



UGANDA BUREAU OF STATISTICS

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UGANDA WATER ACCOUNTS REPORT 2021 -2022

November 2023

FOREWORD

It is with great pleasure and anticipation that we present the Water Accounts Report which is one of the environmental-economic accounts produced by the Uganda Bureau of Statistics (UBOS). The accounts were compiled in accordance with the System of Environmental Economic Accounting (SEEA) and the SEEA-Water which is an international statistical standard for water accounts compilation. These accounts extend the boundaries of the System of National Accounts (SNA) Framework to include environmental resources, which occur outside the economic production and asset boundaries measured by the SNA.

The Water Satellite Accounts extend beyond traditional methods of measuring water's economic impact, offering a more integrated perspective on the interactions between water, economic activities, and the environment. They integrate data from different sources into a consolidated information set making it possible to link physical data on water to economic data. The water supply and use tables provide a framework to link core components of the National Accounts to physical information. They present aggregates of physical data (cubic metres) in terms of the supply and use of water within the economy for the accounting period. The tables illustrate the economic use of water and include: flows from the environment, own abstraction, water distribution, use of water (intermediate consumption) and reuse/return flows

The scope of the water accounts is limited to distributed water, reuse water and waste water, sewerage and drainage services. Distributed water is subdivided into; urban distributed water; rural distributed water; and bulk water (both urban and rural) according to National Water and Sewerage Corporation (NWSC)

This report represents the culmination of collaborative efforts between UBOS, Water Authorities and industries. I would like to extend my gratitude to all those who contributed to the creation of this report.

We appeal to all readers including the policy makers to delve into the wealth of information in this report, to explore the interconnectedness of water with our economy and society and to envision a future where water is managed wisely by making informed decisions so as to ensure its adequacy for generations to come.



Aliziki K. Lubega

For: **EXECUTIVE DIRECTOR**

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1.0 INTRODUCTION

Water satellite accounts are a comprehensive and specialized accounting framework designed to assess and manage water resources and their economic implications. These accounts provide a systematic way to measure and track the various aspects of water availability, usage, and their economic values within a given region or country, this case Uganda.

Uganda's economy is greatly dependent on nature since it is mainly driven by agricultural production and agricultural related industrial activities. In addition, agricultural production is dependent on rain; therefore, any inconsistency in the rainfall can be detrimental to the activity and the country at large. This is all quantified by developing water accounts and since most, if not all economic activities are dependent on water availability, water accounts are prioritized among all accounts.

The water accounts are compiled by estimating and populating three important tables: i) the Water-data input table, ii) the physical water supply table, and iii) the physical water use table; in order to come up with the information stipulated below;

The Gross Water Input for 2022 was estimated at 253,578,894 million cubic meters which was higher than 220,407,327 million cubic meters' estimate of 2021. Similarly, total water consumption increased by 17.3 percent; 33,938,875 million cubic meters in 2022 from 28,921,586 million cubic meters in 2021.

Water use efficiency (WUE) increased to UGX 144,194 in 2022 from UGX 67,573 registered in 2021. The annual water use per capita for 2022 was 5,912,056 cubic metres which was higher than 5,389,531 cubic meters registered in 2021. The average water use per household per day registered an increase to 52.8 litres in 2022 from 52.6 litres in 2021. The average water consumption per household per day rose to 31.0 litres in 2022 from 30.9 litres in 2021.

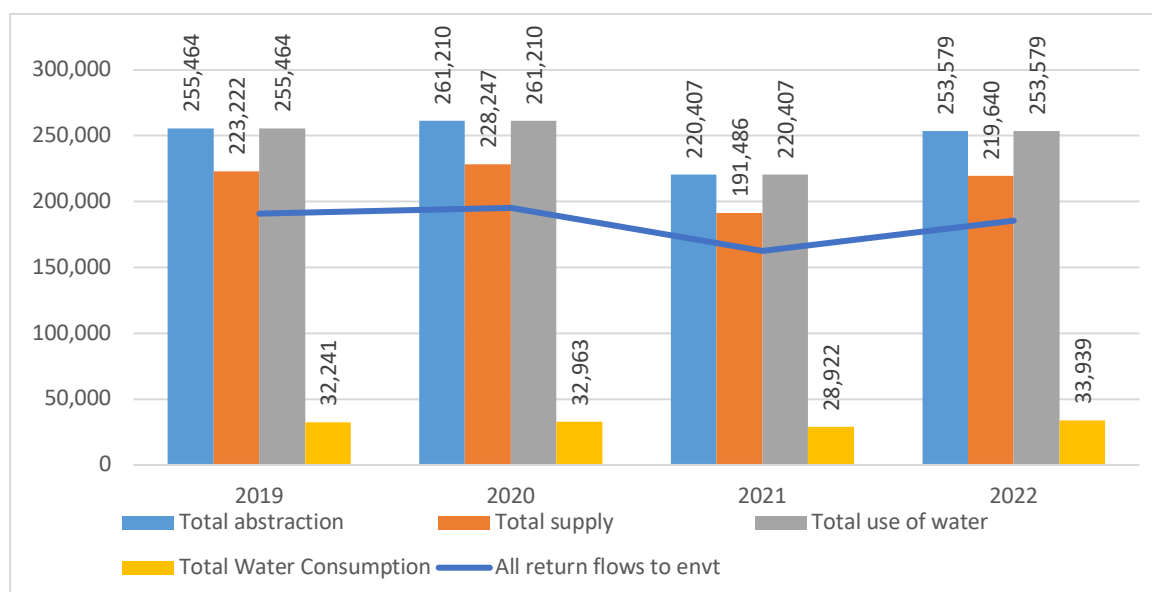
2.0 PHYSICAL WATER SUPPLY AND USE

In 2022, the amount of water abstracted from the environment rose to an estimate of 253,578,894 million cubic metres from 220,407,327 million cubic metres that was abstracted in 2021. This represented an increase of 15.1 percent in the water abstracted. Likewise, the amount of water supplied increased by 14.7 percent, to 219,640,098 million cubic metres in 2022 from 191,485,739 million cubic metres in 2021. Furthermore, the total amount of water used in the economy rose to 253,578,974 million cubic metres in 2022 from the estimated amount of 220,407,417 million cubic metres in 2021.

On the other hand, Total water consumption also rose to 17.3 percent from 28,921,678 million cubic metres in 2021 to 33,938,875 million cubic metres in 2022. Total water return flows to the environment also rose to 185,701,223 million cubic metres in 2022 from 162,564,060 million cubic metres in 2021, See Table 1.

