



# Sustainable KTU

## SUSTAINABILITY REPORT 2025

**13** CLIMATE  
ACTION



[www.ktu.edu.tr/sustainability](http://www.ktu.edu.tr/sustainability)



[surdurulebilirktu@ktu.edu.tr](mailto:surdurulebilirktu@ktu.edu.tr)



## CONTENT

Rector's Message.....	2
Foreword.....	3
Institutional Structure.....	4
2025 Events and Activities.....	8



Sustainability is one of the most important areas of responsibility shaping our future through its environmental, economic, and social dimensions. Universities are not only institutions that produce knowledge, but also pioneering structures that guide sustainable development and contribute to social transformation.

In line with the United Nations Sustainable Development Goals (SDGs), the development objectives of our country, and the vision of sustainability in higher education, we, as Karadeniz Technical University, place sustainability at the core of our education, research, social contribution, and institutional governance processes.

Throughout 2025, our university carried out significant initiatives in many areas, including quality education, climate action, energy efficiency, scientific research, social inclusion, and regional development. Through projects focused on scientific knowledge production and societal contribution, we continued to support the achievement of sustainable development goals.

This report presents our university's activities in the field of sustainability and our commitment to the future. Guided by science and in collaboration with our stakeholders, we believe that we will continue working towards a more sustainable future.

Prof. Dr. Hamdullah ÇUVALCI

**Rector, Karadeniz Technical University**



## 13 CLIMATE ACTION



One of the United Nations Sustainable Development Goals, SDG 13: Climate Action, aims to combat climate change, reduce greenhouse gas emissions, strengthen climate adaptation capacity, and build resilient societies for a sustainable future. Climate change is among the most critical global challenges of our time due to its impacts such as natural disasters, depletion of water resources, loss of biodiversity, and environmental degradation. Therefore, higher education institutions have a critical responsibility in producing scientific knowledge, raising public awareness, and developing sustainable solutions.

Karadeniz Technical University considers combating climate change as one of its major priorities in line with the ecological characteristics and natural disaster risks of its geographical location. Through its faculties, application and research centers, coordination offices, and student communities, our university scientifically examines the impacts of climate change, develops projects aimed at increasing resilience against disasters, and carries out activities that support environmental sustainability.

KTÜ contributes directly to climate action through energy efficiency practices, the promotion of renewable energy resources, the reduction of carbon footprints, sustainable transportation policies, and zero waste initiatives. In addition, through its specialized application and research centers, the university conducts scientific studies on earthquakes, landslides, environmental risks, and disaster management, while supporting efforts to strengthen climate adaptation capacity. Through educational activities, scientific events, and public awareness initiatives, KTÜ aims to contribute to the creation of a more sustainable and resilient future.



# Institutional Structure

---

- **Faculty of Forestry, Faculty of Engineering and Faculty of Architecture:** Contributes scientifically to the sustainable management of natural resources, ecological planning, increasing green spaces, protecting watersheds, and developing urban policies that are compatible with climate change.
- **Environmental and Climate Change Application and Research Center:** It is the university's leading center for environmental management, analysis of the effects of climate change, sustainability applications, and social awareness projects. The "Climate Change Working Group" within the center directly contributes to SDG-13.
- **Landslide Application and Research Center:** It serves SDG-13 goals by conducting activities to predict landslides, create risk maps, and develop disaster management strategies in the face of increasing rainfall patterns and geological risks associated with climate change.
- **Earthquake and Structural Health Application and Research Center:** By conducting studies in the context of structural safety, disaster risk reduction, and resilient cities, it contributes to increasing social resilience against climate-related disasters.
- **Zero Waste Coordination:** Contributes to both climate action and the university's environmental sustainability goals by separating waste at source, improving recycling processes, and developing sustainable consumption habits.



# KTU's Activities Under SDG 13

## Panel on Water and Forest Management in the Process of Climate Change Was Held

In 2025, KTU hosted an important scientific event within the scope of SDG 13: Climate Action in order to draw attention to the impacts of climate change on natural resources and to raise awareness regarding the sustainable management of water resources and forest ecosystems.

The "Panel on Water and Forest Management in the Process of Climate Change," held on 16-17 October 2025 at Karadeniz Technical University Prof. Dr. Osman Turan Culture and Congress Center, took place with the participation of 482 people. During the two-day panel, the impacts of climate change on water assets, forest ecosystems, ecological balance, and natural resource management were addressed through an interdisciplinary approach.



Within the scope of the event, representatives of various public institutions, non-governmental organizations, and academics came together to evaluate current issues, risks, and solution proposals related to water and forest management in the process of climate change. The panel, which was held with strong student participation, contributed not only to the sharing of scientific knowledge but also to raising social awareness.

