Statistical Commission
Thirty-ninth session
26 - 29 February 2008
Item 4 (k) of the provisional agenda
Items for information: environmental accounting

Background document
Available in English only

Preliminary report on the Global Assessment of Energy Statistics and Balances

Prepared by the United Nations Statistics Division

Table of content

A. Introduction

1. The Global Assessment of Energy Statistics and Balances was developed by UNSD in close cooperation with the Oslo Group on Energy Statistics. The main objectives of this assessment were: (a) to identify the role of national statistical offices in the national statistical system in collecting, compiling and disseminating energy statistics and energy balances; (b) to assess the scope of energy statistics and balances in national statistical offices by identifying the energy sources covered, data collection practices, the use of international guidelines and classifications as well as the usage of the statistics provided; and (c) to assess the impeding factors in the collection, compilation and dissemination of energy statistics and energy balances.

2. The Global Assessment was sent to national statistical offices (NSOs) of 210 countries/territories in June 2007. The NSOs were invited to coordinate their country response with the relevant agency in the country. As of 30 November 2007, 107 countries replied to the Global Assessment. Countries who have not replied to the assessment are still encouraged to do so.

3. For three countries two responses were received: one from the national statistical office and the other from the line ministry. Both responses were used in this report without double counting. When relevant, specific information is noted in the report. For one country a combined response from the NSO and line ministry was received.

4. The structure of this report follows closely that of the Global Assessment on Energy Statistics and Balances. After presenting a summary of the response rate in Section B, Section C presents a summary of the responses on the institutional framework for the collection, compilation and dissemination of energy statistics in countries; Section D covers the scope of the energy statistics programmes in terms of basic energy statistics and frequency of data collection; Section E presents a summary of country practices in the dissemination and use of basic energy statistics and Section F covers energy balances. The list of countries that responded to the Global Assessment is reported in Annex 1 and the Global Assessment questionnaire is presented in Annex 2.

B. Response rate

5. Table 1 presents the response rate to the Global Assessment and its disaggregation in different groupings: economic regions (developed and developing regions); economic grouping (developed, transition and developing economies); geographical regions (Africa; Central, Eastern, Southern, South-Eastern Asia and Oceania; Europe and Northern America; Latin America and the Caribbean; and Western Asia) and other grouping (OECD vs. non-OECD countries). The first three grouping are based on the UN Standard Country or Area Codes for Statistical Use (available on-line at http://unstats.un.org/unsd/methods/m49/m49.htm)[1].

6. The overall response rate was around 50 per cent covering major producers and users of energy. It, however, varies considerably across economic regions, ranging from 43 per cent in developing regions to 76 in developed regions. The variability is even larger when looking at the geographical distribution of the response rate as it varies from a minimum of 47 per cent in Central, Eastern, Southern, South-Eastern Asia and Oceania to a maximum of 77 per cent in Europe and Northern America. The representativeness of the responses for certain regions should be analyzed with care because of the low response rate.

7. The number of responding countries to each question may change (and often does) as the respondents were allowed to skip questions. Therefore the totals do not always match across tables.

[1] Developed regions consist of Northern America, Europe, Japan, Australia and New Zealand. Developing regions consists of Africa, Americas (excluding Northern America), Caribbean, Central America, South America, Asia (excluding Japan) and Oceania (excluding Australia and New Zealand). Transition economies which include CIS countries and transition countries in South-Eastern Europe have been included in the relevant economic regions.

Table 1: Responding countries disaggregated by different groupings

	Number of countries (1)	*Number of responding countries (2)*	*Response rate (percentage) (3)=(2)/(1)*
Total	210	107	51
Economic regions			
Developed regions	51	39	76.
Developing regions	159	68	43
Economic grouping:			
Developed economies	40	30	75
Transition economies	18	14	78
Developing economies	152	63	41
Geographical grouping:			
Africa	52	16	31
Central, Eastern, Southern, South-Eastern Asia and Oceania	53	25	47
Europe and Northern America	47	36	77
Latin America and the Caribbean	40	17	43
Western Asia	18	13	72
Other grouping			
OECD countries	30	26	87
Non-OECD	180	81	45

Note: For three countries two institutions responded to the Global Assessment. This table does not double count these countries.

C. Institutional Framework

8. This section summarizes the responses to questions 1 to 7 of the Global Assessment covering: the existence of an energy statistics programme in the country, the existence of a legal framework for the collection of energy statistics, the coordination mechanism among the institutions collecting energy statistics, and future plans with respect to the energy statistics programme.

1. Legal framework for the collection of energy statistics

9. Table 2 summarizes the responses to the Question 1 of the Global Assessment about the existence of a legal framework for the collection of energy statistics. Most of the responding countries, 86 per cent, indicated the existence of such legal framework. The distribution of countries with a legal framework is fairly homogeneous across economic regions and groupings and other groupings; however, the distribution across the geographical grouping ranges from a minimum of 75 per cent in Africa, 76 per cent in Latin America and the Caribbean to 100 per cent in Western Asia.

Table 2: Existence of a legal framework for the collection of energy statistics

	Number of responding countries responding to Question 1	*Existence of a legal framework*	
		Yes	*No*
Total	107	92 (86%)	15 (14%)
Economic regions			
Developed regions	39	36 (93%)	3 (7%)
Developing regions	68	56(82%)	12 (18%)
Economic grouping:			
Developed economies	30	27(90%)	3 (10%)
Transition economies	14	14	0
Developing economies	63	51(81%)	12 (19%)
Geographical grouping:			
Africa	16	12(75%)	4(25%)
Central, Eastern, Southern, South-Eastern Asia and Oceania	25	21(84%)	4(16%)
Europe and Northern America	36	33(93%)	3(7%)
Latin America and the Caribbean	17	13(76%)	4(24%)
Western Asia	13	13	0
Other grouping			
OECD countries	26	24(92%)	2(8%)
Non-OECD	81	68(84%)	13(16%)

Note: the figures in parenthesis are expressed as a percentage of the number of responding countries by row.

2. Existence of a programme on energy statistics in countries

10. Table 3 shows the existence of energy statistics programmes in countries by economic, geographical regions and other grouping. 99 of the 107 responding countries (93 per cent) indicated that they have an energy statistics programmes. This figure includes both (a) countries where the responding institution has a programme; as well as (b) countries where the responding institution does not have a programme but indicated that other institution(s) in the country do.

11. For the purpose of this assessment the energy statistics programme was defined as a programme of work in which energy data are collected, compiled or disseminated on a regular basis.

12. The distribution of countries with an energy statistics programme is fairly homogeneous across economic regions, economic and other grouping in the sense that the percentage of countries with a programme is above or around 90 per cent within these groupings. The distribution by geographical groupings shows that the percentage varies from a minimum of 85 per cent in Western Asia to a maximum of 97 per cent in Europe and North America.

13. The Global Assessment was sent to National Statistical Offices (NSOs). NSOs were requested to forward the Assessment to the relevant agency in the country in case they did not collect, compile or disseminate energy statistics or balances. Out of the 107 responding countries, 22 country responses were from the line ministry (e.g. Ministry of Energy, Ministry of Mines), 81 from the NSO, 3 from the NSO and the line ministry and one from the NSO and line ministry combined. 92 per cent of the NSOs indicated that they have an energy statistics programme all the line ministries have an energy statistics programme.

Table 3: Existence of energy statistics programmes in countries

	Number of countries responding to the Global Assessment (1)	*Countries with an energy statistics programme (2)*	*Percentage of responding countries (3)=(2)/(1)*
Total	107	99	93
Economic regions			
Developed regions	39	38	97
Developing regions	68	61	90
Economic grouping:			
Developed economies	30	29	97
Transition economies	14	13	93
Developing economies	63	57	90
Geographical grouping:			
Africa	16	15	94
Central, Eastern , Southern, South-Eastern Asia and Oceania	25	23	92
Europe and Northern America	36	35	97
Latin America and the Caribbean	17	15	88
Western Asia	13	11	85
Other grouping			
OECD countries	26	26	100
Non-OECD	81	73	90

Note: countries with an energy statistics programme (displayed in column (2)) include countries where the responding institution has an energy statistics programme and countries where the responding institution does not have a programme but other institutions in the country do.

14. Table 4 shows the location of the energy statistics programme in countries. The 99 countries with an energy statistics programme consist of: 55 countries where the programme is located in more than one institution, including the responding institution (61 per cent); 31 where the programme is only in the responding institution (31 per cent); 5 countries where a programme is located in institutions other than the responding one; and 8 where the programme is within the responding institution but no information is provided for other institutions.

