

# **Energy Statistics - UNSD**

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#### **SEMINAR ON**

Mainstreaming Energy Sustainable Development Goals (SDGs), Targets and Indicators into Statistical Programmes in Select African Countries

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### Overview

- UNSD activities in Energy Statistics
  - Data compilation
  - Dissemination
    - Database
    - Main publications
  - Methodological work
  - Technical cooperation

# UNSD activities – data compilation

- Annual data collection of energy statistics (database with information going back to 1950, covering currently 228 countries and territories)
- Questionnaire revised for collection to agree with changes made due to the work on the International Recommendations for Energy Statistics (IRES)
- Products include all primary and secondary fossil fuels, various types of electricity and heat generation, biofuels and wastes
- Flows cover main aspects of supply, transformation, own use and consumption

## **UNSD Energy Stats Questionnaire**

(consists of a series of commodity balances)

		JNITED NATIONS	STATISTICS DI	VISION				
		Country/Are	a: Brazil ( 76 )					
<b>Hard Coa</b>	I (CL); Metric tons, thousand (WSR)	Unit	2007 fn	2008 fn	2009 fn	2010 fn	2011 fn	2012 fr
CL01	Production	WSR	5965	6611	5061	5415	5505	6617
CL03	Imports	WSR	14864	15311	12462	15909	18007	16486
CL04	Exports	WSR					71	0
CL06	Stock changes	WSR	-86	1100	-145	-383	574	-515
CLGA	Total energy supply	+CL0 WSR	20915	20822	17668	21707	22867	23618
CLSD	Statistical differences	-CL08 WSR	5	174	51	6	-4	-1
CL08	Transformation	+CL0{WSR	15554	15166	13233	15706	15936	17048
CL088	Transformation in electricity, CHP and heat plants	WSR	5173	4821	3952	4753	4585	6207
CL08811	Electricity plants - Main activity producers	WSR	5075	4511	3860	4412	4295	5907 *
CL08812	Electricity plants - Autoproducers	WSR	98	310	92	341	290	300 *
CL081	Coke ovens	WSR	10381	10345	9281	10953	11351	10841
CL101	Losses	WSR	30	0	48	40	80	19
CLNA	Final consumption	+CL1 WSR	5326	5482	4336	5955	6855	6552
CL12	Final energy consumption	+CL1:WSR	5326	5482	4336	5955	6855	6552
CL121	Manufacturing, construction and non-fuel mining industry	+CL1:WSR	5326	5482	4336	5955	6855	6552
CL1211	Iron and steel	WSR	3406	3601	2773	3114	3378	3253
CL1213	Chemical and petrochemical	WSR	155	208	160	281	236	333
CL1214	Other manuf., const. and non-fuel min. ind.	WSR	1765	1673	1403	2560	3241	2966
Coke Ove	en Coke (OK); Metric tons, thousand (WSR)	Unit	2007 fn	2008 fn	2009 fn	2010 fn	2011 fn	2012 fn
OK01	Production	WSR	8315	8286	7259	9189	9683	9683
OK03	Imports	WSR	1576	1900	434	1801	2142	1591
OK04	Exports	WSR	2	1				
OK06	Stock changes	WSR	120	325	-15	82	-82	-328
OKGA	Total energy supply	+OK0WSR	9769	9860	7708	10908	11907	11602
OKSD	Statistical differences	-OK0{WSR	9	112	-1	-1	0	0
OK101	Losses	WSR	26	33	15	15	10	10
OKNA	Final consumption	+OK1WSR	9734	9715	7694	10894	11897	11592
OK12	Final energy consumption	+OK1WSR	9734	9715	7694	10894	11897	11592
OK121	Manufacturing, construction and non-fuel mining industry	+OK1WSR	9734	9715	7694	10894	11897	11592
OK1211	Iron and steel	WSR	9310	9287	7334	10523	11371	10997
OK1214	Other manuf., const. and non-fuel min. ind.	WSR	424	428	360	371	526	595
Conventional crude oil (CR); Metric tons, thousand (WSR)		Unit	2007 fn	2008 fn	2009 fn	2010 fn	2011 fn	2012 fn
CR01	Production	WSR	78944	82954	89823	95043	97550	95652
CR03	Imports	WSR	21081	19335	19020	17182	16831	17495
CR04	Exports	WSR	21373	21970	26660	32028	30660	247051

