



ULUSLARARASI KIBRIS ÜNİVERSİTESİ
CYPRUS INTERNATIONAL UNIVERSITY

SUSTAINABILITY
HANDBOOK

December 2019

Sustainable
Campus Office

CIU Sustainability Timeline

Below you will find information in relation to the Cyprus International University (CIU) timeline regarding the sustainability progress:

2009

Sustainable Energy Research Center (SERC):

SERC was founded this year as the “Center of Excellence” at CIU. Since it was found, the center has carried out many research projects, mainly on Solar Energy and certification and education programs.

2015

Largest Solar PV Plant in a campus:

The 1.3 MW PV Project directed by SERC, is a Unique Plant that includes Land, Carport and horizontal/inclined roof installations.

2016

Largest Energy Efficient Building in Cyprus:

It has the Largest BIPV application in the region, (900 m²) and the largest solar chimney application in the region of 650 m².

2017

Students for a Sustainable Campus (SSC) and Sustainable Workshop:

Students for a Sustainable Campus (SSC) is an inclusive and multidisciplinary student project that works on long-lasting sustainable practices, on and off the campus, through education, engagement and direct action.

2018

Sustainable Campus Office:

SCO is the coordinator of the sustainability goals on the campus, and was founded in this year in order to provide a pathway and implement the process of developing and supporting programs. The “We are Nature” Café was established and CIU Joined the UI GreenMetric World University Rankings.

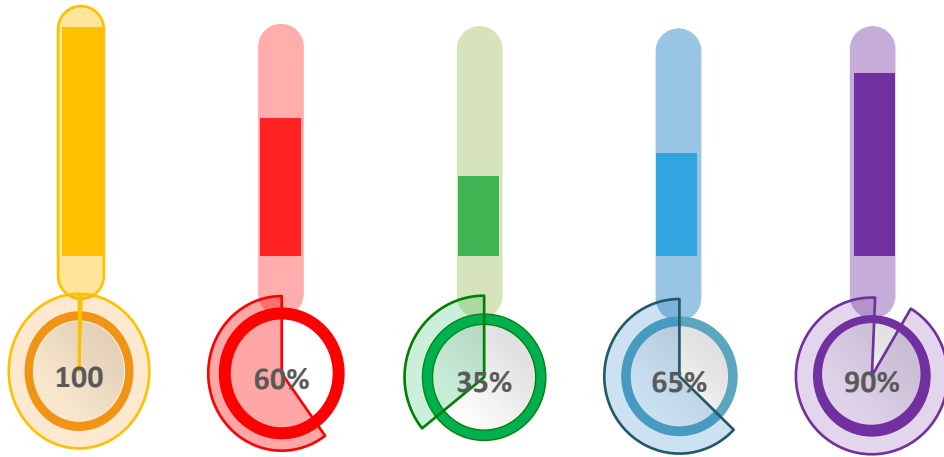
2019

Biogas Project:

Establishment of the 1 MW BIOGAS Plant has its Pre-engineering stage completed, with local permissions obtained. Installation is planned to begin at the end of 2020.



Energy and Climate Change Score: 1400 out of 2100



DOUBLE GLAZING

All the buildings on the campus are equipped with double glazing windows, and according to the new energy policy on campus, any renovation or maintenance should also utilize this type of window.

HIGH-EFFICIENT EQUIPMENT

The Cyprus International University has a strict policy in relation to using high-efficient electrical equipment, such as Energy Star label or with A+ and A++ energy consumption standards.

LED LIGHTING

Science and Technology, Student Services Center, Restaurant, Rectorate building and Medical department with the total area of 22,508 m², are equipped with high quality of LED illumination system.

VRF SYSTEM

The Science and Technology, Çevik Uraz, CIU Sports Arena Complex, Student Services Center, Soli Apartment, Rectorate building, International Center and Student Union, together covering a total area of 60,000 m², are equipped with a high-efficiency VRF system.

THERMAL INSULATION

The roofs of more than 90% of the total buildings on-campus (Academic Zone), are equipped with thermal insulation. With the new project in place, it is projected that this number will be 100% by the end of 2020.

