

Environment

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Methodological notes - selected indicators

Data on **waste** are obtained in accordance with the Act No 79/2015 on Waste, Regulation of the Ministry of Environment of the SR No 365/2015 on establishing the Catalogue of Wastes, Regulation of the Ministry of Environment of the SR No 366/2015 on registration and reporting obligation and the Regulation of the Ministry of Environment of the SR No 371/2015 on implementing certain provisions of the Act on Waste. Data on waste include hazardous waste (N) and non-hazardous waste (O) and are presented broken down by particular types of waste and waste treatment operations. Waste types defined by the six-digit codes are listed in the Catalogue of Wastes and are aggregated into 20 chapters (chapters 01 - 19 include industrial waste and chapter 20 includes municipal waste). Waste treatment refers to activities related to waste recovery operations (codes R1 - R13) and waste disposal operations (codes D1 - D15), which are defined in the Act on Waste. Waste recovery includes mainly recycling, incineration with energy recovery and reclamation of organic substances including composting. The most common methods of waste disposal are landfilling and incineration without energy recovery.

Data on industrial waste generated by economic activities and data on municipal waste generated in municipalities are presented separately. Data on industrial waste are published broken down by NACE Rev.2 economic activities.

Data on **air emissions** are presented for particular pollutants - nitrogen oxides (NO_x), sulphur oxides (SO_x) expressed as SO₂, ammonia (NH₃), non-methane volatile organic compounds (NMVOC), carbon monoxide (CO), particulate matter (PM₁₀) and fine particulate matter (PM_{2,5}) and greenhouse gases - carbon dioxide from fossil fuels (CO₂), carbon dioxide from biomass (CO₂ BIOMASS), nitrous oxide (N₂O), methane (CH₄), fluorocarbons (ie. F-gases: HFCs, PFCs, SF₆). Emission inventory includes stationary and mobile sources in the energy sector, industrial sector, agriculture, transport, waste management and residential-municipal sphere. Published overview of air emissions is consistent with the methodology and classification used for air emissions accounts, by economic activity (NACE Rev. 2).

Air quality depends on the concentration of air pollutants - immission. Concentrations of immissions in selected localities are assessed on the basis of a continual monitoring in various monitoring stations within the National Air Pollution Monitoring Network (NMSKO). Data on ground-level ozone are calculated on the basis of the 8-hour period concentrations measured from 9 a.m. to 5 p.m. in selected monitoring stations. The target value for the protection of human health is 120 µg/m³.

Water quality in watercourses is assessed on the basis of data from monitoring stations located in the mouth of rivers. Assessment of quality of surface water is in accordance with the Regulation of Government of SR 269/2010 and the fulfillment of general water quality requirements is monitored. Assessed indicators are allocated to the following categories (according to Annex 1 of Regulation):

- General indicators (43 indicators)
- Non-synthetic compounds (8 indicators)
- Synthetic compounds (58 indicators)
- Indicators of radioactivity (7 indicators)
- Hydro-biological and micro-biological indicators (9 indicators).

Data on **environmental protection (EP) expenditures and revenues** include environmental investments in the fixed assets used for environmental protection and current EP expenditures which are divided into internal expenditures (salaries and others) and external expenditures (purchases of environmental services from other subjects). Also data on EP revenues, specifically from selling by-products or waste products, from provision of EP services to other subjects and in case of enterprises also from selling EP products, equipment, components and technologies to other subjects are presented. Data for EPE indicators are available in a breakdown by classification of EP activities/CEPA: CEPA1 - Protection of ambient air and climate, CEPA 2 - Wastewater management, CEPA 3 - Waste management, CEPA 4 - Protection and remediation of soil, groundwater and surface water, CEPA 5 - Noise and vibration abatement, CEPA 6 - Protection of biodiversity and landscape, CEPA 7-9 - Other EP activities.

Fines/penalties are imposed by state administration bodies in the field of environment to legal and physical persons for breaking their obligations in regard to air and water protection, for breaking obligations in sector of water and waste management, for breaking law in protection of nature and wildlife and for violating the Act on emission quota trading. Data on imposed fines and also data on fines paid as of 31.12 of the given year are presented.

Environmental accounts are a statistical system which brings together economic and environmental information in a common framework to measure the contribution of the environment to the economy and the impact of the economy on the environment. At present, there are implemented 3 environmental accounts at national level - Air emissions accounts (AEA), Material flow accounts (MFA) and Environmental taxes by economic activity. Environmental accounts are compiled under Regulation No 691/2011 on European environmental economic accounts and in accordance with Eurostat methodology.

Definitions of terms used in environmental statistics are available in the Concepts dictionary (Metadata – Vocabulary).

Data sources

Data on waste - source of data on municipal waste is the statistical survey on municipal waste conducted by the Statistical Office of the SR (ŽP 6-01), data on waste generated by economic activities are obtained from the Ministry of Environment of the SR.

Data on air emissions, air quality, water quality in watercourses and wastewater - are obtained from the Slovak Hydrometeorological Institute.

Data on environmental protection (EP) expenditures and revenues - data sources are statistical surveys conducted by the Statistical Office of the SR - statistical survey on EP expenditures and revenues in enterprises with 20 and more employs and in municipalities.

Data on fines - are obtained from the State Environmental Fund of the SR.

Environmental accounts - source of data in MFA are statistical surveys conducted by the Statistical Office of the SR (data on crop production, import, export) and partly data are obtained from external sources (State Geological Institute, National Forest Centre); data in AEA are from the sources of the Slovak Hydrometeorological Institute; source of data on environmental taxes are national accounts and partly data are estimated on the basis of information from external sources.