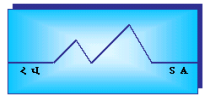


# Water Statistics & Environmental Indicators: *Armenia's Experience*

Naira Mandalyan

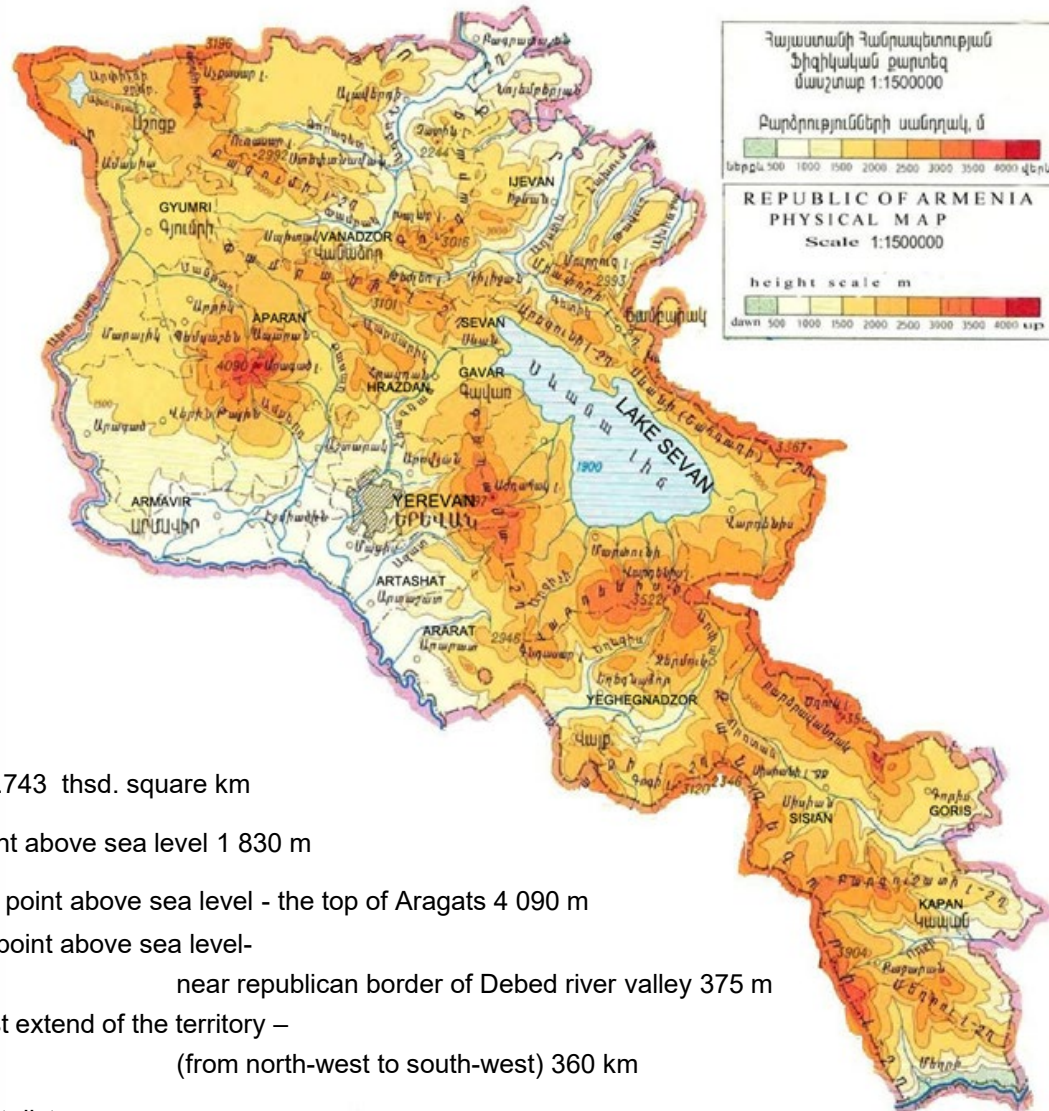


Statistical Committee of Armenia  
Environmental Statistics Division

Twelfth Meeting of the Expert Group on  
Environment and Climate Change Statistics  
23-25 Sept 2025, London



# THE REPUBLIC OF ARMENIA



Territory 29.743 thsd. square km

Middle height above sea level 1 830 m

The highest point above sea level - the top of Aragats 4 090 m

The lowest point above sea level-  
near republican border of Debed river valley 375 m

