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**Pilot Testing of the Draft Core Set of Environment Statistics  
(August – September 2012)**

**and**

**Global Consultation on the Framework for the Development of  
Environment Statistics  
(September – November 2012)**

**SUMMARY OF RESULTS**

Prepared by the United Nations Statistics Division

## TABLE OF CONTENTS

### PART I – PILOT TESTING OF THE DRAFT CORE SET OF ENVIRONMENT STATISTICS (August – September 2012)

Introduction.....	7
A. The Process .....	8
B. Questions asked in the Pilot exercise .....	8
C. Survey findings regarding the topics and statistics presented.....	9
I. Overall support for the Core Set.....	9
II. National perceptions of the relevance of topics and availability of the statistics in the Core Set.....	10
III. National production of the statistics in the Basic Set .....	13
(a) Production of statistics in developed countries.....	13
(b) Production of statistics in developing countries .....	13
IV. National perceptions on the assigned priority and distribution of statistics in the different Tiers of the Basic Set.....	14
V. Reasons for lack of satisfaction with the production of environment statistics at the national level.....	15
D. Institutional considerations in the production of the Core Set .....	16
E. Recommendations for change to the Core Set .....	16
Annex 1-1: Participation in the Pilot of the Core Set of Environment Statistics.....	18

### PART II – GLOBAL CONSULTATION ON THE FRAMEWORK FOR THE DEVELOPMENT OF ENVIRONMENT STATISTICS (September - November 2012)

Introduction.....	21
A. The Process .....	21
B. Questions asked in the Global Consultation .....	21
C. Participation in the Global Consultation.....	22
D. Survey findings regarding the revised FDES.....	23
I. Overall support for the FDES.....	23
II. National views on the chapters of the revised FDES .....	23
(a) The Introduction to the FDES.....	23
(b) Chapter 1 – Overview of Environment Statistics .....	24
(c) Chapter 2 – Framework for the Development of Environment Statistics .....	25
(d) Chapter 3 – The Structure and Components of the FDES .....	25
(e) Chapter 4 – The Core Set of Environment Statistics .....	28
(f) Chapter 5 – Applications of the FDES to Cross-cutting Environmental Issues.....	29
(g) Annexes to the FDES .....	30
Annex 2-1: Participation in the Global Consultation on the Framework for the Development of Environment Statistics.....	31
Annex 2-2: Detailed comments provided on the FDES .....	32

## PART I - LIST OF TABLES

Table 1 - 1: Relevance of topics and availability of statistics – Component 1 .....	10
Table 1 - 2: Relevance of topics and availability of statistics – Component 2 .....	11
Table 1 - 3: Relevance of topics and availability of statistics – Component 3 .....	11
Table 1 - 4: Relevance of topics and availability of statistics – Component 4 .....	12
Table 1 - 5: Relevance of topics and availability of statistics – Component 5 .....	12
Table 1 - 6: Relevance of topics and availability of statistics – Component 6 .....	12
Table 1 - 7: Overall relevance and availability of the topics listed in the Core Set .....	13
Table 1 - 8: Statistics in each tier where more than 80% of developing countries are engaged in their production.....	14
Table 1 - 9: Statistics in each tier where less than 20% of developing countries are engaged in their production.....	14
Table 1 - 10: Statistics in each tier that more than 80% of developing countries consider to be of high priority .....	15
Table 1 - 11: Statistics in each tier that more than 50% of developing countries consider to be of low priority.....	15
Table 1 - 12: Reasons for lack of satisfaction with the production of environment statistics at national level (Developing countries).....	16
Table 1 - 13: Recommendations for change to the statistics in the Core Set.....	17

## PART II - LIST OF TABLES

Table 2 - 1: General opinions on the FDES.....	23
Table 2 - 2: The Introduction to the FDES .....	24
Table 2 - 3: Overview of Environment Statistics in the FDES .....	24
Table 2 - 4: Framework for the Development of Environment Statistics .....	25
Table 2 - 5: The Structure and Components of the FDES – General assessment .....	26
Table 2 - 6: Chapter 3 - Components of the FDES .....	27
Table 2 - 7: The Core Set.....	29
Table 2 - 8: Applications of the FDES to Cross-cutting Environmental Issues.....	30
Table 2 - 9: Annexes to the FDES .....	30



## **PART I**

### **Pilot Testing of the Draft Core Set of Environment Statistics (August – September 2012)**



## Introduction

1.1. The Pilot of the draft Core Set of Environment Statistics (the Pilot) is an initiative that was conducted by the United Nations Statistics Division (UNSD) during August – September 2012. In approving the general direction of the work plan for revising the Framework for the Development of Environment Statistics (FDES), the Statistical Commission, at its forty-third session endorsed the development of a pilot process for the draft Core Set of Environment Statistics (Core Set). Accordingly, the Pilot was devised to assess the relevance and completeness of the statistical topics and statistics constituting the Core Set. The Core Set contained environment statistics grouped into two Tiers (See para. 1.24).

1.2. The Pilot was designed to serve a number of specific objectives. A primary objective was to reveal the extent to which the environment statistics within the Core Set are relevant at national level and capable of prioritizing countries' environment statistics. As such, the Pilot would determine how well the statistics in the Core Set represented those mandated for production by national environmental policies and Multilateral Environmental Agreements (MEAs), for each participating country. It would also serve as a means of improving, refining and validating the allocation of statistics between the Tiers in the Core Set as countries disclosed their national priorities. Additionally, the Pilot was arranged in such a way as to facilitate comparison between the environment statistics contained in the list and those produced at national level, in order to identify where the two sets of statistics aligned and where there were gaps. As gaps in their statistics were shown, country respondents would simultaneously be able to deliberate on the primary reasons for those gaps and be able determine which additional statistics they wished to see included. Finally, the Pilot would throw light on the additional national resources and activities as well as international support likely to be required for implementing the Core Set and the FDES in the future.

1.3. The Pilot was carried out through the use of an on-line survey. This survey was also made available in EXCEL and WORD formats in instances where respondents were unable to access the on-line version.

1.4. The documentation provided for the Pilot included:

- Advanced drafts of the FDES and the Core Set of Environment Statistics;
- Instruction notes, including a general outline of the process and deliverables, along with a timeline for the activity; and
- Reporting templates.

1.5. This report focuses on the major findings of the Pilot survey. In Section A it documents the process that was undertaken and draws attention to some caveats that should be taken into consideration in the interpretation of the results; in Section B it summarizes the questions that were asked; in Section C it presents the pertinent findings of the Pilot with regard to the statistical topics and statistics that were presented. Section D provides a brief outline of the principal institutional considerations and constraints that responding countries face in implementing the statistics that were identified in the Core Set. Finally, Section E sets out any recommendations for change to the statistics proposed in the Core Set.

1.6. Both developed and developing countries from all regions participated in the Pilot exercise. In all, twenty-five countries and two international organizations took part in the Pilot. Of the countries that participated, twenty were developing countries and five were developed ones (See list of participating countries and organizations in Annex 1-1).

1.7. The countries that participated in the Pilot were countries that volunteered or agreed to participate. An effort was made to ensure that participating countries formed a representative selection, reflecting regional and development groupings and levels worldwide. As a result, this selection of countries does not represent a sample adhering to strict statistical sampling methodology.

