

# The Relationship Between FDES and the Main Ways to Obtain Environmental Statistics

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# Resume

- Possibilities to generate environmental information
  - Remote sensing and mapping
  - Surveys and Censuses
  - Administrative records / recompilation
  - Statistics of monitoring systems
  - Statistics derived or indirect estimates
- Institutional arrangements to produce the information

# Remote sensing and mapping statistics

- Information from thematic maps of environmental resources (physical, biological, land cover and land use) obtained through remote sensing and GIS.
- Examples:
  - Deforestation, degradation, etc.

# Surveys and Censuses

- Surveys and censuses are the most common way of obtaining data in Official Statistical Offices. These include private or public agents who have environmental information, which are taken as informants, then questionnaires and other data collection instruments are designed, teams of interviewers are trained, information is collected, checked, aggregated, analyzed and disseminated.
- **Examples:**
  - environmental protection expenditures, energy and water consumption, etc.

# Administrative records / recompilation

- This kind of environmental statistics makes use of raw data collected by various institutions, almost always obtained for control and supervision of an activity.
- Examples:
  - The use of pesticides and fertilizers, the trafficking of wild animals, the radioactive waste.
- Recompilations are the use of statistics generated directly for other purposes, with little or no rework.
- Examples:
  - The energy statistics coming from the Energy Balance

# Statistics of monitoring systems

- These statistics come from the periodic collection of information related to the quality of natural resources, conducted mainly by national or local environmental agencies. Almost all of this information has a defined spatial extent and limited (spatially restricted), describing the neighborhood of the collection points, or linear small patches but, in general, restricted areas (small river basins, for example).
- Examples:
  - Air quality (smell, toxic substances, content of suspended particulates, gaseous pollutants, etc.),
  - The quality of inland waters (pH, turbidity, BOD, nutrient content, pollutant content, etc.),
  - The quality for bath in beaches (sea and inland waters, etc.).

# Statistics derived or indirect estimates

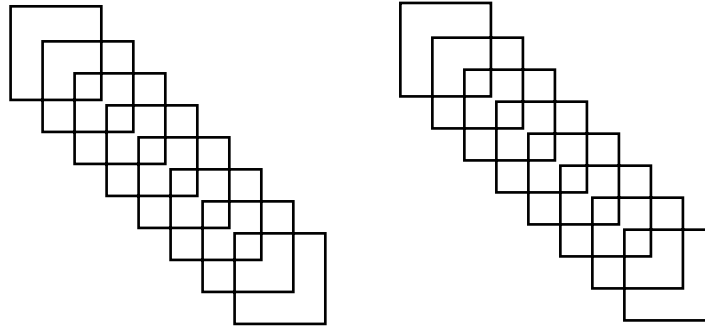
- In this case, the environmental information is not derived from the direct measurement of an environmental parameter or characteristic, but inferred from other data sources.
- Examples:
  - The estimate of the greenhouse effect gases emissions.
  - Data from industrial pollution obtained from information on industrial production or the number of people employed in the industry using emissions coefficients.

# What is the relationship with the FDES?

- The term Environmental Statistics covers a wide and heterogeneous collection of statistics.
- The environmental statistics include a diversified range of subjects and require a complex system that covers different methods of data acquisition and the establishment of a network of institutional cooperation.



Producers  
(also users)



Users, requirements

National reports,  
outlooks, political  
issues

International  
organizations  
requirements,  
(e.g., MDG reports,  
UNSD questionnaire,  
OECD, ECLAC, etc

International  
agreements  
(UNFCCC,  
Biodiversity, etc.)

SEEA, (SEEA-W,  
SEEA-E, MFA, etc)

Other

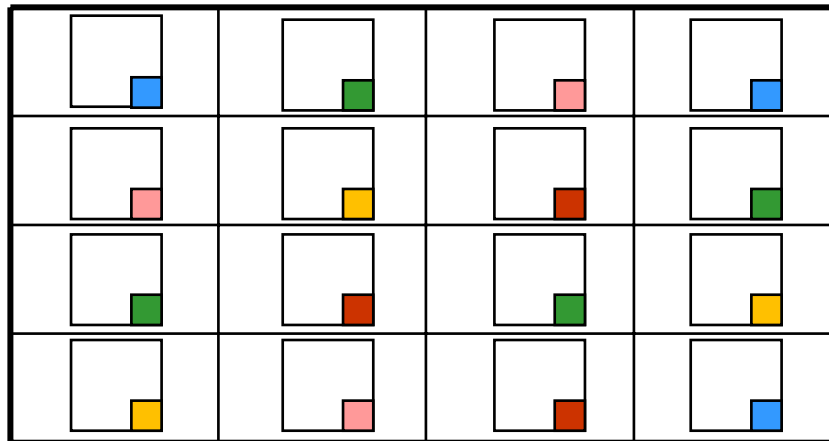
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Geograph.

NSO

Other  
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Remote  
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Survey,  
Census

Administrative  
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Monitoring

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Thank you

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