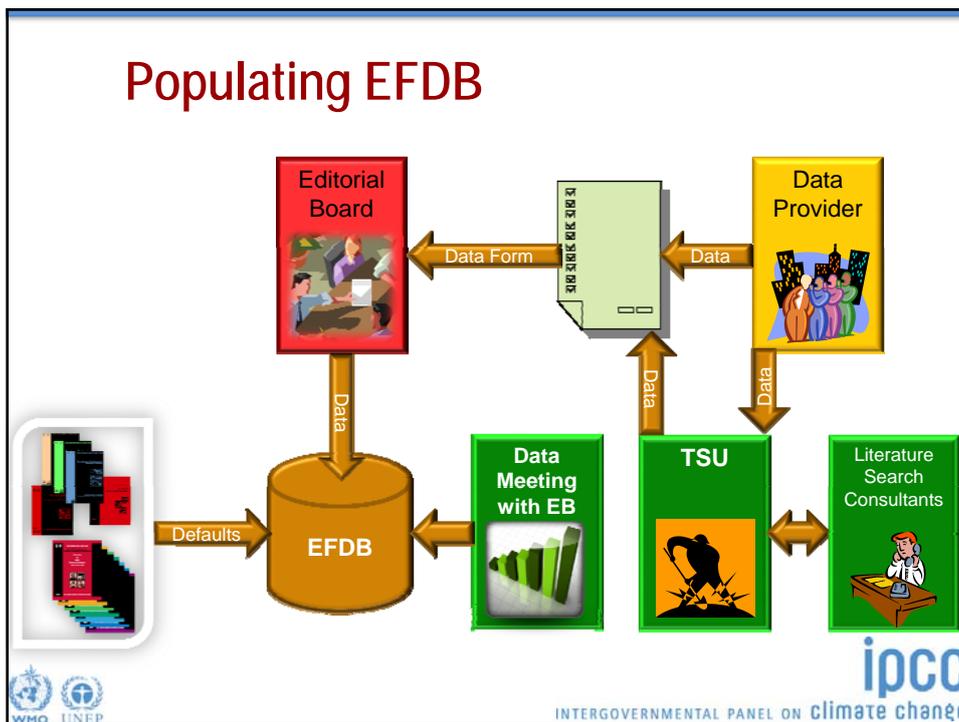


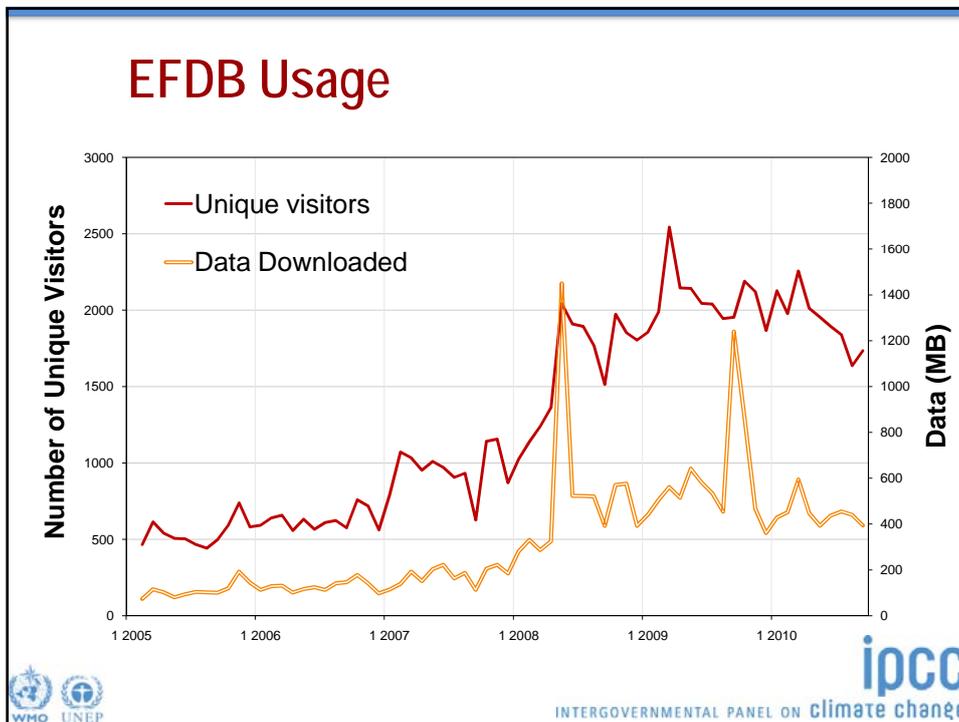
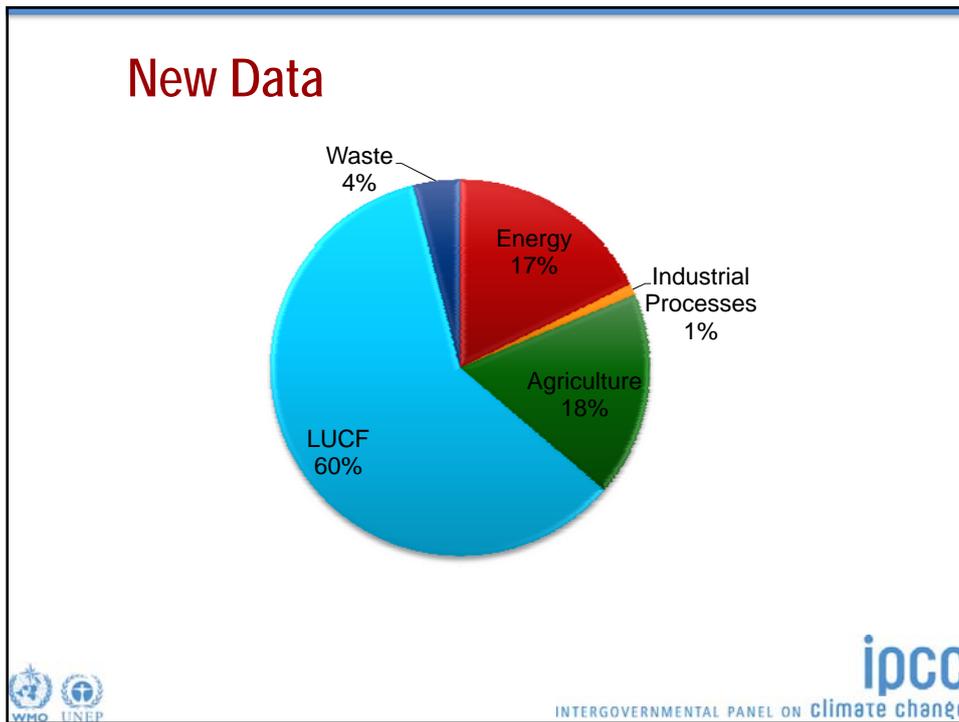
## Including of New Data

