



BURSA ULUDAĞ UNIVERSITY

Sustainability Report 2021-2022



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Message from the Rector



Universities bring solutions to society's problems with academic research and education and by raising leaders who would be role models. There are more than 8 million university students in Turkey.

Approximately ten percent of the population is university students in Turkey. Therefore the positive influence of sustainability projects at universities will be undeniable.

Bursa Uludag University (BUU) is a large state university with over 60 000 students and 6 000 staff.

We launched BUU Sustainable Campus Project in the April of 2021 with the sustainability vision of "Being a university that lives sustainability in all activities such as research, education and campus operations."

The contribution of BUU's sustainability efforts to the social cohesion between the university staff and students and among the members of the society and city was remarkable this year.

I am delighted to share with you this report that summarizes some of our activities toward sustainability. You will see a reflection of our energy and enthusiasm in the report. I wish you to participate in our excitement and believe that "change" is possible.

Prof. Dr. Ahmet Saim KILAVUZ
Rector

Message from the Office of Sustainability

It gives us great pleasure to see that the Sustainable Campus Project of Bursa Uludag University, which we started in April 2021, is growing day by day.

We had an uneasy thought when we started that was whispering as “There is too much thing to do.” However, this thought evolved to the comforting feeling that “We know that we have drawbacks; however, whatever we do will be towards sustainability and will add value to life.”

Our real power comes and will come from the support of the campus community comprised of our students, staff, and partners towards sustainability.

We have a dream! Our dream is to see the Bursa Uludag University campus evolved into a fully sustainable campus. It is a campus dream where the campus society feels like home and protects it as if it were home. It is a campus dream where the visitors leave the campus with pleasant feelings and new sustainability ideas.

We experienced many socially and environmentally-oriented projects this year. Every of them improved our enthusiasm in these efforts and we tried to do out best to see more individuals enjoying sustainable thinking.

We will share some of our sustainability projects with you in this report. We hope you will join our excitement!

BUU Office of Sustainability

Story of the Logo of BUU Sustainable Campus Project

Sustainable Campus Project is originated from the vision of Bursa Uludağ University (BUU). The BUU Sustainable Campus logo is inspired by the logo of Bursa Uludağ University and carries its components. The hexagonal shapes within the BUU logo appear as pentagons in BUU Sustainable Campus logo. Pentagons not only represent the components of our university but the 17 sustainable development goals as well. These pentagons that are held within the BUU sustainable campus lettering are so to close a circle. This circularity reflects the main aim of the sustainable campus project.

The green color of one of the pentagons mainly draws attention. This green color references the unique nature of our university and underlines the fact that environmental development forms the basis of all development models. The arrows over the green pentagon remind the natural assets of our university and evoke circularity. The middle arrow that shows a

move ahead is an extension of the continuous improvement understanding of our university.

Circularity is about returning the givings of the planet after circularly using them without wasting. The common saying in our language, “giving the one comes from soil to the soil,” summarizes this circularity. Circularity verbalizes an understanding that natural resources are decently and adequately used, not wasted, in an ecosystem model. In that understanding, waste is regarded as raw material, and a heavy burden is not imposed on planet Earth that it can not carry, and all the living things and components of life are connected as if with a chain.

The main aim of the sustainable campus project is to take the necessary steps towards being a university that can sustain itself, achieve the environmental, social, and economic development goals at the same time, and lead society while moving towards this aim.



Bursa Uludag University (BUU) at a glance

- 1970** ● Bursa Medical School established.
- 1975** ● The university officially founded.
Name: Bursa University
- 1982** ● The university renamed as
«Uludag University»
- 2018** ● The university renamed as
«Bursa Uludag University»



