

Environment statistics

Environment statistics describe the state and trends of the environment, covering the media of the natural environment (air and climate, water, land and soil), the biota within the media, and human settlements. Environment statistics are integrative in nature, measuring human activities and natural events that affect the environment, the impacts of these activities and events, social responses to environmental impacts, and the quality and availability of natural resources.

Background

The United Nations Conference on the Human Environment (Stockholm, June 1972) was the first global conference to signal that environmental concerns had increasingly become the subject of mainstream socioeconomic policies. The Conference gave the impetus, both at the national and international levels, to the development of environment statistics as a new field of official statistics. The first initiatives pertaining to the development of environment statistics at the international level stemmed from two Economic Commission for Europe (ECE) meetings in 1973. The need for developing international recommendations or guidelines for a system of environment statistics as a long-term objective was recognized.

The second major global conference in the environmental field was the United Nations Conference on Environment and Development (UNCED) (Rio de Janeiro, June 1992) where a groundbreaking consensus was achieved that strategies of sustainable development should integrate environmental issues, supported by environmental and socioeconomic data, into development plans and policies. Specific recommendations by UNCED's Agenda 21 to the United Nations Statistical Division referred to the development and implementation of integrated environmental and economic accounting and indicators of sustainable development.

Ten years later the World Summit on Sustainable Development (WSSD) (Johannesburg, August 2002) put the emphasis on reaching specific targets in specific time frames and monitoring progress, thus reaffirming the need for bridging the gap in mechanisms and instruments such as data, statistics, indicators and integrated information systems, that measure and track progress.

Given the global environmental concerns expressed at the United Nations Conference on the Human Environment and the outcomes of the two ECE meetings mentioned above, a draft programme of international work in environment

statistics was first submitted by the United Nations Statistical Office to the Statistical Commission at its eighteenth session in 1974.

Methodological Work

Various national and international efforts were made during the 1970s toward developing a system or framework for environment statistics. These efforts were surveyed by the United Nations Statistics Division and showed that countries differed widely in developing and organizing environment statistics. Four basic approaches emerged which were the media approach, the stress-response approach, the resource accounting approach and the ecological approach. The results were published in the *Survey of Environment Statistics: Frameworks, Approaches and Statistical Publications* in 1982.

Based on national and international work as described in the Survey, UNSD developed a *Framework for the Development of Environment Statistics (FDES)*, published in 1984, which presented a systematic approach to the organization and development of environment statistics. The FDES is a combination of the media and stress-response approaches. It was accompanied by two reports which described detailed sets of statistical variables within the FDES entitled *Concepts and Methods of Environment Statistics: Human Settlements Statistics* published in 1988 and *Concepts and Methods of Environment Statistics: Statistics of the Natural Environment* published in 1991. The *Glossary of Environment Statistics*, a quick reference tool for terms and definitions relevant to environmental data production and use, was published by UNSD in 1997. UNSD is currently working on the revision of the Glossary. Methodological work has recently focused on the development of practical data compilation manuals in selected environmental areas.

While work at UNSD concentrated on conceptual frameworks, the ECE Statistics Division pioneered work on standard statistical classifications in different areas of environment statistics and their implementation in pilot data

