

MESSAGE FROM OUR TEAM

Erciyes University, which was founded in 1978 and has developed continuously so far, is one of the most outstanding universities in Anatolia. We endeavor to rise higher in the ranking systems of universities with the pride and awareness of maintaining the title of Research University in 2020 as well, which we received in 2017.

It is our goal to ensure our corporate identity with continuous interaction and commitment and to progress constantly for a more livable world and campus. Taking this goal into consideration, we are conducting studies particularly in the field of zero waste, energy efficiency, transportation and other areas in order to set a milestone every year by protecting our available infrastructure and system in the area of environmental sustainability.

We can say that we increased the environmental awareness of both our administrative and academic staff and our students in the field of wastes, especially with the establishment of zero waste system and the introduction of this system in spring festival last year. We are of the opinion that we have created an exemplary campus with our university's energy-efficient buildings, green areas in the campus, ring buses and bicycle services and environmental protection awareness of our members.

As of this year, as Erciyes University, we will set new goals for the following year by publishing environmental sustainability report every year. We are also on the eve of new plannings and projects for the environmental sustainability rankings, "Green Metric" and "Times Higher Education, Sustainable Development Goals". From this point of view, we have adopted to create a greener campus for future generations.

This report will not be published in print but on the web-site we have just set up and thus will provide a new contribution to the sustainability. We would like to thank all of our members for their efforts.

ERU Green Campus Team

SUMMARY

Implementing studies for sustainability effectively and conducting joint studies with stakeholders at Erciyes University is an important issue in fulfilling the targets. Our aim is to reach higher levels of reuse and recycling as of 2020 than in previous years and to enable to reduce the amount of waste produced. Especially in the campus, eliminating or ensuring the reduction of disposable products such as paper cups is among our primary goals. For this reason, we pay attention to the activities of zero waste awareness and awareness raising and continue our efforts to increase our activities. We created a zero waste system and explained this system to our members and students in 2019 Student Spring Festival.

As Erciyes University, we aim to reduce our energy consumption by 3% every year for a sustainable future. Therefore, we have practices such as extending energy-saving applications, use of bicycles and restricting campus vehicle entry. We achieved a 0,7% reduction in energy consumption in 2019 compared to the previous year.

This year, we brought our campus together with new saplings. We held a tree planting activity with various organizations around the Faculty of Arts, behind the Football Field of ERU Faculty of Sports Sciences and in our Campus July 15, affiliated to Erciyes University in 2019. We are planning to contribute to the sustainability targets in this area as well with water-saving applications and drip irrigation methods.

Our courses, publications and supports to these projects on sustainability continue without slowing down. We endeavour to minimize the carbon emission with ring buses and an extensive bicycle network.

You can follow our activities, reports and studies performed on yesilkampus.erciyes.edu.tr, which we will be publishing as from this year, and share your requests and recommendations with us.

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1. WASTES

1.1 Zero Waste

As a result of the publication of zero waste guidelines in July 2019, studies on Zero Waste system were initiated and have still been conducted. Upon the evaluation of Erciyes University Waste Directive within zero waste applications, it is seen that it includes similar aims and objectives. Therefore, waste management at ERU is conducted by targeting zero waste strategy. In the direction of zero waste project, activities such as recycling, reduction of wastes, prevention of wastage, correctly separating wastes at the source are maintained.



Erciyes University Zero Waste Project Poster Work

Zero Waste Project has been carried out in our university as of 2019 in order to protect our resources, keep our wastes under control, leave a livable world for future generations within the framework of Sustainable Development goals. Posters prepared regarding the implementation of zero waste project in our university were demonstrated on the boards.



Introduction of Posters on Boards inside and outside the University

Moreover, informative training activities held by the zero waste project team for the managers in charge of the zero waste project unit and sub-managers of the unit were carried out to effectively implement the zero waste project in the campus.



Zero Waste Training

In addition to the poster work to increase the awareness regarding zero waste in the campus, booklets were also prepared. Booklets were distributed to the students both during the activities of training and on the campus.



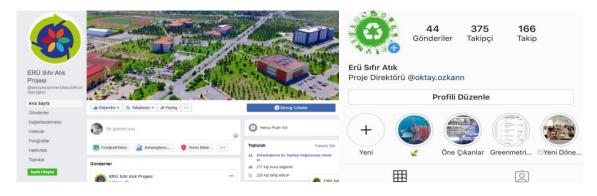
Booklet Work

In order to carry out the zero waste system, a zero waste guide for the managers of the unit was prepared and sent to them by e-mail.



