



SUSTAINABILITY & & ENVIRONMENT REPORT 2023

Prepared by

Cukurova University

Environmental Research & Application Center

CONTENTS

SUMMARY	4
2. Settlement and Infrastructure	6
2.1. Total campus area	8
2.2. Forest vegetation	10
2.3. Cultivated vegetation	10
2.4. Areas that can absorb water	11
3. Energy and Climate	11
3.1. Use of energy efficient devices	11
3.2. Renewable energy resource use	13
3.3. Green building application	14
3.4. Carbon footprint	15
4. Wastes	15
4.1. Organic waste treatment	15
4.2. Inorganic waste treatment	16
4.3. Toxic waste treatment	16
4.4. Sewage disposal	17
4.5. Recycling and Waste Reduction Programs	17
4.5.1. Recycle	17
4.5.2. Waste Reduction	18
5. Water	20
5.1. Water conservation program and applications	20
5.2. Water recycling program application	21
5.3. Use of water efficient devices	22
6. Transportation	22
6.1. Emission vehicle policies	22
6.2. Zero emission vehicles	22
6.3. Sidewalks	24
7. Organic Farming	25
8 . Education and Research	27
8.1. Sustainability related events	27

	8.2. Student organizations about sustainability	. 27
9	Recommended Goals	. 28
	9.1. Short term	. 28
	9.2. Medium Term	. 29
	9.3. Long-term	. 29
1	O. Conclusion and Recommendations	.30

SUMMARY

Our university, with its established history and unique location of its campus, offers students a wide range of education and training opportunities. Our university, which has received the mission of a research university with its research and development activities, has determined "Environment" as one of the priority areas. Activities are continuing to make our campus even greener.

In this context, our University has applied to <u>UI GreenMetric</u>, which ranks world universities on sustainability, environmental awareness, energy, education, water resources, waste and transportation, on October 31, 2019. As a result of this application made by the Çukurova University Rectorate with the coordination of the Center for Environmental Research and Applications, our university was ranked 293th among 780 universities and 11th among 42 Turkish universities. In the application made in 2020, it was ranked 335th among 912 universities and 17th among 56 Turkish universities. Along with the general ranking, six different criteria (Settlement and Infrastructure, Energy and Climate Change, Wastes, Water, Transportation and Education) are also ranked. In both applications, our university was ranked 1st among Turkish universities and 7th among world universities according to the criteria of Placement and Infrastructure. As this application result shows, our campus has a superior position worldwide. However, there are aspects that are open to improvement in other criteria.

This Sustainability Report for our University was prepared according to the decision taken by the Executive Committee of the Center for Environmental Research and Applications at the meeting on March 19, 2021. In this report, the current situation of our University in the field of environment and sustainability is presented under the headings of Settlement and Infrastructure, Energy and Climate Change, Wastes, Water, Transportation and Education. By evaluating the current situation, actions are suggested for the short-medium-long term.

1. Introduction

Çukurova University Faculty of Agriculture was established by the Law No. 1099 dated February 13, 1969, the Faculty of Medicine was established under the Law No. 1578 dated April 12, 1972, affiliated with Ankara University and Atatürk University, and these faculties were then combined with the Law No. 1786 dated November 30, 1973.

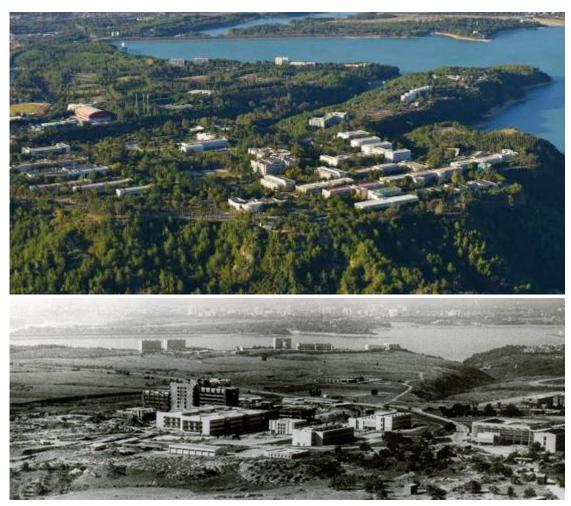


Figure 1. Cukurova University campus today (image above) and its founding years (image below)

Currently, education and research and development activities are carried out with 19 Faculties, 2 Vocational Schools, 11 Vocational Schools, 1 State Conservatory and 4 Institutes in the Çukurova University campus and the surrounding campuses, the pictures of which are seen in Figure 1 during the years of its establishment and today. Diverse research and scientific activities that are important for our country are carried out in 38 Research and Application Centers.