The annual average amount of water returned to the environment for 2022 constituted 73.2 percent of the total water abstracted as shown in the figure below;

Figure 1: Water Supply and Use



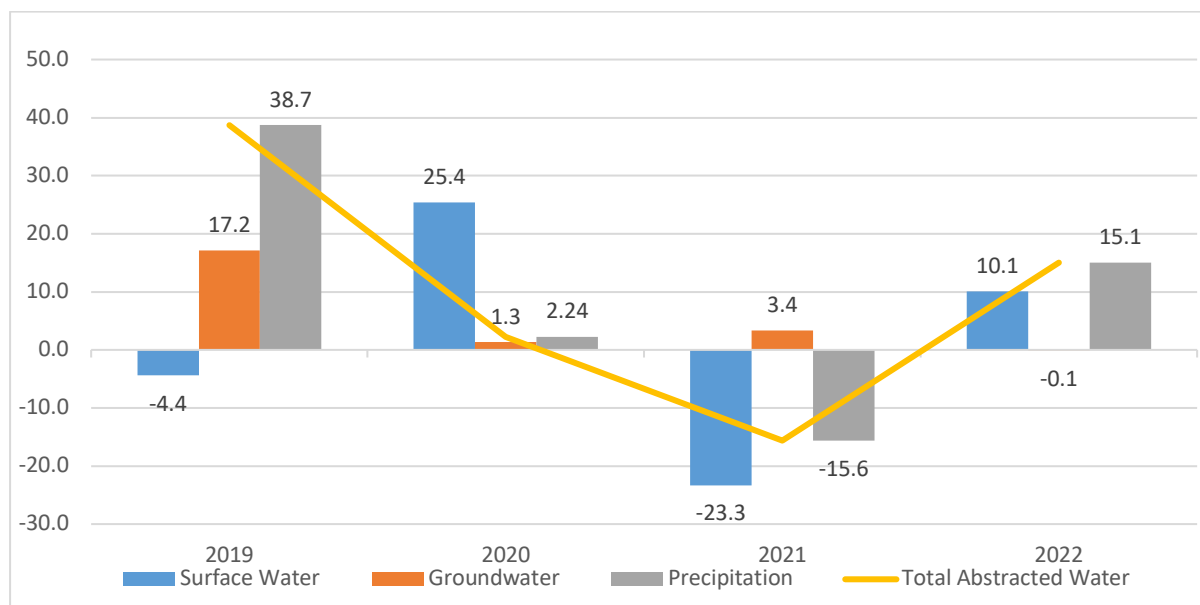
Source: Uganda Bureau of Statistics

2.1 Water Abstraction by Water Source

Precipitation as the main source of water abstracted in 2022 with an annual average share of 99.95 percent, rose by 15.1 percent in 2022 from a 15.6 percent decline registered in 2021. In addition, water abstracted from surface water bodies increased by 10.1 percent in 2022 to 117,152 million cubic metres from 106,400 million cubic metres in 2021. However, water

abstracted from ground water resources decreased by 0.1 percent in 2022 from an increase of 3.4 percent in 2021. As shown in the figure below;

Figure 2: Water Abstraction by Source



Source: Uganda Bureau of Statistics

2.2 Water Abstraction by Purpose

Estimates indicate that total water abstracted for supply and distribution purposes rose by 26.3 percent in 2022 as opposed to the drop of 36.5 percent which was registered in 2021. Water abstracted for own use also increased by 15.6 percent in 2022 as opposed to a 15.6 percent decline in 2021.

2.3 Water Abstraction by Economic Activity

The agriculture sector has continuously recorded the largest volumes of water abstracted averaging 99.01 percent of the total water abstracted in 2022. The amount of water abstracted for agricultural activities in 2022 increased by 14.6 percent compared to a decrease of 15.56 percent registered in 2021. The main drivers for the increase in the water abstraction were agriculture rain-fed crop growing and Forestry activities that registered an 8.8 percent increase and a 48.3 percent increase respectively. In addition, livestock also registered a growth of 13.7 percent. However, Fishing recorded a decrease of 16.3 percent even after a rise of 0.02 percent recorded in 2021, See Table 3.

The industry sector average recorded a rise of 0.98 percent in 2022 compared to 0.58 percent of the total share of annual abstraction in 2021. This exhibited an increase of 93.2 percent in the amount of water abstracted by the sector in 2022, differing from a decrease in the annual abstractions of 24.28 percent in 2021. The crude oil and mining had the strongest growth followed by water supply, sewerage and waste management activities in 2022.

The services sector, continued to have a negligible share of the total water abstracted annually for the period under review. However, water abstraction by this sector grew by 1014.4 percent; 61.8 million cubic meters in 2022 from 28.6 percent; 5.54 million cubic metres in 2021. Education, Public administration services and other services were the main drivers in the services sector with an increase of 232.5 percent, 108.5 percent and 1558.9 percent respectively in 2022, See Table 3.

2.4 Water Supply by Economic Activity

In 2022 water supply across water abstraction economic activities still was dominated by agriculture activities with an annual average of 98.9 percent supply followed by the industrial activities with 1.06 percent. Agriculture rain-fed crop growing activities dominated the water supply category with an average share of 58.5 percent of the total water supplied annually in 2022. In addition, agricultural activities registered an increase in the amount of water supplied from 190,326,167 million cubic metres in 2021 to 217,314,242 million cubic metres in 2022 resulting to a 14.18 percent increase despite a decrease of 20.8 percent in irrigation activities, See Table 4.

Water supply within the industrial sector rose to 100.6 percent in 2022 which was dominated by a rise of 222.1 percent in crude oil and mining activities and 109.5 percent in water supply; sewerage and waste management industrial activities. See Table 4.

2.5 Water Use by Economic Activity

Total water use was greatly dominated by agriculture sector activities accounting for a 99.0 percent annual average share for 2022. In the agriculture sector, water use rose by 14.6 percent; from 219,118,229 million cubic metres to 251,088,509 million cubic metres. This was mainly driven by a rise in forestry activities with 48.3 percent and livestock activities with 13.7 percent in 2022.

The total share of water used by the industry sector averaged 0.98 percent in 2022. Water used by this sector rose by 93.2 percent in 2022 after a decrease of 24.3 percent in 2021. Water Supply, Sewerage and Waste Management Activities dominated the use of water in this sector with a share of 0.93 percent share of the total water use and it registered an increase of 100.7 percent in 2022 following a decrease of 24.3 percent which had been registered in 2021.

For the service sector, water use share is negligible, however it increased by 29.4 percent in 2022 following an increase of 9.05 percent in 2021. Notably, within the service activities, Education's activities dominated water use accounting for an average of 58.3 percent share within the sector, followed by other activities with 26.3 percent share within the sector in 2022, See Table 5.

2.6 Water Consumption

Water consumption is that part of water which is not distributed to other economic units and does not return to the environment, because it is either incorporated in products, or consumed by households and livestock. Total water consumption excluding households in 2022 was 33,938,783 million cubic metres from 28,921,586 million cubic metres in 2021, representing an increase of 17.3 percent from a decrease of 12.3 percent registered in 2021, See Table 6.