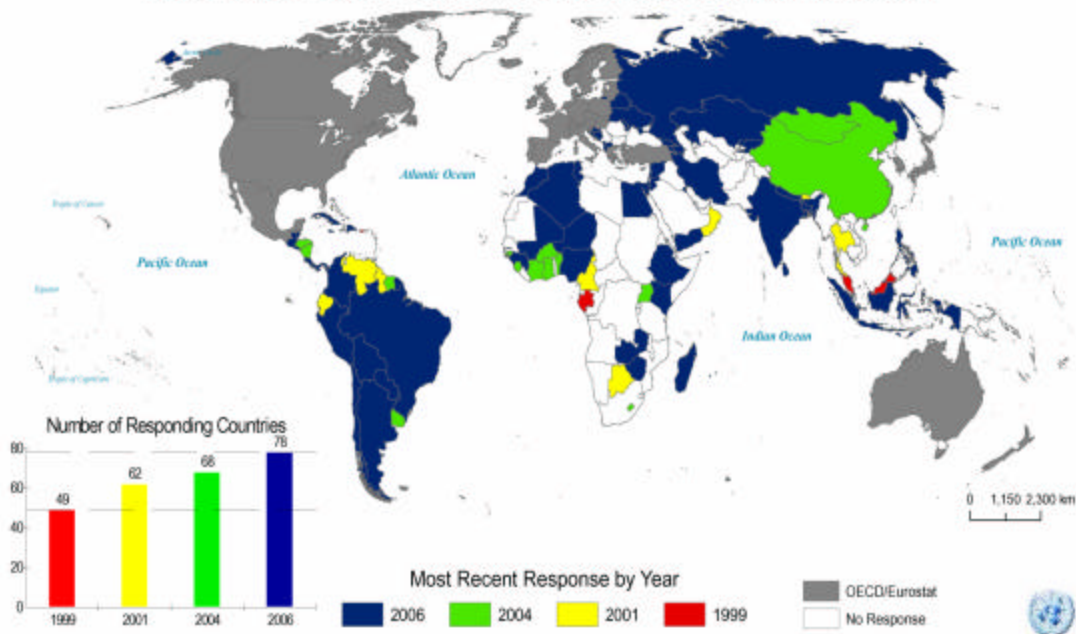


collections for the ECE region. Classifications were developed for land use, water use, ambient air quality, surface freshwater and marine water quality, wastes, fauna, flora and habitat statistics as well as for environmental protection activities. Environment statistics programmes also started at OECD and later at Eurostat, focusing on data collection and indicator development.

Data Collection and Dissemination

The Statistical Commission in 1995 approved the proposal by the Intergovernmental Working Group on the Advancement of Environment Statistics that UNSD carry out a global compilation of environmental indicators from national statistical services, based on a core set of indicators. UNSD embarked on the collection of environment statistics from national statistical offices in 1999, covering all non-OECD countries. The data collection has since been established on a biennial basis as part of UNSD's data collection programme. UNEP joined the data collection in 2004.

Coverage of UNSD Environment Statistics Data Collection



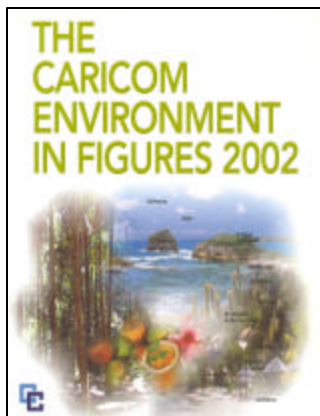
The UNSD/UNEP Questionnaire on Environment Statistics covers the areas of water, air, land and waste. Following a thorough validation process, selected data sets are published on the Main Indicators pages of the UNSD Environment Statistics website. The results from the data collection on environment statistics, together with data from OECD and Eurostat, are available on the United Nations Statistics Division's website at: <http://unstats.un.org/unsd/environment/q2004indicators.htm>.

Response rates vary strongly by region and the best response rates are from Latin America and the Caribbean and Eastern Europe. Africa, Western Asia, Asia and the Pacific show low response rates.

While the number of countries responding to the Questionnaire has increased by almost 60 percent since 1999, many countries still have only scattered data and are able to reply only on a limited number of variables. Continuous efforts in training and capacity building are needed to improve the situation in countries.

Technical Cooperation

UNSD has organized and/or facilitated several international/regional/sub-regional/national training workshops, meetings and seminars in the field of environmental statistics and indicators. In addition, technical assistance in environment statistics through statistical capacity building projects was provided in the CARICOM, ESCWA and ECOWAS regions.



Within these projects, several activities were undertaken including workshops, inter-country study tours, and direct technical assistance to selected countries. A major output of the CARICOM project was a regional publication entitled *The CARICOM Environment in Figures 2002*. The ESCWA and ECOWAS projects resulted in the publication of detailed assessments of the

situation of environment statistics in the countries of these two regions. As part of the ECOWAS project, a strategic *Framework for Strengthening Capacity in the Development and Institutionalisation of Environment Statistics in the ECOWAS Region* was also developed and was endorsed by the Steering Committee of the UNSD/ECOWAS project.

UNSD is currently developing a long-term training programme to assist countries in establishing environment statistics as part of their official statistics system.

Coordination

The Statistical Commission at its thirty-fourth session empowered UNSD to convene an Intersecretariat Working Group on Environment Statistics (IWG-Env), to coordinate and harmonize the development of standards, methods, data collection and capacity building programmes in environment statistics and thus firmly anchor environment statistics as part of official statistics both at the national and international levels. The permanent members of the IWG-Env are those organisations that have well-established international programmes on environment statistics (current members are UNSD, UN-ECE, UNEP, OECD, Eurostat and FAO). The IWG-Env also works through thematic sub-groups such as the IWG-Env Subgroup on Water Statistics which was established to foster closer collaboration between the parties involved in the collection and compilation of statistics on the quantitative and qualitative aspects of freshwater resources and their use.

Information on the Web

The United Nations Statistics Division's website is <http://unstats.un.org>. Information on environment statistics can be found on its website at <http://unstats.un.org/unsd/environment/default.htm> and the biannual issues of the ENVSTATS newsletter can be found on <http://unstats.un.org/unsd/environment/newsletters.htm>.

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