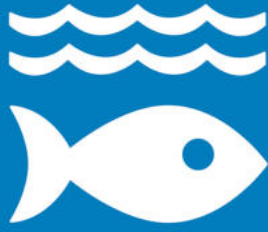
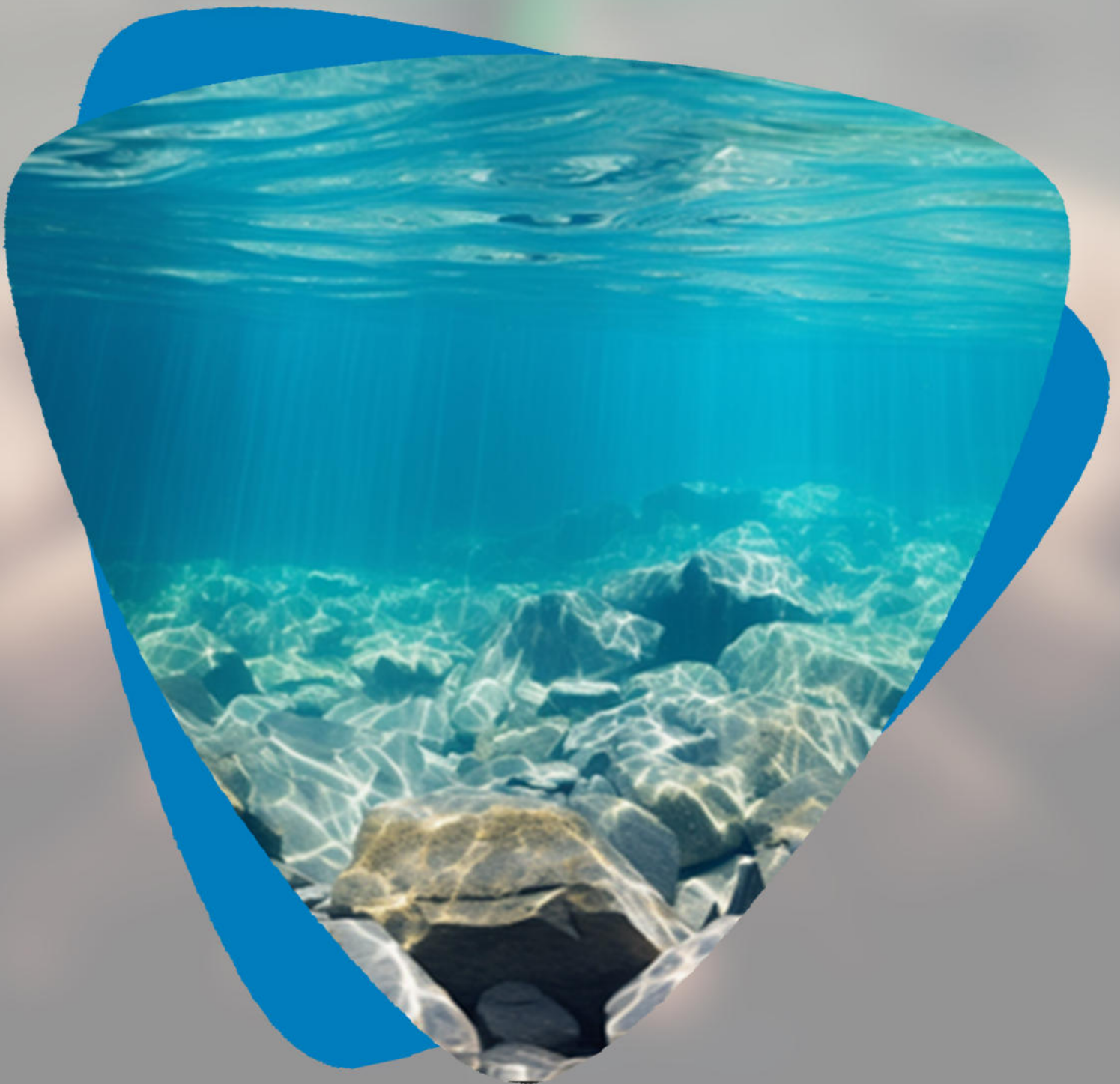


14 LIFE
BELOW WATER



Protecting Every Water Ecosystem Through Education





PROTECTING WATER RESOURCES, ADVANCING BLUE SUSTAINABILITY, STRENGTHENING INSTITUTIONAL RESPONSIBILITY

Integrated Water Management,
Ecosystem Conservation, Sustainable Water Futures

“Safeguarding our water systems is a duty we owe to future generations. Every action we take today protects the lifelines of tomorrow”



Samixon Ashirbayev,
Professor, Doctor of Philological Sciences

Although TSUULL is located far from marine environments, the university acknowledges that SDG 14 — **Life Below Water** — extends far beyond oceans and coastal ecosystems. The goal also encompasses freshwater systems, responsible water management, pollution reduction, and the protection of rivers, lakes, reservoirs, and wetlands. These ecosystems are vital for biodiversity, public health, climate resilience, and the well-being of surrounding communities. Recognizing this broader perspective, TSUULL understands its responsibility as an academic institution to contribute to water stewardship both on campus and across the region.

