



## ENVIRONMENTAL STATISTICS

Annual data for 2011

The National Statistical Institute presents results from annual surveys in the domain of environmental statistics for 2011. Detailed data by particular topics are placed under the heading "Environment" on the NSI web page: <http://www.nsi.bg>

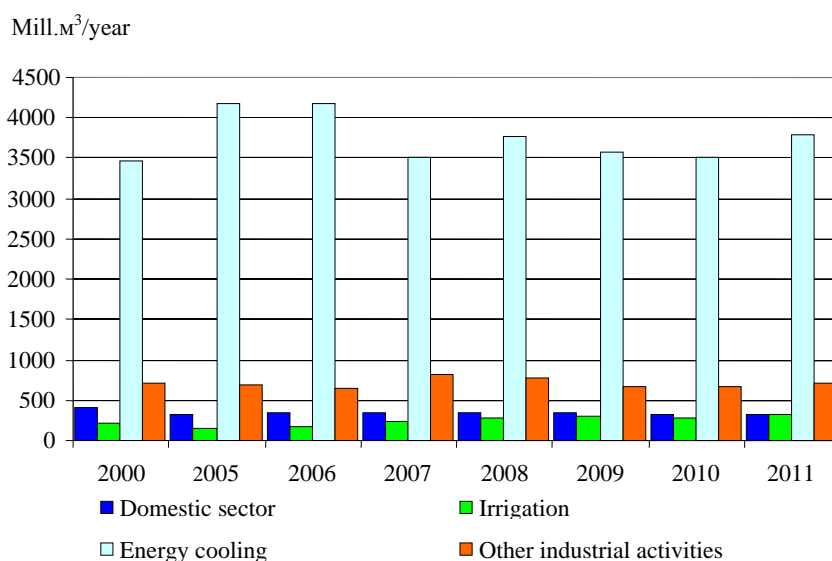
### 1. Water

The total fresh water abstracted for the economy in 2011 is estimated to 6 385 Million m<sup>3</sup> which constitutes about 6% of the country's freshwater resources. This ratio defines the water exploitation index. It is considered that at a threshold less than 10% there is not a stress on the aquatic ecosystem, while at values between 10% and 20% there is a low stress. Bulgaria is among the European countries with relatively low water exploitation index. However, shortage of water can be observed in certain regions with insufficient resources, high population density and intensive industrial activities.

In 2011, the fresh water abstraction is by about 7% higher compared to 2010 level. The increase is from surface water sources - water abstracted in 2011 is assessed at 5 840 Million m<sup>3</sup>, which is by 8% more than in the previous year. At the same time, the extraction of water from underground sources decreases to 98% of 2010's level.

The total water used by a supply and self-supply in 2011 increased by about 7% compared to 2010 and reached 5 178 Million m<sup>3</sup>. The growth is formed by energy cooling water, which after use is returned to the water sources. The annual average of cooling water is about 75% of the total water used. Also the water for irrigation is increasing - by 14% compared to the previous year, mainly due to increase in areas under water consuming crops and the higher water demand during the drier periods. A steady trend of declining consumption is registered in certain activities of the manufacturing industry - the production of food products, manufacture of basic metals and others.

Figure 1. Water used by activities





The drinking water supplied to the households in 2011 was 266 Million m<sup>3</sup>, which is by 0.7% more than in 2010. The average per capita of population drinking water used, increased from 97 l/day in 2010 to 100 l/day in 2011. Households living in cities have consumed 103 l/day average per capita, while those in rural areas - by 10 liters less.

The water supply sector (PWS) reported decreasing losses of water (in water supply system, unauthorized use, incorrect measurements, etc.). In 2011 the total losses were 564 Million m<sup>3</sup>, which is nearly 77% of the level in 2000. Despite the decrease in absolute volume losses in 2011 represented 60.4% of the submitted water. One of the main reasons is the amortized water supply network (90% of which is built before 1990, mostly from asbestos cement pipes).

The quantity of wastewater generated by economic activity follows the level of consumption. In 2011, from point sources were generated 451 Million m<sup>3</sup> wastewater and 3 563 Million m<sup>3</sup> processed water from cooling processes, which overall constitute 78% of the used water.

The total volume of wastewater discharged into water bodies in 2011 is estimated to 791 Million m<sup>3</sup> (excluding cooling water), of which 67% - after treatment in wastewater treatment plants. In 2011, 11 new urban wastewater treatment plants were put into operation, with which were covered about another 452 thousand people. Thus, the share of population connected to WWTPs, increased from 47.8% in 2010 to 55.7% in 2011. About 18% of the population is connected to public sewage network without any treatment plant.

