



KARADENİZ TECHNICAL UNIVERSITY - WATER CONSERVATION AND REUSE POLICIES -

PURPOSE OF THE POLICY

This policy has been prepared to ensure sustainable water management in all campuses of Karadeniz Technical University, to protect drinking and utility water quality, to reduce water consumption and to encourage the disposal or reuse of wastewater without harming the environment. In line with KTU's quality-oriented education and research mission, this policy aims to ensure the efficient use of water resources, protect ecosystems on and around campuses, and raise awareness of water conservation among students and employees.

RELEVANCE OF THE POLICY

Relevant Sustainable Development Goals (SDG) Criteria: This policy is primarily related to the following goals from the United Nations Sustainable Development Goals:

- SDG 6: Clean Water and Sanitation
- SDG 12: Responsible Production and Consumption
- SDG 13: Climate Action
- SDG 14: Life Below Water
- SDG 15: Life on Land

Relevant Metrics:

- THE Impact Rankings
- UI GreenMetric

SCOPE OF POLICY

This policy covers infrastructure works, research, and all related education and awareness activities to protect water quality in areas at the university, reduce water consumption, and dispose of or reuse wastewater without harming the environment.

- **Target Audience:** Students, academic and administrative staff, on-campus businesses, visitors are among the target audience of this policy.
- **Application Areas:** The principles of this policy are applied in administrative and academic buildings and all other areas in all campuses of KTU; practice hotels, hospitals, student dormitories, lodgings, cultural and sports facilities, laboratories and research centers.

BASIC PRINCIPLES AND LEGAL BASES

- **Sustainable Water Management:** Efficient use of water resources, prevention of loss and leakage, and conservation of renewable water resources are essential. The selection of water management tools considers savings, durability, and maintenance criteria, avoiding wastage in water-intensive areas.
- **Water Quality and Public Health:** The university constantly monitors the quality of the water it provides from its own borehole, performs necessary maintenance, and increases or changes sources if necessary.
- **Efficient Use of Resources and Savings:** In accordance with the university's "Savings Directive", it is ensured that public resources such as electricity, water and natural gas are used effectively, and waste is prevented.
- **Wastewater and Pollution Control:** Considering the treatment of wastewater in accordance with regulations, promoting its reuse and preventing water pollution. The recovery water is treated to meet the quality criteria appropriate to the intended use; Water that carries pathogenic and chemical risks, such as hospital and laboratory wastewater, is sent only to licensed disposal facilities.



- **Transparency and Participation:** It is ensured that data on water use and conservation are shared with the university public, suggestions and complaint mechanisms are open, and all stakeholders participate in the program.
- **Legal Compliance:** The policy has been prepared in accordance with the Environmental Law No. 2872, the Communiqué on Technical Procedures for Wastewater Treatment Plants, the Zero Waste Regulation and the relevant ISO/EN standards.

RESPONSIBILITIES AND ROLES

Implementing Units:

- **Department of Construction and Technical Affairs (YİTDB):** It is responsible for the planning, installation and maintenance of the water infrastructure (network connections, drinking water tanks, rainwater collection systems, wastewater treatment plant, water meters) on campuses. Enables the installation of water-saving equipment; It fixes leaks and malfunctions in a timely manner.
- **Environment and Zero Waste Coordinatorship:** Monitors on-campus water consumption, prepares annual water consumption reports, and records water data. Coordinates wastewater management, rainwater harvesting, and water recycling projects; organizes trainings to increase water conservation awareness among students and staff.
- **Strategy Development Department:** Ensures the financial sustainability of the policy; makes budget planning of water conservation investments and coordinates the reporting of performance indicators.
- **Department of Health, Culture and Sports (SKS):** Carries out the necessary follow-up to maintain water health and hygiene standards; implements water conservation and hygiene practices in student dormitories and sports facilities, and supports awareness activities.
- **Farabi Hospital and Laboratories:** Biologically and chemically hazardous wastewater is sent to the wastewater treatment plant or licensed disposal without mixing it with the recovery system.
- **Faculties and Units:** Implements water conservation practices on a unit basis; encourages the inclusion of water management and sustainability issues in academic programs; reports water consumption data to the Energy and Water Management Unit.
- **Students and Staff:** Responsible for implementing water conservation measures, reporting malfunctions, and participating in awareness activities.

