



## ENVIRONMENTAL STATISTICS

Annual data for 2018

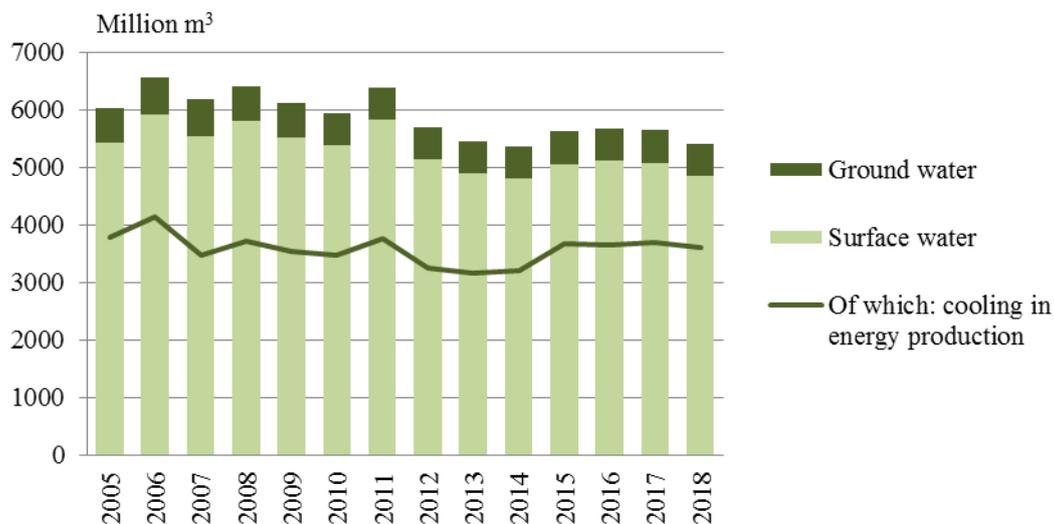
### 1. Water

#### Water abstraction

In 2018, 5 425 million cubic meters of fresh water are abstracted in the country, which is 4.1% less than in 2017. Most notable is the reduction of surface water abstracted (4.3%), which accounts for about 90% of freshwater abstracted. The reported decline is mainly from the reduction in abstracted water for cooling processes in the energy sector and for the sector Agriculture, forestry, and fishing. Decrease was also reported in the abstracted water from underground sources - by 2.6% compared to 2017, mainly for the purposes of public water supply (PWS).

Despite the decrease in absolute volume, the structure of water abstraction on national level is relatively stable. In 2018, the most significant share of water is in the industry sector - 70.7% of freshwater, followed by the Public water supply (15.5%) and Agriculture, forestry and fisheries (13.3%). The abstracted water for the Services sector accounts for about 0.4% of the total fresh water recovered.

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



Additionally in 2018 a total amount of 26. billion m<sup>3</sup> water was used for hydroenergy production which is higher compared to 2017 by 45.2%.

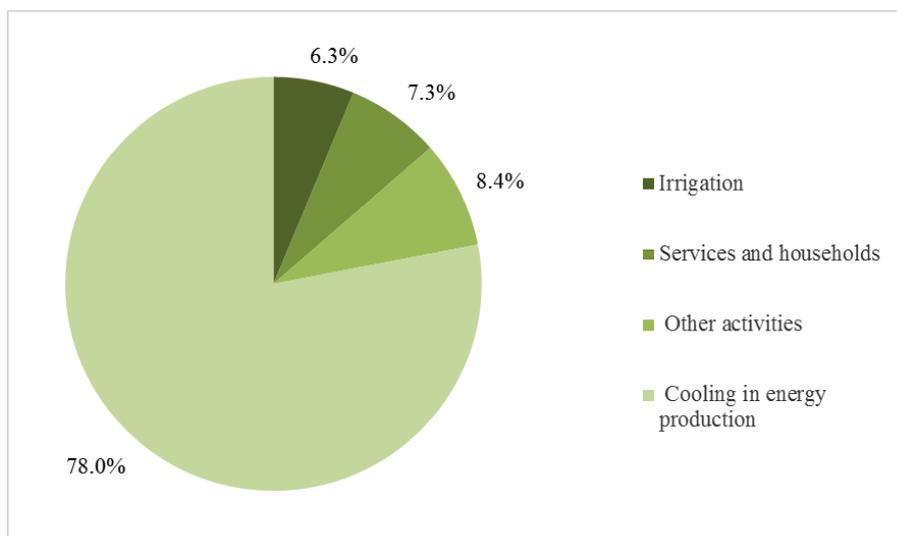


Part of abstracted water is delivered to the end users and the rest is water losses (leakages, evaporation, unauthorized consumption, measurement errors etc.).

