

Environment in 2020

30 June 2021


25.1%

Increase in the amount of municipal waste collected separately compared to the previous year.

In 2020, there was a decline noticed in water consumption related to the needs of the national economy¹ and population by approximately 6% compared to the previous year, the amount of generated industrial and municipal wastewater decreased by over 4%, there was also a reduction of emission of particulate pollutants from plants of significant nuisance to air quality by 17%, and a reduction of emission of gaseous pollutants by 6%. There was a reduction of the amount of generated waste by 3%.

Water and wastewater

Water withdrawal and consumption

In 2020, there was a decline in water withdrawal observed, for needs of the national economy and population, by approximately 6% compared to the previous year (from 9.3 km³ to 8.7 km³). The largest share of water withdrawal (approximately 68%) was for production purposes (5.9 km³, compared to 6.3 km³ in 2019). Water withdrawal for the purpose of filling in and refilling fishponds declined by 5% and it was 0.8 km³. However, water withdrawal for the purpose of exploitation of water supply network declined by over 8% compared 2019, and it was approximately 2.0 km³.

The main source of water supply for the national economy was surface water. In 2020, the withdrawal of surface water amounted to 6.9 km³ and it covered 80% of the needs. Surface water was mainly used for production purposes in industry. The withdrawal of groundwater was 1.7 km³ and has decreased by approximately 0.1 km³.

Table 1. Water withdrawal for the needs of the national economy and population by sources of withdrawal

Specification	2019	2020
	in hm ³	
Total	9 253.8	8 666.4
Surface water	7 437.2	6 900.8
Groundwater	1 772.3	1 720.3
Water from mine and construction drainage (used for production)	44.3	45.3

In 2020, water consumption was 8.4 km³, which was 95% of the total consumption of water recorded the previous year. As during the years before, the largest share of water consumption for the needs of the national economy and population was recorded by industry 71% (5.9 km³). Consumption of water by the fishing industry was 10% (0.8 km³) of the total amount of water consumption for the purpose of the national economy. Water consumption by the municipal sector, for the purpose of operation of the water supply network, amounted to 1.6 km³ (19%). In 2020, water consumption by households, from the water supply system, was similar to the level recorded in the previous year, and it amounted to 1.3 km³.

In 2020, water withdrawal amounted to 8.7 km³

In 2020, 8.4 km³ of water was consumed (95% of the consumption recorded during the previous year)

¹ excluding agriculture and forestry

Wastewater

In 2020, the amount of generated industrial and municipal wastewater, that required treatment, was at a similar level than in the previous year, and it amounted to 2.2 km³, while the amount of untreated wastewater was 0.1 km³. The amount of wastewater treated in wastewater treatment plants, with increased biogene removal, amounted to 1.16 km³, which was 55.9% of treated wastewater, while the amount of wastewater treated with the use of mechanical treatment technology amounted to 0.46 km³ (22.3% of treated wastewater). Some part of wastewater that required treatment (6%) was not subjected to the processes of treatment. In 2020, the amount of wastewater discharged without treatment was 124.5 hm³, compared to 106.3 hm³ the previous year.

In 2020, there was an increase in the number of industrial wastewater treatment plants (from 859 in 2019, to 876 in 2020). The number of municipal wastewater treatment plants (3 281) increased, compared to the previous year (3 278). In 2020, the share of population connected to wastewater treatment plants was 75%, while in urban areas it was approximately 95%, and in rural areas it was 45%.

Liquid waste

Due to insufficiently developed sewage infrastructure, some residents continued to use household wastewater disposal systems. In 2020, the number of septic tanks was 2.1 million, similar to the previous year. The amount of liquid waste, collected and delivered to wastewater treatment plants or dump stations, was 37.6 hm³ compared to 34.4 hm³ in 2019.

Pollution and protection of air

In 2020, the amount of emission of particulates, from plants of significant nuisance to air quality, i.e. plants with the highest level of emission of pollutants into the air in the country (1 856 plants) amounted to approximately 23 thousand t and it declined by 17% compared to the previous year. Emission of pollutants was mainly the result of fuel combustion processes (54% of dust emission was from plants of significant nuisance to air quality). The main source of emission was industrial processing (51%) and also the entities that produce and supply electricity, gas, steam and hot water (39%).

