

Session 2: Frameworks of Environmental Statistics and Indicators

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Frameworks for statistics and indicators

- Framework for the Development of Environment Statistics (UNSD)
- Pressure-state-response framework for environmental indicators (OECD)
- Driving force-state-response framework (CSD)
- Theme indicator framework for indicators of sustainable development (CSD)
- Driving force-pressure-state-impactresponse framework (Eurostat and EEA)



FRAMEWORK FOR THE DEVELOPMENT OF ENVIRONMENT STATISTICS

Components of the environment		Information categories				
		Social and economic activities, natural events	Environmental impacts of activities/events	Responses to environmental impacts	Inventories, stocks and background conditions	
1. 2. 3. 4. (a) (b) 5. (a) (b) 6.	Flora Fauna Atmosphere Water Fresh water Marine water Land/soil Surface Sub-surface Human settlements					

Pressure-State-Response Framework

Issues	PRESSURE	STATE	RESPONSE
Climate change			
Ozone layer depletion			
Eutrophication			
Acidification			
Toxic contamination			
Urban environmental quality			
Biodiversity			
Landscapes			
Waste			
Water resources			
Forest resources			
Fish resources			
Soil degradation (desertification & erosion)			
General indicators			



Driving force-State-Response Framework

CHAPTERS OF AGENDA 21	DRIVING FORCE INDICATORS	STATE INDICATORS	RESPONSE INDICATORS
CATEGORY: SOCIAL			
CATEGORY: ECONOMIC			
CATEGORY: ENVIRONMENTAL			
CATEGORY: INSTITUTIONAL			



CSD Thematic Framework

Dimension	Theme	Sub-Theme	Indicators
Social			
Environmental			
Economic			
Institutional			



Driving force-Pressure-State-Impact-Response Framework

Driving forces

Basic sectoral trends, e.g. in energy generation, transport, industry, agriculture, tourism

Pressure

Human activities directly affecting the environment e.g. carbon dioxide or methane emissions

Response

... of society to solve the problem, e.g. research on solar energy, energy taxes



State

Observable changes of the environment, e.g. rising global temperatures



Impact

Effects of a changed environment, e.g. decrease in agricultural production, hurricanes, floods



Major differences between the frameworks

- FDES/PSR four vs. three information categories
- CSD theme indicator framework no longer has a two dimensional approach as in the DSR framework
- FDES/DPSIR four vs. five information categories