Water consumption by agricultural sector had the largest annual average share of 99.52 percent in 2022. In this sector, agriculture rain fed crop had the biggest share of 42.06 percent, followed by livestock and forestry with 36.1 and 21.2 percent annual average share respectively. Water consumption in agriculture increased by 17.3 percent in 2022 compared to the decrease of 12.6 percent recorded in 2021. This was majorly driven by the increase in water consumed by forestry activities of 48.3 percent and 8.8 percent of livestock activities. However, consumption irrigation activities reduced further by 20.8 percent in 2022 following a decline of 77.4 percent from 2021.

Water consumption by industrial activities had an annual average share of 0.48 percent that was dominated by activities of Water supply; Sewerage and Water Management activities accounting for 0.48 percent share of the industry in 2022. Water consumption by industrial activities grew and this was mainly driven still by the increase in water supply activities of 27.9 percent following the increase registered in 2021 of 331.4 percent. However, there was a reduction of 85.4 percent in the water consumed in for construction activities and a decline of 12.7 percent in manufacturing activities (food and beverages).

Water consumption by service activities continues to be negligible compared to water consumption by agriculture and industrial activities. However, it grew by 37.3 percent in 2022 from 9.1 percent recorded in 2021. Household activities dominated with a 51.8 percentage share. Household water consumption increased by 0.1 percent in 2022 following the growth of 8.6 percent in 2021, See Table 6.

3.0 ECONOMIC PROFILES FOR WATER

It is important to compare the environmental performance of industries among each other overtime. This is achieved through use of environmental-economic profiles which compare direct economic benefits and environmental burden/costs. The economic water profiles may be used for benchmarking industrial performance in order to promote water use efficiency and water conservation. Economic profiles of water productivity and Water Use Efficiency for the water accounts are as presented below.

3.1 Water Productivity

Water productivity is an indicator that combines two elements, that is economic contribution and environmental burden into a single indicator.

In 2022, water productivity was UGX/m³ 4.47 from UGX/m³ 4.86 in 2021 representing an annual average decline of 7.9 percent. The activities with greater burden on water resources are, Livestock rearing with the lowest value (UGX/ m³ 0.49), forestry (UGX/m³ 0.84), agriculture Rain fed (UGX/m³1.40) and Water Supply, Sewerage and Waste Management Activities (UGX/m³ 20.17).

Activities with greater economic contribution and less environmental burden were mainly services activities that registered UGX/m 423,559 in 2022. Apart from other service activities (not classified), education activities had the greatest economic benefit and less environmental burden with water productivity of UGX/m³ 2,684,698 of value added per cubic metre of water consumed, See Table 7.

3.2 Water Use Efficiency (WUE)

Water Use Efficiency (WUE) is the value added divided by the volume of water used for a given industrial activity. In computation, only run-off water and groundwater (so called blue water) are considered when computing this indicator, (FAO, 2018). However, the amount of water of agricultural production carried out in rain-fed conditions and the amount of water abstracted for hydro-power generation (except evaporation at the dam) are excluded.

The WUE registered in 2022 was estimated at UGX 144,194 of value added per cubic metre of water used, equivalent to US\$38.5 per cubic metre. Similar to the previous years, the service sector activities emerged as the most water use efficient activities estimated at UGX /m³ 369,609. The drivers were; education followed by health, accommodation and other services. See Table 8.

4.0 THE DERIVED AGGREGATES AND INDICATORS

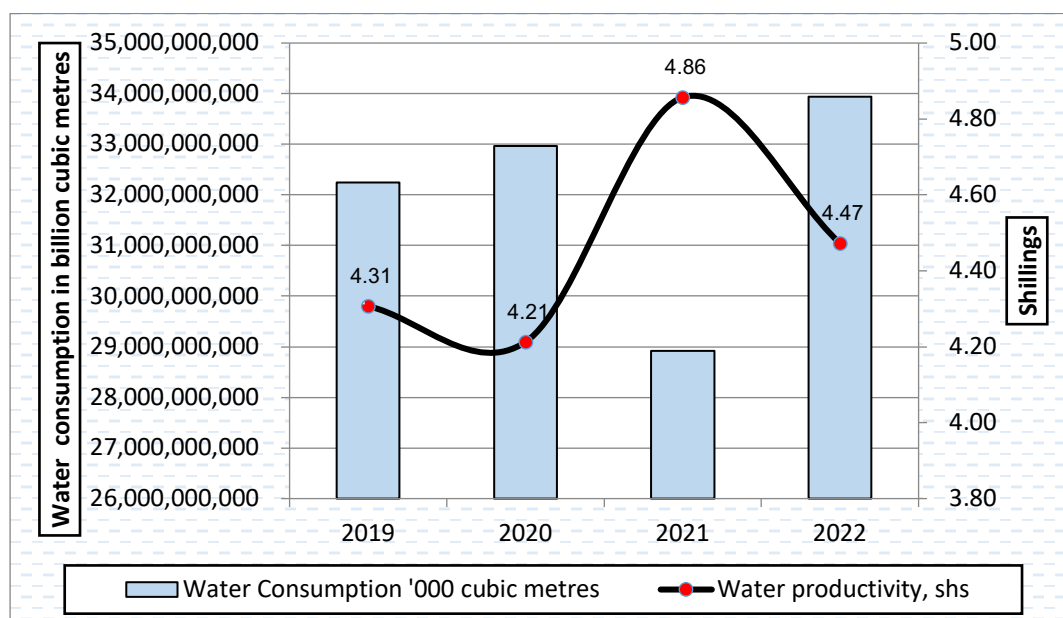
This section presents the social and economic aspects of water with discussions on some implications of the state of the water sector. The purpose is to provide an insight into the outcomes of the current water management and regulation in order to improve water management for sustainability.

Over the reporting period, the highest Gross Water Input of 253,578,894 million cubic meters was estimated in 2022 which was higher than the estimate of 220,407,327 million cubic metres registered in 2021. Similarly, Net Domestic Water use of 253,578,880 million cubic meters estimate for 2022 was higher than 220,407,314 million cubic metres reported in 2021. Due to lack of estimates of imported water, Gross Water Input is almost equal to Net Domestic Water.

4.1 Water Consumption and Water Productivity

Water consumption was estimated at 33,938,783 million cubic metres in 2022, leading to water productivity of UGX/m³ 4.47. As indicated in Figure below, water productivity has continued to grow compared to water consumption. Industry and service sectors registered the highest amount of water consumption with corresponding lowest water productivity. However, the agricultural sector registered a drop of 11.3 percent in water productivity despite the rise in its water consumption of 17.3 percent. Therefore, in order to increase on water productivity for these economic units, the opportunities for improving water productivity should be identified and implemented.