## **A. The Process**

1.8. Before completing the Pilot, the responding institution for each country was encouraged to set up a work plan for the execution of the Pilot. This would include initiating collaboration among all national agencies and stakeholders involved in the production or use of environment statistics at national level, and reviewing the documentation that was provided by UNSD. Collaborating agencies would then be able to compare the environment statistics presented in the Core Set against existing national environment statistics and determine the degree of relevance of the sets of statistics that were provided, for national policy concerns. The availability of the environment statistics in the Core Set would be assessed, gaps between the two sets of statistics would be noted and reasons for those gaps recorded. Other questions outside the scope of the comparison and analysis of the statistics would also be addressed. These would focus on the documentation of institutional concerns regarding the collection, analysis and dissemination of data and the preparation of a list of changes to the proposed set of statistics, if this was being recommended by the country. At the end of the collaborative review, a response to the Pilot would then be prepared and submitted on behalf of the country.

1.9. UNSD resources were made available to the participating countries for consultation and support throughout the conduct of the Pilot.

## **B. Questions asked in the Pilot exercise**

1.10. The Pilot included a suite of general questions about countries' opinions of the Core Set. Through individual questions, the Pilot canvassed for general feedback on the relevance, comprehensiveness and structure of the Core Set being proposed, to national policy concerns. Also in that general vein, it asked whether the Core Set was adequate in covering international reporting requirements of the responding country and useful in identifying gaps in national environment statistics programmes. At a more specific level, the Pilot solicited information on the relevance of each topic and the availability of individual statistics within a given topic at national level. Following on this, it sought information on the reasons why the production of statistics was not satisfactory for the topics listed. To complete the picture, this portion of the Pilot asked a question on the institutional responsibility for the production of the data in the given topics, specifically whether such responsibility lay with the National Statistical Office (NSO) or was assigned to the Ministry of Environment or equivalent institution, or some other institution.

1.11. Also included in the Pilot was a detailed Gap Analysis Template. This Template presented the full set of environment statistics identified in the six components as set out in the FDES. It asked whether identical or similar statistics were produced at the national level for each statistic mentioned in the Template. It also asked for an indication of the level of priority of the statistic in national data production. The intent of this Template was to be able to construct a comprehensive picture of the availability and degree of priority of statistics at national level for each country's environment statistics programme.

1.12. The remainder of the Pilot was aimed at addressing the completeness and appropriateness of the Core Set. In that regard, it asked participating countries to list any individual statistics that they thought were missing from the Core Set and comment on the current availability of such statistics at the national level. Where these statistics were already being produced, the Pilot asked for identification of the



institutions responsible for their production and an indication of any requirement/mandate for the production or reporting of these statistics.

## **C. Survey findings regarding the topics and statistics presented**

### **I. Overall support for the Core Set**

1.13. Overall, the Pilot revealed that there was general and overwhelming support for the Core Set, with 100 percent of the responding countries indicating that the Core Set was comprehensive and effective for national statistical purposes. As a whole, countries found the Core Set to be relevant to national policy concerns, adequate for covering international reporting needs and useful in identifying gaps in their environment statistics programmes. Countries summed up this assessment by consistently noting that the FDES was a good and very helpful tool/guide for the development of environment statistics. They also mentioned the fact that the FDES had the potential to be a useful framework for integrating environmental, social and economic statistics.

1.14. Specifically, country responses were affirmative regarding the relevance of the Core Set to national policy concerns. They commended the inclusion of the major environmental issues and concerns and noted that the generation of the statistics in the Core Set would enable countries to have a better perspective of their environmental status and would allow them to be in a better position to generate appropriate policy instruments for better environmental management.

1.15. On the subject of the Core Set's comprehensiveness, respondents in many cases used positive language to indicate their sterling support, with responses indicating that it had exceeded their expectations. In commenting on the effectiveness of the structure for national statistical purposes, again country responses were entirely positive. They expressed satisfaction that the Basic Set and its structure were useful for the design of their national systems of environmental information and indicated that the Core Set addresses the majority of environmental problems across the globe.

1.16. Countries found the Core Set adequate for covering most of their international reporting needs. They noted that the scope of the Core Set was wide enough to accommodate critical and emerging environmental issues. They commented that the proposed topics in the Core Set met most of their information needs for reporting to international conventions and treaties.

1.17. Countries also approved of the Core Set in its function of identifying gaps in their environment statistics programmes. A number of countries indicated that the Core Set helped them to find important gaps in their information generation, by allowing them to make side by side comparisons against an international, consensual proposal.

1.18. Several countries gave concrete recommendations for improving the Core Set. Some countries indicated that the detail provided in the Core Set is more than they need, while others wished to see topics of specific relevance to their countries included (See Section E below for a detailed listing of the suggested additions to the Core Set).

1.19. To cite just a few specific concerns that emerged in the Pilot: the impact of tourism was cited as a desirable inclusion as a statistical topic in the Core Set and requests were made for more detail in the areas of climate change and hazardous chemical management; one reservation centred on countries' (technical) abilities to actually put the Core Set into practice; some countries cited financial and organizational constraints and one country mentioned a lack of statistical culture as impediments to data production.

1.20. Following is a detailed presentation regarding each of the major issues that were raised in the Pilot.

## II. National perceptions of the relevance of topics and availability of the statistics in the Core Set

1.21. The Tables 1-1 through 1-6 below provide details regarding the topics that comprise each of the six components of the FDES. The tables show the relevance of these statistical topics to countries and the availability of statistics for populating each of these topics. It should be noted that there are instances where the totals do not sum up to 100 due to rounding errors. The six components are: 1) Environmental Conditions and Quality; 2) Environmental Resources and their Use; 3) Residuals; 4) Extreme Events and Disasters; 5) Human Settlements and Environmental Health; and 6) Environment Protection, Management and Engagement.

1.22. In Table 1-7 further below, some 89 percent of responding countries on average have ranked the topics that comprise each component to be of high or average relevance at their national level, while only 11 percent of respondents regarded these topics to be of little or no relevance. Simultaneously, responding countries have largely characterized the availability of the statistics in those topics as not satisfactory. On average, 61 percent of countries indicated that the availability of the statistics in the topics was not satisfactory while 39 percent of countries indicated that the topics listed were either satisfactory or highly satisfactory.

1.23. It therefore appears that at the current time, the availability of the statistics in the topics defined in the Core Set does not match the relevance that countries attach to those topics at national level. There is not a single instance where a large proportion of countries reported high relevance of a topic and this is matched by high satisfaction with the availability of statistics for that topic by a similarly large proportion of countries. This indicates the amount of work that needs to be done in the development of environment statistics and in the statistics of the Core Set in particular, to be able to make available, in a satisfactory manner, the statistics that are of relevance to national needs. Individual findings for each component follow immediately below:

**Table 1 - 1: Relevance of topics and availability of statistics – Component 1**  
(Percentage of developing countries)

Component 1 – Environmental Conditions and Quality	Relevance of topics				Availability of statistics		
	High relevance	Average relevance	Little relevance	No relevance	Highly satisfactory	Satisfactory	Not satisfactory
1.1.1 Atmosphere, climate and weather	89	11	0	0	16	63	21
1.1.2 Hydrographic characteristics	68	21	5	5	0	50	50
1.1.3 Geological and geographic information	63	26	11	0	6	44	50
1.2.1 Soil characteristics	74	26	0	0	0	21	79
1.2.2 Land cover	84	11	5	0	0	58	42
1.3.1 Biodiversity	84	16	0	0	0	58	42
1.3.2 Ecosystems	74	21	0	5	0	21	79
1.3.3 Forests	89	5	0	5	6	56	39
1.4.1 Air quality	74	26	0	0	0	32	68
1.4.2 Freshwater quality	79	16	5	0	5	16	79
1.4.3 Marine water quality	67	22	11	0	0	6	94
1.4.4 Soil quality	53	32	11	5	0	18	82
1.4.5 Noise	26	32	32	11	0	19	81

