



Republika e Kosovës/Republika Kosova/Republic of Kosovo
Qeveria - Vlada - Government
Zyra e Kryeministrit -Ured Premijera -Office of the Prime Minister
*Agjencia e Statistikave të Kosovës - Agencija za Statistiku Kosova -
Kosovo Agency of Statistics*

Series 2: Agriculture and Environment Statistics

Water Statistics 2017





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I n t r o d u c t i o n

This is the second publication of the Water Statistics published by the Kosovo Agency of Statistics. This publication aims to provide comprehensive statistical information on water resources in Kosovo. Modestly, the publication aims to contribute to the creation of sustainable information on the status of waters in Kosovo.

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March, 2018

Chief Executive Officer, KAS
Isa Krasniqi

Abbreviations

KAS	Kosovo Agency of Statistics
EU	European Union
NIPH	National Institute for Public Health
KEDS	Kosovo Energy Distribution Services
MAFRD	Ministry of Agriculture, Forestry and Rural Development
MESP	Ministry of Environment and Spatial Planning
WSRA	Water Services Regulatory Authority
EUROSTAT	Statistical Office of the European Union
REKOS 2011	Population, Household and Dwellings Census in Kosovo 2011

Symbols

-	Zero
:	No data
.	Not applicable
0	The data is less than half the unit used
ha	Hectares
kg	Kilogram
$\mu\text{g m}^3$	Microgram m^3
t	Tons
%	Percentage
m^3	Cubic meter
km^2	Kilometer
m^2	Square meter

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1. General information about Kosovo

The territory of Kosovo¹ is 10905.25 km². It is located in the south-eastern part of Europe, in the border with Albania in the south-west, with Montenegro in the north-west, Serbia in the north-east and in south with Macedonia. Climate of Kosovo is continental with warm summers and cold winters. Kosovo is divided into 38 municipalities. The capital of Kosovo is Prishtina.

Kosovo has a central geographic position on the Balkan Peninsula and extends between 41°51' and 43°16' and within the geographic length 19° 59' and 21°47'. The main local factors influencing the Kosovo climate are its relief, water, soil and plants.

All forms of atmospheric rainfall are present in Kosovo. The most important precipitation is in the form of rain in the valleys and precipitation in the form of snow in the mountains. Average indoor temperature fluctuates from +30 °C in summer to -10 °C in winter.

Table 1: Air temperatures in Prishtina, 2009 – 2017, °C

Month	2009		2010		2011		2012		2013	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
January	3.3	-3.8	4.4	2.5	4.3	-4.1	2.3	-5.2	5.3	-1.4
February	5.5	-2.3	7.2	1.1	4.0	-4.1	0.0	-7.9	7.8	1
March	10.1	0.6	11.8	1.3	11.1	1.0	13.6	1.1	11.7	1.4
April	18.8	6.4	16.7	4.1	17.1	5.0	16.8	4.9	19	6
May	23.5	9.7	21.4	9.8	20.8	9.0	20.7	9.4	22.8	11
June	24.3	12.7	25.3	12.9	25.4	12.8	28.5	13.7	25	13
July	28.2	14.3	28.0	15.0	28.5	14.5	31.7	16.6	28	13.7
August	28.6	14.8	30.4	15.0	30.4	14.0	31.8	15	30.6	15.2
September	24.1	11.2	23.4	10.0	28.1	12.9	27.6	12.1	23.4	9.8
October	16.5	6.1	14.7	5.5	16.5	3.6	21.6	0.5	20.1	6.2
November	13.6	2.4	15.8	5.1	10.5	-2.7	14.1	4.7	13	4.1
December	7.8	0.7	6.7	-1.5	5.8	-1.7	-3.0	-3.0	5.2	-3.9

¹Source: Kosovo Cadastral Agency

Table 1: Air temperatures in Prishtina, 2009 - 2017, °C
(continued)

Month	2014		2015		2016		2017	
	Max	Min	Max	Min	Max	Min	Max	Min
January	7,9	0,2	4,7	-3,9	5,1	-4,9	-0,3	-9,3
February	12,7	1,6	7,9	-2,1	12,1	4,1	10	-0,2
March	14,6	2,5	9,2	0,6	10,8	2,2	15,9	2,2
April	15,7	6,2	15,7	6,2	19,5	7,3	17,4	4,3
May	20,5	8,8	:	:	18,8	8,4	22,1	9,6
June	24,6	12,5	26,2	16,8	27,5	14,1	28,1	14,3
July	27,3	14,6	31,3	17,2	29,4	14,8	30,3	15,6
August	28,9	14,8	31,5	15,2	28,3	14,5	31,7	14,4
September	22,2	11,5	27,3	13,2	23,9	10,3	24,8	11,7
October	17,1	6,6	18,4	7,3	16,3	7,1	19	4,6
November	12,2	4,3	16	1	10,6	2,4	11,9	1,6
December	6,3	-0,4	7,8	-0,2	6,2	-6,1	7,8	-0,4

Source: Hydrometeorology Institute of Kosovo, 2017

Table 1. shows that in 2017 the maximum temperature in August was 31.7° C, in July 2016 was 29.4° C, while the minimum temperature was in January 2016, - 4.9 ° C, and in January 2017, -9.3° C.

