ECOWAS WORKSHOP ON ENVIRONMENT STATISTICS

ACCRA, 29 - 31 MARCH 2010

FINAL REPORT

I.   INTRODUCTION

1. The Workshop on Environment Statistics was organized by the ECOWAS Commission in collaboration with the United Nations Statistics Division (UNSD) in Accra Ghana from 29-31, March 2010. The objectives of the workshop were to:

(a) carry out an in-depth review of selected methodology sheets for the set of environmental statistics and indicators adopted by the UNSD/UNEP/ECOWAS Workshop on Environment Statistics that was held in Abuja, Nigeria in May 2008;

(b) discuss the outcomes of the missions that the two ECOWAS consultants carried out to assess the situation of environment statistics in selected ECOWAS Member States; and

(c) discuss plans for the implementation of the Regional Environment Statistics Programme, including the finalization of the selected set of methodology sheets discussed at the Workshop, the further development of the remaining methodology sheets, and the plans for the preparation of an ECOWAS regional compendium on environment statistics.   The workshop was organized in both plenary and practical working group sessions.

2. The workshop was attended by participants from National Statistical Offices (NSOs) and Ministries of Environment from 14 Member States of ECOWAS except Côte d'Ivoire.   The following Member States attended the workshop: Benin, Burkina Faso, Cape Verde, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.   Also in attendance was a participant from Ecole Nationale Supérieure de Statistique et d'Economie Appliquée (ENSEA), Côte D'Ivoire.

3. The ECOWAS Commission and UNSD were represented at the workshop. Two consultants, Mr. Philip Bankole and Mrs. Fanta Kaba were also invited to assist with the facilitation of the workshop.

4. The full list of participants is attached as Annex I.

II.   OPENING SESSION

5. Mr. Mahamadou Yahaya, Director of Research and Statistics at the ECOWAS Commission, in his welcome address thanked the participants and particularly, UNSD and the resource persons for promoting environment statistics to the next level in the ECOWAS region.

6. He lauded the *Framework for Strengthening Capacity in the Development and Institutionalization of Environment Statistics in the ECOWAS Region* that was jointly developed with UNSD for the ECOWAS region. According to him, environment statistics should be scientific in approach, practical in methods, and accurate in the presentation of data and indicators. The Director informed the participants that the workshop aimed

at mapping out appropriate mechanisms and indicators for monitoring and evaluating various conventions on the environment and boost accessibility to more reliable environment statistics. The workshop was expected to come up with recommendations aimed at strengthening coordination at various levels, building capacity and improving advocacy, and producing a core set of ECOWAS environmental indicators in line with international concepts, standards and methodology that respond to national, regional and international requirements.

7. The overall objective of the workshop according to him was to promote common understanding and building the capacity of Member States for the implementation of the *Framework for Strengthening Capacity in the Development and Institutionalization of Environment Statistics in the ECOWAS Region*. Finally, he gave the rundown of the activities of the workshop which included the review of the methodological sheets for the indicators and the review of the indicators to be used for monitoring the state of the environment in the region by regional institutions and Member States. The director wished the participants a fruitful deliberation and declared the workshop open.

8. In her welcome address, Ms. Eszter Horvath, Chief Environment and Energy Statistics Branch of United Nations Statistics Division (UNSD), welcomed the participants to Ghana for the Workshop on Environment Statistics. According to her, the African region has been a priority area for training and capacity building at UNSD and there has been a long history of excellent collaboration between UNSD and the ECOWAS Commission in the field of environment statistics. Since 2008, UNSD has focused on the development of methodologies for the ECOWAS list of environmental indicators within the context of *Framework for Strengthening Capacity in the Development and Institutionalization of Environment Statistics in the ECOWAS Region*.

9. She stressed the importance of the workshop, which was being held at a time when many statistical offices were facing challenges of providing adequate statistical data to aid fact-based development agendas and decision-making. She expected that the workshop would discuss those methodology sheets that were still problematic and give direction to further improve them. Finally, she urged the participants to agree on a core set of indicators that could be included in a pilot data collection from the ECOWAS countries.