**Table 1 - 2: Relevance of topics and availability of statistics – Component 2**  
(Percentage of developing countries)

Component 2 – Environmental Resources and their Use	Relevance of topics				Availability of statistics		
	High relevance	Average relevance	Little relevance	No relevance	Highly satisfactory	Satisfactory	Not satisfactory
2.1.1 Stocks and changes of non-energy mineral resources	58	21	21	0	11	17	72
2.2.1 Stocks and changes of mineral resources	63	16	11	11	18	29	53
2.2.2 Production and use of energy	95	5	0	0	11	63	26
2.3.1 Land use	95	5	0	0	5	42	53
2.3.2 Land use change	74	21	5	0	5	26	68
2.4.1 Timber resources and their use	68	11	5	16	0	41	59
2.4.2 Aquatic resources and their use	84	16	0	0	0	58	42
2.4.3 Crops	79	16	5	0	6	61	33
2.4.4 Livestock	74	16	11	0	6	61	33
2.4.5 Wild, uncultivated biological resources (other than fish and timber)	42	42	16	0	6	11	83
2.5.1 Water resources	100	0	0	0	0	42	58
2.5.2 Abstraction, use and returns of waters	79	21	0	0	0	26	74

**Table 1 - 3: Relevance of topics and availability of statistics – Component 3**  
(Percentage of developing countries)

Component 3 – Residuals	Relevance of topics				Availability of statistics		
	High relevance	Average relevance	Little relevance	No relevance	Highly satisfactory	Satisfactory	Not satisfactory
3.1.1 Emissions of greenhouse gases	89	11	0	0	0	37	63
3.1.2 Consumption of ozone depleting substances	84	11	5	0	16	63	21
3.1.3 Emissions of other substances	42	21	26	11	0	25	75
3.2.1 Generation and pollutant content of wastewater	74	16	11	0	0	5	95
3.2.2 Collection and treatment of wastewater	84	16	0	0	0	26	74
3.2.3 Discharge of wastewater to the environment	89	11	0	0	0	21	79
3.3.1 Generation of waste	95	5	0	0	0	26	74
3.3.2 Management of waste	89	11	0	0	0	26	74

**Table 1 - 4: Relevance of topics and availability of statistics – Component 4**  
(Percentage of developing countries)

Component 4 – Extreme Events and Disasters	Relevance of topics				Availability of statistics		
	High relevance	Average relevance	Little relevance	No relevance	Highly satisfactory	Satisfactory	Not satisfactory
4.1.1 Occurrence of natural extreme events and disasters	84	11	5	0	5	42	53
4.1.2 Impact of natural extreme events and disasters	84	5	11	0	6	33	61
4.2.1 Occurrence of technological disasters	42	37	11	11	0	18	82
4.2.2 Impact of technological disasters	53	26	11	11	0	11	89

**Table 1 - 5: Relevance of topics and availability of statistics – Component 5**  
(Percentage of developing countries)

Component 5 – Human Settlements and Environmental Health	Relevance of topics				Availability of statistics		
	High relevance	Average relevance	Little relevance	No relevance	Highly satisfactory	Satisfactory	Not satisfactory
5.1.1 Urban and rural population	89	0	0	11	33	61	6
5.1.2 Access to water, sanitation and energy	95	5	0	0	16	58	26
5.1.3 Housing conditions	74	16	11	0	12	53	35
5.1.4 Exposure to ambient pollution related to spatial location of population	58	37	5	0	0	22	78
5.1.5 Environmental concerns specific to urban habitats	53	37	11	0	0	32	68
5.2.1 Airborne diseases and conditions	84	11	5	0	11	37	53
5.2.2 Water-related diseases and conditions	79	5	11	5	17	33	50
5.2.3 Vector borne diseases	84	5	5	5	11	39	50
5.2.4 Health problems associated with excessive UV radiation exposure	32	26	37	5	0	25	75
5.2.5 Toxic substance and radiation related diseases and conditions	44	33	17	6	0	25	75

**Table 1 - 6: Relevance of topics and availability of statistics – Component 6**  
(Percentage of developing countries)

Component 6 – Environment Protection, Management and Engagement	Relevance of topics				Availability of statistics		
	High relevance	Average relevance	Little relevance	No relevance	Highly satisfactory	Satisfactory	Not satisfactory
6.1.1 Government environment protection and resource management expenditure	68	26	5	0	0	32	68
6.1.2 Corporate, non-profit institution and household environment protection and resource management expenditure	32	47	11	11	0	0	100
6.2.1 Institutional strength	68	26	0	5	5	47	47
6.2.2 Environmental regulation and instruments	74	16	11	0	6	35	59
6.2.3 Participation in MEAs and environmental conventions	84	5	11	0	16	47	37

Component 6 – Environment Protection, Management and Engagement	<i>Relevance of topics</i>				<i>Availability of statistics</i>		
	High relevance	Average relevance	Little relevance	No relevance	Highly satisfactory	Satisfactory	Not satisfactory
6.3.1 Preparedness for natural extreme events and disasters	79	11	11	0	6	39	56
6.3.2 Preparedness for technological disasters	53	32	11	5	0	6	94
6.4.1 Environmental information	79	16	5	0	5	42	53
6.4.2 Environmental education	63	32	5	0	0	37	63
6.4.3 Environmental engagement	63	21	16	0	6	33	61
6.4.4 Environmental perception and awareness	68	26	5	0	6	17	78

**Table 1 - 7: Overall relevance and availability of the topics listed in the Core Set**  
(Percentage of developing countries)

	<i>Relevance of topics ( to countries)</i>				<i>Availability of statistics</i>		
	High relevance	Average relevance	Little relevance	No relevance	Highly satisfactory	Satisfactory	Not satisfactory
Average over all topics	71	18	8	3	5	34	61

### III. National production of the statistics in the Basic Set

1.24. Based on the responses received from the countries that participated in the Pilot, UNSD further refined the Core Set by adding a third Tier. The three Tiers together constitute the Basic Set of Environment Statistics (Basic Set) which is a larger comprehensive set of statistics describing the statistical topics in the FDES. The scope of the current Tier 1, now referred to as the Core Set, has remained more or less the same as the former Tier 1. The former Tier 2 has been disaggregated into the current Tier 2 and Tier 3. Tier 2 and 3 are groupings which are expected to denote two progressive levels of priority of the statistics and accordingly are expected to be developed as data availability and resources permit. The analysis in Sections IV and V are based on the statistics in the Basic Set.

1.25. The Pilot covered developed and developing countries. In this portion of the Pilot, each country respondent was asked whether they produced statistics that were identical or similar, or not like those that were listed in the Basic Set. Following is a summary of the responses that were received.

#### (a) Production of statistics in developed countries

1.26. The responses uniformly revealed that developed countries were producing the vast majority of the statistics in the Basic Set. The focus of this report will therefore centre on the developing countries.

