Emissions of major pollutants

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2 Metadata update	
2.1 Date of last update	20.03.2023

3 Statistical presentation

3.1 Data description

The data provide users with information on pollutant emissions (nitrogen oxides, sulfur dioxide, ammonia, non-methane volatile organic compounds, carbon monoxide, particulate matters PM_{10}, fine particulate matters $PM_{2,5}$) by type of economic activity per calendar year. Furthermore, the data on emissions of major pollutants (solid emissions, nitrogen oxide, sulfur dioxide, carbon monoxide) from stationary and mobile sources by regions and districts per year, as well as specific territorial emissions.

3.2 Classification system

Nomenclature of Territorial Units for Statistics (NUTS)
Statistical Classification of Economic Activities (SK NACE Rev. 2)

3.3 Sector coverage

3.4 Statistical concepts and definitions

The pollutant is any substance present in the air or introduced into the air that has or may have harmful effects on human health or the environment as a whole.
Emission means the release of a pollutant from a point source or diffuse source into the air.
Emissions of air pollutants are classified according to their origin into natural (forest fires, volcano eruptions) and anthropogenic (related to human activities).
Anthropogenic pollutant emissions are released into the atmosphere from stationary point sources (heat and electricity generation, domestic heating, industrial combustion and technological

processes, fossil fuel extraction and waste incineration), areal or fugitive sources and mobile sources (transport).
The main pollutants are: particulate matter (PM), sulfur dioxide (SO2), nitrogen oxides (NOx), non-methane volatile organic compounds (NMVOC), ammonia (NH3) and carbon monoxide (CO).

3.5 Statistical unit

Air polluting units.

3.6 Statistical population

Air polluting units classified in Sections A to U of the Statistical Classification of Economic Activities SK NACE Rev.2.

3.7 Reference area

Statistics on emissions of pollutants are available for the SR together and statistics on emissions of major pollutants are available broken down by regions and districts.

3.8 Time coverage

2016-2020 for emissions of pollutants by economic activity, 2001-2020 for emissions of major pollutants by regions and districts.

3.9 Base period

Not applicable.

4 Unit of measure

Emissions of pollutants are in thousands of tonnes or tonnes, specific territorial emissions are in tonnes per km2.

5 Reference period

The reference period is the calendar year.

6 Institutional mandate

6.1 Legal acts and other agreements

Information on emissions of pollutants is collected by the Slovak Hydrometeorological Institute (SHMI) in accordance with Act 540/2001 Coll. on State Statistics, as amended, and Regulation (EC) no. 223/2009 of the European Parliament and of the Council on European Statistics.

6.2 Data sharing

Statistical information from the emissions of pollutants survey is a source for fulfilling the obligations of the Slovak Republic resulting from the requirements of the European Statistical System, the requirements of international institutions and to meet the needs of the National Information System. The outputs are provided to international, European and national organizations on a regular annual basis.

7 Confidentiality

7.1 Confidentiality - policy

These data are not covered by the statistical confidentiality policy.

7.2 Confidentiality - data treatment

According to Act no. 205/2004 on the collection, storage and dissemination of environmental information, information on emissions of pollutants is publicly available.

8 Release policy

8.1 Release calendar

Not applicable.

8.2 Release calendar access

Not applicable.

8.3 User access

The statistical information dissemination policy is formulated in accordance with the State Statistics Act, the Statistical Office Development Strategy, the Eurostat Information Dissemination Strategy and the European Statistics Code of Practice.
The principles of publishing and providing statistical information are available on the SO SR website at:
https://slovak.statistics.sk/wps/portal/ext/services/infoservis/principles

9 Frequency of dissemination

Yearly.

10 Accessibility and clarity

10.1 News release

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10.2 Publications

Data on emissions of pollutants are published in the publication Selected indicators on the Environment, which is available on the website of the SO SR
https://slovak.statistics.sk/wps/portal/ext/themes/environment/environment/publications
Statistical Yearbook of the Slovak Republic - contains data also for the area of emissions of pollutants.
The Selected indicators on the Environment is published according to the Catalogue of publications. The Catalogue of publications contains basic information about publications, release dates and language versions. All publications are available at the Statistical Office of the Slovak Republic. The Catalogue of publications is available on the website of the SO SR at:
https://slovak.statistics.sk/wps/portal/ext/products/publikacie/catalogue

10.3 On-line database

SO SR databases: DATAcube and STATdat, access at:
https://slovak.statistics.sk/wps/portal/ext/Databases

10.4 Micro-data access

Not relevant.