## 2. Municipal waste

Municipal waste is that resulting from the activities of people in homes, administrative, social and public buildings. Also waste from commercial outlets, crafts, resort and entertainment facilities, which is non-hazardous, and which quantity or composition will not obstruct to be treated together with the household waste is included.

In 2011 the total generated municipal waste was estimated to 2 753 thousand tons.

According to data from municipal administrations, in 2011 totally 2 727 thousand tons of municipal waste have been collected by organized waste collection on landfills. Of them 2 568 thousand tons have been landfilled, and 160 thousand tons - sent for recycling. In 2011 the construction waste collected at municipal landfill sites amounts to 508 thousand tons. The quantity of collected municipal waste is assessed by means of direct measurement and in case of lack of weighing equipment - on the basis of transport documents.

Building up regional landfills for municipal waste continues and at the same time, the landfills built in the past, which do not respond to the ecological requirements, are closed down. In 2011 the number of municipal waste landfills is 164, of which - 30 regional.

The implementation of organized waste collection systems in new settlements led to an increase of the population served by municipal waste collection systems, share of which achieved 98.9% in 2011 (98.2% in 2010). In 2011 the number of served settlements was 4 364 or 126 more compared to 2010. At the same time in 2011 the quantity of collected municipal waste per capita of served population is estimated to 376 kg annually.



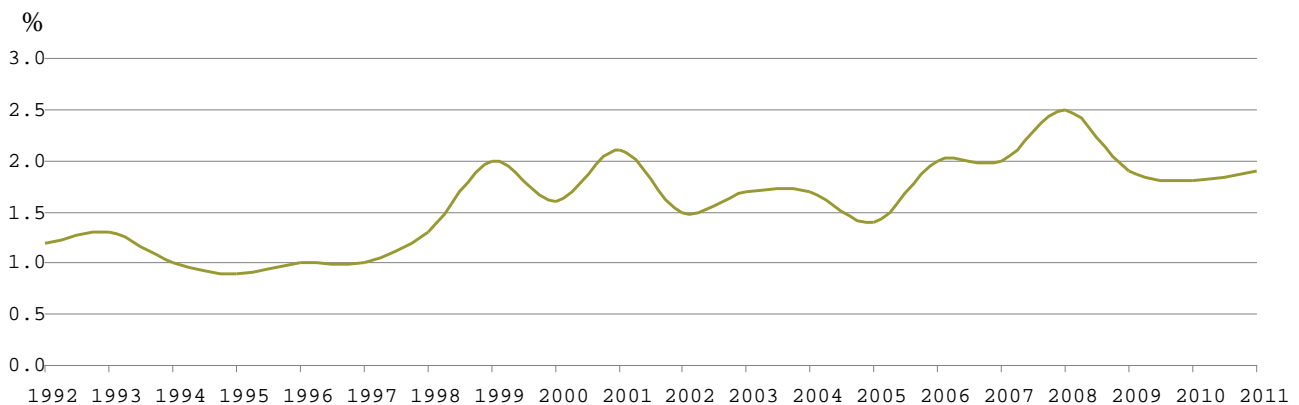
### 3. Environmental protection expenditure and tangible fixed assets related to the environment

#### 3.1. Expenditure on protection and restoration of the environment

The necessity to protect the environment from pollution and removal of damages requires additional resources. The amount of these funds is a key indicator about the measures which society and the state undertake to reduce the negative impact of socio-economic processes on the environment.

In 2011 1 438 Million Levs were spent on protection and restoration of the environment. There is no significant change compared to the previous year and therefore the share of environmental expenditure as a percent of GDP is considered the more appropriate indicator for the purposes of comparison. For 2011 it was 1.9% and for 2010 - 1.8%.

**Figure 2. Share of environmental expenditure of GDP**



Environmental expenditure includes two components: expenditure on maintenance, and expenditure on acquisition of tangible fixed assets. In 2011, similarly to the previous 2009 and 2010, current expenditure on maintenance has a predominant share (64.4 %,) in the structure of expenditure, while that of investment is smaller (35.6%).

In 2011 the total expenditure on protection and restoration of the environment is allocated by major domains of ecological use in a following way: the greatest is the share of expenditure on waste disposal and recovery (52.1%), followed by the share of expenditure on wastewater treatment (21.5%), and the expenditure on preserving air purity (16.5%).

#### 3.2. Tangible fixed assets with ecological use

At the end of 2011 the availability of tangible fixed assets with ecological use amounted to 4 696 Million Levs. The available fixed assets with ecological use are allocated by basic directions of ecological use as follows: on wastewater treatment - 33.5%, for preserving air - 32.3% and for waste - 19.8%.