

UNSD/UNEP Questionnaire on Environment Statistics (water section)

**Expert Group on
Environment Statistics
(EGES)**

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Appropriate Statistical Procedures

(Code of Practice: Principal 8)

8.1

When European Statistics are based on administrative and other data, the definitions and concepts used for non-statistical purposes are a good approximation to those required for statistical purposes

8.2

In the case of statistical surveys, questionnaires are systematically tested prior to the data collection.

8.3

Statistical processes are routinely monitored and revised as required.

8.4

Metadata related to statistical processes are managed throughout the statistical processes and disseminated, as appropriate.

8.5

Revisions follow standard, well-established and transparent procedures.

8.6

Agreements are made with holders of administrative and other data which set out their shared commitment to the use of these data for statistical purposes.

8.7

Statistical authorities co-operate with holders of administrative and other data in assuring data quality.

Data Sources for Water Statistics

Environment statistics	Data/database	Institution responsible for the collection maintains and update	Role of Armstat
Hydrometeorological conditions in Armenia	Bulletin	“Hydrometeorology and Monitoring Center” SNCO, Ministry of Environment	Data checking and publication
Monitoring of environmental pollution	Bulletin, databases of water, air and soil monitoring stations	“Hydrometeorology and Monitoring Center” SNCO, Ministry of Environment	Data checking and publication
About Water Use	Excel (Access) Database	Environmental Protection and Mining Inspection Body	Data checking, summary, aggregation and publication
“Veolia” CJSC, Water Committee	Excel (Access) Database	Environmental Protection and Mining Inspection Body	Data collection, checking, summary, aggregation and publication
Environmental taxes and nature use fees	Excel Database	Tax Service	Data checking, summary, aggregation and publication
Social snapshot and poverty	Annual survey	Armstat, Household Statistics Division	Data collection, checking, summery, aggregation and publication

UNSD/UNEP Questionnaire on Environment Statistics

Table W1

Renewable
Freshwater
Resources

Table W2

Freshwater
Abstraction
and Use

Table W3

Water
Supply Industry
(ISIC 36)

Water

Streamlining data for water statistics, SDG 6 Indicators and SEEA Water Accounts
with harmonized definitions

Table W4

Wastewater
Generation and
Treatment

Table W5

Population
Connected to
Wastewater
Treatment Systems

Table W6

Supplementary
Information
Sheet

Table W1 - Renewable freshwater resources

Line	Category	Unit	Long term annual average	1990	1995	2000	2016	2017	2018	2019	2020	2021
1	Precipitation	mio m3/y	17640	15794	15407	11264	19012	14335	18059	13371	16032	14009
2	Actual evapotranspiration	mio m3/y	11323	10426	10526	9032	12928	10382	12120	10285	11261	10146
3	Internal flow (=1-2)	mio m3/y	6317		4881	2232	6084	3953	5939	3086	4771	3863
4	Inflow of surface and groundwaters from neighbouring countries	mio m3/y	940		1189	641	798	710	632	1303	942	653
5	Renewable freshwater resources (=3+4)	mio m3/y	7257		6070	2873	6882	4663	6571	4389	5713	4498
6	Outflow of surface and groundwaters to neighbouring countries (=7+8)	mio m3/y										
7	<i>Of which:</i> Secured by treaties	mio m3/y										
8	Not secured by treaties	mio m3/y										
9	Outflow of surface and groundwaters to the sea	mio m3/y										

