



CENTRAL STATISTICAL OFFICE

MUNICIPAL INFRASTRUCTURE IN 2009

WARSAW 2010

STATISTICAL INFORMATION AND ELABORATIONS

Publication prepared by:

**Central Statistical Office
Trade and Services Department
Ministry of Economy
Energy Department**

Authors:

**Barbara Różańska, Marek Sobczyk
Trade and Services Department
Jadwiga Brasse, Irena Rzewuska
*The Energy Market Agency***

Under the guidance of:

**Agnieszka Matulska-Bachura
*Deputy Director of Trade and Services
Department***

**Magdalena Przybylska
*Head of Municipal Policy and Dwelling
Statistics Section***

**Joanna Kacprowska
*The Energy Market Agency***

Tables compiled by:

**Statistical Computing Centre Institute
Institute in Łódź**

Graphic design and preparation of maps:

**Statistical Computing Centre Institute
Institute in Łódź**

Publication available at: <http://www.stat.gov.pl>

PREFACE

The present publication is the subsequent edition of “Municipal Infrastructure” which aims at presenting data recipients with the characteristic of municipal services market in Poland in 2009. The presented data will allow to observe tendencies as well as changes taking place in surveyed area of activity

The elaboration includes information on installations and municipal services in the scope of water-line and sewerage systems, heating management, distribution of electricity and gas from gas-line network as well as collection and treatment of municipal waste. The statistical data have been compiled regarding the location of facilities or the place of rendering municipal services and are presented for Poland as a total and with the breakdown into voivodships, urban and rural areas.

The publication uses the results of compilations, got on the basis of statistical reports, drawn up by entities, which scope of economic activities includes supply of water to households and discharge waste water from them as well as collection of municipal waste and liquid waste, treatment of municipal waste, recycling, distribution of electricity, heat energy and gas from gas-line network.

The publication consists of four parts: methodical remarks including description of data sources, key terms, analytical part with descriptive and graphic interpretation of results obtained from surveys on municipal management and, finally, the set of tables as the subject matter of this publication.

The authors of the publication will be grateful to all people and institutions for sending their comments, which will be considered in the next edition of publication as far as possible.

*Deputy Director
Of Trade and Services Department
Agnieszka Matulska-Bachura*

Warsaw, October 2010 r.

SPIS TREŚCI

PREFACE	3
SYMBOLS	5
ABBREVIATIONS	5
1. METHODOICAL REMARKS	6
2. GLOSSARY OF KEY TERMS	7
2.1. DEFINITIONS OF GENERAL TERMS	7
2.2. DEFINITIONS OF TERMS FROM WATER-LINE SYSTEM AND SEWERAGE MANAGEMENT AREA	7
2.3. DEFINITIONS OF TERMS FROM ENERGY MANAGEMENT AND GAS ENGINEERING AREA	8
2.3. DEFINITIONS OF TERMS FROM HEATING MANAGEMENT AREA	8
2.3. DEFINITIONS OF TERMS FROM WASTE MANAGEMENT AREA	9
3. MUNICIPAL INFRASTRUCTURE IN 2009.....	10
3.1. WATER-LINE SYSTEM AND SEWERAGE MANAGEMENT	10
3.2. ENERGY MANAGEMENT AND GAS ENGINEERING	15
3.3. HEATING MANAGEMENT	17
3.4. MUNICIPAL WASTE MANAGEMENT	18
4. TABLE LIST – PLACED IN SEPARATE EXCEL FORMAT FILE.....	24

SYMBOLS

Dash /—/	– magnitude zero.
Zero /0/	– magnitude not zero, but less than 0,5 unit.
Dot /·/	– data unavailable or unreliable.
Mark “x” /x/	– not applicable.
"Of which"	– indicates that not all elements of the sum are given.

ABBREVIATIONS

tys.	thousand
mln	million
m	metre
m ²	square metre
m ³	cubic metre
km	kilometre
ha	hectare
dam ³	cubic decametre
kW.h	kilowatt * hour
MW.h	megawatt * hour
GW.h	gigawatt * hour
J	joule
kJ	kilojoule
GJ	gigajoule
TJ	terajoule
r.	year
cd.	continued
dok.	continued
szt.	piece

1. METHODOICAL REMARKS

The results of statistical surveys carried out on reports M-06, M-09, and SG-01 part 3 as well as the secondary use of data from the survey on balance of energy carriers and heating infrastructure, and data coming from internal information systems of the Energy Market Agency S.A. are the sources of information on municipal infrastructure in 2009 are

Data on water-line and sewerage systems management are collected within the full survey which comprises the units with the primary, secondary or ancillary activity in management of water-line and sewerage systems or liquid waste collection.

Data on energetics cover all units which were granted concessions to transmit and distribute fuels and electricity, including those entities for which the aforementioned services constitute secondary economic activity. Information on the number of consumers and consumption of electricity concerns households and collective accommodation places that pay bills for consumption of electricity according to rates that households are due to pay. Data regarding the consumption of electricity are presented basing on the available information on advanced payments made by consumers.

Data regarding the number of consumers of gas from gas line-network were provided by entities which were granted concessions to sale gas and are based on information concerning the number of agreements signed by these entities with consumers of gas from gas line-network.

Information on heating include residential as well as office and institutional buildings with central heating provided by transmission thermal-line considered as the system of joint installations, co-operating with each other, used for transmitting and distribution of heating medium to the recipient. Information regarding the boiler-houses or boiler-rooms covers types of boilers, their power (i.e. maximum quantity of heat energy which can be produced by boilers in a defined unit of time), annual production, installed facilities protecting atmosphere (limiting emission of pollutants to atmosphere).

Information on municipal waste comprise total quantity of waste collected during the year, (including waste from households, commerce, small business, offices and institutions as well as municipal services), municipal waste collected separately for recycling, waste deposited on controlled landfills and waste subject to biological and thermal treatment. The survey providing the above information is a full survey and covers entities involved in activities related to collection and treatment as well as recycling of municipal waste.

2. GLOSSARY OF KEY TERMS

2.1. DEFINITIONS OF GENERAL TERMS

Municipal management – a branch of national economy, which aim is to satisfy material and living needs of the population. In Poland municipal management includes enterprises conducting an economic activity in the scope of water-line and sewerage management, heating management as well as distribution of fuels and energy to households and municipal waste management.

Municipal infrastructure – basic installations and service institutions, which are essential to functioning of the economy and population.

2.2. DEFINITIONS OF TERMS FROM WATER-LINE SYSTEM AND SEWERAGE MANAGEMENT AREA

Water-line system – a set of water network devices serving collection of surface and underground waters, public wells, devices serving storage and treatment of water, water supply networks, water pressure control devices.

Water-line transmission network – conduits leading water from distant water intakes to distribution line.

Water-line distribution network – street conduits used for distribution of water to consumers by the connections to buildings and other objects.

Water-line service line – a segment of conduit connecting the water-line network with internal water-line installation in a property of consumer together with a valve past the main water-meter.

Street outlets are publicly available facilities directly connected to street water mains, serving the community for drawing water directly from the mains.

Water delivered to households is the quantity of water collected from water-line network using facilities installed in a building.

Water delivered for production purposes is water delivered to industrial, construction, transport enterprises (plants) etc., i.e. production plants in all divisions of national economy regardless of whether delivered water is used for technological purposes or for social and living needs of staff (in the lavatories, bathrooms, dining-rooms, canteens, day-rooms and office buildings which are located within the plant).

Sewerage system is the complete sewage collection – sewage networks, serving discharging of waste, including sewerage network, the outlets of devices used to emit sludge into the waters or the ground, sewage pretreatment facilities and sewage treatment plants, and sewage pumping stations¹.

¹ The Act on Collective Water Supplying and Collective Discharging of Waste Water of 7 June, 2001 (Journal of Laws of 2002 No. 72, item 747).

Active sewerage network – a system of covered (underground) conduits which drain off sewage from buildings and other objects to collectors or sewage treatment facilities.

Sewerage service line – a segment of conduit connecting internal sewerage installations in a property of the services consumer with the sewerage network after the first inspection chamber from the side of building, and in case of its lack – from a boundary of property.

Waste water discharged – household waste water or a mixture of household waste water with rainfall waste water or a mixture of household waste water with industrial waste water and rainfall waste water.

Septic tank – an installation and device intended for an accumulation of liquid waste where it is generated.

Liquid waste – sewage stored temporarily in septic tanks.

Cast station – an installation and device, placed near a sewer or a wastewater treatment plant, intended for a collecting of liquid waste transported by sewage disposal vehicles from where it is accumulated.

2.3. DEFINITIONS OF TERMS FROM ENERGY MANAGEMENT AND GAS ENGINEERING AREA

Gas-line network is a system of conduits providing gas, supplied by enterprises, which scope of economic activity includes transmission and distribution of gas to consumers². The system of conduits consists of:

- transmission and distribution network (with high-methane gas and nitrogenised gas) – street conduits used for distribution of gas to buildings or other objects by means of connections;
- service line – a system of conduits joining distribution gas-line system with buildings and other objects.