#### (b) Production of statistics in developing countries

1.27. In the case of developing countries, responses showed that the production of statistics in this domain was largely inadequate for populating the various tiers of statistics that constitute the Basic Set (See Table 1-8 below). However there were significantly more statistics produced in Tier 1 than in the other two tiers. For Tier 1, 45 out of 108 statistics in the tier were reported as being produced by more than 80 percent of responding countries. For Tier 2, only 23 out of 203 statistics were produced by more than 80 percent of these countries. In the case of Tier 3, only 4 out of 105 statistics were produced by

more than 80 percent of responding countries. If current production of statistics can be used to infer the level of importance that a country attaches to that statistic, this trend clearly shows that countries attach considerable importance to the statistics listed in Tier 1, as compared to those included in Tiers 2 and 3. As such, it validates the composition of Tier 1 and its fundamental value to developing countries, confirming that these statistics are sufficiently important and relevant to warrant their ongoing production.

**Table 1 - 8: Statistics in each tier where more than 80% of developing countries are engaged in their production**

	<i>Tier 1</i>		<i>Tier 2</i>		<i>Tier 3</i>	
	Total number of statistics in Tier 1	Number of statistics in Tier 1 that are produced by more than 80% of developing countries	Total number of statistics in Tier 2	Number of statistics in Tier 2 that are produced by more than 80% of developing countries	Total number of statistics in Tier 3	Number of statistics in Tier 3 that are produced by more than 80% of developing countries
Individual environment statistics	108	45	203	23	105	4

1.28. When looking at the statistics that are collected by only a small proportion (less than 20%) of countries, the confirmation is even further corroborated (see Table 1-9 below). There were no statistics in Tier 1 that were being produced by less than 20 percent of responding countries. For Tier 2, there were only 4 out of 203 statistics that were being produced by this proportion of responding countries, but for Tier 3, as many as 50 out of 105 statistics were being produced by this small proportion of responding countries. This appears to confirm the consensus that Tier 2 statistics are of slightly less immediate importance to most countries than Tier 1 statistics, but in the case of Tier 3, a large number of the statistics are much less important overall, being produced only by a small proportion of countries.

**Table 1 - 9: Statistics in each tier where less than 20% of developing countries are engaged in their production**

	<i>Tier 1</i>		<i>Tier 2</i>		<i>Tier 3</i>	
	Total number of statistics in Tier 1	Number of statistics in Tier 1 where less than 20% of developing countries are engaged in their production	Total number of statistics in Tier 2	Number of statistics in Tier 2 where less than 20% of developing countries are engaged in their production	Total number of statistics in Tier 3	Number of statistics in Tier 3 where less than 20% of developing countries are engaged in their production
Individual environment statistics	108	0	203	4	105	50

#### **IV. National perceptions on the assigned priority and distribution of statistics in the different Tiers of the Basic Set**

1.29. When asked if they considered the statistics in the Basic Set to be of high priority for national data production, countries routinely identified significantly more statistics in Tier 1 as being of high priority than the other two tiers (See Table 1-10 below). In Tier 1, 28 out of 108 statistics were deemed high priority by more than 80 percent of the responding countries. In Tier 2, 10 out of 203 statistics were deemed high priority by more than 80 percent of these countries. In the case of Tier 3, none of the statistics were deemed high priority by more than 80 percent of countries.

**Table 1 - 10: Statistics in each tier that more than 80% of developing countries consider to be of high priority**

	<i>Tier 1</i>		<i>Tier 2</i>		<i>Tier 3</i>	
	Total number of statistics in Tier 1	Number of statistics in Tier 1 that more than 80% of developing countries consider high priority	Total number of statistics in Tier 2	Number of statistics in Tier 2 that more than 80% of developing countries consider high priority	Total number of statistics in Tier 3	Number of statistics in Tier 3 that more than 80% of developing countries consider high priority
Individual environment statistics	108	28	203	10	105	0

1.30. On the other hand, the developing countries that responded to the Pilot largely considered the statistics in Tier 3 to be of low priority, with over 50 percent of countries reporting that 39 out of 105 statistics in Tier 3 to be ones of low priority. In fact those developing countries considered none of the statistics in Tiers 1 or 2 to be of low priority (See Table 1-11 below). This further confirms the current composition of Tier 3, as a grouping of statistics with a lower priority at national level, than those in Tiers 1 and 2.

**Table 1 - 11: Statistics in each tier that more than 50% of developing countries consider to be of low priority**

	<i>Tier 1</i>		<i>Tier 2</i>		<i>Tier 3</i>	
	Total number of statistics in Tier 1	Number of statistics in Tier 1 that more than 50% of countries consider low priority	Total number of statistics in Tier 2	Number of statistics in Tier 2 that more than 50% of countries consider low priority	Total number of statistics in Tier 3	Number of statistics in Tier 3 that more than 50% of countries consider low priority
Individual environment statistics	108	0	203	0	105	39

## **V. Reasons for lack of satisfaction with the production of environment statistics at the national level**

1.31. The reasons for a lack of satisfaction with the availability of statistics are diverse, but the Pilot revealed a few pertinent ones (See Table 1-12 below). As the average over all the components shows, chief among those reasons were “resource constraints”. While respondents did not have an opportunity to dilate on the type of resource constraints to which they were referring, it is common knowledge that financial and staffing constraints present serious obstacles to the initial development and expansion of environment statistics programmes worldwide. Next in order of importance, countries cited “methodological/technical difficulty in collection” of statistics as an impediment to achieving satisfactory availability of statistics. At the bottom of the list of limitations are “insufficient quality” of statistics and “accessibility to statistics” were mentioned, with a “lack of institutional set-up/coordination” ranked as a middling contributor to the lack of satisfaction with the production of environment statistics.

**Table 1 - 12: Reasons for lack of satisfaction with the production of environment statistics at national level  
(Developing countries)**

<i>Stated reasons for lack of satisfaction with the production of environment statistics at national level</i>							
<i>Average frequency that reason is cited (by component)</i>							
Reasons	Component 1	Component 2	Component 3	Component 4	Component 5	Component 6	Average over all Components
Resource constraints	11.3	9.4	11.9	10.5	7.6	8.9	9.9
Methodological/technical difficulty in collection	8.8	8	10.8	11.3	6.5	7.5	8.8
Lack of institutional set-up/coordination	7.2	6.1	8.5	8.8	6.6	8.7	7.7
Accessibility	7.2	5.1	5	7.3	4.5	5.8	4.6
Insufficient quality of statistical data	5.5	3.5	6.4	5	3.6	3.6	4.6

#### **D. Institutional considerations in the production of the Core Set**

1.32. The Pilot asked respondents to identify the institution responsible for producing data on the topics within the Core Set. Respondents were offered options of three categories of institutions: the NSO, the Ministry of Environment or equivalent institution and other (institution). It is apparent from the responses that for developing countries, across the components, with the exception of a few topics such as population, housing conditions, water and sanitation which were produced by the NSO, the NSO was least likely to be the institution responsible for data production. For the majority of components – Components 1, 2, 3, 4 and 6, overall, the Ministry of Environment or equivalent institution was the institution responsible for data production in a majority of countries. In the case of Component 5, the responsibility varied from topic to topic.

1.33. In the case of developed countries, the responsibility for data production seemed to be somewhat less concentrated in one category of institution, but since the sample in this case was quite small, it may not be appropriate to draw strong conclusions regarding these observations. However, it was apparent from the responses that the Ministry of Environment or equivalent institution had the predominant responsibility for producing data in the case of the topics in Components 1, 3, 4 and 5, with the NSO having the main responsibility for topics in Component 2. Component 6 presented a more mixed picture as no institutional category predominated. In general however, in developed countries, the role of the NSO was much more prominent in the production of environment statistics than it was in developing countries.