Indicators
Energy Efficient Application
Smart Building Program Implementation
Number of Renewable Energy Source in Campus
The Total Electricity Usage Divided by Total Campus Population
The Ratio of Renewable Energy Production Towards Total Energy Usage Per Year
Elements of Green Building Implementation
Greenhouse Gas Emission Reduction Program
The Ratio of Total Carbon Footprint Divided Campus Population

BIOGAS PLANT



400 Nm³/h gas



1,169 kW/h Electricity



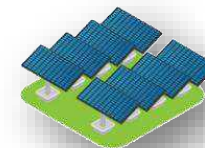
700 kW/h heat

This project will be the first private and largest plant of Northern Cyprus, mitigating about 70 t/y of whey and fresh waste. Also it is planned to produce 411 m³/h Biogas, that will lead to a 1,260 kW Electrical capacity. Additionally, nearly 1 MW heat capacity will be realized. The Biogas plant will lead to 2,500 tons of CO₂ reductions annually island.

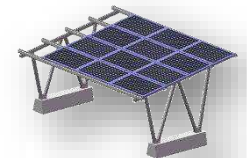
PHOTOVOLTAIC PLANT



298.64 kWp



746.48 kWp



235.29 kWp

The Project was commissioned in 2015, by the Sustainable Energy Research Center of CIU. It is a unique Solar Energy project due to the application of 5 different mounting types, namely on a level roof, an inclined roof, on terrain, on façade, and on carports. It remains the largest Solar Energy project in a university on the island. The PV project will help to mitigate 470 tons of CO₂/year.



The Transportation Unit of the Cyprus International University offers free shuttle services to students and staff. The university owns 25 vehicles of varying sizes to fulfill its commitments to its students and staff alike, providing free transportation between the CIU campus to Nicosia daily, between the hours of 07:00 and 00:30. The Famagusta shuttle services operate in the morning and evenings, weekdays only. The buses follow three different routes for commuters. The Transportation Unit also provides shuttle services on Saturdays to Kyrenia, departing at 14:00 from CIU and returning at 22:30 from Kyrenia.



There is about **20,000 m²** of Open space or horizontal type parking space in the university campus. That it is about 3 % total campus area.



Currently there is **100 %** access to all of the buildings and facilities, supported with ramp pathways for the disabled.



There are currently two main stations on campus that provide **26** bicycles for biking within the campus area.



In total, there are **10** electrical bicycles utilized by the Campus Management, Maintenance Office and Security Staff.



There is almost 640 m of pathways across the campus, made of tactile paving, ensuring ease of access to the various locations for the visually impaired.



While this project is still being researched for reliability using online applications, as well as the number of cars that wish to join, at this point there are **10** cars that have indicated their interest in joining the program.

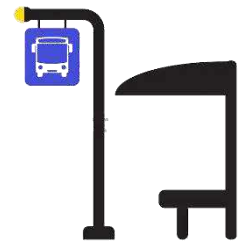
Energy and Climate Change Score: 1200 out of 1800

Indicators
The Ratio of Total Vehicles Divided by Total Campus Population
Shuttle Services
Zero Emission Vehicles Policy on Campus
The Ratio of Zero Emission Vehicles Divided by Total Campus Population
Transportation Program, Designed to Limit/Decrease the Parking Area on Campus for the Last 3 Years
Number of Transportation initiatives to Decrease Private Vehicles on Campus
Pedestrian Policy on Campus



10,600, is the average number of students using the campus buses daily.

61 Bus stops in the city.



60 Shuttles operates daily.

10 Buses include disabled friendly locations.



Energy and Climate Change Score: 575 out of 1000



800 m³ is the lake capacity filled by rain water.

Additionally, CIU has two underground water reservations with a capacity of more than 300.000 liters.

Almost 50 % of the whole campus is equipped with water efficient appliances, such as hand detection sensor taps and double bottom flushes.

One of the most important factors in maintaining the water management system is the monitoring issue. The CIU Sustainable Campus Office has completed a large project in applying water flow meters for all the campus buildings individually in 2019.

The Monitoring and recording are carried out by the Campus Management, in order to create an in-depth archive in relation to water consumption on the campus, reducing water losses. 11,200 liters of water is treated daily to provide free drinking water across 21 fountains around the campus.



Indicators
Water Conservation Program
Water Recycling Program
The Use of Water Efficient Application
Piped Water Consumed

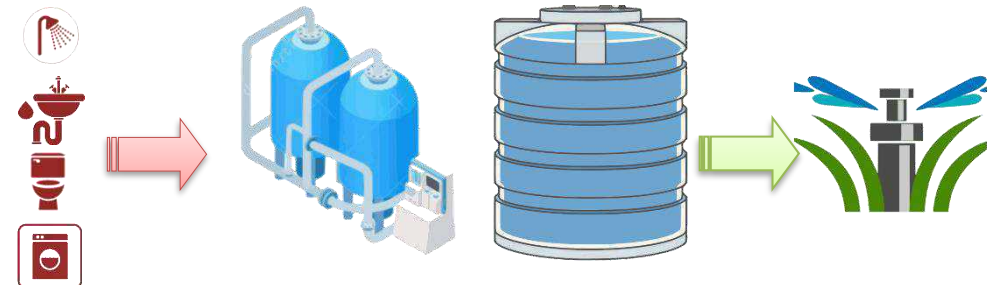


11,200 liters of water daily is treated to provides free drinking water in 21 fountains whole around the campus.