The greatest extend of the territory –  
(from north-west to south-west) 360 km

The shortest distance

from Black Sea 163 km

Caspian Sea 193 km

from Mediterranean Sea 750 km

Persian Gulf 1 000 km

Average annual de jure population, 2024 3 033.7

The population density per km<sup>2</sup>, person 103.4

Area, km<sup>2</sup> 29 743

Forests, % 11.2

Special protected territories, % 11.3

Agricultural land comprises of the territory, % 68.6

Other lands, % 8.9

## The longest rivers, km

Araks, the total length 1 072

in the borders of Armenia 192

Akhuryan, the total length 186

Vorotan, the total length 178

in the borders of Armenia 111

Debed, the total length 176

in the borders of Armenia 154

Hrazdan, the total length 141

Aghstev, the total length 121

in the borders of Armenia 81

## Lakes (average annual indicators)

Sevan, surface, km<sup>2</sup> 1 279.18

water level mark, m 1 900.57

Arpi, surface, km<sup>2</sup> 7.5

water level mark, m 2 021.5

Sev, surface, km<sup>2</sup> 2.0

water level mark, m 2 666

Akna, surface, km<sup>2</sup> 0.8

water level mark, m 3 032

## Average temperature, 2024

in January -2.8<sup>0</sup> C

deviation from norm 1961-1990 +4.0<sup>0</sup> C

in June +26<sup>0</sup> C

deviation from norm 1961-1990 +2.8<sup>0</sup> C

The amount of precipitations, mm 669.3

deviation from norm 1961-1990 +77.3

# The basis for implementation of official statistics

1. **Professional independence**
2. **Impartiality and objectivity**
3. **Accuracy and reliability**
4. **Coherence and comparability**
5. **Clarity and transparency**
6. **Statistical confidentiality and exclusive use for statistical purpose**
7. **Relevance**

RA

Law on

Official Statistics of RA

Adopted on March 2018

<https://www.armstat.am/file/doc/995553148.pdf>

Regulations  
25 June 2001 No 53

ON APPROVEMENT OF THE ORDER ON  
PROTECTION OF STATISTICAL CONFIDENTIALITY

## The Five-Year Statistical Program of RA for 2024-2028

Directions and measures envisaged by the statistical program take into account the comparability of the country's indicators to the international statistical standards, ensure their possible stable periodicity for disclosing trends in the long-term and the proportion of resources allocated annually to the official statistics.

<https://armstat.am/file/doc/99555318.pdf>

## Annual Statistical Programs and other normative acts

The Annual Program is based on a five-year program covering the period and is developed each year to provide a legal basis for updating the list of producers of official statistics, all available statistical registers to be created during the given year and other activities.

<https://www.arlis.am/hy/acts/201022>

# Environmental Data exchange agreements

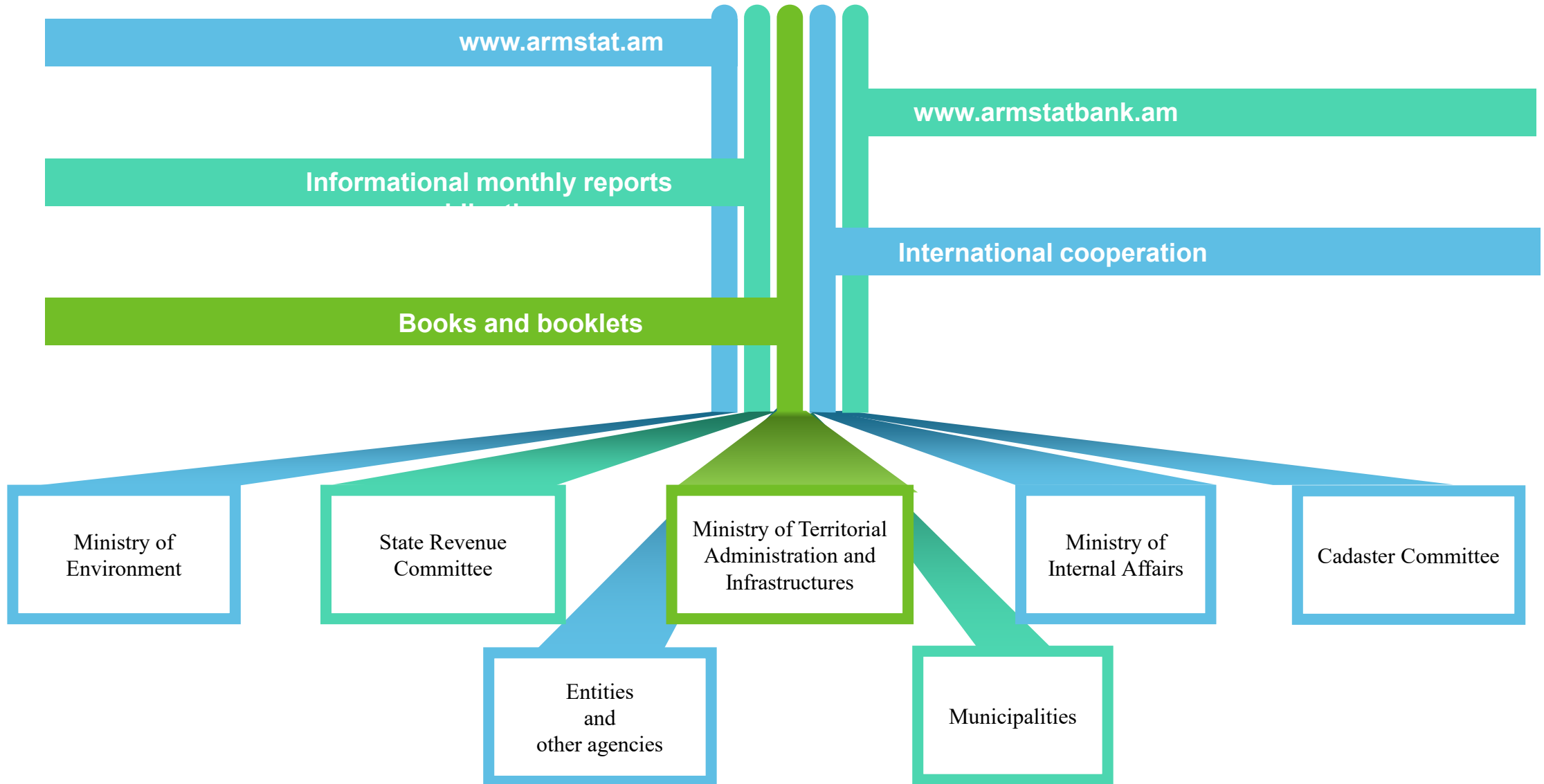
- Inter-institutional protocols
- Inter-sectorial inside Committee
- Regular official and working meetings with contact persons



