



Session 5: Energy Statistics and Indicators

United Nations Statistics Division (UNSD)

Workshop on Environment Statistics
(Yaoundé, Cameroon, 5-9 December 2011)



UNSD Energy Statistics

There are three main areas of work:

- Methodological work
- Data collection and dissemination
- Technical cooperation



Methodological work

To promote international standards of methods, classifications and definitions used in energy statistics.

International Recommendation for Energy Statistics (IRES):

- prepared in cooperation with the Oslo Group on Energy Statistics and InterEnerStat
- adopted by the UN Statistical Commission in Feb. 2011

Energy Statistics Compilers Manual (ESCM):

- being developed in cooperation with the Oslo Group to provide practical guidance in the implementation of IRES and the SEEA-Energy
- expected to be ready in 2013



Methodological work (cont.)

- IRES covers basic concepts, internationally harmonized definitions and classifications for energy statistics as well as data sources, data collection and compilation, energy balances, data quality and statistical dissemination
- ESCM will provide practical guidance to countries in the implementation of IRES and the SEEA-Energy. It will present examples of country practices for the collection, compilation and dissemination of energy statistics
- As part of the preparation of the ESCM, the Oslo Group will collect country practices on the collection and compilation of energy statistics. Countries are encouraged to participate (for more information, please visit: <http://og.ssb.no>)



Data Collection

UNSD collects basic energy statistics in physical/energy units through the *Annual Questionnaire on Energy Statistics*. It covers statistics on production, trade, bunkering, transformation and final consumption of energy products.

The Questionnaire is the primary source of information for the *UNSD Energy Statistics Database*

UNSD is currently revising the Questionnaire to align it with the revised recommendations in IRES and also to harmonize it with the IEA/Eurostat/UNECE Questionnaire.



Joint Organisations Data Initiative (JODI)

UNSD, together with APEC, Eurostat, IEA, IEF, OLADE, OPEC, collects monthly oil statistics (e.g. production, imports, exports, total demand) through the JODI Oil Questionnaire

- At the moment, more than 90 countries participate in JODI Oil representing around 90% of global oil supply and demand
- Important to have a wide geographical coverage
- Countries are encouraged to participate

In the future JODI may expand to Natural Gas statistics
(for more information, please visit www.jodidata.org)



Monthly Bulletin of Statistics

UNSD also collect monthly statistics on the production of

- Hard Coal
- Lignite
- Crude Oil
- Natural Gas and
- Electricity

through the Monthly Bulletin of Statistics (MBS) Questionnaire



Data dissemination

Annual statistics:

- Energy Statistics Yearbook
- Energy Balances and Electricity Profiles
- Online data from 1990 available at UNdata (www.data.un.org)
- Energy Statistics Database from 1950





Data dissemination (cont.)

Monthly Statistics

- JODI World database (www.jodidata.org)
- MBS energy tables

These are available in printed format and online:
(<http://unstats.un.org/unsd/mbs/>)



Agreed Set of ECOWAS Core Energy Indicators

- Primary energy production total, per capita and by source
- Electricity production total, per capita and by source
- Energy consumption total, per capita and per unit of GDP
- Traditional fuel use as a proportion of total energy consumption
- Proportion of households with access to electricity



Primary energy production total, per capita and by source

This indicator is intended to show the capacity, composition, development of domestic production of primary energy in a country

Definitions/concepts

- primary energy production (*Primary energy production - the capture, extraction or manufacture of fuels or energy in forms which are ready for general use – from natural energy flows, the biosphere, natural reserves of fossil fuels*)
- Per capita – use the mid-year population
- Examples of primary production – coal, peat, conventional crude, biofuels and waste, natural gas liquids, also electricity from nuclear, solar, hydroelectric, wind, wave, tidal, etc.



Electricity production total, per capita and by source

This indicator is intended to show the domestic capacity for electricity generation and the share of fossil and other non-renewable and renewable sources of energy in electricity production.

Definitions/concepts

- Gross electricity production (GWh) according to source;
- mid-year population.



Energy consumption total, per capita and per unit of GDP

This indicator measures the level of the supply of energy and energy intensity in a country.

Definitions used:

- Total energy consumption = total energy supply (an aggregate from the energy balances);
- Estimated mid-year population (for per capita);
- GDP (PPPs).



Traditional fuel use as a proportion of total energy consumption

This indicator is a measure of reliance on biomass for energy. It therefore measures pressure on forests for fuelwood and health effects from indoor use of traditional energy sources:

Definitions/concepts

- Traditional fuels – wood, charcoal, bagasse, animal and vegetable waste;
- Total energy consumption – total primary production + (imports-exports – bunkers- stock changes)



Proportion of households with access to electricity

This indicator is intended to monitor progress in accessibility of commercial energy services (e.g. electricity) to households.

Definitions/concepts

- Number of households that have electricity in their home (on-grid, off-grid or self-generated);
- Total number of households.



Technical cooperation

Assist countries in developing/strengthening their energy statistics and in the implementation of IRES - mainly through:

- regional workshops
- development of training material



For any questions on energy statistics,
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