III. <u>ELECTION OF BUREAU</u>

10. The following bureau was elected:
- Chairperson   -   Nigeria
- Rapporteurs   -   Senegal
  -   The Gambia

IV. <u>ADOPTION OF AGENDA</u>

11. The following agenda was adopted.

I.   Introduction to the ECOWAS Regional Environment Statistics Programme
II. Recent developments in international environment statistics (UNSD)
III. Outcomes of the environment statistics missions to selected countries (ECOWAS consultants)
IV. Working group sessions on the structure, contents and applicability of the methodology sheets

The detailed work schedule is attached as Annex II.

V.   OUTCOME OF DELIBERATIONS

Item 1: Introduction to the ECOWAS Regional Environment Statistics Programme

12. Two papers were presented under this topic by Mr. Christopher Ajaero of the ECOWAS Commission. The first paper dwelt on the environmental challenges and problems, ECOWAS environmental policies and an assessment of environment statistics in the ECOWAS region. He recalled the priorities areas identified in the ECOWAS Environmental Statistics programme which includes Land degradation, drought and desertification, Wetlands conservation, Invasive species, Marine and coastal resources, Cross border conservation of natural resources, and climate change. The aim of the *Framework* according to him was to strengthen national capacities, mobilize support and institutionalize environment statistics in the mainstream statistical activities of the region.

13. The second paper reviewed the environmental degradation and exploitation worldwide and dwelt on the contemporary problems of Africa with specific references to the ECOWAS region. The paper also made specific recommendations and suggested a way forward, which included adequate legislation, resource mobilization, coordination of collaboration among the stakeholders, as well as capacity building and technical assistance.

Item 2: Recent developments in international environment statistics

14. Two presentations were made under this topic by Ms. Eszter Horvath of UNSD. The first presentation dwelt on the need for the revision of the UN Framework for the Development of Environment Statistics (FDES). According to the UNSD representative, countries had expressed the need for an overarching framework that is integrative in nature, comprehensive and flexible that allows for identification of data needs, data sources and gaps, as well as integration of all stakeholders and assurance of data quality.

15. The presenter explained the concepts and the structure of the FDES. The FDES sets out the scope of environment statistics by relating the components of the environment to information categories that are based on the recognition that environmental problems are the result of human activities and natural events reflecting

a sequence of action, impact, and reaction. Relevant information, therefore, refers to social and economic activities and natural events, their effects on the environment, and the responses to these effects by the society. The contents of the FDES are "statistical topics"; they are those aspects of environmental concerns that can be subjected to statistical description and analysis. She said that the main properties of the 1984 FDES were its flexibility, consistency and comprehensiveness. The FDES has been used by many national statistical offices for developing and organizing environmental and related socio-economic information.

16. She presented the main conclusions of the Expert Group Meeting on the Framework for the Development of Environment Statistics, especially the decisions on the directions to be taken in the revision of the UN FDES and the modalities of the revision process, which were submitted to and approved by the 41st session of the UN Statistical Commission.

17. The second presentation focused on the data collection and dissemination activities of UNSD and their synergy with various international organizations and bodies such as the Food and Agriculture Organization of the United Nations, the United Nations Environment Programme (UNEP), and the United Nations Framework Convention for Climate Change (UNFCCC) among others. In order to avoid duplication of activities, UNSD, since 2006 concentrates on data collection relating to specific fields like water and waste. She pointed out that UNSD data collections from Member Countries are fully coordinated with the UN Regional Economic Commissions and inter-governmental organizations such as ECOWAS and CARICOM. The rest of the presentation dwelt on the UNSD data dissemination and consistency of the UNSD/UNEP Questionnaires and the OECD/Eurostat Questionnaire. Therefore, the need for any regional questionnaires to be consistent with UNSD/UNEP and OECD/Eurostat questionnaires was stressed, and this coordination is being promoted through the Intersecretariat Working Group on Environment Statistics (IWG-ENV).