Letter of Intent signed (30.08.2017) between the Ministry of Environment, Statistical Committee of the Republic of Armenia and the European Environment Agency by Order of the Minister of Environment of the Republic of Armenia No. 122-A of May 6, 2018

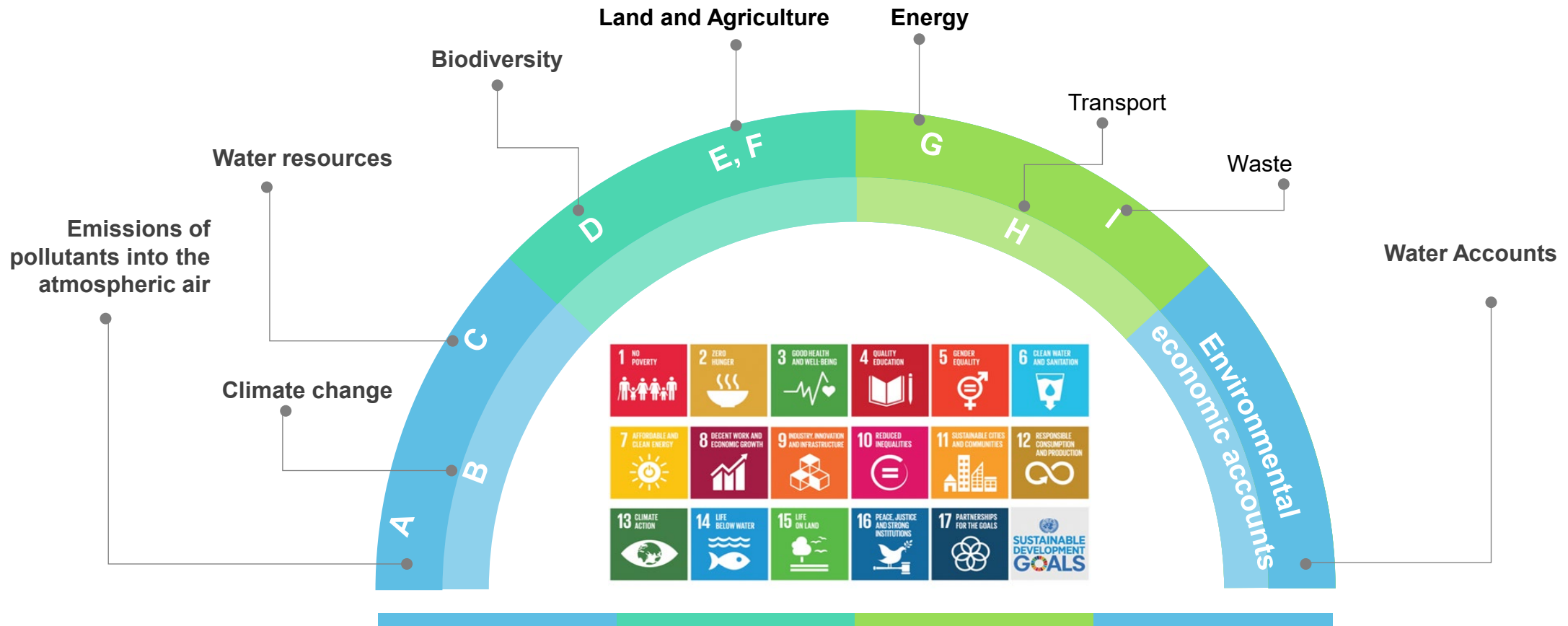


# Environmental Data Streams



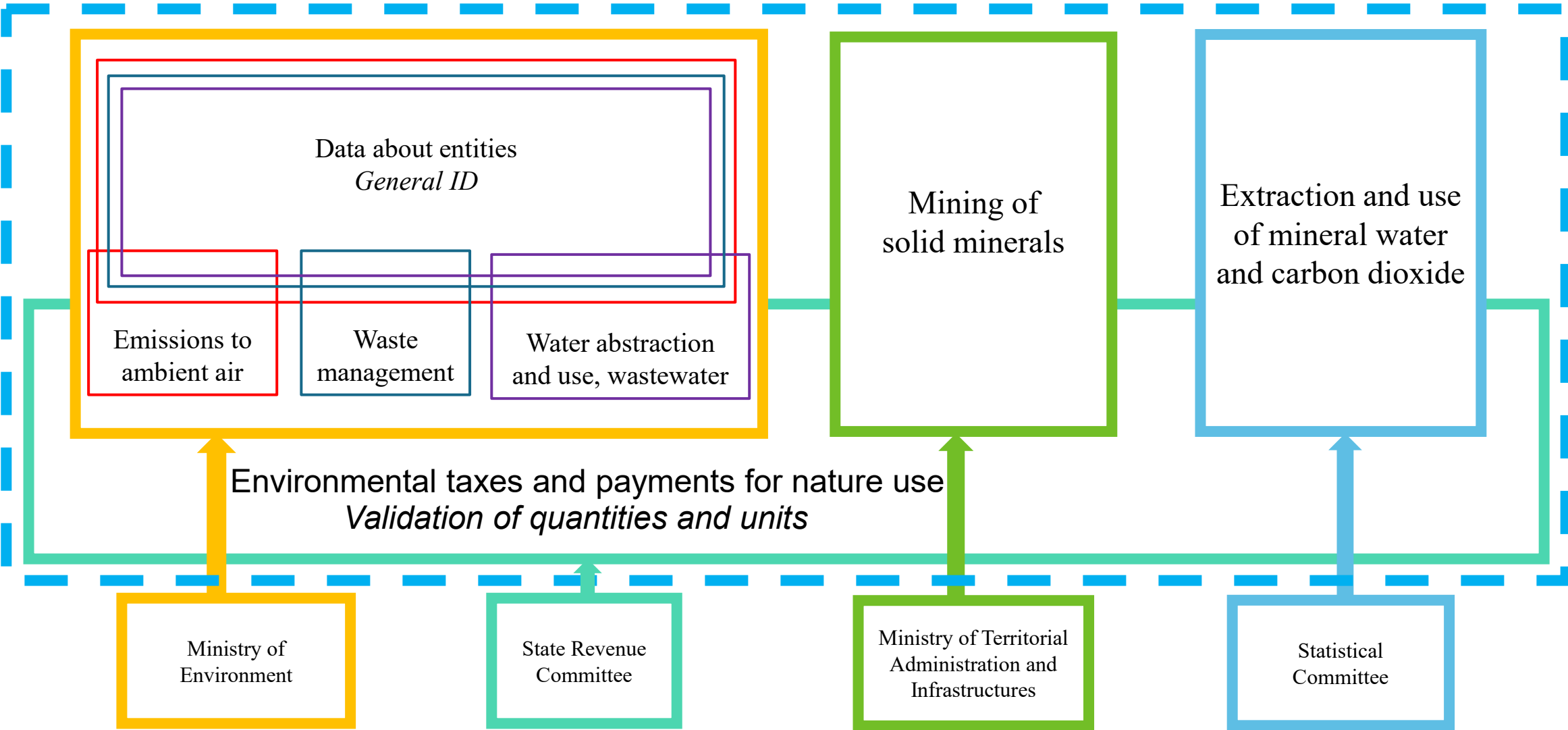
# Aligning with UNECE Indicators

37 assessed UNECE environmental indicators of Armenia (2024)