2.3. DEFINITIONS OF TERMS FROM HEATING MANAGEMENT AREA

Boiler-house or boiler-room is a building or a premise with boilers and installations used for production of heat energy for heating purposes or for simultaneous heating and supplying of warm water.

² The Energy Act of 10 April, 1997 (Journal of Laws of 1997 No. 54, item 348 with further amendments).

2.3. DEFINITIONS OF TERMS FROM WASTE MANAGEMENT AREA

Municipal waste is waste generated in households and by other producers of waste (excluding hazardous waste) which because of its character or composition is similar to waste from households.

Information regarding waste include total quantity of waste collected during the year, including waste from: households, commerce, small business, offices and institutions as well as municipal services. This information is extended by data concerning waste collected separately for recycling, waste deposited on landfills and waste treated in biological, biological-mechanical and thermal processes.

Biodegradable waste – waste capable of undergoing anaerobic or aerobic decomposition.

Neutralization of waste – processes of biological, physical or chemical treatment as a result of which the nature of waste does not pose risks to human life and health or the environment.

Landfill site – a structure for the deposit of waste.

Thermal waste treatment – incineration of waste by oxidation and other processes of thermal treatment of waste including pyrolysis, gasification, and plasmic process provided that substances originating from these processes of thermal treatment of waste are incinerated afterwards.

Composting of waste – aerobic processing of municipal waste that are subject to biological decay in controlled conditions by using microorganisms in order to neutralize the waste.

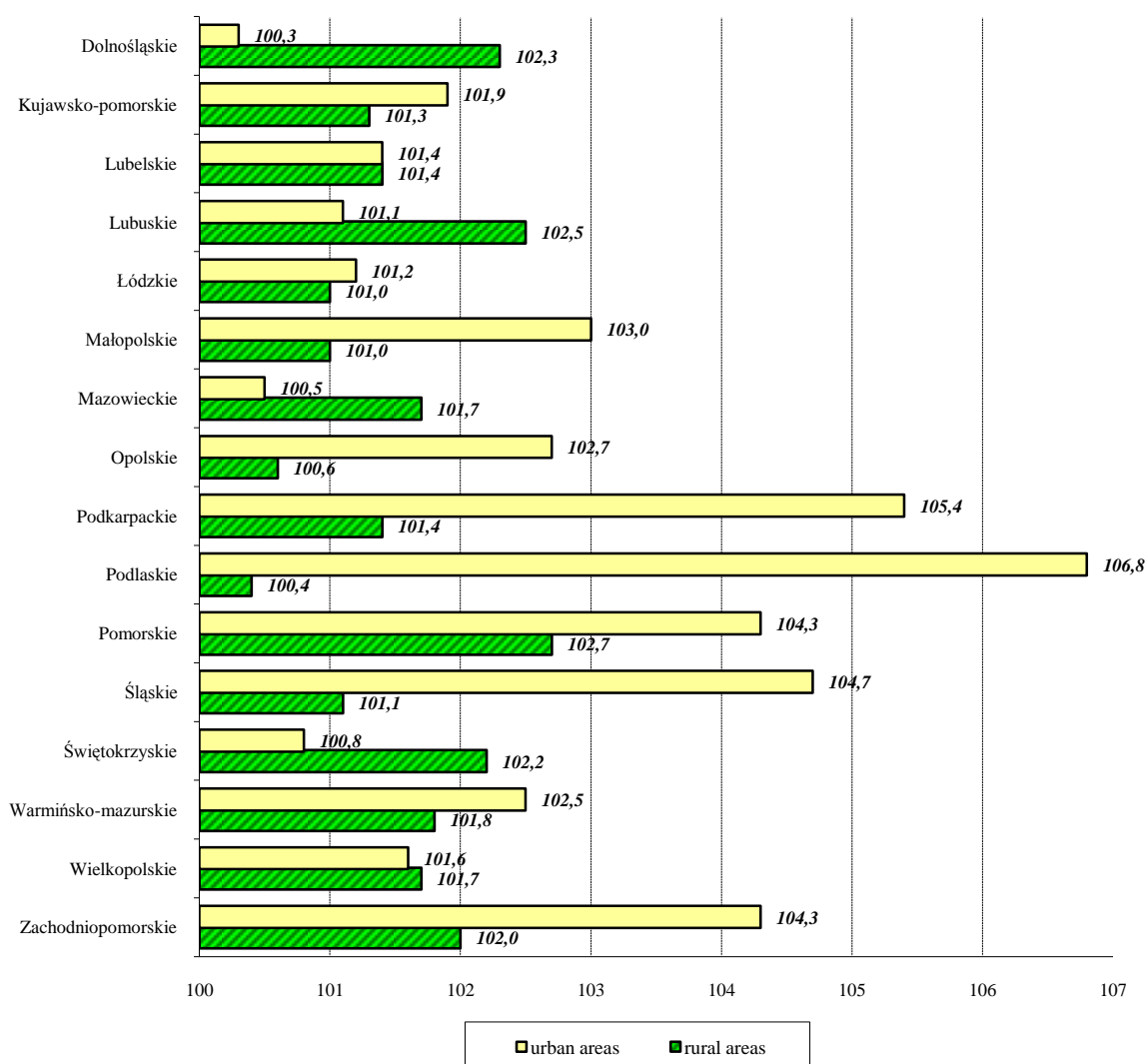
3. MUNICIPAL INFRASTRUCTURE IN 2009

3.1. WATER-LINE SYSTEM AND SEWERAGE MANAGEMENT

At the end of 2009 the length of water-line distribution network amounted to above 267 thous. km and rose by less than 2% (i.e. by about 5 thous. km) in comparison to the previous year. In the territorial profile the largest congestion of network [in km per 100 km²] was observed in Śląskie (161.1), Kujawsko-pomorskie (119.9), Łódzkie (117.9), and Małopolskie (114.1) voivodships and the smallest one were recorded in Zachodniopomorskie (39.1) and Lubuskie (43.9).

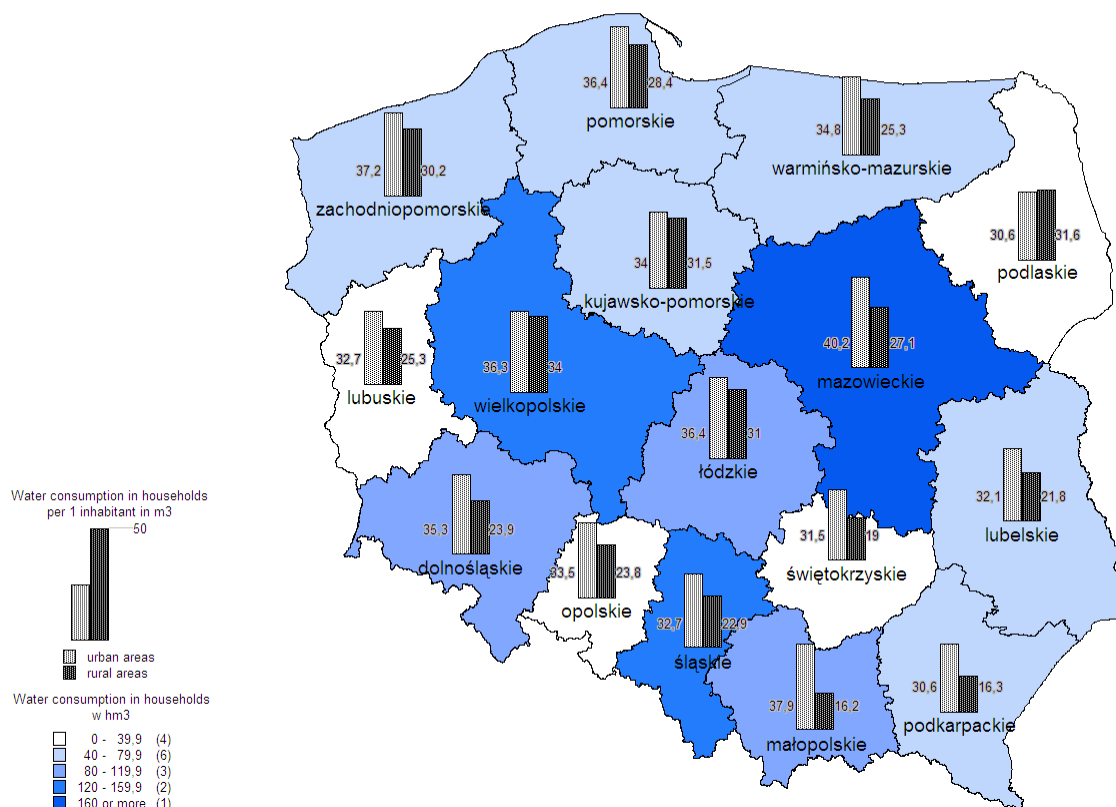
The network in the rural areas constituted almost 78%, of the total length of network in Poland. In 2009 in rural areas above 3 thous. km of new network were built. The highest growth [in km] was in Mazowieckie (526.9), Wielkopolskie (378.3), Pomorskie (260.3) and Kujawsko-Pomorskie (247.2) voivodships. In Zachodniopomorskie, Lubuskie, Śląskie and Opolskie voivodships the increase was below 121 km.

