Municipal Infrastructure – Water Supply and Sewage System in 2023

27.06.2024

⇧ 2.2%

An increase in the **length** of the sewage **network**

In Poland in 2023 the length of the sewage network increased by 3.9 thousand km (by 2.2%), and the number of sewage connections to residential buildings by 114.8 thousand pcs (by 2.9%).

Sewage system

At the end of 2023, the sewage network in Poland reached the length of 181.5 thousand km, whereas the number of connections to residential buildings – 3.9 million pcs. Compared to the previous year, the length of the newly built or reconstructed sewage network increased by about 3.9 thousand km, i.e. by 2.2%, with a simultaneous increase in the number of connections to residential buildings of almost 115 thousand pcs, i.e. of 2.9%.

Compared to 2022, the length of the sewage network increased by 2.2%

Table 1. Infrastructure of the sewage system in 2022–2023

Specification	2022	2021 = 100	2023	2022 = 100
Sewage network in thousand km (as of 31 December)	177.6	102.4	181.5	102.2
Sewage network in km per 100 km^2 (as of 31 December)	56.8	102.3	57.8	101.8
Connections to residential buildings in thousand pcs (as of 31 December)	3 818.2	103.5	3 933.0	103.0
Wastewater from households discharged by sewage system during the year in hm^3	996.7	100.2	1 002.0	100.5

In rural areas was located 60.4% of the sewage network and 47.4% of all sewage connections to residential buildings. Compared to the previous year, the length of the sewage network in rural areas increased by 2.8 thousand km (by 2.6%), and the number of connections to residential buildings of almost 60.9 thousand pcs (by 3.4%). In the same period, in urban areas 1.2 thousand km of the sewage network was built (an increase of 1.6%), and of almost 54.0 thousand pcs of connections to residential buildings was installed (an increase of 2.7%).

60.4% of all sewage network was located in rural areas

Data broken down by voivodships show, compared to 2022, the most significant increase in the length of the sewage network in voivodships: Świętokrzyskie – of 3.4%, Małopolskie – of 3.2%, and Łódzkie – of 3.0%, while the least in Opolskie – of 0.6%, and Kujawsko-pomorskie – of 0.9%.

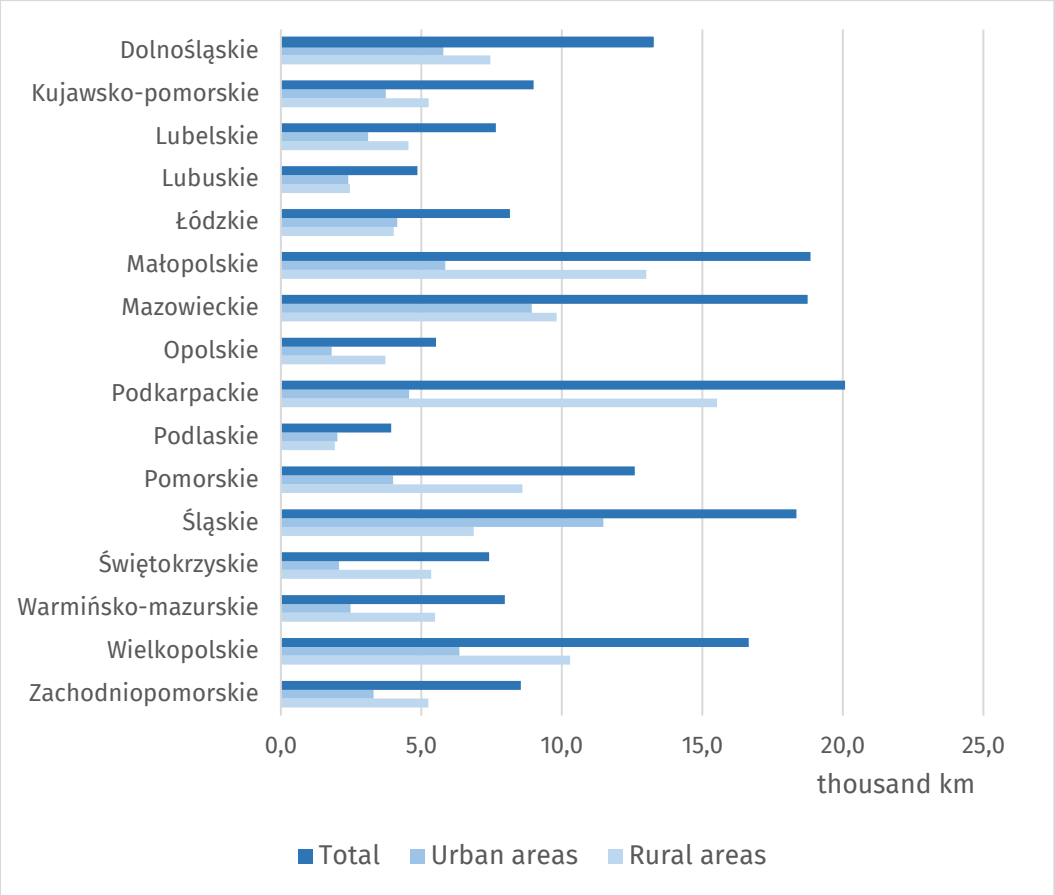
The highest density of the sewage network at the end of 2023 was in voivodhips: Śląskie – 148.7 km per 100 km^2, and Małopolskie – 124.2 km per 100 km^2, whereas the lowest in voivodships: Podlaskie – 19.5 km per 100 km^2, and Lubelskie – 30.5 km per 100 km^2.