2614 
Educational Members

1888 
Administrative staff

40307 
Undergraduate Students

40307 
Associate Graduate Degree Students

6826 
Graduate Students

4 
Institutes

15 
Faculties

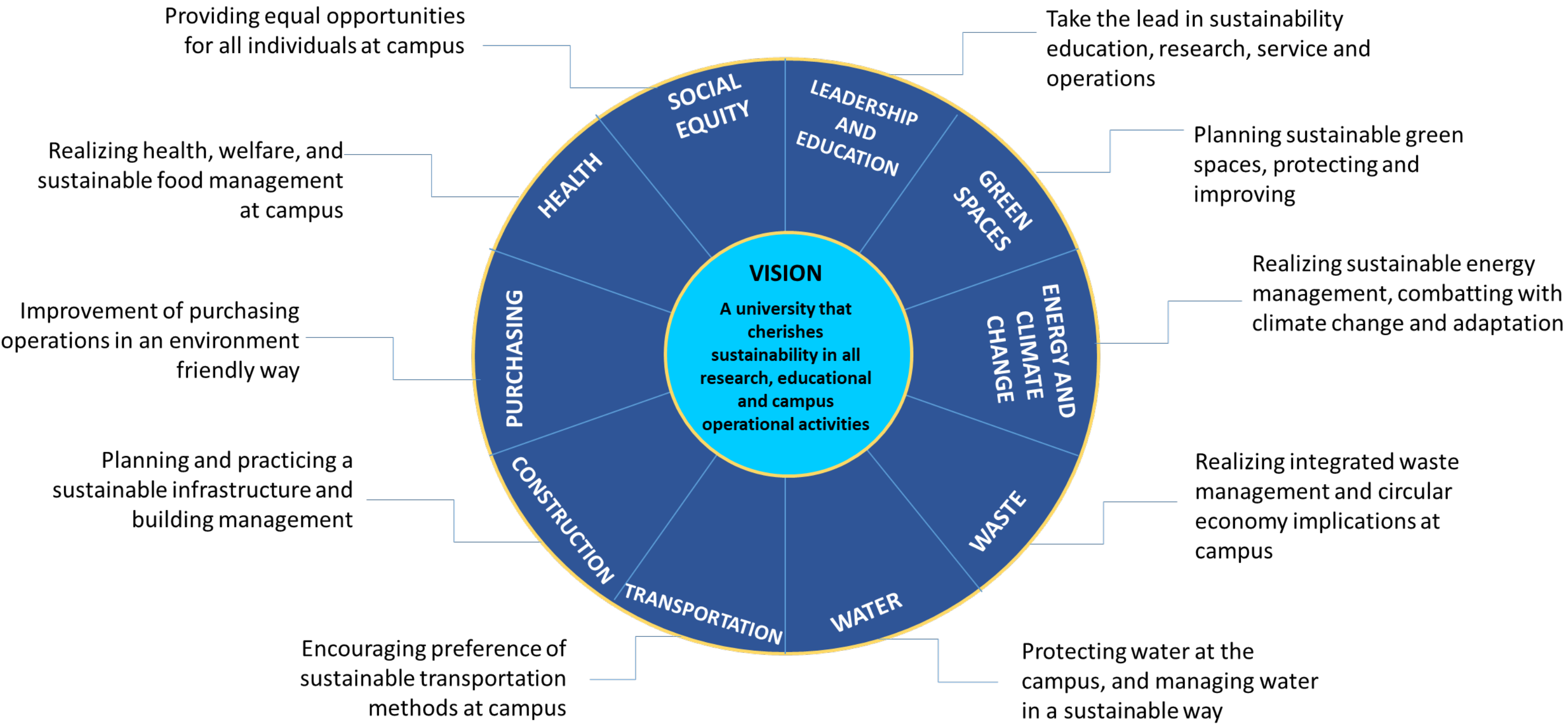
18 
Schools

78 
Bachelor Degree Programs

148 
Master's Degree Programs

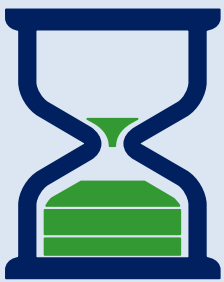
115 
Doctorate Programs

BUU's Sustainability Approach

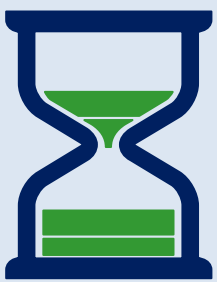


Bursa Uludag University set the goals toward sustainable development

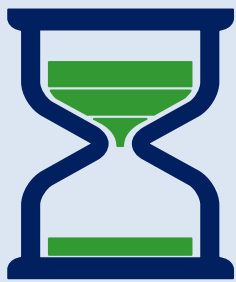
Highlights



We are close to our target.

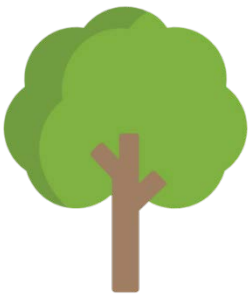


We are making good progress.



We can do better.

55%



of the campus area is covered with forests.