Item 3: Outcomes of the environment statistics missions to selected countries

18. The report on the outcomes of the environment statistics missions undertook to select Member States by the ECOWAS Consultants (Mrs. Fanta Kaba and Mr. Philip Bankole) was presented. The report highlighted the objectives of their missions and the expected results, the strategy and activities of their missions in the countries visited, and their observations and conclusions.

19. It was indicated that six countries were visited, namely; Burkina Faso, Côte d'Ivoire, Ghana, Liberia, Mali and Togo from June 14 to July 5, 2009. The general findings in each country were presented and particularly as they related to the availability of statistical data for the completion of the ECOWAS and UNSD questionnaires.

20. In a nutshell, the lessons drawn from the missions were as follows:

✓ Firstly, a lack of established programmes on environment statistics was noted in the region especially the countries visited; Mali and Côte d'Ivoire were the only exceptions.

✓ Secondly, the majority of the countries visited were confronted with constraints related to the institutional capacity for statistical data production and also to the lack of a formal framework of coordination and collaboration among the various stakeholders in the production of environment statistics.

✓ Thirdly, a good number of countries showed a considerable delay in the completion of the data collection forms and metadata questionnaires, most often, the returned questionnaires were incomplete. It was therefore suggested to focus on a minimum set of indicators that could be updated regularly.

21. Finally, it was indicated that Mali, Côte d'Ivoire and Togo were the only countries that had completed and returned their metadata questionnaires.

Item 4: Working group sessions on the structure, contents and applicability of the methodology sheets

22. The second phase of the workshop was conducted in practical working group sessions. Ms. Reena Shah of UNSD first provided an overview of the process of the development of the methodology sheets to date, and explained the procedures for the working group sessions. The objectives of the working groups were to critically examine and validate the methodology sheets for the environmental indicators that had been prepared by UNSD, and agree on a core set of the indicators for immediate data collection and compilation by all Member States. Two groups were constituted, an English-speaking group and a French-speaking group, with UNSD and the consultants facilitating each group. Each session was preceded by a short presentation on the contents of the indicators associated with the sets of themes covered by the session. Ms. Eszter Horvath and Ms. Reena Shah of UNSD took turns at the beginning of each working group session to introduce the topic and the rationale behind the indicators and methodology. The aim was to allow all the participants to have a common understanding of the topic and the indicators in order to proceed on the same platform.

23. The assignment of each group was to review and examine all the indicators topic by topic. The relevance of each indicator compared to the realities of the countries was examined; the method of calculation, the source of data, the institutional capacity, and the availability of the indicators were also considered in the review. The two groups met from time to time to harmonize their positions on the indicators for each topic.

24. The final list of indicators based on the consensus of participants is attached as Annex III. It includes the indicators with finalized methodology sheets, indicators whose methodology needs further development, and the core set of indicators for data collection.

Item 5: Recommendations and Conclusions

25. Based on the presentations and the subsequent discussions that ensued, the following recommendations and conclusions were reached:

5.1 *To ECOWAS Commission and UNSD*:

26. The participants noted that the full list of environmental indicators is extensive and the amount of data required to produce them is very large. It was obvious that significant time and resources will be required to improve the capacity of stakeholders and create adequate advocacy in order to produce all the indicators. Therefore, the Workshop selected and agreed on a core set of the indicators and recommended that ECOWAS and UNSD finalize these indicators, methodologies and questionnaires, for immediate data collection and compilation by all Member States.

27. The difficulties in the definition and methodology for the calculation of the indicators were also noted and accordingly, it was recommended that ECOWAS and UNSD should work on more detailed definitions and calculation methods for the agreed core set of environmental indicators and related statistics.

28. In order to establish routine data collection in Member States, the ECOWAS Commission will prefer the use of national data sources for environment statistics; however, international sources, if available, may be used to supplement the national sources where gaps exist.

