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Global Assessment of Environment Statistics and Environmental-Economic Accounting

Prepared by United Nations Statistics Division

Global Assessment of Environment Statistics and Environmental-Economic Accounting

1. Introduction

1. The Global Assessment of Environment Statistics and Environmental-Economic Accounting was undertaken by the UN Statistics Division under the auspices of the Committee of Experts on Environmental-Economic Accounting (UNCEEA), in collaboration with the Inter-Secretariat Working Group on Environment Statistics. The Global Assessment responds to the request by the UNCEEA to carry out an assessment of the current status of national implementation of environmental-economic accounting and related statistics, priorities and future plans.

2. The Global Assessment is carried out in two phases in order not to overburden the respondents. Phase I of the Global Assessment covers general information on the programmes of environment statistics and environmental-economic accounting. It includes questions on the institutional infrastructure, subject areas, constraints encountered in the development and implementation of the programmes and countries' future plans. Phase II of the Global Assessment will consist of follow-up questionnaires focusing on specific subject areas that have been identified in phase I and will be dispatched during the first half of 2007 only to those countries that have indicated the existence of activities in the specific subject area.

3. Phase I of the Global Assessment was dispatched on 16 October 2006 to the 192 UN Member Countries. A brief description of the questionnaire, its structure and organization are presented in Annex I. As of 12 February 2007, 100 countries responded to the Assessment corresponding to a response rate of 52 per cent. The list of countries who responded to the Assessment is reported in Annex II. The aim is to increase the coverage of countries with the Phase II of the Global Assessment. The analysis will be updated once more responses are received and will be made available on the UNSD website.

4. This report presents the main findings of the assessment. It is organized as follows: Section 2 presents a summary of the main conclusions. Section 3 presents the institutional infrastructure of the environment statistics and environmental-economic accounting programmes covering the availability of these programmes in countries and their location within the country and within the institution. Section 4 presents the scope of these programmes in terms of the subject areas covered, the use of the statistics compiled and future plans. Section 5 describes the impeding factors for the development and compilation of environment statistics and environmental-economic accounting. Section 6 includes additional considerations on the training material, technical assistance and funding used in the compilation of environment statistics and environmental-economic accounts.

2. Summary of the conclusions

5. The Assessment indicated that environment statistics and environmental-economic accounting are established and expanding components of national statistical programmes. 91 per cent of responding

countries has an environment statistics programme and 70 per cent of them is planning to expand their programme both in terms of broadening the coverage and expanding to new areas.

6. Considering that environmental-economic accounting is a relatively new area of statistics, it is noteworthy that a considerable number of countries — about half of the countries that responded to the assessment — have an environmental-economic accounting programme. In addition, about 20 countries which are not currently compiling environmental-economic accounts indicated that they are planning to start with their compilation in the near future. This would bring the percentage of countries compiling environmental accounts to about 70 per cent.

7. Water statistics is most commonly compiled within countries' environment statistics programmes both in developed and developing regions. In developing regions, Air, Land, Forest and Biodiversity statistics are additional areas among the most commonly covered by the programmes. Areas of expansion include, in order of importance, Air, Water, Land, Biodiversity, Forest, and Energy.

8. Water accounts and Energy and emission accounts are among the modules most commonly compiled as well as priority areas for further expansion in developing regions.

9. Countries identified that the lack of human and financial resources are the most common impeding factors for the development of both environment statistics and environmental-economic accounting programmes. However, in the compilation of these statistics, the availability and quality of data were considered key impeding factors.

3. Institutional infrastructure

10. A number of questions in the assessment aimed at identifying the availability of environment statistics and environmental-economic accounting programmes in countries (whether in the responding institutions or in other institutions). For the purposes of the assessment, the environment statistics programme was defined as a comprehensive programme (even if not exhaustive in terms of subject areas covered) for the provision of information on the environment as opposed to information on specific subject areas often carried out for resource management purposes by line ministries; an environmental-economic accounting programme was defined as the compilation of any part/module of the accounts in physical and/or in monetary terms.

11. Table 1 shows the availability of these programmes in countries disaggregated by economic and geographical regions. Note that except for Table 1 the economic breakdown used in the rest of this report distinguishes only between developed and developing regions¹.

12. The environment statistics programme is available globally in 91 per cent of the responding countries. Nearly all developed economies, all transition economies and a large majority of developing economies has an environment statistics programme. The geographical distribution of the programmes ranges from a maximum of 97 per cent of countries in Europe and North America to a minimum of 78 per cent of countries in Western Asia.

13. Considering that environmental-economic accounting is a relatively new area of statistics, it is noteworthy that a considerable number of countries — about half of the countries that responded to the

¹ 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>). **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). Transitions economies which include CIS countries and transition countries in South-Eastern Europe have been included in the relevant economic regions.

assessment — have an environmental-economic accounting programme. The distribution of the programme among countries varies both by economic and geographical grouping. As for the economic grouping, environmental-economic accounting programmes exist in 84 per cent of developed economies, 34 per cent of developing economies and 27 per cent of economies in transition. The geographical distribution ranges from a maximum of 70 per cent of countries in Europe and Northern America to a minimum of 22 per cent in Latin America and the Caribbean.

Table 1: Existence of environment statistics and environmental-economic accounting programmes in countries

	<i>Environment Statistics</i>			<i>Environmental-Economic Accounting</i>		
	<i>Number of countries responding to Part A</i> (1)	<i>Number of countries with a Programme</i> (2)	<i>Percentage of responding countries</i> (4)=(3)/(2)	<i>Number of countries responding to Part B</i> (5)	<i>Number of countries with a Programme</i> (6)	<i>Percentage of responding countries</i> (7)=(6)/(5)
All States Members of the United Nations.....	192	97	88	91	99	49
<i>Economic regions</i>						
Developed regions.....	48	39	38	97	40	29
Developing regions.....	154	58	50	86	59	20
<i>Economic grouping:</i>						
Developed economies.....	37	32	31	97	32	27
Transition economies.....	19	11	11	100	11	3
Developing economies.....	136	54	46	85	56	19
<i>Geographical grouping:</i>						
Africa.....	53	13	11	85	14	5
Central, Eastern and Southern and South-Eastern Asia.....	30	15	14	93	14	7
Europe and Northern America.....	45	36	35	97	37	26
Latin America and the Caribbean.....	33	18	16	89	18	4
Oceania.....	14	6	5	83	6	4
Western Asia.....	17	9	7	78	10	3

Note: The Global Assessment consisted of two parts: Part A on Environment Statistics and Part B on Environmental-Economic Accounting. Not all the countries responded to both parts. Hence columns (3) and (6) are different.