26%



use of energy efficient lamps at the campus buildings

9



endemic plant species at the campus
Wildlife protection: 90%

321
kWh



Electricity use per person in the last year

10+



number of innovative programs during Covid-19 pandemic

10+



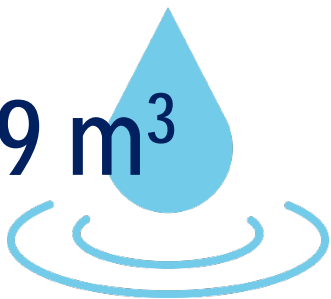
local food products produced by the university

Zero waste
certificate



participation in the national zero waste project

884049 m³

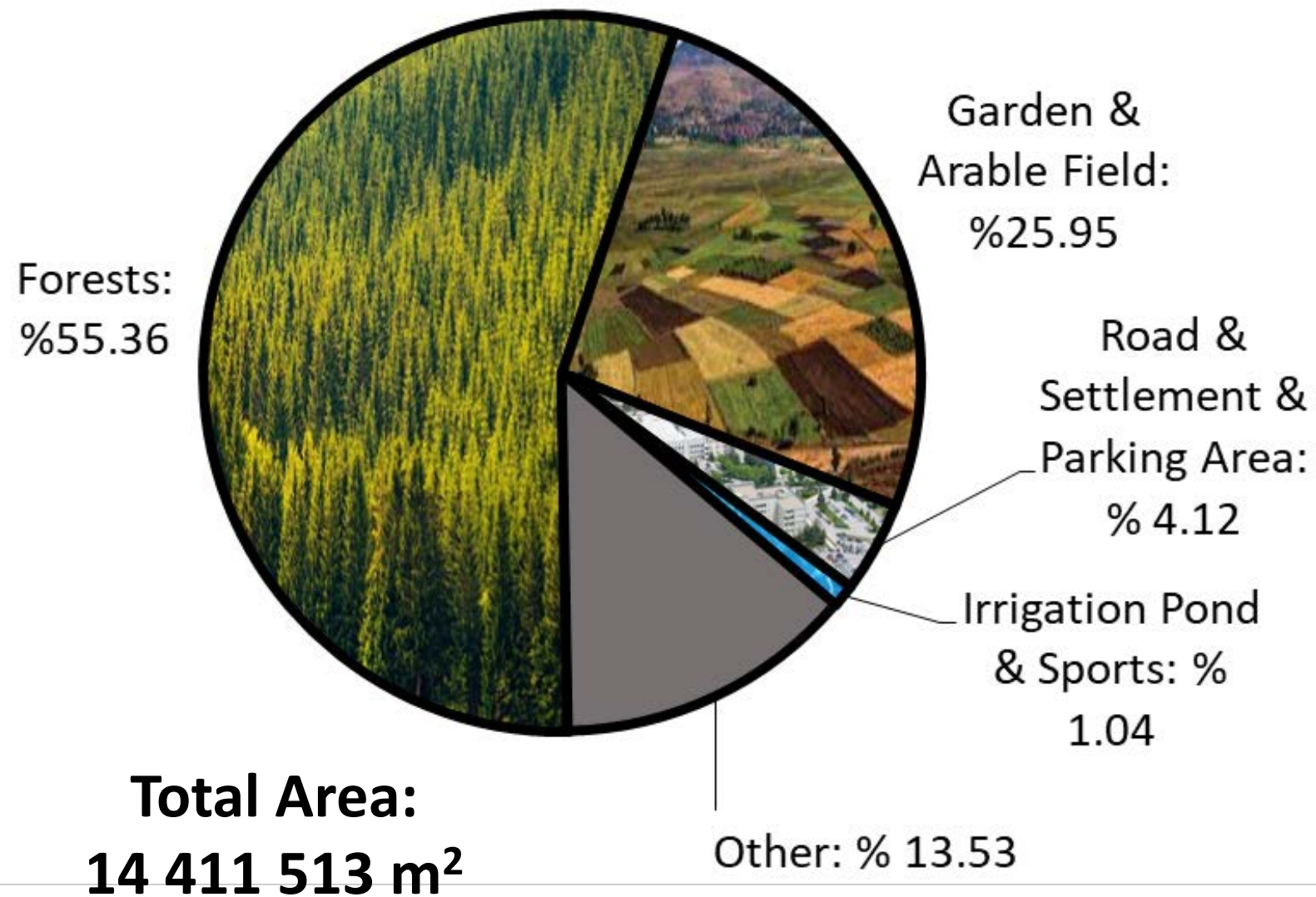


water consumption in the last year

25%

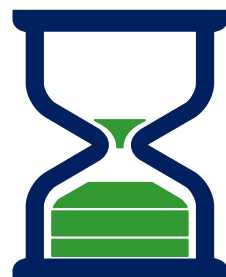