#### **E. Recommendations for change to the Core Set**

1.34. Following, in Table 1-13, are the major suggestions received for change to the Core Set:



**Table 1 - 13: Recommendations for change to the statistics in the Core Set**

<b>Area of interest of statistic</b>
<b><i>Areas where new statistics are being recommended</i></b>
Tourism related, including number of ecotourism projects in operation
Contaminated and abandoned industrial sites
Environmental governance, legislation, compliance and enforcement of effective environmental laws
<b><i>Areas where additional detail is being recommended for inclusion</i></b>
Government budget for environmental protection and management
Environmental protection expenditure
Environmentally related tax revenues and subsidies
Days where maximum allowable levels of pollutants have been surpassed
Clean Development Mechanism projects
Glaciers
Caves
Rate of forest coverage, coverage of trees
Production of meat and milk
Volume and water quality of aquifers, volume of reservoirs
Daily precipitation
Reduction, reuse of waste in Waste Management
Household energy consumption

**Annex 1-1: Participation in the Pilot of the Core Set of Environment Statistics****Developing countries**

Belize	Costa Rica	Jamaica	Qatar
Botswana	Cote d'Ivoire	Mauritius	Sri Lanka
Brazil	Cuba	Mexico	United Arab Emirates
Cameroon	Ecuador	Nigeria	Venezuela
China	India	Philippines	Vietnam

**Developed countries**

Hungary  
Italy  
Netherlands  
Sweden  
United States

**International organizations**

Eurostat  
UNEP

## **PART II**

### **Global Consultation on the Framework for the Development of Environment Statistics (September – November 2012)**



## Introduction

2.1. The Global Consultation on the Framework for the Development of Environment Statistics (FDES) (Global Consultation) was undertaken to obtain feedback from member States as well as from relevant regional and international organizations and other stakeholders on their opinions of the draft FDES.

2.2. The documentation provided for this consultation was the following:

- Advanced drafts of the FDES and the Core Set of Environment Statistics (Core Set);
- Instruction notes including a general outline of the process and deliverables, along with a timeline for the activity; and
- Reporting templates.

### A. The Process

2.3. At its forty-third session, the Statistical Commission (the Commission) approved the general direction of the work planned for completing the revision of the FDES. In addressing the finalization process for this work, the Commission supported a global consultation with member States<sup>1</sup>. That consultation was carried out in the period September – November 2012. This document summarizes the main findings of that Global Consultation which was carried out by UNSD.

2.4. The draft of the revised FDES which was circulated for consultation was prepared by UNSD together with the Expert Group on the Revision of the FDES. The review by the Expert Group included several rounds of comments and three physical meetings to discuss the revision of the FDES. Additionally, the draft Core Set, which is presented in Chapter 4 of the FDES, was subjected to a Pilot Test to assess the relevance and completeness of the statistical topics and statistics which are set out in the FDES (see Part I above). As a final step in the consultation process, the draft was sent to all member States for their feedback.

2.5. Each stage of consultation resulted in comments and suggestions which have been considered during the drafting and refining of the FDES.

### B. Questions asked in the Global Consultation

2.6. Respondents to the Global Consultation were requested to provide feedback on their general views of the FDES and also to give their opinions on the individual chapters. Additionally, for the part of Chapter 3 where the six components of the FDES were set out, more detailed questions were asked about each component.

2.7. In the section of the Global Consultation that requested information on the general opinions of the document, feedback was sought regarding the scope and comprehensiveness of the document, its relevance for national environment policy concerns and its usefulness in identifying gaps in the environment statistics that are produced at national level.

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<sup>1</sup> E/CN.3/2012/34.

2.8. For each of the chapters, reactions were sought regarding the clarity of the text and the content and structure of the chapter.

2.9. Concerning the “Overview of Environment Statistics” that was presented in Chapter 1 of the FDES, the Global Consultation sought information on whether the text that was developed on the objective and scope of environment statistics was well explained and whether the most important issues pertaining to environment statistics had been addressed.

2.10. Chapter 2 introduced the “Framework for the Development of Environment Statistics”. The Global Consultation sought views on whether the conceptual foundation that was laid out in that chapter was clear, whether the structure devised for the FDES was useful for organizing and guiding the development of environment statistics and whether the relationships between the FDES and other frameworks had been addressed in a clear and thoroughgoing manner.

2.11. Questions relating to Chapter 3 of the FDES were divided into a number of sections. The first dealt with the usefulness of the table presenting the main attributes of the FDES. The following six sections dealt in turn with each of the six components that were set out in the FDES. For each component, feedback was requested on the usefulness of the descriptive text that explained the content of the component and on whether the contents were adequate and well apportioned.

2.12. The Core Set was presented in Chapter 4. Questions concerning the Core Set were focused on: its adequacy for national statistical purposes, the appropriateness of its structure of three “Tiers” and the allocation of individual statistics into those tiers, and its relevance for national policy concerns and international reporting needs.

2.13. Chapter 5 addressed “Applications of the FDES to Cross-cutting environmental issues”. The questions regarding this chapter sought to find out if the selected cross-cutting issues that were presented in the chapter were helpful. The inquiry focused on the clarity of the chapter and the capacity of the selected cross-cutting presentations to apply the FDES to differing user needs.

2.14. Finally, questions were asked about the effectiveness of the Annexes, specifically whether they were comprehensive and helpful. Information was also sought on whether there were any additional topics that needed to be covered by an Annex.

2.15. At the end of each group of questions, respondents were given an opportunity, through an open-ended question, to comment on issues for which their opinions had not been explicitly sought but which they considered worthy of mention.

## **C. Participation in the Global Consultation**

2.16. The questionnaire containing the Global Consultation was sent out to all national statistical offices (NSOs) as well as to relevant international organizations which have been engaged in the development of environment statistics at the international level. The NSOs were asked to share the questionnaire with environmental ministries and other institutions that may have responsibility for data collection, dissemination or analysis of environment statistics at national level, and coordinate the responses. Seventy-six responses were received. Of these, forty-two were from developing country respondents, twenty-three were from developed country respondents and six were from transition country respondents. Five responses came from relevant international organizations. The number of responses in the tables below reflects the responses to each individual question.

2.17. The summary of the results focuses on the responses received from the seventy-one countries, as some of the five international organizations did not use the template for responding and therefore they could not be included in the numerical aspects of the analysis.

## D. Survey findings regarding the revised FDES

### I. Overall support for the FDES

2.18. The responses received from the Global Consultation were largely positive. Overall the responses point to general agreement that the FDES is a comprehensive document with a scope that is adequate for use in developing environment statistics at national level; that it can be used in identifying gaps in national environment statistics data collections; that it is relevant for national environmental policy concerns; and that it is useful in the dissemination of statistics on the environment. As can be seen in Table 2-1 below, a large majority of the countries that responded to the Global Consultation, at least thirty-eight of developing countries, twenty of the developed countries and five of the transition countries, gave favourable assessments of the FDES in response to each of the questions that sought their general opinions of the document.