14. A legal framework for environment statistics in the form, for example, of a statistical act or environmental protection act exists in most of the countries (84 per cent). Table 2 links the existence of environment statistics programmes in countries with that of a legal framework for environment statistics. Data seem to indicate that the environment statistics programmes are most often available in countries where there is a legal framework for environment statistics.

Table 2: Existence of a legal framework for environment statistics and environment statistics programmes

<i>Existence of environment statistics programme</i>	<i>Legal framework for environment statistics</i>		<i>Total</i>
	<i>Yes</i>	<i>No</i>	
Yes	74	13	87
No	4	2	6
Total	78	15	93

Note: This table combines responses to Questions 1, 2 and 16 of the Global Assessment. Only 93 countries responded to all three questions.

15. Table 3 and Table 4 show the location of the environment statistics and environmental-economic accounting programmes within government institutions in countries. The environment statistics

programmes are generally dispersed across different institutions. Table 3 shows that 50 of the 82 (88 total countries less 6 countries indicating that there is no environment statistics programme) countries (about 61 per cent) with an environment statistics programme indicated that the programme is in place not only within the responding institution but also in other institutions.

Table 3: Location of the environment statistics programmes in countries

<i>In the responding institution</i>	<i>In other institutions</i>		Total
	<i>Yes</i>	<i>No</i>	
Yes	50	24	74
No	8	6	14
Total	58	30	88

Note: This table combines responses to Question 2 and 16 of the Global Assessment. Only 88 countries responded to both questions.

16. Almost all institutions (97 per cent) with an environment statistics programme indicated that there exists cooperation with other institutions in the sense that there are formal or informal agreements of data-sharing between institutions. The national statistical office often has a prominent role in the overall coordination, compilation and dissemination of statistics: the national statistical offices are the leading institutions for all subject areas in 37 per cent and for specific subject areas in 41 per cent of the countries. In the remaining 22 per cent of countries, other agencies lead the environment statistics programme.

17. The environmental-economic accounting programmes seem to be generally located within one institution. Table 4 shows that 35 of the 48 (88 countries less 40 indicating that there is no environmental-economic accounting programme) countries (73 per cent) with an environmental-economic accounting programme indicated that the programme is located within one institution.

Table 4: Location of the environmental-economic accounting programmes in countries

<i>In the responding institution</i>	<i>In other institutions</i>		Total
	<i>Yes</i>	<i>No</i>	
Yes	13	30	43
No	5	40	45
Total	18	70	88

Note: This table combines responses to Question 17 and 33 of the Global Assessment. Only 88 countries responded to both questions.

18. 77 per cent of the institutions with an environmental-economic accounting programme indicated that there exists cooperation with other institutions. The national statistical office has a leading role in 81 per cent of countries in the sense that it is in charge of the integration of the accounts, coordination with other institutions and dissemination of the accounts.

19. Table 5 and Table 6 show the location of the environment statistics and environmental-economic accounting programmes within the national statistical offices. The environment statistics programme is mostly located in separate units (in 75 per cent of countries), more often within economic statistics (47 per cent of countries) as opposed to social statistics (10 per cent of countries). A large number of countries indicated that the environment statistics programme is located within other statistics programmes: most notably, 11 countries indicated that the environment statistics programme is located in

a separate unit within agriculture statistics and 9 indicated that the programme is independently located in the national statistical office.

Table 5: Location of environment statistics programme within national statistical offices

	<i>In a separate unit</i>	<i>Not in a separate unit</i>	Total
Within Social Statistics	5	2	7
Within Economic Statistics	25	9	34
Other	23 ^a	7	30
Total	53	18	71

Note: ^a includes 11 countries where the environment statistics programme is located with Agriculture Statistics, and 9 countries where the environment statistics programme is independently located within its own department/section.

20. Table 6 shows that, within the national statistical offices, the environmental-economic accounting programme seems to be equally located within national accounts and environment statistics. When the environmental-economic accounting is located within environment statistics, it is generally not in a separate unit.

Table 6: Location of the environmental-economic accounting programme within national statistical offices

	<i>In a separate unit</i>	<i>Not in a separate unit</i>	Total
Within National Accounts	10	9	19
Within Environment Statistics	5	13	18
Other	1	2	3
Total	16	24	40

21. About half of the countries (57 per cent) with environment statistics and environmental-economic accounting programmes indicated that these programmes are integrated in the sense that the same definitions, classifications and data collections are used in the two programmes.

4. Scope of the programmes

22. A number of questions in the Global Assessment aimed at identifying the subject areas covered by the environment statistics and environmental-economic accounting programmes, the future plans and the uses of the statistics compiled.

23. Only the countries whose responding institution has an environment statistics or environmental-economic accounting programme were able to provide information on the scope of their programmes: in environment statistics eight countries indicated that the programme is located within an institution different from the responding one, and, in environmental-economic accounting, five countries indicated the existence of the environmental accounting programme within other institutions. The Global Assessment will be sent in a second phase to these institutions in order to assess the scope of their programmes.