As a research university, one of the priority areas is the environment. In this context, realizing the green campus transformation is among the strategic goals of our University. Our university applied to \underline{UI}

GreenMetric, which ranks world universities on sustainability, environmental awareness, energy, education, water resources, waste and transportation, on October 31, 2019. As a result of this application made by the Çukurova University Rectorate with the coordination of the the Center for Environmental Research and Applications, our university was ranked 293th among 780 universities and 11th among 42 Turkish universities. In the application made in 2020, it was ranked 335th among 912 universities and 17th among 56 Turkish universities. Along with the general ranking, six different criteria (Settlement and Infrastructure, Energy and Climate Change, Wastes, Water, Transportation and Education) are also ranked. In both applications, our university was ranked 1st among Turkish universities and 7th among world universities according to the criteria of Placement and Infrastructure. Applications could not be made in 2021 due to the pandemic.

This report has been prepared in accordance with the decision of the Executive Board of the Center for Environmental Research and Applications on its meeting on March 19, 2021. It aims to present the current situation of our university in the field of environment and sustainability under the headings of Settlement and Infrastructure, Energy and Climate Change, Wastes, Water, Transportation and Education. The actions foreseen for the short-medium-long term by evaluating the current situation are included in the report.

2. Settlement and Infrastructure

Our university was established on the eastern shore of the Seyhan Dam Lake within the borders of Sarıçam district of Adana province. It is 10 km away from Adana and resembles a nature park with its forest and botanical garden. The name of our main campus, Balcalı Campus, comes from the village of the same name, which was located on the campus before the construction of our university. At Balcalı Campus there is also a farm area used by the Faculty of Agriculture for research and application purposes. Çukurova University consists of 10 campuses together with the main campus.

Campuses located in the city center and in different settlements (Figure 2):

- 1. Adana Vocational School
- 2. Adana Organized Industrial Zone Vocational School of Technical Sciences
- 3. Aladag Vocational School
- 4. Ceyhan Engineering Faculty, Ceyhan Veterinary Faculty, Ceyhan Vocational School
- 5. Imamoglu Vocational School
- 6. Karaisalı Vocational School
- 7. Kozan Faculty of Business Administration, Kozan Vocational School
- 8. Pozanti Vocational School
- 9. Tufanbeyli Vocational School
- 10. Yumurtalık Vocational School



Figure 2. Our campuses

Today, our University educates knowledgeable and qualified young people in 19 Faculties, 2 Schools, 11 Vocational Schools, 1 State Conservatory and 4 Institutes. Various research and scientific activities that our country needs are carried out in 38 Research and Application Centers.

In the planning of our campuses, importance was given to being suitable and sustainable for use, and disabled students were not ignored in our campuses. Various services are provided at Çukurova University in order to meet all kinds of needs of students with disabilities, such as determining the measures to be taken against the problems they may encounter during their education at our University, offering solutions to solve the problems and making the necessary arrangements. For this purpose; with the decision of Çukurova University Senate dated 17.09.2015 and numbered 7/13, it was unanimously decided to accept the "Çukurova University Disabled Students Counseling and Coordination Unit Directive" as proposed. In accordance with the relevant laws and regulations, the "Disabled Students Counseling and Coordination Unit" was established in the Medico Social Health Center affiliated to the Health, Culture and Sports Department of our University. The main purpose of this unit is; within the framework of relevant laws and regulations, to support students with disabilities in Social, Cultural, Education, Training, Economy and Accessibility issues and to facilitate the limitations they experience.