Table 2: Weather in Prishtina, 2003 - 2017. Number of days

Month	2003	2004	2005	2006	2007	2008	2009	2010	2011
	Rainy and snow days								
January	15	21	14	12	10	13	16	17	8
February	8	16	17	16	12	6	14	19	10
March	10	16	19	15	8	13	17	17	8
April	20	21	13	18	9	12	11	17	10
May	13	18	15	10	18	9	10	15	9
June	11	14	11	13	8	11	13	7	17
July	8	8	14	8	3	10	7	7	9
August	3	6	14	13	8	5	7	5	7
September	8	10	12	9	11	13	11	9	3
October	15	10	6	7	18	5	14	17	5
November	16	16	11	6	19	8	11	15	7
December	20	16	21	8	13	19	18	20	3
Total:	147	172	167	135	137	124	149	165	96

Source: Hydrometeorology Institute of Kosovo, 2017

Table 2: Weather in Prishtina, 2003 - 2017. Number of days (continued)

Month	2012	2013	2014	2015	2016	2017
	Rainy and snow days					
January	16	15	10	19	14	10
February	14	14	5	12	14	6
March	4	17	15	14	14	7
April	17	11	19	6	7	10
May	12	16	15	10	17	15
June	5	14	10	12	12	8
July	5	4	15	3	8	9
August	1	3	5	5	10	4
September	7	9	18	11	8	11
October	7	7	11	14	18	8
November	8	9	12	8	10	14
December	17	4	13	2	1	12
Total:	113	123	148	116	133	114

Source: Hydrometeorology Institute of Kosovo

The following Table 2 shows the total number of days with precipitation in Prishtina by years. In December 2017 the number of days with precipitation was 12 days, and in August 2017 was 4 days.

The distribution of precipitation and water use differ greatly within Kosovo's territory and the lack of water is much greater in the eastern part of the country than in the western part of the country. Table 2 also shows that the largest number of days with precipitation in Prishtina was in 2004, with 172 days a year, whereas in 2011 it was 96 days.

Table 3: Climate areas and average annual rainfall

No.	Climate area	2015	2016	2017
		696.7mm(l/m ²)	754.2mm(l/m ²)	591.9mm(l/m ²)
2	Valley of Dukagjini	683.9mm(l/m ²)	948.7mm(l/m ²)	701.1mm(l/m ²)

Source: Hydrometeorology Institute of Kosovo

2. Economic and social indicators

Resident population² in Kosovo in 2011 was 1 780 021 inhabitants.

According to estimates made in 2014 it emerges that Kosovo has 1 804 944 inhabitants.

Whereas in 2016 the resident population in Kosovo was 1 783 531 inhabitants.

Table 4: Number of population in Kosovo, 1948-2016

Year	No. of population	Source of data
1948	733.034	Census
1961	963.988	Census
1971	1.243.693	Census
1981	1.584.440	Census
1991	1.956.196	Estimation
2011 ¹⁾	1.780.021	Census
2012 ²⁾	1.815.606	Estimation
2013 ²⁾	1.820.631	Estimation
2014 ²⁾	1.804.944	Estimation
2015 ²⁾	1.771.604	Estimation
2016 ²⁾	1.783.531	Estimation

Source: Kosovo Agency of Statistics

² (1) The data of 2011 include the 2011 Population Census and the estimate for the northern part of Kosovo

(2) The data for 2012, 2013, 2014, 2015, 2016 are estimated data

3. Basins in Kosovo

Water is an important natural resource and as such has indispensable role for the life of living beings on earth, indispensable resource for economic development of the country, plays crucial roles in regulating climate, therefore the management and conservation of water resources, ecosystems of fresh water, of drinking water, is vital for the country.

Most of Kosovo's water resources originate in the country, with the exception of the upper part of the River Ibri, which originates in Montenegro and flows into Lake Ujmani. Hydrography of water flows of Kosovo is divided in 4 river basins: the White Drini (Drini i Bardhë), Ibri, Morava e Binçës, and Lepenci (see Tab.5).

Table 5: Watershed basins, surface area, water flow rate and discharge

Basins	S[km ²]	Q[m ³ /s]	q[l/s*km ²]	Annual flow [mil.m ³]	Direction of flow
Drini i Bardhë	4340.14	61.7	:	1946	Adriatic Sea
Ibri	4044.21	36.4	6.39	1148	Black Sea
Morava e Binçës	1564	8.7	5.99	330	Black Sea
Lepenci	653	8.4	14.9	100	Aegean Sea

Source: Water Status Report in Kosovo, MESP / KEPA, 2015

Kosovo's river flows are discharged on three accumulative-water-collection seas: the Black Sea, the Adriatic Sea and the Aegean Sea. The main rivers belonging to the Black Sea water collectors are: Ibri, Sitnica with its branches; (Llapi, Drenica), and Morava e Binçës. To Adriatic Sea belongs: White Drini (Drini i Bardhë) with branches (Lumëbardhi i Pejës, Lumëbardhi i Deçanit, Lumëbardhi i Prizrenit, River of Klina, Ereniku, Mirusha, Toplluha and Plava). While the river of Lepenc with the main branch (Nerodime) belongs to the Aegean Sea.