CIU is equipped with Drip irrigation. There is more than 80.000 m² of forest land and high trees, and about 95,000 m² of flowers and grass area, and they are all covered by the latest technology underground irrigation piping, equipped with the drip irrigation system.

Cyprus International University Water Treatment System

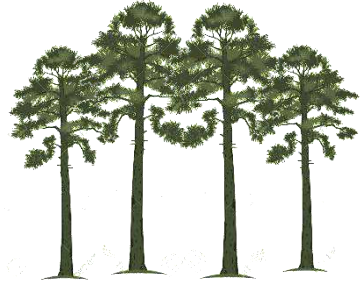


1,300 Tone Per Day

More than **80,000 m²** of CIU is covered by forest, tall green plants and trees, with this forest area amounting to 13% of CIU.



30,000 m²
Has 550 Olive Trees



23,000 m²
Has 700 Pine Trees.



1,200 m²
Has 100 Date Palm Trees.



30,000 m²
With more than 1000 varieties of trees.

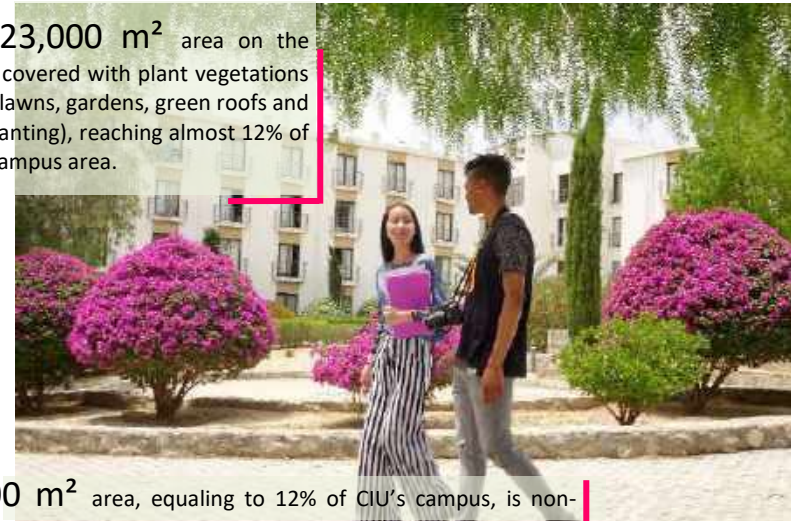


Irrigation system will be renewed with drip irrigation and sprinkler watering technologies to save more water.

Energy and Climate Change Score: 850 out of 1500

Indicators
The Ratio of Open Space Area Towards Total Area
Area on Campus Covered in Forest
Area on Campus Covered in Planted Vegetation
Area of Campus for Water Absorbance
The Ratio of Open Spaces Area Divided Campus Population
University Budget for Sustainability Effort

Almost **123,000 m²** area on the campus is covered with plant vegetations (including lawns, gardens, green roofs and internal planting), reaching almost 12% of the total campus area.



233,000 m² area, equaling to 12% of CIU's campus, is non-retentive surfaces (e.g. earth, grass, concrete block, etc.), for water absorption.

The new Campus lighting project is currently at the design stage. The aim of the project is to increase the lighting quality while simultaneously decreasing the energy consumption and emissions, by utilizing up-to-date technology and smart control systems.





PAPER WASTE is collected by special paper trash bins that are collected across the campus. The average monthly amount of newspaper and wastepaper collected is **60 kg**.

The Sustainable innovation center has established a program to continually recycle these papers and make paper recycled pencils. Approximately 5 gr of recycled paper is required to produce one pencil. Since this project started, more than **4,000** recycled pencils have been produced. These products are shared or sold for academic use. As well as the recycled pencils project, the rest of the wastepaper, which is about 70%, are used in creating concrete pots. These pots are utilized in many ways all around the campus. Via the application of these programs, 100% of the paper waste on the campus are recycled and reused among students and staff.

The Rectorate building, the University restaurants and the Nature Café Area are plastic free zones. In addition to this, the university is planning to reduce the usage of plastic water bottles to zero, by allocating free Drinking Water Fountains in various locations across the Campus. At present time, almost 100% of waste plastic bottles inside the campus are collected and separated from other types of waste by 5 large boxes near to the canteens area.

