Green Deal Indicators

the role of national statistics

Mojca Suvorov
Part I:
What IS statistics and what NOT?
National and European Statistics

Part II:
From data needs to the available quality data

Part III:
Green Deal and monitoring framework
Climate Change Indicators in Slovenia
Part I
What is statistics?

• Statistics is a science that quantitatively studies mass phenomena and discovers qualitative connections between them.

• Statistics is the practice or science of collecting and analysing numerical data in large quantities, especially for the purpose of inferring proportions in a whole from those in a representative sample.

• Statistics is a branch of mathematics dealing with the collection, analysis, interpretation, and presentation of masses of numerical data.
What is statistics?
What is NOT statistics?
Statistical office of the Republic of Slovenia

• The main producer and coordinator of national statistics in Slovenia.

• Independent Government Service led by Director-General, Mr. Tomaž Smrekar.

• Legal basis: National Statistics Act, medium-term and annual programmes of statistical surveys.
Our vision

The vision of the Slovene national statistics is a society in which citizens, enterprises and the government use credible information in making decisions.
Our mission

The mission of the Slovene national statistics is to provide high-quality data on the situation and trends in the economic, demographic and social fields and in the field of the environment and natural resources.
System of national statistics

- Statistical Office of the Republic of Slovenia
- Two authorized producers:
  - Bank of Slovenia
  - National Institute of Public Health
The European Statistical System

• **Partnership** between Eurostat – the Statistical Office of the European Union – and national statistical institutes and other national authorities responsible for the development, production and dissemination of European statistics.

• European Statistical System Committee
Data quality and Code of Practice
Data quality and Code of Practice

• SURS was peer reviewed in 2007 and in 2014

• Internal review of compliance with the Code of Practice in 2020

• Next peer review in 2023
Time for a quiz
Time for a quiz

DIMESA Directors' group of Sectoral and Environmental Statistics and Accounts
DGAS Directors' group of agricultural statistics
BSDG Business statistics directors' group
DSS Directors’ group of social statistics
DMES Directors of macroeconomic statistics
Part II
Why do we need data?

• Decisions (personal and professional) - consequences
• Planning – monitoring
• Systems interdependences

• Consequences immediately and in the future - impact on present and future generations
Production of official statistics

Generic Statistical Business Process Model (GSBPM) = set of business processes required to produce official statistics
Generic Statistical Business Process Model

1. **Needs** and requirements analysis
2. Planning and preparation of a statistical survey
3. Selection of units
4. **Data collecting**
5. Statistical data processing
6. Data analysis
7. **Dissemination** and storage of statistical data
8. Documentation and evaluation
Before data collecting (GSBPM 1-3)

1. **Needs and requirements** analysis
   
   good and continuous collaboration with data users; role of statistical advisory committees

2. Planning and preparation of a statistical survey
   
   content, variables, and results; target population, data sources and method of data collection; annual programme of statistical surveys

3. Selection of units
Data collecting and ... (GSBPM 4-6)

4. Data **collecting**
   - direct (questionnaires, interviews)
   - administrative sources
   - Big data
   - combination

5. & 6. Data processing and data analysis
Data dissemination and... (GSBPM 7-8)

7. Dissemination and storage of statistical data

8. Documentation and evaluation
Dissemination

https://www.stat.si/StatWeb/en
## Dissemination

### Themes
- Agriculture, Forestry and Fishery
- Construction
- COVID-19
- Culture
- Development and Technology
- Earnings and Labour Cost
- Education
- Energy

### Products
- Enterprises
- Environment
- Foreign Economic Relations
- GDP and National Accounts
- Industry
- Labour Market
- Population
- Prices and Inflation

### More
- Quality of Life
- Regional Overview
- Social Protection
- Tourism
- Trade and Services
- Transport
- European data
Dissemination

https://pxweb.stat.si/SiStat/en
Dissemination

• Web applications
  Names and birthdays
  https://www.stat.si/ImenaRojstva/en/#/names/topNames
  STAGE geospatial data
  https://gis.stat.si/#lang=en
  SDG indicators,....
  https://www.stat.si/Pages/en/goals

• Social media
Part III
Green Deal and monitoring framework

• Monitoring framework for GD with **headline indicators** is in preparation (EC)

