



Sustainable KTU

SUSTAINABILITY REPORT 2024

15 LEVEN OP
HET LAND



www.ktu.edu.tr/sustainability



surdurulebilirktu@ktu.edu.tr



Sustainable development is not only a global vision, but also a shared responsibility that our country bears towards future generations. In this sense, the Sustainable Development Goals (SDGs) set by the United Nations, Turkey's 11th and 12th Development Plans, the Green Deal Action Plan, and the Higher Education Council's sustainability vision form a roadmap for higher education institutions.

As Karadeniz Technical University, we consider it our primary duty to contribute to these goals in line with our mission of education, research, and community service. Our university produces science-based knowledge, develops policies, and implements projects in interaction with the community across a wide range of areas, from quality education to climate action, from poverty reduction to the construction of innovative and sustainable cities.

In line with our country's national policies, our university leads regional development and assumes global responsibility through international collaborations, while also aiming to educate our students to become conscious individuals for a sustainable future. The report prepared in this context reflects not only the activities carried out but also our university's determination on its sustainability journey.

Our belief in the future is strengthened by the guidance of science and the dynamism of our youth. Karadeniz Technical University will continue to contribute to sustainable development goals and support our country's vision in this area.

Prof. Dr. Hamdullah ÇUVALCI
Rector, Karadeniz Technical University





The conservation of life on land, the sustainable management of biodiversity, and the restoration of ecosystems are of critical importance for the future of humanity, both locally and globally. Threats such as climate change, land degradation, desertification, deforestation, and species extinction affect not only natural life but also directly impact food security, quality of life, and economic well-being.

Karadeniz Technical University (KTU), with its deep-rooted scientific expertise, strong research infrastructure, experienced academic staff, and regional-international collaborations, carries out significant work in the protection and sustainable management of terrestrial ecosystems. The university conducts scientific research, project activities, and practical initiatives across a wide range of ecosystems—from forests and mountainous areas to agricultural lands, wetlands, and coastal zones—contributing both to regional development and to global environmental goals.

Through its academic units and research centers, KTU produces innovative work in the fields of biodiversity conservation, monitoring of endemic species, ecosystem restoration, erosion control, prevention of forest fires, sustainable agricultural practices, and nature-based solutions. Furthermore, joint projects with local governments, non-governmental organizations, and stakeholders in the agriculture and forestry sectors generate outcomes directly aligned with the objectives of SDG 15.

This report aims to present KTU's strategic contributions to the protection and sustainable management of terrestrial ecosystems by addressing its academic research, field applications, collaborations with local and national stakeholders, and community awareness activities carried out in line with SDG 15: Life on Land.



Institutional Structure

Karadeniz Technical University (KTU), in line with SDG 15 “Life on Land,” has established an interdisciplinary institutional structure to ensure the protection of terrestrial ecosystems, the preservation of biodiversity, and the sustainable management of natural resources. Within this framework, the Faculty of Forestry, Faculty of Science, Sürmene Faculty of Marine Sciences, Faculty of Architecture, and related research centers work collaboratively to develop holistic strategies for the conservation of terrestrial ecosystems.

Within the university, the Faculty of Forestry plays a leading role in forest ecosystems, soil and water conservation, wildlife management, ecosystem restoration, and the monitoring, protection, and revitalization of flora and fauna diversity. In addition, the Environmental Problems Research and Application Center conducts scientific analyses on environmental impact assessment, sustainable land use, and the protection of natural habitats.

Beyond academic studies conducted within the scope of SDG 15, KTU develops collaborations with public institutions, local governments, non-governmental organizations, and international stakeholders to carry out applied projects. Thanks to this structure, the university’s research and application capacity goes beyond producing academic knowledge, contributing directly to ecosystem protection policies.

By integrating the principles of sustainable development into its institutional policies, KTU aims to pursue scientific research, community awareness initiatives, and applied project activities within the scope of SDG 15 through a long-term strategy.



[KTU Faculty of Forestry](#)





Landslide Application and Research Center

The Landslide Application and Research Center operates to investigate and manage landslide risks arising from the geographical and geological characteristics of the Eastern Black Sea Region. The center conducts studies on land-use planning, risk analyses, early warning systems, and the development of preventive measures prior to disasters. In this way, the negative impacts of natural disasters on terrestrial ecosystems and settlements are minimized. Within the scope of SDG 15, the Landslide Application and Research Center plays a critical role in protecting life on land and ensuring sustainable environmental management in the region.

