



Sustainable KTU

SUSTAINABILITY REPORT 2025

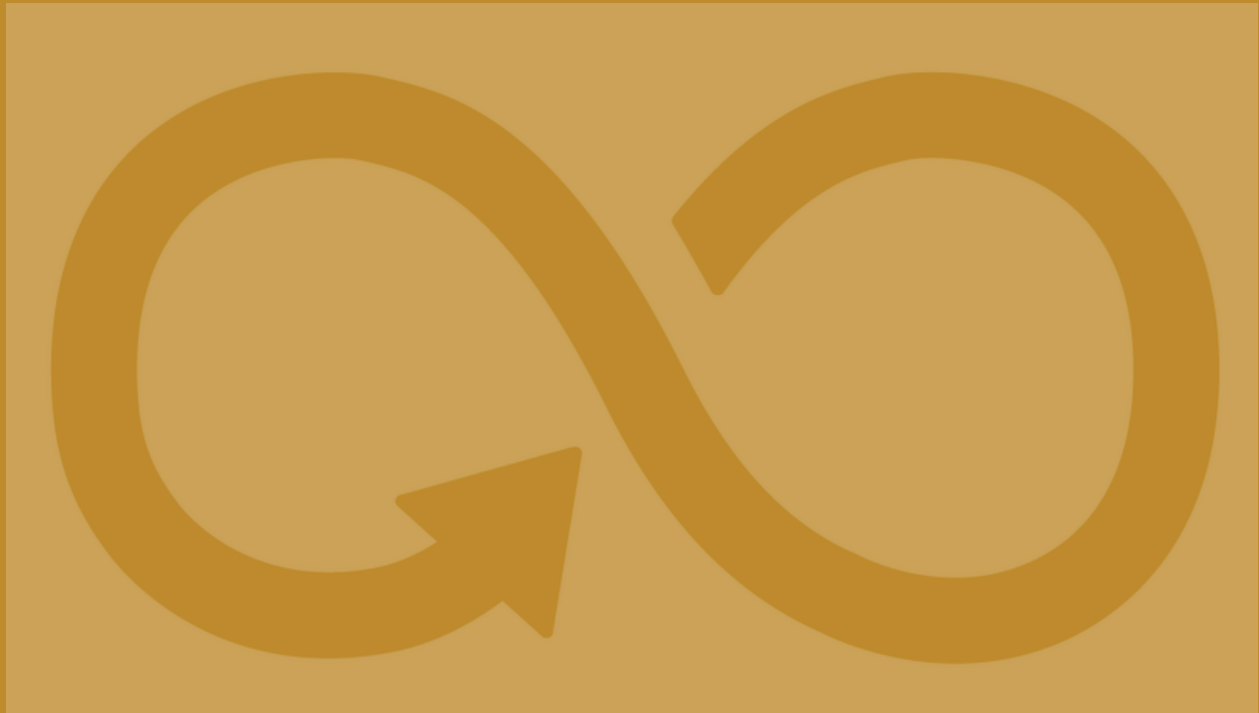
12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



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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



12 RESPONSIBLE
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The twelfth of the United Nations Sustainable Development Goals (SDGs), SDG 12: Responsible Consumption and Production, aims to ensure the efficient use of natural resources, reduce waste generation, expand recycling practices, and promote sustainable consumption habits. Increasing consumption patterns and environmental challenges continue to highlight the growing importance of sustainable production and consumption.

Karadeniz Technical University acts with a strong sense of environmental responsibility in line with its sustainable development vision and carries out various initiatives in the areas of energy efficiency, water conservation, zero waste practices, recycling, and sustainable resource management. Scientific research, student projects, and community engagement activities conducted within our university contribute to the development of a culture of sustainable production and consumption. In addition, waste management and recycling processes are systematically implemented through relevant research centers and administrative units, while awareness-raising activities are organized to improve the environmental consciousness of students, academic staff, and administrative personnel.

