CAPPADOCIA UNIVERSITY
Logic - Wisdom - Equality - Tradition

SUSTAINABLE DEVELOPMENT GOALS • ANNUAL REPORT

Rethinking resources. Strengthening communities.

SDG 12 / RESPONSIBLE CONSUMPTION AND PRODUCTION

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Resource efficiency, responsible procurement, circular practices and sustainable food systems.

Cappadocia University | Reporting Period: 2025



The Cappadocia–Uçhisar Slow Food Earth Market brought local producers, community partners and responsible food practices together in 2025.

2025 • CAPPADOCIA UNIVERSITY • ENGLISH EDITION

2025 IN PERSPECTIVE

Responsibility across our University

Our everyday resource decisions are connected to research, education and regional partnerships.

At Cappadocia University, we regard responsible consumption and production as part of the way we manage our campuses, teach students, conduct research and work with the communities around us. Our Environmental and Sustainability Policy and waste management procedures guide practical actions in procurement, waste prevention, recycling, safe treatment and the responsible use of materials.

During **2025**, we strengthened separate waste collection and measurement, provided student workshops and knowledge competitions, continued our responsible procurement arrangements and worked with local food producers through the Slow Food Earth Market in Uçhisar. We also shared research on food innovation, waste reduction, sustainable gastronomy and environmentally responsible media production.

Three connected fields of action

Campus operations	Education and research	Community and sector partnerships
Waste tracking; safe and separate collection; reusable items; supplier requirements	Practical waste literacy; research on material recovery and food systems; academic publications	Slow Food Earth Market; regional producers; local authorities; sustainable sector standards

How we interpret our records

We report quantities according to their original measurement units and distinguish recorded waste, estimated conversion, recycling classification and contractual recovery routes. We do not aggregate attendance records as unique individuals, and do not describe announced events or future project stages as completed outcomes.

PERFORMANCE DASHBOARD

2025 in focus

A transparent picture of separately tracked material streams and verified participation.

5,415 kg	**2,100 kg**	**450 L**
REGISTERED WASTE MASS	**PAPER**	**USED COOKING OIL**
Three mass-based streams	Separately recorded	Volume-based register
5,824.5 kg	**36.05%**	**3**
COMBINED ESTIMATE	**PAPER-ONLY RECYCLING SHARE**	**CAMPUSES**
Including estimated oil mass	Conservative denominator	October learning events

What the dashboard measures

Our **2025** Waste Amount Tracking List (YDİ.LS.003) records **2,100 kg** of paper waste, 1,662 kg of medical waste and 1,653 kg of other non-recyclable waste: together **5,415 kg** measured in kilograms. We also recorded **450 litres** of waste vegetable oil. For a combined estimated mass, we apply an explicitly stated density assumption of 0.91 kg per litre, equivalent to 409.5 kg, bringing the four streams to **5,824.5 kg**. The oil conversion is an estimate, not a direct weighing result.

The 36.05% figure is calculated from separately recorded paper waste divided by the combined estimated waste mass. It is a conservative measurement convention; it does not imply that all remaining materials were landfilled. Medical waste is handled by specialist services, while cooking oil follows a distinct contracted recovery route.

INSTITUTIONAL APPROACH

From policy to consistent practice

We bring environmental commitments into procurement, operational control and daily campus life.

Our Environmental and Sustainability Policy (KÜN.PB.010), revised in November 2023, commits us to reducing plastic packaging and carrier bags, limiting unnecessary paper consumption, promoting electronic documentation and choosing environmentally responsible materials. Our Waste Management Procedure (KYS.PR.011), issued in May 2022 and revised in June 2023, defines separation at source, measurement, temporary storage and transfer recording.

The Cappadocia Earth (KÜN Toprak) programme connects waste prevention, recycling, reuse and environmental awareness with our practical institutional actions. We support the programme through the Sustainability Office, academic and administrative units, student communities and our environmental management procedures. Our ISO 14001:2015 environmental management certification reinforces systematic monitoring within its certified scope.