10.5 Other

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10.6 Documentation on methodology

The methodology for emissions of pollutants statistics is based on the international methodology for collecting and reporting emissions of pollutants data “Manual for air emissions accounts 2015”. The manual in English can be found on the Eurostat website at:
https://ec.europa.eu/eurostat/documents/3859598/7077248/KS-GQ-15-009-EN-N.pdf/ce75a7d2-4f3a-4f04-a4b1-747a6614eeb3

10.7 Quality documentation

SO SR internal documentation to ensure the quality of statistical outputs:
- Methodological guideline for applying mathematical-statistical methods for the statistical survey
- Methodological Instruction - Quality Indicators of Statistical Outputs and Statistical Processes
- Code of Practice for European Statistics:
https://slovak.statistics.sk/wps/portal/ext/aboutus/key.documents/code.of.practise

11 Quality management

11.1 Quality assurance

The SO SR has a quality management system in place. The Quality Manual includes a description of the quality management system and the fulfillment of ISO 9001 requirements. The application of the Manual ensures that all activities that affect the quality of the products being produced are planned, managed, reviewed, evaluated and meet the requirements accepted in the order. The Quality Guide is available at:
https://slovak.statistics.sk/wps/wcm/connect/9ca43aa4-bfaf-4101-9dae-5263aa834df7/Prirucka_kvality.pdf?MOD=AJPERES&CVID=mu8R9IM&CVID=mu8R9IM
The basis of the whole quality management system is the Code of Practice for European Statistics:
https://slovak.statistics.sk/wps/portal/ext/aboutus/key.documents/code.of.practise

11.2 Quality assessment

The quality of emissions of pollutants statistics is very good.

12 Relevance

12.1 User needs

The main users of data on emissions of pollutants are: central government authorities, research organizations, academia, researchers and students, professional associations, etc.

12.2 User satisfaction

Since 2009, the Statistical Office of the SR has been conducting customer satisfaction surveys with its products and services at two-year intervals. The aim of the surveys is to get information about the interest and opinions of users on providing and quality of statistical products and services. The information obtained is a valuable source for the further activities of the SO SR. The result of the satisfaction survey in 2020 is available on the website of the SO SR at:
https://slovak.statistics.sk/wps/portal/ext/aboutus/marketing/survey.of.satisfaction
It was not measured for emissions of pollutants statistics.

12.3 Completeness

100%. - Data is available for all statistics required. Time series of data for individual indicators are available in the public database of the SO SR.

13 Accuracy and reliability

13.1 Overall accuracy

The overall accuracy of emissions of pollutants statistics is very good. The SHMI is making great efforts to prevent data errors from occurring and performs rigorous data validation to detect errors. The data provided are audited annually by the expert team of the European Environment Agency.

13.2 Sampling error

Not applicable. The emissions of pollutants survey is exhaustive, not selective.

13.3 Non-sampling error

Non-sampling errors occur in the process of entering and processing statistical data collected through the National Emission Information System (NEIS), processing statistical data obtained from the Statistical Office of the Slovak Republic and other supplementary statistical data obtained from the operators of air pollution sources. To reduce the occurrence of errors SHMI has implemented a quality management system through which the processed data are further checked and assessed. At the same time, statistics provided to international and European institutions are audited annually as part of the audit (EEA) or checking (EUROSTAT).

14 Timeliness and punctuality

14.1 Timeliness

Publication of data in the public database of the SO SR is governed by an internal schedule. Data on emissions of pollutants are published within 22 months after the reference year.

14.2 Punctuality

Publication deadlines are met.

15 Coherence and comparability

15.1 Comparability - geographical

Not relevant. Statistics of emissions of pollutants are compiled for the whole territory of the Slovak Republic.

15.2 Comparability - over time

Data on emissions of basic pollutants by regions and districts are homogeneous over the years 2001-2018. Data from 2019 represent total data on emissions allocated by region and districts according to the location of the pollution source.

15.3 Coherence - cross domain

Not relevant.

15.4 Coherence - internal

There are no deviations, statistical outputs are internally consistent.

16 Cost and burden

The SO of the SR regularly monitors the workload of reporting units. As part of the optimization of statistical surveys, it takes measures aimed at reducing their burden. The cost and workload at the level of European statistical products and its monitoring is the responsibility of the Directorate Group for Resources within Eurostat.

17 Data revision

17.1 Data revision - policy

The revision policy governs the basic rules and general procedures by which the pre-drafted data is later revised as well as applied in revisions for other reasons. The revision policy and calendar is available on the SO SR website at:
https://slovak.statistics.sk/wps/portal/ext/products/revisions

17.2 Data revision - practice

Data on emissions of pollutants are revised annually for the entire time series, except for data on emissions of pollutants by regions and districts.

18 Statistical processing

18.1 Source data

The data are obtained by exhaustive survey from the operators of air pollution sources and supplementary statistical data obtained electronically on the basis of the mutual cooperation agreement in the field of statistics no. DOH-1-3 / 2012-400 and direct addressing of selected operators to request data.

18.2 Frequency of data collection

Yearly.

18.3 Data collection

Electronically via the NEIS information system, via a common FTP server and via e-mail. Statistical Office of the Slovak Republic takes over data from administrative sources SHMI.

18.4 Data validation

The data are validated within the quality management system.

18.5 Data compilation

The collected data are aggregated by individual classification.

18.6 Adjustment

Data are not being adjusted.

19 Comment