Zero Waste Management Guide Study

Our studies regarding zero waste project and our activities for information and awareness are announced on our social media platforms and our social media platforms are used actively (only Instagram and Facebook accounts are available now).



Social Media Studies

20th Spring Festival with a concept of Zero Waste was held for all stakeholders including university students, staff and other person/persons and a zero waste project information and promotion stand was opened within the scope of the event.



Zero Waste-themed Spring Festival and Event Stand

In addition, a contest on the social media account of the zero waste project was held and in this context, the student who followed the social media account and found the best slogan for the project was presented with a bicycle. The aim of this event was to enable more people to be aware of the informative and promotional activities fulfilled within the project by means of social media and to constitute a more conscious society by making more people to be aware of the zero waste practices. Our Rector, Prof. Dr. Mustafa ÇALIŞ and Prof. Dr. Oktay OZKAN, Director of Environmental Problems and Clean Production Research and Implementation Center (ERCEVREM), presented the student with the bicycle; furthermore, a lot of students received various presents as a result of the contest.



Within the scope of the Event, the Bicycle was presented with the participation of our Rector

The posters we prepared for our zero waste stand within the scope of the 20th Student Spring Festival achieved to attract the attention of all individuals attending the event and everybody visiting our stand was informed about the zero waste.



Zero Waste Stand Posters

The people visiting our zero waste stand were presented with materials such as the waste battery collection box, pens and notebooks obtained from recycling that we prepared together with the surrounding municipalities. Our objective was both to show the products that may arise through our zero waste target and to make the people to be aware of this practice.



Zero Waste Information, Promotion and Gift Stand

Zero waste project at Erciyes University is conducted under the coordinatorship of Prof. Dr. Oktay OZKAN, Director of ERCEVREM. In addition, activities regarding zero waste project are planned with the participation of lots of voluntary students and studies are performed to carry out these activities in our university.



One of the Meetings Held for the Implementation of the Zero Waste Project

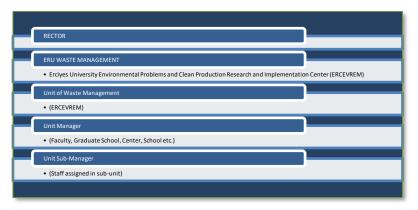
1.2 ERU Waste Directive and Waste Management

This is a directive published in 2017 and organizing the functioning of the waste management in our university. The organizational scheme is given below. According to this directive, unit sub-managers for the wastes in each sub-unit and unit managers for the wastes in each unit are administered under the coordinatorship of Erciyes University Environmental Problems and Clean Production Research and Implementation Center (ERCEVREM). All duties and responsibilities to be obeyed and applied by the managers are stated in this directive.

Üniversitemiz Senatosunun 28.04.2017 tarih ve 13 sayılı toplantısında kabul edilen

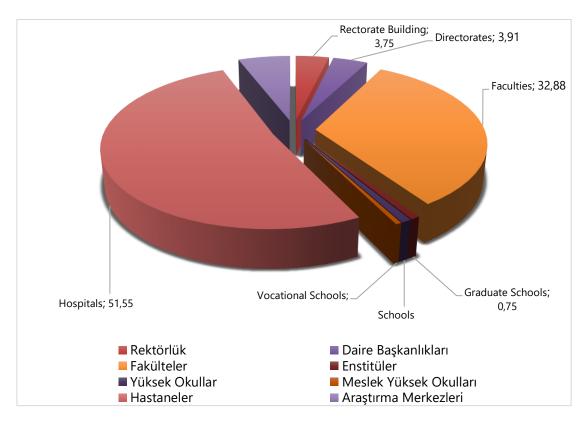
ERCİYES ÜNİVERSİTESİ ATIK YÖNERGESİ BİRİNCİ BÖLÜM Amac ve Dayanak

Amaç
MADDE 1- (1)Bu Yönergenin amacı, Erciyes Üniversitesi Rektörlüğü sorumlul
lanı icinde bulunan eğitim öğretim arastırma üretim ve hizmet faalivetleri sonucu olus