(i) Areas covered

24. The areas covered in the environment statistics programmes are presented in Table 7. Globally the six areas most commonly covered in countries include in order of importance: 1) Water, 2) Air; 3) Forest; 4) Land; and 5) Energy and 6) Agriculture. Water statistics remains the subject area most commonly compiled in both developed and developing regions. The order of importance of the remaining top five areas changes between regions. Waste statistics is among the areas most commonly compiled only in developed regions (62 per cent of countries in developed regions compile waste statistics). It is replaced by Biodiversity statistics in developing regions.

Table 7: Areas covered in environment statistics programme by regions

All world			Developed regions			Developing regions		
Area	Number of countries	Percentage of countries	Area	Number of countries	Percentage of countries	Areas	Number of countries	Percentage of countries
Total countries - World	80	100	Total countries - Developed regions	37	100	Total countries -Developing regions	43	100
Water	70	88	Water	29	78	Water	41	95
Air	60	75	Agriculture	25	68	Air	36	84
Forest.....	58	73	Air	24	65	Land.....	36	84
Land.....	55	69	Forest	24	65	Forest	34	79
Energy	53	66	Energy	24	65	Biodiversity	34	79
Agriculture	53	66	Waste.....	23	62	Energy	29	67
Biodiversity	45	56	Land	19	51	Agriculture.....	28	65
Transport.....	40	50	Transport	17	46	Mineral	27	63
Waste.....	40	50	Environmental Protection Expenditure ..	15	41	Transport.....	23	53
Mineral	36	45	Biodiversity	11	30	Waste	17	40
Environmental Protection Expenditure.	20	25	Mineral	9	24	Environmental Protection Expenditure.....	5	12
Other.....	34	43	Other	14	38	Other.....	20	47

25. Table 8 presents the modules of environmental-economic accounting compiled by countries and disaggregated by economic regions. The modules most commonly compiled include, in order of importance: 1) Energy and Emission accounts, 2) Environmental Protection Expenditure Accounts, 3) Water, 4) Forest, 5) Material Flow/Waste Accounts, and 6) Mineral Asset Accounts. The order of importance differs across the economic regions especially with respect to Water accounts, Environmental Protection Expenditure Accounts and Material Flow/Waste accounts. Water accounts are clearly the most compiled module in developing regions (87 per cent of countries in the developing regions compile water accounts) followed by Energy and emission accounts (73 per cent), Mineral asset accounts (60 per cent) and Forest accounts (60 per cent).

26. In developed regions, Environmental Protection Expenditure Accounts and Material Flow/Waste Accounts are among the modules most commonly compiled. This may be explained by the large number of European countries in the developed regions that compile these accounts to report to European Union legislations.

Table 8: Modules of environmental-economic accounting compiled by countries, by economic regions

All world			Developed Regions			Developing regions		
<i>Module</i>	<i>Number of countries</i>	<i>Percentage of countries</i>	<i>Module</i>	<i>Number of countries</i>	<i>Percentage of countries</i>	<i>Module</i>	<i>Number of countries</i>	<i>Percentage of countries</i>
Total countries - World	44	100	Total countries - Developed regions ..	29	100	Total countries -Developing regions ..	15	100
Energy and emission accounts	33	75	Energy and emission accounts	22	76	Water Accounts	13	87
EPEA	24	55	EPEA	18	62	Energy and emission accounts	11	73
Water Accounts	22	50	MFA/Waste accounts	16	55	Mineral Asset Accounts	9	60
Forest Account	22	50	Forest Account	13	45	Forest Account	9	60
MFA/Waste accounts	22	50	Water Accounts	9	31	Land and Ecosystem Accounts	6	40
Mineral Asset Accounts	14	32	Mineral Asset Accounts	5	17	MFA/Waste accounts	6	40
Land and Ecosystem Accounts	10	23	Fisheries Accounts	4	14	EPEA	6	40
Fisheries Accounts	9	20	Land and Ecosystem Accounts	4	14	Fisheries Accounts	5	33
PSUT	5	11	PSUT	3	10	PSUT	2	13
Other	9	20	Other	6	21	Other	3	20

Note: EPEA is Environmental Protection Expenditure Accounts; MFA is Material Flow Accounts; PSUT is Physical Supply and Use Tables.

27. While there seems to be a general alignment of the areas covered in environment statistics programmes and the modules of environmental-economic accounting compiled in countries by comparing Table 7 and Table 8, it does not seem as striking as one might expect. However, if we look at the environment statistics areas and environmental-economic accounting modules compiled by the same institution in the country, (38 countries), we can see that there is a much closer alignment of subject areas especially in developing regions. Table 9 aligns the subject areas of environment statistics programmes with the modules of environmental-economic accounting compiled by those countries for which the responding institution has an environment statistics and an environmental-economic accounting programme.

Table 9: Comparison between areas covered in environment statistics and environmental-economic accounting programmes by regions