Kosovo Water Statistics, 2017

Table 6. Basic data for rivers and water basins

River	Surface (S) km ²	Length of the river (L) km	Flow (Q) m ³ /s	(q) l/sek/ km ²	Slope %	Perimeter of the basin (Km)	Rrjedha vjetore x10 ⁶ (m ³)	Effective rainfall (mm)	Average rainfall (mm)	Flow coefficient	Discharge on the sea
Drini i Bardhë	4340.14	110.7	61.7	:	2.1	409.8	1946	452.5	900	0.508	Adriatic Sea
Sushica	49.4	17.25	:	:	9.4	32	:	:	1150	:	
LB. i Pejës	464.8	57	10.21	24.13	2.5	128	200.66	760.1	1168	0.651	
LB. i Deçanit	259.3	53	7.84	42.46	3.2	105	152.46	1337.4	1530	0.874	
Ereniku	519.3	51.74	12.16	26.73	3.9	109	383.04	841.8	1515	0.716	
Istogu	405.3	19.74	6.98	:	4.5	87	:	:	1200	:	
Klina	458.7	72.12	2.8	4.92	4.5	126	65.52	154.9	750	0.221	
Mirusha	336.7	37	1.661	:	1.7	83	:	:	700	:	
Toplluha	495	34.05	3.44	:	3.5	108	:	:	1000	:	
LB. of Prizren	247.8	36.07	6.49	29.68	7.4	77	147.74	935.1	960	0.974	
Plava, Restelicë	341.86	22.12	5.25	20.79	5.9	90.56	165.06	655	1080	0.644	
Total basin	4682	110.7	61.01		2.1	409.8	1946	452.5	900	0.508	
Ibri	4044.21	89.5	36.4	6.39	0.3	436.8	1148	218.4	782	0.301	Black Sea
Sitnica	2912	78	13.94	5.38	1.1	276	439.11	169.5	690	0.258	
M. e Binçës	1564	76	8.7	5.59	1.5	216	330	188.8	736	0.256	
Kriva Reka	640.7	44.5	4.43	7.27	1.2	128	139.55	229.1	736	0.311	
Lepenci	653	50	8.4	14.91	4.6	130	190	469.8	912	0.516	Aegean Sea
Nerodime	209.4	38.5	:	:	2.1	81.5	:	:	750	:	
General Total	10,907.00		121.2				3.8*10⁶				

Source: Processed by the Master Plan for Kosovo Waters, MESP / KEPA, 2015

The surface for accumulative topographical waters in Kosovo is 11,645 km², while only existing accumulation is 569,690.00 m².

Rivers with large flows during the year are the White Drini (Drini I Bardhë) basin in the valley of Dukagjini.

Table 7. Rivers in Kosovo, length in km

Name	Length within Kosovo territory in km
Drini i Bardh	111.5
Sitnica	110
Lumbardhi i Pejës	56
Morava e Binçës	67
Lepenci	50
Eraniku	38
Ibri	85
Lumbardhi i Prizrenit	36

Source: KAS, *Statistical Yearbook of Republic of Kosovo, 2017*

Table 8. Main lakes in Kosovo, surface area in km²

Name	Municipality	Area in km ²
Gazivodë	Z. Potok	9.10
Radoniq	Gjakovë	5.96
Batllavë	Podujevë	3.27
Badovc	Prishtinë	2.57

Source: KAS, *Statistical Yearbook of Republic of Kosovo, 2017*

Map of river basins in Kosovo



Source: KAS, Cartography

Map of rivers in Kosovo



Source: KAS, Cartography

4. Artificial lakes

Artificial lakes in Kosovo are: Batllava, Gazivoda, Radoniqi, Perlepnica and Badovci, as well as a small number of lakes for irrigation. The data are presented in the following table.

Table 9. Surface and flow of artificial lakes in Kosovo

Reservoir	River	Watershed surface km ²	Volume Million (m ³)		Year of construction	Height of the dam	Irrigated territory by the system	Destination		
			Users	Total				For irrigation	Drinking water	Industry
Gazivoda/ Ujmanit	Ibër	1060	350	390	1979	101	Z. Potok, Mitrovicë Vushtrri, Prishtinë Skenderaj, Drenas	20000 ha	Yes	Yes
Batllava	Batllavë	226	25.1	30	1960	46	Prishtinë, Podujevë	No	Yes	Yes
Badovci	Graçanicë	103	20	26	1963	45	Prishtinë	No	Yes	Yes
Livoç	Livoç	53.6	:	1	:	:	Gjilan	No	No	No
Radoniq	Përrue	130	102	113	1982	61	Gjakovë, Rahovec Prizren	10000ha	Yes	No
Përlepnicë	Përlepnicë	62	:	4.9	1982	40	Gjilan	No	Yes	No
Total		1634.6	497.1	565						

Source: MESP / KEPA, Kosovo Water Status Report

Table 9 shows that the total volume of accumulation is 565 million cubic meters.

Table 10. Main accumulation, surface, water flow and volume of accumulation

River	name of the accumul	Amount of water in m ³	Percentage (%)
Ibër	Ujmani	390,000,000	69.02
Përrue	Radoniq	113,000,000	20.00
Graçanka	Badovci	26,400,000	4.67
Batllava	Batllavë	30,000,000	5.31
Përlepnicë	Përlepnicë	4,200,000	0.74
Livoç	Livoç	1,000,000	0.18
Ibër	Pridvorcë	490,000	0.09
Total		565,090,000	100

Source: Hydrometeorology Institute of Kosovo, 2017

Map of artificial lakes in Kosovo



Source: KAS, Cartography

5. Groundwater

Groundwater resources are limited and are mainly located in the western part of Kosovo, while surface water resources are larger than in the eastern part of Kosovo.