### Water used

Water is provided through public water supply, irrigation systems, self-supply or others. The total use of freshwater and non-freshwater in the country in 2018 is estimated at 4 647 million m<sup>3</sup> which is a decrease with 1.8% compare to the previous year. The energy sector cooling water comprises the main share of the total water usage in the country - 78.0%, and compared with level of the previous year decreases by 2.1%. These waters are provided mainly by own supply and after usage they are usually returned back to the source. The quantity of water used for irrigation remains around the same as in 2018 - 291 million m<sup>3</sup>. The water used in 2018 in the sector Agriculture, forestry and fishing is 312 million cubic meters mostly for irrigation (259 million cubic meters). The amount of water consumed in the service sector increases by 87 million m<sup>3</sup>, while the water used by the households remains the close to the level in 2017 (253 million cubic meters).

**Figure 1.2. Structure of water used by purpose in 2018**

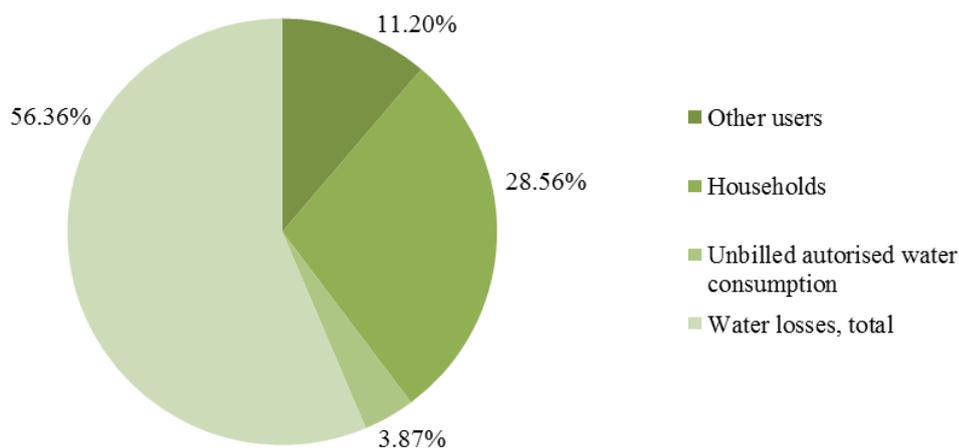


### Public water supply (PWS)

About 8.3% of the water used in the country is provided by the PWS. The amount of water supplied by PWS in 2018 is 885 million m<sup>3</sup> or by 3.6% less than in 2017. The delivered water to end users (billed) in 2018 amounts for 39.8% of the supplied water and the unbilled water delivered - 3.9% (for technological, fireproof and other purposes). The total water losses in 2018 are estimated at 499.0 million m<sup>3</sup> or 56.4% of the supplied water (56.8% for 2017). The main part of the losses is in the water transport (real losses) which in 2018 are estimated at 425.6 million cubic meters.



**Figure 1.3. Water supplied from public water supply in 2018**



99.5% of the population in the country is connected to the public water supply. Household water consumption in 2018 is estimated to 99 liters per day on average per person and remains the same compared with 2017. 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 (85 l/day/per capita). The distribution by districts in 2018 shows that the highest consumption is in Sofia (stolitsa) (126 l/person/day) and Blagoevgrad (117 l/person/day), and the lowest is in the districts of Targovishte (69 l/person/day) and Sliven (70 l/person/day).



**Figure 1.4. Drinking water consumption by households connected to public water supply in 2018, on average per capita (l/day)**



In 2018, 1.1% of the population was in a water supply regime due to water shortages, mostly seasonal. Highest population on water supply regime are registered in districts of Gabrovo (28.2%), Targovishte (13.1%) and Sliven (7.8%).

The total length of the water supply network (operated by PWS) in 2018 is 74 731 km, from which the newly built - 115 km and reconstructed/replaced - 411 km.

### Wastewater treatment and discharge

In 2018, about 427 million m<sup>3</sup> of wastewater generated originated from point sources (economy sectors and households) and 3 618 million m<sup>3</sup> are processed water from cooling processes - in total, they account for 87.1% of the water used.

The largest share has the wastewater generated is in the domestic sector - 63.9% of the total amount (excluding processed water from cooling processes). Most of them are discharged into urban wastewater collecting system and urban wastewater treatment plants (UWWTP). The industry sector generated around 110 million m<sup>3</sup> of wastewater in 2018, 82.8% of which was discharged into water bodies. The share of treated water constitutes 64.9% of the industrial wastewater discharged into water bodies.

