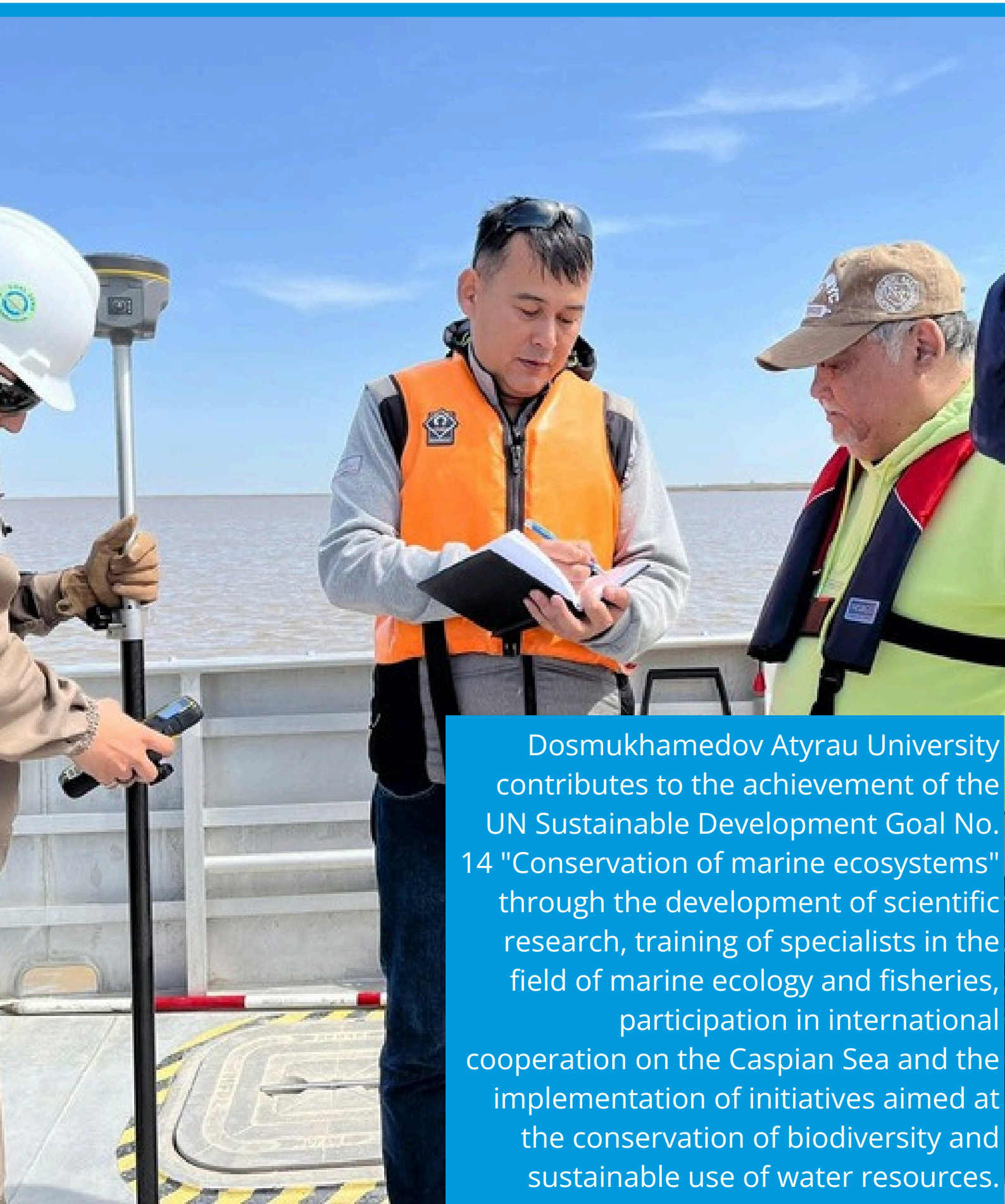


KHALEL DOSMUKHAMEDOV ATYRAU UNIVERSITY





Dosmukhamedov Atyrau University contributes to the achievement of the UN Sustainable Development Goal No. 14 "Conservation of marine ecosystems" through the development of scientific research, training of specialists in the field of marine ecology and fisheries, participation in international cooperation on the Caspian Sea and the implementation of initiatives aimed at the conservation of biodiversity and sustainable use of water resources.