At the end of 2023, the percentage of residential buildings connected to the sewage network amounted to 54.0%, and was higher by 0.9 percentage point, compared to 2022. In urban areas, 76.8% of residential buildings were connected to the sewage network, whereas in rural areas – 40.5%.

The amount of wastewater discharged from households by the sewage system in 2023 was 1002.0 hm^3 (in urban areas – 858.3 hm^3, and in rural areas – 143.7 hm^3), and increased, compared to 2022, by 5.3 hm^3 (in urban areas it was an increase of 0.4 hm^3, and in rural areas an increase of 4.9 hm^3).

The amount of wastewater discharged from households increased by 5.3%

Chart 1. The length of the sewage network in 2023



On-site systems for wastewater discharge

The number of on-site systems for wastewater discharge as of the end of 2023 in Poland was 2,495.8 thousand pcs, of which 83.6% (2,085.9 thousand pcs) were septic tanks, and 16.4% (409.0 thousand pcs) – household wastewater treatment systems. The amount of liquid waste (domestic wastewater) collected from septic tanks during 2023 was 40,471.1 dam^3, of which 10,527.0 dam^3 (26.0% of the total amount) was collected in urban areas, and 29,943.5 dam^3 (74.0%) in rural areas.

83.6% of on-site systems for wastewater discharge were septic tanks, and 16.4% were household wastewater treatment systems

Water supply system

At the end of 2023, the length of the water supply (distribution and main) network reached 341.1 thousand km, and the number of connections to residential buildings – almost 6.3 million pcs. Compared to 2022, the length of the newly built or reconstructed water supply network increased by 3.4 thousand km (by 1.0%), and an increase of 104.3 thousand pcs (of 1.6%) in the number of connections to residential buildings was observed.

Compared to 2022, the length of the water supply distribution network increased by 1.0%

Table. 2 Infrastructure of the water supply system in 2022–2023

Specification	2022	2021 = 100	2023	2022 = 100
Water supply network in thousand km (as of 31 December)	337.7	100.9	341.1	101.0
Water supply network in km per 100 km^2 (as of 31 December)	108.0	100.9	108.7	100.6
Connections to residential buildings in thousand pcs (as of 31 December)	6 176.7	102.3	6 281.0	101.7
Household consumption of water during the year in hm^3	1 286.5	100.5	1 296.4	100.8
Average household consumption of water per capita during the year in m^3	34.0	100.9	34.4	101.2

About 75.6% of the length of the water supply network is located in rural areas

About 75.6% of the length of the water supply network, and 61.2% of connections to residential buildings were located in rural areas. Compared to the previous year, the length of the water supply network in rural areas increased by 2.4 thousand km (by 0.9%) and amounted to 258.0 thousand km, whereas the number of connections to residential buildings – by 59.4 thousand pcs (by 1.5%). In urban areas however, there was an increase of almost 1.0 thousand km in the network (of 1.2%) – it's length amounted to 83.2 thousand km, whereas the number of connections rose by 45.0 thousand pcs (by 1.9%).

Data broken down by voivodships show the most significant increase in the length of the water supply network in voivodships: Podkarpackie – of 2.6%, Pomorskie – of 1.9%, Małopolskie and Mazowieckie – of 1.4% whereas the lowest in voivodships: Lubelskie – of 0.3%, Świętokrzyskie and Wielkopolskie – of 0.5%.