# Data Cross Checking

Databases based on annual reports from Entities



# Data Sources for Water Statistics

Environmental statistics	Data/Database	Institution responsible for the collection 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	Water resources management agency of the Ministry of Environment	Data checking, summary, aggregation and publication
Environmental taxes and nature use fees	Excel (Access) 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
“Veolia” CJSC, Water Committee	Excel (Access) Database	Water committee of the Ministry of Territorial Administration and Infrastructures	Data collection, checking, summary, aggregation and publication

# ADMINISTRATIVE STATISTICAL REPORT ON WATER USE

Form N 2-TA (water)

(collected by the Ministry of Environment on annual basis)

Section 1. Water abstraction by types, basin-management areas, marzes and NACE.

Section 2. Water use by types, purpose, marz and NACE.

Section 2.1. Water transferred to other consumers.

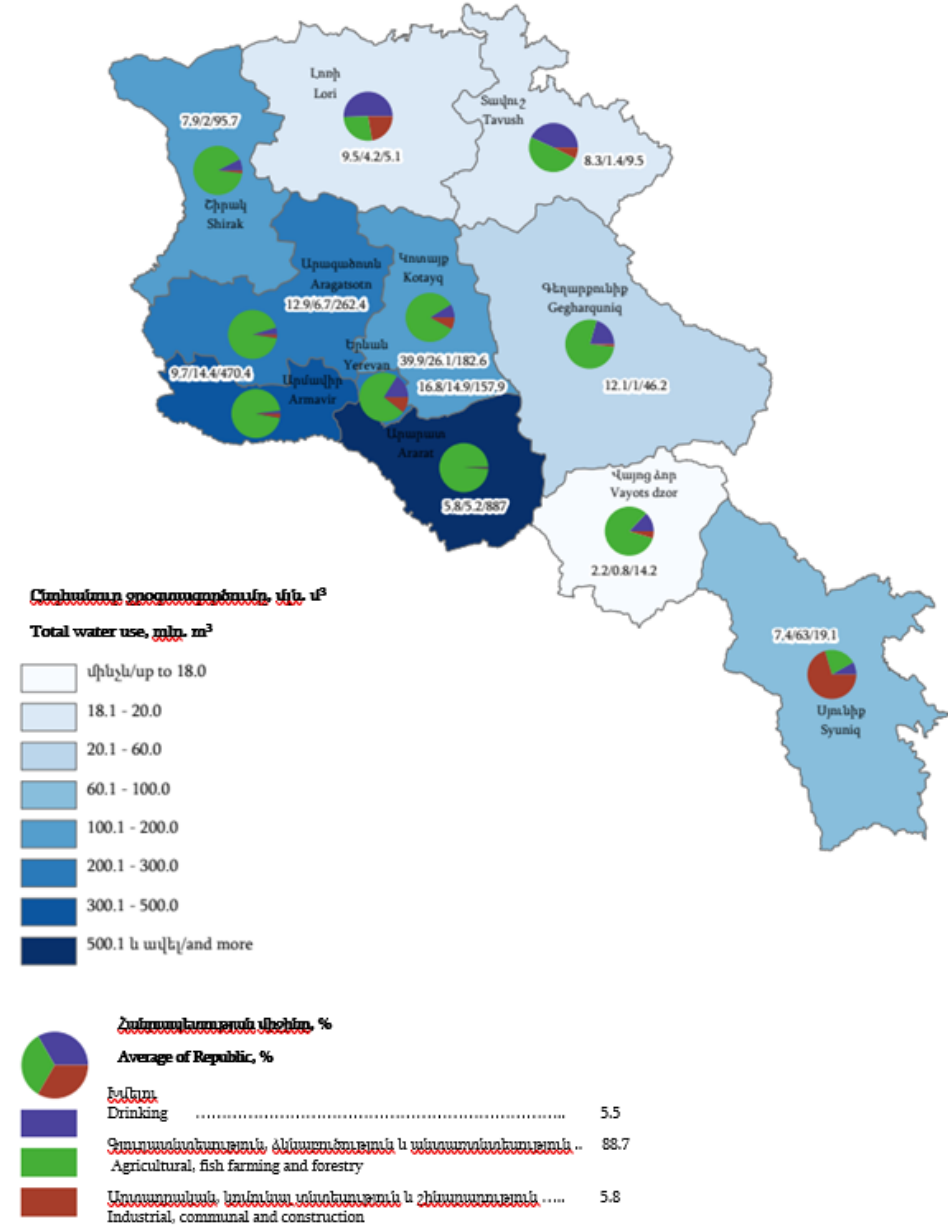
Section 2.2. Water losses.