29. To facilitate active participation and understanding of all Member States, the ECOWAS Commission was requested to make available all documentation, forms and questionnaires on environment statistics in ECOWAS official languages.

30. In order to ensure continuity and improve the participation of Member States, it was recommended to the ECOWAS Commission to constitute a Technical Committee on Environment Statistics, The committee members will serve as focal points for environment statistics in the Member States.

31. The participants recommended that the ECOWAS Commission present the conclusions and recommendations of this Workshop to the Heads of National Statistics Offices Meeting and to the Council of Ministers to solicit their support.

32. ECOWAS and Member States should develop more synergies with regional statistical training institutions and development partners to develop training modules and build capacity in the region for environment statistics.

5.2 *To Member States*:

33. The need for Member States to participate actively and take ownership of the *Framework for Strengthening Capacity in the Development and Institutionalization of Environment Statistics in the ECOWAS Region* was emphasized. Therefore Member

States should be encouraged to assume ownership of the Framework and to participate actively in its implementation.

34. The need for regional and international comparability of indicators was of paramount importance to the region and the global community and therefore, it was recommended that Member States should adopt international standards and methodologies to the extent possible in the calculations of the indicators, and, in addition, all indicators should be accompanied by adequate metadata.

35. The Member States with the assistance of the ECOWAS Commission should embark on national advocacy and sensitization of stakeholders to promote data exchange and collaboration in the production of indicators. Member States should also set up an inter-agency national stakeholders committee involving all Ministries, Departments and Agencies (MDAs) on environment statistics.

5.3 *Conclusions*

36. The participants agreed that, as part of the implementation programme of the Framework, the following activities should be carried out (see table below).

	DESCRIPTION	RESPONSIBILITY	DEADLINE
1	Completion of the meta-data forms (distributed before the Workshop)	Member States	09-Apr-10
2	Finalization of the core set of the ECOWAS environmental indicators (including translation)	ECOWAS Consultants	15-Apr-10
3	Letters to Member States to constitute a Regional Technical Committee on Environment Statistics	ECOWAS Commission	19-Apr-10
4	Finalization of the methodology sheets and the development of calculation sheets for the selected indicators	UNSD	31-May-10
5	Development of harmonized questionnaires for data collection (based on the methodology sheets and calculation sheets)	ECOWAS Commission	30-Jun-10
6	Translation of the methodology sheets, calculation sheets, and questionnaires for the selected indicators	ECOWAS Commission	31-Jul-10
7	Dispatch of methodology sheets, calculation sheets and questionnaires to Member States for data collection (English and French)	ECOWAS Commission	02-Aug-10
8	Return of completed questionnaires to the ECOWAS Commission	Member States	30-Sep-10

9	Validation and analysis of the data received from the Member States for the core set of indicators	ECOWAS Consultants	31-Oct-10
10	Development of the methodology sheets for the non-core indicators	UNSD	30-Sep-10
11	Translation of the methodology sheets for the non-core indicators	ECOWAS Commission	31-Oct-10
12	Dispatch of the analysis and the non-core methodology sheets to Member States for review (English and French)	ECOWAS Commission	01-Nov-10
13	Meeting of the Regional Technical Committee on Environment Statistics	ECOWAS Commission/ UNSD/UNEP/ECOWAS Consultants	6-10 Dec 2010
14	Drafting of the Compendium of Environment Statistics for the ECOWAS Region	ECOWAS Commission	31-Jan-11

37. A detailed roadmap for the implementation of the Framework should also be developed and discussed at the first meeting of the Regional Technical Committee.

VI. ANY OTHER BUSINESS

38. No other business was discussed.

VII. ADOPTION OF REPORT

39. The report was adopted after amendment.

VII. CLOSING SESSION

40. In his closing remarks, the Chairman expressed appreciation to all the participants for the efforts and the thoroughness with which the deliberations were conducted and wished them a safe journey to their respective destinations.