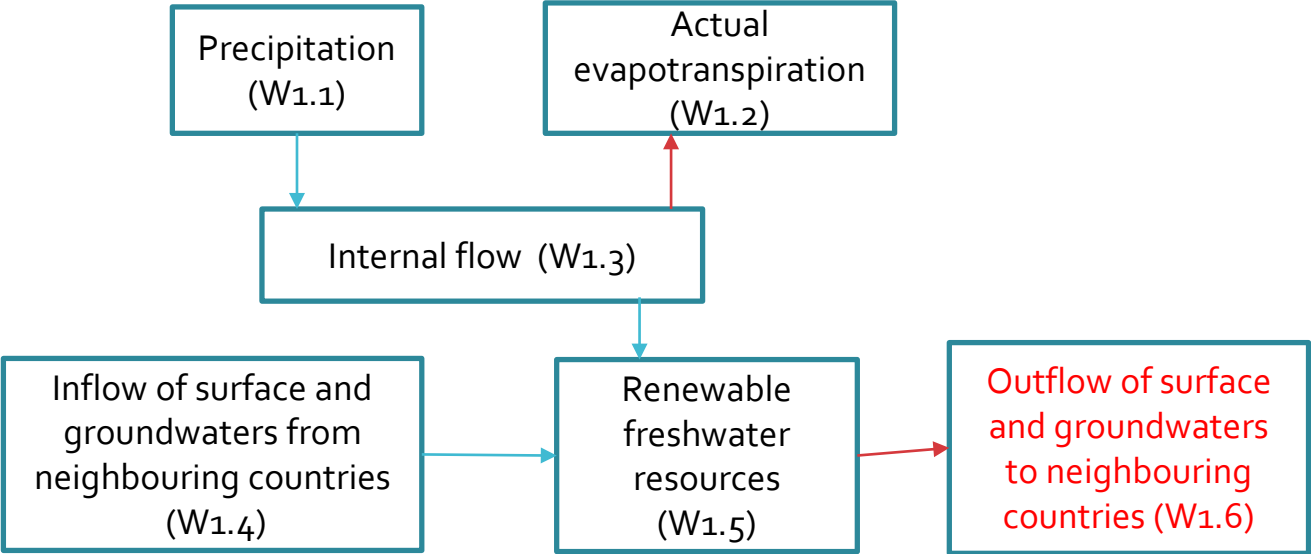


Table W2 - Freshwater use

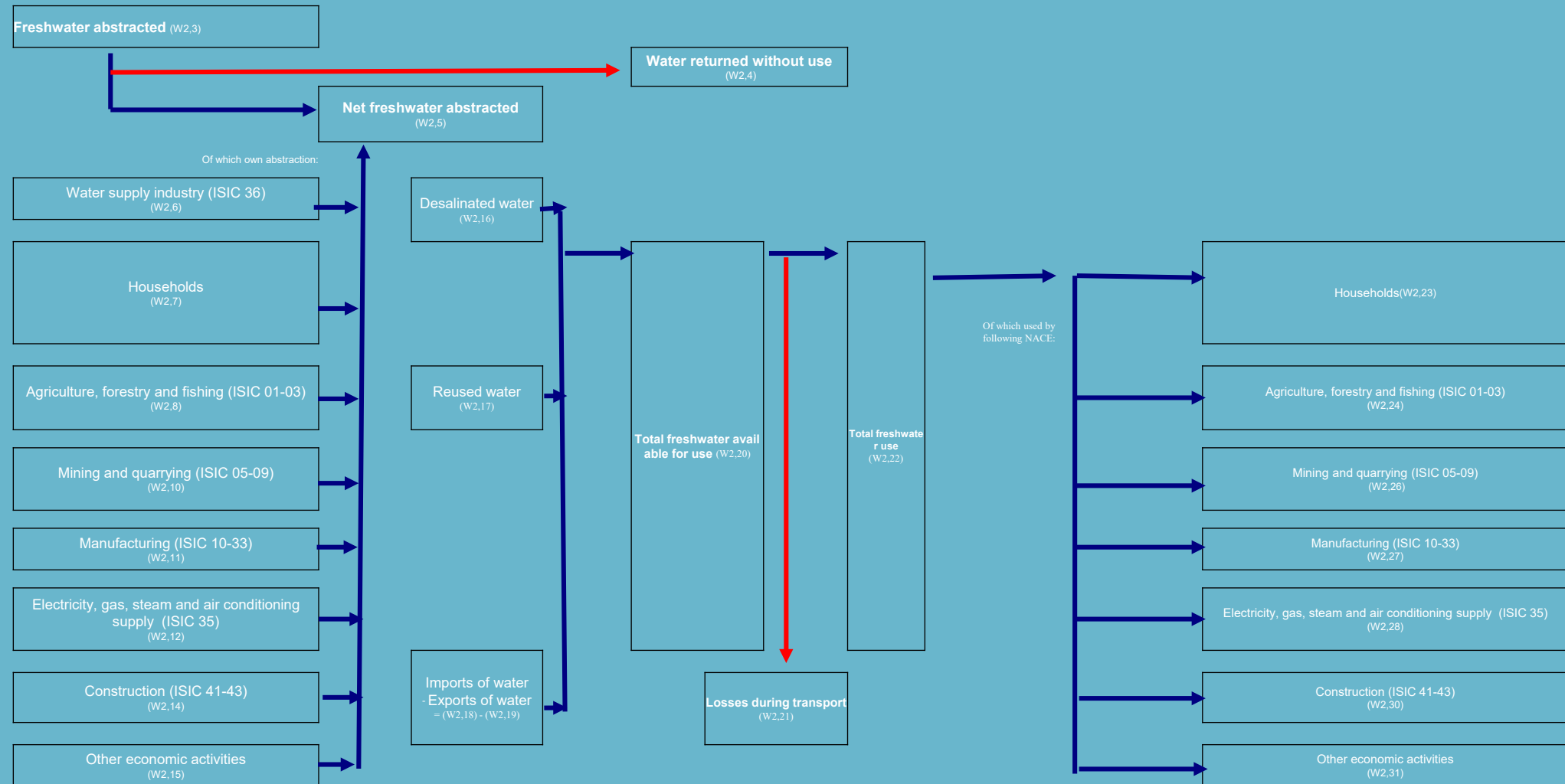


Table W2.17 – Reused water

Used water obtained directly from another consumer with or without treatment for subsequent use. This category does not include water discharged into a watercourse and reused downstream. Also, recycling water supply within industrial enterprises is not included.