Also proving a worthwhile project is the large bags created by the Sustainability Workshops, using reused fabrics. These have become a trend in the university supermarket and reduce the consumption of plastic.

100 ECO bags have been designed and created by Students.

The organic waste is divided in two categories: food and yard trimming, which are recycled and reused inside the CIU campus. With the cooperation of the Nicosia municipality, more than 20 kg of organic waste from the restaurants within the university are collected for animals. This waste is collected from inside schools and taken out by a governmental company daily.



Energy and Climate Change Score: 975 out of 1800

Indicators
Recycling Program for University Waste
Program to reduce the use of Paper and Plastic in Campus
Organic Waste Treatment
Inorganic Waste Treatment
Toxic Waste Treatment
Sewerage Disposal

We Are Nature café is not only used as a reflection of the waste management on the campus, but also to educate the students and the public on the adverse effects of harmful materials upon the environment, such as single-use plastic. University activities are creative and sustainable; based on design ideas in order to utilize the Universities recyclable materials.



The green design center was founded in 2018 in the public sphere 'We Are Nature Café', situated in the middle campus area, where students can get together and enjoy a sustainable green environment. This center has achieved a substantial impact upon the students on the campus, with a variety of activities. This area is designated as a plastic free zone (PFZ) and plans to educate students to reduce the usage of plastic in their day-to-day life.

We have **72** Publications related to Sustainability cited on Google Scholar during the 2018-2019 academic Year.

There are **50** Master and PhD thesis' dedicated to the same subject during the 2018 – 2019 Academic Year.

40 members of staff and Graduate Students.



There are **30** Undergraduate students participating on the Sustainable Campus Project, as well as 40 members of staff and Graduate Students.

199 Courses have been taught during the 2018-2019 Academic year relating to sustainability.

More than 100 hours of courses teaching Simple Energy Management, the efficient use of water, and the best ways to reduce the production of waste and the recycling process, was taught by the Sustainable Campus team.

During summer school, most of the activities prepared focused on familiarizing students with their environmental impact and participating in the sustainable campus project.

While June 5th is global Environment day, the CIU sustainable campus initiates a natural week during the first week of August. Activities include:

- First day: Cleaning campus environment,
- Second Day: Picnic part and cleaning the location,
- third Day: Planting trees.

During this week of activities, the total area of the campus cleaned is **100,000 m²** with a total of 50 voluntary students and staff participating. 300 kg of waste was collected from the environment.

Energy and Climate Change Score: 975 out of 1800

Indicators
The Ratio of Sustainability Courses Towards Total Courses/Modules
The Ratio of Sustainability Research Founding Towards Total Research Founding
Sustainability Publication
Sustainability Events
Sustainability Student Organizations
Sustainability Website
Sustainability Report

Outside Activities, such as yoga, are performed on the campus, in order to be closer to the environment.



A group of 5 students joined the energy laboratories, realizing the renewable forms of energy and attempted to create a hydrogen-run-car by using solar panels. A certificate dedicated to the students was created with recycled paper that was developed by the students during their workshop.

With the collaboration of the Ministry of Irrigation and Water Resources Management, a total number of 60 trees were planted.

