



ENVIRONMENTAL STATISTICS

ANNUAL DATA FOR 2017

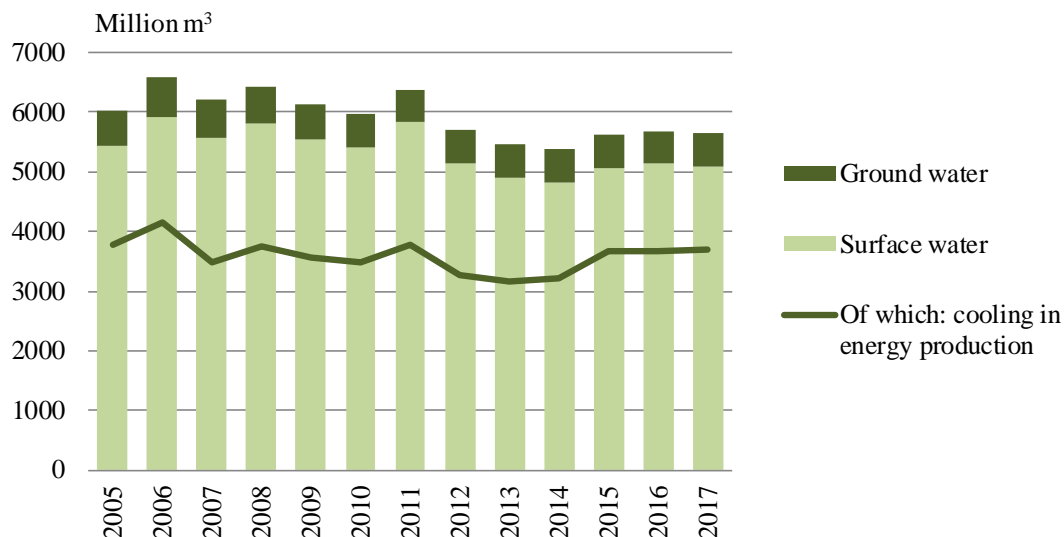
National Statistical Institute presents the results of annual surveys in the field of environmental statistics for 2017. Detailed data on specific topics can be found in the 'Environment' section of the NSI website: <http://www.nsi.bg>.

1. Water

Water abstraction

In 2017 there are no significant changes in the volume of water abstracted at national level compared with the previous year. In 2017, the amount of abstracted freshwaters for the economy is estimated to 5 658 million m³ or by 0.6% less compared to 2016. The quantity of water abstracted from surface sources decreased by 1.0% compared to 2016 and its share is about 90% of total water abstracted. The abstraction from groundwater sources increased by 3.7% and it is mainly for the public water supply usage.

Figure 1.1. Fresh water abstraction (excluding water for hydropower generation)



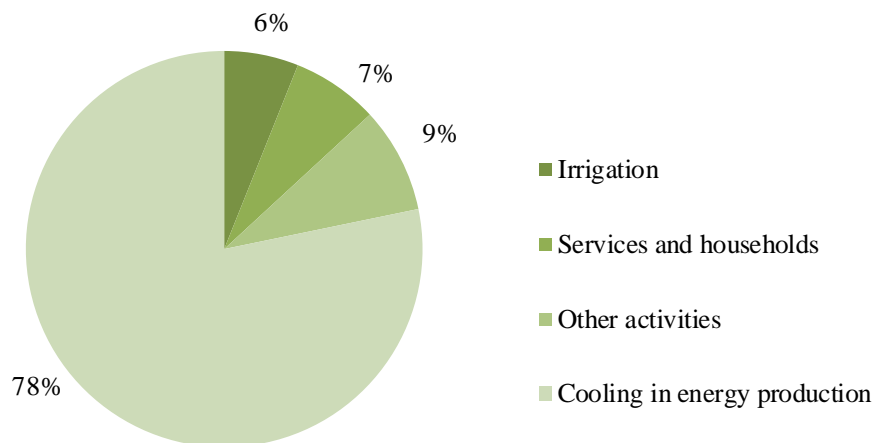
The water abstraction structure on national level is relatively stable. In 2017 15.6% of the fresh water was abstracted for Public water supply, 14.8% - for Agriculture, forestry and fishing, 69.3% for the Industry, and 0.4% for the Services sector. In 2017 the most significant decrease was observed in the Agriculture, forestry and fishing sector - to 834.5 million m³ or by 8.1% less than 2016. Part of abstracted water is delivered to the users and the rest is water losses (leakages, evaporation, unauthorized consumption, measurement errors etc.).