This report has been prepared to present the activities and sustainability-oriented contributions carried out by KTÜ within the scope of SDG 12 throughout 2025. Our university remains committed to strengthening responsible production and consumption practices in line with scientific approaches and principles of social responsibility.



Institutional Structure

The Role of the Zero Waste Coordination Unit in the Context of SDG-12

Karadeniz Technical University Zero Waste Coordination Office contributes directly to SDG-12 targets by implementing sustainable production and consumption principles across the campus. The Coordination Office carries out activities such as separating waste at source, promoting recycling practices, and minimizing waste quantities.

In this context, the following practices are organized on university campuses:

- Separation of organic and inorganic waste
- Collection and recycling of electronic waste
- Management of packaging and paper waste
- Awareness seminars and workshops for the community and students.

In addition, the Zero Waste Coordination Office collaborates with student clubs, academic units, and local administrations to carry out awareness projects and creative activities. For example, workshops where artworks are produced from electronic waste both raise awareness of recycling and enable students to generate sustainable solutions.

All these activities contribute significantly to resource efficiency, environmental sustainability, and social awareness in line with KTU's SDG-12 vision. The Zero Waste Coordination Office stands out as a strategic unit that promotes the university's sustainability goals both on campus and at the city level.





The Role of the Environment and Climate Change ARC within the Scope of SKA-12

The Karadeniz Technical University Environmental and Climate Change Application and Research Center develops projects and carries out planning and design activities addressing regional and urban environmental problems in order to contribute to the goals of responsible consumption and production. The Center coordinates collaborations with public institutions, municipalities, and private organizations while producing and sharing scientific knowledge. Its activities are conducted through units focusing on Watershed / Water Resources, Natural Structures / Ecology / Landscape, Waste Management / Mining Waste, Climate Change, Cultural Heritage Areas / Sustainability, and Urban Space Organization.


The Center's activities include conducting research and application projects, managing planning processes, organizing scientific events, contributing to education and training, and raising social environmental awareness. In addition, the Center contributes to the effective use of resources and the creation of sustainable production-consumption cycles by supporting R&D projects.

KTU's Work Under SKA-12 (2025)

KTU Zero Waste Coordination Office conducted various training sessions, applications, and awareness projects in 2025 in line with responsible production and consumption goals.



KANUNI KAMPÜSÜ ATIK KARAKTERİZASYON ÇALIŞMALARI



Katkı atık bileşeni	Miktarı kg/yıl
Kâğıt/karton	200,36
Hüsnü karton	525,95
Plastik	626,13
Peni çöpü	1001,81
Cam çöpü	263,84
Diğer cam	-
Metal	-
Alüminyum içecek kutusu	912,92
Hüsnü atıklar (mobilya, diğer masa, yataklar vs.)	-
Biyobiyoteknik atıklar (muhtelif atıklar)	313,36
Bilimsel Atık yağ	-
Park ve bahçe atıkları	-
Diğer atıklar	1669,68
Atık Madde yağ	-
Tehlikeli atık (laboratuvar kimyasal ambalajları, bulaşık kutusu, teneke, kırılgar, atık atık)	-
Atık pil	-
Atık elektronik ekipman, Atık aydınlatma arızaları	-
Tekstil	175,32
Diğer	-

Sıfır Atık Koordinatörlüğü



Sürdürülebilir Kampüs Yönetim Sistemi

KTÜ Bilgilendiriyor

Prof. Dr. Dilek Beyazlı, the Zero Waste Coordinator of our university, emphasized the importance of promoting recycling and adopting sustainability goals during a live broadcast titled "Sustainable Campus Management System."

During the program, the recycling practices implemented across the campus and the planned initiatives aimed at achieving zero waste targets were discussed in a comprehensive manner. Prof. Dr. Beyazlı highlighted that environmental sustainability can be achieved not only through institutional policies but also through changes in individual behaviors, stating, "We can create significant change through small steps."

The broadcast concluded with a call for collaboration among all stakeholders to enhance recycling awareness and to foster a sustainable campus life.



