

Activity data collection
mechanism of the International
Energy Agency
for its CO₂ emissions database -
relevant highlights

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The IEA collects no emission factors, only activity data.

- Activity data:

extensive collection of energy supply and consumption statistics, and of calorific values, through contacts with more than 100 countries.

- CO₂ emission factors:

IPCC defaults. Error introduced by not using country-specific values is expected to be small.

Length of data series

IEA Energy data collection has started in 1974.

Annual time series of energy supply and demand, and of CO₂ emissions go back to 1971.

Data source for OECD member countries:

- annual questionnaires under an IEA agreement

Data sources for non-OECD member countries:

- Questionnaires for UNECE member countries (identical to questionnaires sent to OECD countries)
- Other international organisations, e.g. United Nations, OLADE
- national statistical bodies

Data sources for non-OECD member countries (cont.):

- energy consultants and companies through direct contacts
- Publications
- Estimates

Information from non-OECD countries is sometimes obtained in a non-standard format.

Usefulness of IEA statistical publications enhanced through **standardisation** of

- units
- fuel definitions
- sector definitions
- energy balance format

Data collection is **labour-intensive**. About 15 IEA statisticians are full-time employed with:

- processing of questionnaires
- screening of national statistical publications
- manual data input if no electronic files available
- QA/QC: performing checks on data consistency
- contacting national statistical agencies for clarifications

Data collection by the IEA is funded by its 24 member countries.

Many countries provide an in-kind contribution by collecting national energy statistics and delivering or publishing these in standard IEA format.

A comparison of IEA CO₂ calculations with national CO₂ calculations may lead to suggestions for improving CO₂ emission factors.

**Lessons for the
GHG emission factor database project:**

- Ongoing data collection is labour-intensive.
- It is helpful if inventory agencies deliver standardized information to the database compilers.
- It is difficult to get standardized, high-quality information for *all* countries of the world in the absence of a legal reporting obligation.
Goodwill from countries can compensate this.

**Lessons for the
GHG emission factor database project (cont.):**

- Data checks are necessary to obtain a high quality database.
- Countries win by central data collection.
Ideally, each country supplies data from their own country, and gets data from the rest of the world in return.

**Lessons for the
GHG emission factor database project (cont.):**

- Duplication of effort is avoided where only one organisation creates a database with international coverage.