Dynamics of growth in the water-line network by voivodships in 2009 [2008=100]



The biggest water consumption [in m³] in households per one inhabitant was recorded in Mazowieckie (35,6) and Wielkopolskie (35,3) voivodships, whereas the lowest one in Podkarpackie (22,2) and Świętokrzyskie (24,6) voivodships.

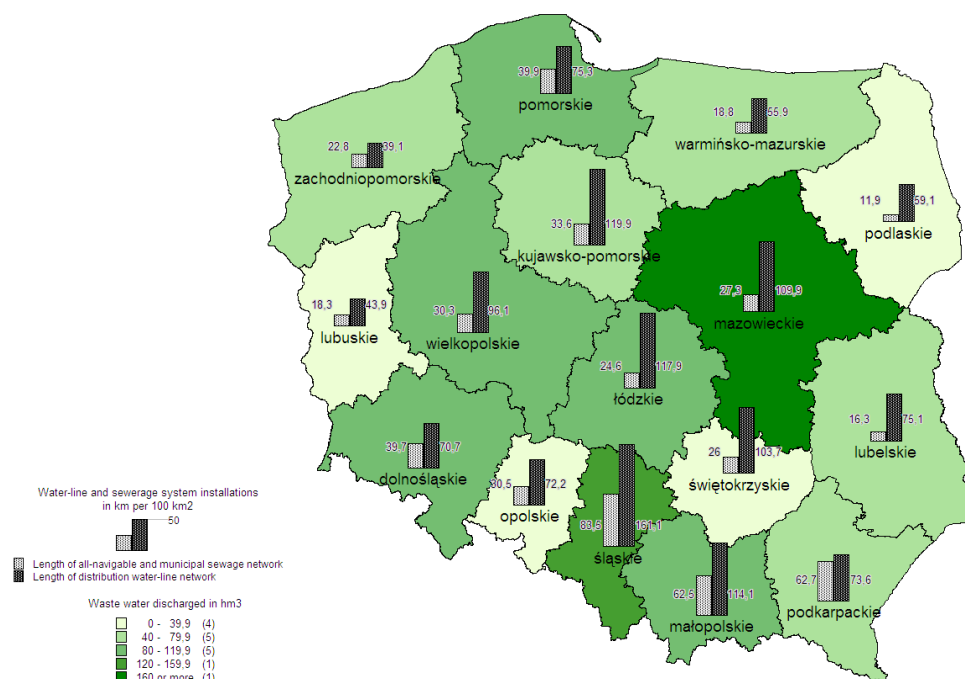
Water consumption by voivodships in 2009



The value of this indicator in urban areas ranged from 40.2 m³ in Mazowieckie to 30.6 m³ in Podlaskie voivodship, while in rural areas from 34.0 m³ in Wielkopolskie to 16.2 m³ in Małopolskie voivodship.

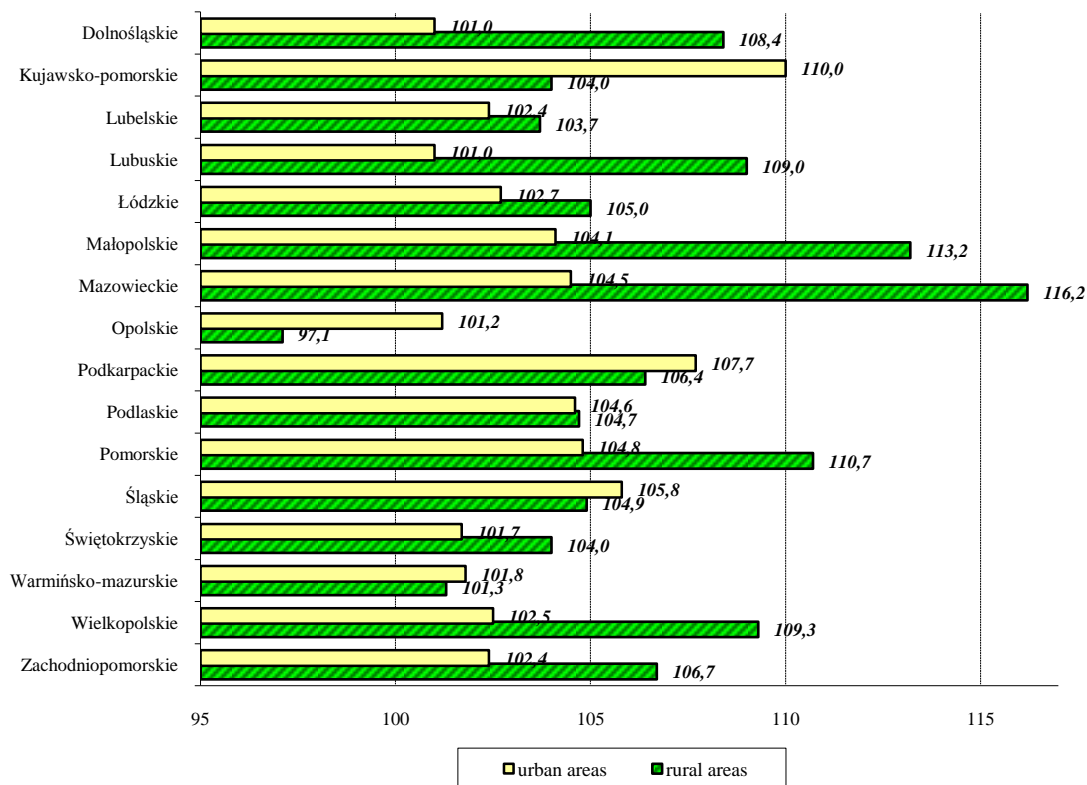
The length of sewerage system amounted to above 100 thous. km and rose by above 5% in relation to the previous year (i.e. by about 5 thous. km). The largest congestion of sewerage network [in km per 100 km²] occurred in: Śląskie (83.5), Podkarpackie (62.7), Małopolskie (62.5) and Pomorskie (39.9) voivodships.

Waste water discharged by voivodships in 2009



During 2009 in rural areas almost 4 thous. km of the new network grew (a 7.5 % rise, whereas in urban areas it accounted for almost 2 thous. km, by 4.0 %).

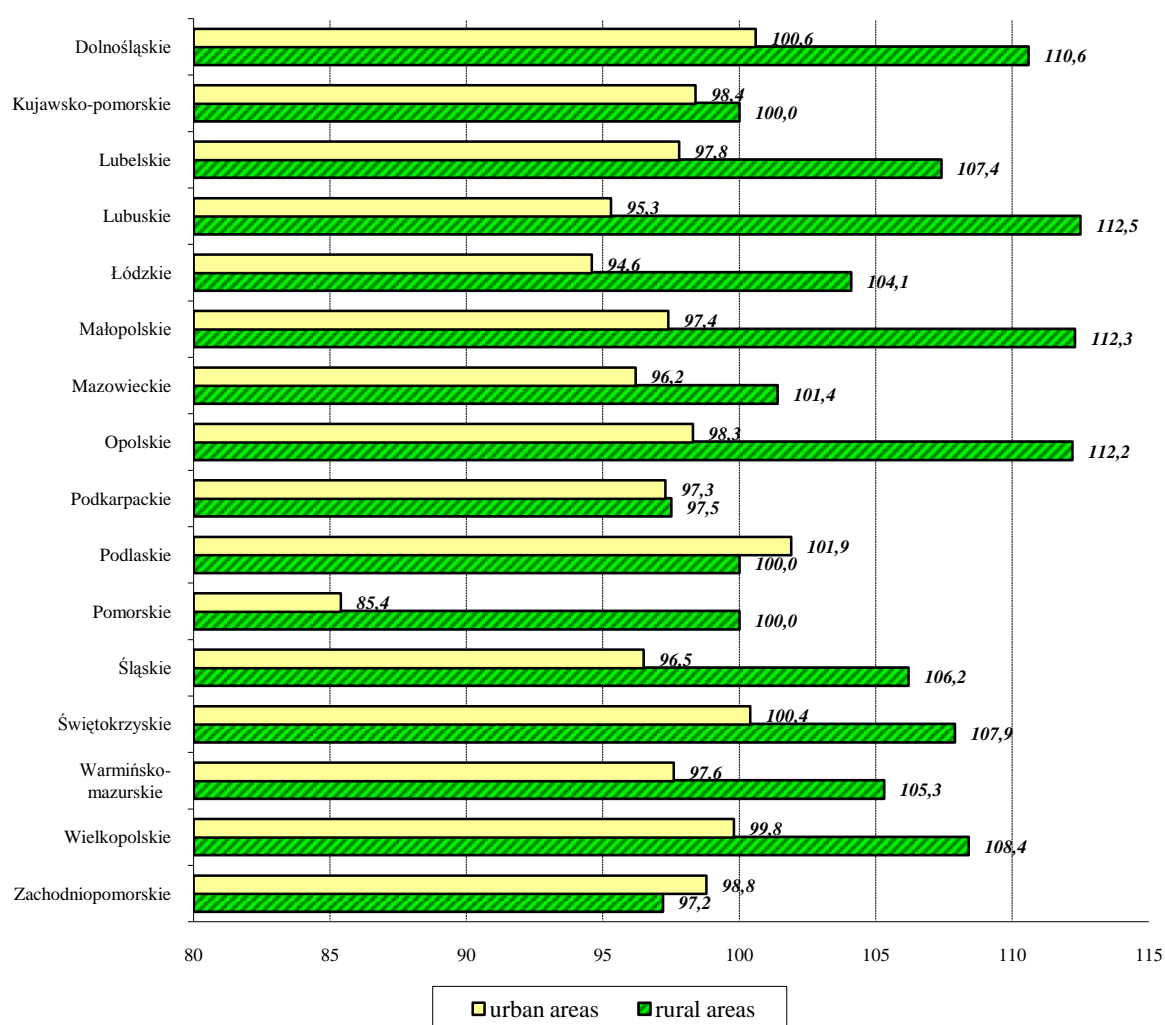
Dynamics of growth in the sewerage system by voivodships in 2009 [2008=100]