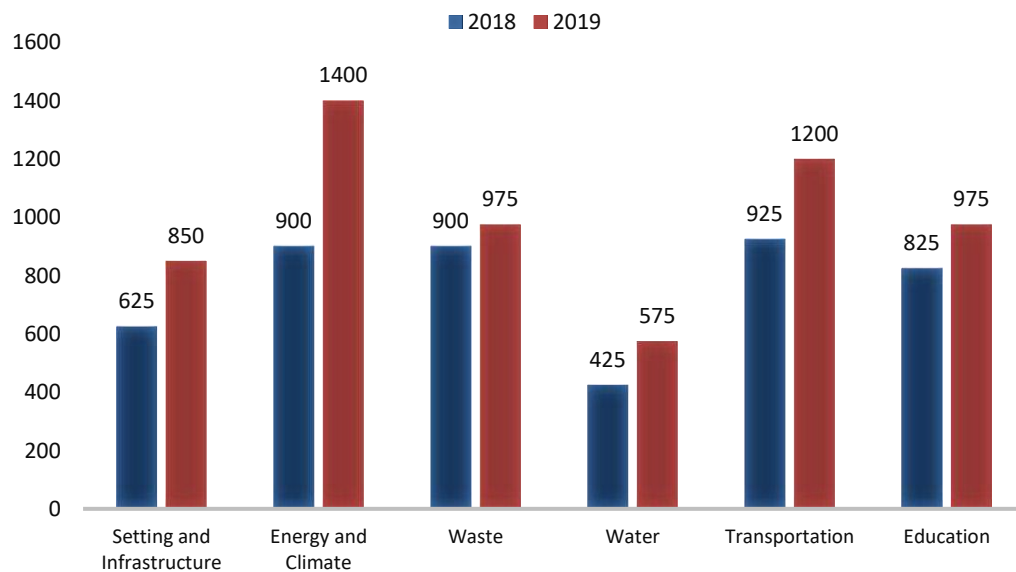


Conclusion

GreenMetric World University Rankings Progress Report for Cyprus International University

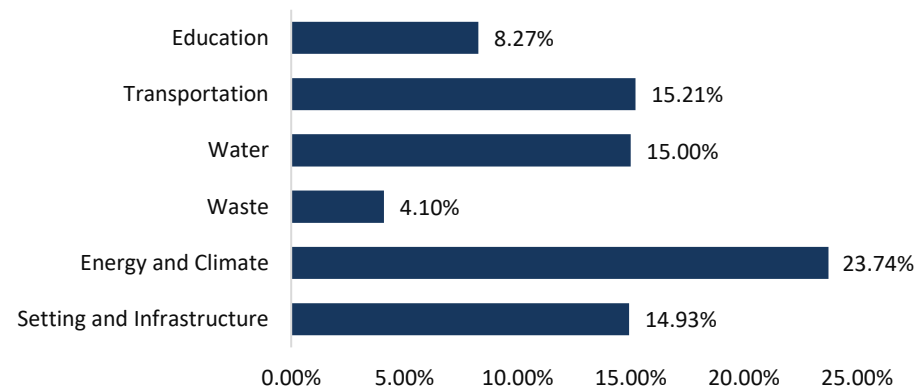
Position of CIU in GreenMetric University Rankings			
2018: 375 out of 719		2019: 220 out of 780	
Position of CIU in GreenMetric University Rankings of Turkey			
2018: 12 out of 30		2019: 5 out of 42	
Position of CIU in GreenMetric University Rankings of Cyprus			
2018		2019	
University of Cyprus	5200	University of Cyprus	6125
Cyprus International University	4600	Cyprus International University	5975
Cyprus University of Technology	3575	European University Cyprus	4525
		Cyprus University of Technology	3575

COMPARISON OF POINTS BETWEEN 2018 VS 2019



As it is shown in the Comparison graph, in all Categories; CIU achieved better results in 2019, as a result of team working and targeting activities, according to sustainability goals.

Variation (Increase) Percentage from 2018 to 2019 in 6 main Topics



The most increase it was found related to Energy and Climate change, at a rate of 23.74%, and in 2018 CIU had good projects relating to this category. On the other hand, only 4.1% of waste increased when compared to last year. In accordance to these results, the CIU Sustainable office decide to work more on waste management and its indicators, during the following year (2020 Academic year).

A Brief Information about Sustainability Performance

Energy & Climate	Water	Waste	Transportation	Education
Increase in usage of VRV systems	Monitoring Planning	Cooperation with Nicosia Municipality about collecting organic waste	Re-arrangement of the parking lots and promoting physical activity	50 Events
Increase in usage of LED illumination	Efficient Toilet Flush	Collecting/Reuse of Plastic bottles	The tactile paving Project	Improving Club activities
Biogas Project	Water Fountain Project	Cooperation with a private company for cloth donation	Velespeed Project	72 publications
Energy Efficiency Project	Increase in Water Efficient Appliances	Recycling Papers	Pedestrian Bridge Project	48 Thesis
Smart Building Project	New Project for Irrigation	The Nature Café	Carpooling Project	29 Undergraduate students participating in project
ECS Project				12 staff working on sustainable campus project
				200 courses opened in curriculum
				1000 participations to events
				Summer Sustainability school





CERTIFICATE

This certificate is awarded to

Cyprus International University

as The 220th World's Most Sustainable University
in 2019 UI GreenMetric World University Rankings

Jakarta, December 3, 2019



Prof. Dr. Ir. Muhammad Anis. M. Met

Rector of Universitas Indonesia



Prof. Riri Fitri Sari, M.M., M.Sc

Chairperson of UI GreenMetric
World University Rankings



SUSTAINABLE
CAMPUS OFFICE

Tel: 0(392) 671 11 11 - 2482



CIUOfficial



CIUOfficial



ciu.official



uluslararasıkibris



Cyprus-International University