1. Water supply industry (ISIC 36)

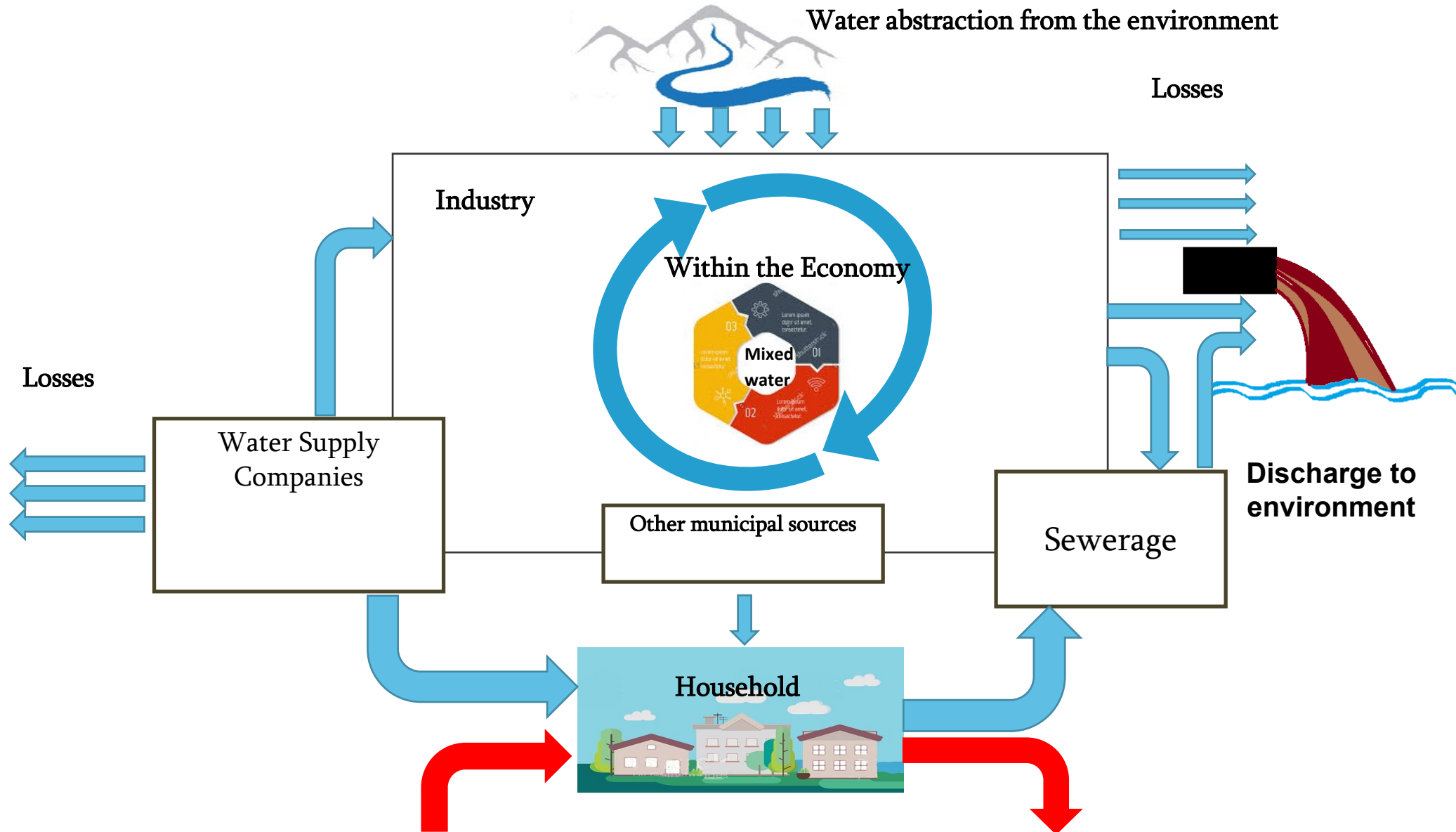
The volume of water abstracted from surface water sources (rivers, lakes, reservoirs, etc. including the volume of collected rainfall) and from underground sources by economic entities whose main activities are the collection and treatment of water and its distribution to households and other users (ISIC 36, Collection, treatment and distribution of water). This category does not include the amount of water abstraction by the water supply industry for the purpose of operating irrigation canals, which should be classified under the category "Freshwater abstraction by agriculture, forestry and fisheries".