All regions					
Environment statistics			Environmental-economic accounting		
<i>Subject area</i>	<i>Number of countries</i>	<i>Percentage of countries</i>	<i>Module</i>	<i>Number of countries</i>	<i>Percentage of countries</i>
Total countries – World.....	38*	100	Total countries – World	38*	100
Water.....	32	84	Energy and emission accounts.....	30	79
Agriculture	27	71	EPEA	21	55
Air	25	66	Water Accounts.....	20	53
Energy	25	66	Forest Account	20	53
Forest.....	24	63	MFA/Waste accounts	20	53
Land	23	61	Mineral Asset Accounts	12	32
Waste.....	22	58	Land and Ecosystem Accounts	10	26
Mineral.....	18	47	Fisheries Accounts	7	18
Transport	18	47	PSUT	4	11
Biodiversity	13	34	Other	8	21
Environmental Protection Expenditure	11	29			
Other.....	21	55			
Developed regions					
Environment statistics			Environmental-economic accounting		
<i>Subject area</i>	<i>Number of countries</i>	<i>Percentage of countries</i>	<i>Module</i>	<i>Number of countries</i>	<i>Percentage of countries</i>
Total countries – Developed regions	25	100	Total countries – Developed regions	25	100
Water.....	19	76	Energy and emission accounts.....	20	80
Agriculture	18	72	EPEA	15	60
Energy	17	68	MFA/Waste accounts	14	56
Air	15	60	Forest Account	12	48
Waste.....	15	60	Water Accounts.....	9	36
Forest	14	56	Mineral Asset Accounts	4	16
Land	13	52	Land and Ecosystem Accounts	4	16
Transport	11	44	Fisheries Accounts	3	12
Environmental Protection Expenditure	11	44	PSUT	2	8
Mineral.....	7	28	Other	5	20
Biodiversity	4	16			
Other.....	12	48			
Developing regions					
Environment statistics			Environmental-economic accounting		
<i>Subject area</i>	<i>Number of countries</i>	<i>Percentage of countries</i>	<i>Module</i>	<i>Number of countries</i>	<i>Percentage of countries</i>
Total countries – Developing regions	13	100	Total countries – Developing regions	13	100
Water.....	13	100	Water Accounts	11	85
Mineral.....	11	85	Energy and emission accounts	10	77
Air	10	77	Mineral Asset Accounts	8	62
Forest	10	77	Forest Account	8	62
Land	10	77	Land and Ecosystem Accounts	6	46
Agriculture	9	69	MFA/Waste accounts	6	46
Biodiversity	9	69	EPEA	6	46
Energy	8	62	Fisheries Accounts	4	31
Waste.....	7	54	PSUT	2	15
Transport	7	54	Other	3	23
Environmental Protection Expenditure	0	0			
Other.....	8	62			

Note: * it includes six countries where the environment statistics and environmental-economic accounting programmes are not located within the same institution. EPEA is Environmental Protection Expenditure Accounts; MFA is Material Flow Accounts; PSUT is Physical Supply and Use Tables.

(ii) Future plans

28. All the responding institutions compiling environment statistics and nearly all environmental-economic accounting are planning to continue the existing compilation programme. In addition, the majority of these countries (about 70 per cent for environment statistics programmes and 88 per cent for environmental-economic accounting) are also planning to expand their programmes both in terms of broadening the coverage and expanding to new areas. As presented in Table 10, the subject areas of environment statistics that are most commonly identified as areas for expansion include, in order of importance: 1) Air; 2) Water; 3) Land; 4) Biodiversity; 5) Forest and 6) Energy.

Table 10: Areas of expansions in environment statistics by regions

All world			Developed regions			Developing regions		
Subject area	Number of countries	Percentage of countries	Subject area	Number of countries	Percentage of countries	Subject area	Number of countries	Percentage of countries
Total countries – World.....	52	100	Total countries – Developed regions	22	100	Total countries – Developing regions	30	100
Air.....	21	40	Water.....	7	32	Air.....	15	50
Water.....	20	38	Air.....	6	27	Biodiversity.....	14	47
Land.....	18	35	Land.....	5	23	Energy.....	14	47
Biodiversity.....	17	33	Waste.....	5	23	Water.....	13	43
Forest.....	16	31	Forest.....	4	18	Land.....	13	43
Energy.....	15	29	Agriculture.....	4	18	Forest.....	12	40
Agriculture.....	14	27	EPE.....	3	14	Transport.....	11	37
Transport.....	12	23	Biodiversity.....	3	14	Agriculture.....	10	33
Mineral.....	11	21	Energy.....	1	5	Mineral.....	10	33
Waste.....	10	19	Mineral.....	1	5	Waste.....	5	17
EPE.....	7	13	Transport.....	1	5	EPE.....	4	13
Other*.....	18	35	Other.....	7	32	Other.....	11	37

Note: * It includes tourism, health and marine environment. EPE is Environmental Protection Expenditure.

29. Table 11 shows the areas of further expansions in environmental-economic accounting. They include, in order of importance: 1) Material Flow/Waste accounts; 2) Energy and emission accounts; 3) Water accounts; 4) Environmental Protection Expenditure Accounts; 5) Forest accounts and 6) Land and Ecosystem accounts. Material Flow/Waste accounts seem to be top priority area mainly in developed regions. In developing regions, Energy and emission accounts, Water accounts and Environmental Protection Expenditure Accounts are the top priority areas for expansion.

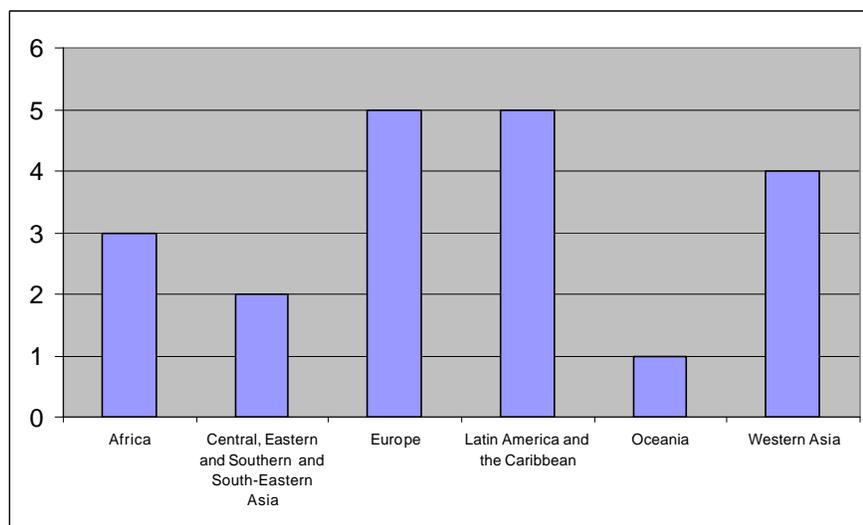
Table 11: Areas of further expansion in environmental-economic accounting by regions

