Environmental statistics initiatives in Europe

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Areas of environmental statistics

– Greenhouse Gases/Air Pollution
  • Greenhouse gas emissions
  • Emissions of $\text{SO}_x$, $\text{NO}_x$, NMVOC and $\text{NH}_3$
  • Air pollution by particulate matter and by ozone

– Water
  • Water resources
  • Public water supply
  • Urban wastewater collecting and treatment systems

– Biodiversity
  • Protected Areas for biodiversity
  • Abundance of birds, fish (quantity and variety)
Areas of environmental statistics II

- Chemicals
  - Production of environmentally harmful or toxic chemicals

- Waste
  - Waste generation
  - Waste treatment: energy recovery and recycling
Environmental data centres

- Eurostat (a) – European Environment Agency (b) – Joint Research Centre Institute for Environment and Sustainability (c)
  a) Environmental Data Centres on natural resources and products (EDCNRP); EDC on waste
  b) European centres for air pollution, biodiversity, climate change, land use, water data centre.
  c) European forest data centre (EFDAC); European soil data centre (ESDAC)

- Tasks
  - Be the central entry point for reporting of data;
  - Provide robust data, indicators and other relevant information;
  - Manage data, perform quality assurance, and coordinate data managed by other bodies;
  - Be the reference point for answering specific policy questions related to statistical data
  - Co-operate with other stakeholders to develop and coordinate the necessary methodologies to produce statistical data, information and indicators
Other domains relevant for the environment

- **Energy:**
  - Basic data on greenhouse gas emissions and intensity
  - Energy consumption and intensity, use of natural resources
  - Share of renewables in energy production and consumption

- **Transport:**
  - CO₂ emissions and air pollutants, noise
  - Volume of passenger/goods transport per GDP, modal split of passenger/goods transport

- **Agriculture:**
  - Organic farming and agro-environmental indicators: pesticides, manufactured fertilisers

- **Land-use, land-cover and soil:**
  - Landscape fragmentation, eco-systems, soil fertility
Sectoral policies

- The 6th Environment Action Programme, adopted in 2002, is the EU’s ten-year strategy (2002–2012). It identifies four key priorities:
  - Tackle *climate change*;
  - preserve *nature and biodiversity*;
  - protect *environment and health*;
  - promote the sustainable use of *natural resources*;
  - improve *waste* management.

- Energy: In 2009 a major policy package was adopted, known as the 20-20-20 targets for 2020:
  - A 20% reduction in EU *greenhouse gas emissions* from 1990 levels;
  - Raising the share of EU *energy consumption* produced from renewable resources to 20%;
  - A 20% improvement in the EU's *energy efficiency*. 
Sectoral policies II

- Transport: 2011 EU White Paper: 'Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system'
  - At least 10% of transport final energy consumption to come from renewable energy sources.
- In the Common Agricultural Policy (CAP) emphasis is placed on reducing the risks of environmental degradation and enhancing the sustainability of agro-ecosystem.
EU Sustainable Development Strategy

for the improvement of the quality of life for present and future generations

More than 130 economic, social, environmental and institutional indicators:

Energy intensity of the economy - Resource productivity - Generation of waste - Generation of hazardous waste - Emissions of ammonia (NH₃) - Electricity consumption of households - Ecolabel licenses - Area under organic farming - Production of toxic chemicals - population suffering from noise - Greenhouse gas emissions - Greenhouse gas emissions intensity of energy consumption - Emissions of particulate matter from transport - Volume of freight transport relative to GDP - Surface and groundwater abstraction - Population connected to urban wastewater treatment - Common bird index ...
Europe 2020 strategy

A strategy for jobs and smart, sustainable and inclusive growth

Based on five EU headline targets

1. Employment: 75% of 20 to 64 year old men and women to be employed
2. R&D: 3% of GDP to be invested in the research and development (R&D) sector
3. Climate change and energy sustainability
   - Reduce greenhouse gas emissions by 20% compared to 1990 levels
   - Increase the share of renewables in final energy consumption to 20%
   - 20% increase in energy efficiency (Primary and final energy consumption)
4. Education: Reduce the rates of early school leaving to below 10%, at least 40% of 30 to 34 year olds to have completed tertiary or equivalent education
5. Fighting poverty and social exclusion
Resource efficiency scoreboard

A flagship-initiative under the Europe 2020 strategy

Three-tier system based on available statistics from Eurostat, the European Environment Agency, the Joint Research Centre and other internationally recognised sources:

- Lead indicator (Resource productivity, Domestic Material Consumption)
- Dashboard indicators (Land, Water*, Carbon)
- Sets of theme-specific indicators
  - Transforming the economy (Waste, Eco-Innovation, Environmental & Energy taxes)
  - Nature and ecosystems (Biodiversity, Air, Land, Marine resources)
  - Key areas (Food, Buildings, Mobility)

* Water exploitation index and Water productivity
Further developments

– Green economy (green products, services, activities, industries, jobs, patents, taxes or subsidies)
– Globalisation indicators (greenhouse gas emissions, energy dependency, extraction of natural resources, transport)
– Food (security, access, quantity, quality, waste)
– Post-2015 Development Agenda with a set of Sustainable Development Goals
– …
Useful links

European Statistical System

- Environment
- Energy
- Transport
- Agro-environmental indicators
- EU sustainable development strategy
- Europe 2020 strategy
- Resource efficiency scoreboard