Table 4: Location of the energy statistics programmes in countries

In the responding institution:(Question 2) \ *In other institutions(Question 4)*	Yes	No	No answers	Total
Yes	55	31	8	94
No	5	7	0	12
No answers	0	1	0	1
Total	60	39	8	107

3. Coordination mechanisms

15. Questions 5 to 7 of the Global Assessment aimed at identifying the type of coordination mechanism among institutions collecting energy statistics (if any). In the Assessment, a coordination mechanism was defined as a formal or informal agreement between institutions/agencies for data sharing.

16. As shown in Table 5, 67 countries answered that there is a coordination mechanism among institutions collecting energy statistics; 31 indicated the lack of a coordination mechanism; and 9 did not respond to the question. In the large part of the cases (85 per cent), when the energy statistics programme is located in more than one institution, there is a coordination mechanism between institutions for data sharing.

Table 5: Coordination mechanism for data sharing

Existence of a coordination mechanism (Question5)	Total
Yes	67
No	31
No answer	9
Total	107

17. When asked about the existence of a coordinating institution (which in the Assessment was defined as "the institution/agency which is responsible for the overall coordination, compilation and dissemination of statistics on a specific subject area."), 48 of the 66 countries responding to the question (about 73 per cent) indicated the existence of such an institution/agency, as shown in Table 6. In 29 of them (about 60 per cent), the NSO is the institution in charge of the coordination among agencies.

Table 6: Existence of a coordinating institution

Existence (and type) of a coordinating institution (Question 6)	
Yes	48
*of which**	
NSO	*29*
Line Ministry	*12*
No	18
Total	66

***** 7 countries that indicated the existence of a coordinating institution did not specify the institution.

18. Question 7 of the Global Assessment asked about the existence in the country of a single institution in charge of releasing energy statistics. About 55 per cent of respondents (54 of 99) indicated that, in their country, there is a single institution in charge of the release of energy statistics (see Table 7). This percentage does not vary significantly across economic and other groupings.

19. In about half of the countries with a single institution in charge of releasing energy statistics, the institution is the National Statistical Office (26 of the 54 countries). This is particularly the case in developing regions and in non–OECD countries.

Table 7: Countries where there is a single institution releasing energy statistics

Existence of a single institution (Question 7)	*Total number of countries*	*Economic grouping*		*Other grouping*	
		Developed region	*Developing region*	*OECD*	*Non-OECD*
Yes	54 (55%)	18 (51%)	36 (57%)	13 (54%)	41 (55%)
Of which NSO	*26*	*7*	*19*	*2*	*24*
No	45 (45%)	17 (49%)	28 (43%)	11 (46%)	34 (45%)
Sub-Total	**99**	**35**	**64**	**24**	**75**
No answer	8	4	4	2	6
Total	**107**	**39**	**68**	**26**	**81**

Note: the figures in parenthesis are expressed as a percentage of row Sub-total.

4. Plans for the future

20. Question 3 of the Global Assessment asked about plans for the future (defined as the next two years) in the responding institution in the area of energy statistics. The summary of the responses in Table 8 shows that 85 of the institutions with an energy statistics programme (corresponding to 90 per cent) explicitly indicated their plans to continue the current programme and/or further expand it. The further expansion of the energy statistics programme consists most commonly in the increase of the scope (in 37 countries) and frequency (in 18 countries) of data collection and compilation. Four responding institutions that do not currently have an energy statistics programme indicated that they plan to start a programme within the next 2 years.

Table 8: Future plans in energy statistics

	Type of plans				
Responding institution	*Start a programme*	*Continue with the current programme*	*Further expand the programme*	*No answer*	*Total*
With a programme	-	44	41	9	94
Without a programme	4	-	-	9	13

Note: - not applicable

	Type of expansion of the programme			
Number of institutions indicating that are expanding their programme	*Increase frequency of data collection and compilation*	*Increase scope of data collection and compilation*	*Other**	*No answer*
41	18	37	10	1

* Among the categories mentioned in "Other" are: improvements in data quality; expansion of data collections to other areas such as energy price statistics, renewable energy sources etc.

D. Basic energy statistics

21. The section on "Basic energy statistics" of the Global Assessment aimed at identifying the scope of energy statistics programmes in countries, covering the types of data collected, the frequency of data collection by different energy sources and collection schemes; the use of international classifications, standards and guidelines; the impeding factors in the compilation and dissemination of energy statistics; reporting to international organizations; and the methodological issues in the collection and compilation of energy statistics. The summary of the results are presented below.

1. Basic energy statistics

22. Tables 9 to 14 below summarize the responses to Questions 8 and 9 of the Global Assessment on the scope of energy statistics programmes in countries. In the tables, the most common types of data collection for each statistics are highlighted in bold face. Some of the conclusions that can be drawn from these tables are the following:

- For all energy sources, Imports/Exports are mostly derived from administrative data (as expected).
- Specialized energy surveys seem to be the most common collection methods for production, consumption, stocks/inventories, resources/reserves, distribution losses for all energy sources. The only exceptions are the production of crude oil/natural gas and petroleum products and stocks/inventories of crude oil/natural gas which are mostly collected through business surveys.

- Consumption data are generally collected through specialized energy surveys, although for selected energy sources, households and business surveys are also often used.

Table 9: Coal/Coke

	Number of responding institutions (which marked at least one column)	Types of data collection by the responding institution/agency: Number of institutions collecting data	Business surveys	Household surveys	Specialized energy surveys	Administrative data	Data received from other institutions	Data compiled by your institution	Data disseminated by your institution
Coal/Coke									
Production	63	48	20	2	**25**	13	24	33	36
Imports/exports	78	58	13	1	20	**36**	36	42	45
Consumption	78	64	23	16	**40**	18	25	39	49
Stocks/Inventories	60	46	21	2	**26**	8	21	31	37
Resources/Reserves	31	19	5	1	**12**	7	20	18	21
Other statistics *	4	5	3	0	2	0	1	2	2

*It includes transformation, shipment and prices.

Table 10: Biomass

	Number of responding institutions (which marked at least one column)	Types of data collection by the responding institution/agency: Number of institutions collecting data	Business surveys	Household surveys	Specialized energy surveys	Administrative data	Data received from other institutions	Data compiled by your institution	Data disseminated by your institution
Biomass									
Production	55	36	10	5	**21**	11	24	28	32
Imports/exports	37	25	5	0	9	**18**	21	19	22
Consumption	63	51	15	21	**32**	11	23	29	38
Other statistics *	6	6	2	1	3	2	2	2	2

*It includes Transformation, Wood and paper (i.e. biomass but not energy-related), Biogas production, ethanol (production, stocks and imports).

Table 11: Crude Oil/natural gas

	Number of responding institutions (which marked at least one column)	Types of data collection by the responding institution/agency: Number of institutions collecting data	Business surveys	Household surveys	Specialized energy surveys	Administrative data	Data received from other institutions	Data compiled by your institution	Data disseminated by your institution
Crude oil/natural gas									
Production	68	50	**24**	3	21	21	34	39	40
Imports/exports	79	55	18	3	16	**37**	46	42	50
Consumption	74	59	25	10	**33**	22	39	43	48
Stocks/Inventories	59	41	**18**	2	21	17	28	29	38
Distribution losses	49	31	13	3	**16**	10	21	25	33
Resources/Reserves	31	18	4	2	**12**	8	16	18	22
Other statistics*	4	4	2	1	2	1	2	1	1

* It includes: equipment type; financial data for gas supply (sales, expenditures, wages and salaries, etc.); household use by source, appliance data; transformation, re-injection, flaring and transformation of natural gas.

Table 12: Petroleum products

	Number of responding institutions (which marked at least one column)	Number of institutions collecting data	Types of data collection by the responding institution/agency: Business surveys	Household surveys	Specialized energy surveys	Administrative data	Data received from other institutions	Data compiled by your institution	Data disseminated by your institution
Petroleum products									
Production	77	57	**28**	1	24	21	35	42	46
Imports/exports	91	60	17	1	18	**43**	54	51	57
Consumption	84	66	27	20	**36**	24	43	47	55
Bunkering	52	36	12	1	15	**17**	26	26	32
Distribution losses	51	34	12	2	**18**	12	24	27	29
Stocks/Inventories	65	44	20	3	**23**	16	29	33	40
Other statistics*	7	6	4	0	2	1	3	4	3

* It includes: equipment type; transformation, shipment, sales of oil products.