According to the Master Plan for Kosovo Waters 1983-2000, the greatest potentials of groundwater are located in the valley of Dukagjin.

Table 11. Groundwater's accumulation in White Drin basin, surface area, volume and their capacity

Underground accumulation	Basin (km ²)	Useful volume (m ³)	Estimated capacity	
			m ³ /sec	Total (m ³)
Istogu	76	12x10 ⁶	2,8	89x10 ⁶
Vrellë	28	14x10 ⁶	0,600	19x10 ⁶
Drini i Bardhë	90	14x10 ⁶	3,23	102x10 ⁶
Lubizhdë	42	45x10 ⁶	4,2(150)	55x10 ⁶
Pejë	300	37,5x10 ⁶	4,0(150)	52x10 ⁶
Deçan	144	33x10 ⁶	3,5(150)	45x10 ⁶
Lloqan	39	12x10 ⁶	1,2(150)	15x10 ⁶
Krk Bunar	81	10x10 ⁶	1,6	50x10 ⁶
Korishë	18	3,6x10 ⁶	0,38	12x10 ⁶
Fusha e Therandës	50	75x10 ⁶	2	63x10 ⁶
Total	998	271x10 ⁶		511x10 ⁶

Source: MESP, Water Status Report in Republic of Kosovo, 2015

6. The main sources of water

Data from Table 10 shows that the largest amount of water used on daily and annual basis as the main source have accumulation lakes, then the natural resources.

Table 12. Sources of water supply and daily and annual consumption in m³.

Water supply	Amount of water used in [m ³ / ditë]	he amount of water used in [m ³ / vit]	Percentage [%]
Natural source	153.264	55.941.360	32.1
Reservoir	7.749	2.828.385	1.62
River	11.191	4.084.715	2.34
Lake (surface accumulation)	279.26	101.929.900	58.44
Well	26.34	9.614.100	5.51
Total	477.804	174.398.460	100

Source: Water Supply and Sewerage Association - Shukos, 2009

7. Water supply in Kosovo

Regional Water Companies in Kosovo are: RWC Prishtina (Prishtina), Hydroregion South (Prizren), Hydrodrini (Peja), Mitrovica (Mitrovica), Radoniqi (Gjakova), Hydromorava (Gjilan), bifurcation (Ferizaj) and HPE Iber-Lepenc.

In 2016, about 89.59% of Kosovo's population has been supplied with water through public systems managed by Regional Water Companies, while 10.41% of the population did not have water supply.

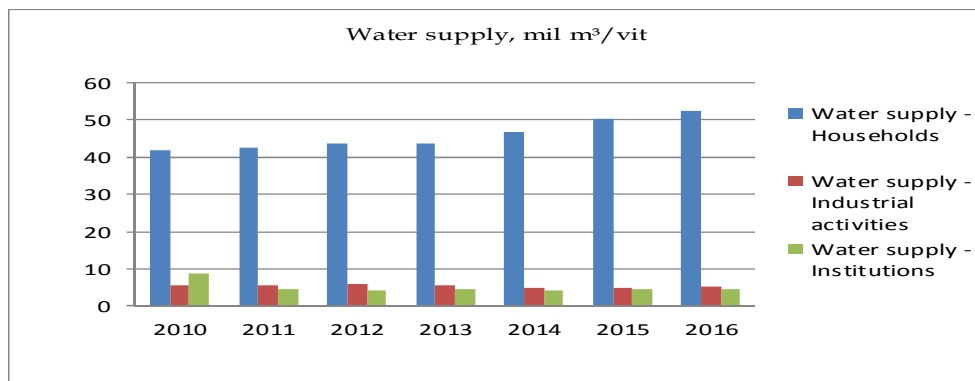
Table 13. Supply of households with drinking water in Kosovo (unit =10⁶m³), 2010-2016.

Year	2010	2011	2012	2013	2014	2015	2016
Unit	mill m ³ / year						
Water supply - Households	41.88	42.52	43.72	43.58	46.72	50.37	52.33
Water supply - Industrial activities	5.54	5.53	5.85	5.73	4.85	4.75	5.08
Water supply - Institutions	8.66	4.63	4.33	4.44	4.27	4.63	4.66
Total	56.08	52.68	53.9	53.75	55.84	59.74	62.07

Source: WSRA - Water Services Regulatory Authority

As can be seen from Table 13, the supply of households with drinking water has changed from year to year. For example, in 2010 it was 41,88 million m³, while in 2016 it reached 52,33 million m³.