The biggest increase in the newly-built sewerage system [in km] occurred in Małopolskie (626.8), Mazowieckie (537.1) and Podkarpackie (494.5) voivodships. As for the remaining voivodships, it was below 400 km.

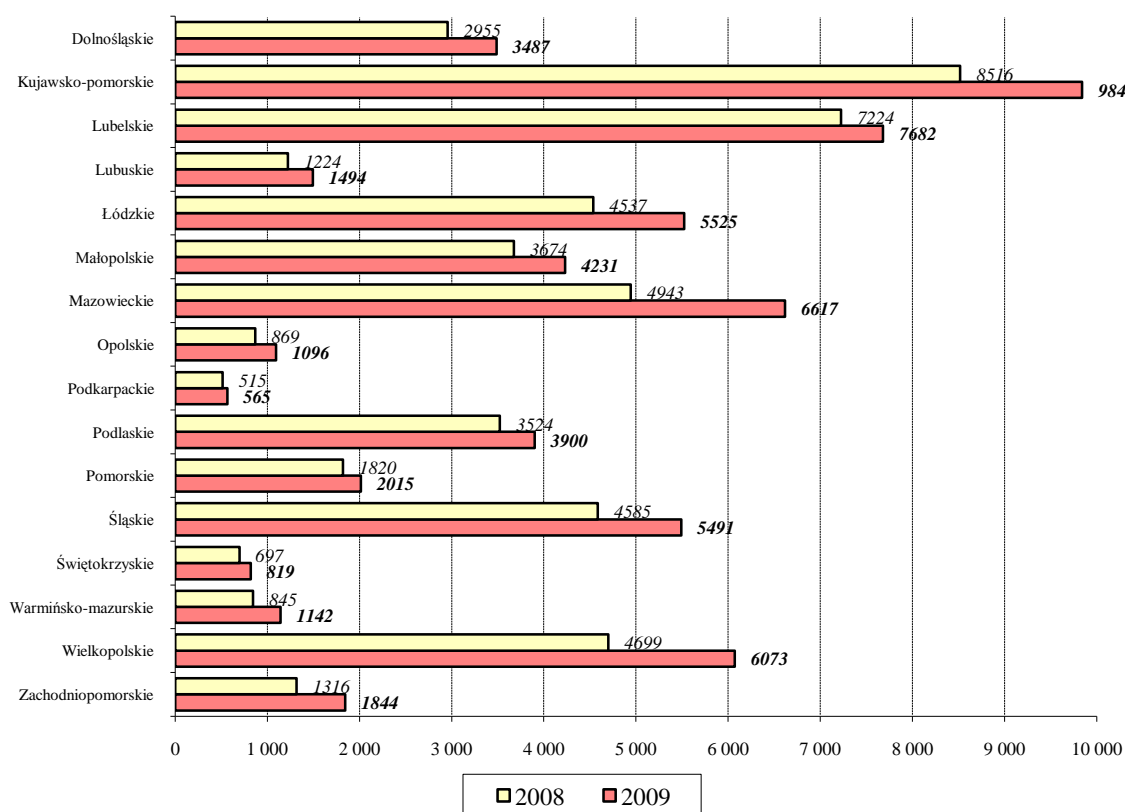
There are significant differences in the amount of waste water discharged when it comes to particular voivodships. These quantities ranged from about 194 hm³ in Mazowieckie voivodship to 29 hm³ in Opolskie voivodships. The increase in the amount of discharged waste water in rural areas was observed at the same time. It resulted from rise in investment outlays on all-navigable sewage systems and systems discharging municipal waste water.

Dynamics of quantities of waste water discharged by voivodships in 2009 [2008=100]



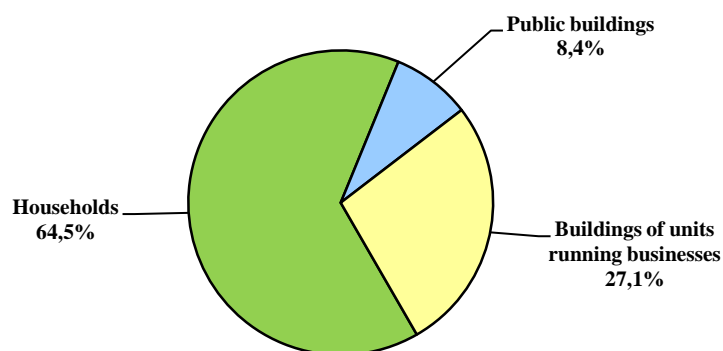
As not all settled areas have been connected to the sewage network yet, part of sewage is discharged into on-site wastewater disposal systems (septic tanks or on-site wastewater treatment facilities). The number of septic tanks, in which liquid waste is temporarily stored, dropped from about 2 440 thous. in 2008 to 2 433 thous. in 2009, whereas the number of wastewater treatment sites adjacent to homestead has risen from about 52 thous. in 2008 to about 62 thous. in 2009 (by 19%).

Wastewater treatment sites adjacent to homestead in the years 2008 and 2009 [pcs]



In 2009 about 23.5 thous. dam³ of liquid waste was collected, a 1.1% increase comparing with 2008. About 64.5% of collected liquid waste originated from private households, 27.1% from buildings of units running businesses and the remaining 8.4% from public buildings (in 2008 it was 62.8%, 28.5% and 8.7% respectively).

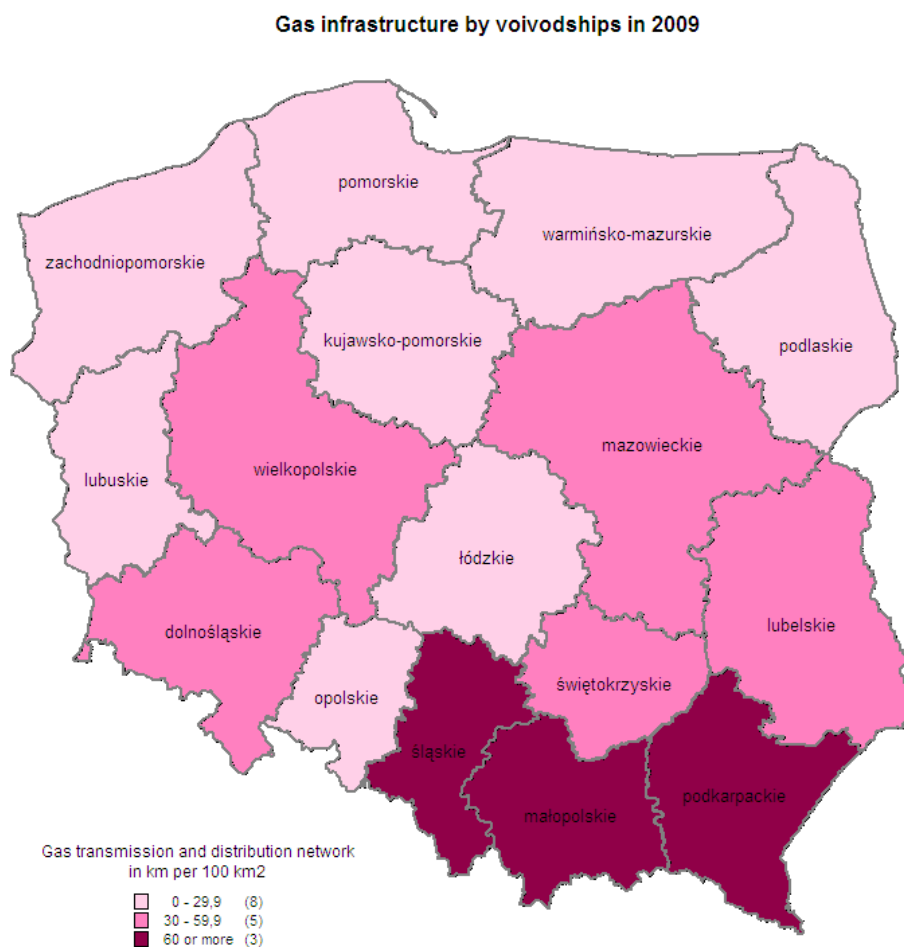
Sources of liquid waste in 2009 [%]



In 2009 about 67.8% of liquid waste was collected by private businesses (66.3% in 2008), 31.9% by firms from the public sector (33.7% in 2008) and the remaining 0.3% by entities of ownership mixed between private and public sector (0% in 2008). The number of cast stations, which receive sewage from septic tanks' users, amounted to 2 143 compared with 2 128 in the previous year.