Section 3. Wastewater treatment types and discharge by basin-management areas, regions.

Section 4. The content of BOD<sub>5</sub>, COD, hazardous substances in wastewater by basin-management areas, regions and NACE.

Section 5. Water re-use in cycled and consecutive systems.

## Water use, 2022



## C. Water indicators

C1. Renewable freshwater resources

C2. Freshwater abstraction (surface and groundwater)

C3. Total water use

C4. Household water use per capita

C5. Water supply industry and population connected to water supply industry

C6. Connection of population to public water supply

C7. Water losses

C8. Reuse of freshwater

C9. Drinking water quality

C10. BOD and concentration of ammonium in rivers

C11. Nutrients in freshwater

C12. Nutrients in coastal seawaters

C13. Concentrations of pollutants in coastal seawater and sediments (except nutrients)

C14. Population connected to wastewater treatment

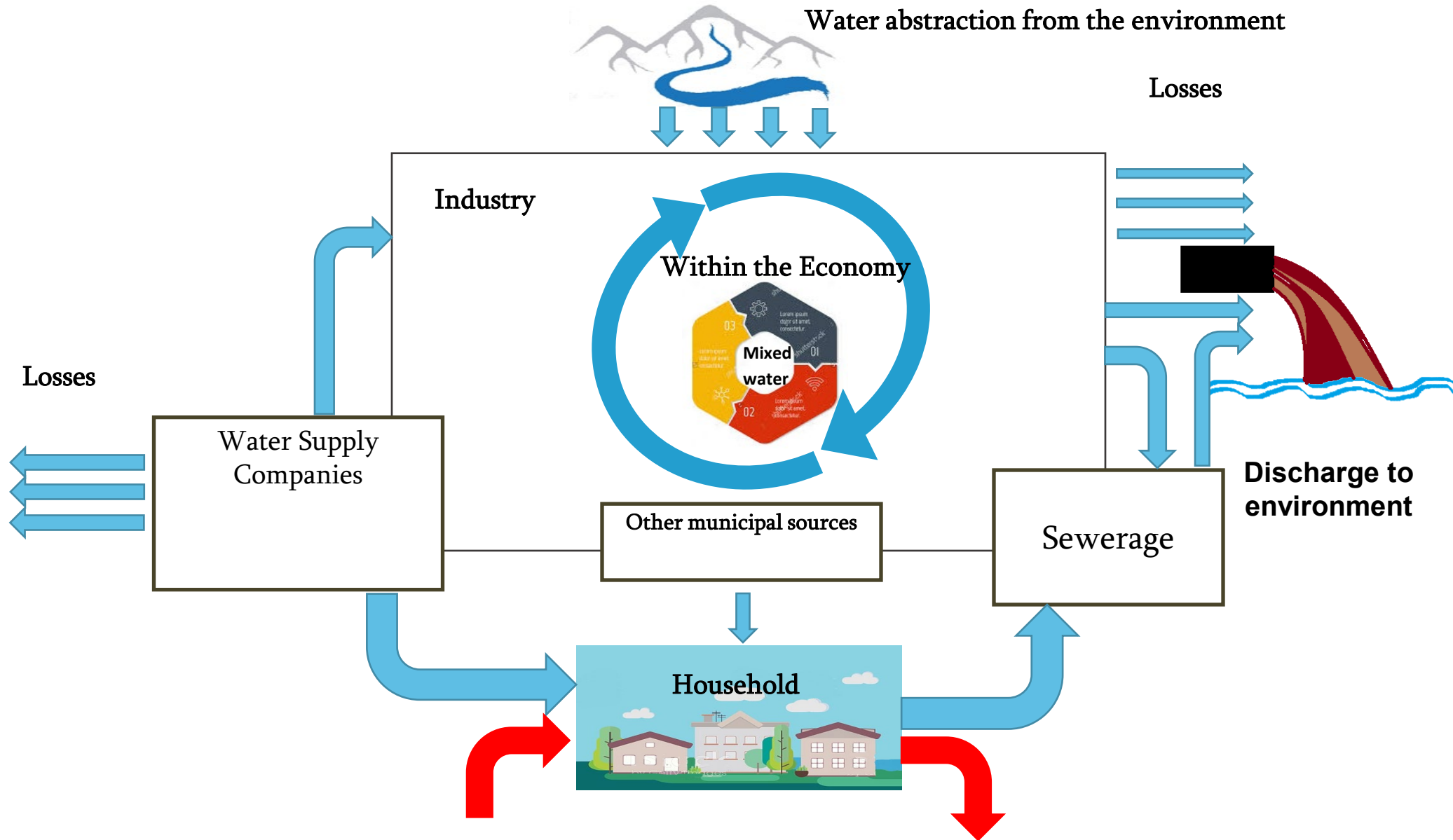
C15. Wastewater treatment facilities

C16. Polluted (non-treated) wastewaters

## Why Water Statistics Matter

- Show **how much water we have**
- Identify **who uses it and how**
- Reveal **pressures and risks**
- Provide a **trusted evidence base**