A new form is given to our newly registered students during registration to identify disabled students at our university. In addition, after the academic year begins, a form is sent to academic advisors to ask questions about whether there are students with disabilities in their programs and about the type of disability. These students, who are identified with their own statements during registration or reported to the unit by our academic advisors, are then contacted by our expert psychological advisors. In addition,

barrier-free areas have been started to be built in order to provide disabled lifestyle and education opportunities at the university. The project was implemented for visually impaired students and a special area was created in the library for these students. This area was equipped with computers and devices specially designed for the visually impaired, and a reading and working area for them was established. Within the scope of the talking book project and social responsibility projects, the course materials of visually impaired students are read and recorded by other students. Public transportation to the campus is barrier-free. Sidewalk and ramp works for students with disabilities are on-going on campus.

2.1. Total campus area

The main campus is Balcalı with 18,044,750 m² open area and 556,838.43 m² closed area (**Total area is 18,601,588.43 m²**). Outside the campus, it serves with an open area of 2,125,850 m² and a closed area of 60,382.75 m² (Figure 3a-3b).



Figure 3a. Campus Area Left: Total campus area Right: Indoor and outdoor areas

Table 1 . Indoor Distribution

Closed Fields	Amount of Area (m ²)
Education	241,653.41
Research	8,561.26
Social	83,345.77
Sport branches	36,100.40
Management	89,223.69
Health	124,036.84
Other	34,299.82
TOTAL	617,221.18



Figure 3b. Campus Area

2.2. Forest vegetation

Our campus is located in a cherished region in terms of climate and soil. These lead to a rich vegetation. One of them is forest vegetation (Figure 4). The total area covered by forest vegetation on our campus is 3,265,665 m2 (17.6%).



Figure 4. Forest Vegetation

2.3. Cultivated vegetation

Our university organizes various activities to increase the existing vegetation and participates in activities organized throughout the country. As part of the nationwide tree planting event on November 11, 2019, 3,500 saplings were planted on an area of approximately 200 acres on our campus. In 2020, Communication Faculty organized a tree planting activity with the support from Subtropical Fruits Application and Research Centre and Park and Gardens Directorate. On November 11, 2011, within the scope of the "11/11 Breath To the Future Breath To the Earth" campaign tree planting has been carried out for the field near the Congress Centre. Çukurova University carried our this event in parallel to the nation-wide event with the slogan "11 Million Saplings Meet Soil, 11 Million Trees, Sapling Today, Breath Tomorrow" organized by Agriculture and Forest Ministry of Turkey. 300 saplings were planted on Balcali campus during this day. In 2022, a sapling planting event was held to commemorate the 50th anniversary of the Faculty of Medicine ans different places. After the sapling planting activities, the total vegetation cover was 7,533,643.14 m² (% 40.5) (Figure 5).

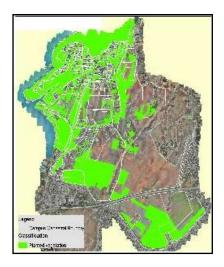


Figure 5. Cultivated Vegetation

2.4. Areas that can absorb water

Our university is aware that global warming affects the world. The fact that our university is located in a dry region increases the need for areas with high water absorption capability as well as forests and cultivated vegetation. The following studies are carried out to meet this need.

- If the surroundings of the buildings are not intended for walking, they are left in their natural form (meadow) instead of block stones.
- Block stones instead of solid concrete were used around the buildings to retain soil water.
- The pedestrian path is paved with hollow blocks to keep the soil water.

As a result of these studies, the total water absorption area on the campus, as well as the forest and cultivated vegetation, was increased to $8,196,231 \text{ m}^2$ (% 44) in 2023.

3. Energy and Climate

3.1. Use of energy efficient devices

Çukurova University aims to increase energy savings with more energy efficient devices and energy management practices. Some of these applications include efficient use of insulation in buildings and on streets (Figure 6) LED lighting and the dissemination of sustainable technologies.