In 2018 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



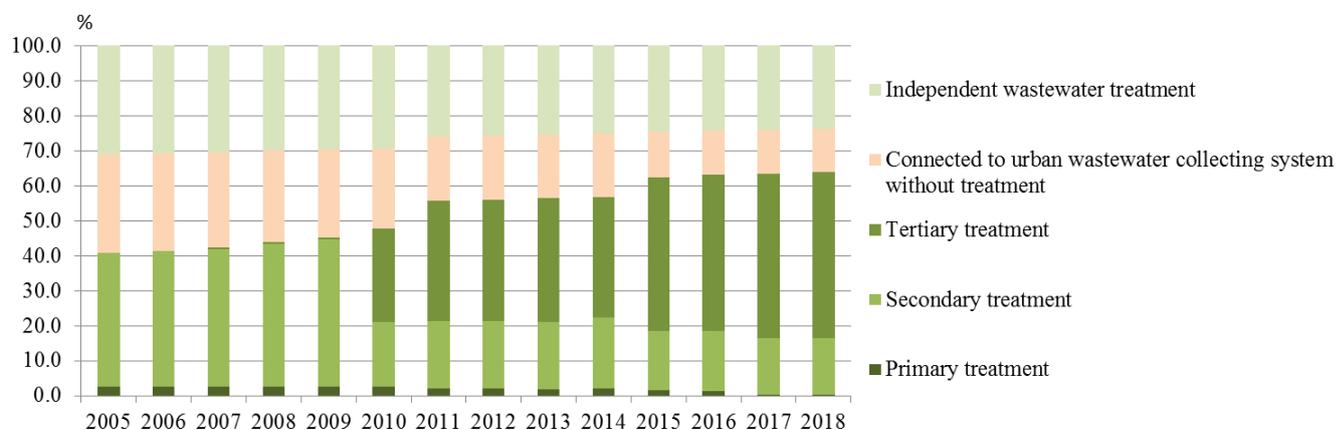
estimated to be 767 million m<sup>3</sup> (without cooling), of which 76.5% are treated in urban and industrial wastewater treatment plants (75.8% for 2017).

In 2018 170 operating UWWTP were registered, 108 of which with a capacity of over 2 000 population equivalent. Most of the stations have secondary and tertiary methods of treatment with nitrogen and phosphorus removal.

The relative share of the population with wastewater discharge services in the public sewer system in 2018 is estimated at 76.2%. 63.9% of population is connected to urban wastewater treatment plants. The highest share of the connected population is registered in the Yugozapaden (78.0%) and Severoiztochen regions (72.6%) and the lowest - in Severozapaden region (44.2%).

At a national level a slight increase of the share of population connected to UWWTP with secondary methods of treatment and methods for additional treatment was recorded - from 63.2% (2017) to 63.7% (2018).

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



The total length of public sewage network (managed by PWC and municipalities operating UWWTP) at the end of the 2018 is 11 967 km including newly built sewage network - 155 km, and reconstructed/changed sewage network - 28 km.



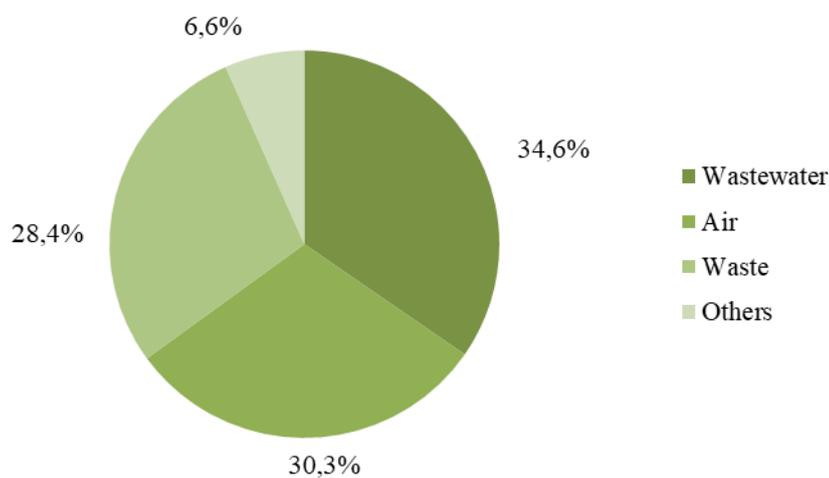
## 2. Tangible fixed assets with ecological use

The tangible fixed assets with ecological use (TFA with EU) are a part of the total tangible fixed assets within the country. They are distributed by environmental domains - for waste water, protection of ambient air, soil and ground water, biodiversity and protected areas and sites, hunting and fishing projects, waste treatment, noise and more.