2. Agriculture, forestry and fishing (ISIC 01-03)

The volume of water abstracted directly from surface water sources (rivers, lakes, reservoirs, etc., including the volume of rainfall collected) and from underground sources by economic entities classified in divisions ISIC 01-03 for their own use. This category includes abstractions by water utilities (ISIC 36) for the operation of irrigation canals.



Physical Water Flow



Physical use table 1
(millions of cubic meters), by NACE categories and households

1. Total abstraction from the environment (= 1.a + 1.b = 1.1 + 1.2)
1.a. Abstraction for own use
1.b. Abstraction for distribution
1.1. Surface water
1.2. Groundwater
2. Use of water received from other economic units
3. Total freshwater available for use (= 1 + 2)
3.1. Total abstraction from the environment (= 1.a + 1.b = 1.1 + 1.2)

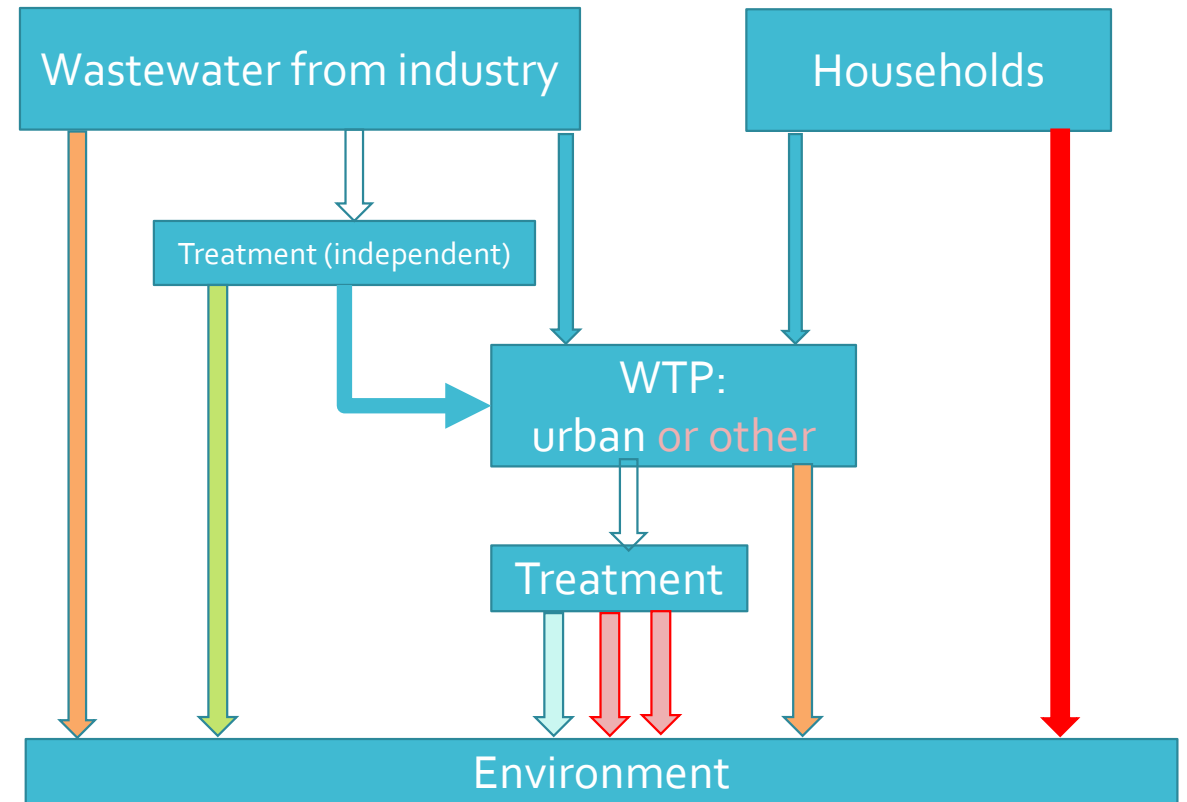
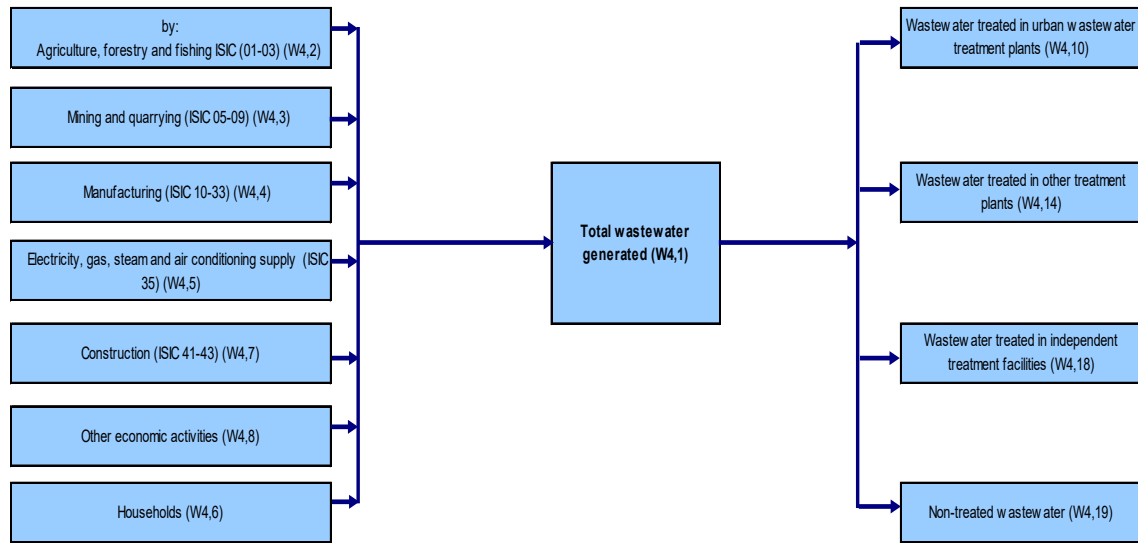
Physical supply table 2
(millions of cubic meters), by NACE categories and households

4. Supply of water to other economic units of which:
4.1. Wastewater to sewerage
5. Total returns into the environment (= 5.a + 5.b)
of which:
5.a. Losses in distribution because of leakages
5.b.1. Surface water
5.b.2. Groundwater
5.b.3. Soil water
6. Total supply of water (= 4 + 5)
7. Consumption (= 3 - 6)