In 2024-2025 academic year, TSUULL significantly strengthened its commitment to SDG 14 through a coordinated effort involving educational programs, community engagement, and institutional policy reforms. The university adopted a holistic, systems-based approach that embeds water sustainability into operations, teaching, and public outreach. Research projects expanded to study water quality, aquatic biodiversity, and the impacts of urbanization on local water bodies. Faculty incorporated freshwater conservation themes into courses, giving students hands-on learning opportunities through fieldwork, laboratory assignments, and citizen-science initiatives.

Beyond academics, TSUULL collaborated with community partners, schools, and environmental organizations to raise awareness about responsible water use and pollution prevention. Campus actions included reducing wastewater discharge, improving water efficiency, and promoting plastic-free practices to minimize the university's environmental footprint. Policy updates strengthened guidelines related to sustainable procurement, waste management, and green infrastructure, ensuring that water protection principles are reflected in daily campus operations.

Through these integrated efforts, TSUULL continued to demonstrate that meaningful contributions to SDG 14 are possible regardless of geographic location. By supporting freshwater ecosystem protection, advancing water research, and empowering students and communities, the university plays an active role in safeguarding life below water for future generations.

Water Stewardship & Pollution Prevention

TSUULL significantly strengthened its internal water stewardship framework in 2024 by adopting enhanced policies, technologies, and awareness initiatives aimed at protecting freshwater ecosystems. The university's approach prioritizes responsible use of water resources, prevention of contamination, and continuous monitoring to ensure that campus operations do not negatively impact surrounding rivers, reservoirs, or groundwater systems.

To achieve this, TSUULL implemented a comprehensive set of measures:

- *Strict prohibition of hazardous chemical disposal into sinks, drains, or outdoor runoff channels, with clear guidelines communicated to all departments. This includes enforcement through periodic inspections and mandatory compliance training for laboratory and maintenance staff.*

- *Safe storage and handling protocols for laboratory chemicals and cleaning agents, supported by upgraded storage cabinets, secondary containment units, and standardized labeling systems. These protocols reduce the risk of accidental spills and ensure that chemicals are managed with proper environmental safeguards.*



WATER STEWARDSHIP & POLLUTION PREVENTION

- *Installation of sediment and waste-capture filters at key drainage points across campus. These filters trap debris, microplastics, sediments, and other pollutants before they can enter the municipal water system, helping to protect downstream aquatic habitats.*

- *Safe storage and handling protocols for laboratory chemicals and cleaning agents, supported by upgraded storage cabinets, secondary containment units, and standardized labeling systems. These protocols reduce the risk of accidental spills and ensure that chemicals are managed with proper environmental safeguards.*

- *Routine water quality monitoring, conducted in partnership with municipal environmental services. Regular testing of pH levels, turbidity, contaminants, and biological indicators allows the university to detect potential issues early and maintain transparency regarding environmental compliance.*

- *Awareness campaigns addressing microplastic pollution, focusing on the environmental impact of synthetic clothing fibers, laundry habits, and single-use plastics. These campaigns are delivered through workshops, digital media, and student-led initiatives, helping to build a culture of responsible consumption.*

Together, these measures highlight TSUULL's proactive commitment to minimizing its environmental footprint and integrating water protection into daily campus operations. By combining policy enforcement, infrastructure upgrades, monitoring systems, and community education, the university positions itself as a responsible steward of freshwater ecosystems and a contributor to national SDG 14 progress.

WATER STEWARDSHIP & POLLUTION PREVENTION

CAMPUS WATER PROTECTION MEASURES



Strict prohibition of hazardous chemical disposal into drains and runoff channels



Safe storage and handling protocols for laboratory chemicals and cleaning agents



Installation of sediment and waste-capture filters at key drainage points



Routine water quality checks in cooperation with municipal environmental services



Awareness campaigns on preventing microplastic pollution from synthetic clothing and single-use plastics



ACADEMIC COURSES SUPPORTING SDG 14

TSUULL broadened the university curriculum in 2024-2025 academic year to embed freshwater stewardship, pollution prevention, and water-security concepts across multiple disciplines. These course-level additions combine theoretical foundations with applied learning so that students graduate with the knowledge, technical skills, and civic awareness required to protect rivers, lakes, reservoirs, and wetlands in Uzbekistan and the wider region.

Core and elective modules introduced and strengthened

- **Environmental Literacy and Communication** — develops students' ability to interpret scientific data, translate technical findings for non-specialist audiences, and design behaviour-change campaigns focused on reducing water pollution and microplastic release.
- **Sustainable Development Studies** — frames freshwater protection within social, economic, and policy contexts; covers governance, integrated water resource management (IWRM), and evaluation of development projects that affect aquatic ecosystems.
- **Ecology and Society** — explores relationships between human communities and freshwater biodiversity, using case studies and systems thinking to assess how land use, agriculture, and urbanization influence aquatic habitats and species.
- **Climate Change and Water Security (seminar series)** — a rotating seminar bringing together researchers, municipal water managers, and NGOs to discuss climate risks to water availability, adaptive strategies for small catchments, and resilience planning.