3.2. ENERGY MANAGEMENT AND GAS ENGINEERING

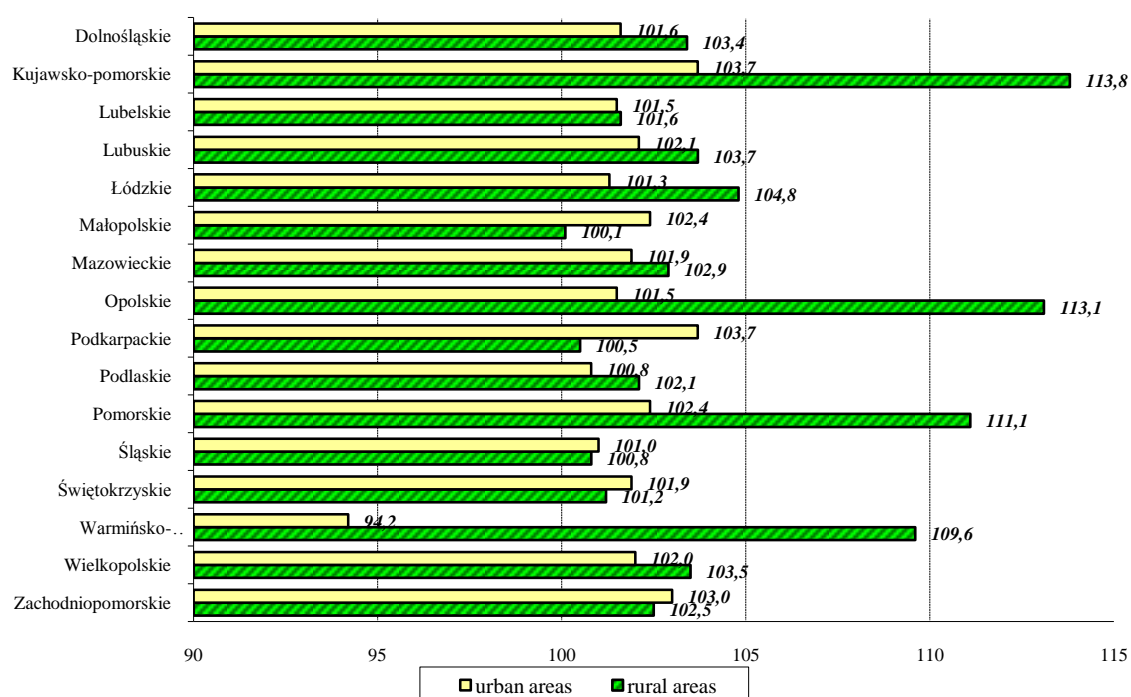
The length of gas-line network amounted to almost 132 thous. km, of which above 112 thous. km fell to the distribution gas network. The largest congestion of gas-line network [in km per 100 km²] occurred in Małopolskie (145.1), Śląskie (128.9) and Podkarpackie (103.5) voivodships, of which 253.8 km in urban areas.



The highest increase in the length of gas distribution network [total, in km] in comparison to the previous year was in Wielkopolskie voivodship (an increase at the level of above 284 km). As for Świętokrzyskie, Opolskie and Podlaskie voivodships the increase was below 50 km.

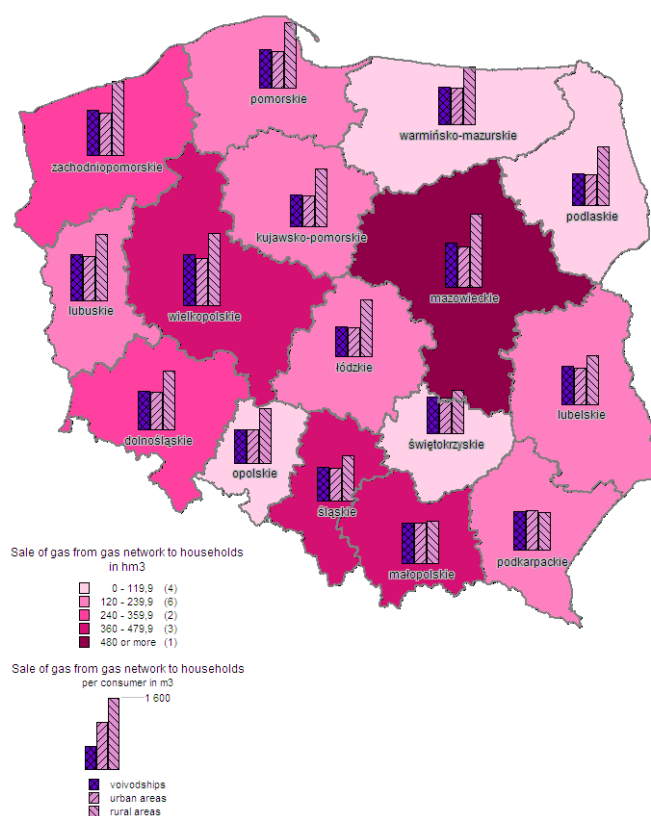
In 2009 the rate of infrastructural development was almost identical in urban areas (101.8 %) and in rural areas (101.7 %).

Dynamics of growth in gas-line network (distribution) by voivodships in 2009 [2008=100]



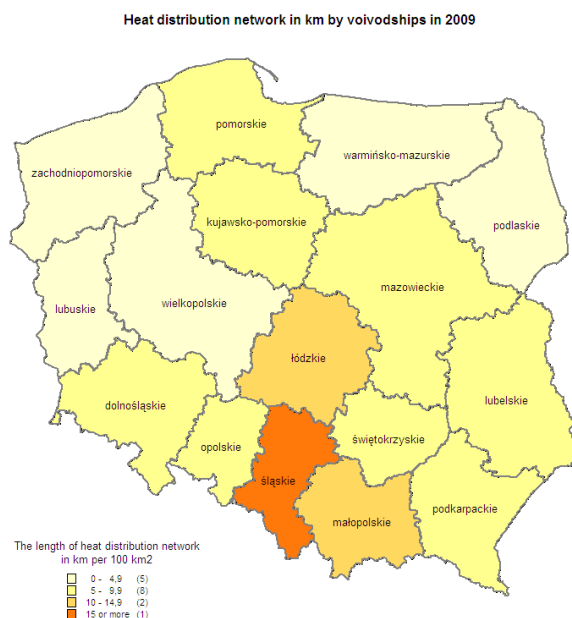
The most significant sales of gas from gas-network [in m³] to households (per one recipient) was noted in Wielkopolskie (816.5), whereas the lowest in Łódzkie (339.3) voivodship.

Sale of gas by voivodships in 2009

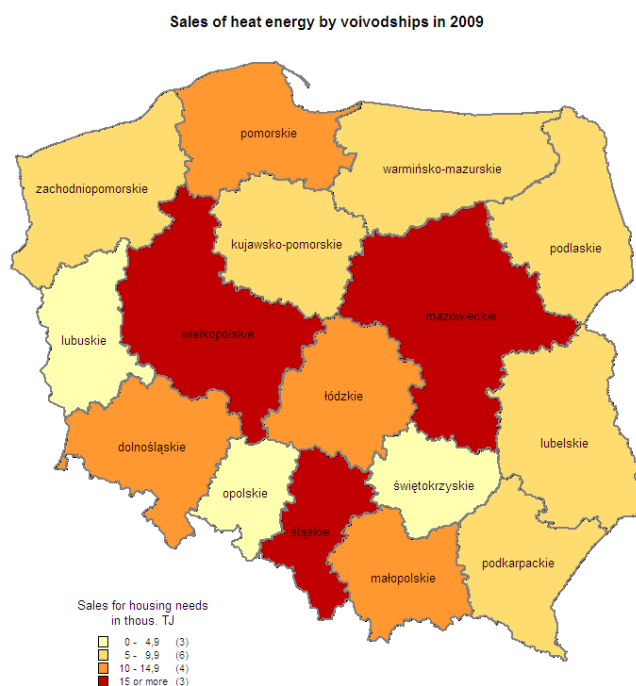


3.3. HEATING MANAGEMENT

In the regional breakdown the largest congestion of heat network [in km per 100 km²] occurred in the following voivodships: Śląskie (20.5), Małopolskie (12.8) and Łódzkie (10.6). As for the remaining voivodships, it was below 10 km per 100 km².