Water used

Water is provided through public water supply, irrigation systems or self-supply. The total use of freshwater and non-freshwater in the country in 2017 is estimated at 4 733 million m³ and remains at the level of the previous year. The energy sector cooling water comprises the main share of the total water usage in the country - 78.3%, and as well remains at the level of the previous year (0.6% increase). The quantity of water used for irrigation in the agricultural sector decreased in 2017 to 287 million m³ or by 6.8% compared to 2016. The water used in 2017 for irrigation in the sector Agriculture, forestry and fishing was 255 million cubic meters. The amount of water consumed in the service sector increased by 15.3%, while the water used by the households remains the same compared to 2016.

Figure 1.2. Structure of water used by purpose in 2017



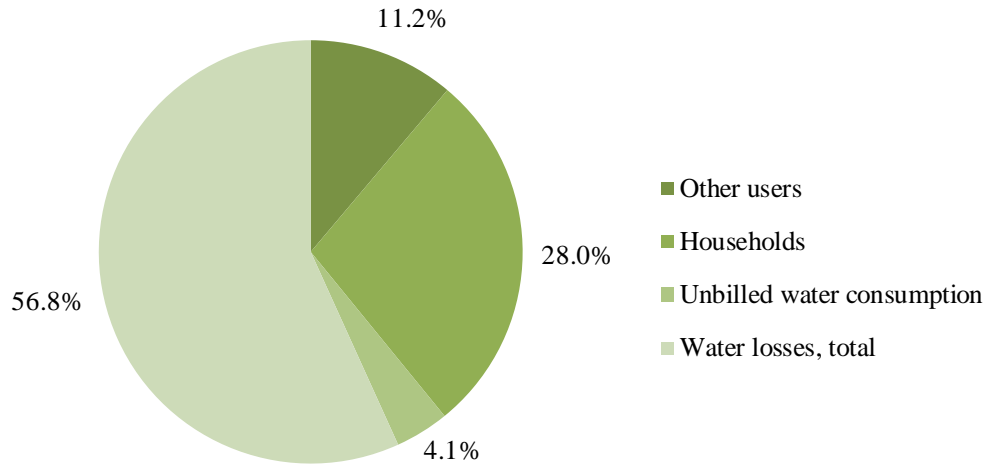
Additionally in 2017 a total amount of 17.9 billion m³ water was used for hydroenergy production which is less compared to 2016 by 16.8%.

Public water supply (PWS)

About 8.4% of the water used in the country is provided by the PWS. The amount of water supplied by PWS in 2017 is 919 million m³ or by 0.9% more than in 2016. The delivered water to end users (billed) in 2017 amounts for 39.1% of the supplied water and the unbilled water delivered - 4.1% (for technological, fireproof and other purposes). The total water losses in 2017 are estimated at 56.8% of the supplied water (521.4 million m³), which remain unchanged from 2016. Losses in water transport (real losses) in 2017 are estimated at 441.7 million cubic meters.