All world			Developed regions			Developing regions		
Module	Number of countries	Percentage of countries	Module	Number of countries	Percentage of countries	Module	Number of countries	Percentage of countries
Total countries – World.....	36	100	Total countries – Developed regions	22	100	Total countries – Developing regions	14	100
MFA/Waste accounts.....	24	67	MFA/Waste accounts.....	15	68	Energy and emission accounts.....	11	79
Energy and emission accounts.....	22	61	Energy and emission accounts.....	11	50	Water Accounts.....	10	71
Water Accounts.....	19	53	Water Accounts.....	9	41	EPEA.....	10	71
EPEA.....	18	50	EPEA.....	8	36	Forest Account.....	9	64
Forest Account.....	15	42	Forest Account.....	6	27	Fisheries Accounts.....	9	64
Land and Ecosystem Accounts.....	14	39	Land and Ecosystem Accounts.....	5	23	Land and Ecosystem Accounts.....	9	64
PSUT.....	13	36	PSUT.....	5	23	MFA/Waste accounts.....	9	64
Mineral Asset Accounts.....	12	33	Mineral Asset Accounts.....	4	18	Mineral Asset Accounts.....	8	57
Fisheries Accounts.....	11	31	Fisheries Accounts.....	2	9	PSUT.....	8	57
Other.....	5	14	Other.....	2	9	Other.....	3	21

Note: EPEA is Environmental Protection Expenditure Accounts; MFA is Material Flow Accounts; PSUT is Physical Supply and Use Tables.

30. Countries which are not currently compiling environmental-economic accounts were asked whether they have plans to start the compilation of any modules of the accounts in the near future. 20 countries, about half of the countries without a programme on environmental-economic accounting, indicated that they are planning to compile environmental-economic accounts. Except for five countries, most of them are in developing regions. Figure 1 shows the geographical regional breakdown.

Figure 1: Countries planning to start the compilation of environmental-economic accounts by geographical regions



31. Table 12 shows the list of modules that countries, with no programme on environmental-economic accounting, are planning to compile. The top four modules identified by countries include, in order of importance: 1) Environmental Protection Expenditure Accounts; 2) Water accounts; 3) Forest Accounts and 4) Material Flow/Waste accounts. In their answers countries have indicated different time horizons varying from two to three years to ten years making the results not completely reliable. Some countries that are in the process of starting an environmental-economic accounting programme have indicated that a technical assistance programme (mainly from Eurostat) is in place.

Table 12: Plans for compiling environmental-economic accounts in countries with no environmental-economic accounting programme

<i>Module</i>	<i>Number of countries</i>	<i>Percentage of countries</i>
Total countries	13	100
EPEA	8	62
Water Accounts	6	46
Forest Account	4	31
MFA/Waste accounts	4	31
Energy and emission accounts	3	23
Fisheries Accounts	2	15
PSUT.....	2	15
Land and Ecosystem Accounts	1	8
Mineral Asset Accounts.....	0	0
Other	1	8

(iii) Uses and dissemination of the environment statistics and environmental and economic accounts

32. In the Global Assessment countries were asked about the uses of environment statistics and environmental-economic accounts as well as about their dissemination practices. The most common use of environment statistics is for the derivation of indicators (91 per cent of the countries), followed by modeling and economic analysis (51 per cent). 41 countries that compile environmental-economic accounts indicated that they use environment statistics for the compilation of environmental-economic accounts. Also 88 per cent of responding countries report the statistics to international/regional organizations such as Eurostat/OECD, the United Nations and its regional commissions. Similarly to environment statistics, the most common uses of environmental-economic accounts in countries is for the derivation of indicators (79 per cent), followed by the use for economic modeling/analysis (71 per cent). More than two thirds of countries compiling environmental-economic accounts indicated that they use the accounts to report to international/regional organizations (mainly to Eurostat and OECD).

33. The dissemination strategies for environment statistics and environmental-economic accounting most predominantly include dissemination through statistical publications. The internet is also a widely used vehicle to disseminate the statistics.

34. 12 countries indicated that they disseminate the environmental-economic accounting figures within one year from the release of the National Accounts figures. Few countries disseminate the accounts even before the national accounts figures are released.

5. Impeding factors for the development and compilation of environment statistics and environmental-economic accounting

35. A number of questions in the Global Assessment asked respondents to identify factors impeding the development of the programmes and compilation of environment statistics and environmental-economic accounting. As shown in Table 13, countries identified the lack of human and financial resources as the most common factors in the development of both programmes.

Table 13: Impeding factors in the development of environment statistics and environmental-economic accounting Programmes

Environment statistics		Environmental-economic accounting			
	<i>Number of countries</i>	<i>Percentage of countries</i>		<i>Number of countries</i>	<i>Percentage of countries</i>
Total countries	79	100	Total countries	62*	100
Lack of human resources	57	72	Lack of human resources	43	69
Lack of financial resources	47	60	Lack of financial resources	42	68
Lack of inst. set-up/coordination	40	51	Availability of data	38	61
Lack of access to training material	25	32	Quality of data	32	52
Lack of interest by the users	12	15	Lack of inst. set-up/coordination.....	24	39
Availability of data			Lack of interest by the users.....	21	34
Quality of data			Lack of access to training material.....	19	31
Other.....	14	18	Other.....	11	18

Note: * It includes 42 countries which are currently compiling environmental-economic accounts and 20 which are planning to compile environmental-economic accounts in the near future.

36. In the compilation of environment statistics and environmental-economic accounts, the top two impeding factors include data availability and data quality.