What does this mean for Atyrau University

Located in the Caspian region, the University considers the conservation of the ecosystems of the Caspian Sea and the Ural-Caspian basin as one of the key areas of its educational and scientific activities. Special attention is paid to the issues of biodiversity conservation, sustainable fisheries, aquaculture development and ecological monitoring of aquatic ecosystems.



Conservation of biodiversity and natural ecosystems



The University's students and faculty are actively involved in environmental initiatives aimed at preserving the region's ecosystems. As part of the republican campaign "Taza Kazakhstan", students of the educational program "Applied Ecology" took part in planting trees on the territory of the State Natural Reserve "Akzhayk". The event contributed to the formation of an ecological culture, the conservation of natural resources and the development of practical skills in the field of environmental protection.

Additional attention was paid to the issues of biodiversity within the framework of the round table "Environmental issues of shallowing and pollution of the Ural River bottom and ways to preserve biodiversity", which brought together representatives of environmental organizations, scientific institutions and environmental services of the region.



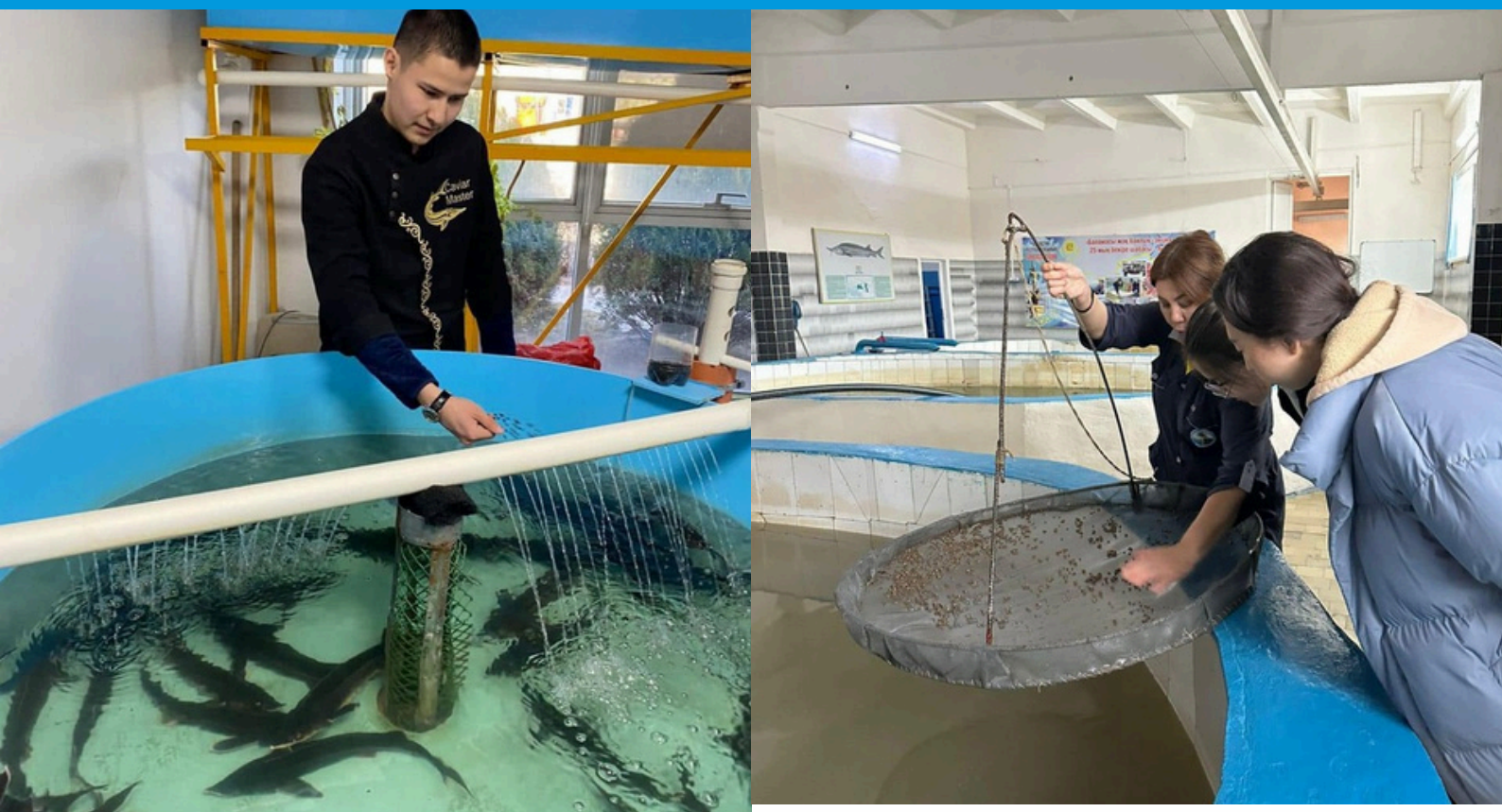
Sustainable development of aquaculture and fisheries

