

Statistical capacity building under the UN Framework for Development of Environment Statistics (UN-FDES)

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Outline

- Background Information of the UN-FDES
 - Emerging Agenda: Climate Change Statistics
- Issues of Developing Environment Statistics
- Capacity Building for Environment Statistics implemented by the Asian Development Bank



Background Information of the UN-FDES



- The United Nations Framework for the Development of Environment Statistics (UN-FDES)
 - Developed in 1984 as a joint project of the United Nations Secretariat and the United Nations Environment Programme (UNEP)
- Objective of the UN-FDES:
 - to assist in the development, coordination and organization of environment statistics at the national and international levels
- Institute in charge of implementation:
 - Environment Statistics Section
United Nations Statistics Division



Structure of the UN-FDES

- Pressure-state-response model
 - Developing a statistical system for measuring human activities that cause stresses on the environment, and measuring actual impacts that have become distinct over time.
 - Pressure: human activities that affect the environment
 - Ex: energy production, land use
 - State: results of human activities
 - Ex: quantity of air pollutant emissions, land area of deforestation
 - Response: Actual impacts to environment, which have become distinct over time and space
 - Ex: air pollution concentration, degree of soil erosion



Background Information of the UN-FDES

Data collection and dissemination



- Data collected in 2004, 2006 and 2008:

- Water

- water resources
- water supply industry
- waste water

- Waste

- Municipal waste collection
- municipal waste treatment
- hazardous waste



- Data collected in 2004:

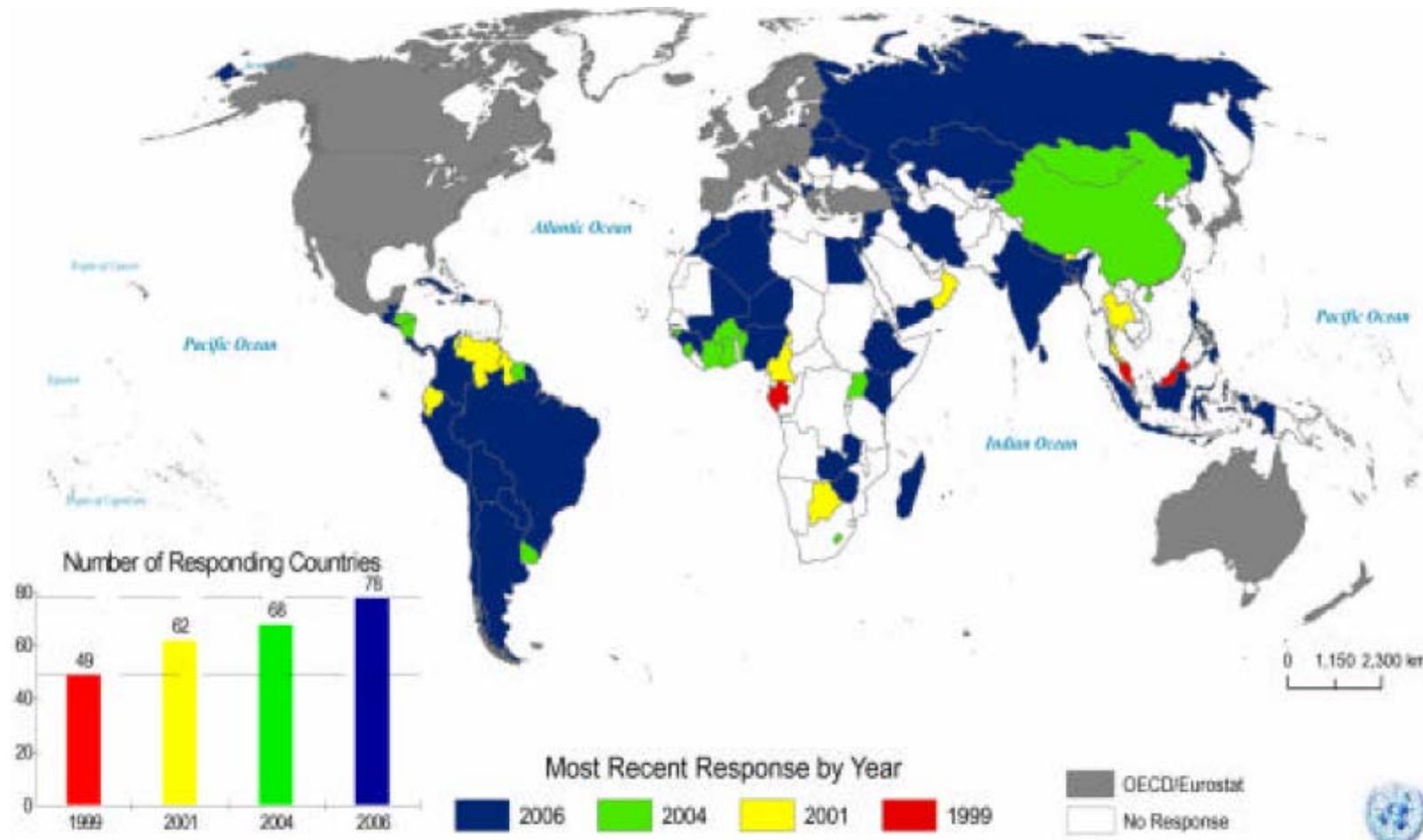
- Air

- SO₂ emissions
- NO_x emissions

- Land

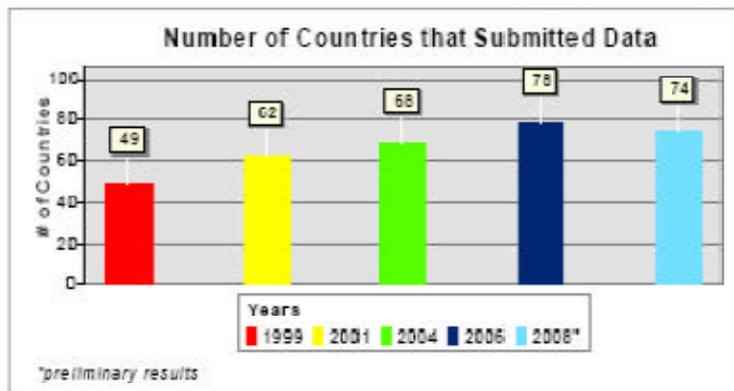
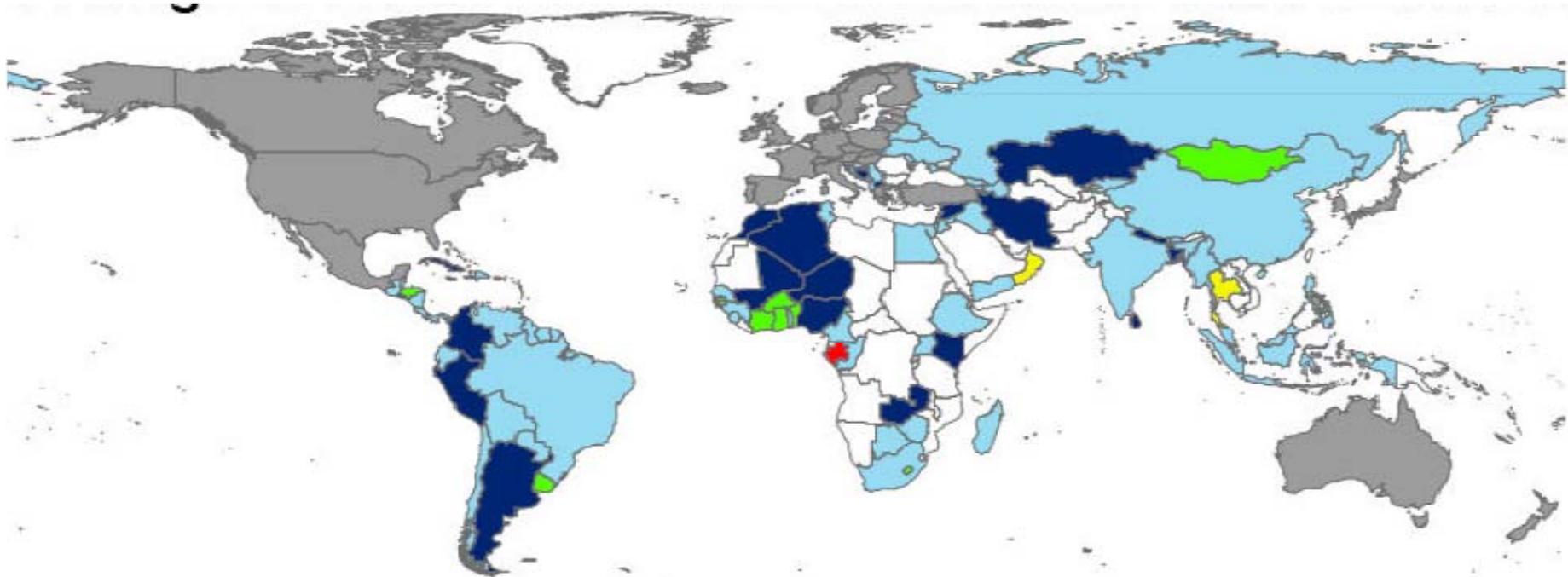
- Total surface areas
- Forest area
- Agricultural land