Table 14: Impeding factors in the compilation of environment statistics and environmental-economic accounts

Environment statistics			Environmental-economic accounts		
<i>Impeding factors</i>	<i>Number</i>	<i>Percentage</i>	<i>Impeding factors</i>	<i>Number</i>	<i>Percentage</i>
	<i>of</i>	<i>of</i>		<i>of</i>	<i>of</i>
	<i>countries</i>	<i>countries</i>		<i>countries</i>	<i>countries</i>
Total countries	78	100	Total countries	42	100
Availability of data.....	56	72	Availability of data.....	37	88
Quality of data.....	49	63	Quality of data	27	64
Lack of human resources.....	47	60	Lack of human resources	26	62
Lack of financial resources.....	38	49	Lack of financial resources	23	55
Lack of inst. set-up/coordination	35	45	Lack of inst. set-up/coordination.....	12	29
Lack of access to training material	22	28	Lack of interest by the users.....	11	26
Lack of interest by the users.....	10	13	Lack of access to training material.....	9	21
Other	9	12	Other.....	6	14

6. Other

37. A number of questions in the Global Assessment aimed at identifying the use of training material, technical assistance and funding in the compilation of environment statistics and environmental-economic accounts.

38. A large number of countries (87 per cent) in environment statistics and almost all (95 per cent) countries in environmental-economic accounts indicated that they made use of training material, methodological guidelines and/or other countries expertise. The training material used predominantly included the 1993 SNA, Eurostat publications, and UN publications on environmental-economic accounting and on environment statistics. Among the 'Other' guidelines that countries used are those from IPCC, FAO, OECD and EEA.

39. Table 15 shows the use of technical assistance for the compilation of environment statistics and environmental-economic accounts. About half of the countries have made use of technical assistance in the compilation of environment statistics and environmental-economic accounts. Technical assistance programmes were mainly from international organizations but also from other countries.

Table 15: Use of technical assistance in the compilation of environment statistics and environmental-economic accounts

Technical Assistance	<i>Number of countries</i>	<i>Number of countries which received technical assistance</i>		<i>Source of assistance As percentage* of (2)</i>		
		<i>Number of countries (1)</i>	<i>Percentage of countries (2) (3)=(2)/(1)</i>	<i>International/ regional organization</i>	<i>NGOs</i>	<i>Other countries</i>
Environment Statistics	78	40	51	55	5	28
Environmental-economic accounting	41	17	41	53	12	41

Note: * these percentages do not add up to one as countries may use more than one source of funding.

40. Table 16 shows the use of external funding for the compilation of environment statistics and environmental-economic accounts. About half of the countries have made use of external funding in the compilation of environment statistics and environmental-economic accounts. Sources of external funding included mainly international/regional organizations (most commonly from Eurostat) but also frequently other institutions/agencies within the country. A few are also supported and funded through bilateral cooperation projects.

Table 16: Use of external funding in the compilation of environment statistics and environmental-economic accounts

External funding	<i>Number of countries supported by external funding</i> <i>(1)</i>	<i>Percentage of countries</i> <i>(3)=(2)/(1)</i>	<i>Source of funding</i> <i>As percentage* of (2)</i>			
			<i>International/regional organization</i>	<i>Other agency within the country</i>	<i>Other countries</i>	
Environment Statistics	74	39	53	59	33	13
Environmental-economic accounting	41	25	61	80	20	4

Note: * these percentages do not add up to one as countries may use more than one source of funding.

Annex I. Global Assessment – Phase 1

The Global Assessment – Phase 1 has been sent to National Statistical Offices of the 192 UN Member States and the central banks of 11 countries where the national accounts programmes are carried out by central banks. The Global Assessment could be filled either on paper, electronically via Email or on-line. An internet based questionnaire was developed to facilitate the response. Countries were not obliged to answer all the questions in the questionnaire; hence the number of responses to the different questions may differ. To facilitate the response, the Assessment was translated in French and Spanish.

As of 12 February 2007, 100 countries responded to the Assessment. The responding institution was generally the National Statistical Office except for seven countries where the statistical office coordinated the response with the relevant institutions in the country. In particular, for four countries, two institutions responded to the Assessment: generally the Ministry of Environment responded to the part on environment statistics and the national statistical office to the part of environmental-economic accounting. In three countries, the Ministry of Environment responded to both parts of the Assessment. Only for one country, the central bank responded to the Assessment because of its programme on environmental-economic accounting.

Corrections to the responses have been made after they were communicated and agreed by the country.

Phase 2 of the Global Assessment will be dispatched as a follow-up to Phase 1 to those institutions in countries that indicated the existence of the environment statistics and/or environmental-economic accounting programme and will cover the relevant areas identified by countries.

Global Assessment of Environment Statistics and Environmental-Economic Accounting Phase 1

Please provide your contact information:

Country: _____
 Name of institution: _____
 Contact person: _____
 Email: _____
 Tel: _____

Part A – Environment Statistics

For additional space, please use the last page.

Help is available at the end of the Questionnaire for selected questions identified with (?).

1. Is there a legal framework for Environment Statistics in your country?

- Yes - Please check all that apply
- Statistical Act
 - Environmental Protection Act
 - Other - Please specify (there is no limit in the number of character): _____
- No

2. Does your Institution/Agency have a Programme on Environment Statistics? (?)

- Yes
- No → Skip to Question 15

3. In the Environment Statistics Programme, which subject areas are covered by your institution? Please check all that apply (?)

- Air
- Water
- Land
- Biodiversity
- Forest
- Energy
- Minerals
- Agriculture
- Transport
- Other - Please specify (there is no limit in the number of characters): _____

4. Total number of staff working in the Environment Statistics Programme (in full time equivalent) (?)

- 4.a In your institution: _____
- (i) Number of Professional staff: _____
 - (ii) Number of Support staff: _____
- 4.b In other institutions: _____

5. Where is the Environment Statistics Programme located within your Institution/Agency? Please select one

	In a separate Unit	Not in a separate Unit
Within Social Statistics	<input type="checkbox"/>	<input type="checkbox"/>
Within Economic Statistics	<input type="checkbox"/>	<input type="checkbox"/>
Other*	<input type="checkbox"/>	<input type="checkbox"/>

* Please specify (there is no limit in the number of characters): _____

Comments: _____

6. Does your Institution/Agency cooperate with other Institutions/Agencies in the compilation of Environment Statistics? (?)