DONE AT ACCRA, THIS 31st DAY OF MARCH 2010

Dr. Sani Usman Dawaki
CHAIRMAN

FOR THE WORKSHOP

VOTE OF THANKS

The participants at the Workshop on Environment Statistics held in Accra, from 29 to 31 March 2010, wish to express their sincere appreciation to His Excellency, Professor John Evans Atta Mills, President, of the Republic of Ghana, and to the Government and people of Ghana, for the warm hospitality extended to them and for the excellent facilities made available to them to ensure the success of their deliberations.

DONE AT ACCRA, THIS 31st DAY OF MARCH, 2010

THE WORKSHOP

Annex I

LIST OF PARTICIPANTS

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Work Schedule

Monday, 29 March

8:30-9:00   Registration

9:00-9:45	**Opening session**

9:00-9:15	- Welcome address (ECOWAS)
9:15-9:30	- UNSD
9:30-9:45	- Election of officers Adoption of agenda and work schedule

9:45-10:15   *Coffee Break*

10:15-12:30	**Session 1: Regional and international developments in environmental statistics and indicators**

10:15-10:45	- Introduction to the ECOWAS Regional Environment Statistics Programme (ECOWAS)
10:45-11:15	- Recent developments in international environment statistics: Revision of the UN FDES; and UNSD data collection and dissemination (UNSD)
11:15-12:30	- Outcomes of the environment statistics missions to selected countries (ECOWAS consultants)

12:30-2:00   *Lunch*

2:00-5:30	**Session 2: Review of methodology sheets for Land, Agriculture, Forests and Biodiversity**

2:00-2:30	- Background of ECOWAS indicators and process for working groups; and Overview of methodology sheets (UNSD)
2:30-4:00	- Working group session on the structure, contents and applicability of the methodology sheets

4:00-4:30   *Coffee Break*

4:30-5:30	- Working group session (continued)

Tuesday, 30 March

9:00-10:00	**Session 2: Review of methodology sheets for Land, Agriculture, Forests and Biodiversity (continued)**

    9:00-9:30   -   Presentation of working groups to plenary session
    9:30-10:00   -   Discussion

10:00-10:30   *Coffee Break*

10:30-12:30	**Session 3: Review of methodology sheets for Freshwater, Coastal and Marine Resources, and Natural Disasters**

    10:30-10:45   -   Overview of methodology sheets (UNSD)
    10:45-12:30   -   Working group session on the structure, contents and applicability of the methodology sheets

12:30-2:00   *Lunch*

2:00-5:00	**Session 3: Review of methodology sheets for Freshwater, Coastal and Marine Resources, and Natural Disasters (continued)**

    2:00-3:30   -   Working group session (continued)

3:30-4:00   *Coffee Break*

    4:00-4:30   -   Presentation of working groups to plenary session
    4:30-5:00   -   Discussion

Wednesday, 31 March

8:30-1:00	**Session 4: Review of methodology sheets for Air, Energy, Health and Environment, and Waste**

    8:30-8:45   - Overview of methodology sheets (UNSD)

    8:45-10:30   - Working group session on the structure, contents and applicability of the methodology sheets

10:30-11:00   *Coffee Break*

    11:00-12:00   - Working group session (continued)

    12:00-12:30   - Presentation of working groups to plenary session

    12:30-1:00   - Discussion

1:00-2:30   *Lunch*

2:30-4:00	**Session 5: ECOWAS Regional Environment Statistics Programme**

    2:30-3:00   - Finalization of the selected set of methodology sheets discussed at the Workshop, and the further development of the remaining methodology sheets (UNSD)

    3:00-4:00   - Plans for the implementation of the ECOWAS Environment Statistics Programme, including the planned ECOWAS regional compendium on environment statistics (ECOWAS)

4:00-4:30   *Coffee Break*

4:30-5:30	**Closing session: adoption of conclusions and recommendations (ECOWAS/UNSD)**