Policies and operational instruments

Instrument	Function in our institutional system
KÜN.PB.010 — Environmental and Sustainability Policy	Resource responsibility; reduction of plastics and paper; sustainable material choices
KYS.PR.011 — Waste Management Procedure	Waste separation, classification, measurement, storage and transfer controls
Supplier Relations and Qualification Framework	Ethics, objective purchasing and environmental supplier criteria
KÜN Toprak — Cappadocia Earth Programme	Communication, practical recycling and responsible consumption across campus

WASTE MONITORING

How recorded waste changed from 2024 to 2025

We compare only like-for-like categories measured in kilograms in both years.

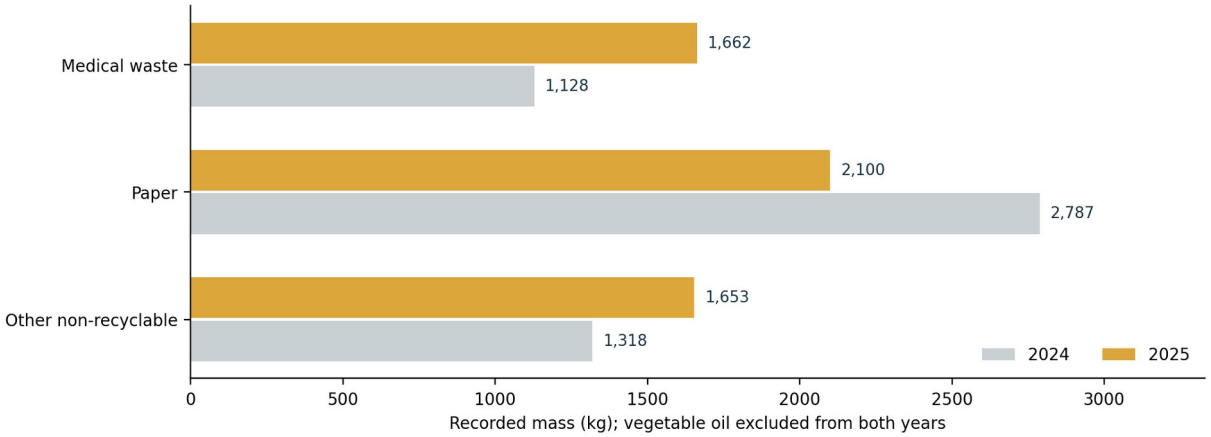


Figure 1. Comparable medical, paper and other waste recorded in 2024 and 2025, excluding separately measured cooking oil.

5,233 kg	5,415 kg	+3.48%
2024 REGISTERED MASS	**2025 REGISTERED MASS**	**CHANGE**
Comparable categories	Comparable categories	Recorded mass, not impact

Our consistent three-category waste register records 5,233 kg in **2024** and **5,415 kg** in **2025**, an increase of 182 kg or approximately 3.48%. Paper waste changed from 2,787 kg to **2,100 kg** (−24.65%); medical waste from 1,128 kg to 1,662 kg (+47.34%); and other waste from 1,318 kg to 1,653 kg (+25.42%). These figures are not a like-for-like comparison of recycling rates or landfill disposal: they describe the amount recorded in distinct streams.

We use the same measurement boundary in both years and leave cooking oil outside this chart because it was tracked in litres. Differences may reflect activity and stream composition; without additional source-specific operational denominators, we do not attribute them solely to a change in efficiency.

WASTE STREAMS & RECOVERY

Distinguishing quantities from treatment pathways

We maintain separate records for paper, medical waste, other waste and used cooking oil.