- **Hands-on learning and skill-building.** Short workshops and practical labs on water-conserving technologies, low-cost water quality testing, and methods for assessing aquatic biodiversity (e.g., macroinvertebrate surveys, basic eDNA sampling).

- **Field trips** to nearby rivers, reservoirs, and wetlands for water sampling, habitat assessment, and community engagement exercises.

- **Student-led projects and capstone options** that partner with local municipalities or NGOs to design small-scale interventions (stormwater gardens, sediment traps, community awareness campaigns) and measure their outcomes.

Assessment, certification, and career pathways

Coursework emphasizes **practical competencies** (water-monitoring protocols, data interpretation, stakeholder engagement) and is assessed through portfolios, field reports, and policy briefs rather than only exams.

Short **certificate courses** and micro-credentials in freshwater monitoring and pollution prevention are offered for professionals and community participants, strengthening local capacity.



STUDENT ENGAGEMENT & AWARENESS BUILDING

In 2024-2025 academic year, TSUULL launched its first university-wide Blue Sustainability Campaign, a coordinated initiative designed to strengthen student engagement in freshwater protection and raise awareness about SDG 14. The campaign combined education, behaviour change, and hands-on participation, creating a strong culture of environmental responsibility across campus.

Key components of the campaign included:

- *Reducing water waste on campus through targeted messaging, monitoring, and student-designed reminders placed in dormitories, laboratories, and common areas.*
- *Promoting refillable water bottle use by installing additional filtered water stations and offering incentives for students who adopted reusable bottles.*



- *Educational events on pollutant reduction, especially hazards linked to plastics, detergents, and microfibers that enter freshwater systems.*



- *Student-led awareness booths, where volunteers explained water-saving behaviors, demonstrated pollution impacts, and distributed informational materials.*

The campaign reached thousands of students through on-campus activities, digital outreach, and collaborative events with academic departments.

Student Eco-Clubs

TSUULL's Environmental Student Club played a major role in SDG 14 engagement throughout the year. In 2024-2025 academic year, the club organized a series of impactful activities that connected students with real-world environmental challenges:

- *Clean-up actions along local water canals, removing plastic waste, sediment buildup, and other pollutants harmful to aquatic ecosystems.*



- *Seminars and interactive lectures, on microplastics, water contamination pathways, and community-level solutions.*





VOLUNTEER PROGRAM AT MAGIC CITY AQUARIUM, TASHKENT

• *Peer-to-peer training sessions on sustainable water use, encouraging students to take active leadership roles in promoting environmental responsibility.*



These initiatives strengthened environmental literacy while building a strong student leadership community around SDG-focused work. Key components of the campaign included:

Volunteer Program at Magic City Aquarium, Tashkent

To deepen hands-on learning and community contribution, TSUULL expanded its outreach by sending student volunteers to the *Magic City Aquarium in Tashkent*. Volunteers assisted aquarium staff with a variety of tasks, such as:

- *Supporting routine care for freshwater and marine species*
- *Helping maintain clean tanks and exhibit areas*
- *Assisting educators during visitor tours and children's programs*
- *Observing aquatic species health and habitat needs*
- *Learning about conservation practices used in aquariums and research facilities*



This partnership provided students with rare exposure to aquatic life, strengthened their understanding of biodiversity conservation, and contributed to the aquarium's public education mission.

More than 450 STUDENTS

actively participated in SDG 14-related activities in 2024.



Campaigns



Student Clubs



Community
Clean-Ups



Volunteer
Placements

TSUULL fostered a vibrant culture of environmental stewardship and hands-on learning, ensuring that students not only understand freshwater protection but also contribute meaningfully to it.

More than **450 students** actively participated in SDG 14-related activities in 2024. Through campaigns, student clubs, community clean-ups, and volunteer placements, TSUULL fostered a vibrant culture of environmental stewardship and hands-on learning, ensuring that students not only understand freshwater protection but also contribute meaningfully to it.



MONITORING PROGRESS (SELECTED INDICATORS)

Indicator	2023	2024
Water-related academic sessions	8	17
Students participating in SDG 14 programs	210	450
Campus clean-up and waterway protection events	6	11
Community workshops on water protection	3	8
Plastic waste reduction initiatives	4	9

TSUULL achieved significant progress across all indicators, demonstrating growing institutional engagement in SDG 14.

TSUULL's achievements in 2024-2025 academic year reflect strong institutional dedication to *water protection, blue sustainability, and ecological responsibility*—key pillars of SDG 14. Through research, education, community engagement, and sustainable campus operations, the university contributes meaningfully to water stewardship in Uzbekistan.

TSUULL remains committed to building a future where clean, healthy, and resilient aquatic ecosystems support both people and the planet.