Table 13: Electricity

	Number of responding institutions (which marked at least one column)	Number of institutions collecting data	Types of data collection by the responding institution/agency: Business surveys	Household surveys	Specialized energy surveys	Administrative data	Data received from other institutions	Data compiled by your institution	Data disseminated by your institution
Electricity									
Production	96	74	30	0	**35**	29	56	51	62
Imports/exports	79	52	11	0	23	**29**	47	36	48
Consumption	94	75	27	18	**42**	1	51	49	58
Distribution losses	76	53	13	0	**29**	21	40	35	46
Other statistics*	10	7	2	1	3	3	6	6	9

* It includes: financial data for the electricity supply industry (e.g. sales, wages and salaries, expenditures, etc.); household electricity use by source, appliance data; transformation losses; transformation; equipment type, maximum installed generating capacity, peak demand; fuel consumption.

Table 14: Heat

	Number of responding institutions (which marked at least one column)	Number of institutions collecting data	Types of data collection by the responding institution/agency: Business surveys	Household surveys	Specialized energy surveys	Administrative data	Data received from other institutions	Data compiled by your institution	Data disseminated by your institution
Heat									
Production	47	41	19	0	**22**	9	13	24	26
Consumption	48	43	15	6	**27**	10	12	26	26

2. Energy unit value/price statistics

23. Table 15 summarizes the responses on energy unit value/price statistics. The most commonly used types of data collection are identified in boldface. The table shows that administrative data sources are the most common type of data collection methods for energy unit value/price statistics on all energy sources followed by price and business surveys.

Table 15: Energy unit value/price statistics

	Number of responding institutions (which marked at least one column)	Types of data collection by your institution/ agency									
		Number of institutions collecting data	Business surveys	Household surveys	Price surveys	Specialized energy surveys	Administrative data	Data received from other institutions	Data compiled by your institution	Data disseminated by your institution	No answer
Energy unit value/price statistics											
Coal/coke	55	42	13	8	12	10	**21**	25	24	26	52
Biomass	39	33	8	9	8	12	**15**	14	15	20	69
Crude oil	64	45	16	2	11	10	**25**	33	27	31	44
Natural gas	65	52	17	7	21	15	**24**	30	30	34	43
Petroleum products	80	59	17	8	24	15	**33**	39	37	44	28
Electricity	82	64	19	8	24	17	**30**	40	36	45	26
Other*	4	3	2	1	2	1	1	0	0	2	103

* It includes: heat, town gas and district heating prices.

3. Frequency of data collection

24. Table 16 summarizes the responses on the frequency of data collection practices. For ease of interpretation the table also reports, for each energy source and type of data collection, the number of countries that indicated a frequency of data collection.

25. For each type of data collection and energy source Table 16 shows the number of countries that indicated Annually (A), Quarterly (Q), Monthly (M), Weekly (W) and Daily (D). For example, for Coal/Coke 30 countries indicated the frequency of their business surveys; 21 of them indicated they collect data annually, 5 quarterly, 14 monthly, and none daily or weekly. The most common frequency of data collection is identified in the table in bold face for each type of data collection and energy source.

26. Some of the conclusions that could be drawn from the table are the following:

- Business surveys are most commonly carried out on an annual basis, but also often on a monthly basis for all energy sources.
- Price surveys are carried out most commonly on a monthly basis for all energy sources.
- Specialized energy are most commonly carried out on an annual basis except for crude oil, natural gas and petroleum products which are carried out monthly.
- Administrative data are mainly obtained on a monthly basis except of Coal/Coke and Biomass for which they are mostly on an annual basis.

Table 16: Frequency of data collection

	Business surveys			Household surveys			Price surveys			Specialized energy surveys			Administrative data		
	Number of responding countries	Frequency		Number of responding countries	Frequency		Number of responding countries	Frequency		Number of responding countries	Frequency		Number of responding countries	Frequency	
Coal/coke	30	**A**	**21**	10	**A**	**8**	13	A	3	31	**A**	**21**	29	**A**	**17**
		Q	5		Q	2		Q	3		Q	4		Q	4
		M	14		M	0		**M**	**8**		M	13		M	8
		W	0		W	0		W	0		W	0		W	0
		D	0		D	0		D	0		D	0		D	1
Biomass	17	**A**	**14**	14	**A**	**10**	7	A	2	26	**A**	**23**	20	**A**	**15**
		Q	3		Q	2		**Q**	**3**		Q	3		Q	2
		M	5		M	0		M	2		M	5		M	5
		W	0		W	0		W	0		W	0		W	0
		D	0		D	1		D	0		D	0		D	0
Crude oil	24	**A**	**15**	3[a]	A	1	13	A	2	21	A	9	33	A	10
		Q	2		Q	0		Q	2		Q	5		Q	6
		M	**15**		M	1		**M**	**9**		**M**	**14**		**M**	**21**
		W	0		W	0		W	0		W	0		W	0
		D	0		D	0		D	1		D	0		D	0
Natural gas	24	**A**	**16**	7[b]	A	2	21	A	5	25	**A**	**16**	28	A	12
		Q	4		Q	1		Q	3		Q	4		Q	2
		M	**14**		M	1		**M**	**10**		**M**	**15**		**M**	**17**
		W	0		W	0		W	1		W	1		W	0
		D	0		D	0		D	0		D	0		D	0
Petroleum products	31	**A**	**20**	8[c]	A	4	25	A	5	28	**A**	**16**	40	A	15
		Q	4		Q	1		Q	3		Q	3		Q	8
		M	**19**		M	1		**M**	**14**		**M**	**17**		**M**	**22**
		W	0		W	0		W			W	2		W	0
		D	0		D	0		D	1		D	0		D	1
Electricity	33	**A**	**24**	14[b]	A	9	24	A	5	34	**A**	**23**	36	A	14
		Q	5		Q	2		Q	5		Q	2		Q	5
		M	**18**		M	1		**M**	**13**		M	18		**M**	**21**
		W	0		W	0		W	0		W	0		W	0
		D	0		D	0		D	1		D	0		D	1

[a] One country indicated every 2 and 5 years
[b] Two countries indicated every 3 years
[c] One country indicated every 3 years

4. Use of international classifications, standards and guidelines

27. Question 10 of the Global Assessment asked about the use of selected reference materials for the collection, compilation and dissemination of energy statistics. Table 17 summarizes the responses according to economic, geographical and other groupings.

28. The table shows that the *Energy Statistics Manual* (OECD, IEA and Eurostat) is the most commonly used publication (68 per cent), followed by the JODI manual (42 per cent) and the UN handbooks on energy statistics (ranging from 14 to 36 per cent depending on the handbook).

29. In the category "Other" countries indicated material on energy statistics by member countries of the Latin America Energy Organization (OLADE), the Asia-Pacific Economic Cooperation (APEC), own national material and the *Integrated Environmental Economic Accounting 2003* (SEEA).

Table 17: Use of international guidelines

	Number of countries responding to Question 10	Concepts and Methods in Energy Statistics (UNSD)	Energy Statistics: A Manual for Developing Countries (UNSD)	Energy Statistics: Definition Units of Measure and Conv. Fact. (UNSD)	Energy Statistics Manual (OECD, IEA and Eurostat)	Joint Oil Data Initiative (JODI) Manual	Other
Total	84	28	12	30	57	35	15
Economic regions							
Developed regions	34	10	3	10	31	20	3
Developing regions	50	18	9	20	27	15	12
Economic grouping:							
Developed economies	26	8	1	7	22	17	3
Transition economies	12	2	2	3	12	3	0
Developing economies	46	18	9	20	23	15	12
Geographical grouping:							
Africa	12	4	0	5	6	1	3
Central, Eastern, Southern, South-Eastern Asia and Oceania	16	8	5	6	8	4	4
Europe and Northern America	32	9	3	9	29	20	2
Latin America and the Caribbean	12	4	2	4	6	6	6
Western Asia	12	3	2	6	8	4	0
Other grouping							
OECD	24	8	0	6	22	14	11
Non-OECD	60	20	12	24	37	21	4

30. Question 11 of the Global Assessment aimed at identifying the international classifications used by countries for energy statistics. Table 18 presents the summary of the use of the responses. With respect to the classification of products, the Harmonized System Codes (HS) and the Standard International Trade Classification (SITC) seem to be the most common classification at global level. About 14 countries indicated the use of both HS and SITC classifications.

31. The Central Product Classification (CPC) and the Eurostat Prodcom[2] list are also commonly used: globally 42 countries indicated that they use one or the other. CPC is more used in developing regions and developing economic, while Prodcom is more used in developed regions and economies.