*Table 2 - 1: General opinions on the FDES*

General opinions on the FDES	Developing countries				Developed countries				Countries in Transition			
	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided
Is the FDES comprehensive?	39	38	1	2	21	21	0	1	6	6	0	0
Is the scope of the FDES adequate for the purpose of developing environment statistics?	39	38	1	2	21	20	1	3	6	5	1	1
Is the FDES relevant for national environmental policy concerns?	39	38	1	1	20	20	0	3	6	6	0	0
Is the FDES useful in identifying gaps in environment statistics in your country?	40	40	0	1	21	19	2	2	6	6	0	0
Other general opinions on the FDES	-	-	-	22	-	-	-	14	-	-	-	3

### II. National views on the chapters of the revised FDES

2.19. Following is a presentation of the national responses regarding each of the major issues that was raised in the Global Consultation. The Tables 2-2 through 2-8 below provide details regarding the individual chapters of the FDES. Table 2-9 provides details regarding the Annexes to the FDES.

#### (a) The Introduction to the FDES

2.20. The Introduction to the FDES was widely accepted to be text that was clear and appropriate for making the preliminary presentation of the Framework. As demonstrated in Table 2-2 below, all forty developing countries, nineteen of twenty developed countries and all of the six transition countries that responded gave positive responses on this score. Among the general comments made on the Introduction, the inclusion of an advance explanation of Tiers 2 and 3 (which are concepts addressed in Chapter 4), along with more detailed description of all the subsequent chapters was suggested.

**Table 2 - 2: The Introduction to the FDES**

The Introduction to the FDES	Developing countries				Developed countries				Countries in Transition			
	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided
Is the text provided in the Introduction clear?	40	40	0	0	20	19	1	2	6	6	0	0
Other general comments on Chapter 1	-	-	-	11	-	-	-	5	-	-	-	3

**(b) Chapter 1 – Overview of Environment Statistics**

2.21. Chapter 1 of the FDES presented an overview of environment statistics. It detailed the objective, scope, main uses and user groups of environment statistics. It laid out the major characteristics of environmental data, statistics and indicators. It also addressed sources of environment statistics and the temporal and spatial considerations that must be taken into account in any effective data production activities in this complex domain. Chapter 1 also included a discussion of geospatial information as it relates to environment statistics. In conclusion, it focused on the classifications, categories and other groupings relevant to environment statistics and the institutional dimensions that are pertinent in developing environment statistics at the national level.

2.22. Among respondents from both developed and developing countries, the consensus of opinion was that Chapter 1 provided a sound overview of the topic of environment statistics (see Table 2-3 below). All thirty-nine respondents from developing countries, all twenty respondents from developed countries and all six respondents from transition countries thought that the structure of Chapter 1 was appropriate and the content was well-presented and useful. A majority of respondents also reported that the objective and scope of environment statistics were presented in a coherent and comprehensible manner in this chapter and that the most important issues relating to that subject were brought out in the presentation. Additionally, countries made a number of specific detailed comments about this chapter (See Annex 2-2).

**Table 2 - 3: Overview of Environment Statistics in the FDES**

Chapter 1	Developing countries				Developed countries				Countries in Transition			
	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided
Are the contents and structure of Chapter 1 clear?	39	39	0	0	20	20	0	1	6	6	0	0
Are the objective and scope of environment statistics clear?	39	39	0	1	20	19	1	2	6	6	0	0
Are the most important issues pertaining to environment statistics well covered?	39	38	1	3	19	17	2	3	6	6	0	0
Other general comments on Chapter 1	-	-	-	12	-	-	-	7	-	-	-	2



**(c) Chapter 2 – Framework for the Development of Environment Statistics**

2.23. The second chapter of the FDES moved from a general discussion of environment statistics, to focus on the Framework for the Development of Environment Statistics. It introduced the conceptual framework, scope and the main concepts of the FDES. It also presented the relationship between the FDES and other commonly used frameworks.

2.24. Respondents reacted positively to the text provided in Chapter 2 (See Table 2-4 below). A clear majority, at least thirty-six of thirty-eight developing country respondents, all developed country respondents and all six transition country respondents, found the conceptual foundation and overall content presented in this Chapter to be clear and the structure useful for organizing and guiding the development of environment statistics. A smaller number, agreed with the treatment of the relationship between environment statistics and other environment frameworks and systems, finding it to be well-covered and clear. Notably, comments were made about the characterization of the relationship between the System of Environmental-Economic Accounting Central Framework (SEEA-CF). These suggested that it should be made clear that the scope of the FDES is wider than that of the SEEA-CF, the latter being one of the users of many, but not all environment statistics included in the FDES. Others commented that in the presentation of the relationships it should be made clear that environment statistics has a significant role on its own besides feeding into indicators and accounts. (See Annex 2-2).

**Table 2 - 4: Framework for the Development of Environment Statistics**

Chapter 2	Developing countries				Developed countries				Countries in Transition			
	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided
Are the contents and structure of Chapter 2 clear?	38	38	0	0	20	20	0	0	6	6	0	0
Is the conceptual foundation of the FDES clear?	38	36	2	2	20	20	0	1	6	6	0	0
Is the structure of the FDES (components, sub-components and topics) useful for the purpose of organizing and guiding the development of environment statistics?	38	38	0	2	20	20	0	1	6	6	0	0
Is the relationship between environment statistics and other environment statistics frameworks and systems well covered and clear?	37	37	0	1	20	17	3	4	6	6	0	0
Other general comments on Chapter 2	-	-	-	8	-	-	-	6	-	-	-	3

**(d) Chapter 3 – The Structure and Components of the FDES**

2.25. Chapter 3 was the largest and most detailed chapter in the circulated draft. It presented the detailed structure of the FDES, spelling out its multi-level structure of “components”, “sub-components” and “statistical topics”. Chapter 3 provided descriptions for each of the categories that constitute each level within this structure. Also germane to this chapter was a summary table showing the main attributes of each of the FDES components. This table included for each category: a description, indication of the

type of data, main sources of data and its relationship to the SEEA as well as to the Driving Force-Pressure-State-Impact-Response (DPSIR) framework.

2.26. Concerning the general assessment of Chapter 3, respondents who provided feedback were unanimous in characterizing the contents and structure of Chapter 3 as being clear and reflective of the domain of environment statistics (See Table 2-5 below). Their additional comments revealed that they welcomed the organization of this chapter, citing its particular usefulness to countries where environment statistics are at the early stages of development. Respondents found the summary of the main attributes of the components to be especially helpful.

**Table 2 - 5: The Structure and Components of the FDES – General assessment**

Chapter 3 – General	Developing countries				Developed countries				Countries in Transition			
	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided
Are the contents and structure of Chapter 3 clear?	39	39	0	0	21	21	0	1	6	6	0	0
Are the main attributes of the FDES components table helpful?	39	39	0	1	21	20	1	2	5	5	0	0
Other general comments on Chapter 3	-	-	-	13	-	-	-	10	-	-	-	3

2.27. Responses to the detailed questions on the components presented in Chapter 3 are in Table 2-6 below.

2.28. In Chapter 3 each of the six components of the FDES was presented in detail. The presentations were made by level, starting at the component level and successively treating the sub-component and statistical topic levels. A descriptive narrative was provided for each category at each level along with a listing of its constituent parts. This explanatory text outlined the rationale for the category and the extent of its contents.

2.29. Generally across all the components, respondents indicated that the explanatory text provided for each component was helpful (See Table 2-6 below). For Component 4 – Extreme Events and Disasters a slightly smaller majority, thirty-seven of thirty-eight developing country respondents and nineteen of twenty developed country respondents indicated that the explanatory text was helpful. Transition country respondents were unanimous in finding the explanatory texts for all components to be helpful.