share of sustainability in all courses



Forest Vegetation Area:
7 977 737 m²

Settling & Infrastructure



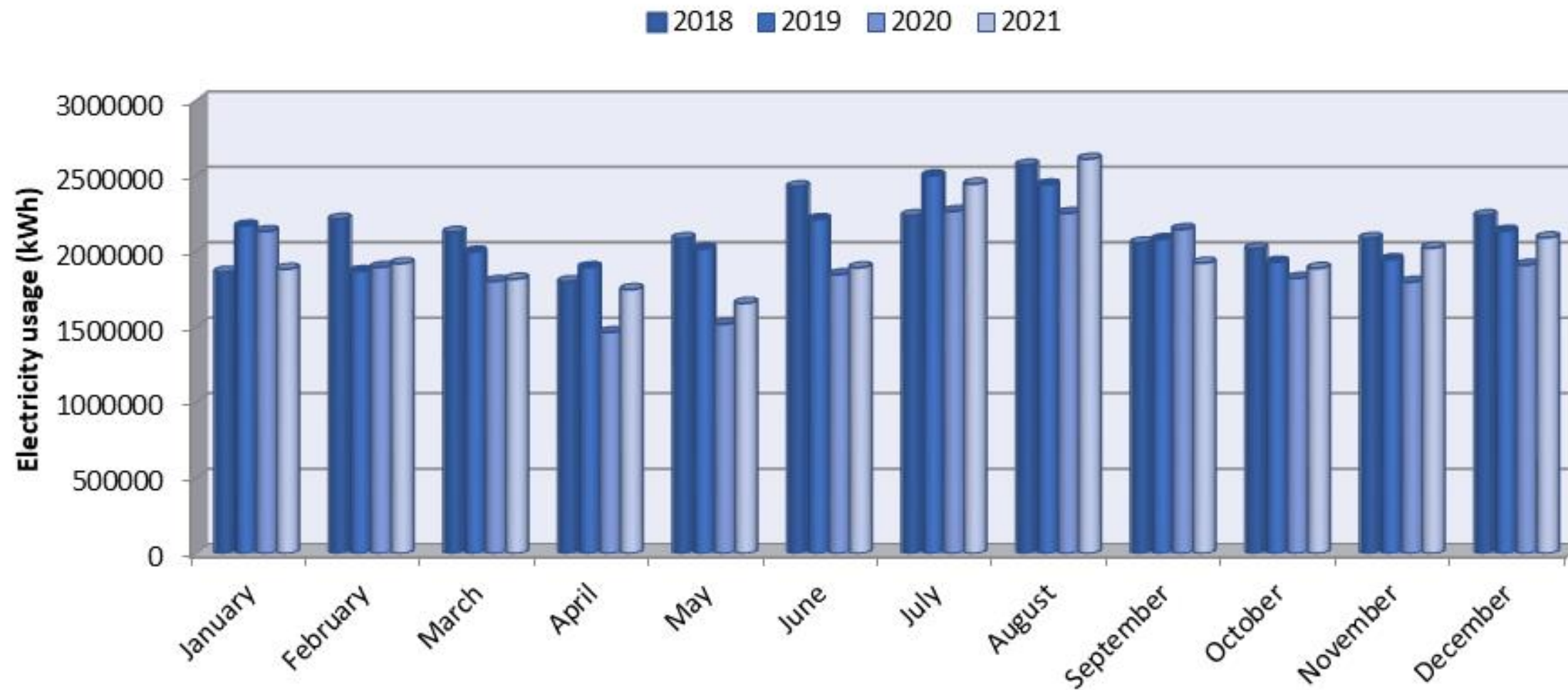
We are close
to our target.

Sustainable settlements are known to value both the nature and the quality of life of humans and other living beings in these settlements. Green spaces are one of the main factors that impact the quality of life. It is essential to have and sustain green spaces in a protection-and usage balance towards the sustainable development

goals. Green spaces are necessary for life.