Table 18: Use of international classifications

	Number of countries responding to Question 11	*Product classifications*					*Economic activities classifications*	
		CPC	*HS*	*SITC*	*PRODCOM*	*Other*	*ISIC/NACE*	*Other*
Total	93	23	36	25	24	11	75	20
Economic regions								
Developed regions	35	7	13	8	21	7	31	8
Developing regions	58	16	23	17	3	6	44	12
Economic grouping:								
Developed economies	27	7	8	8	15	4	24	6
Transition economies	13	1	7	0	8	4	11	3
Developing economies	53	15	21	17	1	5	40	11
Geographical grouping:								
Africa	13	5	7	6	0	2	11	2
Central, Eastern, Southern, South-Eastern Asia and Oceania	21	7	10	10	0	3	13	7
Europe and Northern America	33	6	11	6	21	5	30	6
Latin America and the Caribbean	14	3	2	2	0	3	9	5
Western Asia	12	2	6	1	3	0	12	0
Other grouping								
OECD	24	6	7	9	11	4	21	6
Non-OECD	69	17	29	16	13	9	54	14

[2] Prodcom list is a system for the collection and dissemination of statistics on the production of manufactured goods used by Eurostat thus used by EU member states.

32. Examples of product classifications mentioned in the category "Other" included the Combined Nomenclature (CN) and national classification (more than half the countries indicated they are aligned with the international classifications).

33. The International Standard Industrial Classification of all Economic Activities (ISIC) and the Classification of Economic Activities in the European Community (NACE) seemed to be the accepted classifications for economic activities used in energy statistics. The category "Other" mainly includes national classifications. Also in this case, most of the countries explicitly indicated the alignment of these classifications with ISIC/NACE.

5. Impeding factors

34. Question 12 of the Global Assessment aimed at identifying the impeding factors that countries encounter in the collection, compilation and dissemination of energy statistics. Table 19 shows the summary of the responses. Globally, the impeding factors most commonly identified were, in order of importance, (1) lack of a coordination mechanism/data sharing; (2) data quality; (3) low response rate; (4) confidentiality; and (5) classification and definition of new energy sources.

35. The order of importance changes when looking at the different groupings; in developing regions the most commonly identified impeding factors are in order of importance: (1) lack of a coordination mechanism/data sharing and low response rate; (2) data quality; (3) lack of compilation material; and (4) lack of a legal framework. In developed regions the impeding factors included: (1) confidentiality, (2) classification and definition of new energy sources; (3) data quality; and (4) lack of a coordination mechanism in data sharing.

Table 19: Impeding factors

Number of countries responding to Question 12	Lack of a legal framework	Lack of a coordination mechanism/data sharing	Lack of compilation guidance material	Lack of harmonized measurement units within the country	Lack of harmonized international classifications	Lack of internationally agreed methodology	Confidentiality	Conversion factors	Classifications and definitions of new energy sources	Data quality	Low response rate	Other*
Total 84	19	36	19	13	14	16	28	21	27	33	31	16
Economic regions												
Developed regions 30	3	10	2	3	5	3	15	7	13	11	5	8
Developing regions 54	16	26	17	10	9	13	13	14	14	22	26	8
Economic grouping:												
Developed economies 25	2	8	1	1	4	2	12	6	10	11	5	7
Transition economies 10	1	2	3	2	1	3	3	3	4	2	1	1
Developing economies 49	16	26	15	10	9	11	13	12	13	20	25	8
Geographical grouping:												
Africa 16	5	9	7	3	5	6	3	6	6	7	11	1
Central, Eastern, Southern, South-Eastern Asia and Oceania 20	6	10	7	4	2	3	8	3	6	7	7	4
Europe and Northern America 28	2	9	2	3	5	3	13	7	12	10	5	6
Latin America and the Caribbean 11	5	6	1	3	2	3	3	3	2	6	6	3
Western Asia 9	1	2	2		1	1	1	2	1	3	2	2
Other grouping												
OECD 22	3	8	1	1	5	2	12	4	8	8	5	8
Non-OECD 62	16	28	18	12	9	14	16	17	19	25	26	8

* Among the impeding factors indicated in the category other are: the lack of human resources and technical expertise (8 countries), and the response delay (3 countries).

6. Reporting to international organizations

36. Questions 13 and 14 of the Global Assessment asked about the reporting to international questionnaires and the major constraints encountered by countries in reporting to the international questionnaires. Table 20 shows that the vast majority of the responding institutions report to international questionnaires (85 of 92 countries, which corresponds to 92 per cent).

Table 20: Reporting to international/regional organizations

		Yes				No
	Number of countries responding to Question 13	Total	*UNSD and/or IEA/ /Eurostat/UNECE*	*JODI*	*Other**	Total
Total	92	85	*77*	*37*	*23*	7
Economic regions						
Developed regions	37	33	*31*	*19*	*7*	4
Developing regions	55	52	*46*	*18*	*16*	3
Economic grouping:						
Developed economies	28	25	*23*	*16*	*5*	3
Transition economies	13	12	*11*	*5*	*2*	1
Developing economies	51	48	*43*	*16*	*16*	3
Geographical grouping:						
Africa	14	11	*10*	*1*	*1*	3
Central, Eastern, Southern, South-Eastern Asia and Oceania	20	19	*17*	*8*	*6*	1
Europe and Northern America	34	31	*29*	*18*	*6*	3
Latin America and the Caribbean	13	13	*11*	*7*	*8*	0
Western Asia	11	11	*10*	*3*	*2*	0
Other grouping						
OECD	25	22	*20*	*13*	*5*	3
Non-OECD	67	63	*57*	*24*	*18*	4

* the category "Other" includes: reporting to OLADE, APEC, Eurostat the Monthly Statistics, and British Petroleum review.

37. Table 21 shows the breakdown of countries reporting to the UNSD and IEA/Eurostat/UNECE Questionnaires.

Table 21: Reporting to UNSD and IEA/Eurostat/UNECE Questionnaires

Number of countries responding to UNSD and/or IEA/EurostatUNECE		*Only to UNSD*	*Only to IEA//Eurostat/UNECE*	*Both to UNSD and IEA//Eurostat/UNECE*
Total	77	*16*	*20*	*41*
Economic regions				
Developed regions	31	*0*	*17*	*14*
Developing regions	46	*16*	*3*	*27*
Economic grouping:				
Developed economies	23	*0*	*13*	*10*
Transition economies	11	*0*	*5*	*6*
Developing economies	43	*16*	*2*	*25*
Geographical grouping:				
Africa	10	*5*	*0*	*5*
Central, Eastern, Southern, South-Eastern Asia and Oceania	17	*5*	*3*	*9*
Europe and Northern America	29		*15*	*14*
Latin America and the Caribbean	11	*3*	*0*	*8*
Western Asia	10	*3*	*2*	*5*
Other grouping				
OECD	20	*0*	*11*	*9*
Non-OECD	57	*16*	*9*	*32*

38. The major constraints in reporting to international questionnaires on energy statistics are, in order of importance: (1) the questionnaires are too detailed and cannot be completed; (2) the classification of products does not match national classification; (3) the classification of energy uses does not match

national classification. These constraints are identified both by developed and developing countries as well as OECD and non-OECD countries.

Table 22: Major constraints in reporting to international organizations

	Number of countries responding to Question 14	*Classification of products does not match national classification*	*Classification of energy uses does not match national classification*	*Data are not collected at national level*	*Definitions are not reconcilable at national level*	*Data required are too detailed*	*Other**
Total	63	19	18	11	13	44	19
Economic regions							
Developed regions	19	3	3	3	4	15	3
Developing regions	44	16	15	8	9	29	16
Economic grouping:							
Developed economies	13	2	2	1	3	9	3
Transition economies	18	1	2	8	1	8	0
Developing economies	42	16	14	2	9	27	16
Geographical grouping:							
Africa	11	6	5	1	3	9	3
Central, Eastern, Southern, South-Eastern Asia and Oceania	15	7	5	3	4	9	5
Europe and Northern America	18	2	2	3	3	14	3
Latin America and the Caribbean	10	3	5	2	2	4	6
Western Asia	9	1	1	2	1	8	2
Other grouping							
OECD	12	3	4	0	3	7	5
Non-OECD	51	16	14	11	10	37	14

* "Other" includes: problems with the measurement units and conversion factors; the periodicity of the international reporting does not correspond to the one used in the country.

7. Methodological issues

39. Questions 15 aimed at identifying methodological issues in the collection and compilation of energy statistics to be addressed by the international community. The issues most commonly identified by countries are: the need for international harmonization and standardization of classifications, definitions, measurement units, energy units and conversion factors; the need for guidance on methods, data validation, etc. and the need of international recommendations, training and guidance for countries. Other issues that were identified included issues related to data collection practices such as identifying the appropriate sampling scheme, use of administrative data and registrations instead of surveys, links between energy statistics, energy accounts, national accounts and greenhouse gas emissions.