In 2020, the gaseous pollutants emission from plants of significant nuisance to air quality was at a level of 186 million t and it declined by 6% compared to 2019. Over 99% of the above-mentioned emissions were carbon dioxide and 0.1% each: sulphur dioxide, carbon oxide and nitrogen oxides. The predominant sources of industrial emission of gaseous pollutants were the entities that operated in the field of generation and supply of electricity, gas, steam and hot water (67%) and industrial processing plants (31%).

Table 2. Emission and air pollutant reduction from plants of a significant nuisance to air quality

Specification	2019	2020
Number of plants	1 878	1 856
Emission of pollution in thousand t:		
particulate pollutants	27.1	22.6
of which from combustion of fuels	14.8	12.3
gaseous pollutants	198 440.7	186 155.8
of which carbon dioxide	197 281.7	185 028.7
sulphur dioxide	179.3	181.3
nitrogen oxides (expressed as NO ₂)	188.1	169.6
Level of reduction of generated pollution in %		
particulate pollutants	99.8	99.9
gases (without carbon dioxide)	70.3	70.4

In 2020, with the use of air pollution control devices, 16.3 million t (99.9%) of particulate and 2.7 million t (70.4%) of gases (excluding CO₂) emitted by plants of significant nuisance to air

In 2020, the amount of wastewater discharged without treatment was 124.5 hm³

In 2020, the number of septic tanks was 2.1 million

In 2020, there was a decline recorded in the amount of emission of particulate pollutants by 17%, compared to the previous year

In 2020, there was a decline in the amount of emitted gaseous pollutants by 6%, compared to the previous year

quality, were retained. In 2020, the amount of retained or neutralised pollution, according to particular types of gaseous pollutants were: 91.7% of sulfur dioxide, 77.7% of hydrocarbons, 40.8% of nitrogen oxides, 31.0% of carbon monoxide, 43.3% of other pollutants (mainly ammonia, carbon disulphide, fluorine, hydrogen sulphide, organochlorine compounds).

Nature and landscape protection

Poland belongs to the group of European countries of high biodiversity, both in terms of the number of species and environmental values. At the end of 2020, the area of the sites under legal protection (including that parts of Natura 2000 sites located within the boundaries of areas under legal protection) was over 10.1 million ha, which was, similarly to 2019, 32.3% of the total area of the country.

The indicator of areas of the sites under legal protection per capita was 2 641 m², compared to 2 633 m² in 2019.

In 2020, the area of special natural value under legal protection was 32.3% of site the total area of the country.

Table 3. The area of special natural value under legal protection

Specification	The number of objects	Total area			
		in thousand ha	percentage	% of the total area of the country	per 1 capita in m ²
TOTAL	10 837	10 106.4	100.0	32.3	2 641.2
National parks	23	315.1	3.1	1.0	82.4
Nature reserves	1 502	170.2	1.7	0.5	44.5
Landscape parks ^a	126	2 520.4	24.9	8.1	658.7
Protected landscape area ^a	387	6 926.5	68.5	22.2	1 810.1
Ecological areas	8 291	55.2	0.5	0.2	14.4
Documentation sites	181	1.0	0.0	0.0	0.3
Nature and landscape complexes	327	118.0	1.2	0.4	30.8

^a With the exception of nature reserves and other forms of nature protection located within the boundaries of landscape parks and protected landscape areas.

At the end of 2020, 34 898 natural monuments were registered, which was an increase compared to 2019 (34 890).

Apart from forms of nature protection, including biodiversity, the creation of green areas are also a way of protecting the natural environment and its components. In 2020, the area of publicly accessible strolling-recreational parks amounted to 23.9 thousand ha, and the area of lawns 12.5 thousand ha, which is a decline in the area of strolling-recreational parks by 0.2 thousand ha and an increase in the area of lawns by 0.3 thousand ha compared to 2019.