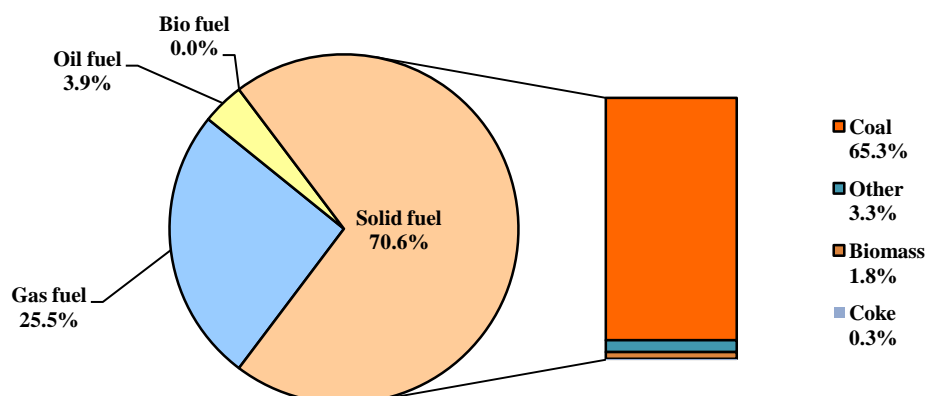


In 2009 the total sales of heat energy were below 210 372 TJ, of which the sales of heat energy for the housing heating needs were above 179 680 TJ. This allowed to provide heating to buildings with total cubic capacity of 1 860 215 thous. m³.



The most of heat energy was produced with the usage of solid fuel – 70.6 %, gas fuel – 25.5 % and also oil fuel – 3.9 %.

The types of fuel used for production of heat energy in 2009 [%]

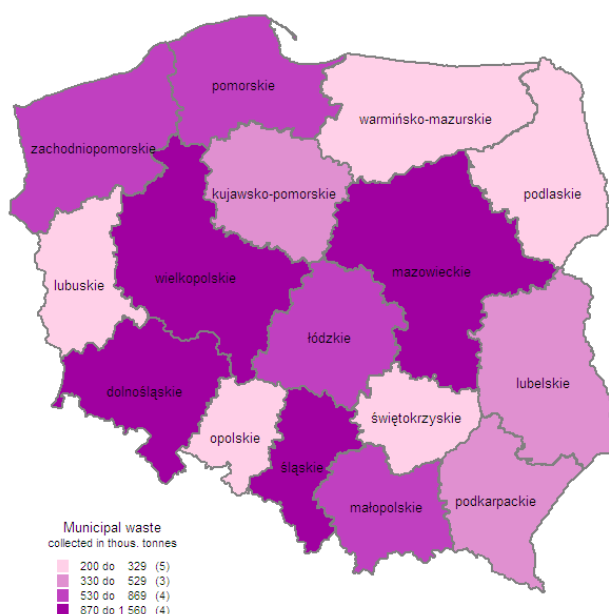


3.4. MUNICIPAL WASTE MANAGEMENT

In 2009 in Poland 10 053.5 thous. tonnes of municipal waste were collected, which is 0.2% increase in comparison to 10 036.4 thous. tonnes collected in 2008. At the same time there was observed 0.2% decrease in the amount of municipal waste generated – in 2009 it was 12 052.5 thous. tonnes, whereas in the previous year 12 194 thous. tonnes.

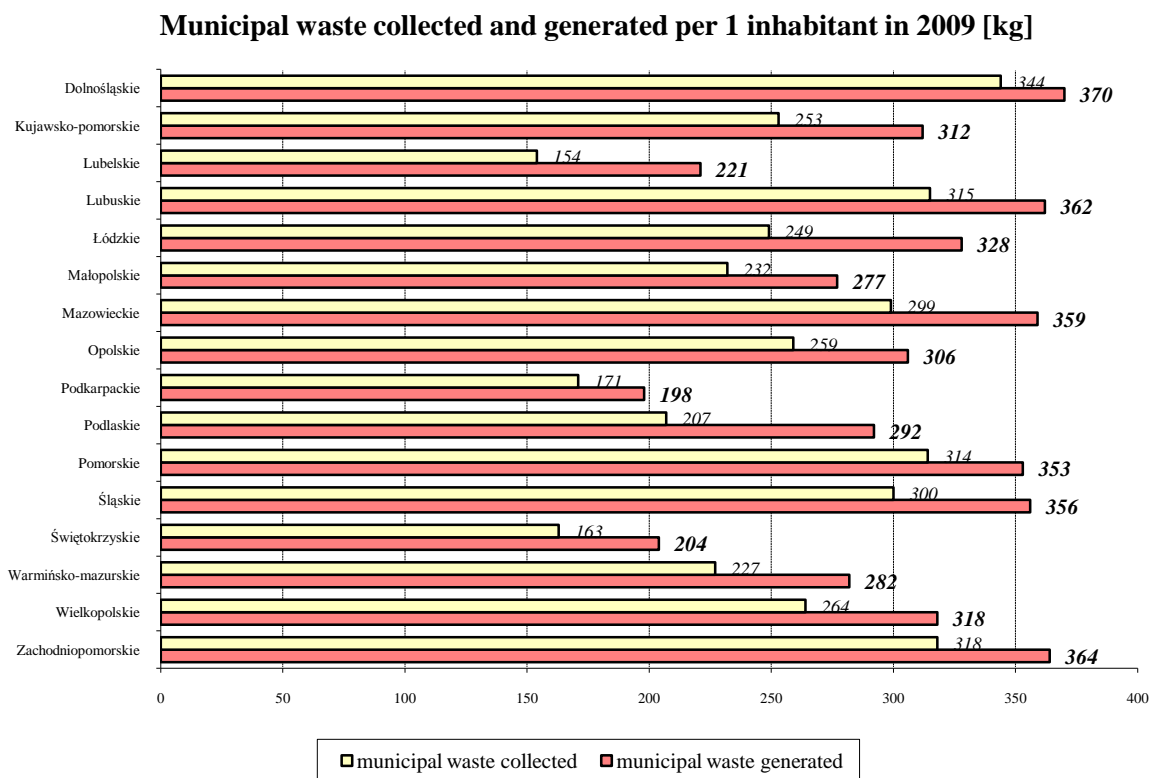
The most municipal waste [in thous. tonnes] was collected in dolnoslaskie (990.1), mazowieckie (1 556.9), slaskie (1 394.0) and wielkopolskie voivodships, whereas the least in lubuskie (318.3), opolskie (267.7), podlaskie (246.6), swietokrzyskie (207.2) and warminsko-mazurskie (323.5) voivodships.

Municipal waste collected in 2009 by voivodships

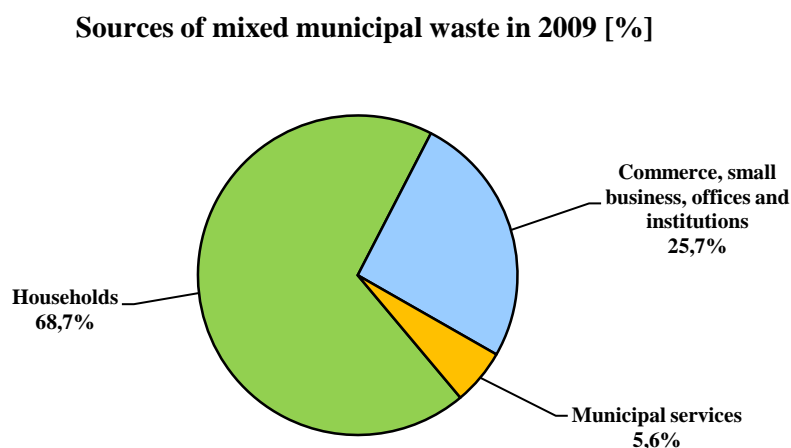


In 2009 about 57.9% of municipal waste was collected by private units (57.7% in 2008), whereas 40.3% of municipal waste was collected by businesses from the public sector and remaining 1.8% by entities of ownership mixed between private and public sector (0% in 2008).

In 2009 there were about 264 kilograms of municipal waste collected per inhabitant, while the amount of municipal waste generated per inhabitant was at the level of about 316 kilograms.



