



Session 2: Frameworks for Environmental Statistics and for the Development of Indicators

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- **Frameworks for environmental statistics and indicators**
- **Global indicator sets: MDG and CSD**



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)**
- **Thematic/sub-thematic framework for indicators of sustainable development (CSD)**
- **Driving force-pressure-state-impact-response framework (Eurostat and EEA)**



Framework for the Development of Environment Statistics (UNSD)

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
<ol style="list-style-type: none">1. Flora2. Fauna3. Atmosphere4. Water<ol style="list-style-type: none">(a) Fresh water(b) Marine water5. Land/soil<ol style="list-style-type: none">(a) Surface(b) Sub-surface6. Human settlements				

Pressure-State-Response Framework (OECD)



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 (CSD) - 1st set

CHAPTERS OF AGENDA 21	DRIVING FORCE INDICATORS	STATE INDICATORS	RESPONSE INDICATORS
<i>CATEGORY: SOCIAL</i>			
<i>CATEGORY: ECONOMIC</i>			
<i>CATEGORY: ENVIRONMENTAL</i>			
<i>CATEGORY: INSTITUTIONAL</i>			



Thematic/Sub-thematic Framework (CSD) - 2nd set

Dimension	Theme	Sub-Theme	Indicators
Social			
Environmental			
Economic			
Institutional			

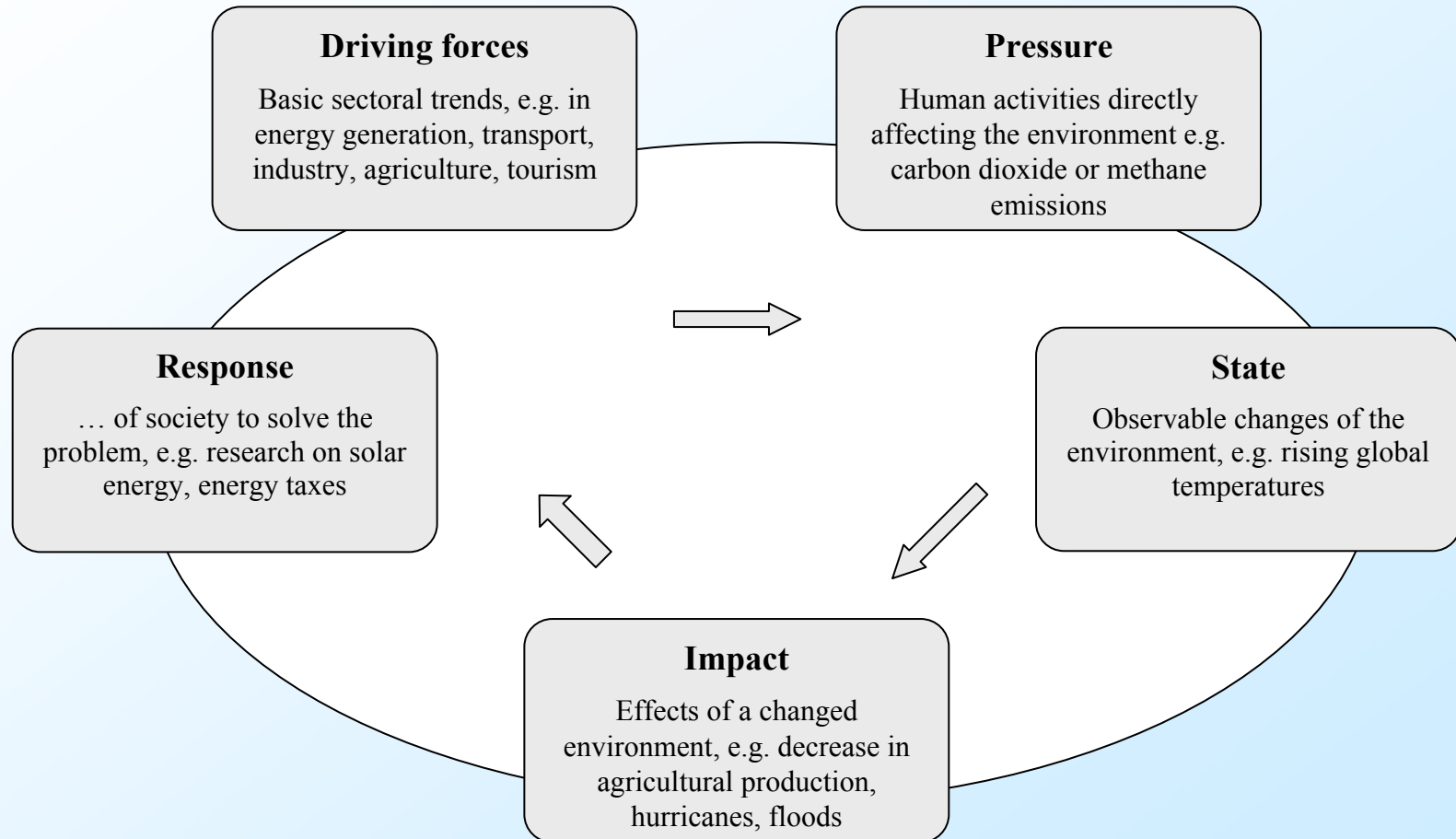


Thematic/Sub-thematic Framework (CSD) - 3rd set

Theme	Sub-theme	Core indicator	Other indicator



Driving force-Pressure-State-Impact-Response Framework (Eurostat/EEA)





Major differences between the frameworks

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



Global indicator sets

- The two most politically important indicator sets at the global level are the MDG and CSD indicators.
 - MDG - 8 goals, 21 targets, 60 indicators
 - CSD - 14 themes, 44 sub-themes, 50 core indicators which are part of a larger set of 96 indicators.
- There are various other international and regional indicator sets that have been developed.

MDG: <http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm>

CSD: <http://www.un.org/esa/sustdev/natlinfo/indicators/factsheet.pdf> (list)

<http://www.un.org/esa/sustdev/natlinfo/indicators/guidelines.pdf>

http://www.un.org/esa/sustdev/natlinfo/indicators/methodology_sheets.pdf



MDG indicators - Goal 7

- Goal 7: Ensure environmental sustainability
 - Target 7.A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources
 - Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss
 - Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation
 - Target 7.D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers

(10 indicators)



Thematic/Sub-thematic Framework (CSD) – 3rd set

- examples of environmental indicators

Theme	Sub-theme	Core indicator	Other indicator
Atmosphere	Climate change	Carbon dioxide emissions	Emissions of greenhouse gases
Land	Agriculture	Arable and permanent cropland area	Fertilizer use efficiency
Biodiversity	Species	Change in threat status of species	Abundance of selected key species
Consumption and production patterns	Waste generation and management	Waste treatment and disposal	Management of radioactive waste



Comparison between the MDG/CSD indicators

- Similarities
 - developed through a collaborative process involving the UN, specialized agencies from within the UN system, external international organizations, various government agencies and national statisticians.
 - driven by policy relevance, rooted in major inter-governmental development summits and frequently applied at the national level.



Comparison between the MDG/CSD indicators

- Differences
 - CSD intended solely provide a reference for use by countries to track progress toward nationally-defined goals.
 - MDG developed for global monitoring of progress toward meeting internationally established goals.



Examples of indicators

Clear

- Proportion of land area covered by forest
- Carbon dioxide emissions per capita

Unclear

- Impacts on rehabilitation of desertified and land degraded areas
- Change in sewerage/waste disposal & water supply infrastructure