Waste

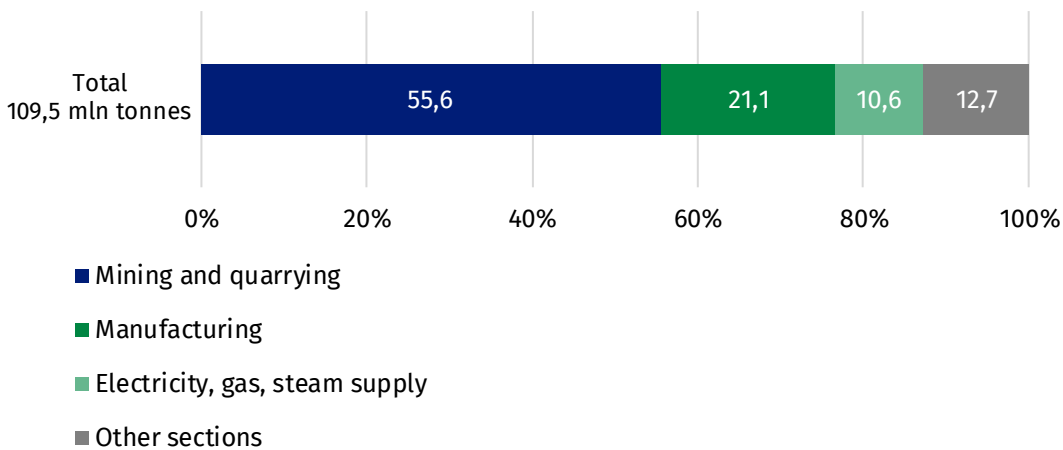
Industrial waste

In 2020, 109.5 million tonnes of industrial waste was generated (a decline by 4% compared to the previous year).

The main sources of waste, as in the previous years, were: mining and quarrying (60.8 million t), manufacturing (23.1 million t), electricity, gas, steam supply (11.6 million t).

A decline of 4% was recorded in the amount of generated industrial waste, compared to the previous year

Figure 1. Structure of generated waste by types of activities in 2020.



The largest share in the amount of generated waste was wastes resulting from exploration, mining, quarrying and physical and chemical treatment of minerals (59%), and waste from thermal processes (17%).

The predominant ways of treating waste that was generated in 2020 were recovery (48.4%) and landfilling (42.3%).

At the end of 2020, the amount of landfilled waste (accumulated) at the facilities of plants was 1 788 million tonnes. The non-reclaimed landfill area (excluding municipal waste) was nearly 7.9 thousand ha, out of which landfills, mine waste treatment facilities, including heaps accounted for 53.5%, and tailings ponds accounted for 46.5%. During the year, 13.6 ha of the waste landfill area was reclaimed.

Municipal waste

In 2020, 13.1 million tonnes of municipal waste were collected (an increase by 2.9% compared to 2019). There was 342 kg of collected municipal waste per capita recorded, on average, an increase of 10 kg compared to the previous year.

11.3 million tonnes of waste were collected from households, which was 86.1% of the total amount of generated municipal waste.

Table 4. Generated municipal waste

Specification	2019	2020	2019 = 100
	in thousand tonnes		
Total	12 752.8	13 116.9	102.9
Received or collected separately	3 977.4	4 974.6	125.1
Mixed	8 775.3	8 142.3	92.8

In 2020, there were 2 239 municipal waste separate collection points in operation. Municipal waste collection service was provided by 1 306 entities.

In 2020, collected municipal waste was designated for the following processes:

- recovery- 7 732.8 thousand tonnes (59.0%), including:
 - recycling – 3 498.6 thousand tonnes (26.7%),
 - biological treatment processes (composting or digestion) – 1 577.9 thousand tonnes (12.0%),
 - incineration with energy recovery – 2 656.2 thousand tonnes (20.3%),
- disposal – 5 384.1 thousand tonnes (41.0%), including:
 - incineration without energy recovery – 166.4 thousand tonnes (1.3%),
 - landfilling - 5 217.7 thousand tonnes (39.8%).

At the end of 2020, there were 271 landfills in operation that received municipal waste and they covered a total area of 1 692 ha. More than 94% of those landfills were equipped with

The share of recovered industrial waste was 48.4%

There was an increase recorded, of 2.9%, in the amount of generated municipal waste, compared to the previous year

The share of municipal waste that was designated for landfilling was 39.8%

degassing facilities, as a result of which approximately 97 357 thousand MJ of thermal energy and approximately 113 116 thousand kWh of electricity was recovered. In 2020, 12 landfills, of a total area of approximately 30.7 ha, were closed down. In 2020, 9 946 uncontrolled landfill sites were closed down, out of which a total of approximately 72.2 thousand tonnes of municipal waste was collected. At the end of 2020, 2 025 uncontrolled landfill sites were reported.

In 2020, 9 946 uncontrolled landfill sites were closed down.

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Terms used in official statistics

[Environment protection](#)

[Consumption of water](#)

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[Air pollution protection](#)

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