



LEARNING AND STUDENTS

Topical Programs for Environmental Protection

INRTU remains dedicated to enhancing educational initiatives focused on freshwater ecosystems. Currently, it provides a whole range of specialized [bachelor and master programs](#) designed to address various aspects of these vital environments: 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. INRTU also offers a Regional Ecology course under the [Safety of Technological Processes and Productions program](#) (Baikal Studies, 3rd term). The course aims to foster environmental awareness among students and equips them with comprehensive knowledge about Lake Baikal, a recognized UNESCO World Natural Heritage Site. It covers such current environmental challenges, as poaching and strategies for restoring the populations of the lake's endemic species, particularly the Baikal omul. These offerings aim to improve understanding and promote sustainable practices related to the management and preservation of freshwater resources. By engaging participants through interactive learning and hands-on experiences, INRTU strives to foster a deeper connection to freshwater ecosystems and motivate action towards their protection.



The Water and Life Forum: Engaging the Next Generation in Sustainable Water Practices

Each year, INRTU organizes the Water and Life Forum, a platform where students and schoolchildren can discuss critical water usage issues. In 2023, the Forum featured over 30 insightful presentations from the participants. By fostering discussions around water conservation and the sustainable management of aquatic and biological resources, the Forum encourages a culture of responsible water use. Moreover, it exemplifies INRTU's commitment to education and sustainability, aligning with broader global efforts to promote environmental stewardship and responsible resource management.

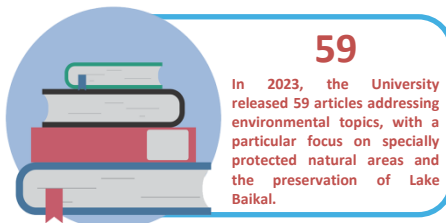
RESEARCH

Harnessing Data-Driven Insights for Sustainable Management of Aquatic Ecosystems

INRTU is making significant strides in developing sustainable technologies aimed at predicting and managing human impacts on aquatic ecosystems. Over several years of extensive research, [a vast database encompassing the morphometric and hydrological features of three critical water bodies](#), the Bratsk, Irkutsk, and Ust-Ilim reservoirs, has been compiled.

Studies indicate that the establishment of large artificial reservoirs has led to significant long-term alterations in channel dynamics, sediment transport, and bank formation processes.

This scientific data is critical for the creation of new geographic, topographic, and thematic maps. By employing a multidisciplinary approach to research, the effectiveness and accuracy of ecological studies can be significantly improved, leading to better-informed decisions regarding water resource management.



The XIII All-Russian Scientific and Practical Conference on Technosphere Safety in the XXI Century

Each year, INRTU organizes events aimed at promoting sustainable development through the assessment, identification, and mitigation of environmental risks impacting the region's aquatic ecosystems. This effort showcases the University's resolve to creating a sustainable balance between human actions and the safeguarding of the environment's natural resources.

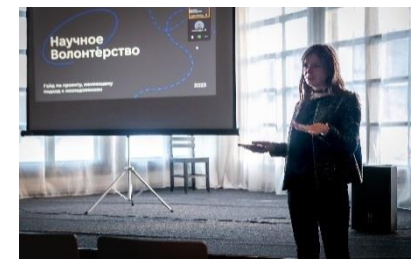
For example, in 2023 the University hosted [the XIII All-Russian Scientific and Practical Conference on Technosphere Safety in the XXI Century](#), highlighting the antibiotic contamination of the aquatic environment, the pollution consequences and problem-solving ways.



PUBLIC ENGAGEMENT

Fostering Community Engagement for Aquatic Conservation: the Mendeleev Class Research Program

INRTU engages actively with the local community to safeguard shared aquatic ecosystems. This collaboration not only enhances the research outcomes but also instills a sense of ownership and responsibility toward local ecosystems. As part of the national Ecology project, INRTU, in collaboration with D. I. Mendeleev Russian Chemical Technical University, has been executing the [Mendeleev Class](#) research program for personnel reserve training over the past four years. Under the guidance of the INRTU team, students from across Russia participate in research initiatives at Lake Baikal and its surrounding areas. By involving local residents in research projects centered on Lake Baikal, INRTU provides opportunities for community members to contribute to data collection and analysis.



INRTU Hosts the Chemistry of the Future School to Address Microplastic Pollution in Lake Baikal

Furthermore, the University organized [the Chemistry of the Future scientific school](#), where INRTU students and schoolchildren from Irkutsk and Ussolye-Sibirskoye explored the Baikal Pulp and Paper Mill (BPPM) museum and the All-Russian Ecological Campus ECO.CEH. Young scientists engaged in a discussion session on the issue of microplastic pollution and its distribution in Lake Baikal.

OPERATIONS

Implementing Sustainable Practices: INRTU's Food Procurement Policy for Aquatic Products

INRTU has formulated and is actively implementing a [Policy on Conservation and Rational Use of Oceans, Seas, and Marine Resources](#) to promote Sustainable Development. In line with Clause 1.2.1 "Formulation of a Food Procurement Policy Based on the Rational Consumption of Food Products of Aquatic Origin", this policy encompasses a range of measures. They include the procurement of marine and aquatic food products in quantities based on the consumption patterns monitored at the University's dining facilities. Furthermore, the policy emphasizes sourcing fish and seafood from suppliers who not only comply with obligatory standards but also adhere to the intergovernmental standard GOST 33980-2016, which governs the production, processing, labeling, and sale of organic products.