In this respect, the event made an important contribution to KTU's activities carried out within the scope of SDG 13: Climate Action, in line with its goals of combating climate change, ensuring sustainable natural resource management, and fostering environmental awareness.



## Climate-Resilient Society: Eco-Friendly Cultures Training School Was Held

In 2025, KTU carried out an international training activity within the scope of SDG 13: Climate Action on climate change adaptation, environmental sustainability, and nature-based solutions.

The “Climate-Resilient Society: Eco-Friendly Cultures” Training School, organized by faculty members of the Department of Forest Engineering and funded by the EU SHIFT COST Action, was held in Antalya on 2-4 September 2025. The event, carried out with the support of the General Directorate of Forestry and the Chamber of Forest Engineers, was attended by approximately 20 participants from Austria, Bosnia and Herzegovina, Spain, Albania, Indonesia, Pakistan, and Türkiye.

Within the scope of the training, topics such as traditional ecological knowledge, low-carbon lifestyles, sustainable forestry, cultural heritage, and climate adaptation were addressed. Antalya was evaluated as a “living laboratory” for eco-friendly forestry practices.

The event contributed to KTU’s efforts to promote climate change adaptation and raise awareness of sustainable living.



# Trabzon Ganita - Faroz Projesi Ekolojik Köprü Atölye Çalışması



17-18 Mayıs Cumartesi-Pazar  
2025 10.00



T.C.  
KARADENİZ TEKNİK ÜNİVERSİTESİ  
ORMAN FAKÜLTESİ  
PEYZAJ MİMARLIĞI BÖLÜMÜ



TMMOB  
PEYZAJ MİMARLARI ODASI  
TRABZON ŞUBESİ  
ICTEA CHAMBER OF LANDSCAPE ARCHITECTS

## Ganita-Faroz Ecological Bridge Workshop Was Held

In 2025, KTU contributed to an applied workshop within the scope of SDG 13: Climate Action on ecological design, the sustainable use of coastal areas, and nature-based solutions.

The Ecological Bridge Workshop was organized on 17-18 May 2025 along the coast of the Ganita-Faroz Project in partnership with Trabzon Metropolitan Municipality, the Trabzon Branch of the TMMOB Chamber of Landscape Architects, and the KTU Department of Landscape Architecture.

Within the scope of the workshop, members of the TMMOB Chamber of Landscape Architects and PMO Young students had the opportunity to develop design proposals for an ecological bridge in the project area.

The event contributed to participants gaining experience in ecological design, urban coastal areas, and landscape practices focused on climate change adaptation.



**KTÜ** 1955 **KTU TV** KARADENİZ TEKNİK ÜNİVERSİTESİ Kurumsal İletişim Koordinatörlüğü KTÜ Radyo TV

# AKADEMİKA

Kutuplarda Bilimsel Çalışmalar ve İklim Değişikliği



**Prof. Dr. Ersan BAŞAR**  
KTÜ Sürmene Deniz Bilimleri Fakültesi  
Deniz Ulaştırma İşletme Mühendisliği Bölümü

**27 Ekim 2025**  
**14.00**

**KTÜ RADYO/TV CANLI YAYIN**  
KTÜ Radyo 101.7 - ktu.edu.tr/radyotv - www.youtube.com/ktutv



### Biyçeşitliliğin Değerlendirilmesi: Arktik ve Akdeniz Seferleri

Doç. Dr. Rafet Çağrı ÖZTÜRK

18.12.2025 Saat: 15:00

Konferans Salonu



## Scientific Studies in the Polar Regions and Climate Change Event

On October 27, 2025, an event titled "Scientific Studies in the Polar Regions and Climate Change" was held at the KTU Sürmene Faculty of Marine Sciences. The importance of scientific studies conducted in polar regions for monitoring and evaluating the effects of climate change was discussed.

Attention was drawn to the reflections of the climate crisis on marine ecosystems, glaciers, and global environmental processes. The event, focusing on climate change, contributed to the goals of climate education, scientific awareness, and raising public awareness within the framework of SDG-13.3.

## Biodiversity Assessment: Arctic and Mediterranean Examples Seminar

A seminar titled "Biodiversity Assessment: Arctic and Mediterranean Examples" was held at the KTU Sürmene Faculty of Marine Sciences Coastal Campus, presented by faculty member Rafet Çağrı Öztürk. The seminar included assessments of biodiversity examples from different geographical regions such as the Arctic and the Mediterranean. The importance of ecosystem conservation, biodiversity monitoring, and scientific research for environmental sustainability was discussed. The event is highly significant in terms of understanding the impacts of climate change on ecosystems and raising environmental awareness.





## NIDA Project Launched

The “NIDA - The Nature of the Aquatic Environment: Inclusion and Rising Awareness in Different Societies” project, under the Erasmus+ program and involving academics from various faculties and departments of KTU (Karadeniz Technical University), has been launched. The project, a collaboration between Turkey, Romania, and North Macedonia, aims to protect water resources and assess the negative impacts of climate change on marine, lake, and river ecosystems.