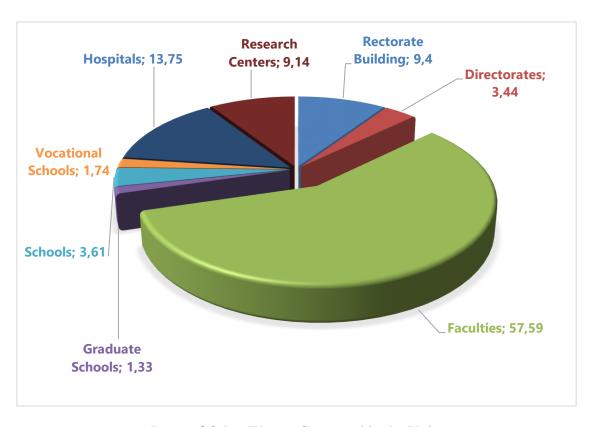


ERU Waste Directive Organizational Scheme

At Erciyes University, Waste Management is carried out for each type of waste generated on the campus with the zero waste strategy. In the studies implemented to detect the current situation that is one of the application steps of the zero waste project, percentage distributions of recyclable and other waste types generated in the campus were detected according to the units.



Rates of Recyclable Wastes Generated in the Units



Rates of Other Wastes Generated in the Units

1.2 Management of Recyclable Wastes

Double and quadruple waste collection equipments have been installed in all units in order to separate the wastes at source and to encourage university staff and students to be included in the recycling. Waste tanks have been prepared for the storage of these wastes. The collected wastes are collected and used by the municipalities.



Waste Collection Equipments

It is aimed to contribute to the recycling of plastic water bottles by placing plastic waste bins at the central points in open areas in the university.



Recycling application

Double and quadruple waste collection equipments have been installed to collect the wastes separately at the source so that the recyclable wastes can be utilized with other waste types without mixing and contribute to the economy. Therefore, students, academic and administrative staff are ensured to separate and dispose their wastes. Separated recyclable wastes (plastic, glass, metal and paper etc.) are routinely collected by the recycling teams of the surrounding municipalities on certain days every week.



Package Waste Collection Vehicle

In our campus, all administrative and academic correspondences and student applications (course registration, course materials, distance education, training procedures etc.) are made electronically in order to reduce waste. In Erciyes University, Electronic Document Management System (EDMS), which enables official documents to be processed online, and Project Process Management System (PPMS), which enables official documents to be processed in project studies, are used to reduce the production of paper waste. It is also encouraged to print when necessary and to print on both sides as far as possible.



Electronic Document Management System (EDMS)



Project Process Management System (PPMS)



Student Information System



Distance Education Research and Implementation Center



INSTRUCTOR Program

There are also other waste reducing applications some examples of which are given below.



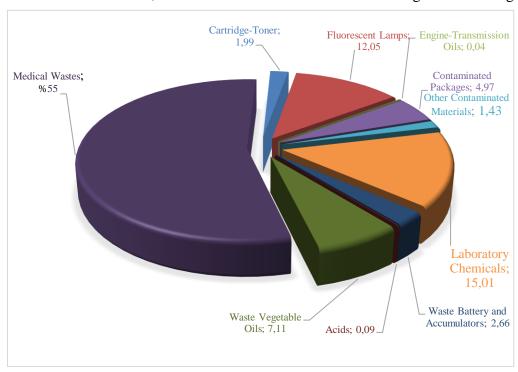
Use of Glass and Porcelain Cups in order to reduce the Use of Plastic Cups in Campus



Shredders Placed in Administrative Units to Prevent Paper Wastage from Covering a Large
Area and Subsequently Sent for Recycling

1.3 Hazardous Waste Management

In Erciyes University, studies have been initiated to reduce hazardous wastes in all units such as research centers, faculties and laboratories that generate dangerous wastes.



