

Municipal Infrastructure – Water Supply and Sewage System in 2022

29.06.2023

2.4%

An increase in the length of the sewage network

In Poland in 2022 the length of the sewage network increased by 4.1 thousand km (by 2.4%), and the number of sewage connections to residential buildings by 128.8 thousand pcs (by 3.5%).

Sewage system

At the end of 2022, the sewage network in Poland reached the length of 177.6 thousand km, whereas the number of connections to residential buildings – 3.8 million pcs. Compared to the previous year, the length of the newly built or reconstructed sewage network increased by about 4.1 thousand km, i.e. by 2.4%, with a simultaneous increase in the number of connections to residential buildings of almost 129 thousand pcs, i.e. of 3.5%.

Compared to 2021, the length of the sewage network increased by 2.4%

Table 1. Infrastructure of the sewage system in 2021–2022

Specification	2021	2020 = 100	2022	2021 = 100
Sewage network in thousand km (as of 31 December)	173.5	102.3	177.6	102.4
Sewage network in km per 100 km ² (as of 31 December)	55.5	102.4	56.8	102.3
Connections to residential buildings in thousand pcs (as of 31 December)	3 689.4	103.0	3 818.2	103.5
Wastewater from households discharged by sewage system during the year in hm ³	994.6	99.2	996.7	100.2

In rural areas was located 60.1% of the sewage network and 47.2% of all sewage connections to residential buildings. Compared to the previous year, the length of the sewage network in rural areas increased by 3.0 thousand km (by 2.9%), and the number of connections to residential buildings by over 75 thousand pcs (by 4.3%). In the same period, in urban areas 1.1 thousand km of the sewage network was built (an increase of 1.6%), and 53.6 thousand pcs of connections to residential buildings was installed (an increase of 2.7%).

60.1% of all sewage network was located in rural areas

Data broken down by voivodships show, compared to 2021, the most significant increase in the length of the sewage network in voivodships: Świętokrzyskie – of 3.7%, Podkarpackie – of 3.2%, and Lubelskie – of 3.0%, while the least in Warmińsko-mazurskie – of 0.7%, and Lubuskie – of 1.2%.

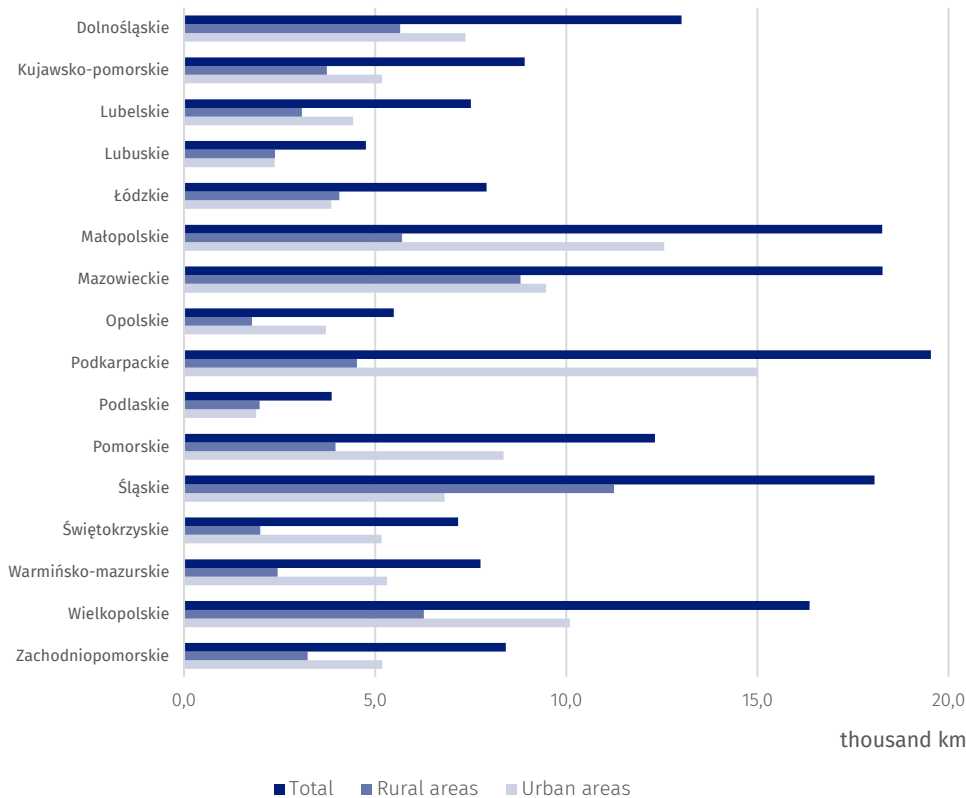
The highest density of the sewage network at the end of 2022 was in voivodships: Śląskie – 146.5 km per 100 km², and Małopolskie – 120.3 km per 100 km², whereas the lowest in voivodships: Podlaskie – 19.1 km per 100 km², and Lubelskie – 29.9 km per 100 km².