Sürdürülebilir Kampüs Yönetim Sistemi



Prof. Dr. Dilek BEYAZLI
KTÜ Sıfır Atık Koordinatörü

9 Ocak | KTÜ Radyo/TV
11.00 | Canlı Yayın

Radyo KTÜ 101.7 • ktu.edu.tr/radyoktu • www.youtube.com/ktutv



Sustainable Campus Management System Presentation





The “Zero Waste and Waste Management Training” organized by the Zero Waste Coordination Office was held at the Prof. Dr. Osman Turan Culture and Congress Center. The program began with an opening speech by the Zero Waste Coordinator, Prof. Dr. Dilek Beyazlı, who emphasized the importance and scope of zero waste awareness. She highlighted that protecting environmental sustainability and human health requires responsibility at both individual and institutional levels.

The training attracted significant participation from Zero Waste Commission members and cleaning staff working in the university’s academic and administrative units. Environmental Engineer Hasan Ateş and Health Technician Mehmet Şahin delivered both theoretical and practical insights. Participants were provided with fundamental information on solid waste management, recycling processes, and the Integrated Environmental Information System, along with examples of how these practices can be implemented at both individual and institutional levels.

The training underscored that waste management is critical not only for environmental protection but also for the sustainability of natural resources and cost reduction. Emphasis was also placed on fostering a zero waste culture within the institution and ensuring active involvement from all stakeholders in this process.

The program, enriched by the active participation of attendees, concluded as a significant step toward strengthening the university’s sustainability vision.



Zero Waste and Waste Management Training





Within the scope of HOPO, coordinated by the Trabzon Provincial Directorate of National Education, the “Architects of Nature” event organized by İsmetpaşa Primary School and the E-Twinning project activity of Akçaabat Abdullah Fazıl Ağanoğlu Primary School for World Water Day were held on March 25, 2025, at Karadeniz Technical University Kanuni Campus, with the support of the Zero Waste Coordination Office and the Environmental Problems Application and Research Center. The program took place in the green area behind the KTÜ Faculty of Forestry, with students from both schools participating. Assoc. Prof. Dr. Ahmet Arpacık provided informative insights on nature and ecosystems.

Students engaged in various activities aimed at exploring natural structures, understanding how ecosystems function, and learning about the importance of protecting natural life.

The event, which received great interest, supported experiential learning in nature and contributed to strengthening students’ environmental awareness and love for nature. Educators and participants emphasized its importance and expressed their appreciation to all contributors.



Architects of Nature





The "Design, See It Yourself" activity was organized by İsmetpaşa Primary School within the scope of the "Let Every School Have a Project" event. Karadeniz Technical University Zero Waste Coordination Office participated in the event.

Within the program, various activities were carried out together with students in the special education class of İsmetpaşa Primary School as part of the "I Also Have a Garden" activity, with support provided by the Zero Waste Coordination Office.

The event contributed to students' learning processes while also serving as a meaningful activity aimed at developing environmental awareness and creativity skills.



Design, See It Yourself





The Zero Waste Trainings organized by Karadeniz Technical University Zero Waste Coordination Office were successfully completed between April 21 and May 15, 2025, targeting university students.

Within the scope of the trainings delivered by Environmental Engineer Hasan Ateş, a total of 1,334 students were reached. The sessions provided comprehensive information on waste separation at source, efficient use of natural resources, and recycling and reuse practices. Aiming to increase students' environmental awareness, the program made a significant contribution toward a more sustainable future.

The Zero Waste Coordination Office expressed its gratitude to all participating students and announced that efforts to promote zero waste awareness will continue steadily.



Zero Waste Trainings





2025 Civil Servants Academy Orientation Training

As part of the 2025 Talent Pool managerial orientation trainings of the Civil Servants Academy, organized to prepare university staff for administrative positions, a training session on Zero Waste and the zero waste practices implemented at our university was delivered by Zero Waste Coordinator Prof. Dr. Dilek Beyazlı.