Hazardous Wastes in Units

Studies regarding hazardous waste managemet have been clarified with the detection of hazardous waste types generated in the units. Although we need to strive more in order to achieve the desired goal in the hazardous waste management, we are improving our studies in comparison with the previous years. In this regard, ERU Zero Waste Management Guide has been prepared to raise the awareness of the units and inform them about hazardous waste management, and studies required to be performed in this respect have been expressed basically. It is aimed to reduce the use of fluorescent lamps in all units for the purpose of both

providing electric and energy saving and preventing the amount of hazardous waste; thus, the use of LED lamps is encouraged. It is ensured that chemicals creating hazardous wastes are replaced with a different non-hazardous option as far as possible, they aren't overused and in the case that the chemicals used in experiments are sufficient, the risks that may arise from the use of the smallest scale are minimized. Waste Vegetable Oils are collected separately from other wastes and delivered to the licensed facilities.



Waste Battery Collection Boxes Located in all Units in Our Campus

Hazardous waste materials that cannot be prevented and the waste reduction of which cannot be provided are collected in the hazardous waste temporary storage area and sent to the licensed disposal facilities at regular intervals.





Waste Temporary Storage Area
Faculty of Dentistry Recycling Wastes



Faculty of Medicine Waste Temporary Storage Area

Since medical wastes are a source of infection and infect people with infectious diseases, they are prevented from being released directly or indirectly to the receiving environment, also stored temporarily by being collected at the source without mixing with other waste types and disposed.



Faculty of Medicine Medical Waste Center



IKUM (Good Clinical Practice&Research Center) Temporary Waste Storage Areas

1.4 Organic Waste Management

A study regarding the amount and characterization of waste in Erciyes University dining halls was conducted. Waste types were collected by separating as to the food wastes and recyclable wastes and recorded by weighing. At the end of the study, the total weights of all solid wastes as to their types were obtained. It was found out that approximately 110 tons of waste were generated annually from the dining hall wastes. In addition, it was detected that 13 tons of packaging waste had recycling potential. Moreover, canteens in the campus also have potential for composting projects. There is a composting project for organic wastes in the campus and a conditional cash aid application has been made to the Ministry of Environment and Urbanization.



Processing the Garden Waste such as Leaves Collected on the Campus and Turning it into Fertilizer

Erciyes University plans to obtain compost from dining hall wastes. In this sense, an application was made to the Ministry of Environment and Urbanization grant program in order to obtain the compost machine. When the compost machine is procured, compost production will be made by utilizing the food wastes from Erciyes University students, staff and medical faculty dining halls. Furthermore, the compost is produced from organic wastes generated from garden

wastes and the compost obtained is used as a plant nutrient to increase the green areas of the university.

2. CLIMATE AND ENERGY – REDUCTION OF CARBON EMISSION

2.1 Energy Consumption and Energy-efficient Practices in Campus

In order to reduce energy consumption and carbon footprint in the campus, LED lighting system is gradually being switched to lighting. We use 250°C waste heat generated in the heater used in the heating center of our campus by concentrating with an economizer to heat the water. In addition, ground water used in our air conditioning systems has a heat recovery system for cooling and energy saving in our hospital. In the Genome and Stem Cell Center in our university, inverter air conditioning technology with heat recovery batteries is used. Ground water is used in our campus and efficient pumps provide energy saving by extracting water in case of need.



Energy Saving Systems

2.3 Renewable Resources

Renewable energy production activities are carried out on the campus. Approximately 9,383.8 KW of solar energy is produced annually by means of solar panels placed at different points of the campus.



Solar Energy Generating Panels

2.4 Smart Building Applications

Automation, Security, Energy, Water, Indoor and Lighting criteria, which are the smart building parameters, are applied in 81% of the buildings.



Genome and Stem Cell Center and Directorate of Construction and Technical Services

2.5 Carbon Footprint

In our university, new afforestation actions are carried out every year to reduce our carbon footprint, energy-saving lighting equipments are used, vehicle entrance on campus is under control and actions are fulfilled to extend the use of bicycles.

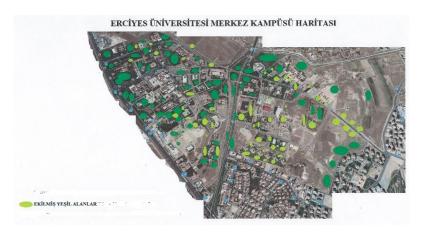


Practices for Reducing Carbon Footprint

3. STRUCTURE and INFRASTRUCTURE – SUSTAINABLE CAMPUS and BUILDINGS

3.1 Campus Flora and Fauna and Social Areas

The total area covered with cultivated vegetation on the campus is 883,019 m². While the total campus area is 5.047.630 m², the area covered by the buildings in the campus is 284.301 m². In this case, 94.36% of the total area of the university is composed of open areas.