At the end of 2022, the percentage of residential buildings connected to the sewage network amounted to 53.1%, and was higher by 0.4 percentage point, compared to 2021. In urban areas, 75.9% of residential buildings were connected to the sewage network, whereas in rural areas – 39.5%.

The amount of wastewater discharged from households by the sewage system in 2022 was 996.7 hm³ (in urban areas – 857.9 hm³, and in rural areas – 138.8 hm³), and increased, compared to 2021, by 2.1 hm³ (in urban areas it was an increase of 0.4 hm³, and in rural areas an increase of 1.7 hm³).

The amount of wastewater discharged from households increased by 0.2%

Chart 1. The length of the sewage network in 2022



On-site systems for wastewater discharge

The number of on-site systems for wastewater discharge as of the end of 2022 in Poland was 2,460.1 thousand pcs, of which 86.0% (2,115.8 thousand pcs) were septic tanks, and 14.0% (344.2 thousand pcs) – household wastewater treatment systems. The amount of liquid waste (domestic wastewater) collected from septic tanks during 2022 was 32.6 dam³, of which 9.0 dam³ (27.6% of the total amount) was collected in urban areas, and 23.6 dam³ (72.4%) in rural areas.

86.0% of on-site systems for wastewater discharge were septic tanks, and 14.0% – household wastewater treatment systems

Water supply system

At the end of 2022, the length of the water supply (distribution and main) network reached 337.7 thousand km, and the number of connections to residential buildings – almost 6.2 million pcs. Compared to 2021, the length of the newly built or reconstructed water supply network increased by 3.1 thousand km (by 0.9%), and an increase of 137.9 thousand pcs (of 2.3%) in the number of connections to residential buildings was observed.

Compared to 2021, the length of the water supply distribution network increased by 0.9%

Table. 2 Infrastructure of the water supply system in 2021–2022

Specification	2021	2020 = 100	2022	2021 = 100
Water supply network in thousand km (as of 31 December)	334.6	101.3	337.7	100.9
Water supply network in km per 100 km ² (as of 31 December)	107.0	101.2	108.0	100.9
Connections to residential buildings in thousand pcs (as of 31 December)	6 038.8	102.3	6 176.7	102.3
Household consumption of water during the year in hm ³	1 279.8	98.4	1 286.5	100.5
Average household consumption of water per capita during the year in m ³	33.7	99.1	34.0	100.9

About 75.7% of the length of the water supply network, and 62.2% 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 2.2 thousand km (by 0.9%) and amounted to 255.6 thousand km, whereas the number of connections to residential buildings – by 96.5 thousand pcs (by 2.6%). In urban areas however, there was an increase of almost 0.9 thousand km in the network (of 1.2%) – its length amounted to 82.1 thousand km, whereas the number of connections rose by 41.4 thousand pcs (by 1.8%).

Data broken down by voivodships show the most significant increase in the length of the water supply network in voivodships: Lubuskie – of 2.4%, Podkarpackie – of 2.1%, and Pomorskie – of 1.8%, whereas the lowest in voivodships: Świętokrzyskie – of 0.3%, and Opolskie – of 0.4%.