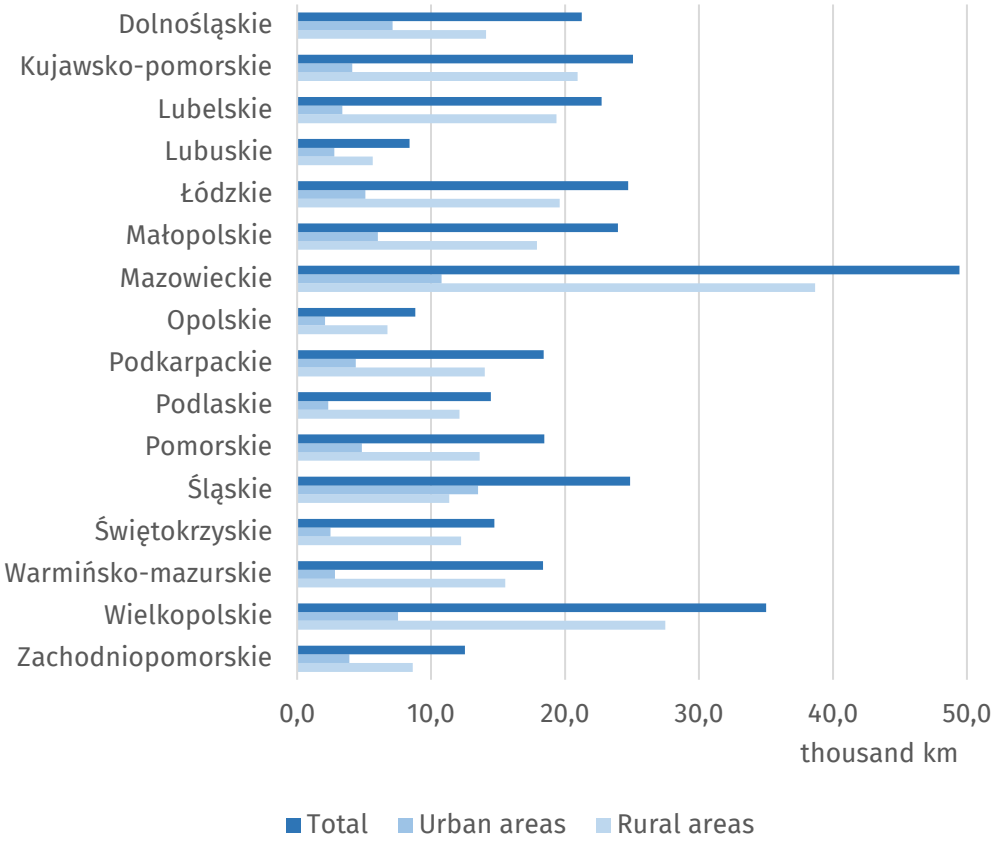
Along with the development of water supply infrastructure, the network density within the country area increases systematically. As of the end of 2023, it was 108.7 km per 100 km^2 and, compared to the previous year, it increased by 0.7 km per 100 km^2. The highest density of the water supply network still occurs in voivodships: Śląskie – 201.5 km per 100 km^2 (an increase, compared to the previous year, of 2.1 km per 100 km^2) and Małopolskie – 157.7 km per 100 km^2 (an increase of 2.3 km per 100 km^2), while the lowest in voivodships: Zachodniopomorskie – 54.7 km per 100 km^2 and Lubuskie – 60.1 km per 100 km^2 (an increase of 0.6 km per 100 km^2).

As of the end of 2023, the percentage of residential buildings connected to the water supply system increased, compared to the previous year, and amounted to 85.8%. In urban areas, 88.4% of residential buildings were connected to the water supply system, whereas in rural areas – 84.3%.

In Poland, an increase in household consumption of water per capita was observed

In 2023, the household consumption of water amounted to 1,296.4 hm^3 and, compared to the previous year, increased by 9.8 hm^3 (by 0.8%), whereas the average household consumption of water per capita amounted to 34.4 m^3 and, compared to 2022, increased by 0.4 m^3, both in urban and rural areas.

Chart 2. The length of the water supply network in 2023



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Related information

Municipal Infrastructure in 2022

Housing Economy and Municipal Infrastructure in 2022

Data available in databases

Local Data Base

Knowledge Databases Municipal and Dwelling Infrastructure

Terms used in official statistics

Sewage system

Active sewage network

Building equipped with sewage network

Septic tank

Liquid waste

Water supply distribution network

Water supply system

Building fitted with water supply network