E. Dissemination and use of basic energy statistics

40. Questions 16 to 22 of the Global Assessment aimed at identifying country practices in the dissemination and use of basic energy statistics. They covered questions on the frequency of publication, mode of dissemination, users and uses of the information disseminated.

41. Table 23 summarizes the responses on the time lag between the reference and publication year in the annual statistical publications. Energy statistics seem to be published soon after the reference year: most of the responding countries (68 per cent) indicated that the time lag is 1 year, a small number indicated 2 years and no countries indicated 3 years. In addition, when looking at the category "other", 9 countries indicated a time lag less than 6 months, and 4 between 6 months and 18 months.

Table 23: Time lag between reference and publication year

	Number of countries responding to Question 16	1 year	2 years	3 years	Other				
					Total	*Less than 6 months*	*6to 12 months*	*Around 18 months*	*Vary*
Total	92	63	9	0	20	9	2	2	2
Economic regions									
Developed regions	37	27	2		8	2	4	2	0
Developing regions	55	36	7		12	7	3	0	2
Economic grouping:									
Developed economies	28	22	1		5	2	2	1	0
Transition economies	13	8	1		4	0	2	1	1
Developing economies	51	33	7		11	7	3	0	1
Geographical grouping:									
Africa	13	10	1		2	1	0	0	1
Central, Eastern, Southern, South-Eastern Asia and Oceania	21	12	3		6	3	3	0	0
Europe and Northern America	34	24	2		8	2	4	2	0
Latin America and the Caribbean	14	11	1		2	2	0	0	0
Western Asia	10	6	2		2	1	0	0	1
Other grouping									
OECD	25	20	2		3	1	1	1	0
Non-OECD	67	43	7		17	8	6	1	2

42. Data are mostly made freely available to the users (95 per cent of responding countries) and, in a very small number of countries, data are either freely available only to a restricted group of users or not freely available. This seems the case for the different breakdowns.

Table 24: Availability of energy data to users

	Number of countries responding to Question 18	*Freely available to all users*	*Freely available only to a restricted group of users*	*Not freely available*
Total	93	88	6	4
Economic regions				
Developed regions	37	33	3	1
Developing regions	55	50	3	3
Economic grouping:				
Developed economies	28	26	1	1
Transition economies	13	11	2	0
Developing economies	52	46	3	3
Geographical grouping:				
Africa	14	12	0	2
Central, Eastern, Southern, South-Eastern Asia and Oceania	21	19	2	
Europe and Northern America	34	30	3	1
Latin America and the Caribbean	14	13	0	1
Western Asia	10	9	1	0
Other grouping				
OECD	25	22	2	1
Non-OECD	68	61	4	3

43. Most of the countries, approximately 90 per cent, publish energy statistics on a regular basis. Only very few countries either do not publish energy statistics at all or publish them on an ad-hoc basis. Note that two of the four countries that do not publish energy statistics also indicated that energy statistics are not freely available in their countries.

Table 25: Publication schedule

	Number of countries responding to Question 19	*On a regular basis according to a release calendar*	*On an ad-hoc basis*	*Not published*
Total	91	83	4	4
Economic regions				
Developed regions	36	34	2	
Developing regions	55	49	2	4
Economic grouping:				
Developed economies	28	26	2	0
Transition economies	12	11	0	1
Developing economies	51	46	2	3
Geographical grouping:				
Africa	14	11	2	1
Central, Eastern, Southern, South-Eastern Asia and Oceania	21	20	0	1
Europe and Northern America	33	31	2	0
Latin America and the Caribbean	13	12	0	1
Western Asia	10	9	0	1
Other grouping				
OECD	25	23	2	0
Non-OECD	66	60	2	4

44. Questions 20 and 21 of the Global Assessment aimed at identifying the main users and uses of energy statistics in countries. Table 25 summarizes the responses on the users. All countries indicated that government institutions/agencies are among the main users of energy statistics (as one would expect given the importance of energy information in countries). Other users most commonly identified are academia and industries. In the category "Other" countries indicated non governmental organizations, international organizations and private sector.

Table 26: Main users of energy statistics

	Number of countries responding to Question 20	*Government institutions /agencies*	*Academia*	*Media*	*Industries*	*Other*
Total	92	92	72	56	70	14
Economic regions						
Developed regions	37	37	29	28	31	5
Developing regions	55	55	43	28	39	9
Economic grouping:						
Developed economies	28	28	21	20	23	2
Transition economies	13	13	11	12	10	3
Developing economies	51	51	40	24	37	9
Geographical grouping:						
Africa	14	14	11	9	9	2
Central, Eastern, Southern, South-Eastern Asia and Oceania	21	21	17	9	15	3
Europe and Northern America	34	34	27	26	29	5
Latin America and the Caribbean	13	13	9	5	9	3
Western Asia	10	10	8	7	8	1
Other grouping						
OECD	25	25	19	19	21	3
Non-OECD	67	67	53	37	49	11

45. Table 27 shows the main uses of energy statistics. Globally, countries identified, in order of importance, the use of energy statistics for the compilation and/or calculation of the following: (1) overall energy balances; (2) national accounts; (3) environment statistics; (4) greenhouse gas emissions; (5) indicators; (6) commodity balances; and (7) energy accounts.

46. Examples of indicators, provided by countries, to which energy statistics provide an input are: energy intensity/efficiency indicators, structural indicators, energy dependence, sustainable development indicators.

Table 27: Main uses of energy statistics

	Number of countries responding to Question 21	*Commodity balances*	*Overall energy balance*	*Energy accounts*	*Greenhouse gas emissions*	*National Accounts*	*Environment Statistics*	*Indicators*	*Other**
Total	91	46	64	31	51	61	56	48	6
Economic regions									
Developed regions	37	27	31	14	28	25	28	23	2
Developing regions	54	19	33	17	23	36	28	25	4
Economic grouping:									
Developed economies	28	19	24	12	25	20	22	21	0
Transition economies	12	9	9	2	4	8	8	3	2
Developing economies	51	18	31	17	22	33	26	24	4
Geographical grouping:									
Africa	13	1	7	4	4	10	3	5	1
Central, Eastern, Southern, South-Eastern Asia and Oceania	21	10	15	10	10	17	11	9	1
Europe and Northern America	34	26	28	12	26	22	26	22	2
Latin America and the Caribbean	14	5	8	3	7	7	10	7	1
Western Asia	9	4	6	2	4	5	6	5	0
Other grouping									
OECD	25	17	22	13	23	17	20	19	0
Non-OECD	66	29	42	18	28	44	36	29	6

***** It includes uses for the formulation of economic policies for energy, forecast etc.

F. Energy balances

47. The last section of the Global Assessment focused on energy balances. In particular, it covered questions on the availability of energy balances in countries, the format and the frequency of compilation of the overall energy balance and types of energy sources covered in the commodity balances.

48. A commodity balance was defined as the presentation of supply (e.g. production, imports) and use (e.g. exports, input into another energy source, non-energy uses) of an energy source (e.g. coal) in the national territory during a period of time (generally a year) measured in original units (e.g. tons) or energy units (e.g. terajoule). An overall energy balance referred to the presentation of supply and use of all sources of energy in the national territory.

49. Table 28 shows that most of the responding countries (77 per cent) indicated that they compile energy balances. In most of the cases, both overall and commodity energy balances are compiled. 18 countries explicitly indicated that they do not compile balances. 22 of the responding institutions (31 per cent) indicated that they compile energy accounts[3]. These countries will also be requested to compile the Global Assessment on Energy Accounts to obtain more information on the scope and coverage of the energy accounts compiled.