• WS for stakeholders, 8 October 2021 (3 documents):
  • Draft 8EAP (GD) indicator set
  • Headline indicators
  • Pool indicators
Green Deal and monitoring framework

• 8 objectives
• 46 indicators
  • proposals for headline indicators (16)

• Pool indicators for more complete assessment
GD objectives and headline indicators (proposal)

**Climate change mitigation**
GHG emissions
Soil organic carbon or net LULUCF (land use, land-use change and forestry) emissions

**Climate change adaptation**
Climate related economic losses
Risk to droughts
GD objectives and headline indicators (proposal)

Circular economy
Material footprint (Raw Material Consumption)

Zero pollution
Premature deaths/Years of Life Lost due to PM2.5
GD objectives and headline indicators (proposal)

**Biodiversity**
Common birds
Land take

**Reducing environmental and climate change pressures**
Energy consumption per capita
Circular material use
Share of buses and trains in total passenger transport
Organic farming
GD objectives and headline indicators (proposal)

**Enabling framework**
Share of green taxes
Eco-innovation index

**Living well within planetary boundaries – Regenerative economy**
Consumption footprint
Green economy (Employment and Gross Added Value)
GD headline indicators - available within ESS

8 objectives

46 indicators

proposals for headline indicators (16)

7 available within ESS
GD headline indicators - available within ESS

7 available headline indicators within ESS:

- Material footprint (Raw Material Consumption)
- Energy consumption per capita
- Circular material use
- Share of buses and trains in total passenger transport
- Organic farming
- Share of green taxes
- Green economy
Climate Change Indicators

Case of good cooperation btw:

Statistical Office of the Republic of Slovenia (SURS)
Statistical data producer

Slovene Environmental Agency (SEA)
GHG inventory producer
SURS - statistical data producer

• Annual and monthly statistical surveys
• Administrative data:
  • energy: Ministry of Infrastructure, Energy Directorate,
  • agriculture: Ministry of Agriculture, Forestry and Food, Agency for Agriculture Market and Rural Development, The Administration for Food Safety, Veterinary and Plant Protection,…
  • waste: Ministry of the Environment
• Data modelling (energy consumption in households by end use)
SEA – GHG inventory producer

• Primary source of data for GHG inventory: statistical data (energy, agriculture, waste, transport, industry).

• Other data sources:
  • Slovenian Infrastructure Agency: density of transport,
  • ETS data,
  • Slovenian Forestry Institute: forestry data,
  • various sources: land use data,
  • SEA’s environmental database.
Co-operation loop

• Data flow in both ways.
• In the process of emission calculation SEA estimates data on fuel use in agriculture and forestry.
• Estimations provided to SURS - data included in the energy balance.
• SURS involved in inventory reviews - data consistency and improvements.
## Climate Change Statistics

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<th>SURS</th>
<th>SURS in cooperation with SEA</th>
<th>SEA</th>
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<tbody>
<tr>
<td>Total energy intensity of production activities</td>
<td>Total primary energy supply</td>
<td>Occurrence of extreme weather events</td>
<td></td>
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<tr>
<td>Energy consumption by households / capita</td>
<td>Share of fossil fuels in total primary energy supply</td>
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<td>Proportion of population living in dwellings with air conditioners or air conditioning</td>
<td>Renewable energy share in the total final energy consumption</td>
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<td>Proportion of agricultural area under productive and sustainable agriculture</td>
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Climate Change Statistics

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<th>Surs</th>
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<tr>
<td>Emission intensity of agricultural commodities</td>
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<td>Total GHG emissions</td>
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<td>CO₂ emissions from fuel combustion</td>
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<td>GHG emissions from land use</td>
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<td>Total GHG emissions of production activities</td>
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<td>GHG emission intensity of production activities</td>
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<td>Direct GHG emissions from households</td>
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<td>Level of water stress</td>
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<td>CO₂ intensity of energy for the economy</td>
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Recommendations

• Be in touch with your national statistical office
• Use official statistics
• Express new data needs early enough
• When creating new policy think about monitoring of its implementation
• Look for solutions that will allow you to use data for multiple purposes – administrative and statistical
We estimate that one in three Slovenian witches flies on an imported broom.
Useful links

- https://www.stat.si/statweb
- https://ec.europa.eu/eurostat