Annex III

Agreed Set of ECOWAS Regional Indicators
Workshop on Environment Statistics (Accra, 29-31 March 2010)
revised on 9 July 2010

MDG - Millennium Development Goals

CSD - Commission on Sustainable Development

Code
1: Core indicator
2: Indicator needs further clarification
3: Indicator deleted

Natural Disasters and Environmental Performance

Priority Area	Indicator	Code
Exposure to natural disasters	Percentage of population living in hazard prone areas [CSD]	1
	Frequency of extreme events	2
Impacts of natural disasters	Human and economic loss due to natural disasters [CSD]	1
Early warning systems	Proportion of population having access to early warning systems	2
Adaptive capacity	Public expenditure on disaster reduction and related measures as a percentage of Gross National Income (GNI)	2

Air

Priority Area	Indicator	Code
Air quality	Ambient concentrations of air pollutants in urban areas [CSD]	2
Climate change	Carbon dioxide emissions, total, per capita and per $1 GDP (PPP) [MDG] (+CSD)	1
	Emissions of greenhouse gases [CSD]	1
	Frequency of extreme events	3
	Deviation of annual average precipitation from long-term annual average	1
	Deviation of annual average temperature from long-term annual average	1
Ozone layer depletion	Consumption of ozone-depleting substances [CSD] (+MDG)	1

Land

Priority Area	Indicator	Code
Land tenure/ownership	Proportion of population with secure land tenure	2
	Proportion of land area by ownership categories	2
Land quality (degradation)	Land affected by desertification [CSD]	1
	Land degradation [CSD]	2
	Proportion of land area affected by contamination	2
Land use change	Land use change [CSD]	1

Agriculture

Priority Area	Indicator	Code
Agriculture	Agricultural Production Index	3
Irrigation	Proportion of agricultural land area under irrigation	1
Use of pesticides / fertilizers	Use of agricultural pesticides per unit of agricultural land [CSD]	1
	Number of reported cases of pesticide contamination	2
	Use of fertilizers per unit of agricultural land	1
Rangeland carrying capacity	Livestock density (number of livestock per unit of pasture land)	1

Forests and woodlands

Priority Area	Indicator	Code
Forest change	Proportion of land area covered by forest [CSD] (+MDG)	1
	Proportion of forests damaged	2
	Area of forest under sustainable forest management [CSD]	2
	Rate of afforestation/ deforestation	1
Forest resources management	Proportion of exports of forestry products	1
Established protected forests areas	Proportion of forest protected area to the total forest area [CSD 1996]	1

Coastal and Marine Resources

Priority Area	Indicator	Code
Urbanization of coastal zones	Percentage of total population living in coastal areas [CSD]	1
Coastal and marine pollution	Proportion of coastal areas affected by pollution	2
	Coastal water quality	2
	Number and area of marine aquaculture sites	2
Coastal erosion / sedimentation	Coastal area lost to erosion	1
Marine biodiversity	Number of marine species threatened with extinction	1
	Change in area under mangrove forest	2
	Proportion of marine area protected [CSD]	1
	Total & per capita marine fish catch	1
	Total & per capita marine aquaculture production	2
	Proportion of fish stocks within safe biological limits [CSD] (+MDG)	2
Climate change - sea level rise	Annual sea level change	2
Poverty eradication	Proportion of population making a living from marine resources	2