2.30. With regard to whether or not the sub-components and topics within each component were adequate and well-allocated, there was less than full agreement. For Component 1, which is the central component of the FDES that describes “Environmental Conditions and Quality”, thirty-six of thirty-nine developing countries and eighteen of twenty developed countries found that the contents of the component were adequate and well allocated. Regarding Component 2 which describes “Environmental Resources and their Use”, thirty-eight of thirty-nine developing countries and eighteen of twenty developed countries found that the contents of the component were adequate and well allocated. For Component 3 which focuses on “Residuals”, thirty-seven of thirty-nine developing countries and seventeen of twenty developed countries indicated that the contents of the component were adequate and well allocated. In the case of Component 4 which describes “Extreme Events and Disasters”, thirty-five of thirty-eight developing countries and eighteen of twenty developed countries found that the contents

of the component were adequate and well allocated. For Component 5 which centres on “Human Settlements and Environmental Health”, all developing and developed countries found the contents of the component to be adequate and well allocated. Finally, for Component 6 which outlines “Environment Protection, Management and Engagement”, all thirty-nine developing countries and eighteen of twenty-one developed countries noted that the contents of the component were adequate and well allocated. Across all components, responding transition countries indicated full agreement with the adequacy and allocation of all the components.

2.31. Respondents made a number of suggestions concerning the composition of the components, including some recommendations for the inclusion of additional and/or clarifying text and in a few cases for reallocation of specific items into a different component. The relevant comments and suggestions are included in Annex 2-2.

**Table 2 - 6: Chapter 3 - Components of the FDES**

Chapter 3 – Components of the FDES	Developing countries				Developed countries				Countries in Transition			
	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided
Is the explanatory text for Component 1 helpful?	40	40	0	0	20	20	0	1	6	6	0	1
Are the contents (sub-components and topics) of Component 1 adequate and well allocated?	39	36	3	1	20	18	2	2	6	6	0	0
Other suggestions on Component 1	-	-	-	9	-	-	-	7	-	-	-	3
Is the explanatory text for Component 2 helpful?	40	40	0	0	20	20	0	1	6	6	0	0
Are the contents (sub-components and topics) of Component 2 adequate and well allocated?	39	38	1	0	20	18	2	2	6	6	0	0
Other suggestions on Component 2	-	-	-	8	-	-	-	6	-	-	-	2
Is the explanatory text for Component 3 helpful?	40	40	0	0	20	20	0	1	6	6	0	0
Are the contents (sub-components and topics) of Component 3 adequate and well allocated?	39	37	2	1	20	17	3	3	6	6	0	0
Other suggestions on Component 3	-	-	-	7	-	-	-	11	-	-	-	3
Is the explanatory text for Component 4 helpful?	38	37	1	1	20	19	1	1	6	6	0	0
Are the contents (sub-components and topics) of Component 4 adequate and well allocated?	38	35	3	2	20	18	2	2	6	6	0	0
Other suggestions on Component 4	-	-	-	7	-	-	-	2	-	-	-	1

Chapter 3 – Components of the FDES	<i>Developing countries</i>				<i>Developed countries</i>				<i>Countries in Transition</i>			
	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided
Is the explanatory text for Component 5 helpful?	40	40	0	0	20	20	0	1	6	6	0	0
Are the contents (sub-components and topics) of Component 5 adequate and well allocated?	39	39	0	0	20	20	0	1	6	6	0	0
Other suggestions on Component 5	-	-	-	4	-	-	-	5	-	-	-	2
Is the explanatory text for Component 6 helpful?	40	40	0	0	21	20	1	1	6	6	0	0
Are the contents (sub-components and topics) of Component 6 adequate and well allocated?	39	39	0	0	21	18	3	3	6	6	0	0
Other suggestions on Component 6	-	-	-	4	-	-	-	5	-	-	-	3

**(e) Chapter 4 – The Core Set of Environment Statistics**

2.32. Chapter 4 of the revised FDES addressed the Core Set as well as the Basic Set of Environment Statistics. These sets were selected according to their relevance to environmental issues and to corresponding FDES topics, as well as for their usefulness in calculating environmental indicators and generating environmental-economic accounts. The Basic Set has been set up following a progression of three tiers. The first, Tier 1, defines the Core Set, that is, a set of statistics which countries are recommended to consider producing in the short-term. The scope can be gradually widened to the statistics contained in the two subsequent tiers, Tier 2 and Tier 3. Tier 2 and 3 are groupings which are expected to denote two progressive levels of priority of the statistics and accordingly are expected to be developed as national priorities require and as data availability and resources permit.

2.33. A clear majority, sixty-five of a total of sixty-eight respondents from developing, developed and transition countries considered the text of Chapter 4 to be clear and its content helpful (See Table 2-7 below). Sixty-seven of sixty-eight responding countries believed the Basic Set was adequate for national statistical purposes. All responding countries, found the structure of the Basic Set into three tiers, and the allocation of individual statistics in each tier to be helpful.

2.34. With regard to the Core Set, forty-one of forty-two developing country respondents, all twenty developed country respondents and all six transition country respondents signalled their agreement that the Core Set was relevant for national policy concerns, while forty of forty-two developing country respondents, all nineteen developed country respondents and all six transition country respondents found it also pertinent for their international reporting needs.

2.35. There were a number of general comments on this chapter including suggestions for clarification of the relationship between the Core and Basic Sets and inclusion of units of measurements for the statistics identified in the Core Set.

**Table 2 - 7: The Core Set**

Chapter 4 – The core Set of Environment Statistics	<i>Developing countries</i>				<i>Developed countries</i>				<i>Countries in Transition</i>			
	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided
Is the Introductory text on the Core Set of Environment Statistics clear and helpful?	42	40	2	2	20	19	1	0	6	6	0	0
Is the Basic Set of Environment Statistics adequate for national statistical purposes?	42	42	0	2	20	19	1	1	6	6	0	0
Is the structure of the Basic Set of Environment Statistics into Tiers 1, 2 and 3 as well as the allocation of individual statistics in each tier helpful?	42	42	0	0	20	20	0	2	6	6	0	0
Is the Core Set (Tier 1) of Environment Statistics relevant for national policy concerns?	42	41	1	2	20	20	0	1	6	6	0	0
Is the Core Set (tier 1) of Environment Statistics useful for covering international reporting needs?	42	40	2	4	19	19	0	1	6	6	0	0
Other general comments on Chapter 4	-	-	-	12	-	-	-	8	-	-	-	3

**(f) Chapter 5 – Applications of the FDES to Cross-cutting Environmental Issues**

2.36. Chapter 5 was formulated to increase the value of the revised FDES by presenting to the environment statistics practitioner a sampling of cross-cutting issues that are particularly pertinent and that help to demonstrate the flexibility of the FDES. This would show how the Core and Basic Sets can be combined and reorganized to respond to specific analytical needs and policy requirements which are relevant from the national, regional or global perspectives.

2.37. All respondents agreed that the content and structure of Chapter 5 and the objective of the chapter were clear (See Table 2-8 below). A similarly distinct majority, sixty-one of sixty-four country respondents found that the cross-cutting issues which were presented in the chapter were capable of illustrating the capacity of the FDES to be applied to different user needs. With regard to the actual content and presentation of each selected cross-cutting issue, all thirty-eight developing country respondents, nineteen of twenty developed country respondents and all six transition country respondents indicated their satisfaction.