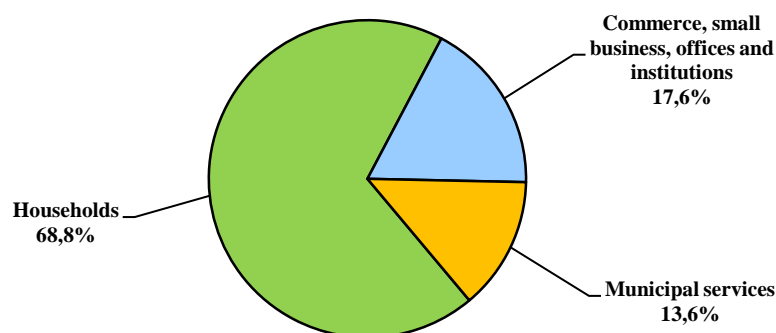
In 2009 the majority (68.7%) of mixed municipal waste was collected from private households. The next significant source (25.7%) was commerce, small business, offices and institutions. Waste from municipal services, such as street cleaning or maintenance of parks or cemeteries, accounted for 6.3% of total arisings of mixed municipal waste collected (just as a 1 year ago).



In 2009 separate collection of municipal waste was provided in 2 331 gminas, where biodegradable waste was collected in 859 gminas, and waste electrical and electronic equipment in 1 031 gminas (in 2008 that was 834 and 795 gminas respectively). In 147 gminas separate collection was not organized (in 2008 in 188 gminas).

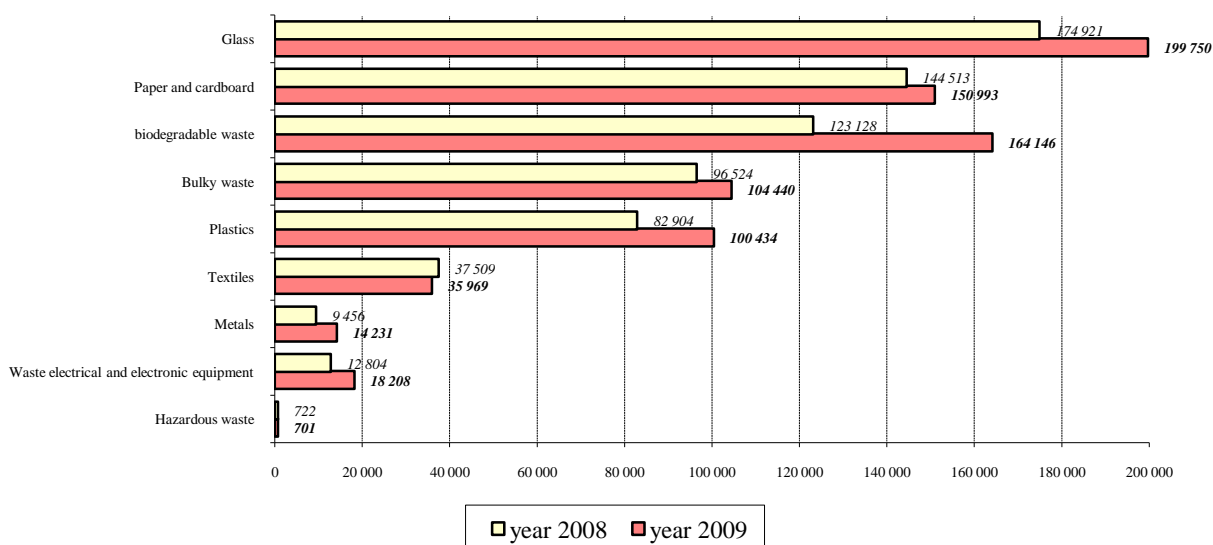
In 2009 most (68.8%) of separately collected municipal waste originated from households (mainly waste glass). Waste collected separately from commerce, small businesses, offices and institutions (mainly paper) accounted for 17.6%. Waste from municipal services (mainly biodegradable waste) was 13.6% of total arisings of municipal waste collected separately. In the previous year it was 66.2%, 19.4% and 14.4% respectively.

Sources of municipal waste collected separately in 2009 [%]



The share of separately collected waste in total amount of municipal waste collected increased from 6.8% in 2008 to 7.8% in 2009. Total tonnage of separately collected waste has increased from around 682.5 thous. tonnes in 2008 to around 788.9 thous. tonnes in 2009.

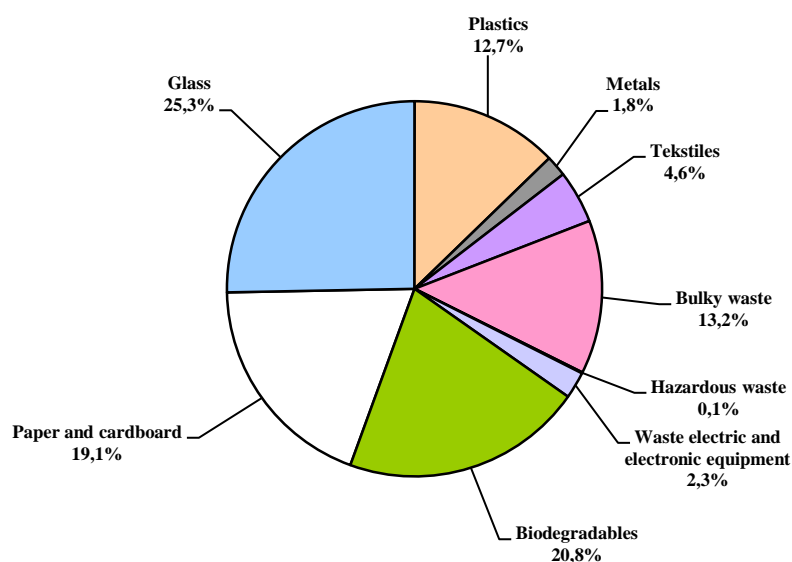
Municipal waste collected separately in 2008 and 2009 [t]



In 2009 total amount of glass collected for recycling was 199.8 thous. tonnes (25.3% of the total waste collected separately). The amount of paper and cardboard collected separately was 151.0 thous. tonnes (19.1%). The amount of collected separately biodegradable waste was 164.1 thous. tonnes (20.8%), and plastics 100.4 thous. tonnes (12.7%). Considering the most commonly recycled materials, the amount of glass collected for recycling has increased by 14.2% since 2008, the amount of paper and cardboard increased only by 4.5% and plastics by 21.1%.

The amount of metal waste collected in 2009, yet has increased of 50.5% in comparison to the previous year. In 2009 there was 14.2 thous. tonnes of metal waste collected, whereas it was almost 9.5 thous. tonnes in 2008.

Municipal waste collected separately in 2009 [%]

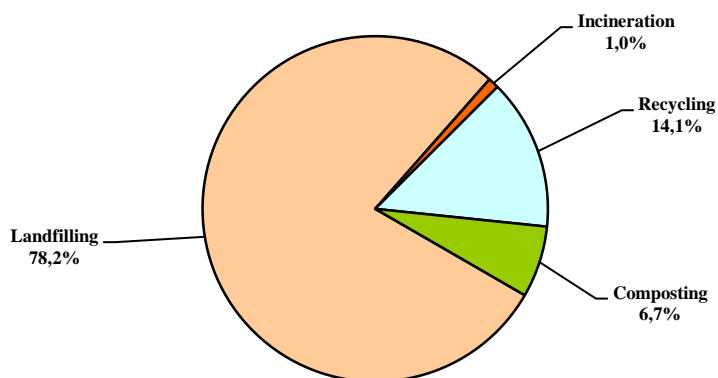


The proportion of municipal waste being landfilled fell from 86.6% in 2008 to 78.2% in 2009. However, the actual tonnage of waste being disposed of in this way decreased from 8 693.2 thous. tonnes in 2008 to 7 859.4 thous. tonnes in 2009 (by 9.6%).

In 2009 around 101.1 thous. tonnes of municipal waste were incinerated, which was 61.1% more than in 2008. However, the proportion of incinerated municipal waste in total tonnage of municipal waste collected, has remained constant at the level of 1%.

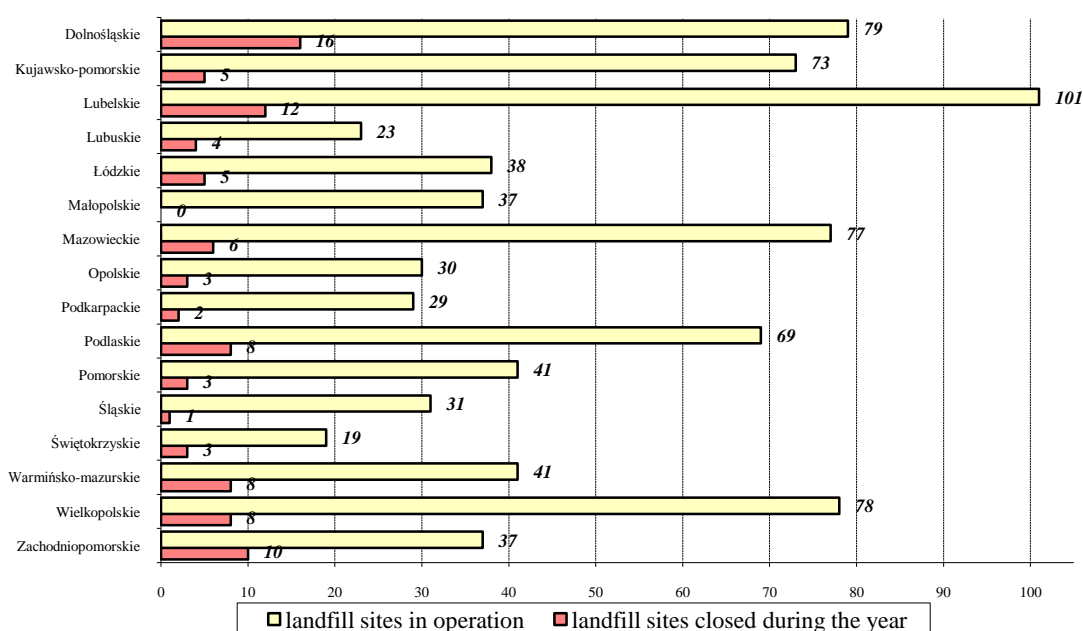
In 2009 about 672.5 thous. tonnes were treated by means of biological or biological-mechanical methods. There were mainly green waste from gardens, parks and cemeteries, compostable wastes from markets, biodegradable wastes from kitchens and canteens. Compared to the previous year, the proportion of municipal waste being treated in that way has grown to the level of 6.7%. Around 795.9 thous. tonnes of materials for recycling were sorted out from mixed municipal waste, which was more than a double increase in comparison to the 335.5 thous. tonnes sorted out in the previous year.