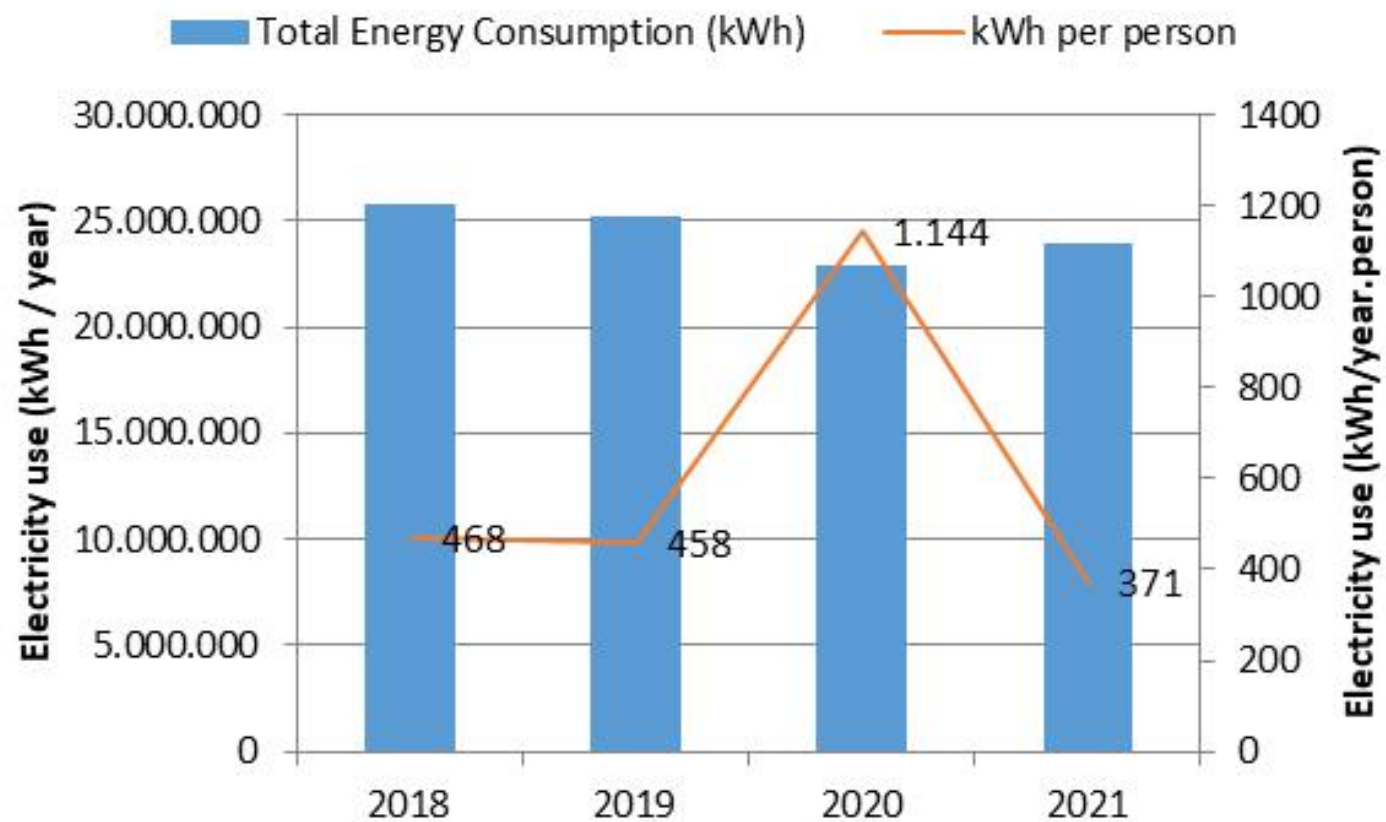
Bursa Uludag University is one of the luckiest universities regarding the existence of green spaces. 55% of the 14.41 km² total area is composed of forests. Besides, 26% is covered with gardens and arable fields.





The total electricity usages at Bursa Uludag University Campus in 2018, 2019, 2020 were 25 749 389 kWh, 25 211 475 kWh, 22 871 532 kWh, and 23 923 846 kWh respectively.