Along with the development of water supply infrastructure, the network density within the country area increases systematically. As of the end of 2022, it was 108.0 km per 100 km² and, compared to the previous year, it increased by 1.0 km per 100 km². The highest density of the water supply network still occurs in voivodships: Śląskie – 199.4 km per 100 km² (an increase, compared to the previous year, of 1.6 km per 100 km²) and Małopolskie – 155.4 km per 100 km² (an increase of 2.1 km per 100 km²), while the lowest in voivodships: Zachodniopomorskie – 54.9 km per 100 km² (an increase of 0.7 km per 100 km²), and Lubuskie – 59.5 km per 100 km² (an increase of 1.5 km per 100 km²).

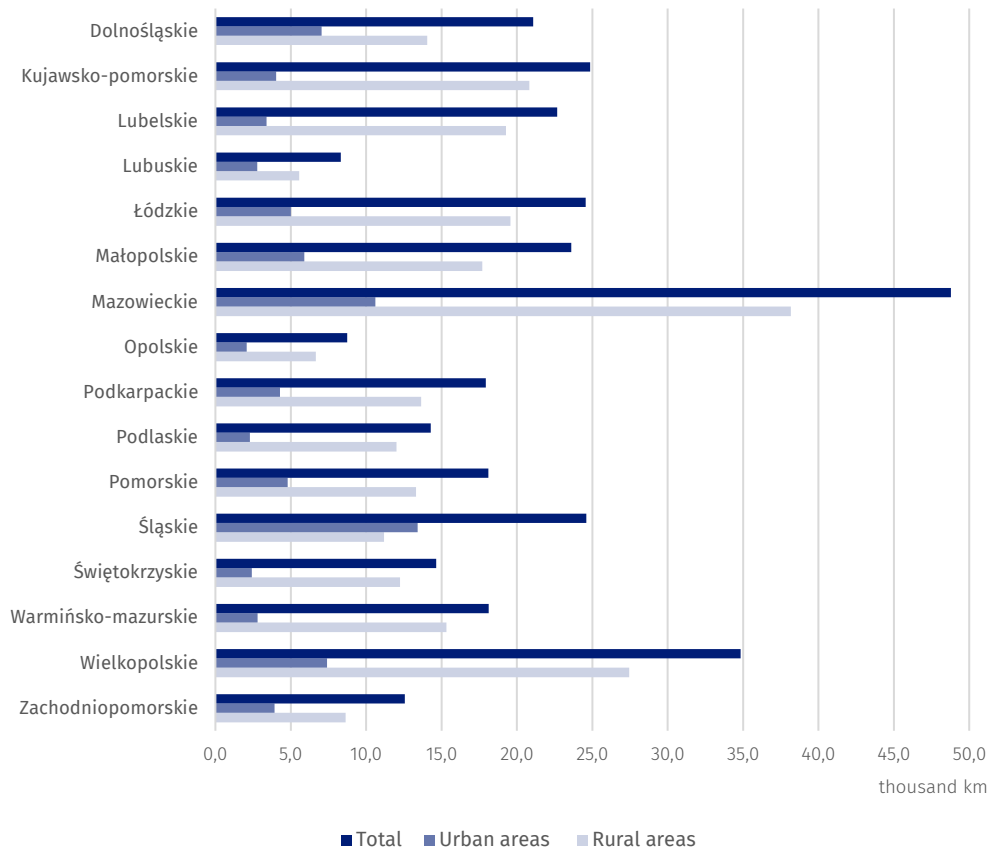
As of the end of 2022, the percentage of residential buildings connected to the water supply system increased, compared to the previous year, and amounted to 85.3%. In urban areas there was noted an increase in the percentage of residential buildings connected to water supply system – of 0.2 percentage point, whereas in rural areas the percentage remained at the same level.

In 2022, the household consumption of water amounted to 1,286.5 hm³ and, compared to the previous year, increased by 6.7 hm³ (by 0.5%), whereas the average household consumption of water per capita amounted to 34.0 m³ and, compared to 2021, increased by 0.3 m³. In rural areas the consumption of water per capita rose by 0.6 m³, and in urban areas – by 0.2 m³.

About 75.7% of the length of water supply network is located in rural areas

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

Chart 2. The length of the water supply network in 2022



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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](#)