Figure 3: Water Consumption and Water Productivity



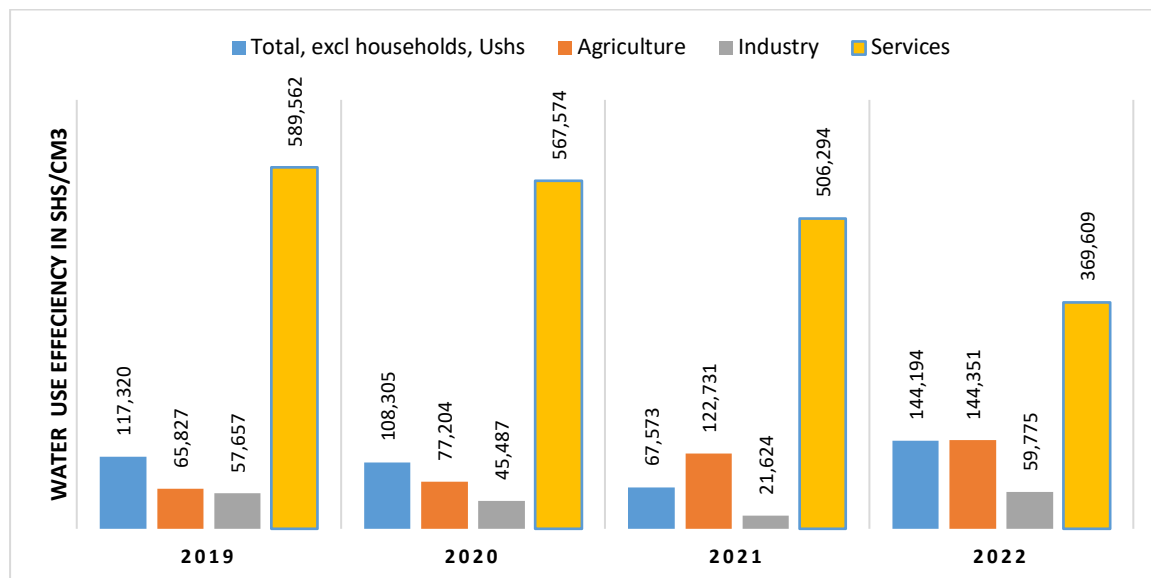
Source: Uganda Bureau of Statistics

4.2 Water Use Efficiency (WUE)

The WUE excluding households of UGX 144,194 was registered in 2022. This was higher than, UGX 67,573 registered in 2021 implying that more water was used with a corresponding

increase in GDP. Service activities registered the highest WUE while industry activities registered the lowest WUE as shown in the Figure 2 below.

Figure 4: Water Use Efficiency

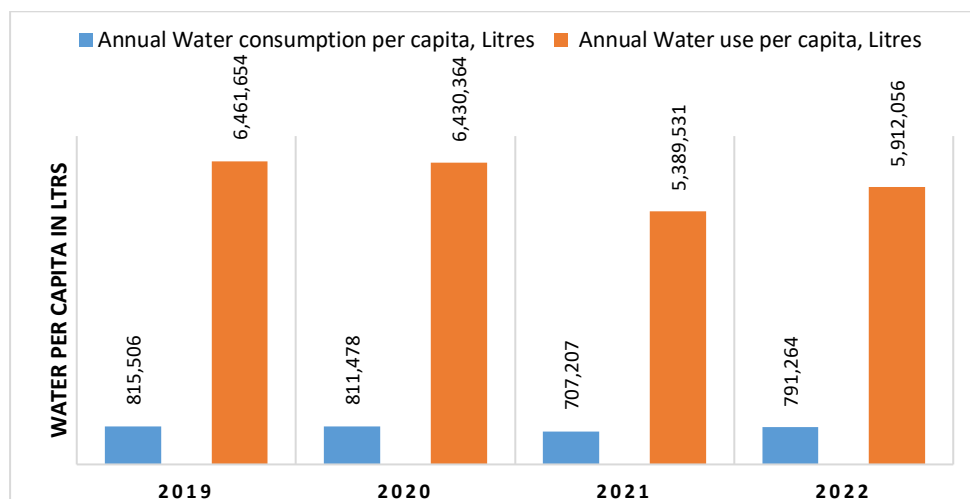


Source: Uganda Bureau of Statistics

4.3 Water Consumption and Use Per Capita

The annual water use per capita for 2022 was 5,912,056 litres and the annual water consumption per capita of 791,264 litres which was higher than 707,207 litres which was registered in 2021 as shown in the Figure 3.

Figure 5: Water Consumption and Use and Use Per Capita

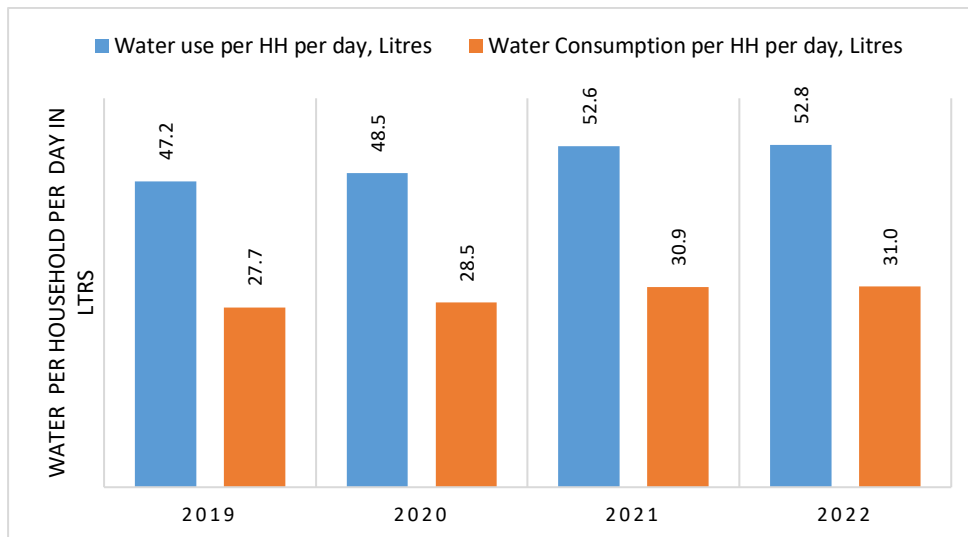


Source: Uganda Bureau of Statistics

4.4 Water Consumption and Use per Household per Day

The average water use per household per day for 2022 increased to 52.8 litres from 52.6 litres recorded in 2021 while the average water consumption per household per day also increased to 31.0 litres from 30.9 recorded in 2021 as shown in the Figure below.