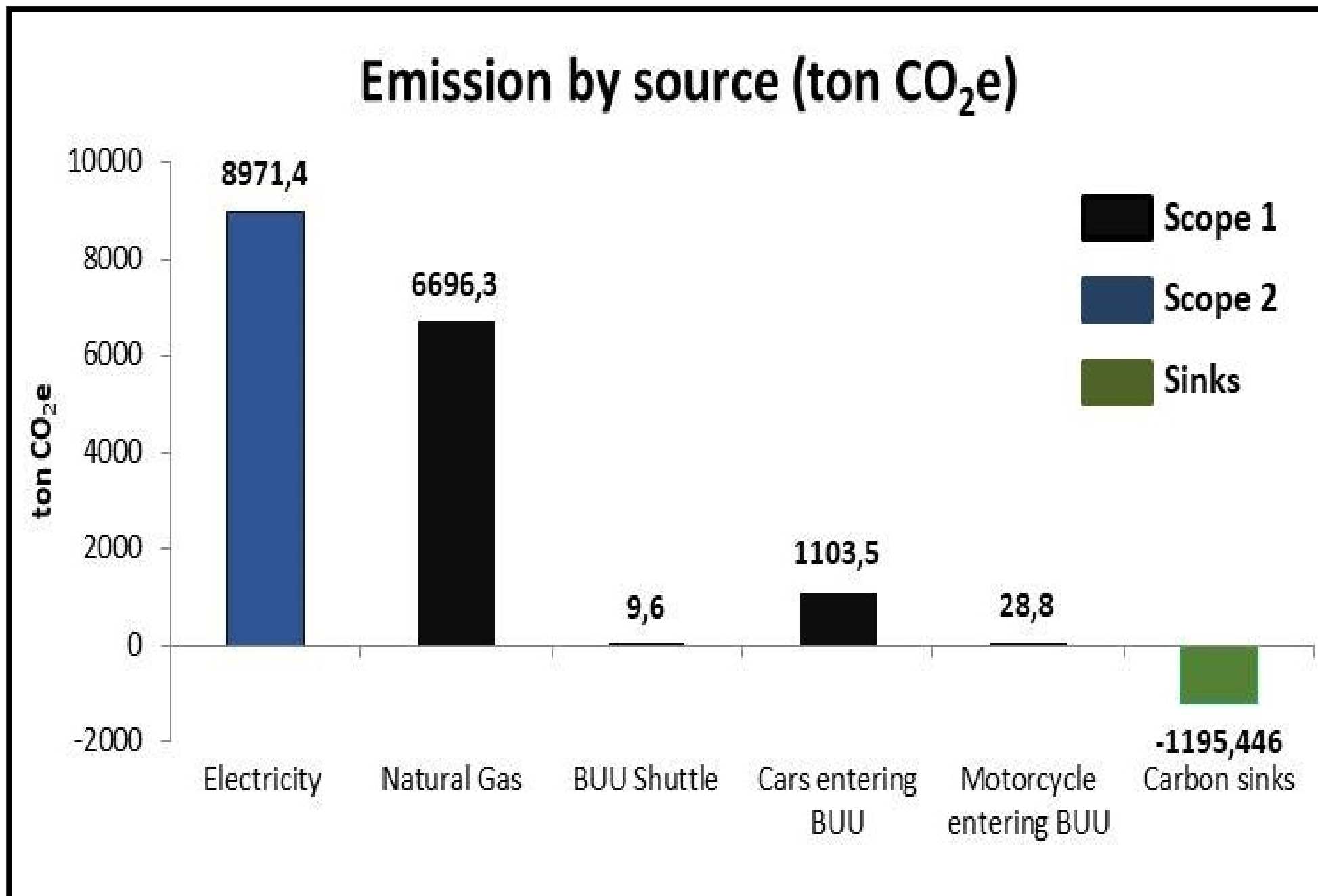
Electricity is used for lighting, cooling, and laboratory appliances. Electricity use per person reduction was recorded in the last year.



Energy



We can do better.

