

Session 1: International Requirements for Environmental Statistics and Indicators

United Nations Statistics Division

Workshop on Environment Statistics
(Addis Ababa, 16-20 July 2007)

Global versus International

- Global statistics: give a picture of the world as a whole (e.g. global environmental issues)
- International statistics: provide comparable country statistics that can be aggregated to regional/global level (e.g. contribution to pressures that cause the global concern)

Main types of international requirements

- Follow up on global conferences
- Report to international conventions
- Thematic/topical international data collections
- Comprehensive international environment statistics data collections

Follow up on global conferences

- Millennium Development Goals Indicators
- Indicators of Sustainable Development
- Other Development Indicator sets

Objective: to monitor progress based on an agreed set of indicators

Level: global (MDGs)
 national (ISD)

Reporting to International Conventions

Examples:

United Nations Framework Convention on Climate Change

Basel Convention on the Exports and Imports of Hazardous Waste

Objective: to monitor compliance with regulations based on a prescribed set of data

Level: national (parties)

Thematic/topical international data collections

Objective: provide comparable country data based on standard questionnaires and methodology. The aim is not directly environmental but the data are used in environment statistics.

Examples:

- **UNSD**
 - Energy statistics, industrial commodity statistics, trade statistics, national accounts, population and housing statistics etc
- **FAO**
 - AQUASTAT (water)
 - FAOSTAT (agriculture, nutrition, fisheries, forestry, food aid, land use and population)
 - FISHSTAT (fisheries)
 - FORIS (forests)
 - GLIPHA (Global Livestock Production and Health Atlas)
- **UNEP**
 - World Conservation Monitoring Center (protected areas)
 - GEMS-Water (water quality)

Level: national

Comprehensive international environment statistics data collections

- UNSD/UNEP Questionnaire on environment statistics
- OECD/Eurostat Questionnaire on the state of the environment

Objective: to provide comparable country statistics on environmental issues based on standard questionnaires and methodology

Level: national

UNSD UNEP Environment Statistics Questionnaire

- 2004 Questionnaire included sections on:
 - Air
 - Land
 - Waste
 - Water
- 2006 Questionnaire included sections on:
 - Waste
 - Water

2004 Questionnaires: <http://unstats.un.org/unsd/environment/questionnaire2004.htm>

2006 Questionnaires: <http://unstats.un.org/unsd/environment/questionnaire2006.htm>

UNSD 2006 Questionnaire Content

- Waste
 - R1 Generation of waste by industrial sector
 - R2 Management of municipal waste
 - R3 Composition of municipal waste
 - R4 Management of hazardous waste
 - R5 Waste treatment and disposal facilities
 - R6 Selected waste variables at city level
 - R7 Supplementary information sheet

UNSD 2006 Questionnaire Content

- Water
 - W1 Renewable freshwater resources
 - W2 Water use balance
 - W3 Freshwater abstraction by sector
 - W4 Water supply industry (ISIC41)
 - W5 Total water use by sector
 - W6 Wastewater treatment facilities
 - W7 Population connected to wastewater treatment
 - W8 Supplementary information sheet

UNSD 2004 Questionnaire Content

- **Air**

- Emissions

- A1 Emissions of Sulfur Dioxide (SO₂)
 - A2 Emissions of Nitrogen Oxides (NO_x)
 - A3 Emissions of Non-Methane Volatile Organic Compounds (NM-VOCs)
 - A4 Emissions of Carbon Dioxide (CO₂)
 - A5 Emissions of Methane (CH₄)
 - A6 Emissions of Nitrous Oxide (N₂O)
 - A7 Emissions of Lead (Pb)
 - A8 Supplementary Information Sheet for Emissions Data

- Ambient air quality

- A9 Annual Mean Concentrations of Sulfur Dioxide (SO₂) in Ambient Air
 - A10 Annual Mean Concentrations of Nitrogen Dioxide (NO₂) in Ambient Air
 - A11 Annual Mean Concentrations of Suspended Particulate Matter (<10µm) (SPM₁₀) in Ambient Air
 - A12 Supplementary Information Sheet for Ambient Air Quality Data

UNSD 2004 Questionnaire Content

- Land
 - L1 Land Use
 - L2 Area Affected by Soil Erosion
 - L3 Area Affected by Salinization
 - L4 Area Affected by Desertification
 - L5 Supplementary Information Sheet on the Land Section

UNSD Data Dissemination

- UNSD Environment Statistics are available on the web as:
 - Environmental Indicators
 - Water
 - Air Pollution
 - Climate Change
 - Waste
 - Land Use
 - Country files
 - Access restricted to countries and international organizations that participate in the data collection

UNSD Main Environmental Indicators

- **Water**
 - Water resources
 - Public water supply
 - Waste water
- **Air Pollution**
 - SO₂ emissions
 - NO_x emissions
- **Climate Change**
 - Greenhouse gas emissions
 - CO₂ emissions
 - CH₄ and N₂O emissions
- **Waste**
 - Municipal waste collection
 - Municipal waste treatment
 - Hazardous waste
- **Land Use**
 - Area of country
 - Forest area
 - Agricultural land

Duplication of requests and related problems

- International organizations may ask for the same or similar data/indicators, creating unnecessary burden on countries;
- Equally, more than one national organization may collect (and provide to the international organizations) the same or similar data in parallel, ending up with diverging figures for the same country;
- International organizations use different concepts, definitions and classifications that end up with apparently duplicate data requests;
- Deviations from the international definitions motivate organizations to manipulate country data to ensure comparability and as a result, there will be differences between data from international and national sources.

Consistency Between Questionnaires

- **UNSD/UNEP questionnaire is consistent with OECD/Eurostat questionnaire**
 - The UNSD questionnaire asks for less detailed information than the OECD/Eurostat questionnaire
 - Water questionnaire is consistent with SEEA water accounts
- **Any regional questionnaires should be consistent with UNSD/UNEP and OECD/Eurostat questionnaires**

Coordination

- Efforts to avoid duplication by using data available at international sources instead of asking it from the countries (however, frequently countries revise data coming from international sources)
- Sometimes duplication is apparent and unavoidable (e.g. FAO land use statistics versus UNSD land use questionnaire)

International Coordination of Environment Statistics

UNSD is actively promoting coordination between international and regional organizations through the Inter-secretariat Working Group on Environment Statistics.

The main objective of the IWG-ENV is the harmonization of international data and their collection. It focuses on:

- development and harmonization of
 - methods
 - concepts, definitions and classifications
- coordination of data collection
- coordination of training.

Members: UNSD, UN-ECE, UNEP, FAO, OECD, Eurostat