Monitoring Units and Responsible Persons

- **Rectorate and Senate:** Gives official approval of the policy and conducts necessary audits. It ensures that the objectives of the policy are achieved in accordance with institutional priorities.
- **General Secretariat:** It provides coordination between different units (Construction Works, Administrative and Financial Affairs, Health-Culture-Sports Department, etc.) that have a role in the execution of the process.
- **Research Coordinatorship:** Monitors the progress of the implementation of the policy, collects and reports data on performance indicators. The Sustainability Unit compiles the necessary data for sustainability indices such as UI GreenMetric and THE Impact Rankings. It also analyzes the results of the activities carried out within the scope of the policy and develops improvement suggestions.

APPLICATION STEPS

1. **Initial Inventory and Target Setting:** Water consumption amounts, existing facilities (water tanks, treatment systems), rainwater harvesting facilities and wastewater management practices will be evaluated and a status report will be prepared on all campuses. As stated in the Savings Report, water consumption data is monitored regularly.
2. **Policy and Planning:** Short, medium and long-term water conservation goals are determined and the "KTU Water Management Plan" is prepared. The plan includes reducing water use, reducing the leakage loss rate, expanding rainwater harvesting systems, establishing greywater reuse systems and a water quality control program.
3. **Infrastructure Improvement and Technological Applications:** The use of water-efficient equipment on campuses is supported. Procedures to prevent water waste will be implemented in



water-consuming areas (canteens, cafeterias, laboratories); Awareness of employees is ensured. Rainwater collection systems (from roofs, hard floors, etc.) are designed and the water collected here is used in usable areas.

- 4. Water Quality and Safe Drinking Water:** Regular microbiological and chemical analyses will be conducted to ensure the safety of water sources. As in the example of the water quality commission held on the Kanuni Campus, if necessary, the transition to the city network or the use of alternative water sources is evaluated.
- 5. Education and Awareness:** Water conservation trainings, environmental day events and campaign programs are organized for all students and staff.
- 6. Monitoring and Control:** Consumption is monitored on a unit basis with water meters in all buildings; leaks and leaks are detected with early warning systems. Meters are added to buildings that do not have meters. The performance and reuse rate of wastewater treatment plants are regularly monitored.
- 7. Reporting and Improvement:** At the end of each academic year, water consumption reports and performance indicators will be prepared by the Energy and Water Management Unit and included in the Senate and social contribution reports; improvement actions will be planned in areas where the targets cannot be achieved.

PERFORMANCE INDICATORS

Indicator	Goal	Source of Verification
Annual water consumption per capita (m ³ /person)	Reduction by 30% by 2030	Environmental Problems UYGAR records and reports
The proportion of buildings where water-saving fixtures and devices are used	Increase use in all buildings to 60% by 2030	YİTDB reports and Purchase records
Water collected by rainwater harvesting systems (m ³ /year)	Implementation on all campuses by 2030; Meeting 10% of the total potable water need	Environmental Problems UYGAR records and reports YİTDB reports
Annual amount of water recovered (m ³)	Recover 50,000 m ³ of water by 2030	Environmental Problems UYGAR records and reports
Treated wastewater usage rate	To start using treated wastewater for technical purposes by 2030	Environmental Problems UYGAR records and reports
Regulatory compliance rate of drinking water quality parameters	Achieving 100% compliance by 2030	Environmental Problems UYGAR records and reports
Participation rate in water conservation and hygiene trainings	By 2030, 40% of staff and students will participate in training and awareness activities	Environmental Problems UYGAR records and reports

AUDIT AND REPORTING

- Monitoring Frequency:** Performance indicators are evaluated annually; relevant indicators are regularly monitored by the relevant responsible units every year. The changes in the values in the indicators during the year are determined and necessary measures are taken in a timely manner.
- Reporting Frequency:** Annual data are recorded in KTU Sustainability Reports within six months following the end of the relevant year and shared with the public on the university's website. Four-year data is compiled to form an input for the next strategic planning period. In addition, the relevant data obtained each year is reported to UI GreenMetric and other international sustainability indices.
- External Verification:** Participation in national and international certification programs is provided to certify the performance of the university within the framework of the relevant indicators. The participation program and decision are taken by the senate. The implementation and effects of the policy are verified through audits carried out by independent organizations.



- **Revision Conditions:** In case 60% of the targeted values of the determined performance indicators cannot be reached for two consecutive years or in case of changes in national/international legislation; the policy is reviewed by the implementing units, revision proposals are prepared, and the policy is submitted to the senate for approval again.

EFFECTIVE DATE

This policy comes into effect from the date it is approved by the KTU Senate. University units are obliged to comply with and implement the provisions of the policy.