Fresh water

Priority Area	Indicator	Code
Water accessibility	Proportion of population using an improved drinking water source [CSD] (+MDG)	1
	Proportion of population served by the water supply industry	1
Water availability	Proportion of total water resources used [CSD] (+MDG)	2
	Proportion of population using harvested rainwater	2
	Water dependency	2
	Total annual renewable water resources per capita	1
	Change in surface water discharge	2
	Annual groundwater recharge	2
	Urban water supply from dams	2
	Proportion of population using water from boreholes for domestic use in rural/urban settings	2
Water quality (pollution)	Emissions of organic water pollutants (BOD) total/per worker	2
	Biochemical oxygen demand in water bodies [CSD]	2
	Chemical oxygen demand in water bodies	2
	Average annual concentration of total phosphorus in lakes and rivers	2
	Average annual concentration of total dissolved solids/sediment flux in lakes and rivers	2
	Average annual concentration of total nitrogen in lakes and rivers	2
	Average annual concentration of dissolved oxygen in lakes and rivers	2
	Presence of faecal coliforms in freshwater [CSD]	2
Water use	Total annual water use per capita	2
	Proportion of freshwater used by economic activity	2
	Water use intensity by economic activity [CSD]	2
Water management issues	Wastewater treatment [CSD]	1
	Proportion of population connected to wastewater collecting system	1
	Volume of treated wastewater for domestic use	2
	Volume of wastewater disposed into wetlands	2

Biodiversity

Priority Area	Indicator	Code
Ecosystem	Proportion of terrestrial area protected, total and by ecological region [CSD]	1
Wetlands	Number of wetland species threatened with extinction	2
	Change in the area of wetlands	2
	Number and area of Ramsar sites	1
	Proportion of rehabilitated area of wetlands	2
Species	Threatened plant species as a percentage of total known plant species	1
	Threatened animal species as percentage of total known animal species	1
	Proportion of species threatened with extinction [MDG]	2
	Abundance of selected key species [CSD]	2
Invasive species	Abundance of invasive alien species [CSD]	2

Energy

Priority Area	Indicator	Code
Energy production	Primary energy production total, per capita and by source	1
	Electricity production total, per capita and by source	1
Energy consumption	Share of renewable sources in total energy use [CSD]	2
	Energy dependency	2
	Intensity of energy use, total and by economic activity [CSD]	2
	Annual energy consumption, total and by main user category [CSD]	2
	Energy consumption total, per capita and per unit of GDP	1
	Traditional fuel use as a percentage of total energy consumption	1
Access to electricity	Proportion of households with access to electricity	1

Waste

Priority Area	Indicator	Code
Waste generation and management	Amount of waste generated [CSD]	1
	Waste treatment and disposal [CSD]	2
	Municipal waste collected per capita	1
	Composition of municipal waste by main material groups	2
	Proportion of population served by municipal waste collection	1
	Amount of hazardous waste generated [CSD]	1
	Hazardous waste imported / exported	2
	Number and capacity of facilities for the disposal of hazardous waste	2

Health and Environment

Priority Area	Indicator	Code
Mortality	Under five mortality rate [CSD] (+MDG)	3
	Maternal mortality ratio per 100,000 live births [MDG]	3
	Adult mortality rate	3
Health care	Percent of population with access to primary health care facilities [CSD]	3
	Public expenditure on health as a percentage of Gross National Income (GNI)	3
Access to safe water and sanitation	Proportion of population using an improved sanitation facility [CSD] (+MDG)	1
	Proportion of population using an improved drinking water source [CSD] (+MDG)	3
Informal settlements	Proportion of urban population living in slums [CSD] (+MDG)	1
	Informal settlements, area and percentage of population	2
Diseases related to water	Incidence of water-related diseases	1
Diseases related to air pollution	Incidence of air pollution related diseases	1

Governance - new section

Priority Area	Indicator	Code
International and regional legal instruments and mechanisms	Ratification of international and regional environmental legislation	2
National legal instruments and mechanisms	Developed national & river basin Integrated Water Resources Management plans	2

Proposed Indicators for Future Work

Biodiversity

Priority Area	Indicator
Transboundary ecosystems (marine and terrestrial)	None identified

Expenditures

Priority Area	Indicator
Public expenditures in various sectors	Public expenditures in various sectors as a percentage of GNI
Cost of waste management	

Section

Priority Area	Indicator
Employment in environmental services/industries	Number of jobs created by the sector
	Percentage of the active population working in the sector