The 30-month project will create a digital atlas (e-atlas) of aquatic ecosystems. In addition, the project aims to cultivate environmentally conscious volunteers through awareness training for university students.



The project, carried out in collaboration with KTU, Mare Nostrum Environmental Organization, and St. Kliment Ohridski University of Bitola, contributes to SDG-13: Climate Action by raising awareness and understanding of climate change-related risks to aquatic ecosystems.





### **First Field Study of the 2EKO Project Completed**

Within the scope of SDG-13: Climate Action, monitoring the impacts of climate change on marine and coastal ecosystems, supporting sustainable aquaculture production, and evaluating environmental pressures with scientific data are of great importance. In this context, the first field study of the “Evaluation of Black Sea Trout Cage Farming within the Scope of Ecology and Blue Economy (2EKO)” project, conducted with the research infrastructure of KTU Sürmene Faculty of Marine Sciences and the contributions of academics from various units of our university, was completed in May 2025.

Supported by our university's Scientific Research Projects Coordination Unit, the project examines the effects of increasing rainbow trout farming on coastal ecosystems along the Trabzon coast. The KTU R/V DENAR Research Vessel, belonging to the Faculty, contributed to the systematic and effective conduct of sampling activities in the first field study. The project contributes to KTU's work within the scope of SDG-13 in terms of protecting marine ecosystems during the climate change process, strengthening the blue economy approach, and developing environmental management strategies.



# Within the scope of Climate Action (SDG-13), interview, publication and information sharing events were held

In 2025, Karadeniz Technical University organized numerous talks, live broadcasts, and information-sharing events within the framework of SDG-13: Climate Action on topics such as climate change, global warming, disaster risks, sustainable campus management, forest and water resources, blue economy, clean energy, polar research, and ecological design. These events, conducted with the contributions of various faculties, departments, research centers, and coordination offices of the university, contributed to raising awareness among a wider audience about the environmental, urban, economic, and social impacts of climate change.

## Sustainable Campus Management System

The program titled "Sustainable Campus Management System," broadcast on KTU Radio/TV on January 9, 2025, was produced with the contribution of the KTU Zero Waste Coordination Office. The program addressed sustainability, waste management, resource efficiency, and environmental management processes at the campus level. Considering university campuses as application areas in the fight against climate change strengthened institutional awareness within the scope of SDG-13.

## The Shade of a Tree is More Valuable Than Its Wood

The program titled "The Shade of a Tree is More Valuable Than Its Wood," broadcast on KTU Radio/TV on April 8, 2025, was produced with the contribution of the Forest Economics Department of the KTU Forestry Engineering Department. The program emphasized that trees should be evaluated not only for their economic value but also for their ecological functions such as carbon sequestration, providing shade, regulating the microclimate, and improving quality of life. This approach highlighted the importance of nature-based solutions to climate change.

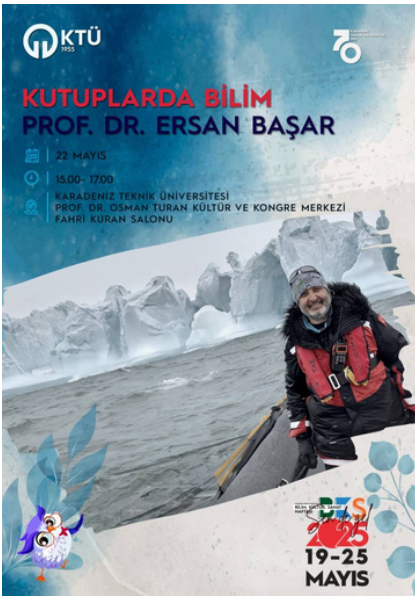


## Causes of Global Warming

On May 22, 2025, an event titled "Causes of Global Warming" was held as part of the KTU Science, Culture and Art Week. The event, featuring Mechanical Engineering graduate Hayrettin Kağnıcı as a speaker, addressed the processes causing global warming and the effects of human activities on the climate system.

The event made a significant contribution to understanding the scientific foundations of climate change and raising climate awareness in society.





## Science in the Polar Regions

On May 22, 2025, an event titled "Science in the Polar Regions" was held as part of the KTU Science, Culture and Arts Week. The event, realized with the contribution of the KTU Sürmene Faculty of Marine Sciences, presented scientific studies conducted in polar regions and their importance in monitoring climate change. The connection between the changes observed in the polar regions and the global climate system was considered an important topic supporting scientific awareness within the scope of SDG-13.