İŞKUR Youth Program Meeting

Within the scope of the İŞKUR Youth Program, a introductory meeting was held with the students who have started working at our Coordination Office. The meeting included information sharing on the upcoming activities and efforts aimed at increasing zero waste awareness at our university.



[2025 Civil Servants Academy Orientation Training](#)



[İŞKUR Youth Program Meeting](#)





The Zero Waste Trainings organized by Karadeniz Technical University Zero Waste Coordination Office were successfully completed between December 01 - December 04, 2025, targeting vocational school students of our university. Within the scope of the trainings delivered by Environmental Engineer Hasan Ateş, a total of 450 students were reached;

- Separation of waste at source,
- Efficient use of natural resources,
- Comprehensive information on recycling and reuse practices was provided.



Zero Waste Trainings for Vocational Schools



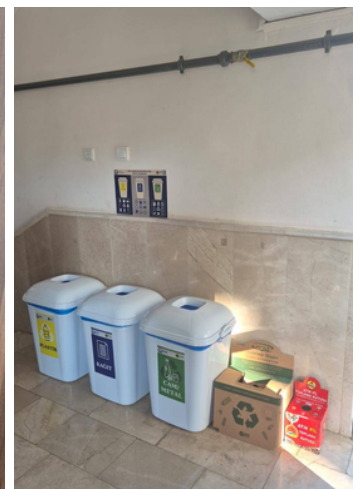


As Karadeniz Technical University, efforts continue within the Zero Waste Management System to support environmental sustainability, use resources efficiently, and improve waste management across the campus.

Blocks 10, 11, 33, and 34 of the staff housing have been designated as pilot buildings for the implementation of Zero Waste practices.

Bins for paper, plastic, and glass/metal waste will be placed at the entrance of Blocks 10, 11, and 34, and on the floor corridors of Block 33. Based on the amount of collected waste, the most appropriate collection frequency and management system will be determined.

This pilot implementation will continue throughout December, and the data obtained will be used to develop and implement a comprehensive management plan for all staff housing units.



Zero Waste Initiative in Staff Housing





Within the scope of World Environment Day and Turkish Environment Week, a themed environmental event titled "A World Transformed by Colors" was organized by the Climate Change and Zero Waste Directorate of Ortahisar Municipality.

The approximately five-hour program included various activities under two main headings: the "Zero Waste Art Activity" and the "Zero Waste Festival with Children."

Faculty members from Karadeniz Technical University also participated in the program, providing evaluations on environmental and climate change issues.

Additionally, the BlackNETs Project was introduced during the event. Developed under the leadership of KTÜ Sürmene Faculty of Marine Sciences and supported by the European Union, the project aims to address the issue of ghost fishing nets and marine pollution in the Black Sea. Participants were informed through visual materials, short films, and educational resources presented at the project stand.



Education for Impact: A Joint Step on Zero Waste and Ghost Nets by Ortahisar and BlackNETs





In Yomra, the “Zero Waste and Clean Seas Exemplary Event” was held in order to increase environmental awareness, promote zero waste consciousness, and draw attention to the protection of marine ecosystems. The event was organized in collaboration between Yomra Municipality and Karadeniz Technical University and was completed with broad participation.

The program focused particularly on marine pollution, plastic waste, and the negative impacts of abandoned fishing nets, known as “ghost nets,” on the Black Sea ecosystem. Comprehensive information was provided to participants by expert academics and institutional representatives on topics such as the prevention of marine pollution, recycling processes, and sustainable waste management.

Within the scope of the program, an interactive environment was created with the participation of fishermen, local administrators, academics, and citizens. The event was considered an important initiative in strengthening the zero waste approach at the local level, increasing awareness of marine ecosystem protection, and enhancing inter-institutional cooperation.