- New data are evaluated by the Editorial Board (EB). They should be:
  - **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.*

**“Properties”**





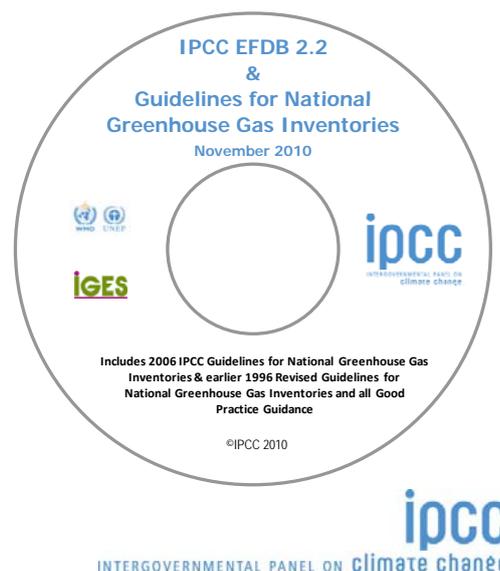


## Web Application

| Technical Information                          |  |
|--|--|
| Gas:   | METHANE  |
| IPCC 1996 Source/Sink Category:                | Agriculture (4) -> Manure Management (4B) -> Horses (4B6)  |
| IPCC 2006 Source/Sink Category:                | Agriculture, Forestry, and Other Land Use (3) -> Livestock (3.A) -> Manure Management (3.A.2) -> Horses (3.A.2.f)  |
| Properties                                     |  |
| Technologies/Practices:                        | All manure is assumed to be managed in dry manure management systems including pastures and ranges, drylots, and daily spreading on fields.  |
| Parameters/Conditions:                         | Annual Average temperature is greater than 25 C; Methane estimation is 2%  |
| Region/Regional Conditions:                    | Climate: Warm; Country: Developing Countries   |
| Abatement/Control Technologies:                | Others:  |
| Description:                                   | Manure Management Emissions  |
| Value:   | 2.2 kg/head/yr   |
| Value in common units:                         |  |
| Equation:                                      | Equation 4.12 of the IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories   |
| IPCC Worksheet:                                | Worksheet 1 of 2   |
| Source of data:                                | IPCC Guidelines for National Greenhouse Gas Inventories (Table 4-5 on Page 4.12 of Reference Manual)   |
| Technical Reference:                           | Goodbury, J.W. and A. Hashimoto (1993), "Methane Emissions from Livestock Manure." In International Methane Emissions, US Environmental Protection Agency, Climate Change Division, Washington, D.C., U.S.A. |
| Reference language:                            | English  |
| Uncertainty expressed as 95% confidence limit: | Upper: 20% Lower: -20%   |
| Data quality:                                  | IPCC default   |
| Distribution shape:                            |  |
| Data quality reference:                        |  |
| Other information:                             |  |

## CD Rom

- Operates stand-alone on a PC, where internet connection slow or difficult
- Produced periodically – not up-to-date
- Distributed free by TSU



## Improvements

- TFI is becoming more pro-active in collecting new data
  - EFDB is open to any relevant data proposals.
  - If you have your own data on emission factors, please contact the Technical Support Unit (TSU) by e-mail <[ipcc-efdb@iges.or.jp](mailto:ipcc-efdb@iges.or.jp)>.
- We are reviewing the database
  - Some internal improvements underway
  - Will improve interface: Users' feedback will be quite important
- Your participation is highly appreciated!!



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Thank you

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