

Data sources for environmental statistics

Case: waste statistics

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Data sources for environmental statistics

- Administrative records (government agencies in charge of natural resources)
- Statistical censuses (population, housing, agriculture, businesses)
- Statistical surveys (households, employment, environment management)
- Monitoring systems (water quality, air pollution, climate, soils, and so on)
- Remote sensing (e.g. satellite imaging of land use and cover)
- Estimates and modeling (e.g. estimation by regression, extrapolation etc.)
- Scientific research (e.g. biological assays, CO₂ concentration)
- Projects and special studies undertaken for domestic or international demand

Bodies involved in compiling of waste statistics or providing data for them I

- **Centres for Economic Development, Transport and the Environment (ELY Centres)**
 - VAHTI-register: annual reporting obligations for facilities having environmental permit, such as large-scale producers, waste treatment plants and recovery facilities, all treatment plants of hazardous waste. The most important data source!
- **Ministry of Employment and economy** mining waste generation (side rock, tailings) e.g.....

Bodies involved in compiling of waste statistics or providing data for them II

- Building and construction waste: Estimation method based on coefficients for generation of different waste materials, developed in co-operation with the '**VTT**', **Technical Research Centre of Finland**. New buildings volume data from municipal level registers.
- Data from '**YTV**', **Metropolitan Area Council's** municipal waste studies used for sharing the amount of solid municipal waste to economic activities (services, households) at national level.

Bodies involved in compiling of waste statistics or providing data for them

- **Bodies acting under reporting obligations based on 'producer responsibility' -principle** (Annual reporting to environmental authorities)
 - paper and cardboard, packaging waste, used tires, WEE, ELV, batteries and accumulators
- **Finnish Forest Research Institute's** data on logging residues
- **Finnish Vehicle Administration 'AKE'**:
Decommissioning from traffic (annual counts for different ELV types. Definitive deregistration data of vehicles inadequate)

Editing of register data

- Procedures in the data management system (YEIS)
- Typical errors:
 - kg or tonnes?
 - Source of waste: own activity or other establishment?
 - One waste item is recorded several times.
 - Storage of waste and use from storage?
- The recording unit in the VAHTI- register is “customer”, which is divided to “loading points”. These are linked at Statistics Finland to enterprises and establishments of the business register in order to make a proper breakdown by economic activities
- Feedback to the administration can be given on general level only, not regarding individual cases, because of data confidentiality.

Conclusions

- Data editing is needed also in the case of administrative data
- The main reason for the use of administrative data is often the decrease of response burden of enterprises, not cutting the costs of statistics
- In Finland the VAHTI-register is used also for compiling statistics on air emissions at Statistics Finland and statistics on wastewaters at Environmental Institute
- In counties where survey data is collected by regional and local offices of NSO and edited mostly by them, quality control is mostly linked to training the staff on these local offices.



Statistics Finland 

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