# Physical Water Flow



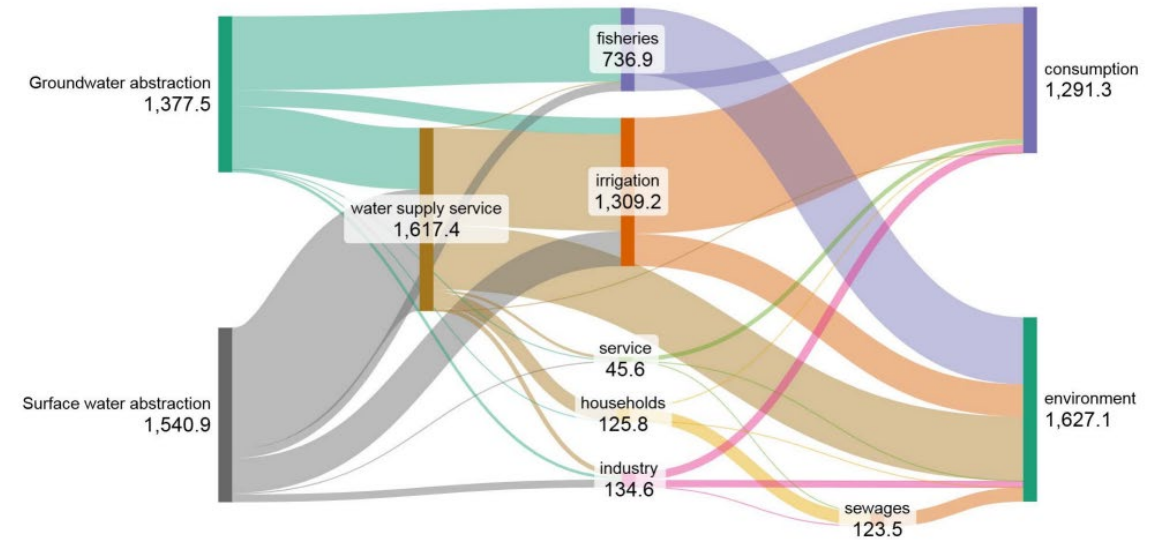
# Water Statistics → Water Accounts

- Water statistics are the backbone of water accounts
- Reliable data → reliable accounts
- Support **sustainable resource management**
- Guide **policy and green transition in Armenia**
- *“No solid water accounts without solid water statistics”*

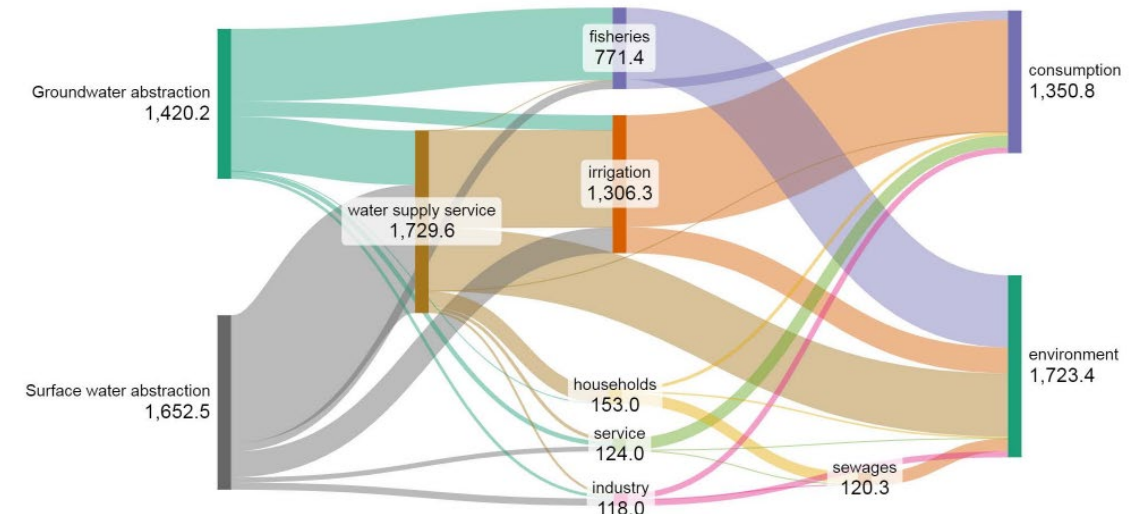
# SEEA Water Accounts

<https://armstat.am/en/?nid=905&q=water&month=0&year=2024>

Water Accounts in Armenia, 2023 (mln.cub.m)