2.38. The general comments on this chapter were very positive with a number of respondents making requests for extending the selection of cross-cutting issues that were chosen, to include for example the topics of “Agriculture”, “Tourism” and “Poverty”. This suggestion should however be viewed within the context of its relevance to the FDES and the original mandate to restrict the length of the final document.

**Table 2 - 8: Applications of the FDES to Cross-cutting Environmental Issues**

Chapter 5 – Applications of the FDES to cross-cutting environmental issues	Developing countries				Developed countries				Countries in Transition			
	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided
Are the contents and structure of Chapter 5 adequate?	38	38	0	0	20	20	0	0	6	6	0	0
Is the objective of Chapter 5 clear?	38	38	0	0	20	20	0	0	6	6	0	0
Are the selected cross-cutting issues capable of illustrating the capacity of the FDES to be applied to different user needs?	38	37	1	1	20	18	2	2	6	6	0	0
Are the contents and presentation of the selected cross-cutting issues helpful?	38	38	0	1	20	19	1	1	6	6	0	0
Other general comments on Chapter 5	-	-	-	9	-	-	-	3	-	-	-	2

**(g) Annexes to the FDES**

2.39. The Annexes to the FDES were received with mixed sentiments (See Table 2-9 below). A majority of respondents, fifty-eight of a total of fifty-nine respondents characterized the contents of the Annexes as comprehensive and helpful. However, a significant proportion of respondents, i.e., twenty-eight of thirty-four developing country respondents, twelve of eighteen developed country respondents and four of six transition country respondents expressed the view that there were additional topics or issues relating to environment statistics that could have been covered by an Annex. A useful approach was suggested that the Annexes could be kept as a “live document” and regularly updated.

**Table 2 - 9: Annexes to the FDES**

Annexes to the FDES	Developing countries				Developed countries				Countries in Transition			
	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided	Total number of responses	Yes	No	Number of specific comments provided
Are the contents of the Annexes comprehensive and helpful?	34	33	1	0	19	19	0	0	6	6	0	0
Is there any additional topic or issue pertaining to environment statistics that might be added as or covered by an Annex?	34	28	6	2	18	12	6	1	6	4	2	0
Other general comments on the Annexes	-	-	-	10	-	-	-	6	-	-	-	2
Other specific comments on the Annexes	-	-	-	3	-	-	-	2	-	-	-	1

## Annex 2-1: Participation in the Global Consultation on the Framework for the Development of Environment Statistics

### Developing countries

Antigua and Barbuda	Hong Kong, China	Qatar
Belize	India	Sierra Leone
Bhutan	Israel	South Africa
Botswana	Jamaica	South Sudan
Brazil	Jordan	Sri Lanka
Cameroon	Lesotho	St. Vincent and the Grenadines
Cape Verde	Macao, China	State of Palestine
Chile	Madagascar	Suriname
China	Malaysia	The Gambia
Colombia	Mauritius	Togo
Côte d'Ivoire	Mexico	Turkey
Dominican Republic	Myanmar	United Arab Emirates
Ecuador	Nigeria	Venezuela
Georgia	Philippines	Vietnam

### Developed countries

Australia	Lithuania
Austria	Netherlands
Belgium	New Zealand
Bulgaria	Norway
Canada	Poland
Czech Republic	Romania
Finland	Slovenia
Hungary	Spain
Ireland	Sweden
Italy	Switzerland
Japan	UK
Latvia	

### Countries in Transition

Croatia	Republic of Belarus
Kazakhstan	Russia
Montenegro	Serbia

### International organizations

ECLAC	EUROSTAT
ECOWAS	UNSD – EEA Section
ESCAP	

## **Annex 2-2: Detailed comments provided on the FDES**

Following is a compilation of detailed comments that were provided to complement the responses to direct questions asked in the questionnaires.

### **General comments on the FDES**

Add Glossary of Terms

Add reference to the Classification of Statistical Activities

Emphasize the added value of environment statistics over environmental data

Include role of FDES in dissemination of statistics

Develop section on the need for coordination/integration of biophysical and socio-economic statistics

Emphasize more that FDES is comprehensive but not exhaustive

Give additional information on sources as URLs may change

The document is still too long, try to condense

### **Introduction**

More explanation on Tiers 2 and 3 is needed

Provide a more detailed description of the chapters in the Introduction

### **Chapter 1**

Give an explicit definition of “environment”

Include “informing about impacts on humans” and about “environmental management at the national and global level” under Objectives

Distinction between environmental data, statistics and indicators: indicators should be part of statistics

Add description of the role of NSOs in environment statistics

Add section on data quality and timeliness issues

Under spatial considerations, include “economic territory”

Annex on sources of environment statistics should be moved to main text

Sections on GIS and Institutional aspects are too long, try to condense

### **Chapter 2**

Figure 2.4 creates the impression that all environment statistics feed into SEEA and into indicators while this is not the case

Stress that figure is about the relationship between different frameworks, not a hierarchical presentation of statistics, accounts and indicators

Paragraph 2.35 – the SEEA is not an objective of the FDES but one of its users

### **Chapter 3**

#### **Overall comments on Chapter 3**

Avoid repeating text on data sources; when applicable, move text to the sub-component level instead of repeating under each topic.

Homogenize structure for description of topics

Delete references to actual statistics/numbers when describing relevance of topic



Include role of NSOs in the description of components, subcomponents and topics  
 Create links also to Driving forces in the DPSIR framework

### **Component 1**

Text on Soil too long as compared to other descriptions  
 The allocation of “Forests” is not straightforward, consider other solution  
 Add contaminated sites under soil pollution

### **Component 2**

This component should contain direct references to SEEA where applicable  
 Clarify difference between “resources” and “reserves”  
 Part of waste as energy source is renewable (biomass)  
 The title “environmental resources and their use” is not correct as the FDES does not follow the “use” across the economy, it covers in its scope only their extraction/withdrawal/harvest from the environment  
 The use of fertilizers and pesticides might be allocated to Component 3  
 Need to mention nutrients and nutrient balances  
 Add text on Genetically Modified Organisms  
 Land Use and Land Cover – separation is not clear; add more references (INSPIRE, LUCAS)

### **Component 3**

Change title of component – residuals is the broadest term that includes emissions, wastewater and waste  
 Make direct references to SEEA where applicable  
 “Other emissions” is too broad – specify the most important ones  
 Check waste statistics against the Basel Convention  
 Add text on e-waste  
 Add text on the capture and recycling of air pollutants

### **Component 4**

The term “natural extreme events” is unfamiliar  
 Technological disaster should be linked to Component 3  
 Link disasters with “catastrophic losses” in Component 2 (SEEA)

### **Component 5**

Use “Human settlements” instead of “Human habitat”  
 Add more on environmental infrastructure  
 Add access to green areas/recreation

### **Component 6**

Make direct links to SEEA when applicable

### **Chapter 4**

The title of the chapter (The Core Set of Environment Statistics) is misleading as the chapter describes also a Basic Set of Environment Statistics; the relationship between the two is not clear; corresponding Figure should be improved  
 Adding units of measurement to the statistics would increase the value of the tables

The lists are too comprehensive - reduce the Core Set as much as possible

### **Chapter 5**

The examples are good, but by shortening them, there would be room for additional important examples e.g. on agriculture, tourism, poverty etc.

### **Annexes**

The Annex on the sources of environment statistics could be moved into main text  
Annexes should be kept as a live document and regularly updated.