Coverage of UNSD Environment Statistics Data Collection (as of 2008)

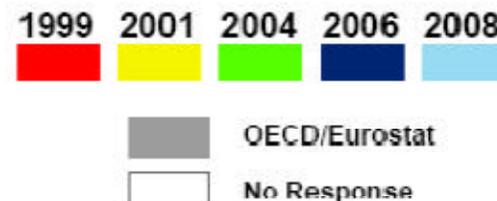


Source: United Nations Statistical Commission, "Environment statistics", Brochure Environment (2007)
<http://millenniumindicators.un.org/unsd/statcom/stacom_archive/brochures/for%20web/Brochure%20-%20Environment.pdf>.

Coverage of UNSD Environment Statistics Data Collection (as of 16 Jan, 2009)



Most Recent Response by Year

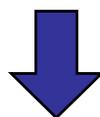


6,750 3,375 0 km

Emerging Agenda: Climate Change Statistics



- In the UN Statistical Commission (UNSC), **Developing a framework and agenda for climate change statistics** emerges as a new and important component of the methodological work of environment statistics.
 - Under the Two international conferences were held for discussing the climate change statistics:
 1. Conference on Climate Change and Official Statistics
 - held in Oslo, Norway (April 2008)
 2. Conference on Climate Change, Development and Official Statistics in the Asia-Pacific Region
 - held in Seoul, Korea (December 2008)



- As a result of these conference, a programme review on climate change and official statistics were submitted to the 40th session of the UNSC.



Emerging Agenda: Climate Change Statistics



- At the 40th UNSC session, a decision on climate change statistics was adopted and brought to the attention of the UN Economic and Social Council.
- Abstract of the decision:
 - 40/101: Programme review: climate change and official statistics
 - “Recognized that climate change is an important global issue with social, economic and environmental impacts and that **official statistics have an important role to contribute to closing data gaps**”,
 - “Noted the interest of some countries to develop **a framework of environmental statistics** at the national level to facilitate the understanding of the phenomenon of environmental and climate change”,
 - Stressed **the importance of training and capacity-building**, in particular for the developing countries, and expressed the need for appropriate training material and the development of a knowledge base in this new area of official statistics”.

– This decision may enhance to provide Activity Data for GHG inventories.



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Issues of Developing Environment Statistics



- Environment statistics is still in an early stage of development in many countries, and data are often sparse.
- Not all countries submit requested data to the UNSD on biennial basis.
- One of the critical issues is institutional arrangement for collecting data, which requires comprehensive cooperation and collaboration among relevant governmental bodies.



Capacity Building for Environment Statistics



- The Asian Development Bank (ADB) conducts statistical capacity building activities for the Asian region in accordance with the UN-FDES.
- The ADB implemented two capacity building projects for developing country-specific FDES.
 - Regional Technical Assistance (RETA) projects.
 - 1st phase: RETA 5555
 - 2nd phase: RETA 5860
- Division in charge of the capacity building:
 - Development Indicators and Policy Research Division
Economics and Research Department
Asian Development Bank



RETAs for Developing Environment Statistics



- Name of the Project:
 - Regional Technical Assistance (RETA) for Institutional Strengthening and Collection of Environment Statistics
- Participating countries:
 - RETA 5555 (First Phase: 1995-1998):
 - Bangladesh, **India**, **Indonesia**, **Malaysia**, Nepal, Pakistan, **Philippines**, Samoa, Sri Lanka, Vanuatu, and **Viet Nam**.
 - RETA 5860 (Second Phase: 2000-2003?):
 - Kazakhstan, Kyrgyz Republic, **Mongolia**, Tajikistan and Uzbekistan.

(Red letters show WGIA participating countries.)