Graph 1: Supply of households with drinking water, industrial activities and institutions 2010-2016

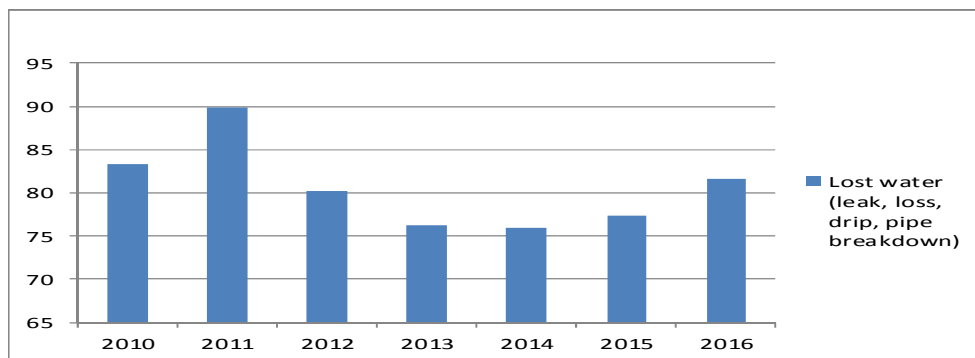


Source: WSRA - Water Services Regulatory Authority, 2016

Table 14. Water lost mill m³ / year

Year	2010	2011	2012	2013	2014	2015	2016
Lost water (leak, loss, drip, pipe breakdown)	83.3	89.8	80.2	76.3	75.9	77.3	81.7

Graph 2: Water lost in millions of m³ / years 2010-2016



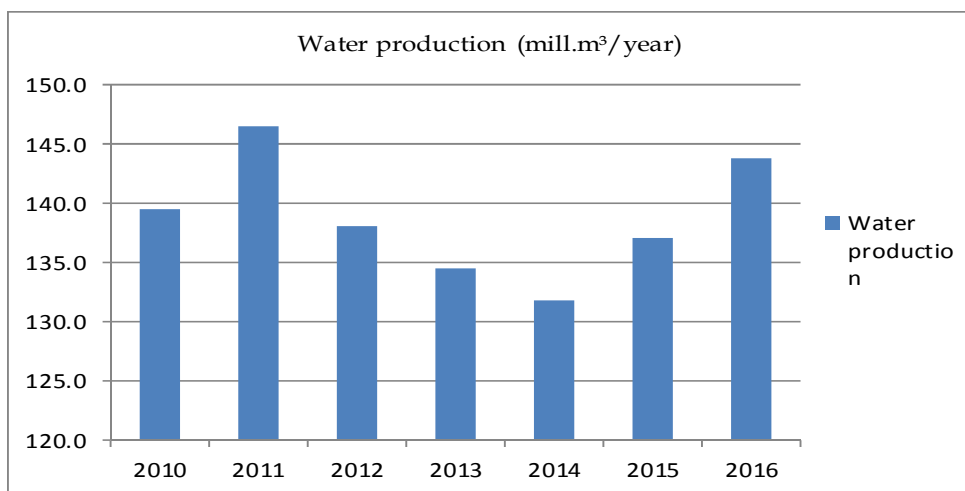
Source: WSRA - Water Services Regulatory Authority

Table 15. Water production for the public sector

Water production for the public sector	Year	2010	2011	2012	2013	2014	2015	2016
	Unit mill/m ³ year		139.5	146.4	138.1	134.5	131.8	137.0

Source: WSRA - Water Services Regulatory Authority, 2016

Graph 3: Water production for the public sector, 2010-2016



16. Amount of waters spent³ by households connected in water companies

Year	Water spent ¹⁾ mill m ³ / year	Households ³⁾	Number of residents in the household ⁴⁾
2011 ²⁾	42.53	204,652 ²⁾	1,138,549 ²⁾
2012	43.73	222,760	1,300,918
2013	43.58	239,959	1,362,967
2014	46.72	253,517	1,424,766
2015	50.37	271,124	1,550,558
2016	52.33	290,518	1,597,849

Source: Kosovo Agency of Statistics, 2016

³(1) Data on spent water are obtained from WSRA for the years of 2011, 2012, 2013, 2014, 2015, 2016.

(2) The data for 2011 for households and the number of residents in households are from the Population Census of 2011.

(3) Households are from WSRA for 2012, 2013, 2014, 2015, 2016.

4) The data are calculated by obtaining the average size of household according to the Labor Force Survey for 2012, 2013, 2014, 2015, 2016.

Table 17. Percentage of households connected⁴ in water companies

Year	Population ²⁾	Number of inhabitants connected to the public water supply system ³⁾	Number of inhabitants not connected to the public water supply system ³⁾	Connected to water supply %	Not connected to water supply %
2011 ¹⁾	1,780,021 ¹⁾	1,138,549 ¹⁾	641,472	63.96	36.20
2012	1,815,606	1,300,918	514,688	71.65	28.35
2013	1,820,631	1,362,967	457,664	74.86	25.14
2014	1,804,944	1,424,766	380,178	78.94	21.06
2015	1,771,604	1,550,558	221,046	87.52	12.48
2016	1,783,531	1,597,849	185,682	89.59	10.41

Source: Kosovo Agency of Statistics, 2017

⁴ (1) Households data for 2011 are from the Population Census.

(2) Population data are estimated by the Kosovo Agency of Statistics for the year of 2012, 2013, 2014, 2015, 2016.

(3) The number of residents connected to the public water supply is calculated by obtaining the average size of households according to the Labor Force Survey for 2012, 2013, 2014, 2015, 2016.