- Yes - Please describe the coordination mechanism and the name of the institutions involved (there is no limit in the number of characters): _____
- No → Skip to Question 8

7. If you answered yes to question 6, is your Institution/Agency the leading agency in Environment Statistics? (?)

- In all areas
- Only in specific areas - Please specify which areas: _____
- In no areas - Please specify the name of the leading Institution/Agency and the subject matter: _____

8. In compiling Environment Statistics, has your Institution/Agency made use of the following:

- 8.a Training material, methodological guidelines or country experiences?

Yes - Please specify (e.g. FDES (UN), SEEA 2003, Eurostat, OECD, practices from other countries, etc.): _____

No

8.b Technical assistance from international organizations or countries?

Yes - Please describe (e.g. during which period, nature of assistance, etc.): _____

No

8.c External funding? ^(?)

Yes - Please describe (e.g. during which period, from which sources, etc.): _____

No

9. Are there plans to continue the compilation of Environment Statistics in your Institution/Agency?

Yes

No

10. Are there plans to expand the compilation of Environment Statistics to areas not yet compiled? ^(?)

Yes - Please check all that apply

Air

Water

Land

Biodiversity

Forest

Energy

Minerals

Agriculture

Transport

Other - Please specify (there is no limit in the number of characters): _____

No

11. What have been the major constraints in developing the Environment Statistics Programme? Please check all that apply

Lack of institutional set-up/coordination

Lack of financial resources

Lack of human resources

Lack of interest by the users

Lack of access to training material

Other - Please specify (there is no limit in the number of characters): _____

12. What are the major constraints in compiling the Environment Statistics? Please check all that apply

Lack of institutional set-up/coordination

Lack of financial resources

Lack of human resources

Lack of interest by the users

Lack of access to training material

Availability of data

Quality of data

Other - Please specify (there is no limit in the number of characters): _____

13. How are the Environment Statistics disseminated? Please check all that apply

Statistical Publications

Internet

State of the Environment Report

Other - Please specify (there is no limit in the number of characters): _____

14. Are Environment Statistics transmitted/reported to International/Regional Organizations?

No

Yes - Please specify (there is no limit in the number of characters):

(i) To which International/Regional Organizations? _____

(ii) Is there a single focal point for reporting?

No

Yes - Please specify:

Name of the institution/agency: _____

Name of contact person: _____

Email: _____

Telephone: _____

Fax: _____

15. In your country, are the Environment Statistics used for: Please check all that apply

Deriving indicators

Development of Environmental-Economic Accounts

Modeling, economic analysis

Other - Please specify (there is no limit in the number of characters): _____

16. Do other Institutions/Agencies (Ministry of Environment, Environmental Protection Agency, etc.) have a Programme on Environment Statistics in your country?

No

Yes - Please describe (Rows can be added to the tables in case there are more institutions):

	Name of institution/agency	Type of statistics compiled	Contact person			
			Name	Email	Tel.	Fax
a.	_____	_____	_____	_____	_____	_____
b.	_____	_____	_____	_____	_____	_____
c.	_____	_____	_____	_____	_____	_____

Part B – Environmental-Economic Accounting

17. Does your Institution/Agency have a Programme on Environmental-Economic Accounting? ^(?)

- Yes → Answer Questions 18 through 33
 No → Answer Questions 32 through 38

18. Which modules of Environmental-Economic Accounting are compiled by your Institution/Agency? Please check all that apply ^(?)

- Water Accounts
 Mineral Asset Accounts
 Energy and Emission Accounts
 Forest Accounts
 Fisheries Accounts
 Land and Ecosystem Accounts
 Material Flows Accounts/Waste Accounts
 Environmental Protection Expenditure Accounts
 Physical Supply and Use Tables
 Other - Please specify (there is no limit in the number of characters): _____

19. Total number of staff working in the compilation of these accounts (in full time equivalent)

- 19.a In your institution: _____
 (i) Number of Professional staff: _____
 (ii) Number of Support staff: _____
 19.b In other institutions: _____

20. Where is the Environmental-Economic Accounting Programme located within your Institution/Agency? Please select one

	In a separate Unit	Not in a separate Unit
Within National Accounts	<input type="checkbox"/>	<input type="checkbox"/>
Within Environment Statistics	<input type="checkbox"/>	<input type="checkbox"/>
Other*	<input type="checkbox"/>	<input type="checkbox"/>

* Please specify (there is no limit in the number of characters): _____

Comments: _____

21. Is the Environment Statistics Programme integrated with the Environmental-Economic Accounting Programme? ^(?)

- Yes - Please specify relationship: _____
 No

22. Does your Institution/Agency cooperate with other Institutions/Agencies in the area of Environmental-Economic Accounts? ^(?)

- Yes - Please describe the coordination mechanism and the name of the institutions involved (there is no limit in the number of characters): _____

No → Skip to Question 24

23. If you answered yes to question 22, is your Institution/Agency the leading agency in Environmental-Economic Accounting? ^(?)

- Yes
 No - Please specify the name of the leading Institution/Agency and the subject matter: _____

24. In compiling Environmental-Economic Accounts, has your Institution/Agency made use of the following? ^(?)

24.a Training material, methodological guidelines or country experiences?

Yes - Please specify (e.g. 1993 SNA, SEEA 2003, Eurostat, etc.): _____

No

24.b Technical assistance from international organizations or countries?