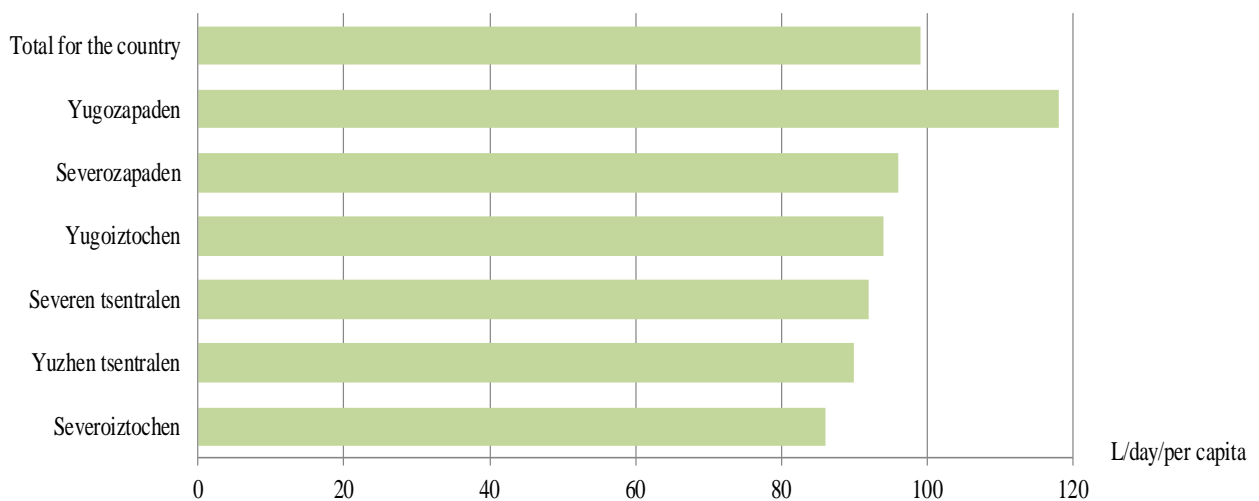
Figure 1.3. Water supplied from public water supply in 2017



99.4% of the population in the country is connected with the public water supply. Household water consumption in 2017 is estimated to 99 liters per day on average per person (100 l/day/per capita in 2016). The household water consumption in the Yugozapaden region (118 l/day/per capita) is above the average for the country, and the lowest quantity is in Severoiztochen (86 l/day/per capita). In 2017, 3.0% of the population was in a water supply regime due to water shortages, mostly seasonal.

The total length of the water supply network (operated by PWS) in 2017 is 75 034 km, from which the newly built - 196 km and reconstructed/replaced - 449 km.

Figure 1.4. Drinking water consumption by households connected to public water supply in 2017, on average per capita (l/day)





Wastewater treatment and discharge

In 2017, about 428 million m³ of wastewater generated originated from point sources (economy sectors and households) and 3 725 million m³ are processed water from cooling processes - in total, they account for 87.8% of the water used.

In 2017 the total volume of wastewater discharged into water bodies from economic activities, households and public sewerage (including water from non-point sources - stormwater, etc.) is estimated to be 768 million m³ (without cooling), of which 75.8% were treated in urban and industrial wastewater treatment plants (75.1% for 2016).

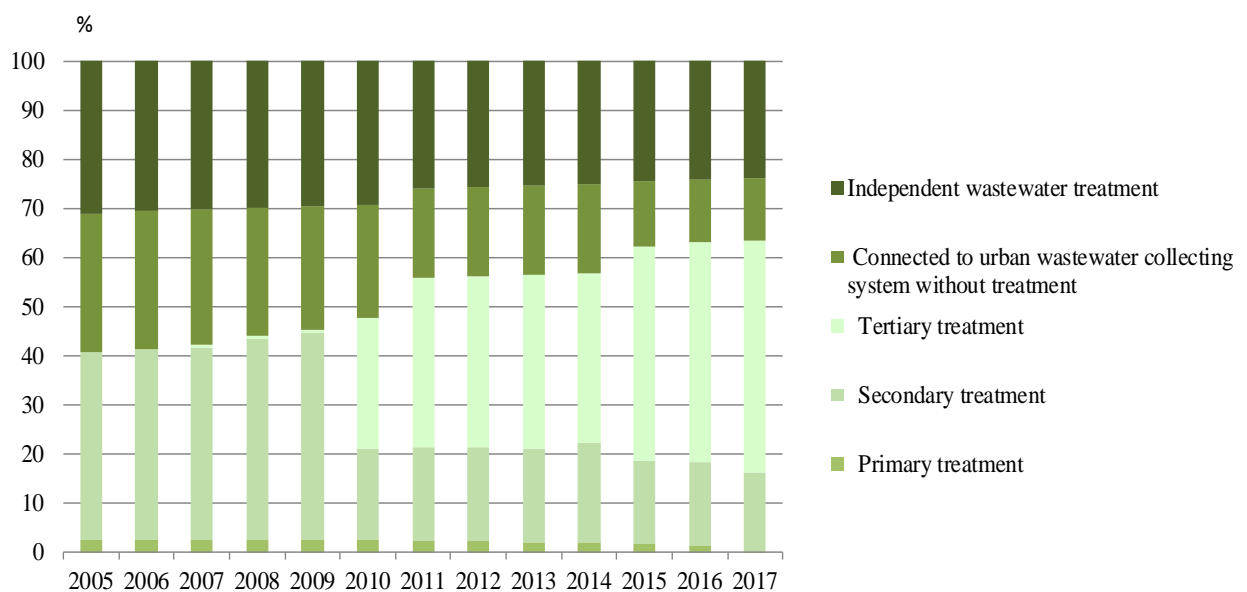
The relative share of industrial wastewater treated on site before being discharged into water bodies increased - from 70.2% in 2016 to 70.4% in 2017. In 2017 169 operating urban wastewater treatment plants were registered, 110 of which with a capacity of over 2 000 population equivalent.