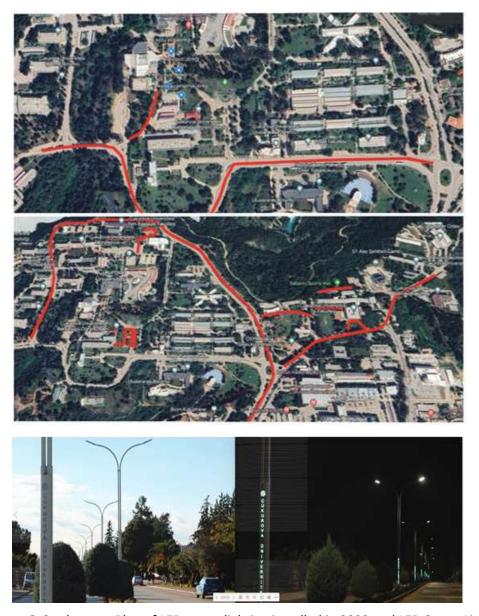


Figure 6. Settlement Plan of LED street lighting installed in 2022 and LED Street Lighting

The following actions have been taken in the last years:

- All lighting elements were replaced with LED lighting around 218,000 LEDs were used, corresponding to 68% savings.
- Air conditioning units, computers, etc. In new purchases of electrical devices A+ and equivalent labels are required. Approximately 29,850 newly purchased units were replaced with old units, corresponding to 94% savings.

As a result of this study, energy saving practices are given in Table 2.

Table 2. Energy saving practices and contributions

Device	Total Number of Devices	Energy Productive Device Number	%
LED lamp	320,000	218,000	68 94
Air conditioning	31,700	29,850	
		Average	81%

3.2. Renewable energy resource use

There are three solar power plants with a total capacity of 175 kWh in Solar House, Technopark and Yumurtalık Vocational School (Figure 7-8). In the technopark, PV panels are placed on the roof and parking lot shading elements. In addition, solar energy is used for water heating purposes in faculty housing and for heating swimming pools. Yumurtalık Vocational School solar power plant started operation in 2022 with production capacity of 21.3 kWh (Figure 9).



Figure 7 . PV Power Plant (Solar House and Technopark)



Figure 8 . Yumurtalık Vocational School Solar Power Plant

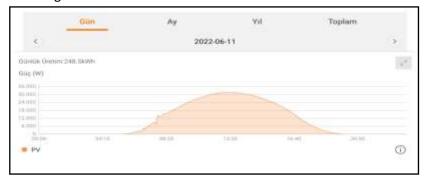


Figure 9 . Yumurtalık Vocational School Electricity Production (06:00 – 19:00)

3.3. Green building application

Çukurova University tries to increase energy and water savings by applying green building elements. Photo-sensor lamps for energy saving, glass ceilings using daylight, etc. are used. Water saving is achieved by using motion sensors in water devices (toilet, faucet, etc.) (Figure 10).





Figure 10. Green building application

3.4. Carbon footprint

In today's world where Global Warming is increasing rapidly, it is very important to reduce our Carbon footprint. For this purpose, our university carries out various studies to minimize our carbon footprint. One of them is to reduce emissions from vehicles. As stated before, applications made for this purpose;

- 1. Application to reduce vehicle traffic; According to the decision of the traffic board, a restriction was imposed on the campus vehicle entrance with the vehicle stamp application.
- 2. Shuttle service; The buses belonging to the municipality provide service at intervals of approximately 5 minutes depending on the day and busy time.
- 3. Bicycles can be rented on campus at an affordable price.
- 4. Student dormitories are located within the campus within walking distance of the buildings.

As a result of these studies, our 2019 Total Carbon Footprint was calculated as 42,756 metric tons, 2020 Total Carbon Footprint was calculated as 40,285 metric tons, 2022 Total Carbon Footprint was calculated as 50,312 metric tons and 2023 Total Carbon Footprint was calculated as 15,888 metric tons. Total Carbon Footprint was calculated as In the calculations, the method given in www.carbonfootprint.com, which was suggested in the Greenmetric application, was used.