An Exemplary Event for Zero Waste and Clean Seas

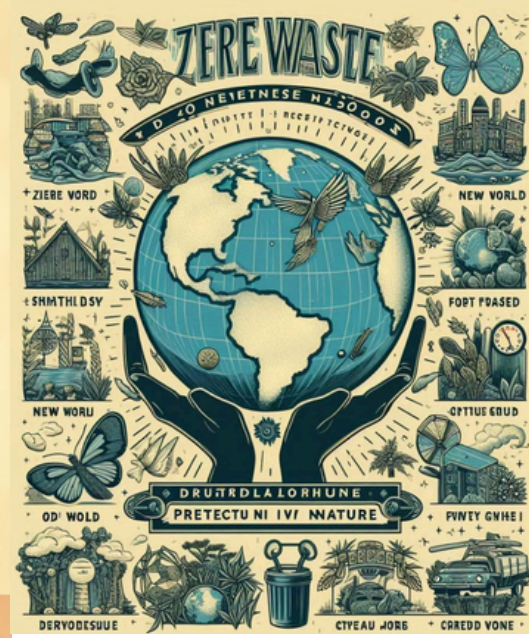




"Yapay Zeka
ile Sıfır Atık"

YER TARİH SAAT
IM4 25 NİSAN 2025 13.30
Cuma

'İMB3020-İÇ MEKAN TASARIMINDA SÜRDÜRÜLEBİLİR MALZEMELER' dersi kapsamında



On April 15, 2025, an event was held within the scope of the course "IMB 3020 Interior Design in Sustainable Materials," conducted under the supervision of Prof. Dr. Filiz Tavşan.

In the event, students created poster designs on zero waste awareness using artificial intelligence tools. The process was carried out entirely through digital design methods without using any physical materials, thereby supporting both creative thinking and a sustainable design approach.

The works were based on the idea that zero waste is not merely a choice but also an environmental responsibility. It was emphasized that artificial intelligence, when used correctly and consciously, can contribute to sustainable design processes.

The resulting posters were evaluated not only as visual outputs but also as works that aim to raise environmental awareness and foster consciousness for a more sustainable future.

The event provided an innovative and environmentally oriented contribution to contemporary design education by combining artificial intelligence with the zero waste approach.



Sustainable Material Use in Interior Spaces and Zero Waste Awareness through Artificial Intelligence





As part of the sustainable circular fashion movement, the “New Year Market” event was organized by the Social Contribution Studies and Social Responsibility Commission. The event opened on Wednesday, December 17, 2025, and was held open to visitors on December 17-18-19.

The event was directly associated with the United Nations Sustainable Development Goal (SDG) 12 - Responsible Consumption and Production. Within the framework of the circular fashion approach, the event aimed to promote efficient use of resources, reduce waste generation, and encourage a culture of reuse.

The “New Year Market” was evaluated as an important social responsibility activity that contributes to increasing awareness of sustainable consumption and supporting environmental consciousness.



New Year Market





Academic Contributions

KTU continues to carry out qualified academic studies and sustainability-oriented practices in line with the goal of Responsible Consumption and Production (SDG 12). According to the Scopus database, the number of scientific publications related to this Sustainable Development Goal increased from 54 in 2024 to 72 in 2025. This increase demonstrates our university's growing academic capacity and scientific contribution in the fields of sustainability, environmental management, resource efficiency, and waste management.

Throughout 2025, KTU made significant contributions to SDG 12 through research projects, scientific activities, and stakeholder collaborations. Various initiatives were carried out by the university's academic units, research centers, and coordination bodies in areas such as sustainable cities, environmental management, disaster-resilient structures, recycling practices, and public awareness. In addition, seminars, panels, workshops, and activities organized through student communities contributed to promoting sustainable consumption habits and increasing environmental awareness.

Our university continues to strengthen a culture of sustainable living across the campus through zero waste practices, waste separation systems, compost production, chemical waste management, recycling activities, and environmental awareness training programs. All of these efforts reflect our commitment to leaving a cleaner, healthier, and more livable environment for future generations, while further strengthening KTU's environmentally conscious and sustainability-oriented institutional vision.





Sustainable KTU

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This publication has been prepared by KTU Office of
Research Coordination