The University implements the educational program 6B08401 "Fisheries and ichthyology", aimed at training specialists for the fisheries industry of Kazakhstan. In 2025, the educational program took the 2nd place in the rating of the National Chamber of Entrepreneurs "Atameken". To organize practical training, the university cooperates with the Zhaiyk-Caspian Inter-regional Basin Fisheries Inspectorate and the Atyrau Sturgeon Fish Hatchery.

Students participate in research, study technologies for artificial fish farming and the release of fry into natural reservoirs, and gain practical experience in the industry.

The department is implementing a scientific project "Development of technology for obtaining valuable components from plant and animal raw materials using biotechnological methods", aimed at creating environmentally friendly feed for aquaculture and developing fish farming technologies in closed-circuit water supply installations.

An additional contribution to the development of the industry was the round table "Digitalization as a mechanism for the development of fisheries", dedicated to the introduction of modern technologies in fish farming.





Scientific research and environmental monitoring



The University conducts research aimed at the conservation of marine and river ecosystems, as well as the sustainable management of aquatic biological resources.

As part of the regional panel discussion "Joint actions, impact, experience", the head of the Laboratory of Integrated Research and Monitoring of the Caspian Environment, G.G. Zhumatova, presented the report "Actual problems of fish reproduction and development in the Ural-Caspian reservoirs", dedicated to the conservation of fish resources and sustainable use of aquatic ecosystems.

In 2025, the university also organized a scientific round table "Sustainable development of Kazakhstan: modernization of infrastructure and protection of the Caspian Sea", which discussed issues of changing the level of the Caspian Sea, conservation of biodiversity and environmental safety of the region.



International cooperation for the preservation of the Caspian Sea

International cooperation plays an important role in the implementation of SDG 14.

The University hosted the XXVII General Assembly of the Association of Universities and Research Centers of the Caspian Littoral States, which was held under the theme "The Caspian Ecosystem: Integration of Science and Education."

The participants discussed issues of preserving the ecosystems of the Caspian Sea, training specialists in the field of marine ecology, aquaculture and marine energy, as well as expanding international scientific research.

Special attention was paid to the development of joint educational programs, research grants and the creation of a network of universities in the Caspian region.





Environmental responsibility and sustainable environmental management

Meetings with representatives of industry and environmental organizations are an important element of the training of future specialists.

A guest lecture by a Tengizchevroil specialist on industrial ecology, rational use of natural resources and the introduction of environmentally sound technologies in the oil and gas industry was held for students of the Applied Ecology program.

Such events allow students to gain practical knowledge in the field of sustainable environmental management and environmental management.

FUTURE STEPS TOWARDS ACHIEVING SDG 14

Atyrau University named after H. Dosmukhamedova will continue to develop educational, scientific and international initiatives aimed at the conservation of marine ecosystems and the sustainable use of aquatic biological resources.

Among the priority areas of development:

- expansion of research on the conservation of biodiversity of the Caspian Sea and the Ural-Caspian basin;
- development of educational programs in the field of marine ecology, fisheries and aquaculture;
- support for scientific projects on the reproduction of fish resources and the development of sustainable aquaculture;
- expansion of international cooperation with universities and research centers of the Caspian region;
- introduction of digital technologies and monitoring systems for aquatic ecosystems;
- development of practice-oriented training of students on the basis of environmental protection and fisheries management organizations;
- improving the environmental literacy of young people in matters of marine ecosystem conservation.

The implementation of these directions will allow the University to strengthen its contribution to the conservation of the biodiversity of the Caspian Sea, sustainable management of water resources and the achievement of the UN Sustainable Development Goal No. 14 "Conservation of marine ecosystems".