Table 18. The amount of water spent per m³ per resident in households⁵ connected in Water Companies by years 2011-2016

Year	Water spent ¹⁾	Number of residents in households ³⁾	Amount of water spend			
	mill m ³ / year		per resident m ³ / per year	per resident m ³ / per month	per resident m ³ / per day	per resident liters/ per day
2011 ²⁾	42.53	1,138,549 ²⁾	37.4	3.11	0.10	103.75
2012	43.73	1,300,918	33.6	2.80	0.09	93.36
2013	43.58	1,362,967	32.0	2.66	0.09	88.82
2014	46.72	1,424,765	32.8	2.73	0.09	91.09
2015	50.37	1,550,558	32.5	2.71	0.09	90.23
2016	52.33	1,597,849	32.8	2.73	0.09	90.98

Source: Kosovo Agency of Statistics, 2017

⁵ (1) Water spent are from WSRA for the yeras 2011, 2012, 2013, 2014, 2015, 2016.

(2) The data for 2011 for households are from the Population Census.

3) The number of residents in households is calculated by taking the average size of household according to the Labor Force Survey for 2012, 2013, 2014, 2015, 2016. The households that are supplied with water from the water stream and wells are not included in the calculation.

8. Wastewater

There is no treatment of wastewater in Kosovo. Their discharge usually done directly in the rivers and represents one of the main surface water pollutants. The only plant for treatment of wastewater is the urban wastewater treatment plant in Llaushë of Skenderaj. The following table provides data on services provided for wastewater for households.

Table 19. Amount of wastewater spent

Year	Households	Business and industrial consumers	Institutional consumers	Total
Wastewater m ³				
2013	33,891,575	4,680,484	4,135,723	42,707,782
2014	30,973,369	4,323,907	3,074,408	38,371,684
2015	34,230,062	4,392,660	3,925,253	42,547,975
2016	35,400,797	4,874,424	7,024,251	44,299,472

Source: WSRA - Water Services Regulatory Authority, 2016

Table 20. Amount of wastewater⁶ spent by households Mill.m³ / year

Year	Amount of wastewater spent ¹⁾ mill/m ³	Households ¹⁾	Number of residents in the households ²⁾
2013	33,891,575	176,827	1,004,377
2014	30,973,369	188,104	1,057,144
2015	34,230,062	206,366	1,178,350
2016	35,400,797	224,236	1,233,298

Source: Kosovo Agency of Statistics, 2016

Table 21. Amount of wastewater spent in households in percentage

Year	Population ¹⁾	Number of residents in household connected in the network ²⁾	Number of residents in household not connected in the wastewater network	Connected in the network %	Not connected in the network %
2013	1,820,631	1,004,377	816,254	55.17	44.83
2014	1,804,944	1,057,144	747,800	58.57	41.43
2015	1,771,604	1,178,350	593,254	66.51	33.49
2016	1,783,531	1,233,298	550,233	69.15	30.85

Source: Kosovo Agency of Statistics, 2017

⁶ (1) The amount of wastewater is obtained from WSRA and households from 2013, 2014, 2015, 2016.

(2) The number of residents in households is calculated by obtaining the average size of households according to the Labor Force Survey for 2013, 2014, 2015, 2016.

Table 22. Amount of wastewater spent⁷ by years per capita

Year	Amount of wastewater spent ¹⁾ mill/m ³	Number of residents in the household ²⁾	Amount of wastewater spent			
			per resident m ³ /year	per resident m ³ /month	per resident m ³ /day	per resident liters/per day
2013	33,891,575	1,004,377	33.74	2.81	0.09	93.72
2014	30,973,369	1,057,144	29.30	2.44	0.08	81.39
2015	34,230,062	1,178,350	29.05	2.42	0.08	80.69
2016	35,400,797	1,233,298	28.70	2.39	0.08	79.72

Source: Kosovo Agency of Statistics, 2016

⁷ (1) The data is obtained from WSRA from 2013, 2014, 2015, 2016.

(2) The number of residents in the household is calculated by obtaining the average size of households according to the Labor Force Survey for 2013, 2014, 2015, 2016.

Calculations do not include households supplied with water from the water stream and wells.

9. Water spent on irrigation and consumption in livestock

Regional Irrigation Companies in Kosovo are: Irrigation Company Drini i Bardhë Sh.A. and Irrigation Company Radoniqi - Dukagjini Sh.A. The following table presents data in time series for irrigation in agriculture.

Table 23. Irrigation in agriculture in Kosovo (unit = 10^6m^3), 2010-2017

Year	2010	2011	2012	2013	2014	2015	2016	2017
Unit	mill m^3 /year							
Irrigation in agriculture with system	42.00	46.00	50.00	52.00	53.36	52.99	55.50	52.62
Irrigation in agriculture with wells	:	:	:	:	13.75	14.53	9.48	8.91

Source: MAFRD, 2017

As can be seen from Table 23, the amount of water spent on irrigation in agriculture with the system has undergone significant changes from year to year. In 2010 it was 42 million m^3 and in 2014 it reached 53 million m^3 , in 2017 it was 52.62 million m^3 .