# Data requirements UN energy stats questionnaire

### The energy statistics questionnaire requests information from countries on

- > coal, peat, coal and peat products, manufactured gases
- primary and secondary oil products
- natural gas
- electricity and heat, by generating source
- biofuels and waste

#### and for the flows:

- production
- trade and bunkers
- stock changes
- transfers and transformation (by type)
- consumption (energy and non-energy, and by economic sector)

#### Conversion factors (for solid fuels and crude oil)



**United Nations Statistics Division** 



**Annual Questionnaire** 



countries



**OECD** countries





**Data** dissemination: Publications, **CDs and UNdata** 



**Data validation** 



**Data processing** and storing



**Supplementary research:** national, regional (e.g., **OLADE, APEC, AFREC,** OAPEC) and international **Statistical publications** 

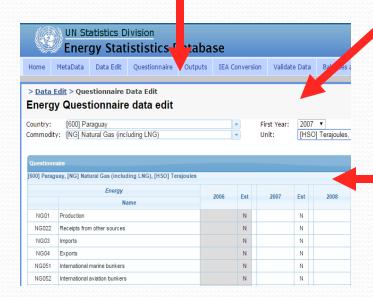
## Additional data sources

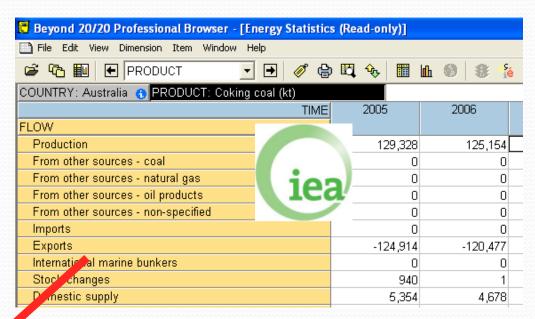


#### Production Quantity | Wood Fuel+

1	year								
itry		2005	2006						
country	Afghanistan	1466629.00	1498194.00						
٥	Albania	221000.00	221000.00						
	Algeria	7668832.00	7767081.00						

FAOSTAT | @ FAO Statistics Division 2008 | 04 August 2008







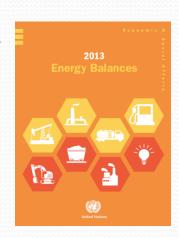
### Dissemination

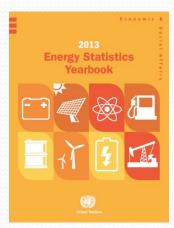
- Database available (paid service) via CD
- Data from 1990 available for free via UNData:
  - <a href="http://data.un.org/Explorer.aspx?d=EDATA">http://data.un.org/Explorer.aspx?d=EDATA</a>

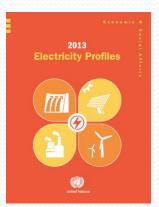


# Main publications

- Energy Statistics Yearbook
  - comprehensive collection of international energy statistics
  - 36 tables + graphs
- Energy Balances
  - 216 countries/areas (2013 Ed.)
- Electricity Profiles
  - 227 countries/areas (2013 Ed.)
- Monthly Bulletin of Statistics







# Methodological work & international cooperation

- Coordination of work and/or collaboration with:
  - Oslo Group on Energy Statistics
  - InterEnerStat (Inter-Secretariat WG on Energy Stats)
  - Regional organizations
- Work on the advancement and standardization of statistical methods, classifications and definitions in energy statistics
- Joint Organisations' Data Initiative UNSD, Eurostat, IEA, OLADE, OPEC, APEC, GECF, IEF (Oil and Gas monthly data)

# **Technical Cooperation**

- Recent meetings
  - Panama, Feb 2015 (Energy Sustainable Development Goals)
  - Austria, March 2015 (JODI training for SE Europe)
  - India, April 2015 (JODI conference)
  - Peru, April 2015 and Viet Nam, May 2015 (Development Account Project on Indicators for the Green Economy)
  - IEA, September 2015 (InterEnerStat meeting)
  - Korea, Nov 2015 (Mainstreaming Energy SDGs)
  - Mexico, May 2016 (Oslo Group meeting)
  - China, May 2016 (JODI training workshop; and international workshop on energy statistics)
- Current
  - Mainstreaming Energy SDGs (Ethiopia, June 2016)
- Upcoming
  - Energy statistics workshop for ASEAN countries (2<sup>nd</sup> half 2016)





http://unstats.un.org/unsd/energy