## Resilient Cities

On June 16, 2025, a program titled "Resilient Cities" was broadcast on KTU Radio/TV. This program was realized with the contribution of the KTU Faculty of Architecture and the Department of Urban and Regional Planning. The program addressed the issue of making cities more resilient to climate change, disaster risks, and environmental pressures. Climate-adaptive planning, disaster preparedness, and sustainable urbanization approaches were evaluated together with the application areas of SDG-13 at the local level.

## The Role of Forests in Preventing Floods, Torrential Rains, and Landslides

The program titled "The Role of Forests in Preventing Floods, Torrential Rains, and Landslides," broadcast on KTU Radio/TV on June 18, 2025, was produced with the contribution of the Department of Forestry Engineering, Faculty of Forestry, KTU. The program addressed the protective functions of forest ecosystems in reducing disaster risks such as floods, torrent rains, and landslides. The importance of forests in terms of ecological balance and disaster management in the face of increasing extreme rainfall events due to climate change was emphasized.



## Forests and Water

The program titled "Forests and Water," broadcast on KTU Radio/TV on October 9, 2025, was produced with the contribution of the Department of Forestry Engineering, Faculty of Forestry, KTU. The program addressed the relationship between forest ecosystems and water resources in the context of watershed management and the protection of natural resources. Sustainable management of water resources in the context of climate change and the role of forests in the water cycle were the main highlights of the program.

## Adaptation Strategies of Tree Species in the Process of Climate Change

The program titled "Adaptation Strategies of Tree Species in the Process of Climate Change," broadcast on KTU Radio/TV on December 4, 2025, was produced with the contribution of the Department of Forestry Engineering, Faculty of Forestry, KTU. The program addressed the effects of climate change on forest ecosystems and tree species, and the adaptation processes of species to changing environmental conditions. The program drew attention to adaptation efforts within the scope of SDG-13 in terms of the future of forests and increasing ecosystem resilience.



MAVİ EKONOMİ, İKLİM DEĞİŞİKLİĞİ VE  
TEMİZ ENERJİ ALANLARINDA İYİ UYGULAMALAR  
BİLGİ VE DENEYİM PAYLAŞIMI

PROF. DR. FATMA TELLİ KARAKOÇ  
Karadeniz Teknik Üniversitesi

MEHMET BOZDOĞAN  
Doğu Karadeniz Kalkınma Ajansı

NAZLI GENÇ  
Trabzon Ticaret Borsası

TALHA ALTUN  
Pulbük Su Üretimi

ÖĞR. GÖR. EMRAH AYVAZ  
KTÜ TTM Müdürü | Moderator

12 Aralık Cuma 14.00  
Prof. Dr. Osman Turan  
Kültür ve Kongre Merkezi  
Fahri Kuran Salonu

## Sharing Knowledge and Experiences on Best Practices in Blue Economy, Climate Change, and Clean Energy

On December 12, 2025, the KTU Technology Transfer Application and Research Center organized an event titled "Sharing Knowledge and Experiences on Best Practices in Blue Economy, Climate Change, and Clean Energy." Held in the Fahri Kuran Hall of the Prof. Dr. Osman Turan Culture and Congress Center, the event featured presentations from representatives of KTU, the Eastern Black Sea Development Agency, the Trabzon Commodity Exchange, and the private sector.

The combined consideration of blue economy, clean energy, and climate change has created an important knowledge-sharing environment in terms of sustainable development and low-carbon future goals.





## Academic Contributions

Karadeniz Technical University continued its academic production throughout 2025 within the scope of SDG 13: Climate Action in areas such as climate change, climate adaptation, disaster risk reduction, sustainable environmental management, energy efficiency, carbon emissions, water resources, forest ecosystems, and climate resilience. The university's scientific studies in this field were produced in various publication types, including full articles, conference papers, and book chapters, and gained visibility in both national and international academic platforms.

According to 2025 data, a total of 61 full articles, 14 conference papers, and 6 book chapters related to SDG 13 were published within KTÜ. These studies provide significant scientific contributions toward understanding the impacts of climate change, increasing climate adaptation capacity, strengthening the resilience of natural and urban systems against environmental and disaster risks, and developing sustainable development-oriented solutions. An examination of the indexing status of these publications shows that 41 were indexed in SCI-E, 6 in SSCI, 6 in ESCI, 52 in Scopus, and 8 in TR Dizin. Considering that some publications may be included in multiple indexes, these data demonstrate that KTÜ's scientific outputs in the field of climate action have strong visibility in both international citation indexes and national academic databases.





# Sustainable KTU

Prepared by

Assoc. Prof. Makbule ONUR

Asst. Prof. Demet Ülkü GÜLPINAR SEKBAN

This publication has been prepared by KTU Office of  
Research Coordination



[www.ktu.edu.tr/sustainability](http://www.ktu.edu.tr/sustainability)



[surdurulebilirktu@ktu.edu.tr](mailto:surdurulebilirktu@ktu.edu.tr)