Environmental Problems Application and Research Center

KTU Environmental Problems Research and Application Center carries out significant work in the protection and sustainable management of terrestrial ecosystems. The center conducts research on monitoring and assessing soil, water, and air quality, preserving ecosystem health, and supporting biodiversity. In addition, it provides field studies, analyses, and scientific consultancy services to address regional environmental issues. By contributing to SDG 15 “Life on Land,” UYGAR supports the protection of natural habitats and the maintenance of ecosystem balance.



[KTU Landslide Application and Research Center](#)

[KTU Environmental Problems Application and Research Center](#)





Zero Waste Coordination

KTU Zero Waste Coordination Office contributes indirectly to the protection of terrestrial ecosystems by coordinating sustainable waste management practices across the university. The office carries out activities such as composting organic waste, optimizing recycling processes, and improving resource efficiency. Through these efforts, the harmful impact of waste on campus and surrounding natural areas is prevented, while soil and water quality are preserved.

In line with SDG 15, the Zero Waste Coordination Office also organizes educational and awareness-raising activities to enhance environmental consciousness and contribute to the sustainability of life on land. Additionally, the office operates a Compost Waste Production Unit dedicated to environmental protection. In this unit, modern technologies are used to recycle organic waste into compost. Particularly, pre-consumer food waste is processed and transformed into organic fertilizer, contributing to sustainable agricultural practices.



[KTU Zero Waste Coordination](#)





KTU's Life on Land Studies within the Scope of SDG-15

In line with SDG 15 “Life on Land,” Karadeniz Technical University (KTU) carries out various activities to protect terrestrial ecosystems and support biodiversity. Through the Faculty of Forestry and research centers, the university implements initiatives such as monitoring natural habitats, conducting preventive measures in landslide-prone areas, and composting organic waste. In addition, through the Zero Waste Coordination Office and awareness-raising activities, the environmental consciousness of students, staff, and the public is strengthened, providing concrete contributions to the sustainability of life on land.

Forestry Faculty SKA-15 Field Trips Information

In line with SDG 15, the Faculty of Forestry at Karadeniz Technical University (KTU) organizes comprehensive field trips to help students and researchers better understand the impacts on terrestrial ecosystems. These excursions combine theory with practice and include direct observation and data collection processes as part of educational and research activities. During the field trips, participants have the opportunity to examine forest ecosystems, biodiversity, soil, and water resources on-site, while also observing sustainable forestry practices and ecosystem management techniques. Moreover, students receive practical training on ecosystem conservation, the sustainable use of natural resources, and solutions to environmental challenges. These activities not only contribute to the Faculty of Forestry’s role in advancing SDG 15 but also enhance students’ field experience, develop their scientific observation skills, and strengthen their ecological awareness. The faculty aims to integrate field excursions with sustainable living and environmental responsibility while training future forest engineers and environmental scientists.



[Land Applications-1](#)







KTÜ's Tree Planting Activities within the Scope of SDG-15

In 2024, Karadeniz Technical University (KTU) organized various tree-planting events that not only strengthened students' and academics' sense of responsibility toward nature but also contributed to the ecological balance of the region.

Throughout the year, thousands of saplings were planted on campus and in surrounding areas through the collaboration of faculties and student communities. During these events, participants received practical information on the benefits of afforestation for biodiversity, combating climate change, preventing erosion, and strengthening carbon sinks.

KTU's 2024 tree-planting activities went beyond generating environmental benefits; by working in partnership with local communities, non-governmental organizations, and public institutions, they also aimed to raise public awareness. In this way, the university has both promoted a culture of sustainable living and created lasting ecological values within the scope of SDG 15.



[Tree Planting Activity-1](#)
[Tree Planting Activity-2](#)





[Tree Planting Activity-3](#)





World Environment Day Events

In 2024, Karadeniz Technical University (KTU) brought together students, academics, and local community members through World Environment Day activities, where participants were informed about nature conservation, ecosystem management, and sustainable environmental practices, and engaged in hands-on activities.

During the workshop, students created artworks from electronic waste, while the Compost Waste Production Unit established on the Kanuni Campus was also inaugurated. Participants learned about their individual and collective responsibilities toward nature, directly contributing to the protection of terrestrial ecosystems within the scope of SDG 15.

KTU's World Environment Day events not only fostered environmental awareness but also promoted a culture of sustainable living, strengthening the university's mission of ecosystem protection and education.



