



REPUBLIC OF ARMENIA
MINISTRY OF
ENVIRONMENT



Implemented by:
giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH



Environmental Protection of Lake Sevan EU4Sevan Project

Co-funded by:

European Union (EU)

Commissioned by:

German Federal Ministry for Economic Cooperation and Development (BMZ)

Implementing Partners:

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

United Nations Development Programme (UNDP)

Key project partners:

Ministry of Environment of Republic of Armenia

Ministry of Economy of the Republic of Armenia, Ministry of Territorial

Administration, and Infrastructure of the Republic of Armenia

Duration: September 2020 – August 2024

Total Project Budget: € 5,769,199; **EU Contribution:** € 5,000,664



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Brief description

"Environmental Protection of Lake Sevan" (EU4Sevan) Project is co-funded by the European Union (EU) and the German Federal Ministry for Economic Cooperation and Development (BMZ) and jointly implemented under a Multi-Partner Contribution Agreement by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the United Nations Development Programme (UNDP).

The Project is part of the EU Action "EU4Energy Efficiency and Environment" and the BMZ-funded "Management of natural resources and safeguarding of ecosystem services for sustainable rural development in the South Caucasus" (ECOserve) programme.

The Project's overall objective is to enhance the environmental protection of Lake Sevan, which is the largest freshwater lake in the Caucasus Region. The main beneficiaries of the project are people living in the Gegharkunik region.

Challenges

Lake Sevan faces environmental challenges caused by overexploitation of its water resources. Since the 1930s, as a result of the intensive and unaccountable use of the water of Lake Sevan, the ecological balance of the lake has been disturbed, leading to the disruption of water biological processes and the entire ecosystem.

Over the past few decades, the ecological condition of Lake Sevan has seriously deteriorated, which was caused by the lowering of the water level because of over-exploitation, the inflow of communal-household wastewater, pesticides and organic substances into the lake, the increase in the average temperature of the lake air and water. Sevan suffered a significant loss of biodiversity in all biological components. Fish stocks have declined dramatically, affecting endemic species. The minimum water level of Lake Sevan was in 2000, after which it started to increase, but water quality problems are still a big challenge.


Project Activities in Brief


This project builds on existing achievements and plans and complements and supports capacity development interventions through 5 outputs which are mutually interlinked and highly complementary to each other:


- Improved water monitoring and management capacities for Lake Sevan watershed.
- Improved ecosystem-friendly and water-protecting land-use and cultivation practices.
- Improved wastewater management capacities.
- Enhanced awareness and information availability for the protection of Lake Sevan among basin communities, the private sector, and other stakeholders.
- Improved ecosystem governance for Lake Sevan.


Results and Achievements


OUTPUT 1: INTEGRATED WATER RESOURCE MANAGEMENT


 Draft comprehensive monitoring concept for Lake Sevan basin was discussed in the workshop that took place on May 5. The concept is being developed by the Helmholtz Center for Environmental Research (UFZ) in the cooperation with Armenian partners. It will guide the Government on further development of environmental monitoring network in Lake Sevan basin and will suggest cooperation mechanisms in this direction between governmental and scientific organisations, as well as will justify the needs of state financing.

 Technical and human capacity of ArmHydromet in water monitoring and environmental data management is being enhanced through the financing agreement with the Project. Within that agreement, a pickup truck has been purchased and now is on the way to Armenia. Based on that car, a mobile laboratory will be organised.

 UFZ and TUDA, within the grant agreements with GIZ, are assisting ArmHydromet in enhancing the surface water and groundwater monitoring and hydrological modelling capacities for Lake Sevan basin. In the first half of May, field work was carried out in order to collect samples from groundwater and surface water bodies in the Lake Sevan basin and to perform further isotope analyses in German Laboratories. Within the framework of the same grant agreements, from June 8 to 30, Harutyun Yeremyan, the Head of the groundwater monitoring service of the "ArmHydromet" SNCC of the RA Ministry of Environment, and Araksya Nersisyan, a PhD student from the Institute of Geological Sciences of the NAS of Armenia, were participated in an internship program on water isotope analyses in the laboratories of the TU Darmstadt and UFZ.

 Framework document on water sector data management was developed jointly with EU4Environment – Water and Data project to support the institutionalisation and regulation of the environmental data management and sharing.

 Development of Lake Sevan section of Armenian EcoPortal has started. It should serve as the main informative junction on the environmental data, results of studies, publications, maps, and other important information on Lake Sevan.

 Pollution maps of high-resolution and GIS layers are being developed for Lake Sevan basin to compile a geospatial database for better understanding of interactions between social, economic, and environmental aspects in the basin and to contribute to better planning and implementing the measures set up by the Sevan Basin Management Plan and Sevan Protection Platform.



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OUTPUT 2: SUSTAINABLE LAND-USE


 On April 5, the pilot program of small-scale agriculture (permaculture) was launched. The project is implemented in 4 settlements of Gegharkunik marz (Sarukhan, Vardenik, Artsvanik and Tsovak) on plots of 0.25 ha each. The aim of the project is to demonstrate the possibilities of developing sustainable and profitable small-plot farming based on leading agro-technology, well-chosen crop rotation and flexible marketing approaches.

 On April 21, the pilot program for sustainable processing of manure was launched, the goal of which is to organize the separation of liquid and solid parts of manure and the production of liquid and solid organic fertilizers based on them and the spread of this new culture in Gavar enlarged community of Gegharkunik marz. The resulting liquid and solid fertilizers will be used in various crop fields and the technology will be introduced to potential local beneficiaries.


 In the frameworks of the component of promoting the production of organic fertilizers, for June-November period, the study "Support the GoA with the cost-benefit and value-chains studies on the organic origin fertilizers in Armenia" has started. It is implemented by experts of the consortium of Avenue Consulting Group and AM Partners consulting companies.