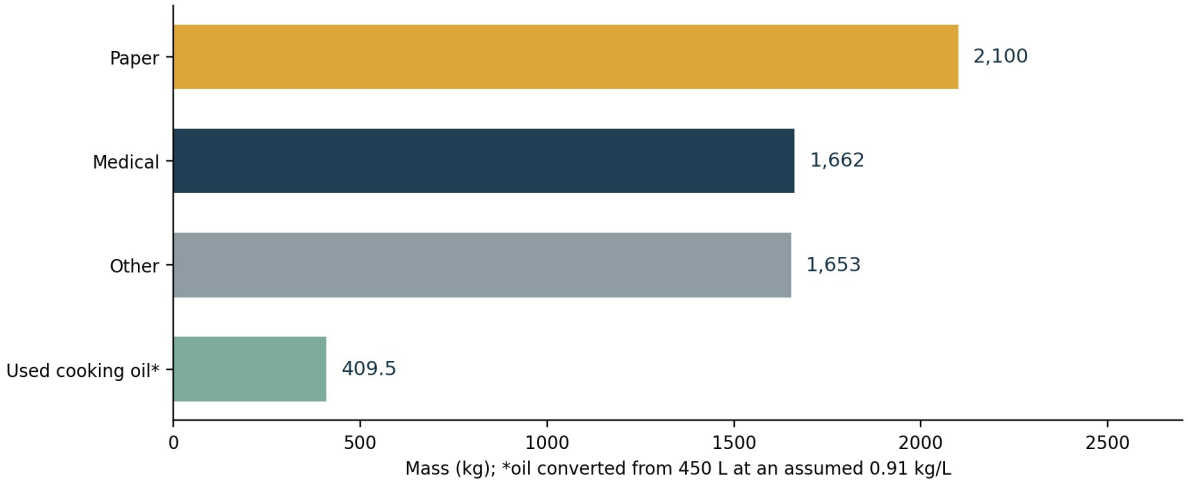


Figure 2. Composition of the 2025 estimated waste mass, including the explicitly converted used-cooking-oil stream.

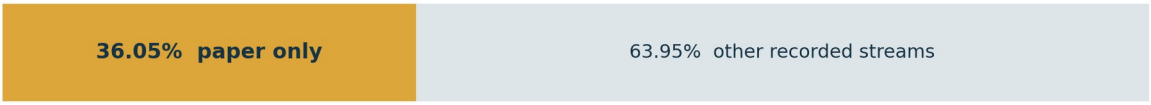


Figure 3. Conservative paper-only recycling share of the combined 2025 waste mass, calculated as 2,100 ÷ 5,824.5 × 100.

Paper accounted for 36.05% of our combined estimated waste mass; medical waste 28.53%, other waste 28.38%, and the estimated cooking-oil mass 7.03% (rounded individually). This is a composition indicator. The paper stream is counted as recycled under our conservative methodology; the used-oil stream has a separate collection and recovery agreement and is not added to the paper-only numerator.

SEPARATION AT SOURCE

Making waste separation visible on campus

Collection infrastructure helps students, staff and visitors apply daily waste-sorting practices.

We provide labelled collection points inside University buildings and in shared outdoor areas. By making distinct waste categories visible in the places where materials are discarded, we aim to prevent contamination and improve the quality of recorded collection. Our arrangements include organised accumulation points, designated storage areas and regular recording by waste stream.



Figure 4. Indoor waste-separation stations for recyclable, other and organic waste at a University facility.



Figure 5. Three-compartment outdoor waste-separation station in a shared campus area.

SAFE WASTE MANAGEMENT

Traceable collection and specialist treatment

Different waste categories require distinct collection, storage, transport and treatment arrangements.

Our Waste Management Procedure covers separation and temporary holding of waste, record-keeping and the transfer of materials to appropriate service providers. Medical waste collection and sterilisation services, licensed hazardous-waste management and contracted collection of waste cooking oil are managed through dedicated arrangements rather than treated as an undifferentiated municipal waste stream.

Waste category	Documented arrangement	Purpose
Medical waste	Turanlar medical-waste service protocol	Specialist collection, transport and sterilisation
Hazardous laboratory waste	Reneco agreement, February 2024	Licensed hazardous-waste management
Used cooking oil	PETRA Yağ Kimya agreement, 20 June 2023	Separate recovery route for biodiesel production
Recoverable materials	Zero Waste collection arrangements and 2025 municipal protocol	Separate collection and institutional coordination



Figure 6. Designated temporary waste holding area with separately labelled compartments and protective infrastructure.

RESPONSIBLE PROCUREMENT

Environmental and ethical criteria in purchasing

We extend our sustainability responsibilities to the selection and oversight of suppliers and contractors.

Our Supplier Relations Policy (Bİ.BGP.005) and Supplier Qualification Assessment Instruction (YDİ.TL.002) establish principles of business ethics, supplier evaluation, legal compliance and environmental review. The instruction revised in July **2025** considers ISO 14001 certification, Zero Waste certification, conformity with environmental management requirements and environmentally responsible policies as possible additional evaluation criteria.