[Environment Day Events](#)





Disaster Awareness Activities at KTU

Throughout 2024, Karadeniz Technical University (KTU) carried out educational and awareness-raising activities in line with SDG 15, focusing on the protection and sustainable management of terrestrial ecosystems. These activities aimed to enhance both students' and local communities' environmental awareness and disaster preparedness. The events included panels, seminars, workshops, and field exercises addressing the impacts of natural disasters such as earthquakes, floods, and soil erosion on ecosystems. Participants were taught sustainable management techniques to prevent and mitigate the effects of disasters and were encouraged to adopt practices that protect ecosystems and promote the responsible use of natural resources.



[ADisaster Awareness Activities-1](#)

[Afet-Farkındalık Disaster Awareness Activities-2](#)





Earthquake Awareness Activities at KTU

As part of Earthquake Week, a panel titled “Türkiye’s Earthquake Reality and Future Recommendations” was organized in order to raise awareness of earthquake risk, raise public awareness, and draw attention to the necessary precautions. Following the Kahramanmaraş Earthquakes, information was shared on “New Construction Technologies for Earthquake-Resistant Building Design,” and information was shared on Türkiye’s new building technologies and resilient building design. The panel also provided information on Earthquake-Triggered Disasters Specific to the Kahramanmaraş Earthquakes, Interpretation of Earthquakes with Seismological Data, Our Region’s Earthquake Hazard, and the Need for Transition to Smart Cities Guided by Geographic Information Technologies: Lessons to be Learned from the Great Turkey Earthquake.



[Earthquake Awareness Activities-1](#)





Disaster Awareness Activities at KTU

Education for University Students

To raise disaster awareness, undergraduate students at our university were brought together in a classroom setting with experts from public institutions and our university. In this context, four different experts met with students in 2023, and one in the first half of 2024. We continue to organize activities that provide students with direct access to current information about natural disasters.

Education in Primary Schools

Within the framework of the protocol signed with the Trabzon Provincial Directorate of National Education, materials have been distributed throughout the year starting from January 3, 2024, to numerous primary schools, including:

- Mecit Pirhasoğlu Primary School (Akçaabat)
- Fevziye Primary School (Vakfıkebir)
- Cumhuriyet Primary School (Arsin)
- Cumhuriyet Primary School (Araklı)
- Aykut Lütfü and Mehmet Ofluoğlu Primary Schools (Düzköy)
- Boztepe Primary School (Ortahisar)



[Disaster Awareness Activities-1](#)

[Afet-Farkındalık Disaster Awareness Activities-2](#)



Broadcasts on KTU TV Contributing to Life on Land Awareness

In line with SDG-15 goals, KTU broadcasts various programs on KTU TV to raise awareness about the protection of natural habitat, the sustainable management of biodiversity, and the improvement of ecosystems. These programs bring together academics, researchers, representatives of public institutions, and civil society organizations to address critical topics such as the protection of forest ecosystems, the sustainability of wildlife, combating soil erosion, and the impacts of climate change on terrestrial life.

These programs broadcast on KTU TV reach not only the university community but also the local community and a broad audience, making significant contributions to the spread of environmental awareness and raising public awareness. Thus, the university plays an active role in disseminating the sustainable development goals through media.





Academic Contributions

Karadeniz Technical University (KTU) continues to carry out high-quality activities toward the Life on Land goal. According to the Scopus database, the number of scientific publications related to this Sustainable Development Goal increased from 15 in 2023 to 31 in 2024. Purpose-driven scientific projects at both undergraduate and graduate levels are also actively ongoing. Within the scope of SDG 15, KTU has conducted 11 projects, including 5 projects supported by higher education institutions, 3 funded by TÜBİTAK, 2 supported by other official institutions, and 1 TÜBİTAK–EU COST project. These projects provide original contributions in the fields of forest ecosystems, biodiversity monitoring, and sustainable management practices.

According to THE Impact Ranking, KTU received a score of 35.5 in the Life on Land goal in the 2025 results (based on 2024 data), placing the university within the 600–800 ranking band. Furthermore, THE Impact Ranking 2025 data indicate that KTU achieved an indicator score of 55.5 for scientific outputs related to SDG 15 Life on Land (2024 data).

In conclusion, Karadeniz Technical University systematically and comprehensively implements programs that enhance both academic production and societal awareness in line with SDG 15. The university's contributions in these areas provide significant support to national and international scientific knowledge and ecosystem conservation efforts.



Academic Publications-2024





Sustainable KTU

This publication has been prepared by KTU Office of
Research Coordination



www.ktu.edu.tr/sustainability



surdurulebilirktu@ktu.edu.tr