RETA 5555

- Objectives of RETA 5555:
 - To establish institutional linkages and strengthen institutional capacity in environment statistics,
 - To formulate each participating countries' FDES, and
 - To prepare each participating countries' compendium of environment statistics based on the country-specific FDES by organizing environment statistics data that are already available from existing sources.



Participating Agencies in RETA 5555



– India

- Central Statistical Organization
- Ministry of Environment and Forests

– Indonesia

- Central Bureau of Statistics
- Centre for Information Development and Environmental Compliance

– Malaysia

- Department of Statistics, Environment Statistics Section

– Philippines

- National Statistical Coordination Board
- Department of Environment and Natural Resources

– Viet Nam

- General Statistics Office



Activities implemented under RETA 5555 (1)



- Four workshops:
 - Inception workshop (Manila, September 1995)
 - Reviewed the status of environment statistics,
 - Identified key issues,
 - Made an action plan to develop country-specific FDES.
 - Sub-regional workshops
 - 1st: in Nepal, 2nd: Indonesia
 - To review the progress of work in the preparation of FDES and CES
 - Concluding workshop (Manila, May 1998)
 - Reported each participating countries' achievements,
 - Assessed their performance,
 - Shared experiences in the process of developing environment statistics.



Activities implemented under RETA 5555 (2)



- Training course on environment statistics
 - Conducted in India,
 - 23 participants from eight participating countries joined this course.
- Advisory assistance
 - Provided by fielding technical consultants to requesting countries for developing their country-specific FDES.
- Financial assistance
 - Provided for partly covering:
 - cost of national workshops,
 - local consultancy services and
 - Miscellaneous costs related to FDES and CES preparation.



Outputs from RETA 5555

- Publication of the final report of RETA 5555
 - Title: *Development of Environment Statistics in Developing Asian and Pacific Countries* (ADB: 1999)
 - http://www.adb.org/Documents/Books/dev_env_statistics/default.asp?p=statpub
- Country tables of environment statistics:
 - <http://www.adb.org/Statistics/Environment/Ctry.asp>
 - The ADB mentioned that the tables in this website may be updated regularly based on the publications of participating countries, which come out every two to three years, and available data from other sources.



An Example of Outputs from RETA 5555: Part of Nepal's Country Table

ADB	RETA 5555 - Environment Statistics	NEPAL
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Location	Subject	Year	Value	Source	Note
National	Emission of nitrogen oxides (Metric tons)	1990	1000	7	nitrous oxide
	Emission of methane (Metric tons)	1990	996000	7	
	Emission of carbon dioxide (Metric tons)	1990	996000	7	
		1995	1500000	5	
	Annual withdrawal of surface water (Cubic kilometer)	1987	2.68	7	
	Geographical area (Hectares)	1986	14855042	2	
		1992	13680000	4	
	Cultivable land (Hectares)	1981-82	2316700	2	
		1991-92	2352800	2	
	Barren and uncultivable land (Hectares)	1981-82	104500	2	Total non-agricultural land
		1991-92	204500	2	Total non-agricultural land
	Pasture and grazing land (Hectares)	1981-82	42500	2	Permanent pasture
		1991-92	36900	2	Permanent pasture
		1994	12	5	Permanent pasture
	Wetlands (Square km)	1989	400	4	
	Irrigated agricultural land (Hectares)	1997	768000	2	
	Fertiliser consumption (Metric tons)	1991-92	84391	2	
		1994-95	90263	2	
		1995-96	70154	2	
	Annual energy use (Giga joules)	1990-91	248190000	2	
	1993-94	277768000	2		
	1994-95	285600000	2		
Annual power generation (Tonnes of Oil Equivalent)	1994-95	6205800	2		
	1995-96	6380200	2		

Source: ADB, Country Table: Nepal <<http://www.adb.org/Documents/EDRC/Statistics/Environment/nepal.pdf>>.



Summary

- Developing environment statistics has been promoted under the UN-FDES since 1984 for quantifying environmental degradation.
- Basic data for the environment statistics are similar to Activity Data (AD) for GHG inventories, so we can utilize the basic data as AD for GHG inventories.
- Climate change statistics emerges as a new field of the UN-FDES, which will help us to obtain the AD more sufficiently.
- Although the development of the UN-FDES has been promoted since 1984, the status of environment statistics have been still sparse and necessary for improvement.
- Capacity building activities implemented by the ADB support the development of environment statistics in the Asian region, which will also be helpful for developing data collection systems for GHG inventories.