The relative share of the population with wastewater discharge services in the public sewer system in 2017 is estimated at 76.0%. 63.4% of population is connected to urban wastewater treatment plants (UWWTP). The highest share of the population connected to UWWTP was registered in the Yugozapaden (77.3%) and Severoiztochen regions (71.8%) and the lowest - in Severozapaden region (43.9%).

At a national level an increase of the share of population connected to UWWTP with secondary methods of treatment and methods for additional treatment was recorded - from 61.8% (2016) to 63.2% (2017).

The total length of public sewage network (managed by PWC and municipalities operating UWWTP) at the end of the 2017 is 11 746 km including newly built sewage network - 149 km, and reconstructed/changed sewage network - 8 km.

Figure 1.5. Share of population connected to wastewater collecting system and UWTPP



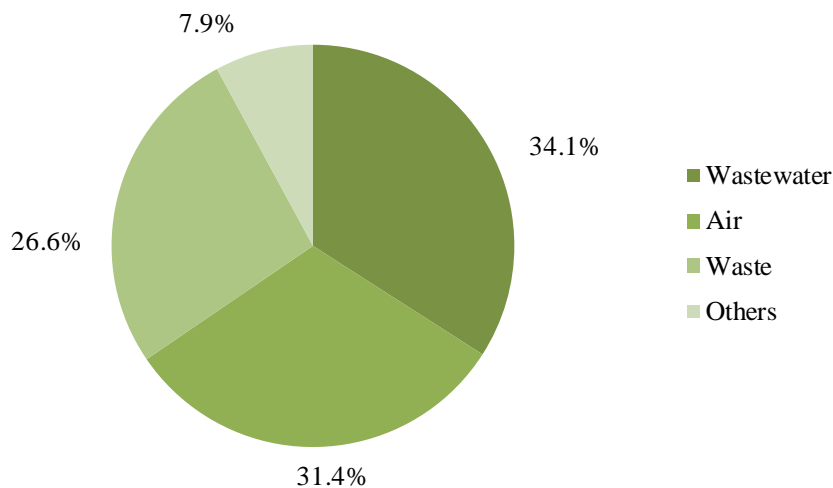


2. Tangible fixed assets with ecological use

The tangible fixed assets with ecological use (TFAEU) are a part of the total tangible fixed assets within the country. In 2017, the share of TFAEU at the end of the year by accounting value amounts to 5% of the total TFA available in the country.