Figure 6; Water Consumption and Use per Household per Day



Source: Uganda Bureau of Statistics

APPENDIX

Table 1: Physical Supply and Use of Water ('000 cubic metres), 2019 to 2022

	2019	2020	2021	2022
Total abstraction	255,463,815,992	261,209,916,032	220,407,327,498	253,578,894,825
Total supply	223,222,443,920	228,246,511,174	191,485,739,063	219,640,098,876
Total use of water	255,463,839,998	261,209,925,328	220,407,417,470	253,578,974,541
Consumption= Total use- Total Supply	32,241,396,078	32,963,414,154	28,921,678,407	33,938,875,666
All return flows to envt	190,981,047,841	195,283,097,020	162,564,060,657	185,701,223,210

Source: Uganda Bureau of Statistics

Table 2: Water abstracted by water resource and purpose ('000 cubic metres), 2019-2022

Water Resource and purpose	2019	2020	2021	2022
Surface Water				
	110,605,252	138,701,719	106,400,331	117,152,651
Supply and distribution	-	164,536	102,971	132,561
Own Use	110,605,252	138,537,183	106,297,360	117,020,091
Groundwater				
	202,609	222,771	230,238	230,031
Supply and distribution	2	10,996	8,559	8,268
Own Use	202,607	211,775	221,678	221,763
DWRM				
	340	6,802	8,125	9,362
Other ground				
	18,955	19,214	24,083	21,863
Other Valley dams & water				
	38,699	40,989	44,175	46,374
Other springs, fountains and wells				
	144,613	144,771	145,294	144,164
Precipitation				
	255,352,990,877	261,070,991,542	220,300,696,930	253,461,512,142
Supply and distribution				
Own Use	255,352,990,877	261,070,991,542	220,300,696,930	253,461,512,142
Total Abstracted Water				
	255,463,798,738	261,209,916,032	220,407,327,498	253,578,894,825
Supply and distribution	2	175,531	111,531	140,829
Own Use	255,463,798,737	261,209,740,500	220,407,215,968	253,578,753,996

Source: Uganda Bureau of Statistics

Table 3: Water Abstraction by Economic Activity ('000 cubic metres), 2019 to 2022

	2019	2020	2021	2022
Agriculture	253,823,708,281	259,507,380,043	219,118,196,718	251,088,473,582
Agriculture (Irrigation)	262,585	190,610	43,157	34,182
Agriculture (Rain fed crop)	169,768,210,667	173,569,751,667	131,257,707,639	142,759,788,319
Agriculture (Livestock)	52,592,140,631	53,769,813,508	63,534,453,739	72,255,063,031
Agriculture Support Services				
Agriculture (Forestry)	31,462,907,977	32,167,442,983	24,325,810,864	36,073,436,224
Agriculture (Fishing)	186,421	181,275	181,319	151,826
Industry	1,640,103,574	1,702,531,677	1,289,125,235	2,490,359,439
Crude oil and Mining	37,304	8,578	9,494	30,583
Manufacturing (Food and Beverages)	40,076	107,244	165,322	141,353
Manufacturing (Other)	7,414	7,443	7,972	6,693
Electricity	109,858,929	137,902,440	104,790,244	116,577,849
Water Supply; Sewerage and Waste Management Activities	1,529,935,581	1,564,212,055	1,182,895,689	2,373,421,816
Construction	224,270	293,918	1,256,513	181,145
Services	4,136	4,312	5,546	61,804
Accommodation	367	466	390	363
Public Administration	78	71	120	250
Education	270	260	184	611
Health	1,066	1,141	1,266	1,084
Other	2,356	2,375	3,587	59,496
Households	-	-	-	-
Total	255,463,815,992	261,209,916,032	220,407,327,498	253,578,894,825

Source: Uganda Bureau of Statistics

Table 4: Water Supply by Economic Activity ('000 cubic metres), 2019 to 2022

	2019	2020	2021	2022
Agriculture	221,613,292,732	226,575,737,778	190,326,167,689	217,314,242,464
Agriculture (Irrigation)	131,293	95,305	21,578	17,091
Agriculture (Rain fed crop)	152,791,389,601	156,212,776,500	118,131,936,875	128,483,809,487
Agriculture (Livestock)	43,651,447,247	44,628,913,946	52,733,562,902	59,971,667,181
Agriculture Support Services				
Agriculture (Forestry)	25,170,324,592	25,733,952,026	19,460,646,334	28,858,748,705
Agriculture (Fishing)	-	-	-	-
Industry	1,609,081,110	1,670,701,280	1,159,492,899	2,325,765,007
Crude oil and Mining	26,113	6,004	6,646	21,408
Manufacturing (Food and Beverages)	26,949	60,775	90,429	79,255
Manufacturing (Other)	8,510	8,670	9,349	9,058
Electricity	109,749,299	137,764,774	104,685,711	116,461,555
Water Supply; Sewerage and Waste Management Activities	1,499,224,842	1,532,801,710	1,054,448,848	2,209,156,829
Construction	45,398	59,347	251,915	36,902
Services	70,077	72,116	78,476	91,404
Accommodation	895	946	1,006	1,088
Public Administration	6,474	6,701	7,285	8,063
Education	549	570	602	729
Health	1,159	1,212	1,324	1,383
Other	3,056	3,154	3,629	15,102
Households	57,944	59,533	64,629	65,039
Total	223,222,443,920	228,246,511,174	191,485,739,063	219,640,098,876

Source: Uganda Bureau of Statistics

Table 5: Water Use by Economic Activity ('000 cubic metres), 2019 to 2022

	2019	2020	2021	2022
Agriculture	253,823,737,239	259,507,410,016	219,118,229,260	251,088,509,526
Agriculture (Irrigation)	262,585	190,610	43,157	34,182
Agriculture (Rain fed crop)	169,768,210,667	173,569,751,667	131,257,707,639	142,759,788,319
Agriculture (Livestock)	52,592,169,589	53,769,843,481	63,534,486,282	72,255,098,974
Agriculture Support Services				
Agriculture (Forestry)	31,462,907,977	32,167,442,983	24,325,810,864	36,073,436,224
Agriculture (Fishing)	186,421	181,275	181,319	151,826
Industry	1,639,917,529	1,702,324,572	1,288,980,212	2,490,195,785
Crude oil and Mining	38,668	9,989	11,027	32,275
Manufacturing (Food and Beverages)	52,643	120,251	179,448	156,953
Manufacturing (Other)	13,762	14,013	15,108	14,573
Electricity	109,859,158	137,902,677	104,790,502	116,578,133
Water Supply; Sewerage and Waste Management Activities	1,529,727,077	1,563,981,698	1,182,725,411	2,373,230,289
Construction	226,223	295,944	1,258,716	183,561
Services	185,230	190,741	207,998	269,231
Accommodation	3,332	3,550	3,748	4,021
Public Administration	23,164	23,975	26,080	28,890
Education	2,090	2,169	2,271	2,832
Health	4,495	4,715	5,162	5,303
Other	11,632	11,996	14,047	70,981
Households	140,516	144,336	156,691	157,205
Total	255,463,839,998	261,209,925,328	220,407,417,470	253,578,974,541