Graph 4. Irrigation in agriculture from the irrigation system and from wells from 2014-2017

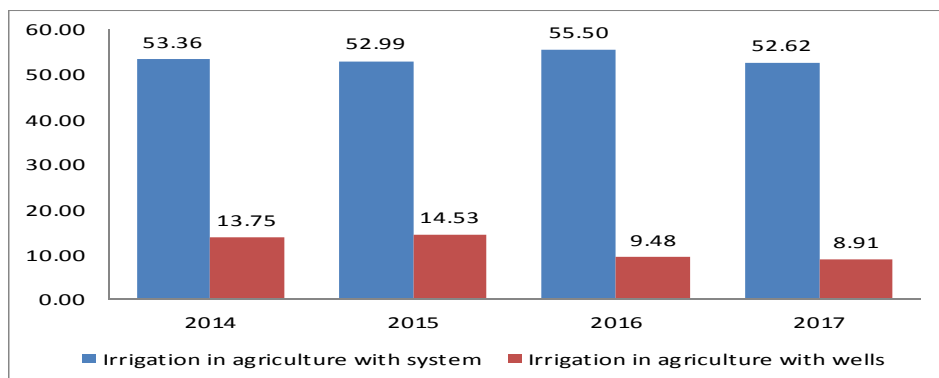


Table 24. Water consumption by livestock in 2014

Type of cattle	Expense factor (m ³ / per year)	Republic of Kosovo	
		Total	
		Number of livestock 1000	Water used in 1000 m ³
Total			7263
Milk cows	30.00	134	4020
Heifers, calves, and other	16.00	127	2032
Equidae (horse, donkey, mules)	16.00	2	32
Pigs	13.00	34	442
Sows	13.00	:	:
Piglets	0.88	:	:
Sheep	2.50	183	458
Goats	2.50	28	70
Chickens (for eggs)	0.10	1703	170
Young poultry, chickens for slaughter	0.04	987	39

Source: KAS, Agriculture Holdings Survey, 2014

Table 25. Water consumption by livestock in 2015

Tyoe of cattle	Expense factor (m ³ / per year)	Republic of Kosovo	
		Total	
		Number of livestock 1 000	Water used in 1000 m ³
Total			7172
Milk cows	30.00	135	4050
Heifers, calves, and other	16.00	122	1952
Equidae (horse, donkey, mules)	16.00	2	32
Pigs	13.00	14	182
Sows	13.00	13	169
Piglets	0.88	16	14
Sheep	2.50	193	483
Goats	2.50	30	75
Chickens (for eggs)	0.10	1874	187
Young poultry, chickens for slaughter	0.04	701	28

Source: KAS, Agriculture Holdings Survey, 2015

Table 26. Water consumption by livestock⁸, 2016

Tyoe of cattle	Expense factor (m ³ / per year)	Republic of Kosovo	
		Total	
		Number of livestock 1 000	Water used in 1000 m ³
Total			10.999
Milk cows	30.00	136	4080
Heifers, calves, and other	16.00	128	2048
Equidafe (horse, donkey, mules)	16.00	235	3760
Pigs	13.00	15	195
Sows	13.00	11	143
Piglets	0.88	15	13
Sheep	2.50	184	460
Goats	2.50	27	68
Chickens (for eggs)	0.10	2043	204
Young poultry, chickens for slaughter	0.04	696	28

Source: KAS, Agriculture Holdings Survey 2016

⁸ For calculating the use of water from livestock, the following data is used: Number of animals obtained from regular surveys conducted at the Department of Agriculture in KAS. Estimator coefficient - the Swedish methodology "Water accounts - physical and monetary data connected to abstraction, use and discharge of water in Sweden" was used.

10. Water used in industrial processes

Table 27. Water supply from "Ibër Lepenci" (unit = 10⁶m³), 2010-2017

	2010	2011	2012	2013	2014	2015	2016	2017
Unit	mill m ³ / year							
Water Supply Mitrovica	15.8	15.8	15.8	15.8	15.8	21.5	22.1	22.1
Water Supply Mitrovica (Vushtrri)	:	:	:	:	:	:	:	5.0
T.P.P. Kosova B	11.9	11.9	11.9	11.9	10.8	10.6	11.0	10.7
T.P.P. Kosova A (4 months)	4.4	4.4	4.4	4.4	4.4	4.4	:	2.3
RWC Prishtina (Shkabaj)	:	:	:	:	:	:	:	9.0
RWC Prishtina (Drenas)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
NewCo Feronikel	3.1	3.1	3.1	3.1	3.1	3.1	2.0	2.5

Source: Hydro economic Enterprise "Ibër Lepenci", 2017

From the data in Table 14 it is noted that the water supply from the "Iber Lepenc" Hydro economic enterprise has been approximately the same in 2010-2017 for all units. In 2015 there was a higher water supply which reached 21.5 million m³/year, while in 2016 and 2017 it was 22.1 million m³/year.

