



An Phríomh-Oifig Staidrimh
Central Statistics Office

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Environmental Data: Priorities and Innovation
Statistical Use of Administrative Data

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Basic Environment Statistics

- ▶ Used to compile environmental economic accounts
- ▶ - Energy
- ▶ - Waste
- ▶ - Water
- ▶ - Agriculture
- ▶ - Forestry
- ▶ - Fisheries
- ▶ - Economic, Social, and Fiscal statistics
- ▶ - Soil, Biodiversity, Climate etc.

Environmental Economic Accounts

- ▶ **Wave 1** (current legal requirement)
 - ▶ - Air Emission Accounts
 - ▶ - Material Flow Accounts
 - ▶ - Environmental Taxes
- ▶ **Wave 2** (2014-2015 data required in 2017)
 - ▶ - Environmental Protection Expenditure
 - ▶ - Environment Goods and Services Sector
 - ▶ - Physical Energy Flow Accounts
- ▶ **Wave 3 - to be proposed** (Waste Accounts?; Water Accounts?; Forestry Accounts?; Environmental Subsidies?)

Making use of Administrative Data

- ▶ **As a stand-alone data source**
- ▶ - CSO Quarterly Domestic Building Energy Ratings from SEAI microdata
- ▶ **Integrated with other data sources**
- ▶ - typically combination of CSO and administrative data
- ▶ - requires matching administrative register with CSO business register
- ▶ -> time-consuming and difficult
- ▶ - improves overall data quality, data consistency, and reduces response burden
- ▶ - can cover households and enterprises

Getting Access to Administrative Data

- ▶ Process begins with informal discussions to assess completeness and continuity of data source
- ▶ Agree content, data transfer method, and frequency
- ▶ Statistics Act Section 30 request issued by CSO Director General to formalise request
- ▶ **Always solely for statistical purposes**
- ▶ Needs engagement of data holder if it is to happen quickly
- ▶ -> CSO can give feedback on data quality

Energy Data Sources used by CSO

- ▶ **Direct data collection by CSO**
- ▶ - Business Energy Use survey of selected NACE sectors (annual)
- ▶ -> supplemented with SEAI Large Industry Energy Network, SEAI Public Sector Energy Use data, and EPA Emissions Trading Scheme data
- ▶ -> use made of CSO Census of Industrial Production and Annual Services Inquiry to boost sample
- ▶ New Eurostat requirement on energy consumption of households
- ▶ - will require access to ESB and Bord Gais microdata and to Revenue Commissioners microdata on oil movements

Waste Data Sources used by CSO

- ▶ **Direct data collection by CSO Environment**
- ▶ - Waste Generation Survey of all NACE sectors (biennial)
- ▶ -> supplemented with EPA administrative data from licensed industrial enterprises, municipal waste data from National Waste Collection Permit Office, and EPA data from waste treatment operators

- ▶ Potential to use EPA, Trans Frontier Shipment Office (Dublin City Council), and CSO data on exports and imports to develop an indicator on recycling taking exports into account

Water Data Sources used by CSO

- ▶ CSO has only recently become involved in water statistics
- ▶ - needed to meet Eurostat requirements
- ▶ - assist Department of the Environment in compilation of data for Water Framework Directive
- ▶ Compiling data on public expenditure on water supply and wastewater treatment using D/Environment and Local Authority data
- ▶ Have issued Section 30 request for access to Irish Water non-domestic data to undertake a NACE sector analysis of water use
- ▶ Will gradually request access to more administrative data

Environmental Economic Accounts

- ▶ **Material Flow and Air Emissions Accounts** use many data sources
 - ▶ - EPA emissions inventory
 - ▶ - SEAI energy balances
 - ▶ - DCENR mining extraction data
 - ▶ - CSO trade, PRODCOM, and agriculture data
 - ▶ - D/Agriculture, D/Marine, and COFORD data
 - ▶ - use made of various other data and methodological advice
- ▶ **Environmental Goods and Services** module will require a lot of data

Environmental Assets, Biodiversity, Ecosystem

- ▶ CSO has not started work on data collection in this area
- ▶ - methodology needs to be developed
- ▶ - quantification and valuation will be a real challenge
- ▶ Environmental assets (mineral and energy resources; land; soil; timber; aquatic; other biological resources; and water)
- ▶ + Ecosystems
- ▶ + Oceans and Atmosphere
- ▶ + Biodiversity
- ▶ Needs ecosystem relevant land classification data

Conclusions

- ▶ Adding value to administrative data is preferred approach for environment statistics
- ▶ Supplemented with survey data as necessary

- ▶ Statistics Act, 1993 provides legal basis for CSO access to microdata
- ▶ Needs engagement from data owner to work well
- ▶ Needs provision of a standard file structure on an ongoing basis
- ▶ Matching data is challenging and time-consuming
- ▶ Reduces statistical burden