Mapping environmental data in Sweden
Viveka Palm, SCB

Why

Keeping track:
• Who is producing the data
• What is the content
• Who is using it today

Future needs:
• Are there gaps in the information chain
• Is new statistics needed
• How to assure co-ordination
• Two publications on the web (in Swedish)

• Steering committee:
  Inger Eklund, Leif Norman and Martin Lagerström, SCB

• Investigator: Nancy Steinbach, SCB
Project 1:
Mapping of official environmental statistics according to directive 2001:100

Project 2:
Mapping of other related environmental statistics and information, including natural resources
Driving forces:
- Population
- Energy consumption
- Industry
- Transport

Pressures:
- Emissions
- Waste

State:
- Physical, chemical and biological state of air-, water- and ground quality

Impact:
- Bad health
- Threatened flora and fauna
- Economic losses

Responses:
- Laws
- Taxes
- New technology

DPSIR-model

Statistics Sweden

Statistiska centralbyrån
DPSIR-model – environmental data producers, number of organisation 16+

Driving forces
Swedish Board of Agriculture
Swedish Energy Agency
Swedish Chemicals Agency
Statistics Sweden
Swedish Forest Agency
Swedish Transport Analysis
Industry organisations

Pressures
Board of Fisheries
Statistics Sweden
Industry organisations

State
IVL Environmental Research Institute
Geological survey of Sweden
University of Agriculture Sciences
SMHI
Institute for Infectious Disease Control
Swedish Radiation Protection Authority

Responses
Swedish Energy Agency
Swedish Environmental Protection Agency
Statistics Sweden
Geological survey of Sweden

Impact
The Institute of Environmental Medicin
National Institute for Economic Research
Three authorities for environment statistics

**EPA**

*State of the environment*
- Number of oil spills in Swedish sea areas
- Metals in fish
- Share of sea eagles with successful hatching

*Emissions*
- Load of phosphorous to the coast
- Load of nitrogen to the coast
- Discharges to water and sewage sludge production

*Waste*
- Official statistics on waste

*Monitoring of Environmental law*
- Environmental sanction charges

**SCB**

*Fertilizers and lime*
- Use of fertilizers and animal manure and cultivation measures in agriculture
- Nitrogen and phosphorus balances in arable land and agricultural sector
- Sales of lime for agricultural and horticultural purposes, for lakes and woodlands
- Sales of fertilizers for agricultural and horticultural purposes

*Land use*
- Concentrations of workplaces outside localities
- Smaller localities
- Localities; areas, population

- Living in weekend and holiday homes
- Development in protected coastal zones
- Concentrations of weekend and holiday homes

- Green areas within and in the vicinity of urban settlements
- Land use in localities and changes of land use
- Land use in Sweden
- Land cover by municipality

- Protected nature
- Coast, shores and islands in Sweden
- Peat; production, use, environmental impact
- Land and water areas

*Environmental accounts and sustainable development*
- Environmental accounts
- Environmental protection expenditure
- Indicators for sustainable development

*Water use*
- Water withdrawal and water use
- Industrial water use

**Swedish Chemical Agency**

*Chemicals, sales and use*
- Flow analyses of chemical substances
- Overview of chemicals (not official statistics)
- Sold quantities of pesticides
- Hazardous chemicals
- Pesticides in agriculture. Number of doses
Swedish Environmental Protection Agency

**COAST GUARDS**
State of the environment by coast and sea
- Number of oil spills in Swedish sea areas

**IVL**
State of the environment in air
- Sulphur dioxides in air
- Nitrogen dioxides in air

**Museum of Natural History**
State of the environment by coast and sea
- Metals in fish
- Share of white-tailed sea eagles with successful hatching

**SLU, SMHI**
Emissions to water
- Load of phosphorous to the coast
- Load of nitrogen to the coast

**SCB**
Fertilizers and lime
Land use
Environmental accounts and sustainable development
Water use
On commission
- Environmental sanction charges
- Hazardous chemicals
- Pesticides in Swedish agriculture. Number of doses

**SMED**
Waste (SCB, IVL)
Emissions to air (SCB, IVL, SMHI, SLU)
Discharges to water (SCB)

**Chemical Agency**
Chemicals, sales and use
- Flow analyses of chemicals
- Overview of chemicals
- Sold quantities of pesticides
Project 2: Mapping of other related environmental statistics and information including natural resources

Where do you start looking
- Environmental monitoring program
- SCB’s other statistical production
- Web-sites
- International reporting obligations
- Indicators for Environmental goals
Larger statistical data producers

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## Industry and Voluntary organisations

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Statistical and monitoring information for international reporting within environment, 2007

Helcom
9 reporting obligations

EEA
6 reporting obligations

EU DG Env
45 reporting obligations

Ospar
30 reporting obligations

PCC
9 reporting obligations

Other
23 reporting obligations
- UNFCCC
- CEP
- CITES
- ICES
- Bern, Bonn, etc

EPA

Eurostat
12 reporting obligations

Other

SCB

OECD
- Environmental Economic database
- Country performance review
Lessons learned

Need for an overview
To make data more available
To make harmonisation possible