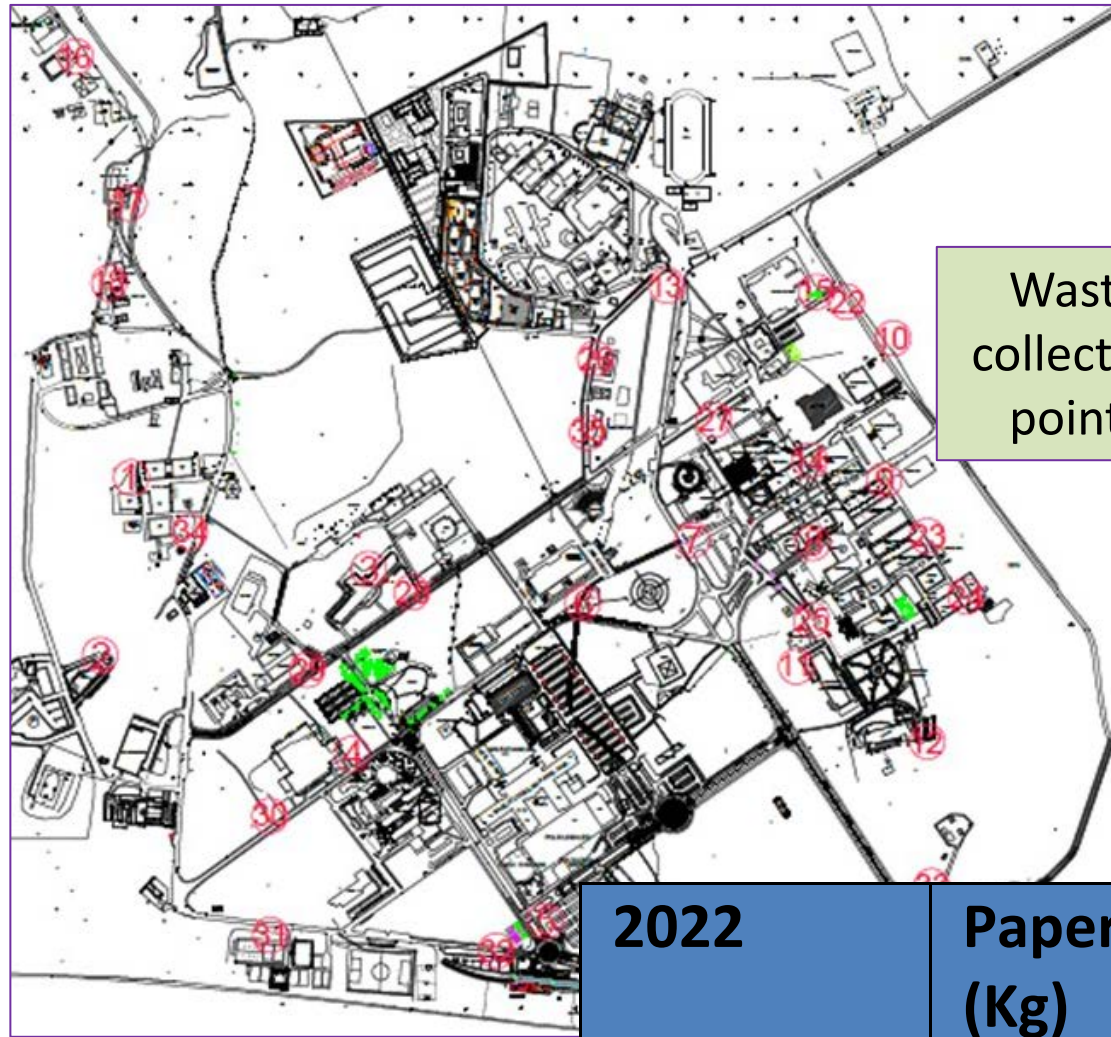


Scope 1 emissions consider all buildings and vehicles managed by the university or entering the university. The assessment of Scope 1 emissions also considers the forests at the university campus, which constitute small sinks of GHGs as trees and other woody vegetation continue to grow.

Scope 2 emissions incorporate electricity purchases on the campus. The CO₂ equivalent levels of the emissions generated at the BUU campus are shown in the figure.

**Emissions generated at the Bursa
Uludag University Campus by
source**

Climate



Waste collection points

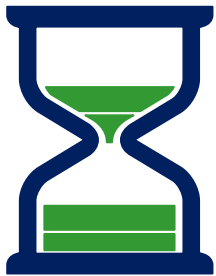
The Zero Waste Project in Turkey initiated by the Ministry of Environment and Urbanization in 2017 has evolved into a nationwide campaign over the past four years. Zero waste regulation was published and started to be applied by the public institutions in Turkey.

Bursa Uludag University fulfilled the criteria of Zero Waste project and received the Zero Waste certificate. O special Waste Division was established to manage recycling program within the campus. The Zero Waste Project run by the university is developing day by day with many recycling programs within the campus.