The matrix table 3

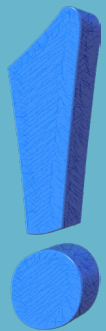
A. Physical use table (millions of cubic metres)	Industries (by NACE)	House holds	Supply of water to other economic units (row 4 of table 2)
Industries (by NACE)	X	X	X
Households	X	X	X
Use of water received from other economic units (row 2 of table1)	X	X	X

Table W4 - Wastewater generation and treatment



Data Sources for Table W5 - Population connected to wastewater collecting system

	<u>Water supply,</u> <u>thsd cub.m</u> <u>(latest publication for 2021)</u>		<u>Sewage,</u> <u>thsd cub.m</u> <u>(latest publication for 2021)</u>		Population connected to centralized sewage, Household survey, %
	total	to population	discharged	treated	
2018	121 257.3	79 288.4	103 690.9	71 272.1	71.9
2019	133 902.2	88 316.4	110 714.0	56 813.0	74.7
2020	139 319.4	95 207.1	109 461.7	49 104.5	77.9
2021	147 488.3	96 007.0	113 914.9	66 513.2	n/a



According to Annual Program of ARMSTAT “Social snapshot and poverty” is published in 30 of November.

**Table W5 - Population connected to wastewater collecting system
(Indicator 6.3.1: Proportion of wastewater safely treated)**

N	Variable name	2021	Units
1	The volume of water supplied to consumers / households	96.01	mln.cub.m
2	The volume of household wastewater from consumption, (row1*80%/100%)	76.81	mln.cub.m
3	Total wastewater delivered to treatment plant	113.91	mln.cub.m
4	Access of households to seweges (Household survey)	81.20	%
5	The volume of household wastewater sent to sewege	62.37	mln.cub.m
6	Percentage of household wastewater from total sewege wastewater (row 5*100%/row3)	54.75	%
7	Total wastewater safely treated at treatment plant	66.51	mln.cub.m
8	The volume of treated wastewater from household sewege wastewater in total wastewater safely treated at treatment plant (row6*row7/100)	36.41	mln.cub.m
9	Percentage of treated household wastewater from household wastewater from consumption (row8*100/row2)	47.41	%
10	Percentage of treated household wastewater from wastewater delivered to treatment plant (row8*100/row3)	31.97	%
11	Percentage of treated household wastewater from total treated wastewater (row8*100/row7)	54.75	%