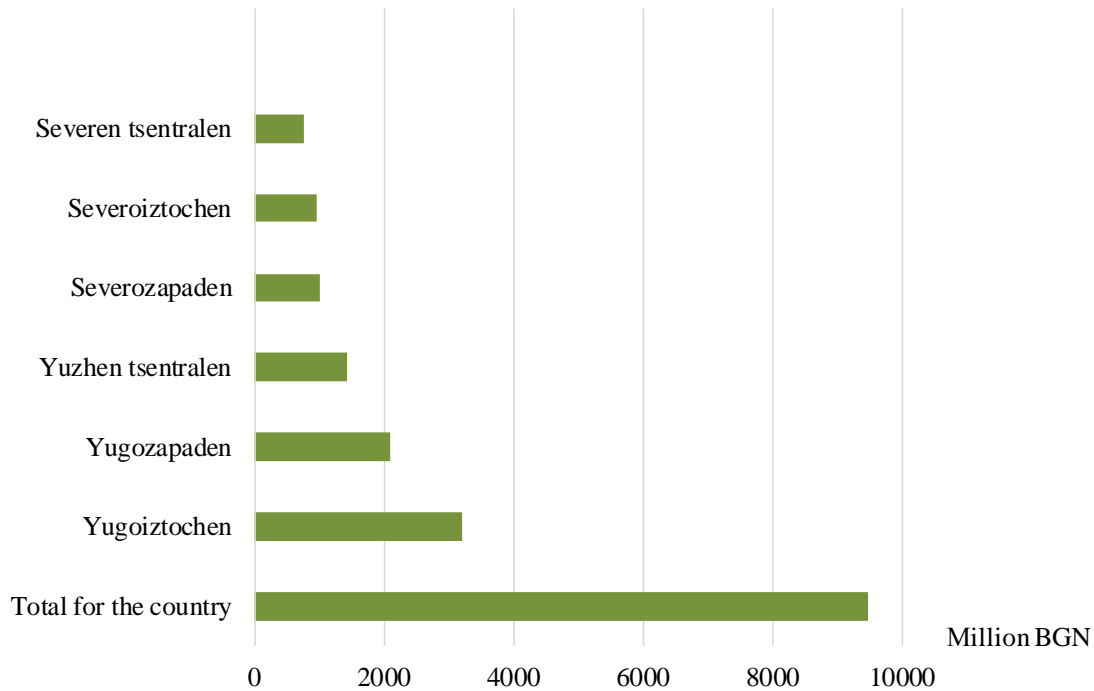
At the end of the accounting period, the total value of the TFAEU amounted to 9 468 million BGN and increased by 4.7% compared to the previous accounting year. As in the previous years in 2017 the largest share of TFA is for wastewater treatment (industrial and urban wastewater treatment plants, sewerage network, etc.) - 34.1%, followed by the facilities for air protection - 31.4% and for waste treatment - 26.6%.

Figure 2.1. Availability of tangible fixed assets with ecological use by environmental domains as of 31 December 2017



Regional data for the available TFAEU at the end of 2017 show that the biggest amount by accounting value is in the Yugoiztochen region of the country (3 208 million BGN) and the smallest amount is accounted in the Severen tsentralen region (770 million BGN).

Figure 2.2. Availability of tangible fixed assets with ecological use by statistical regions as of 31 December 2017



The total amount of the acquired TFAEU in 2017 is 317.6 million BGN. The prevailing part of them was related to waste treatment - 50.8%, air protection - 21.4%, wastewater discharge and treatment - 17.0% and others - 10.8%. The monitoring and control equipment acquired during the accounting year is evaluated to 11.8 million BGN (3.7%).

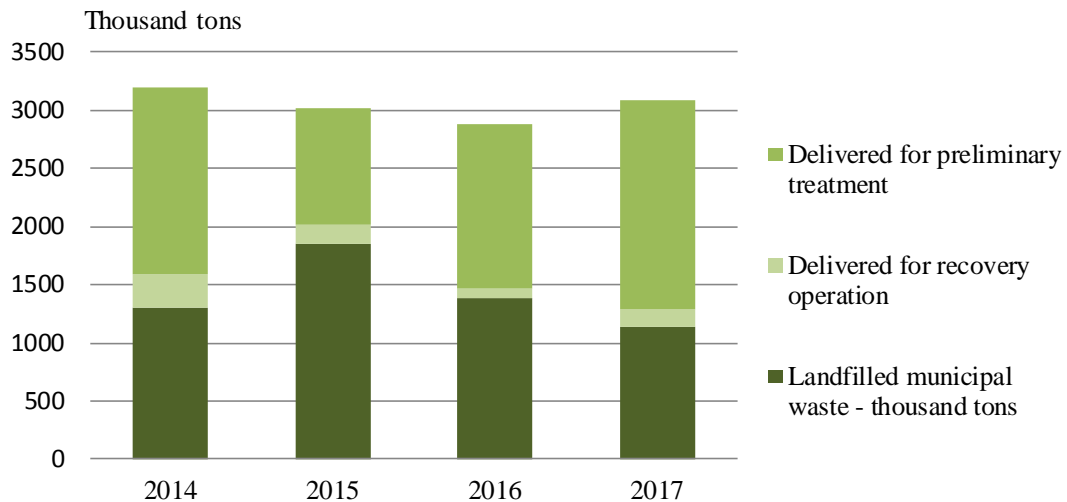
The acquired TFAEU in the country are mainly concentrated in the industry - in 2017 their total value amounts to 212.9 million BGN or 67% of those brought into operation in the country. As in previous years, and in 2017, the value of TFAEU is highest in the economic sectors mining and quarrying and manufacturing - 29.9%, sewerage, waste management and remediation activities (specialized producers of EP services) - 23.2% and energy production, water supply - 13.9%.