Source: Uganda Bureau of Statistics

Table 6: Water Consumption by Economic Activity ('000 cubic metres), 2019 to 2022

	2019	2020	2021	2022
Agriculture	32,210,444,507	32,931,672,238	28,792,061,572	33,774,267,062
Agriculture (Irrigation)	131,293	95,305	21,578	17,091
Agriculture (Rain fed crop)	16,976,821,067	17,356,975,167	13,125,770,764	14,275,978,832
Agriculture (Livestock)	8,940,722,342	9,140,929,534	10,800,923,380	12,283,431,793
Agriculture Support Services				
Agriculture (Forestry)	6,292,583,384	6,433,490,957	4,865,164,530	7,214,687,520
Agriculture (Fishing)	186,421	181,275	181,319	151,826
Industry	30,836,419	31,623,292	129,487,313	164,430,777
Crude oil and Mining	12,555	3,985	4,381	10,867
Manufacturing (Food and Beverages)	25,694	59,476	89,019	77,698
Manufacturing (Other)	5,251	5,343	5,758	5,515
Electricity	109,859	137,903	104,790	116,578
Water Supply; Sewerage and Waste Management Activities	30,502,235	31,179,988	128,276,563	164,073,460
Construction	180,825	236,597	1,006,801	146,659
Services	115,152	118,625	129,522	177,827
Accommodation	2,437	2,603	2,741	2,933
Public Administration	16,690	17,275	18,795	20,827
Education	1,541	1,599	1,669	2,103
Health	3,336	3,503	3,838	3,920
Other	8,576	8,841	10,418	55,879
Households	82,572	84,803	92,062	92,166
Total excl. households	32,241,313,506	32,963,329,351	28,921,586,345	33,938,783,499

Source: Uganda Bureau of Statistics

Table 7: Water productivity by Economic Activity (UGX per cubic meter), 2019 to 2022

	2019	2020	2021	2022
Agriculture	1.02	1.00	1.22	1.08
Agriculture (Irrigation)	7,237.02	9,969.74	46,019.55	61,714.56
Agriculture (Rain fed crop)	1.06	1.04	1.44	1.40
Agriculture (Livestock)	0.56	0.55	0.52	0.49
Agriculture Support Services				
Agriculture (Forestry)	0.89	0.87	1.24	0.84
Agriculture (Fishing)	17,808.95	18,314.55	19,146.01	21,454.47
Industry	1,192.70	1,163.02	290.88	250.10
Crude oil and Mining	184,028.99	579,828.62	563,322.17	231,275.46
Manufacturing (Food and Beverages)	410,463.76	177,322.96	123,836.81	156,874.37
Manufacturing (Other)	2,115,648.85	2,079,336.26	2,016,674.55	2,328,322.91
Electricity	17,045.48	13,579.15	18,914.44	18,156.16
Water Supply; Sewerage and Waste Management Activities	101.98	99.76	24.23	20.17
Construction	43,294.99	33,089.27	7,420.95	55,618.56
Services	609,293.55	591,458.95	531,214.39	423,559.60
Accommodation	1,579,703.70	1,479,059.91	1,274,907.63	1,201,495.69
Public Administration	219,787.73	212,348.34	215,056.92	218,728.83
Education	3,870,923.86	3,728,658.51	3,298,275.65	2,684,698.97
Health	1,362,584.26	1,297,638.58	1,212,105.73	1,378,534.75
Other	5,955,432.07	5,776,849.19	4,805,450.34	985,443.38
Households	12,828.32	12,490.86	11,398.68	12,233.06
Total	4.31	4.21	4.86	4.47

Source: Uganda Bureau of Statistics

Table 8: Water Use Efficiency (WUE) by Economic Activity – (UGX per cubic meter)

	2019	2020	2021	2022
Agriculture	65,827	77,204	122,731	144,351
Agriculture (Irrigated crop)	3,619	4,985	23,010	30,857
Agriculture (Rain fed crop)				
Agriculture (Livestock)	74,298	70,866	73,411	72,900
Agriculture Support Services				
Agriculture (Forestry)				
Agriculture (Fishing)	19,477	20,083	20,994	23,975
Industry	57,657	45,487	21,624	59,775
Crude oil and Mining	59,751	231,297	223,797	77,873
Manufacturing (Food and Beverages)	200,341	87,704	61,432	77,659
Manufacturing (Other)	807,290	792,802	768,644	881,059
Electricity	11,875	9,462	11,736	13,251
Water Supply; Sewerage and Waste Management Activities	20,891	18,250	28,594	23,483
Construction	34,607	26,454	5,936	44,437
Services	589,562	567,574	506,294	369,609
Accommodation	1,155,495	1,084,748	932,612	876,484
Public Administration	158,360	152,999	154,983	157,680
Education	2,853,476	2,749,247	2,424,261	1,993,215
Health	1,011,295	964,087	901,109	1,018,972
Other	4,390,786	4,257,778	3,563,849	775,781
Activities of Households	14,258	13,719	12,406	12,287
Total, excl households, Ushs	117,320	108,305	67,573	144,194
Total, excl households, US\$	32	29	18	39

Source: Uganda Bureau of Statistics

Table 9: Summary of derived Aggregates and Indicators, 2019-2022

	2019	2020	2021	2022
Gross Water Input '000 cubic metres	255,463,815,992	261,209,916,032	220,407,327,498	253,578,894,825
Net Domestic Water use '000 cubic metres	255,463,804,109	261,209,903,733	220,407,314,145	253,578,880,076
Water Consumption '000 cubic metres	32,241,313,506	32,963,329,351	28,921,586,345	33,938,783,499
Water productivity, shs	4.31	4.21	4.86	4.47
Water Use Efficiency - Shs/cubic meters of value added	117,320	108,305	67,573	144,194
Annual Water use per capita, Litres	6,461,654	6,430,364	5,389,531	5,912,056
Annual Water consumption per capita, Litres	815,506	811,478	707,207	791,264
Water use per HH per day, Litres	47.2	48.5	52.6	52.8
Water Consumption per HH per day, Litres	27.7	28.5	30.9	31.0
% of losses in the supply and distribution chain	30.0%	30.0%	35.5%	34.9%

Note 1: Volume of imported water is not included.