[3] Energy accounts were defined in the Global Assessment as accounts that "describe the supply of energy products (production, imports) and use (intermediate and final consumption, exports and gross capital formation) in the economic territory of the country. They can be compiled in physical and monetary terms. They are based on the residence principle according to which "an institutional unit is resident within the economic territory of a country when it maintains a centre of economic interest in that territory - that is, when it engages, or intends to engage, in economic activities or transactions on a significant scale either indefinitely or over a long period of time, usually interpreted as one year."[1993 SNA para 1.28]"

Table 28: Energy balances

	Number of countries responding to Question 22	Number of responding institution compiling overall and/or commodity balances	*Only commodity balances*	*Only Overall energy balance*	*commodity and overall energy balance*	*Energy accounts*	No balances compiled by the responding institution
Total	94	73	*10*	*7*	*56*	*22*	18
Economic regions							
Developed regions	37	34	*5*	*1*	*28*	*9*	2
Developing regions	57	39	*5*	*6*	*28*	*13*	16
Economic grouping:							
Developed economies	28	25	*3*	*1*	*21*	*8*	2
Transition economies	13	13	*3*	*1*	*9*	*1*	0
Developing economies	53	35	*4*	*5*	*26*	*13*	16
Geographical grouping:							
Africa	14	8	*1*	*3*	*6*	*2*	5
Central, Eastern, Southern, South-Eastern Asia and Oceania	21	17	*1*	*0*	*15*	*7*	4
Europe and Northern America	34	31	*4*	*1*	*26*	*7*	2
Latin America and the Caribbean	14	7	*0*	*2*	*5*	*4*	6
Western Asia	11	9	*4*	*1*	*4*	*2*	1
Other grouping							
OECD	25	22	*3*	*0*	*19*	*9*	1
Non-OECD	69	51	*7*	*7*	*37*	*13*	17

50. Question 23 asked about whether other institutions/agencies compile energy and/or commodity balances in the country. Table 29 shows that in 25 of the 73 countries (34 per cent) where the responding institution compiles balances, the balances are compiled also by other institutions in the country. The NSOs play an important role in the compilation of energy balances: 51 of the 73 responding institutions (70 per cent) which compile balances are NSOs, and in most of the cases (31 of 51) the NSO is the only institution compiling balances. These results may reflect the fact that the Global Assessment was sent to NSOs and in few cases the line ministry responded to the Assessment.

Table 29: Compilation of energy balances in the country

In other institutions: / *In the responding institution:*	*Yes*	*No*	*No answers*	Total
Yes	25	43	5	73
No	8	9	1	18
Total	33	52	6	91

51. Question 24 aimed at identifying the format of the overall energy balance compiled by the responding institution. Table 30 shows that the majority of the responding institutions use their own national format for overall energy balance. The format of international organizations such as the UNSD, Eurostat, OECD/IEA seems to be equally used, but it is much less common than the national format.

Table 30: Format of the overall energy balances

	Number of countries responding to Question 24	UNSD Format	Eurostat format	IEA format	Own national format
Total	59	8	8	11	32
Economic regions					
Developed regions	28	0	6	5	17
Developing regions	31	8	2	6	15
Economic grouping:					
Developed economies	21	0	4	2	15
Transition economies	10	0	3	3	4
Developing economies	28	8	1	6	13
Geographical grouping:					
Africa	7	2	1	3	1
Central, Eastern, Southern, South-Eastern Asia and Oceania	15	4	0	1	10
Europe and Northern America	26	0	6	5	15
Latin America and the Caribbean	7	1	0	1	5
Western Asia	4	1	1	1	1
Other grouping					
OECD	18	0	1	2	15
Non-OECD	41	8	7	9	17

52. Table 31 shows the frequency of the compilation/publication of overall energy balances in countries. The vast majority of countries compile balances annually (83 %). It is interesting to notice that quarterly overall energy balances are slightly more compiled in developing regions and developing economies.

Table 31: Frequency of the overall energy balances

	Number of countries responding to Question 24	Monthly	Quarterly	Annual	Other
Total	61	3	10	54	2
Economic regions					
Developed regions	29	0	3	29	0
Developing regions	32	3	7	25	2
Economic grouping:					
Developed economies	22	0	3	22	0
Transition economies	10	0	0	9	1
Developing economies	29	3	7	23	1
Geographical grouping:					
Africa	8	0	2	7	
Central, Eastern, Southern, South-Eastern Asia and Oceania	15	2	4	12	1
Europe and Northern America	27	0	3	27	0
Latin America and the Caribbean	7	0	0	7	0
Western Asia	4	1	1	1	1
Other grouping					
OECD	18	1	4	18	0
Non-OECD	42	2	6	35	2

53. Question 27 asked about the commodities for which the responding institution compiles commodity energy balances. Table 32 shows that the commodity balances are compiled almost equally for all energy commodities.

Table 32: Commodities in the commodity balance

Number of countries responding to Question 27	Coal	Coke	Biomass	Crude Oil	Natural gas	Petroleum products	Electricity and heat	Other
Total 63	51	36	31	49	50	54	55	15
Economic regions								
Developed regions 31	29	25	19	25	27	25	28	10
Developing regions....32	22	11	12	24	23	29	27	5
Economic grouping:								
Developed economies....22	21	9	14	19	21	20	20	8
Transition economies....12	9	7	5	8	8	7	11	2
Developing economies....29	21	10	12	22	21	27	24	5
Geographical grouping:								
Africa 5	3	2	3	2	3	5	5	0
Central, Eastern, Southern, South-Eastern Asia and Oceania 15	13	6	3	13	12	14	15	3
Europe and Northern America....30	28	24	19	24	26	24	27	10
Latin America and the Caribbean 5	4	4	5	5	4	5	5	1
Western Asia....8	3	0	1	5	5	6	3	1
Other grouping								
OECD....20	19	17	11	18	19	18	18	6
Non-OECD 43	32	19	20	31	31	36	37	9

54. Table 33 summarizes the uses of the energy balances in countries. The most common use in countries is for policy making followed by reporting to UNFCCC, derivation of indicators and input into national accounts. This seems to be the case homogeneously across economic, geographical and other groupings.

Table 33: Uses of energy balances

Number of countries responding to Question 28	Derivation of indicators	Reporting to UNFCCC	Calculation of other air emissions	Input into energy accounts	Input into national accounts	Policy making	Other
Total 65	36	39	33	24	34	41	8
Economic regions							
Developed regions 21	17	23	18	12	13	20	4
Developing regions....44	19	16	15	12	21	21	4
Economic grouping:							
Developed economies....23	13	20	15	10	10	19	4
Transition economies....8	5	3	3	2	5	1	1
Developing economies....44	18	16	15	12	19	21	3
Geographical grouping:							
Africa 8	4	2	2	2	5	4	0
Central, Eastern, Southern, South-Eastern Asia and Oceania 15	10	7	6	7	11	10	2
Europe and Northern America....27	15	21	18	11	13	18	5
Latin America and the Caribbean 10	5	7	4	2	4	6	1
Western Asia....5	2	2	3	2	1	3	0
Other grouping							
OECD....21	14	17	12	9	9	18	4
Non-OECD 44	22	22	21	15	25	23	4

Annex 1.

Countries responding as of Nov 12 2007

COUNTRY		
1. Afghanistan	37. Grenada	73. Philippines
2. American Samoa	38. Hungary	74. Poland
3. Andorra	39. India	75. Portugal
4. Armenia	40. Indonesia	76. Qatar
5. Australia- ABS and ABARE	41. Iran (Islamic Republic of)	77. Republic of Moldova
6. Austria	42. Ireland	78. Republic of Montenegro
7. Azerbaijan	43. Israel	79. Republic of Serbia
8. Bahrain	44. Italy	80. Romania
9. Belarus	45. Japan	81. Russian Federation
10. Bolivia	46. Jordan	82. Saint Kitts and Nevis
11. Botswana	47. Kazakhstan	83. Saint Vincent and the Grenadines
12. Brazil	48. Kenya	84. Seychelles
13. Bulgaria	49. Korea, Republic of	85. Singapore
14. Cameroon	50. Kuwait	86. Slovakia
15. Canada	51. Kyrgyzstan	87. Slovenia
16. Chile	52. Latvia	88. South Africa
17. China	53. Lesotho	89. Spain
18. China, Hong Kong SAR – CSD and EMSD	54. Lithuania	90. Sri Lanka
19. China, Macao SAR	55. Madagascar	91. Suriname
20. Colombia	56. Malaysia	92. Swaziland
21. Costa Rica	57. Maldives	93. Sweden
22. Croatia	58. Mauritius	94. Switzerland
23. Cyprus	59. Mexico	95. Thailand
24. Czech Republic	60. Mongolia	96. The former Yugoslav Republic of Macedonia
25. Cuba	61. Morocco	97. Turkey
26. Denmark	62. Mozambique	98. Uganda
27. Dominica	63. Netherlands	99. Ukraine
28. Dominican Republic	64. New Zealand	100. United Arab Emirates
29. Egypt	65. Nigeria	101. United Kingdom
30. Estonia	66. Norway	102. United States
31. Fiji	67. Occupied Palestinian Territory	103. Uruguay
32. Finland	68. Other Far Asia	104. Viet Nam
33. Georgia	69. Pakistan	105. Yemen
34. Germany	70. Panama	106. Zambia
35. Greece – NSSG and MoD	71. Paraguay	107. Zimbabwe
36. Greenland	72. Peru	

Annex 2.

