

3 ENVIRONMENT

The environment comprises anything that creates natural conditions for the existence of organisms, including human beings, and is a prerequisite for their further evolution. Its compartments are especially air, water, rocks, soil, organisms, ecosystems, and energy.

The Act of the Czech National Council No 114/1992 Sb, on Nature Conservation and Landscape Protection, as subsequently amended, distinguishes six categories of specially protected areas as follows.

Large-size specially protected areas

- National parks are large areas unique at the national or international scales, major parts of which are occupied by natural or nature-close ecosystems where species of flora and fauna, and abiotic nature are of extraordinary scientific and educational importance;
- protected landscape areas are large areas with harmonically formed landscape, characteristic relief, significant shares of forest and permanent grassland natural ecosystems, high abundance of tree species, or, as the case may be, preserved monuments of historical settlements.

Small-size specially protected areas

- National nature monuments are smaller natural formations (including those formed by human activity besides the forces of nature), deposits of minerals or habitats of endangered species on fragments of ecosystems of the national or international environmental, scientific, or aesthetic importance;
- national nature reserves are smaller areas where ecosystems important at the national or international levels of extraordinary natural value are bound to natural relief with a typical geological structure;
- nature monuments are areas defined in a similar way as the national natural monuments yet important at the regional level only;
- nature reserves are smaller areas of concentrated natural values with represented ecosystems that are characteristic and important for the given geographical area.

On 1 March 2017, the methodology for the calculation of total land areas of protected areas changed. Since then the land areas of specially protected areas have been calculated using borders of the specially protected areas (instead of data from the respective decrees establishing the areas that were used before).

Natura 2000 is a network of protected areas (sites) designated by all Member States of the European Union on their territories under unified principles. Establishment of Natura 2000 network is assigned by two most important legal regulations of the EU for nature protection – the Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds and the Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. In the territory of the Czech Republic, Natura 2000 comprises of delimited Birds Directive sites (special protection areas, SPAs; in Czech “ptačí oblast”) and of declared Habitats Directive sites (sites of Community importance, SCIs; in Czech “evropsky významná lokalita”).

Environmental protection expenditure includes investment expenditure on the acquisition of tangible fixed assets and non-investment expenditure related to environmental protection activities. **Tangible fixed assets** (TFA) for environmental protection are the sum of expenditure spent by reporting units on the TFA acquisition (by a purchase or own activities) along with the total value of TFA acquired for free or by a transfer according to relevant legislation or by the reclassification from the private use to business one. The **non-investment expenditure** on environmental protection includes wages and salaries, payments for rents, energy and other material, and payments for services the principal purpose of which is environmental protection.

Economic benefits from environmental protection activities refer to revenues from sale of environmental protection services, revenues from sale of by-products, and savings generated from reuse of by-products that originated at activities related to environmental protection.

Emissions are pollutants of various states that are released into the atmosphere. Emissions are given in kilograms per hour or in tonnes per year. Amounts of the given pollutants released into the air are listed in the **Register of Emissions and Stationary Sources** (sometimes also called Air Pollution Sources Register, abbreviated REZZO in Czech). Data in tables are broken down by type of pollution sources to REZZO 1–3 (for stationary pollution sources) and REZZO 4 (for mobile pollution sources, especially road motor vehicles, railway vehicles, boats, vessels, and aircraft).

In 2022, data on emissions in the territory of the Czech Republic as well as by Region were recalculated because the COPERT model (which is an international methodology for estimating road transport emissions) has been updated. The estimation of the share of different types of combustion appliances in households is based on results of the ENERGO – 2015 statistical survey, the Population and Housing Census, and statistics on sale of boilers, fireplaces, and heaters. The results of the ENERGO – 2015, of the 2011 Population and Housing Census, and of previous censuses were used to estimate emissions in the Regions before 2021. For the estimation of emissions in 2021, the results of the ENERGO – 2021 and of the 2021 Population and Housing Census have been used. Since 2019, the emission balance of REZZO 1 sources has also been including emissions reported by the so-called movable sources, which may operate at several locations during the year in a Region for which such equipment has an operating permit. These are primarily building material recycling lines. For more information on the methodology used, see www.chmi.cz. Newly published data replace data published in the previous years.

Waste means any substance or object which the holder discards or intends or is required to discard. In 2020, a planned process of modernisation of the methodology and data collection and processing was completed; it brought changes to the publication compared to the previous issues in terms of its contents and the way results are presented. Therefore,

published data differ from those published in regional statistical yearbooks in previous years in terms of the contents and methodology.

Waste generation represents the volume of own waste, including secondary waste generation (waste from waste processing). It does not include the volume of waste taken from a warehouse (storage), imports of wastes or waste from another entity (with the exception of waste from citizens).

A **hazardous waste** is defined as a waste that displays one or more of the hazardous properties listed in the Commission Regulation (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives.

Municipal waste includes

- mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste;
- mixed waste and separately collected waste from other sources, where such waste is similar in nature and composition to waste from households.

Municipal waste does not include waste from production, agriculture, forestry, fishing, septic tanks and sewage network and treatment, including sewage sludge, end-of-life vehicles or construction and demolition waste.

Municipal waste includes waste from:

- households; retail trade, small businesses, office buildings and institutions (such as schools, hospitals);
- businesses provided that it is similar in nature and composition to household waste and it is not originating from production;
- waste from selected municipal services, i.e. waste from park and garden maintenance, waste from street cleaning services (e.g. street sweeping, waste from cleaning of markets), provided that it is managed as waste.

The regional breakdown is made **according to the registered office of the establishments** (local units), not according to the registered office of the enterprise.

The **domain of water supply systems and sewerage systems** involves water management activities related to the management and operation of water supply and sewerage systems, i.e. production and distribution of drinking water in a sufficient amount and of good quality and wastewater collection and treatment. **Public water supply systems and sewerage systems** include water supply systems and sewerage systems established and operated in the public interest. **Water produced** includes both invoiced and non-invoiced water supply. The sum of data for invoiced and non-invoiced water may differ from amounts of the water produced for an amount of water taken from other organisations, or for water handed over to other organisations.

From 2014 onwards, there has been a more precise definition of sewerage water and of water invoiced to households due to an amendment to the Decree No 428/2001 Sb implementing the Act No 274/2001 Sb, on Water Mains and Sewerage Systems, as subsequently amended.

From 2013 onwards, "**wastewater discharged into public sewerage systems**" has been including besides sewerage, industrial, and other wastewater also **chargeable rainwater**.

The **wastewater treatment plants** (WWTPs) are premises and equipment serving for wastewater treatment and having the mechanical, biological, and/or other stage of treatment. Equipment for wastewater pre-treatment (rakes, sand traps, oil traps, grit traps, etc.), cesspools, sumps, and simple facilities with a mechanical function, which are not regularly observed and operated, are not considered to be wastewater treatment plants.

The **capacity of WWTPs** is given as the designed capacity in m³/day. A higher capacity than the designed one is given when implemented intensification measures have been approved by the water management authority.