Source: Uganda Bureau of Statistics

Table 10 A: 2021 Physical Supply Table for Water Accounts, '000 cubic meters

Industries by SIC	Agriculture (Irrigation)	Agriculture (Rain fed crop)	Agriculture (Livestock)	Agriculture (Forestry)	Agriculture (Fishing)	Crude oil and Mining	Manufacturing (Food and Beverages)	Manufacturing (Other)	Electricity	Water Supply; Sewerage and Waste Management Activities	Construction	Accommodation	Public Administration	Education	Health	Other	Households	Accumulation	Rest of the World	Flows from the environment	Total Supply	
(I) Sources of Abstracted Water																						
Inland Water Resources																						
Surface Water																					10,640,331	106,400,331
Groundwater																					230,238	230,238
Soil Water																						
Total																					10,663,0569	10,6630,569
Other water sources																						
Precipitation																					220300696930	220,300,696,930
Total																					220300696930	220300696930
Total Supply Abstracted Water																					220407327498	220407327498
(II) Abstracted water																						
For distribution-NWSC										180126												180126
For distribution-Other distributors										8023												8023
For own use	43157	131257707639	63534453739	24325810864	181319	9494	165322	7972	104790244	1182784158	1256513	390	120	184	1266	3587					220407215968	
Total	43157	131257707639	63534453739	24325810864	181319	9494	165322	7972	104790244	1182972307	1256513	390	120	184	1266	3587					220407404117	
(III) Supply of water to other economic units of which:																						
Wastewater																						
Wastewater to treatment			3254				1410	712	26		215	321	2586	184	365	1025	3254				13353	
Own treatment																						
Reused water																						
For distribution																						
For own use																						
Total			3254				1410	712	26	0	215	321	2586	184	365	1025	3254				13353	
(IV) Return flows of water																						
To inland water resources																						
Surface Water		39377312292	15883602303	2432580792			53412	4319	104685685	1159067916											58957306718	
Groundwater	21578	26251541528	9530161382	4865161583			17804			-104619068											40542284807	
Other sources		52503083056	27319795962	12162903959		6646	17804	4319			251700	685	4699	417	959	2604	61375				91986134185	
Total returns flows of which: Losses in distribution	21578	118131936875	52733559647	19460646334	0	6646	89019	8637	104685685	1054448848	251700	685	4699	417	959	2604	61375				191485725710	
(V) Evaporation of abstracted water, transpiration and water incorporated into products	21578	13125770764	10800923380	4865164530	181319	4381	89019	5758	104790	128199945	1006801	2741	18795	1669	3838	10418	92062				28921601788	
Evapotranspiration of abstracted water		211541305	102395216	39204660	195633	15	266	13	168885	1906296	2025	1			2	6	116					
Water incorporated into products																						
Total supply	86313	262515415278	127068940021	48651621728	362639	20521	344770	23080	209580746	2365621100	2515229	4137	26200	2455	6428	17633	156691			220407327498	661222072467	

Table 10 B: 2021 Physical Use Table for Water Accounts, “000 cubic meters

	Agriculture (Irrigation)	Agriculture (Rainfed crop)	Agriculture (Livestock)	Agriculture (Forestry)	Agriculture (Fishing)	Crude oil and Mining	Manufacturing (Food and Beverages)	Manufacturing (Other)	Electricity	Water Supply; Sewerage and Waste Management Activities	Construction	Accommodation	Public Administration	Education	Health	Other	Households	Accumulation	Rest of the World	Flows to the environment	Total Use
(I) Sources of Abstracted Water																					
Inland Water Resources																					
Surface Water	42,647	-	110	2,941	32,273	5,533	163,247	5,385	104,790,190	109,117	1,245,680	274	1	41	1,226	1,667					106,400,331
Groundwater	510	-	44,416	6	133,083	3,962	2,075	2,587	54	30,376	10,833	116	119	142	40	1,919					230,238
Soil Water																					
Total	43,157	-	44,525	2,947	165,355	9,494	165,322	7,972	104,790,244	139,493	1,256,513	390	120	184	1,266	3,587					106,630,569
Other water sources																					
Collection of Precipitation		131,257,707,639	63,534,409,214	24,325,807,917	15,964					1,182,756,196											220,300,696,930
Total		131,257,707,639	63,534,409,214	24,325,807,917	15,964					1,182,756,196											220,300,696,930
Total Use of Abstracted Water	43,157	131,257,707,639	63,534,453,739	24,325,810,864	181,319	9,494	165,322	7,972	104,790,244	1,182,895,689	1,256,513	390	120	184	1,266	3,587					220,407,327,498
(II) Abstracted water																					
Distributed Water-NWSC			32,542			1,532	14,099	7,122	257		2,151	3,208	25,864	1,845	3,650	10,250	77,604				180,126
Distributed Water-other Water supply industry							27	14			52	149	96	242	246	211	6,986				8,023
For own use	43,157	131,257,707,639	63,534,453,739	24,325,810,864	181,319	9,494	165,322	7,972	104,790,244	1,182,712,058	1,256,513	390	120	184	1,266	3,587	72,101				220,407,215,968
Total	43,157	131,257,707,639	63,534,486,282	24,325,810,864	181,319	11,027	179,448	15,108	104,790,502	1,182,712,058	1,258,716	3,748	26,080	2,271	5,162	14,047	156,691				220,407,404,117
(III) Wastewater and reused water																					
Wastewater																					
Wastewater received from other units										13,353											13,353
Own treatment																					
Reused water																					
Distributed reused																					
Own use																					
Total										13,353											13,353
(IV) Return flows of water																					
Return flows of water to the environment																					
To inland water resources																					
Surface Water																					58,957,306,718
Groundwater																					40,542,284,807
To other sources																					91,986,134,185
Total returns flows																					191,485,725,710
(V) Evaporation of abstracted water, transpiration and water incorporated into products																					
Evapotranspiration of abstracted water																					28,921,601,788
Water incorporated into products																					
Total use	86,313	262,515,415,278	127,068,940,021	48,651,621,728	362,639	20,521	344,770	23,080	209,580,746	2,365,621,100	2,515,229	4,137	26,200	2,455	6,428	17,633	156,691		0	220,407,327,498	661,222,072,467