Responsible sourcing of food and supplies

Our Food Procurement and Storage Instruction (YMK.TL.001) addresses product safety, hygiene, traceability, cold-chain management, supplier performance and periodic inspections. Our **2025** food procurement administrative specification sets out supplier qualifications, fair competition, the prevention of bribery and fraud, and contractor responsibilities for employee safety. In this way, we connect responsible sourcing to environmental, economic and social safeguards.

Area of oversight	Documented requirement
Environmental management	Supplier screening for relevant environmental systems and policies
Business ethics and competition	Objective evaluation, legal compliance and prohibited tender practices
Food safety	Product identification, storage temperatures, quality and expiry controls
Employee protection	Occupational health and safety duties for contracted workers

CONSUMPTION CULTURE

Durable products and digital-first working practices

We make practical alternatives to single-use materials visible across our University.

Reusable ceramic mugs, metal water bottles, refillable drink containers, fabric bags and reusable straws have been used in student and employee initiatives. These examples make long-lasting materials part of everyday campus activity. They are indicators of material choices and engagement; without a recorded baseline, we do not assign an unsupported quantity of single-use waste avoided.



Figure 7. University-branded ceramic mug and durable water bottle used in sustainability engagement activities.



Figure 8. Reusable drink bottle and accessories providing alternatives to disposable products.

Electronic document management, digital signatures and online communication complement these physical changes by reducing reliance on printed forms and promoting more efficient administrative processes.

LOCAL FOOD SYSTEMS

Slow Food Earth Market and responsible local production

We connect small producers, communities and consumers through a practical model of sustainable gastronomy.

Working with Slow Food partners, the Uçhisar Kadıneli Development Association, local producers and public development partners, we supported the establishment of the Slow Food Earth Market Cappadocia–Uçhisar. The SOGEP-related project protocol was signed on **11 February 2025**, and the market opened on **24 May 2025**. Our University community engagement project KÜN.**2025**-BAGP-020 provides an 18-month framework for education and producer participation.

The Earth Market promotes direct interaction between producers and consumers, local and seasonal food, responsible packaging, preservation of agricultural biodiversity and transparent knowledge about food production. The aim is not simply to organise a sales venue, but to connect livelihoods, ethical exchange and environmental awareness with the region's cultural and ecological resources.



Figure 9. Producers and participating partners at the Cappadocia–Uçhisar Slow Food Earth Market in 2025.



Figure 10. Practical demonstration and exchange of local production knowledge at the Earth Market.

PRODUCER EDUCATION

Learning for healthier and more resilient food systems

Producer training turns responsible-production principles into everyday decisions.

Our March **2025** producer training programme addressed seasonal production, packaging, storage, waste prevention, responsible logistics and the carbon footprint of local distribution. During 22–24 May, international Slow Food sessions explored agroecology, biodiversity, food systems and rural development, linking international knowledge with producer communities in Cappadocia.

The publicly announced **2025** Earth Market programme also included education on pesticide-free agricultural practices (19 July) and alternatives to plastic in farming (30 August). These programme records establish the themes and dates of the learning opportunities; where independently verified attendance is absent, we do not assign participant totals.



Figure 11. Public training announcement on pesticide-free agriculture, 19 July 2025.

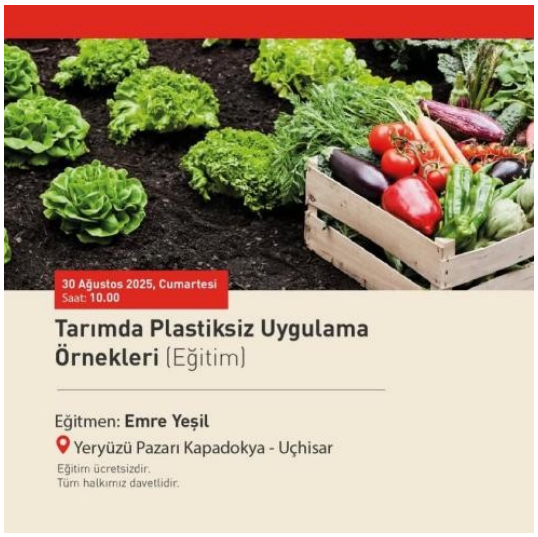


Figure 12. Public training announcement on plastic-free farming practices, 30 August 2025.

CULTURE & REGIONAL PRODUCTION

Sharing knowledge through gastronomy and local heritage

We relate responsible consumption to food traditions, research and the regional economy.