4. Wastes

4.1. Organic waste treatment

Çukurova University has an organic waste collection vehicle that circulates around the campus from private waste collection areas (Figure 11). There are standard garbage cans in these areas. The collected organic wastes are delivered to the Sofulu landfill, which is the authorized waste treatment facility. This plant produces biomethane and electricity. (http://www.itcturkiye.com/tr/adana/11922)

Leftovers from the cafeteria are collected and delivered to the DAHOYKO dog shelter. According to the signed agreement, waste vegetable oils are delivered to DEHA company for collection and recycling of waste vegetable oils.



Figure 11. Waste Collection Vehicle

4.2. Inorganic waste treatment

Çukurova University collects inorganic wastes for further treatment based on annual contracts with İpek Recycling Company. Electronic wastes are collected by the university and sent to the Machinery and Chemical Industry Institution (MKE - https://www.mkek.gov.tr/tr/). Waste batteries are collected by Adana Municipality in special boxes for further recycling. Special containers are used for inorganic wastes in laboratories (Figure 12).





Figure 12. Waste Bins: Left: Laboratory inorganic waste, Right: Waste battery

4.3. Toxic waste treatment

The sources of toxic waste at Çukurova University are from hospital and the laboratories at various faculties and centers. The hospital stores hazardous waste at the temporary waste collection site near the hospital before sending it to the Municipality's landfill according to the Integrated Environmental Information System – Waste Management (MoTAT) of the Ministry of Environment and Urbanization (Figure 13). Hazardous wastes at laboratory scale are collected in separate labeled containers and sent to the temporary waste storage room.



Figure 13. Medical Waste Vehicle

4.4. Sewage disposal

Our university is connected to the sewerage system of Yuregir Municipality. Sewage collection is done according to the 6360 Water and Management Act. The discharge from the university is treated at the Yüreğir Wastewater Treatment Plant operated by the Municipality (Figure 14).





Figure 14. Yuregir Wastewater Treatment Plant

4.5. Recycling and Waste Reduction Programs

4.5.1. Recycle

Recycling activities at our university (Figure 15) can be grouped under the following two main headings.

- 1. Electronic Wastes are collected in accordance with the Regulation on the Control of Electronic Wastes of the Ministry of Environment and Urbanization and sent to the Machinery and Chemical Industry Organization. (MKE https://www.mkek.gov.tr/tr/)
- 2. Çukurova University has annual contracts with İpek Recycling Company, a local recycling company representing Sarıçam municipality. Paper, plastic, glass and metal wastes of students and faculties are collected by the company for recycling.



Figure 15. Waste Collection Bins (Electronic, Plastic, Glass, Paper, etc.)

4.5.2. Waste Reduction

The following practices are effective to reduce paper use on campus:

- 1. Using IT supported CUBIS (Educational Information System) for different purposes:
- Academic Information System (ABS) Academic announcements, course registrations and grades are given through this system that all students can access.
- Education Information System (EBS) Course catalog for undergraduate and graduate programs
- E-library The use of database provides access and download of approximately 100,000 scientific information.
- Scientific Research Fund All project proposals, reports, budget usage can be made online.
- Electronic Document Upload System (EBYS) All official documents are transmitted through various departments of the university. Our university has been using this system since 2014, which saves 2,738 trees, 13 million liters of water and avoids 773 tons of CO_2 and 55 tons of solid waste. Thus, 22 million A4

paper savings were achieved. Çukurova University was among the 105 universities using the paperless office concept in Turkey, and was awarded the Green Office Award for this success. (https://habermerkezi.cu.edu.tr/haber-detay/1857/cukurova-universitesine-en-yesil-ofis-plaketi-takdim-edildi)

- 2. Use of 2-sided paper in all copying and printing processes
- 3. Plastic bottle caps recycling project: Social Responsibility project "Will you be my feet?" by Cukurova University Department of Turkish Language and Literature students, that started on October 23, 2019 is on-going (Figure 16). On March 13, 2020, 50 kg of waste was delivered. The project continues to reach its supporters with live broadcasts on Instagram under the name of @ayaklarimolurmusun . With the support of cargo companies, free delivery is provided, and support is provided not only from university students but also from the society through campaign activities.