Water Accounts in Armenia, 2022 (mln.cub.m)

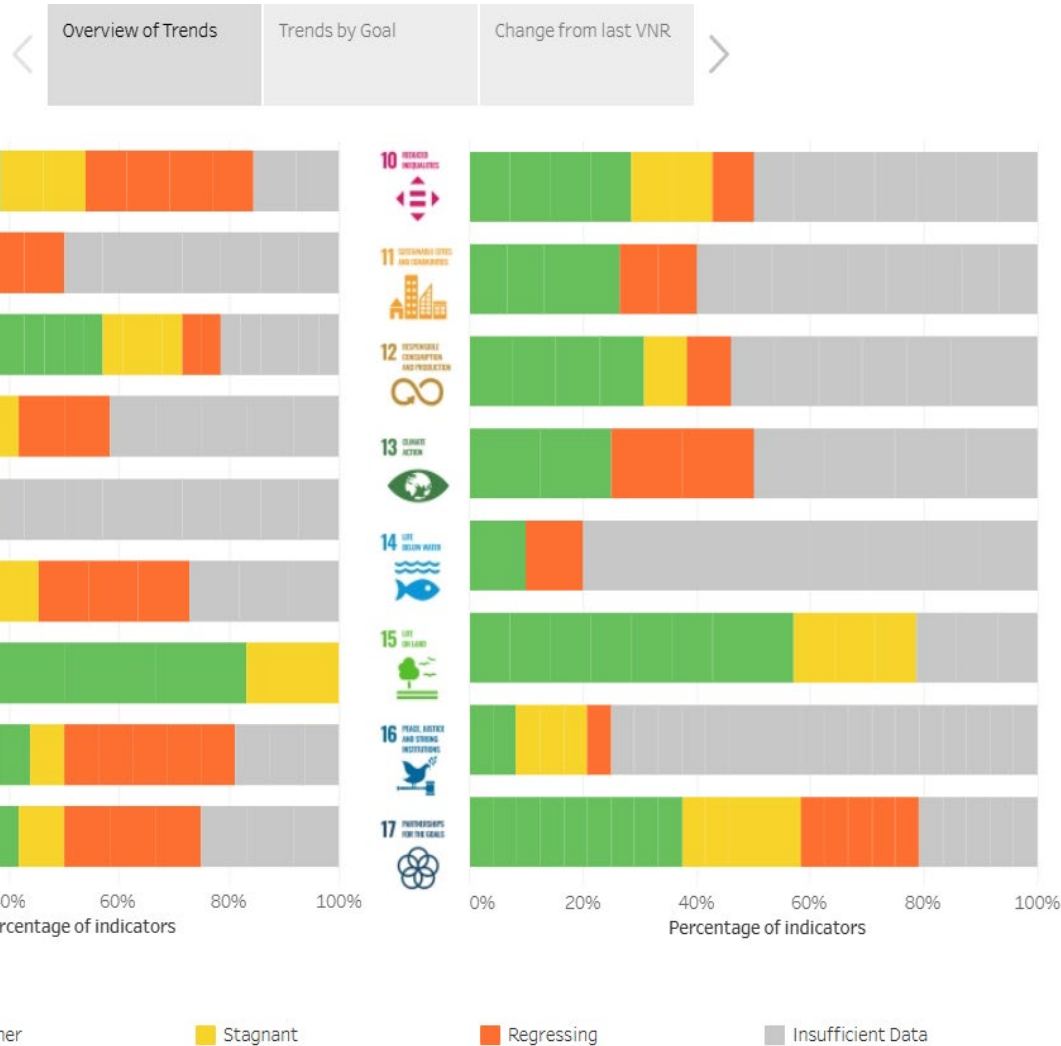


# SDG Dashboard

<https://sdg.armstat.am/dashboard/>

# SDG 6. Ensure availability and sustainable management of water and sanitation for all

(global and national indicators)



6.1.1 Proportion of population using safely managed drinking water services

6.1.1.a Proportion of households with centralized water supply

6.2.1 Proportion of population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water

6.2.1.a Proportion of population using safely managed sanitation facility

6.2.1.b Proportion of population using hand-washing facility with soap and water

6.3.1.a Proportion of insufficiently treated wastewater in the total volume of wastewater requiring treatment

6.4.1 Change in water-use efficiency over time

6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources

6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation

# Wastewater flows