 The Armenian National Agrarian University (ANAU) Foundation has started implementation of the "Establishment of a Circular AgroFood model at the ANAU - Balahovit farm in Armenia" project, for the June-November period. The goal is to show the effective methods of pasture improvement and fodder production including hydroponic fodder production. It is also planned to implement various model productions of organic origin fertilizers and disseminate the scientifically based results among students, farmers, community agricultural specialists, and representatives of Ministries.

 Back in the autumn of last year, the "Regional Development and Research Center" NGO initiated the project on benefits of practicing "Natural Farming" among the residents of the coastal settlements of Lake Sevan, as an alternative to relieve the direct pressure on the lake. 287 beneficiaries of 14 settlements of the enlarged communities of Sevan, Gavar and Chambarak participated in theoretical and practical courses on "Natural Farming Management". A total of 800 raspberry and thornless blackberry seedlings were given to the representatives of 8 participating settlements in order to cultivate them according to the rules of natural farming.

 Since early spring, maintenance and development works have been carried out in the 3.5 ha agroforest area (established in April 2022), located in the administrative area of the Tsovinar settlement of the enlarged Martuni community. Replacement of dead tree species, soil improvement, maintenance and irrigation works were carried out. About 9,000 wild and fruit tree-bush species belonging to 20 different species are currently growing in the Agroforest area including edible herb- asparagus.

OUTPUT 3: WASTEWATER MANAGEMENT

 In January-February of 2023, as a result of tendering for the detailed technical design on upgrading the mechanical part of the Gavar wastewater treatment plant, the winning organization was selected. Currently, the development of the detailed technical design by the winning organisation is under the final stage of designing.



In January, a national dialogue on wastewater management has taken place, as a result of which establishment of a national dialogue on wastewater management improved the general understanding of the needs and required steps to improve sector development in Armenia, particularly for Lake Sevan basin.



The agreement between the Government, operator and GIZ to upgrade the existing wastewater treatment plant on Lake Sevan with further maintenance and operation has been implemented. On May 22, during the "Responsible for Sevan 4" event, that took place in Gavar town, the Agreement on the implementation of upgrading of the Gavar wastewater treatment plant was signed between afore-mentioned partners.



As part of the Sevan Protection Platform a wastewater management group was initiated in which local stakeholders are engaged in the preparing activities in wastewater management.

OUTPUT 4: AWARENESS-RAISING



"Friends of Sevan" awareness-raising project, within its 2 phases, involved 55 schools from the region and around 5000 children and adults through webinars, training for teachers and "Friends of Sevan" ambassadors, thematic seminars at schools, field works, and many more social activities in the communities. Five winning projects continue being designed in the second phase and will soon enter the implementation phase.



"The Call of Sevan" theatrical performance has already been staged in more than 15 settlements. It helped the audience to see things from a different perspective and was immediately loved by everyone.



"Lake Sevan Protection Platform" water stewardship initiative kicked off in the Gavaraget hydrological catchment area involving representatives from Public Sector, Civil Society, and Private Sector to jointly recognise the current environmental problems and shared risks for diverse groups and produce joint solutions to decrease the existing risks and protect Lake Sevan. 5 working groups have been formed to work on topics such as Wastewater treatment, Detergents, Agricultural waste, environmental education in schools and preschools, and youth involvement in environmental activities.



The #SevanTalks awareness-raising campaign started in 2021 actively continues to draw public attention to Lake Sevan through social media, various events, and social activities (Social Media contests, Sevan International Music festival, Tri4All events around the Lake, and many others). As a result, within 2 years, the campaign reached more than 1,5 million people.

OUTPUT 5: LAKE SEVAN ECOSYSTEM GOVERNANCE

Data is gathered and analyzed, Sevan National Park management vision and objectives are developed, and basic cartography summarized towards the ongoing development of the National Park Management Plan. A temporary working committee has also been established for the preparation of the management plan. The plan will be ready in early 2024.



The scoping of the policy, legal and institutional framework regulating Lake Sevan ecosystem governance is developed and used for decision-making by partners. Two policy and regulatory documents have been updated based on this.



The new long-term national vision for Lake Sevan is defined and discussed with stakeholders. It will be finalized in mid-2023.



The development of a budgeted strategy to overcome the barriers and obstacles in the policy, legal and institutional framework with the aim to achieve the long-term national vision for Lake Sevan has started. Work is planned to be completed by the end of 2023.



The potential for applying incentive mechanisms for water reuse in Armenia is assessed to support the Ministry of Environment in regulating the legal relationships related to water.



One unit of machinery and user training was provided to the Sevan National Park as technical support, to facilitate riparian zone cleaning activities.



Technical specifications have been developed and agreed on detailed site assessment for the determination of a new bill of quantities for further cleaning works of the Lake's floodedforest and surrounding swamp areas.



Technical specifications have been developed and agreed on support in the design of the afforestation/reforestation program in the Lake Sevan basin.



Activities are under way toward developing a comprehensive study with full environmental and socio-economic dimensions to address risks associated with impact on physical infrastructure and landscapes. Data collection and analysis has been completed and geodatabase created.



The book "Lake Sevan Yesterday, Today ..." by R. H. Hovhannissian has been digitalized; it will make the results of more than 50 years' research based on which important decisions were made in the past, available and applicable for today's decision-makers and researchers.



GIZ
9th floor, Vernissage Business Centre
59 Hanrapetutyun street,
0010 Yerevan, Armenia
E-Mail: eu4sevan@giz.de

UNDP
14 Petros Adamyan str.,
Yerevan 0010, Armenia
E-Mail: astghik.danielyan@undp.org