In 2018, the share of TFA with ecological use at the end of the year by accounting value amounts to 4.8% of the total tangible fixed assets available in the country.

At the end of 2018, the total value of the TFA with ecological use amounted to 9 523.6 million BGN and is distributed by the main environmental domains as follows: for wastewater treatment (industrial and urban wastewater treatment plants, sewerage network, etc.) - 34.6%, followed by the facilities for air protection - 30.3% and for waste treatment - 28.4%. There is no significant change in the relative share of assets distributed by environmental domains compared to previous years.

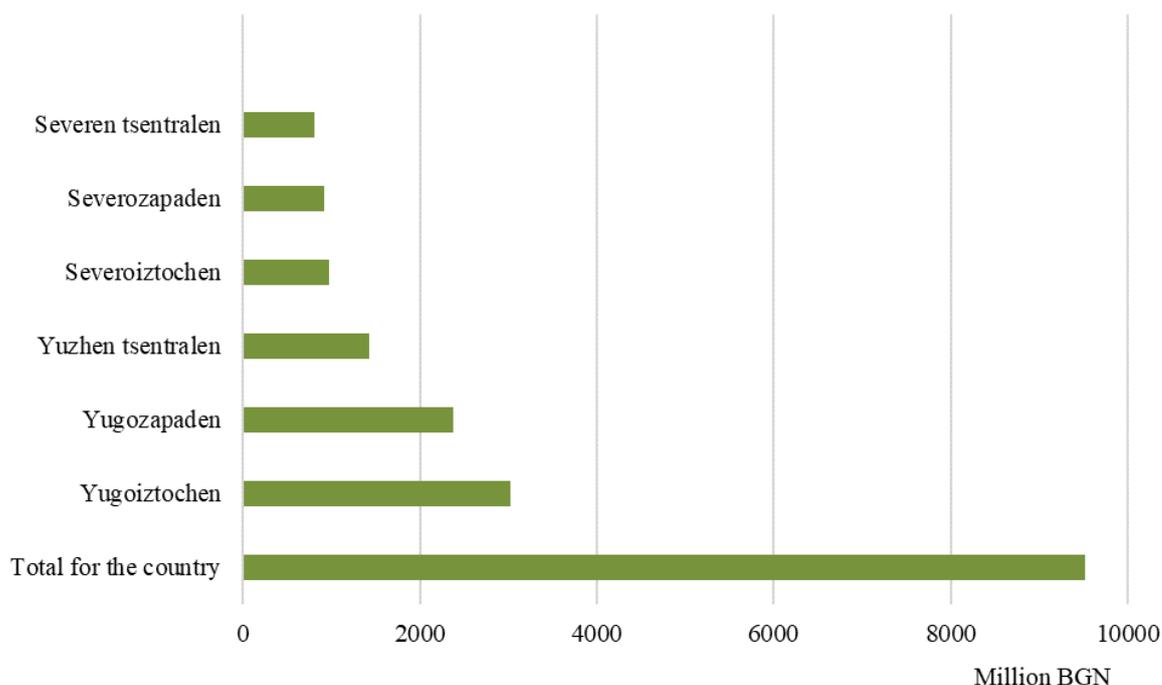
**Figure 2.1. Availability of tangible fixed assets with ecological use by environmental domains as of 31 December 2018**



Regional data for the available TFA with ecological use at the end of 2018 show that the biggest amount is in the Yugoiztochen region of the country (accounting value - 3 019.6 million BGN) and the smallest amount is accounted in the Severen tsentralen region (805.8 million BGN).



**Figure 2.2. Availability of tangible fixed assets with ecological use by statistical regions as of 31 December 2018**



The total amount of the acquired tangible fixed assets with ecological use in 2018 is 288.3 million BGN. The prevailing part of them are related to wastewater discharge and treatment - 40.9%, waste treatment - 40.2%, air protection - 12.7% and others - 6.3%. The monitoring and control equipment acquired during the accounting year is evaluated to 7.0 million BGN (2.4%).

The breakdown of the data by economic activity for 2018 shows that significant part of TFA with ecological use are concentrated in the industry sector: 5 641.7 million BGN (59.2%) of those available at the end of the year and 136.5 million BGN (47.4%) of those acquired in the country. The majority of the acquired tangible fixed assets with ecological use are accounted in the economic sectors mining and quarrying and manufacturing - 25.1%, sewerage, waste management and remediation activities (specialized producers of EP services) - 12.5% and energy production, water supply - 9.8%.

In the category other activities (services sector, including general government sector), the TFA with EU available at the end of the year are estimated to 3 850.1 million BGN (40.4%) and brought into operation (acquired during the year) - 150.4 million BGN (52.2%).