Table 11 A: 2022 Physical Supply Table for Water Accounts, “000 cubic meters

Industries by SIC	Agriculture	Agriculture (Rainfed crop)	Agriculture (Livestock)	Agriculture (Forestry)	Agriculture	Crude oil and	Manufacturing	Manufacturing	Electricity	Water Supply;	Construction	Accommodation	Public Administration	Education	Health	Other	Households	Accretion	Rest	Flows from the environment	Total Supply
(I) Sources of Abstracted Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Inland Water Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surface Water	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	117,152,651	117,152,651
Groundwater	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230,031	230,031
Soil Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117,382,682	117,382,682
Other water sources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Precipitation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	253,461,512,142	253,461,512,142
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	253,461,512,142	253,461,512,142
Total Supply Abstracted Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	253,578,894,825	253,578,894,825
(II) Abstracted water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For distribution-NWSC	0	0	0	0	0	0	0	0	0	198,953	0	0	0	0	0	0	0	0	0	0	198,953
For distribution- Other distributors	0	0	0	0	0	0	0	0	0	6,844	0	0	0	0	0	0	0	0	0	0	6,844
For own use	34,182	142,759,788,319	72,255,063,031	36,073,436,224	151,826	30,583	141,353	6,693	116,577,849	2,373,280,987	181,145	363	250	611	1,084	59,496	0	0	0	0	253,578,753,996
Total	34,182	142,759,788,319	72,255,063,031	36,073,436,224	151,826	30,583	141,353	6,693	116,577,849	2,373,486,784	181,145	363	250	611	1,084	59,496	0	0	0	0	253,578,959,793
(III) Supply of water to other economic units of which:	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	-
Wastewater	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wastewater to treatment	-	-	3,594	-	-	-	1,557	787	28	-	238	354	2,857	204	403	1,132	3,594	0	0	0	14,749
Own treatment	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	-
Reused water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
For distribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
For own use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Total	0	0	3594.386865	0	0	0	1557.311286	786.595098	28.37850148	0	237.6245623	354.35004	2856.768002	203.7777275	403.2027961	1132.084066	3594.386865	0	0	0	14,749
(IV) Return flows of water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To inland water resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surface Water	-	42,827,936,496	18,063,754,092	3,607,343,588	-	-	46,619	4,136	116,461,527	2,325,762,384	-	-	-	-	-	-	-	0	0	0	66,941,308,841
Groundwater	17,091	28,551,957,664	10,838,252,455	7,214,687,176	-	-	15,540	-	-	(116,605,555)	-	-	-	-	-	-	-	0	0	0	46,488,324,371
Other sources	-	57,103,915,328	31,069,657,039	18,036,717,941	-	21,408	15,540	4,136	-	-	36,665	733	5,207	526	980	13,970	61,444	0	0	0	106,210,450,915
Total returns flows	17090.7744	128483809487.25	59971663587	28858748705	0	21407.89837	77698.03382	8271.770365	116461526.6	2209156829	36664.66922	733.26053	5206.646401	525.640683	979.9049995	13969.70626	61444.32121	0	0	0	219,640,084,127
of which: Losses in distribution	-	-	-	-	-	-	-	-	-	(116,605,555)	-	-	-	-	-	-	-	0	0	0	(116,605,555)
(V) Evaporation of abstracted water, transpiration and water incorporated into	17,091	14,275,978,832	12,283,431,793	7,214,687,520	151,826	10,867	77,698	5,515	116,578	164,008,493	146,659	2,933	20,827	2,103	3,920	55,879	92,166	0	0	0	33,938,810,698
Evapotranspiration of abstracted water	-	195,605,631	99,001,948	49,426,854	191,353	42	194	9	159,732	3,251,909	248	0	0	1	1	82	90	-	-	-	-
Water incorporated into products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total supply	68,363	285,519,576,638	144,510,162,005	72,146,872,449	303,652	62,858	298,307	21,266	233,155,982	4,746,652,105	364,706	4,384	29,140	3,443	6,387	130,477	157,205	0	0	253,578,894,825	760,736,764,191

Table 11 B: 2022 Physical Use Table for Water Accounts, “000 cubic meters

	Agriculture (Irrigation)	Agriculture (Rainfed crop)	Agriculture (Livestock)	Agriculture (Forestry)	Agriculture (Fishing)	Crude oil and Mining	Manufacturing (Food and Beverages)	Manufacturing (Other)	Electricity	Water Supply; Sewerage and Waste Management Activities	Construction	Accommodation	Public Administration	Education	Health	Other	Households	Accumulation	Rest of the World	Flows to the environment	Total Use
(I) Sources of Abstracted Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Inland Water Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surface Water	33,547	-	43	336	2,789	25,961	139,279	4,539	116,577,649	138,135	171,182	237	30	419	1,055	57,449	-	0	0	0	117,152,651
Groundwater	634	-	46,618	7	133,073	4,622	2,074	2,154	200	28,073	9,963	126	220	191	29	2,047	-	0	0	0	230,031
Soil Water	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	0	0	-
Total	34,182	-	46,661	343	135,862	30,583	141,353	6,693	116,577,849	166,208	181,145	363	250	611	1,084	59,496	-	0	0	0	117,382,682
Other water sources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Collection of Precipitation	0	142,759,788,319	72,255,016,370	36,073,435,881	15,964	0	0	0	0	2,373,255,608	0	0	0	0	0	0	-	0	0	0	253,461,512,142
Total	-	142,759,788,319	72,255,016,370	36,073,435,881	15,964	-	-	-	-	2,373,255,608	-	-	-	-	-	-	-	0	0	0	253,461,512,142
Total Use of Abstracted Water	34,182	142,759,788,319	72,255,063,031	36,073,436,224	151,826	30,583	141,353	6,693	116,577,849	2,373,421,816	181,145	363	250	611	1,084	59,496	-	0	0	0	253,578,894,825
(II) Abstracted water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distributed Water-NWSC	-	-	35,944	-	-	1,693	15,573	7,866	284	-	2,376	3,544	28,568	2,038	4,032	11,321	85,715	0	-	0	198,953
Distributed Water- other Water supply industry	-	-	-	-	-	-	27	14	0	-	40	114	72	183	187	164	6,043	0	-	0	6,844
For own use	34,182	142,759,788,319	72,255,063,031	36,073,436,224	151,826	30,583	141,353	6,693	116,577,849	2,373,215,540	181,145	363	250	611	1,084	59,496	65,447	0	0	0	253,578,753,996
Total	34,182	142,759,788,319	72,255,098,974	36,073,436,224	151,826	32,275	156,953	14,573	116,578,133	2,373,215,540	183,561	4,021	28,890	2,832	5,303	70,981	157,205	0	0	0	253,578,959,793
(III) Wastewater and reused water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wastewater	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wastewater received from other units	0	0	0	0	0	0	0	0	0	14,749	0	0	0	0	0	0	0	0	-	0	14,749
Own treatment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Reused water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distributed reused	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Own use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Total	-	-	-	-	-	-	-	-	-	14,749	-	-	-	-	-	-	-	0	0	0	14,749
(IV) Return flows of water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return flows of water to the environment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To inland water resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surface Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66,941,308,841
Groundwater	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46,488,324,371
To other sources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	106,210,450,915
Total returns flows	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	219,640,084,127
(V) Evaporation of abstracted water, transpiration and water incorporated into products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33,938,810,698
Evapotranspiration of abstracted water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Water incorporated into products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	-
Total use	68,363	285,519,576,638	144,510,162,005	72,146,872,449	303,652	62,858	298,307	21,266	233,155,982	4,746,652,105	364,706	4,384	29,140	3,443	6,387	130,477	157,205	-	0	253,578,894,825	760,736,764,191