Figure 16. "Will You Be My Foot?" Social responsibility project

Our university has zero waste target in accordance with our government's policy. Produced and treated wastes (Table 3) are disposed of within the framework of this policy.

Table 3. Total Volume Produced and Treated Wastes

Organic Waste (Ton)		Inorganic Waste (Ton)		Toxic Waste (Ton)	
Produced	Treated	Produced	Treated	Produced	Treated
679	383	3015	36.5	638	0

5. Water

5.1. Water conservation program and applications

Rapidly increasing drought caused by climate change and the geographical location of our country makes the importance of water for our campus more important than ever. Therefore, saving water on our campus requires some planning. Activities planned in this context:

- Transition to automatic systems in irrigation of green areas within the scope of campus irrigation water protection program
- Switching to day or night irrigation, which is effective in plant water intake,
- Switching to the use of more drought-resistant plant species such as succulents/cactus instead of grass fields that are the largest water consumers.
- Regular mowing of lawns
- Reducing the need for irrigation by keeping the moisture in the soil by planting herbaceous and seasonal plants at the appropriate frequency.
- Gradual transition to drip irrigation for plants (Figure 17)
- Use of dam water instead of drinking water



Figure 17. Drip Irrigation System

5.2. Water recycling program application

A continuous flow pilot scale wetland facility is being operated at Çukurova University to investigate the treatment of campus wastewater (Figure 18). Wastewater is taken from the manhole, where the wastewater originating from 7 departments, laboratories and 2 dining halls is collected, with a flow rate of 50 L/h. The inlet enters the facility with a submersible pump. The pilot scale wetland system consists of a feeding tank, 2 plant beds of the same size and associated pipes. The inlet enters the facility starting from the balancing tank to provide continuous and homogeneous feeding to the system. The wastewater then flows through the first erected bed, 3 m long, 1.5 m wide and 0.5 m deep, which is connected to the second bed by perforated drainage pipes. Both beds have a gradient of 0.5% and a gravel environment of 5-10 mm particle size at 40 cm depth. The beds were planted with *Typha latifolia*, *Juncus acutus and Iris versicolor species*.

During the operational period; the average removal rates of the system to date have been determined as 78.15% COD, 69.23% BOD5 and 89.67% TSS, respectively. The effluent values show that this system is a suitable technology for the wastewater treatment of Çukurova University campus.

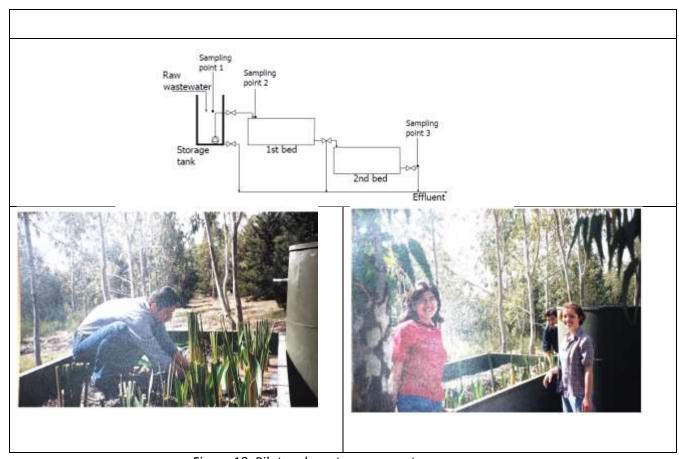


Figure 18. Pilot scale watery area system

5.3. Use of water efficient devices

With the devices used for water saving, an average of 51% savings was achieved. Some examples of water saving measures include automatic control of urinal flushing, low flush toilets, low flow faucets, motion sensor faucets and automatic faucets.

6. Transportation

6.1. Emission vehicle policies

Efforts to reduce vehicle and motorcycle traffic within the campus boundaries were given importance (Figure 19). Activities and precautions carried out for this purpose;

- 1. Applications to reduce vehicle traffic
- 2. Ring service
- 3. Bike rental
- 4. Student dormitories are located within the campus within walking distance of the buildings.