On 27 May **2025**, we hosted the Anadoludakiler Cappadocia Market at our Ürgüp Factory Campus, giving greater visibility to local products and cultural production. The establishment of GASTROMER in **2025** strengthened our capacity for gastronomy research, applied education, preservation of local knowledge and sector cooperation.

Our 24–25 April **2025** KAPGTAK event at the Uçhisar Art Campus brought together researchers across gastronomy, food and tourism, while its published conference proceedings extended the scholarly record of those discussions. These programmes connect the research-based development of sustainable food services with the experience and knowledge of local producers.

Longer-term value of local food knowledge

We recognise local production and culinary heritage as linked dimensions of sustainable regional development. Our partnerships make it possible to discuss resource stewardship alongside responsible tourism, fair food systems, women's economic participation and local entrepreneurship.

RESEARCH & SCHOLARSHIP

Applied research on materials, food and consumption

Selected 2025 publications show how responsible production can be examined across disciplines.

Publication or research output	2025 record	SDG 12 relevance
Green synthesis using pomegranate peel for silver nanoparticles and PVA nanofibres	Scientific Reports; DOI: 10.1038/s41598-025-95349-4	Value-added use of food by-products and innovative materials
Food waste and meal improvement in the University refectory	Aydın Gastronomy (2025)	Food-service resource efficiency and waste reduction
KAPGTAK 2025 Conference Proceedings	Cappadocia University Press No. 114; ISBN 978-625-96451-8-6	Dissemination in food, gastronomy and tourism
Environmentally Sustainable Filmmaking: Content Creation Guide	Cappadocia University Press No. 102; DOI: 10.35250/kun/9786259739311	Responsible production practices in creative industries
Keşkek	Cappadocia University Press, Gastronomy Series No. 2	Preservation and communication of traditional food knowledge

We support scientific dissemination through our University Press and open scholarly platforms, including Ecocene: Cappadocia Journal of Environmental Humanities and the Cappadocia Journal of Gastronomy, Food and Tourism Studies. These outlets help bring interdisciplinary perspectives to questions of food culture, material use and the social dimensions of sustainability.

RESEARCH & DEVELOPMENT

Projects for more responsible production systems

We bring academic research into contact with sector standards, food innovation and environmental communication.

Project or programme	Recorded project phase	Focus of work
AR-GE-ÜBYO-950 — Legume flours and aquafaba in gluten-free vegan cake	Completed	Alternative ingredients and product development
AR-GE-SSÇM-1180 — Sustainable Industry Criteria Handbook, Phase 2	Ongoing	Sectoral sustainability criteria
AR-GE-SSÇM-945 — Sustainable Restaurant Criteria	Ongoing	Responsible gastronomy services
AR-GE-SSÇM-1150 — Anadoludakiler	Ongoing	Local production and cultural knowledge
AR-GE-LAE-1265 — Traditional Ecological Knowledge and Sustainable Living	Ongoing	Ecological knowledge and daily practices
AR-GE-ÇBBM-177 — Connect 4 Environmental Sustainability in Film and the Media	Ongoing	Creative-sector education and materials

Responsible filmmaking as a production practice

Through our environmental humanities and EkoFilm-related cooperation, we connect sustainability knowledge with production decisions in film and media. The content creation guide examines how creative processes can reduce avoidable environmental impacts through preparation, production planning and resource-conscious choices. We present this as an educational and sector practice resource, not as a verified calculation of emissions avoided.

DESIGN & REUSE

Seeing new possibilities in used materials

Creative practices encourage our community to reconsider the useful life of everyday materials.

We support learning environments in which used materials can become subjects for design, craft and public dialogue. Recycling workshops help students understand material choice, repair and reuse through practical activity, while selected exhibitions bring creative work into shared campus spaces.



Figure 13. Campus exhibition space presenting artworks and creative approaches to resource reuse.



Figure 14. Creative object made from newspaper and displayed as an example of artistic material reuse.

STUDENT ENGAGEMENT

From awareness to participation

Training, workshops and knowledge competitions help put waste literacy into practice.

We organised a broad set of participatory activities in **2025** in which students could practise waste separation, learn responsible consumption concepts and explore material reuse. Activities included an International Recycling Day workshop, waste sorting awareness education, a sustainability-focused film screening and knowledge competitions.

