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Environmental statistics

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Water use and protection against pollution

The Communication contains selected statistical data on waters use and protection against pollution in 2009. The tables present 2009 data on abstracted, used and wastewater quantities from industry.

99.29% of total water abstraction (3 389 227 thousand m³) is from self-supply (surface water- 98.39%, ground water- 0.91%) and 0.71% is from public water supply.

Water intensive industries encompass electricity, gas and hot water supply, manufacture of basic metals, manufacture of food products and beverages, manufacture of chemicals and chemical products that abstract and use 98.9% of total water quantity.

1. Water abstraction from industries, by type of supply system, 2009

	From public water supply thous. m ³	Self-supply, thous. m ³		Total, thous. m ³
		Ground water	Surface water	
Republic Serbia¹⁾	24 023	30 695	3 334 509	3 389 227
Mining of metal ores	2 819	1 176	6 751	10 746
Manufacturing industry	18 738	26 286	61 102	106 126
Electricity, gas and hot water supply	2 466	3 233	3 266 656	3 272 355
Water intensive industries	13 742	23 907	3 320 229	3 357 878
Electricity, gas and hot water supply	2 466	3 233	3 266 656	3 272 355
Manufacture of basic metals	1 685	1 379	46 330	49 394
Manufacture of food products and beverages	8 221	16 361	3 750	28 332
Manufacture of chemicals and chemical products	1 370	2 934	3 493	7 797

¹⁾ Water used for hydropower plants in 2009 amounted to 184 260 mill. m³

Out of total used water in industries, 0,32% relates to water used in the section of mining and quarrying (10 – 14, CA), 3,13% to water used in manufacturing (15 – 37, CA), while 96,55% refers to water used in the section of electricity, gas and hot water supply (40 – CA).

2. Water use in industry, by type of use, 2009

	Cooling water for electricity production, thous. m ³	Other cooling water, thous. m ³	Process water, thous. m ³	Sanitary water, thous. m ³	Other industrial use of water, thous. m ³	Total water use in industry, thous. m ³
Republic Serbia¹⁾	3 219 868	50 711	48 166	12 455	58 027	3 389 227
Mining and quarrying	-	225	6 799	1 311	2 411	10 746
Manufacturing industry	2 485	49 661	33 094	9 358	11 528	106 126
Electricity, gas and hot water supply	3 217 383	825	8 273	1 786	44 088	3 272 355
Water intensive industries	3 217 660	47 018	33 628	6 373	53 199	3 357 878
Electricity, gas and hot water supply	3 217 383	825	8 273	1 786	44 088	3 272 355
Manufacture of basic metals	-	41 489	6 508	1 238	159	49 394
Manufacture of food products and beverages	277	3 559	14 948	1 982	7 566	28 332
Manufacture of chemicals and chemical products	-	1 145	3 899	1 367	1 386	7 797

¹⁾ Water used for hydropower plants in 2009 amounted to 184 260 mill. m³.

In production of electricity, gas and hot water supply, 98.35% of water refers to cooling water and regarding manufacture of basic metals, the percentage amounts to 84.00. The mentioned waters are not thus dangerous for environment. Related to manufacture of food products and beverages, 79.46% of water is used for production and other purposes and related to manufacture of chemicals and chemical products, 67.78% of water is used for the same purposes, so that overall situation becomes somewhat more complex since wastewaters contain great quantities of organic substances and therefore, it is necessary to increase the level of water treatment so as to decrease its harmful effects before returning it to nature.

99.29% of total water intensive industries (3 357 739 m³) is discharged from several industries (electricity, gas and hot water supply, manufacture of basic metals, manufacture of food products and beverages, manufacture of chemicals and chemical products) that are also the greatest water users; the remaining 0.71% of water is from mining and other groups of manufacturing industry.

Share of treated wastewater in total industry discharged wastewater in 2009 amounted to 5.29%.

3. Wastewater from industry, 2009

	Treated wastewater, thous. m ³	Total discharged wastewater, thous. m ³	Percent of treated water in total discharged water by industrial activity groups that water comes from
Republic Serbia¹⁾	177 726	3 357 739	5,29
Mining and quarrying	2 569	6 184	
Manufacturing industry	56 193	83 930	
Electricity, gas and hot water supply	118 964	3 267 625	
Water intensive industries	167 588	3 333 883	
Electricity, gas and hot water supply	118 964	3 267 625	3,64
Manufacture of basic metals	39 825	41 517	95,92
Manufacture of food products and beverages	6 747	18 684	36,11
Manufacture of chemicals and chemical products	2 052	6 057	33,88

¹⁾ In water used for hydropower plants are not included wastewater.

Methodological explanations

The survey on industry use and protection of waters against pollution involves all enterprises with 10 and more employees, with the main activity related to the sections of mining and quarrying, manufacturing industries and electricity, gas and hot water supply, i.e. the sections 10-40 of the Classification of Activities.

Data are collected by the reporting method and regarding the geographical aspect, the survey encompasses enterprises that perform their activities on the whole territory of the Republic of Serbia. Starting from 1999, the Statistical Office of the Republic of Serbia does not have available certain data for AP Kosovo and Metohia, and thus are not included in the data for the Republic of Serbia (total).

Ground water relates to water stocks found beneath the earth's surface.

Surface water refers to all running or stagnant waters on the earth's surface, meaning lakes, streams, rivers (waterways), recipients, etc, as well as artificial waterways including irrigation, industrial and navigation canals, drainage systems and so on.

Self-supply involves every water abstraction by users for their final consumption.

Used water covers all waters supplied to the reporting units and used by them for performing their activities.

Wastewater is water which is, after use, treated as wastewater and transported to treatment plant or let out into recipient (underground or surface water). Wastewater quantities do not include atmospheric water and water used for hydropower plants.

Treated wastewater refers to all wastewaters treated by primary, secondary or tertiary method during the reporting year.

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