United Nations Statistics Division

Global Assessment of Energy Statistics and Balances

Please provide your contact information:

Country: ____

Name of institution/agency: ____

Contact person: ____

Email: ____

Tel: ____

Fax: ____

Website: ____

☐ PLEASE CHECK THIS BOX if you do not wish that your response be shared with other international, regional and supranational organizations

Please note that there is no limit in the number of characters that can be typed in the underlined space ____.
For additional comments, please use the comment box in the last page.
Help is available at the end of the Assessment for selected questions identified with ⓘ.

INSTITUTIONAL FRAMEWORK

1. Is there a legal framework for the collection of energy statistics in your country?
   - ☐ Yes - *Please mark all that apply*
     - ☐ Statistical Act
     - ☐ Other - *Please specify (there is no limit in the number of character):* ____
   - ☐ No

2. Does your institution/agency have a programme on energy statistics? ⓘ
   - ☐ Yes
   - ☐ No – *Please, answer only Questions 3 to 7*

3. In your institution/agency are there plans for the next two years to: *Please mark all that apply*
   - ☐ Start a programme on energy statistics
   - ☐ Continue with the current programme on energy statistics
   - ☐ Further expand the energy statistics programme
     - ☐ Increase frequency of data collection and compilation
     - ☐ Increase the scope of data collection and compilation
     - ☐ Other - *Please specify*: ____
   - ☐ None of the above

4. In your country, do other institutions/agencies have a programme on energy statistics?
   - ☐ Yes – *Please specify name of institution(s)/agency(ies)*: ____
   - ☐ No

5. Is there a coordination mechanism among the institutions/agencies collecting energy statistics? ⓘ
   - ☐ Yes - *Please describe the coordination mechanism and the name of the institutions involved (there is no limit in the number of characters)*: ____
   - ☐ No

6. If you answer yes to Question 5, is there a coordinating institution/agency? ⓘ
   - ☐ Yes- *Please specify name of institution:* ____
   - ☐ No

7. Is there a single institution/agency in charge of releasing energy statistics in your country?
   - ☐ Yes- *Please specify name of institution:* ____
   - ☐ No

BASIC ENERGY STATISTICS

8. For each energy source below, please mark if your institution/agency collects, receives data from other institutions, compiles or disseminates statistics. *Please mark all that apply* ⓘ

	Types of data collection by your institution/ agency						
	Business surveys	Household surveys	Specialized energy surveys	Administrative data	Data received from other institutions	Data compiled by your institution	Data disseminated by your institution
Coal/coke							
Production	☐	☐	☐	☐	☐	☐	☐
Imports/exports	☐	☐	☐	☐	☐	☐	☐

Consumption	☐	☐	☐	☐	☐	☐	☐
Stocks/Inventories	☐	☐	☐	☐	☐	☐	☐
Resources/Reserves	☐	☐	☐	☐	☐	☐	☐
Other statistics							
Please specify ____	☐	☐	☐	☐	☐	☐	☐
Biomass							
Production	☐	☐	☐	☐	☐	☐	☐
Imports/exports	☐	☐	☐	☐	☐	☐	☐
Consumption	☐	☐	☐	☐	☐	☐	☐
Other statistics							
Please specify ____	☐	☐	☐	☐	☐	☐	☐
Crude oil/natural gas							
Production	☐	☐	☐	☐	☐	☐	☐
Imports/exports	☐	☐	☐	☐	☐	☐	☐
Consumption	☐	☐	☐	☐	☐	☐	☐
Stocks/Inventories	☐	☐	☐	☐	☐	☐	☐
Distribution losses	☐	☐	☐	☐	☐	☐	☐
Resources/Reserves	☐	☐	☐	☐	☐	☐	☐
Other statistics							
Please specify ____	☐	☐	☐	☐	☐	☐	☐
Petroleum products							
Production	☐	☐	☐	☐	☐	☐	☐
Imports/exports	☐	☐	☐	☐	☐	☐	☐
Consumption	☐	☐	☐	☐	☐	☐	☐
Bunkering	☐	☐	☐	☐	☐	☐	☐
Distribution losses	☐	☐	☐	☐	☐	☐	☐
Stocks/Inventories	☐	☐	☐	☐	☐	☐	☐
Other statistics							
Please specify ____	☐	☐	☐	☐	☐	☐	☐
Electricity							
Production	☐	☐	☐	☐	☐	☐	☐
Imports/exports	☐	☐	☐	☐	☐	☐	☐
Consumption	☐	☐	☐	☐	☐	☐	☐
Distribution losses	☐	☐	☐	☐	☐	☐	☐
Others statistics							
Please specify ____	☐	☐	☐	☐	☐	☐	☐
Heat							
Production	☐	☐	☐	☐	☐	☐	☐
Consumption	☐	☐	☐	☐	☐	☐	☐
Other							
Please specify ____	☐	☐	☐	☐	☐	☐	☐

	Types of data collection by your institution/ agency							
	Business surveys	Household surveys	Price surveys	Specialized energy surveys	Administrative data	Data received from other institutions/agencies	Data compiled by your institution/agency	Data disseminated by your institution/agency
Energy unit value/price statistics								
Coal/coke	☐	☐	☐	☐	☐	☐	☐	☐
Biomass	☐	☐	☐	☐	☐	☐	☐	☐
Crude oil	☐	☐	☐	☐	☐	☐	☐	☐
Natural gas	☐	☐	☐	☐	☐	☐	☐	☐
Petroleum products	☐	☐	☐	☐	☐	☐	☐	☐
Electricity	☐	☐	☐	☐	☐	☐	☐	☐
Other								
Please specify ____	☐	☐	☐	☐	☐	☐	☐	☐

9. Please indicate the frequency of data collection by your institution/agency used for energy statistics by energy source.

Please use the following answer key: D for daily, W for weekly, M for monthly, Q for quarterly and A for annually. Please mark all that apply

	Business surveys	Household surveys	Price surveys	Specialized energy surveys	Administrative data
Coal/coke	____	____	____	____	____
Biomass	____	____	____	____	____
Crude oil	____	____	____	____	____
Natural gas	____	____	____	____	____
Petroleum products	____	____	____	____	____
Electricity	____	____	____	____	____
Other					
Please specify ____	____	____	____	____	____

Additional comments: ____

USE OF INTERNATIONAL CLASSIFICATIONS, STANDARDS AND GUIDELINES

10. In the collection, compilation and dissemination of energy statistics in your country, does your institution/agency make use of any of the following material: *Please mark all that apply*

- ☐ Concepts and Methods in Energy Statistics, with Special Reference to Energy Accounts and Balances (UNSD)
- ☐ Energy Statistics - A Manual for Developing Countries (UNSD)
- ☐ Energy Statistics: Definitions, Units of Measure and Conversion Factors (UNSD)
- ☐ Energy Statistics Manual (OECD, IEA and Eurostat)
- ☐ Joint Oil Data Initiative (JODI) Manual
- ☐ Other - *Please specify*: ____

11. In your country, which of the following international classifications are used for energy statistics? *Please mark all that apply*

Product classifications:

- ☐ Central Product Classification (CPC)
- ☐ Harmonized Commodity Description and Coding System Brochure (HS)
- ☐ Standard International Trade Classification (SITC)
- ☐ PRODCOM
- ☐ Other - *Please specify*: ____

Economic activities classifications:

- ☐ International Standard Industrial Classification of all Economic Activities (ISIC)/ Classification of Economic Activities in the European Community (NACE)
- ☐ Other - *Please specify*: ____

IMPEDING FACTORS AND CHALLENGES IN THE COMPILATION AND REPORTING OF ENERGY STATISTICS

12. What are the impeding factors in collecting, compiling and disseminating energy statistics in your country? *Please mark all that apply*

- ☐ Lack of a legal framework
- ☐ Lack of a coordination mechanism/data sharing among institutions/agencies
- ☐ Lack of compilation guidance material
- ☐ Lack of harmonized measurement units within the country
- ☐ Lack of harmonized international classifications
- ☐ Lack of internationally agreed methodology
- ☐ Confidentiality
- ☐ Conversion factors
- ☐ Classifications and definitions of new energy sources
- ☐ Data quality
- ☐ Low response rate
- ☐ Other - *Please specify*: ____

13. Does your institution/agency transmit/report energy statistics to international/regional organizations?

- ☐ No
- ☐ Yes - *Please mark all that apply*
  - ☐ UNSD Questionnaire on all energy sources
  - ☐ OECD/IEA/Eurostat Questionnaires for Coal, Oil, Natural Gas, Electricity, and Renewables
  - ☐ Joint Oil Data Initiative (JODI) Monthly Questionnaire
  - ☐ Others – *Please specify:* ____

14. If yes to Question 13, what are the major constraints in reporting to international questionnaires on energy statistics? *Please mark all that apply*

- ☐ Classification of products does not match national classification
- ☐ Classification of energy uses does not match national classification
- ☐ Data is not collected at national level
- ☐ Definitions are not reconcilable with those used at national level
- ☐ Data required is too detailed
- ☐ Other - *Please specify:* ____

15. In your views, what are the methodological issues in the collection and compilation of energy statistics that should be addressed by the international community?