As a result of these practices, the number of vehicles (cars, motorcycles) on campus is decreasing day by day.







Figure 19. Ring Services, Rental Bicycle Application, Student Dormitories

6.2. Zero emission vehicles

Çukurova University, which aims to increase the use of Zero Emission vehicles, encourages the use of bicycles on campus and has a bicycle center for this purpose. Bicycles can be rented by students at a very low fee, and free maintenance service is also provided. Bicycle racks are available near bus stops and some large buildings. In addition, Mechanical Engineering students built their own zero-emission cars that won several gold medals in nationwide races (Figure 20). These zero emission cars are aimed to be used on campus in the future.







Figure 20. Cycling Club and Zero Emission Vehicle

For those using electric vehicles, there is an electric charging station in front of the Technopark building (Figure 21).



Figure 21. Charging station for electric vehicles

6.3. Sidewalks

Pedestrian roads are planned in a way that facilitates transportation within the campus and does not require fossil fuel vehicles. There are also walkways throughout the campus that connect the buildings and green spaces. In the construction of pedestrian roads, suitable ramps and connection roads have been created for the disabled. (Figure 22)



Figure 22. Pedestrian Way

7. Organic Farming

Yumurtalık Vocational School applies organic farming that is the basis for sustainable life by using human, environment and nature friendly technologies. In accordance with the legislation of the Ministry, as an environmental friendly production method organic fertilizers and natural pesticides have been used to grow vegetables, fruits and wheat with organic farming certificate in 156 acres of land since 2006 (Figure 23).



Figure 23. Organic Tomatoes Breeding Certificate

In Yumurtalık Vocational School Organic Farming program, production is done with organic fertilization as a sustainable farming method. Their own fertilizer is produced by **compost method** from natural plant waste. (Figure 24).



Figure 24. Compost Machine

Yumurtalık Vocational School agricultural drones (ZIHA) are used in spraying and fertilization of wheat fields (Figure 25).



Figure 25. Agricultural drones (ZIHA) for Spraying and Fertilization

8. Education and Research

Sustainability courses are included in the curriculum in order to raise awareness on environmental issues and to educate our students on the necessity of sustainable world. The number of courses given on sustainability in our university is 474.

Our university has policies for 17 United Nations Development Goals (https://sustainability.cu.edu.tr/). The list of publications that are related to these purposes can be accessed from the link (https://avesis.cu.edu.tr/surduruleklilik/1).

In addition to the courses given on sustainability at our university, various publications are also made on this subject. The average number of publications of our university in the last 3 years is 4,083. 2.020 of these are on sustainability.

8.1. Sustainability related events

Seminars, meetings, webinars and student events are organized at our university in order to explain the importance of sustainability and to raise awareness. These activities attract the attention of students, academic and administrative staff and enable them to ask the question of what we can do to make the world more livable.

Center for Environmental Research and Applications organizes seminars and NGO-supported activities with student participation in order to raise awareness of students and people living in Adana and its immediate surroundings.

8.2. Student organizations about sustainability

Every year, 'Student Clubs Promotion Days' are organized by the Student Activities Unit affiliated to Çukurova University Rectorate Health, Sports and Culture Department. The purpose of the organization is to ensure that new students who come to our university take an active role in the activities. 22 out of 87 student clubs carry out activities related to sustainability.

These clubs are:

- 1. R&D and Innovation Club
- 2. Science and Science Club
- 3. Cycling Club
- 4. Mountain Club
- 5. Nature and Environment Club
- 6. Barrier-Free Life Club
- 7. Futurism Club
- 8. Young Engineers Club

- 9. Animal Friends Club
- 10. IEEE Club
- 11. Human and Social Studies Club
- 12. Engineering-Architecture Club
- 13. Automotive Club
- 14. Project Research and Development Club
- 15. Robotics and Automation Club
- 16. Agriculture and Food Club
- 17. Textiles and Fashion Club
- 18. Social Studies Club
- 19. Social Awareness Club
- 20. Space Sciences and Research Club
- 21. Building and Design Club
- 22. Direction Action Club

