LEARNING AND STUDENTS

Expanding Ecology and Water Resource Programs

INRTU reinforces its commitment to SDG 14 by offering a robust and relevant educational portfolio focused on water resources and ecology. The university provides specialized bachelor and master programs such as: Water Management; Environmental Protection and Resources Conservation; Construction – Innovative Technologies in Water Supply and Sanitation. There are also multiple courses on freshwater ecosystems: Technosphere Life Safety; Technological Processes and Industries Safety; Ecology and Green Engineering; Renewable Energy; Public Safety and Ecology Risk Management; Production and Consumption Waste Disposal and Recycling; Ecological Safety; Groundwater Prospecting and Exploration and Engineering-Geological Surveys, which equip students with the knowledge to address contemporary challenges in aquatic ecosystem preservation.

Integrated Approach to Freshwater Ecosystems in the Curriculum

Within its diverse range of programs, INRTU ensures a dedicated focus on regional ecological challenges. Notably, the Regional Ecology course (Baikal Studies module) is embedded in the Safety of Technological Processes and Productions program. This course provides students with in-depth knowledge of the unique Lake Baikal ecosystem - a UNESCO World Heritage site - exploring pressing contemporary issues, including the impact of human activity on endemic species and restoration efforts for the Baikal omul population.

By combining academic instruction with interactive and practical learning components, INRTU cultivates a profound connection between students and aquatic environments, inspiring proactive engagement in their long-term protection.

Engaging Youth in Water Conservation: The Water and Life Conference

In April 2024, INRTU hosted its annual "Water and Life" scientific-practical conference , engaging students and schoolchildren from across the Angara region. Young participants presented research on sustainable water use, conservation, and pressing ecological issues. This platform empowers the next generation of scientists and environmental stewards, reinforcing INRTU's commitment to sustainability education and the protection of vital aquatic ecosystems.

RESEARCH

Conducting Large-Scale Research and Expeditions

INRTU's scientific activity in the reporting period was marked by extensive field and applied research. The university served as a key platform and participant in major Russian-Chinese expeditions: "Baikal - Pearl of the World" and the Yangtze River Valley expedition. These projects aim at comprehensive study of unique freshwater ecosystems and global scientific dialogue.

45

INRTU's research output in 2024 included 45 publications dedicated to environmental science, a significant portion of which concentrated on protected natural territories and conservation strategies for Lake Baikal.

1 publication on SDG 14 in Theoretical Foundations of Chemical Engineering in 2024

Strengthening International Academic Cooperation on Water Issues

A key priority in 2024 was the expansion of international academic partnerships dedicated to water sustainability. A major milestone was the establishment of the International Center for Clean Water in collaboration with Harbin Polytechnic University. This strategic partnership creates a permanent hub for joint research and education programs.

Environmental Monitoring and Outreach at the Regional Level

INRTU is actively involved in assessing and addressing regional environmental issues.

Regular outreach events for schoolchildren and students foster environmental awareness: the successful launch of the fifth cohort of the Mendeleev Class Research Program and the organization of the Mendeleev Students Day with immersive sessions in ecology and microbiology.

PUBLIC ENGAGEMENT

Science Communication and Volunteering

INRTU actively promotes science through modern formats: the Science Slam featured projects on protecting Lake Baikal using AI. The university was a partner of the International Youth Forum "Baikal", with students winning three grants there. The "Eco-Courtyard" campaign collected over 300 kg of recyclables, showcasing campus-wide engagement. The "Chemistry of the Future" International Scientific School gathered young scientists to discuss microplastic pollution in Lake Baikal.

OPERATIONS

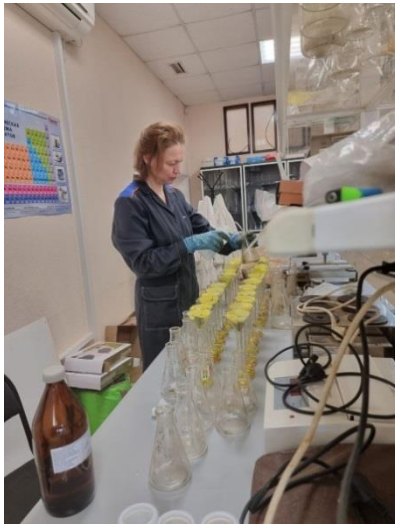
Responsible Sourcing of Seafood: INRTU's Sustainable Procurement Policy

INRTU actively implements Policy on Conservation and Rational Use of Oceans, Seas, and Marine Resources to advance sustainability on campus. A key component of this policy is the responsible procurement of aquatic food products. Measures include adjusting purchase volumes based on consumption data from university dining facilities and prioritizing suppliers that comply not only with mandatory regulations but also with GOST 33980-2016, the international standard for organic production. This ensures that seafood served on campus meets high environmental and quality standards supporting sustainable fisheries and responsible consumption.

Building Research Infrastructure for Water Quality

INRTU is developing its own research base to ensure environmental safety.

The accreditation scope of the SSG chemical-analytical laboratory was expanded fourfold, significantly enhancing capabilities for independent and accurate water analysis. The ongoing work of three dedicated research laboratories assesses the quality of drinking, natural, and wastewater for the university, Irkutsk city, the wider Siberian region, and neighboring countries. In partnership with the municipal enterprise MUP Vodokanal, INRTU contributes to regional water stewardship by advancing sustainable water supply and wastewater management systems within the Angara River basin.



Promoting Legal Awareness and Sustainable Practices

Internal management emphasizes the legal aspects of nature conservation: a masterclass on the legal protection of Lake Baikal was organized, fostering a corporate culture based on sustainable development principles and compliance with environmental law. Furthermore, the university's internal commitment is reflected in sustainable procurement practices for aquatic products and initiatives to reduce plastic waste on campus, aligning daily operations with SDG 14 targets.