





# INNOVATIVE POSTGRADUATE EDUCATION IN THE FIELD OF ENVIRONMENT PROTECTION: METHODS AND TOOLS

HYDROMETEOROLOGY AND MONITORING CENTER state non-commercial organization

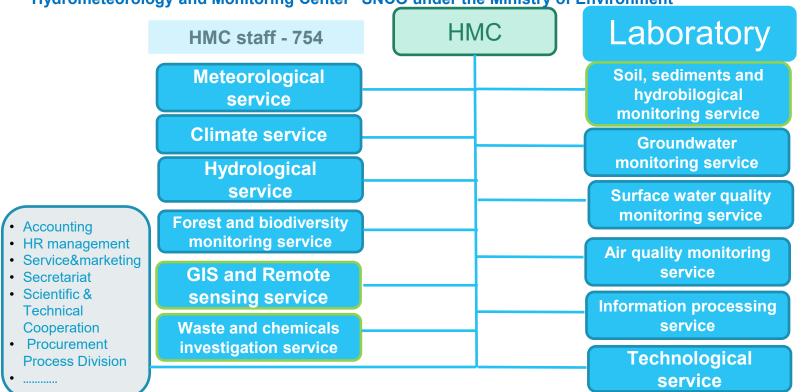
# Content

- About HMC
- About capacity-building activities

### **Hydrometeorology and Monitoring Center**

state non-commercial organization

In 2020, "Hydrometeorology and Active Impact on Atmospheric Phenomena Service", "Environmental Monitoring and Information Center" and "Forest Monitoring Center" SNCOs have been merged and formed the "Hydrometeorology and Monitoring Center" SNCO under the Ministry of Environment



# **Observation network** *ՊԱՅՄԱՆԱԿԱՆ ՆՇԱՆՆԵՐ* Updayliph dapp Chronip dupp Ujachhah dupq Yayag Daph s'apq

Meteorological monitoring Agrometeorological monitoring Actinometric monitoring Aerological monitoring Atmospheric ozone monitoring Radioactive pollution monitoring Hydrological monitoring Groundwater quantity monitoring Groundwater quality monitoring Air pollution monitoring 15 (215) Transboundary air pollution monitoring Atmospheric precipitation composition monitoring Surface water quality monitoring

Qnty

45

38

13

91

119

55

155

Sampling station/Observation point

Forest monitoring

Soil pollution monitoring

Biodiversity monitoring

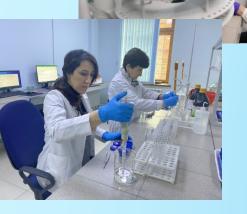
Monitoring of waste disposal sites



## Laboratory

About 15 equipment

20-25 spesialists





About 60 parameters



## Analysis and publication of information

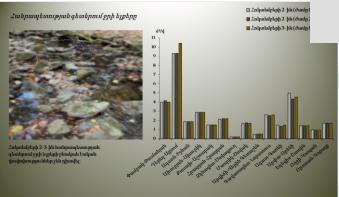
Daily

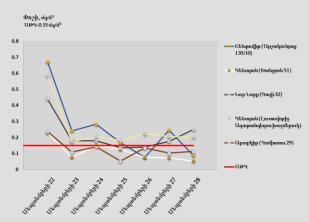
- ☐ Weather forecast
- River flow

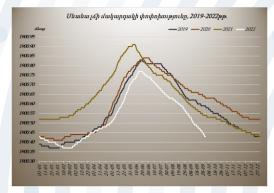


Weakly

- Water level of Lake Sevan
- ☐ Air pollution
- Water quantity in reservoirs







www.meteomonitoring.am

## Analysis and publication of information

Արարատյան ՁԿՏ

■ 2020

**2021** 

#### **Annually**

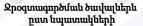
- ☐ State of Environment Report
- ☐ Spring floods elements forecast















### **Our spesialists**

- Meteorologist
- Hydrologist
- Hydrogeologist
- Chemist
- Water quality expert
- Environmental Lawyer
- Environmental protection specialist
- Wildlife Biologist
- Hydrobiologist
- Limnologist
- GIS specialist
- Geologist
- Ecologist
- .....

## Capacity building activities

- Staff of HMC
- Higher education system
- Scientific Institutes
- Schools
- Colleges

2021-150 training and workshops

2022 – 130 training and workshops

#### 2021

6 -Schools 10 -Higher education institutions and colleges

#### 2022

12-Schools
6 -Higher education institutions and colleges





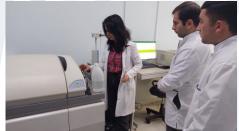
## **About practices of students Ecocenter**

#### 2020-2022

- ☐ Introduction to laboratory methods and equipment
- ☐ Practical use of devices and methods







#### Scientific work

SEVAMOD2 project: Building up science-based management instruments for Lake Sevan, Armenia" which is funded by the German Federal Ministry of Education and Research (Funding ID 01DK20038) and co-funded by the Ministry of Environment of the Republic of Armenia (partial coverage of costs of chemical analyses)

#### **Partners**

- Department Lake Research of the Helmholtz-Centre for Environmental Research (UFZ, Germany)
- Scientific Center of Zoology and Hydroecology of the National Academy of Sciences of the Republic of Armenia
- Center for Ecological Noosphere Studies of the National Academy of Sciences of the Republic of Armenia (CENS)
- German company for remote sensing on the Lake Sevan
- HMC SNCO

#### Implementation period

• 2020-2023

#### The main goals of the project are:

- Nutrient budget for Lake Sevan and nutrient management concept
- Coupled physical-ecological 1D eutrophication model for Lake Sevan (nutrients, plankton, oxygen)
- Use of satellite-based remote sensing for estimation of water quality of Lake Sevan
- Evaluation of alternative management scenarios and identification of major water quality threats for Lake Sevan including the preparation of a policy brief
- · Capacity Building in Armenia for use of satellite remote sensing and modelling
- Publication of the project results including the realization of a final public project workshop in 2023.

# Thanks!

## Any questions?

You can find me at:

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