



Session 2: Development of Environmental Indicators

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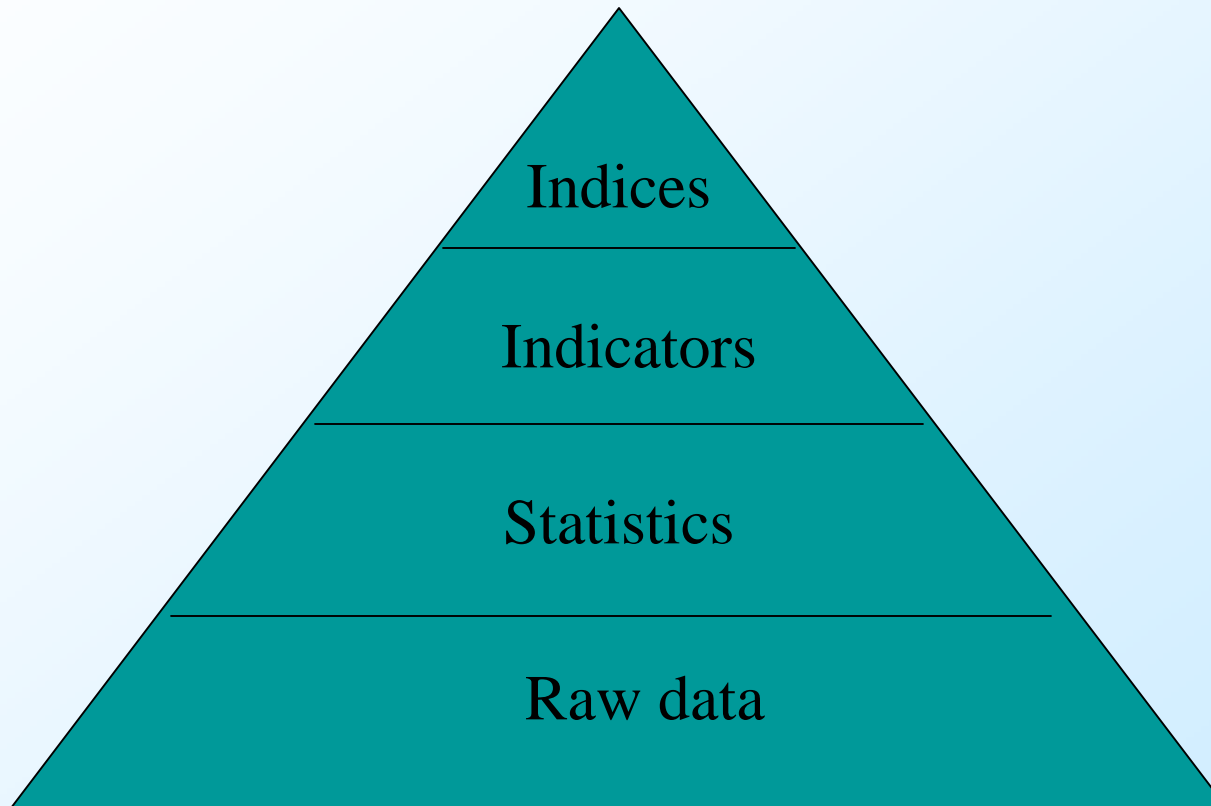


Overview

- **Information pyramid**
- **Purposes of indicators**
- **Criteria for indicator selection**
- **Global indicator sets**
 - **MDG/CSD and their comparison**
- **Examples of indicators**
- **Using statistics and indicators for decision-making**



Information Pyramid





Purposes of indicators

- **Defining objectives**
- **Assessing present and future direction with respect to goals and objectives**
- **Providing early warning signals**
- **Evaluating impact of projects/programmes**
- **Demonstrating progress**
- **Simplifying, clarifying and making aggregated information available to policy makers**
- **Measuring changes in a specific condition or situation over time**
- **Conveying messages, thoughts and values**



Criteria for indicator selection

SMART criteria

- **Specific**
- **Measurable**
- **Achievable**
- **Reliable**
- **Time-bound**



Global indicator sets

- The two most politically important indicator sets at the global level are the MDG and CSD indicators.
 - MDG - 8 goals, 18 targets, 48 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 indicators - Goal 7

- Goal 7: Ensure environmental sustainability
 - **Target 9.** Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources – 5 indicators
 - **Target 10.** Halve by 2015 the proportion of people without sustainable access to safe drinking water – 1 indicator
 - **Target 10.** Halve by 2015 the proportion of people without sustainable access to safe drinking water – 2 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



Using statistics and indicators in decision-making for sustainable development

- **What are the priority issues?**
- **Which statistics/indicators are needed to measure the issues?**
- **Do the statistics/indicators exist?**
- **Are the data readily available?**
- **What are the data sources?**
- **How are the data collected?**
- **What is the data coverage?**
- **What is the periodicity of data collection?**
- **What is the quality of the data?**