____

DISSEMINATION AND USE OF BASIC ENERGY STATISTICS

16. In your annual statistical publications, what is the time lag between reference and publication year of energy statistics? *Please select one*

- ☐ 1 year
- ☐ 2 year
- ☐ 3 year
- ☐ Other - *Please specify:* ____

17. What is the available time series of energy statistics published by your institution/agency?

____

18. In your country, energy statistics are: *Please select one*

- ☐ Freely available to all users
- ☐ Freely available only to restricted groups of users (e.g. government institutions/agencies)
- ☐ Not freely available

19. In your country, energy statistics are published: *Please select one*

- ☐ On a regular basis, according to a release calendar
- ☐ On an ad-hoc basis
- ☐ Not published

20. In your country, who are the main users of energy statistics? *Please mark all that apply*

- ☐ Government institutions/agencies
- ☐ Academia
- ☐ Media
- ☐ Industries
- ☐ Other - *Please specify*: ____

21. In your country, energy statistics are used for the compilation and or calculation of: *Please mark all that apply*

- ☐ Commodity balances
- ☐ Overall energy balance
- ☐ Energy accounts
- ☐ Greenhouse gas emission
- ☐ National accounts
- ☐ Environment statistics
- ☐ Indicators - *Please specify*: ____
- ☐ Other - *Please specify*: ____

ENERGY BALANCES

22. Does your institution/agency compile any of the following? *Please mark all that apply*

- ☐ Commodity balances
- ☐ Overall energy balance
- ☐ Energy accounts
- ☐ No balances

23. Do other institutions/agencies compile energy and/or commodity balances?

- ☐ Yes - *Please indicate name(s) of institution(s)/agency(ies)*: ____

☐ No

24. If your institution/agency compiles an overall energy balances, which of the following balance formats is used in your country?

☐ UNSD format
☐ Eurostat format
☐ IEA format
☐ Own national format

25. If your institution/agency compiles/publishes an overall energy balance, what is the number of industries separately identified at the most detailed level of disaggregation as final energy users?

____

26. If your institution/agency compiles/publishes an overall energy balance, what is its frequency of compilation/publication? *Please mark all that apply*

☐ Monthly
☐ Quarterly
☐ Annually
☐ Other - *Please specify*:____

27. If your institution/agency compiles commodity balances, for which energy commodity(ies) are the balances compiled? *Please mark all that apply*

☐ Coal
☐ Coke
☐ Biomass
☐ Crude Oil
☐ Natural gas
☐ Petroleum products
☐ Electricity and heat
☐ Other - *Please specify*:____

28. In your country, what are the main uses of overall energy balance and/or commodity balances? *Please mark all that apply* ⓘ

☐ Derivation of indicators – *Please specify*: ____
☐ Basis for reporting to United Nations Framework Convention on Climate Change
☐ Basis for calculation of other air emissions
☐ Input in energy accounts
☐ Input in national accounts
☐ Policy making - *Please list examples of policy uses*:
____
☐ Other – *Please specify*:____

Please provide additional comments in the box below

Help on selected questions

Question 2. Does your institution/agency have a programme on energy statistics?

For the purpose of this questionnaire a Programme on Energy Statistics refers to a programme of work in which energy data are collected, compiled or disseminated on a regular basis.

Questions 5. Is there a coordination mechanism among the institutions/ agencies collecting energy statistics?

For the purpose of this questionnaire a coordination mechanism refers to a formal or informal agreement between institutions/agencies for data sharing.

Questions 6. Is there a coordinating institution/agency?

For the purpose of this Assessment, coordinating institution/agency refers to the institution/agency which is responsible for the overall coordination, compilation and dissemination of statistics on a specific subject area.

Question 8. For each energy source below, please mark if your institution/agency collects, receives data from other institutions/agencies, compiles or disseminates statistics.

For the purpose of this questionnaire, the terms in the table are used with the following meaning:

The **type of data collection** refers to the main process used in the collection of statistical data by the primary source of the data, those commonly used being survey data collection and administrative data collection. Each of these broad types may be further broken down on the basis of some characteristic, e.g. the nature of the data provider (enterprise/household) or exhaustiveness (sample survey, complete enumeration, census). [*OECD glossary of statistical terms*]

Surveys refer to both sample surveys and censuses.

Specialized surveys are those concerned with a single subject or issue. Specialized surveys may be ad hoc or they may be implemented as part of an on-going national survey programme but conducted with separate samples because of subject-matter or other considerations. They may be conducted periodically, irregularly or only once. [*OECD glossary of statistical terms*] In the case of energy, they collect information on the physical quantities in original units and/or energy equivalent for energy commodities, produced or consumed whereby specialized energy surveys enquiring on production, stocks/inventories and reserves/resources are surveys to producers and specialized energy surveys enquiring on consumption are surveys to consumers. These specialized energy surveys complement regular structural and short-term business surveys that enquire on production-related and financing-related variables in monetary terms.

Administrative data is the set of units and data derived from an administrative source (that is, the organizational unit responsible for implementing an administrative regulation (or group of regulations), for which the corresponding register of units and the transactions are viewed as a source of statistical data). [*OECD glossary of statistical terms*]. Examples of administrative data are custom data on imports/exports, data from tax records etc.

Data received from other institutions/agencies refers to *secondary sources of statistical data*, that is, the organizations or individuals other than those responsible for the collection and aggregation of data from their initial source. Secondary sources may redistribute information received from the primary source either in their initial form or after some transformation including further aggregation, reclassification or other manipulation such as seasonal adjustment. [*OECD glossary of statistical terms*]

Data compilation refers to a process of condensing information by classifying and tabulating statistical data into various categories or groups with the object of producing statistics according to a determined tabulation programme. [Based on *OECD glossary of statistical terms*]

Data dissemination is the release to users of information obtained through a statistical activity. [*OECD glossary of statistical terms*]

Coal/coke includes coke oven coke and gas coke, cooking coal, lignite, patent fuel and brown coal/peat briquettes (BKB), peat, other bituminous coal and anthracite, sub-bituminous coal etc.

Biomass includes fuelwood, charcoal, alcohol, bagasse, animal waste, municipal waste, etc.

Petroleum products include LPG, gasoline, kerosene, gas/diesel oil, fuel oil, lubricants, bitumen, paraffin waxes.

Stocks/**Inventories** For the purpose of this questionnaire, stocks correspond to the concept of inventories in the national accounts. Inventories consist of stocks of outputs (energy commodities) that are still held by the units that produced them prior to their being further processed, sold, delivered to other units or used in other ways and stocks of products acquired from other units that are intended to be used for intermediate consumption or for resale without further processing [*1993 SNA para 10.7]*. Stocks/inventories refer to commodities above ground and they differ from resources/reserves which are underground.

Resources/Reserves of energy refer to the accumulation of fossil fuels in the earth's crust in solid, liquid and gaseous form. Generally, reserves are a subset of resources and refer to the exploitable part of resources. They should be distinguished from stocks/inventories.

Questions 21 to 28

Energy balances: For the purpose of this questionnaire, a commodity balance refers to the presentation of supply (e.g. production, imports) and use (e.g. exports, input into another energy source, non-energy uses) of an energy source (e.g. coal) in the national territory during a period of time (generally a year) measured in original units (e.g. tons) or energy units (e.g. terajoule). An overall energy balance shows the supply and use of all sources of energy. Energy balances record the supply and use of energy occurring in the national territory (this is commonly referred to as the "territory principle"). Energy balances use the territory principle as opposed to the energy accounts which use the residence principle.

Energy accounts: For the purpose of this questionnaire, energy accounts describe the supply of energy products (production, imports) and use (intermediate and final consumption, exports and gross capital formation) in the economic territory of the country. They can be compiled in physical and monetary terms. They are based on the residence principle according to which "an institutional unit is resident within the economic territory of a country when it maintains a centre of economic interest in that territory - that is, when it engages, or intends to engage, in economic activities or transactions on a significant scale either indefinitely or over a long period of time, usually interpreted as one year."[*1993 SNA para 1.28*]