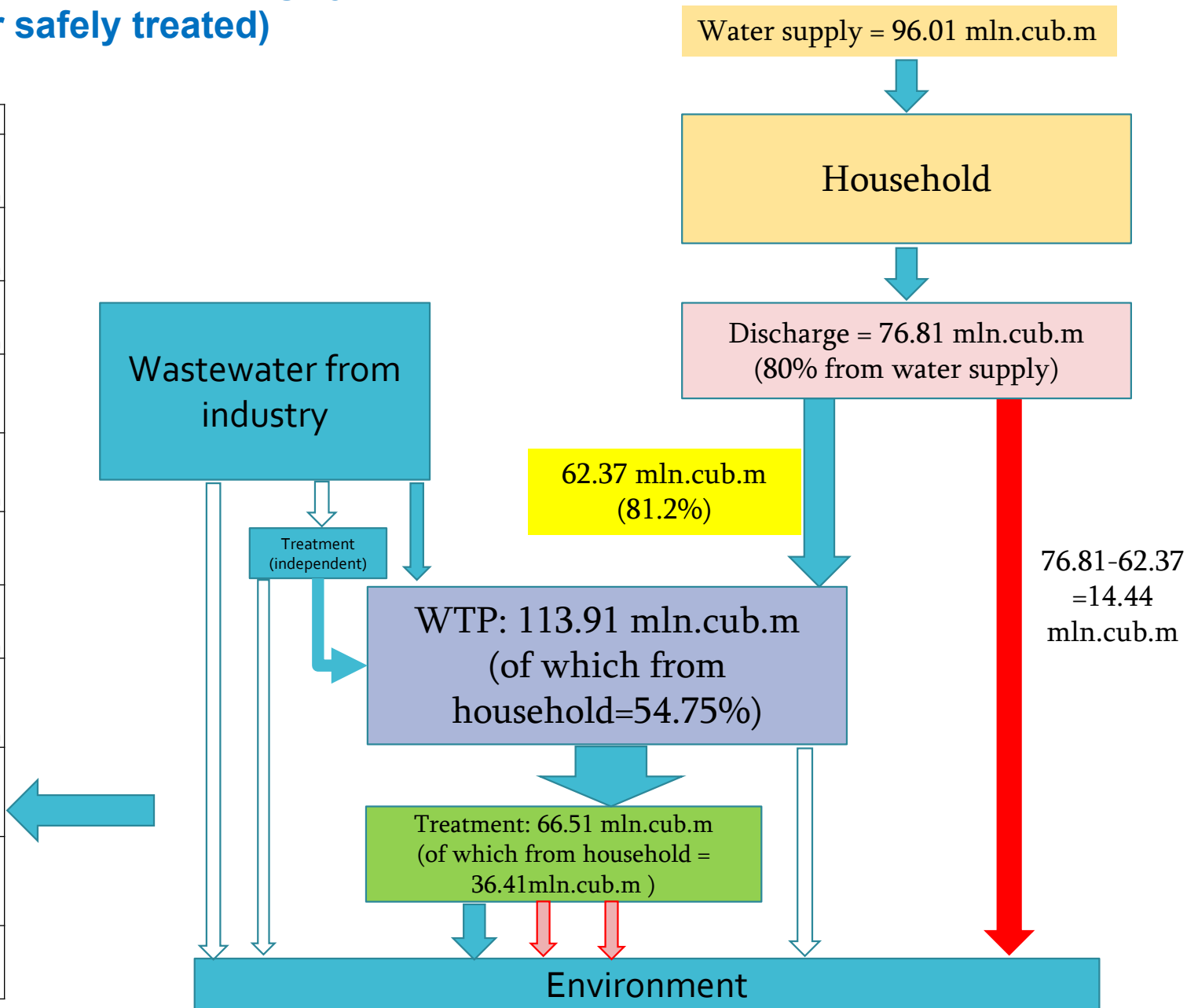


Table W5 - Population connected to wastewater collecting system

N	Variable name	2018	2019	2020	2021	Units
1	The volume of water supplied to consumers / households	79.29	88.30	95.21	96.01	mln.cub.m
2	The volume of household wastewater from consumption, (row1*80%/100%)	63.43	70.64	76.17	76.81	mln.cub.m
3	Total wastewater delivered to treatment plant	103.69	110.70	109.46	113.91	mln.cub.m
4	Access of households to seweges (Household survey)	71.90	74.70	77.90	81.20	%
5	The volume of household wastewater sent to sewege	45.61	52.77	59.33	62.37	mln.cub.m
6	Percentage of household wastewater from total sewege wastewater (row 5*100%/row3)	43.98	47.67	54.20	54.75	%
7	Total wastewater safely treated at treatment plant	71.27	56.81	49.10	66.51	mln.cub.m
8	The volume of treated wastewater from household sewege wastewater in total wastewater safely treated at treatment plant (row5*row7/100)	31.35	27.08	26.62	36.41	mln.cub.m
9	Percentage of treated household wastewater from household wastewater from consumption (row8*100/row2)	49.42	38.34	34.95	47.41	%
10	Percentage of treated household wastewater from wastewater delivered to treatment plant (row8*100/row3)	30.23	24.46	24.32	31.97	%
11	Percentage of treated household wastewater from total treated wastewater (row8*100/row7)	43.98	47.67	54.20	54.75	%

Line	Category	Unit	2021
1	Population connected to wastewater collecting system	%	81.2
2	Population connected to wastewater treatment	%	47.4
3	<i>of which at least secondary treatment</i>	%	0
4	Population with independent wastewater treatment (e.g. septic tanks)	%	1
5	Population not connected to wastewater treatment (100% - (2) - (4))	%	51.6



THANK YOU