Date	Activity	Documented participation
17 May 2025	International Recycling Day exhibition and workshop	38 student attendance records
28 May 2025	Waste Separation Awareness Training	34 student attendance records
28 May 2025	Green Minds Compete knowledge quiz	34 student attendance records
28 May 2025	Sustainability-themed film screening	26 student attendance records
13 October 2025	Waste Separation & Knowledge Competition	Programme across three campuses
14 October 2025	Recycling Workshop	Programme across three campuses

The attendance totals are specific to the documented May activities and must not be treated as an unduplicated student count. Official University programme listings confirm the October dates and multi-campus format; we do not invent attendance where the event information does not supply verified totals.

ACTIVE LEARNING

Students make responsible choices visible

Educational interaction reinforces sustainability principles through familiar materials and campus settings.



Figure 15. Student participation in a practical campus waste-separation and sustainability knowledge activity.

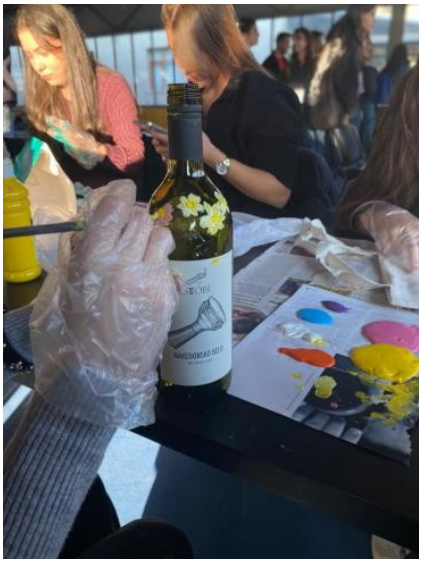


Figure 16. Hands-on reuse workshop involving bottles and other previously used materials.

The learning activities encouraged participants to distinguish recyclable and non-recyclable waste, select appropriate collection pathways, and understand the value of extending product life. Knowledge questions and discussion provided opportunities to review how students apply these ideas in ordinary circumstances.

COMMUNITY & GOVERNANCE

Working with municipalities and international partners

Responsible resource management grows stronger through coordination beyond our campuses.

On **30 April 2025**, we signed a Zero Waste cooperation protocol with Mustafapaşa Municipality. The agreement established a basis for coordination of separate collection, system monitoring and reporting between our University and local government. We also participated in regional community learning concerning local food systems, production heritage and resource conservation.

In November **2025**, our Sustainability Office was represented at the International Zero Waste Forum. The programme brought together participants from 104 countries and 118 stakeholder organisations, creating opportunities for exchange on policy, technological innovation, responsible urban management and material use. These global attendance figures describe the forum, not the number of people directly reached by our University.



Figure 17. Participants in a University waste-awareness and community sustainability activity.

Looking ahead with appropriate year boundaries

Building on our established **2025** arrangements, we initiated a separate canteen-organic-waste composting research project in 2026. The composting equipment and trial photographs belong to that later period and are not counted as **2025** waste-recovery achievements. Our **2025** figures remain those recorded by YDİ.LS.003.

OUR CONTRIBUTION

Responsible production connects development goals

Our material, food, research and education activities support interconnected environmental and social priorities.

Related Sustainable Development Goal	2025 connection
SDG 2 — Zero Hunger	Sustainable gastronomy, local food systems and research on refectory waste
SDG 4 — Quality Education	Waste literacy, student learning activities and scholarly dissemination
SDG 8 — Decent Work and Economic Growth	Local producer support, sector criteria and responsible purchasing
SDG 11 — Sustainable Cities and Communities	Municipal cooperation, local heritage and responsible regional production
SDG 13 — Climate Action	Resource efficiency, material reduction and sustainability education
SDG 15 — Life on Land	Learning on ecological agriculture and reduced plastic use in farming
SDG 17 — Partnerships for the Goals	Slow Food, development agencies, municipality and academic networks

Our perspective at the end of 2025

Responsible consumption and production are not confined to the point at which waste is collected. We connect purchasing decisions, the life cycle of materials, safe management of specialist waste, education, applied research and opportunities for local producers within one institutional commitment. Our measured **2025** records and partnerships provide a basis for further improvements in waste traceability, prevention, procurement and the recovery of resources.