9. Recommended Goals

In order to evaluate our current situation in environment, a presentation was made to the Senate of our University and the Heads of Departments about our Greenmetric application and its results. For a sustainable campus, the following goals to be addressed in the short, medium and long term have been determined:

9.1. Short term

- Raising awareness on climate change and sustainability
- Declaring the "Year of Sustainability" at our university
- Organizing campus events
- Opening elective courses
- Increasing the number of projects and thesis on this subject
- Increasing the effectiveness of the Student Environment Club
- Reducing the use of plastic bottles
- Placement of drinking fountains/faucets in different places
- Encouraging the use of water bottles
- Sustainability education
- o Increasing awareness on sustainability of new students during orientation

- o Increasing awareness on sustainability with in-service trainings for our academic and administrative staff
- Creation of a sustainability database (supported projects, publications, expenses, etc.)
- Making projects and practices in accordance with the action plan discussed in the sustainability report
- Taking measures to reduce the number of vehicles in the university and to comply with traffic rules
- Recording and monitoring the use of energy efficient devices on a unit basis
- Taking measures to prevent energy waste by monitoring electricity consumption on a unit basis

9.2. Medium Term

- Events for raising awareness
- Preparation of the sustainability guide
- Establishing identities of campus trees (Turkish/Latin)
- Implementation of compost plant for organic waste
- Increasing the use of central printers instead of individual printers (Print Office) and collecting waste toner
- Preparation of a small pilot artificial wetland for wastewater treatment
- Campus lighting with PV solar energy
- Mandatory sensor fountains and lighting in restorations and new buildings
- Placing fruit trees on campus
- Reducing the number of stray dogs/cats to protect the campus ecosystem
- Preparing a recycling program for university waste
- Preparation of water conservation program

9.3. Long-term

- Planning a certified green building among the new buildings to be built
- Switching to central cooling systems that use natural resources to reduce electricity consumption
- Conducting studies on the use of gray water
- Effective waste solutions
- Use of multiple renewable energy sources

10. Conclusion and Recommendations

Our university has a unique location as seen in the Greenmetric application results. Activities are carried out by various units of our university in order to protect this superior position of our campus and to provide an environment where students, staff and society can benefit from. The ratio of the open area to the total area, the total area suitable for water absorption excluding forest and cultivated vegetation, and the ratio of the total open area to the total campus population received full scores according to the Greenmetric criteria. However, forest and cultivated vegetation area ratios are not at the desired level. Field data has been determined from existing maps and these maps need to be updated.

It is seen that there are green building element applications that are reflected in all construction and renovation policies according to Greenmetric criteria in energy and climate change parameters. However, planning activities in terms of energy efficient device use, electricity consumption per capita, share of renewable energy sources, greenhouse gas emission reduction program, carbon footprint per capita and smart building are on-going.

Although there are activities carried out on all waste related parameters (recycling program for waste, reducing the use of paper and plastic on campus, organic waste treatment, inorganic waste treatment, toxic waste treatment, sewage waste), improvements are needed according to Greenmetric criteria.

Attention is paid to the use of water-saving devices (tap water, toilet bowl, etc.), but other parameters related to water use (water conservation program implementation, treated water consumption, water recycling program implementation) are in planning stage.

In terms of transportation, the total campus area dedicated to parking lot is less than 1% and is at the desired level. There are transportation initiatives to reduce private vehicles on campus. Planning activities on the ratio of the total vehicle ratio (cars and motorcycles) to the total campus population, ring services, zero emission vehicle policy on campus, the ratio of zero emission vehicles to the total campus population, and the pedestrian path policy on the campus are continuing.

In terms of education, as a research university the number of scientific publications on sustainability is at the desired level according to Greenmetric criteria. The number of student organizations related to sustainability is also sufficient according to this criteria. In addition our university has a "green campus" website that is regularly managed.

Our current situation on environment and sustainability, which was determined within the scope of this report, shows that our University has aspects that are open to improvement. In this context, short-medium-long-term recommendations are presented in this report to make our campus and our world more livable and sustainable. In order to achieve these proposed goals, an action plan should be determined and necessary steps should be taken.