Yes - Please describe (e.g. during which period, nature of assistance, etc.): _____

No

24.c External funding

Yes - Please describe (e.g. during which period, from which sources, etc.): _____

No

25. Are there plans to continue the compilation of the Environmental-Economic Accounts in your Institution/Agency?

- Yes
 No

26. Are there plans to expand the compilation of Environmental-Economic Accounts? ^(?)

Yes - Please check all that apply

- Water Accounts
 Mineral Asset Accounts
 Energy and Emission Accounts
 Forest Accounts
 Fisheries Accounts
 Land and Ecosystem Accounts
 Material Flows Accounts/Waste Accounts
 Environmental Protection Expenditure Accounts
 Physical Supply and Use Tables
 Other - Please specify (there is no limit in the number of characters): _____

No

27. What have been the major constraints in developing the Environmental-Economic Accounting Programme? Please check all that apply

- Lack of institutional set-up/coordination
- Lack of financial resources
- Lack of human resources
- Lack of interest by the users
- Lack of access to training material
- Availability of data
- Quality of data
- Other - *Please specify (there is no limit in the number of characters):* _____

28. What are the major constraints in compiling the Environmental-Economic Accounts? *Please check all that apply*

- Lack of institutional set-up/coordination
- Lack of financial resources
- Lack of human resources
- Lack of interest by the users
- Lack of access to training material
- Availability of data
- Quality of data
- Other - *Please specify (there is no limit in the number of characters):* _____

29. How are the Environmental-Economic Accounts disseminated? *Please check all that apply*

- Statistical Publications
- Internet
- Other - *Please specify (there is no limit in the number of characters):* _____

30. At what time lag are the Environmental-Economic Accounts figures disseminated as compared to National Accounts figures?

Please specify: _____

31. Are Environmental-Economic Accounts transmitted/reported to International/Regional Organizations?

- No
- Yes - *Please specify (there is no limit in the number of characters):*

(i) To which International/Regional Organizations? _____

(ii) Is there a single focal point for reporting?

- No
- Yes - *Please specify:*
 Name of the institution/person: _____
 Name of contact person: _____
 Email: _____
 Telephone: _____
 Fax: _____

32. In your country, are the Environmental-Economic Accounts used for: *Please check all that apply*

- Deriving indicators

- Modeling, economic analysis
- Other - *Please specify (there is no limit in the number of characters):* _____

33. Do other Institutions/Agencies (e.g. Central Bank, Ministry of Environment, Ministry of Economic Affairs/Planning) compile any parts/modules of the Environmental-Economic Accounts in your country?

- No
- Yes - *Please describe (Rows can be added to the tables in case there are more institutions):*

Name of institution/agency	Type of accounts compiled	Contact person			
		Name	Email	Tel.	Fax
a. _____	_____	_____	_____	_____	_____
b. _____	_____	_____	_____	_____	_____
c. _____	_____	_____	_____	_____	_____

34. Are Supply and Use Tables and/or Input-Output Tables compiled in your country?

- Yes - *Please specify last year of compilation, frequency of compilation and number of industry categories (e.g. ISIC classes):* _____
- No

35. Have any modules of the Environmental-Economic Accounts been compiled in the past in your country?

- No
- Yes - *Please specify (there is no limit in the number of characters):*
 - (i) Type of accounts compiled: _____
 - (ii) For which years: _____
 - (ii) Agency/Institution responsible: _____
 - (iii) Type of funding - *Please check all that apply:*
 - External sources - *Please specify source:* _____
 - Internal sources - *Please specify source:* _____
 - None

36. What were the reasons for not continuing with the compilation of Environmental-Economic Accounts? *Please check all that apply*

- Lack of institutional set-up/coordination
- Lack of financial resources
- Lack of human resources
- Lack of interest by the users
- Lack of access to training material
- Availability of data
- Quality of data
- Other - *Please specify (there is no limit in the number of characters):* _____

37. Are there plans to compile any modules of the Environmental-Economic Accounts in your country in the near future?

No

Yes - *Please specify the following:*

(i) Which modules of the accounts are planned to be compiled: *Check all that apply*

Water Accounts

Mineral Asset Accounts

Energy and Emission Accounts

Forest Accounts

Fisheries Accounts

Land and Ecosystem Accounts

Material Flows Accounts/Waste Accounts

Environmental Protection Expenditure Accounts

Physical Supply and Use Tables

Other - *Please specify (there is no limit in the number of characters):* _____

(ii) The time frame for the compilation of these accounts: _____

(iii) Are you aware of any technical assistance programme from international organizations, NGOs or other institutions for the implementation of Environmental-Economic Accounts in your country?

No

Yes - *Please specify the name of the institutions providing technical assistance:*

38. What seem to be the major constraints in starting the compilation of Environmental-Economic Accounts in your country? (Please check all that apply)

Lack of institutional set-up/coordination

Lack of financial resources

Lack of human resources

Lack of interest by the users

Lack of access to training material

Availability of data

Quality of data

Other - *Please specify (there is no limit in the number of characters):* _____

Box for additional comments (*there is no limit in the number of characters*):

Annex II. List of responding countries

Albania	Croatia	Kiribati	Saint Vincent and the Grenadines
Andorra	Cyprus	Korea, Republic of	Saudi Arabia
Argentina	Czech Republic	Latvia	Seychelles
Armenia	Denmark	Lesotho	Singapore
Australia	Djibouti	Lithuania	Slovakia
Austria	Dominica	Luxembourg	Slovenia
Azerbaijan	Dominican Republic	Malaysia	South Africa
Bahamas	Ecuador	Maldives	Spain
Bahrain	Egypt	Mauritius	Suriname
Bangladesh	Estonia	Mexico	Sweden
Belarus	Finland	Mongolia	Switzerland
Belgium	France	Morocco	Thailand
Bhutan	Georgia	Nauru	The former Yugoslav Republic of Macedonia
Bolivia	Germany	Nepal	Togo
Bosnia and Herzegovina	Greece	Netherlands	Trinidad and Tobago
Botswana	Guatemala	New Zealand	Tunisia
Brazil	Hungary	Norway	Turkey
Brunei Darussalam	India	Papua New Guinea	Tuvalu
Bulgaria	Ireland	Paraguay	Ukraine
Burkina Faso	Israel	Peru	United Kingdom
Cameroon	Italy	Philippines	United Republic of Tanzania
Canada	Jamaica	Poland	United States
Chile	Japan	Portugal	Uruguay
China	Jordan	Republic of Serbia	Uzbekistan
Colombia	Kenya	Romania	Yemen