3. Municipal waste

In 2017 the quantity of generated municipal waste is evaluated to 3 080 thousand tons or by 6.9% more compared to 2016. A reduction of the relative share of landfilled municipal waste is registered - from 48.0% in 2016 to 37.1% in 2017. At the same time, there is an increase in the share of municipal waste delivered for pre-treatment - from 49.2% (2016) to 58.1% (2017).



Figure 3.1. Municipal waste generated and treated



Regional waste management systems continue to be built, while at the same time the landfills constructed in the past that do not meet environmental requirements are being closed. The total number of registered landfills in operation in the year 2017 is 104, some of them being facilities of the regional waste management systems.

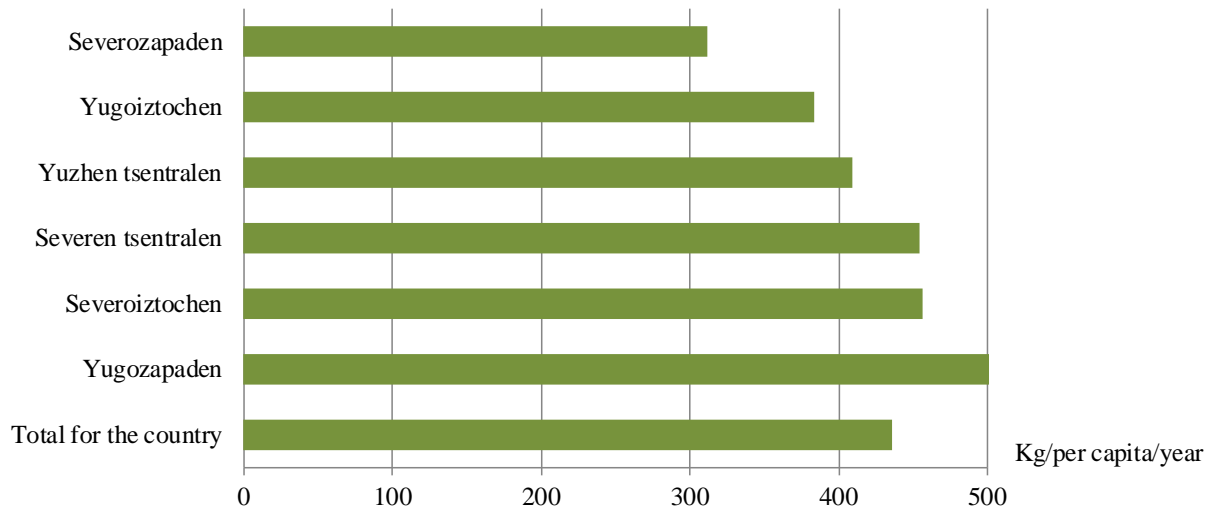
Organized waste collection and disposal systems are being introduced increasingly in settlements, with the total number reaching 4 642 in 2017. At the national level in 2017, the relative share of the population covered by waste management systems remained at the same level as the previous year - 99.7% of the total population.

Waste generated an average per capita shows the pressure on the environment. In 2017, the amount of waste generated in the country is estimated on average 435 kg/per capita or 29 kg more than 2016.

Regional data show that in 2017 the leading region in the country in collected municipal waste per capita was the Yugozapaden region (508 kg/capita/year) and the last one - Severozapaden region (312 kg/capita/year).



Figure 3.2. Municipal waste collected on average per capita by statistical regions in 2017



Comparison by districts in 2017 shows, that the highest amounts of municipal waste per capita are collected in the districts of Gabrovo, Sofia (stolitsa), Varna and Plovdiv (over 500 kg/per capita), and the least in the district of Kardzhali (241 kg/per capita).