8th Aral Sea Summer School
Teaching for Sustainability: From Knowledge to Impact
August 14–22, 2026

Background

The Aral Sea remains one of the most significant environmental disasters of the modern era, with severe ecological, economic, and social impacts across Central Asia. Decades of unsustainable water management, combined with climate change, have led to land degradation, biodiversity loss, and declining livelihoods.

At the same time, the region is gradually shifting from crisis toward recovery. Kazakhstan, in partnership with the World Bank, is preparing the second phase of the North Aral Sea restoration project (2026–2029), including reconstruction of the Kokaral Dam. This is expected to raise the water level to 44 meters, expand the surface area to 3,913 km², and increase the volume to 34 billion cubic meters. Over the past three years, more than 6 billion cubic meters of water have already been directed to the North Aral Sea, contributing to ecosystem recovery and the revival of fisheries.

In parallel, over 160 projects aimed at modernizing irrigation systems are being developed to improve water-use efficiency. Regional cooperation on transboundary water management is also strengthening, although challenges remain, including limited coordination, insufficient monitoring systems, and increasing climate pressures.

These developments position the Aral Sea region as a living laboratory for environmental restoration and regional cooperation. However, they also highlight the growing need for effective knowledge transfer, education, and capacity building.

Since 2019, the Aral Sea Summer School has contributed to knowledge exchange and capacity development among young professionals, focusing on key topics such as climate change, biodiversity, water management, and digital technologies. Building on this foundation, the 8th Summer School (2026) introduces a new focus on Education for Sustainable Development (ESD), teaching methodologies, and science communication, aiming to transform participants into knowledge multipliers who can bridge science, education, and practice.

Structure and Approach

The summer school will be organized as a blended and interdisciplinary program, combining theoretical learning, field-based experience, and applied group work.

The first phase (2 days, Almaty) will focus on theoretical foundations, including Education for Sustainable Development, innovative teaching methodologies, and science communication. Participants will engage in interactive lectures, workshops, and training sessions led by international experts.

The second phase (5–6 days, Aral Sea region) will be dedicated to field-based learning. Participants will visit key sites in the Aral region, interact with local communities, and gain a firsthand understanding of environmental, social, and economic challenges. This phase will emphasize experiential learning and the transformation of field observations into educational content.
The final phase (1–2 days) will focus on group work and presentations. Participants will develop educational modules, teaching materials, or training concepts based on their field experience and present them to peers and experts.

Three Main Directions of Influence

1. Education for Sustainable Development (ESD)

This direction focuses on developing participants' capacity to teach sustainability-related topics such as water management, climate change, land degradation, and ecosystem restoration. Participants will explore modern pedagogical approaches, including problem-based learning, interactive teaching, and curriculum design.

2. Field-Based and Experiential Learning

The Aral Sea region will serve as a real-world laboratory where participants will learn how to transform field observations, environmental data, and local knowledge into case studies and educational materials. This approach strengthens the connection between theory and practice.

3. Science Communication and Knowledge Transfer

Participants will develop skills to effectively communicate complex scientific information to diverse audiences, including students, policymakers, and local communities. Special attention will be given to storytelling, visualization, and digital tools such as GIS and remote sensing for educational purposes.

Methodology

The summer school will apply an interactive, practice-oriented, and participant-centered methodology.
The program will include:

- expert lectures and thematic discussions
- interactive workshops and training sessions
- group work and peer learning
- micro-teaching sessions, where participants act as instructors
- field visits and applied case studies
- engagement with local communities and stakeholders

A key innovation of the 2026 program is the "learning by teaching" approach, where participants will design and deliver their own educational modules based on real data and field experience. This method enhances both understanding and the ability to transfer knowledge effectively.

Objective

The main objective of the 8th Aral Sea Summer School is to strengthen the capacity of young professionals to effectively communicate, teach, and apply knowledge related to sustainable development in the Aral Sea region.

Key Goals

- developing teaching and facilitation skills
- enhancing science communication capacities

- bridging the gap between research and education
- promoting innovative educational approaches
- fostering regional cooperation and interdisciplinary collaboration
- empowering participants to act as educators and change agents

Eligibility

The summer school is open to:

- early career researchers and university lecturers;
- professionals in water resources, environmental sciences, agriculture, climate change, and education;
- representatives of NGOs, governmental organizations, and development programs.

Applicants should demonstrate strong motivation, interest in sustainable development, and willingness to apply acquired knowledge in teaching, training, or community engagement. Proficiency in English is required.

Expected Outputs

The summer school will produce the following outcomes:

- development of educational modules and teaching materials on the Aral Sea region;
- enhanced skills in teaching, facilitation, and science communication;
- practical experience in transforming field data into educational content;
- strengthened regional and international professional networks;
- increased awareness of Aral Sea challenges among participants and broader audiences;
- creation of open-access educational resources for future use.

Enrolment

To apply, interested candidates should submit a complete online application form, with their CV and a letter of motivation attached to the form. **Deadline for applications is 15 June 2026.**

Partners

Federal Foreign Office of Germany, Green Central Asia, Kazakh-German University (DKU), Regional Environmental Centre for Central Asia (CAREC), IHE Delft Institute for Water Education, GIZ, Barsakelmes State Nature Reserve.

Field Visits and Potential Sites:

The program includes field visits to key locations in the Aral Sea region, including:

- UNDP project site “Green Belt” (Aralkum settlement);
- Public association “Kamystybas” and its activities in improved fishery technologies;
- Public fund “Aral Tenizi” and its work on fishery development at Lake Tushchi;
- Kokaral Dam and Aklak hydrosystem as major infrastructure for the restoration of the North Aral Sea;
- Barsakelmes State Nature Reserve;
- Northern coast of Butakov Bay and Zhalanash village as potential sites for ecotourism and dark tourism development.