Graph 5. Water supply from "Ibër Lepenci" by units in 2010-2017, mill. m³ / year

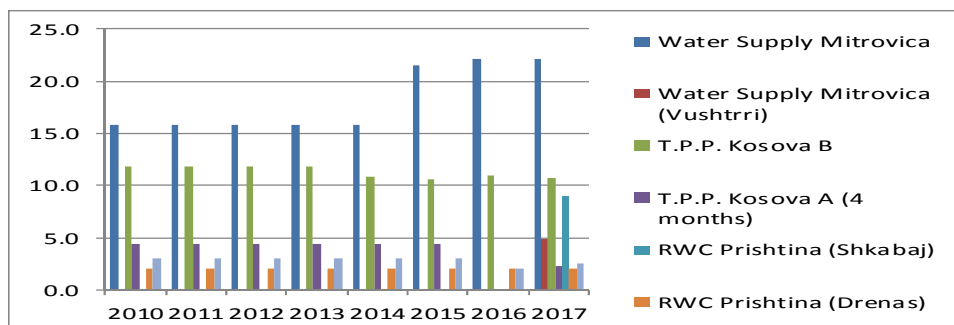


Table 28. Used amount of water by T.P.P. Kosova B and T.P.P. Kosova A (unit = 10⁶m³), 2010-2017

Year	2010	2011	2012	2013	2014	2015	2016	2017
Unit	mill m ³ / per year							
Amount of water used	15.83	15.10	15.21	15.64	13.78	16.72	16.60	15.49
Amount of water for cooling	13.79	12.75	12.93	13.65	12.09	14.79	15.31	12.251
Amount of wastewater discharged	6.51	6.23	6.99	7.56	6.16	12.77	5.48	3.582

Source: Kosovo Energy Corporation, 2017

From the data in the table below it is noticed that the amount of water used during 2010-2015 from the Power Plants Kosova A and B has changed. In quantitative terms, for example, in 2015 this amount reached 16,72 million m³, therefore this increase in the amount of water used has occurred because the energy production has decreased. In 2015 the amount of discharged water was 12,77 million m³, therefore this amount of discharged water has been higher compared to other years due to high temperatures and evaporation.

Table 29. Water used by Power Plants Kosova A and B (unit = 10⁶m³), 2010-2017

Year	2010	2011	2012	2013	2014	2015	2016	2017
Unit	mill m ³ / per year							
KEDS	15.83	15.1	15.21	15.64	13.78	17.38	16.6	15.49
River Llapi						8.52	7.98	7.93
Total	15.83	15.1	15.21	15.64	13.78	25.90	24.58	23.41

Source: Kosovo Energy Corporation, 2017

11. Water treatment

Table 30. Water treatment, 2011-2017

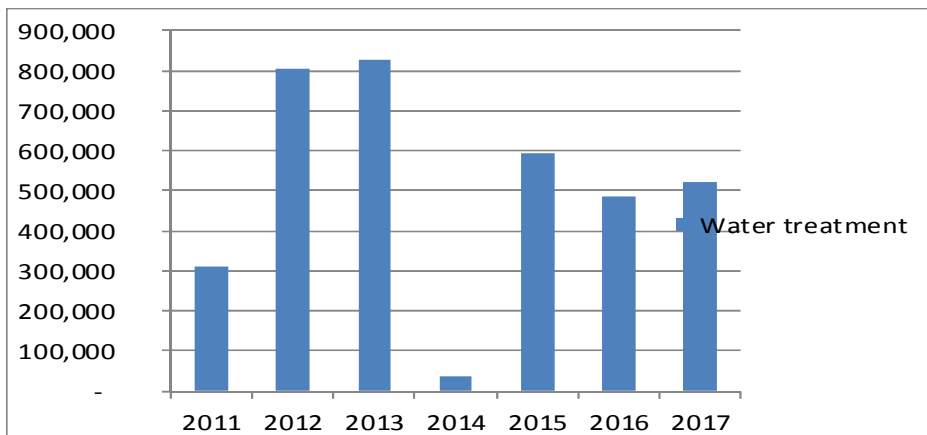
	Water treatment	Primary silt	Secondary silt
2011	308,764	1,624	2,360
2012	805,498	3,349	2,670
2013	828,383	4,972	6,251
2014	34,898	1,864	4,186
2015	595,697	3,160	4,346
2016	487,534	3,848	4,730
2017	521,998	4,721	5,248

Source: Plant in Skenderaj

The plant in Skenderaj started to work in the month of August 2011. This plant treats the waters per 10.000 inhabitants (Skenderaj town with the villages Prekaz i Ulët and Prekaz i Epërm), entire municipality of Skenderaj which has 50 000 inhabitants. In 2014 it is noted that there was less amount of water treatment⁹.

⁹ The reason for the large amount of water treatment in 2012 and 2013 was because the EU, during the reductions, has supplied the plant with oil therefore there was a larger amount of water treatment. The small amount of waters treated in 2014 was because there were electricity cuts from KEDS and in the following years apart from electricity cuts there were also electricity reductions.

Graph 6. Water treatment in the plant in Skenderaj 2011-2017



Statistical Agency of Kosovo, a brief description

Kosovo Agency of Statistics (KAS) is a professional office operating since 1948. The KAS passed through some of the historic phases and it has been structured by the state rule of that time. KAS restarted its work on August 2, 1999, as an independent and professional office working in the frames of the Ministry of Public Administration . KAS is financed by the Kosovo Consolidated Budget and by donors for the various projects.

Statistical Agency of Kosovo acts according to the Law No. 04/L-036 which entered into force on 12.12.2011. A medium-term Master Plan is being developed for the statistical system of Kosovo compatible with the European Statistics.

KAS Mission is to fulfill the needs of the users with the reliable statistical data and with regular analyses in order to support and provide government departments with the proper information for decision-making process including other users as well.

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