Municipal waste management in 2009 [%]



At the end of 2009 there were 803 operating controlled landfill sites occupying an area of about 2 800 ha. During 2009 there was closed 94 of such landfill sites, which occupied an area of almost 226 ha.

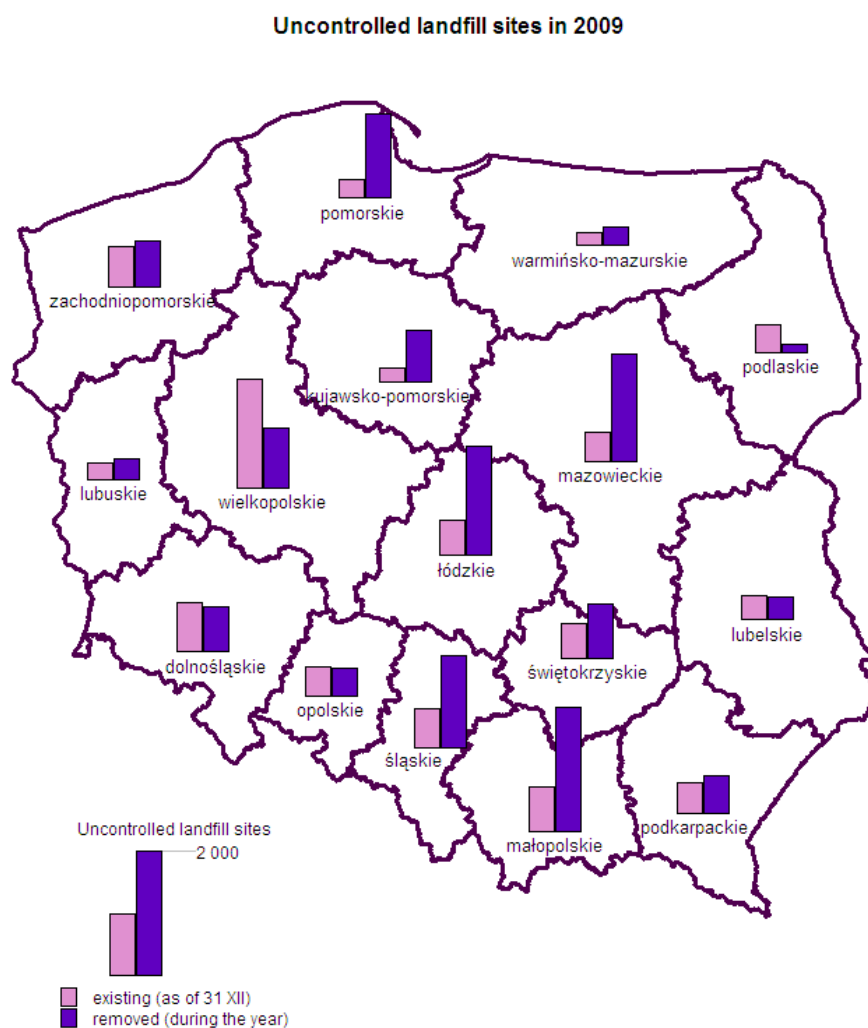
Landfill sites in operation and closed during 2009 [pcs]



The decomposition of biomass on landfill sites releases landfill gas, which is one of the largest sources of methane emissions to the atmosphere. In 2009 among 386 of controlled landfill sites in operation the with degassing installations almost 80% were those with landfill gas escaping to the atmosphere. On the remaining landfills the collected gas was flared without energy recovery (a process for conversion of methane to carbon dioxide had been taking place) or with energy recovery. In 2009 about 68 134 thous. MJ of thermal energy and around 133 217 thous. kWh of electrical energy was recovered by the means of neutralisation the captured landfill gas by burning.

Growing number of cases of uncontrolled landfilling of municipal waste is still a major problem of waste management in Poland as these dealings cause damage to the environment and affects the

aesthetic appeal of an area. At the end of 2009 in Poland there were 4 373 uncontrolled dumping sites, by 26% more than in the previous year. Illegal dumping of waste occurred in both urban and rural areas. At the end of 2009 about 50.9% of existing uncontrolled dumping sites was located in rural areas whereas about 49.1% in urban areas. In 2008 it was 68.7% and 31.3% respectively. The number of uncontrolled dumping sites in urban areas in 2009 has almost doubled and in rural areas has dropped by 6.9% since 2008.



The types of land most commonly affected by uncontrolled dumping of waste include land near to waste management facilities, derelict land, roadsides, back alleys, private land (particularly on the outskirts of urban areas) and watercourses. During 2009 about 10 281 of such dumping sites were removed, from which 8 323 (81%) in urban and 1 958 (19%) in rural areas. Compared to the previous year, total number of removed illegal dumping sites has increased by about 6% (in urban areas it was a rise of about 8% whereas in rural areas there was a decrease by 3%). During removal of illegal landfills about 139 thous. tonnes of municipal waste were collected.

4. TABLE LIST – PLACED IN SEPARATE EXCEL FORMAT FILE

1. MAJOR DATA REGARDING MUNICIPAL INFRASTRUCTURE
2. MUNICIPAL INSTALLATIONS
3. POPULATION USING MUNICIPAL INSTALLATIONS
4. WATER-LINE AND SEWERAGE SYSTEM ADMINSTRATED OF REPORTED UNITS BY OWNERSHIP SECTORS
5. WATER-LINE INSTALLATIONS
6. WATER-LINE INSTALLATIONS IN 2000, 2005, 2007-2009
7. CONSUMPTION OF WATER FROM WATER-LINE SYSTEM IN HOUSEHOLDS
8. CONSUMPTION OF WATER IN HOUSEHOLDS BY OWNERSHIP SECTORS OF UNITS SUPPLYING WATER
9. SEWERAGE SYSTEM INSTALLATIONS
10. SEWERAGE SYSTEM INSTALLATIONS IN 2000, 2005, 2007-2009
11. EXPLOITATION OF WATER-LINE AND SEWERAGE SYSTEM
12. COLLECTION OF LIQUID WASTE
13. LIQUID WASTE REMOVED TO WASTEWATER TREATMENT PLANTS
14. CONSUMERS AND CONSUMPTION OF ELECTRICITY IN HOUSEHOLDS
15. GAS-LINE SYSTEM
16. CONNECTIONS AND CONSUMERS OF GAS FROM GAS NETWORK IN HOUSEHOLDS
17. CONSUMPTION OF GAS FROM GAS NETWORK IN HOUSEHOLDS
18. HEATING BY OWNERSHIP SECTORS
19. SALE OF HEATING ENERGY FOR MUNICIPAL PURPOSES IN GJ
20. BOILER-HOUSES AND THERMIC-LINE
21. CUBAGE OF BUILDINGS WITH CENTRAL HEATING
22. PRESENTATION OF THERMIC-BOILERS BY TYPES
23. BOILER INSTALLATIONS PROTECTING ATMOSPHERE AGAINST EMISSION OF POLLUTION
24. PURIFICATION BY OWNERSHIP SECTORS
25. MUNICIPAL WASTE MANAGEMENT
26. MUNICIPAL WASTE COLLECTED PER 1 INHABITANT IN 2002-2009
27. MIXED MUNICIPAL WASTE COLLECTED
28. MUNICIPAL WASTE COLLECTED SEPARATELY
29. METHODS OF MUNICIPAL WASTE TREATMENT
30. CONTROLLED LANDFILL SITES
31. DEGASSING OF CONTROLLED LANDFILL SITES
32. PLACES OF MUNICIPAL WASTE DEPOSITION
33. SEPARATE COLLECTION OF MUNICIPAL WASTE IN GMINAS