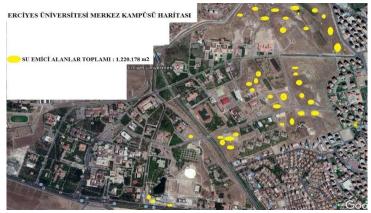
Campus Green Areas

3.2 Forest Lands and Newly Planted Saplings

While the total campus area is 5,047,630 m², the total area covered with forest vegetation on the campus is 1,950,000 m². The area covered with forest vegetation on the campus constitutes 39% of the total area. In addition to the forest and cultivated vegetation, the total area on the campus for water absorption is 24%.



Campus Forest Areas



Water Absorbing Areas







Photos from the 2019 Tree Planting Activities

3.3 Campus Living Spaces

There are smart buildings and water absorbing areas (24%) in our campus, 39% of which is covered with forest vegetation. There are also areas for socializing in the forest-covered gardens of our faculties. In addition, our university has an artificial pond. The surrounding of this pond is defined as the International Botanical Garden and includes local and exotic species. The aims of the botanical garden are;

- Doing Researches and Scientific Activities
- Creating plant collections
- Providing protection
- Training and information sharing
- Creating Inventory



ERU Botanical Garden and Pond

4. WATER and WASTE WATER

There are underground water wells in our campus and water is extracted in case of need. Water-saving or sensor faucets are used in washbasins and toilets. Campus green areas are irrigated with time adjusted drip or sprinkler systems if necessary. There is a gray water treatment system in one building of our campus and the treated water can be reused.



Saving Taps Used in Buildings

Our university also has a pilot-scale treatment system that treats 10 m³ of water per day and makes it reusable. This facility, which was purchased through the project supported by TÜBİTAK, is also a laboratory for students and is used in research activities.



Pilot-scale Treatment Facility

5. EDUCATION

There are more than 4,000 courses concerning sustainability within the scope of undergraduate, graduate and doctoral courses in our university. 85 of these are directly related to the environment and ecology, 63 to water and wastewater, 14 to wastes. In addition, the number of such courses has increased by more than 1000 in the last 3 years.

The budget allocated for research on sustainability has also increased by 10% in the last 3 years. The number of publications regarding sustainability from these researches and researches supported by other institutions has been calculated to be 145 in the last 3 years.

A successful report was prepared in 2019 concerning activities such as training, conferences, festivals etc. on sustainability issues. World water day, zero waste trainings, the 3rd Sustainable Living Film Festival and the 20th Student Spring Festival themed Zero Waste were hosted or organized by our university. Short films from interviews and activities for students were prepared for training in the spring festival and were displayed during the festival. Training and information activities at the zero waste stand were provided by the students, and the best slogan contest was organized in order to participate in social media accounts.

Kocasinan Municipality presented the owner of the slogan chosen by the jury among the best slogans with a bicycle. During the festival, a waste collection activity was also held especially before the concert where a keen participation of students takes place.



 20^{th} Student Spring Festival and Bicycle Gift



World Water Day

6. TRANSPORTATION

6.1 Campus Ring Buses and Pedestrian Policy

Campus ring buses run on natural gas and have low emissions. On-campus shuttle services are provided by the University regularly and free of charge.



Campus Ring Bus

A green bus has been allocated to our university by the Kayseri Metropolitan Municipality for our disabled students and staff and other disabled individuals acting actively on the campus. For more information: https://engelsiz.erciyes.edu.tr/79/2/kampusteki-engelli-bireyler-icin-ring-bilgisi.html

6.2 Extending the Use of Bicycle

There is a bicycle rental system provided by Kayseri Metropolitan Municipality at many points in the central campus. In the system called KAYBIS, member students use the bicycles free of charge for the first half hour.



On-Campus Bicycle Use

6.3 Zero Emission Vehicle Policy

Erciyes University (ERU) Engineering Faculty Social Technology Club (ETOTEK) students developed an unmanned electric car. Students competed with the vehicle called "Erciyes Otonom" at the second Teknofest event held at Istanbul Atatürk Airport between 17-22 September, 2019.



"Erciyes Otonom" Racing in Teknofest

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ERU Green Campus Team