Waste recycled in 2022

2022	Paper-Cardboard (Kg)	Plastics-PET (Kg)	Glass (kg)	Total (Kg)
January	7.698	3.849	1.283	12.830
February	9.534	4.767	1.589	15.890
March	8.706	4.767	1.451	14.924
April	10.086	5.043	1.681	16.810
May	8.508	4.254	1.418	14.180
June	11.616	5.808	1.936	19.360
July	7.848	3.924	1.308	13.080
August	11.190	5.595	1.865	18.650

Waste



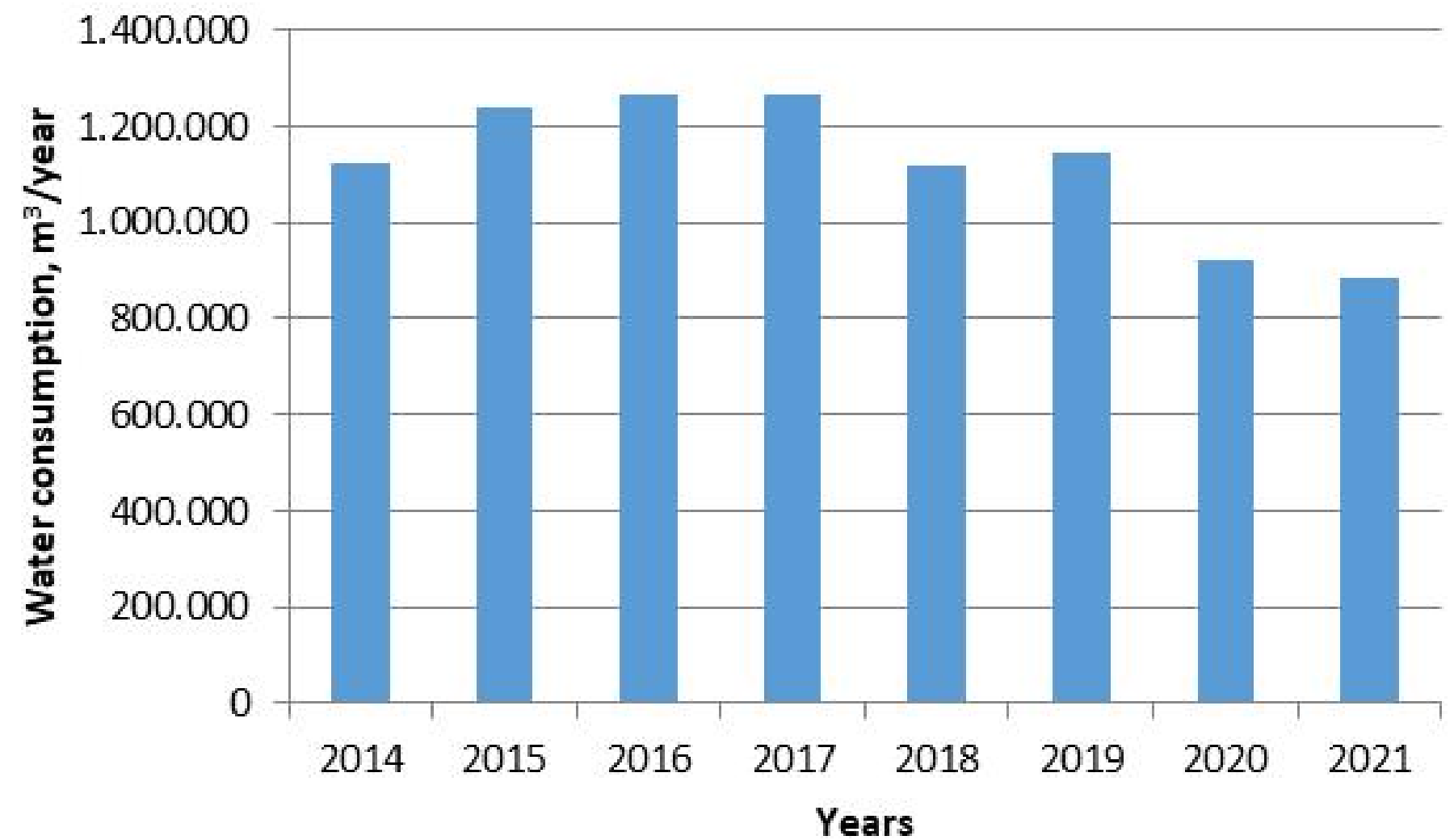
We are making good progress.

There is a plan to improve the rainwater harvesting system for the buildings at the campus. It started with the Environmental Engineering Department building this year. The rainwater harvested is being used within the building (toilets and cleaning purposes) and irrigation of the garden of the building.

Bursa Uludag University's wastewater line is connected to the city's sewerage system. The plant was designed according to the modified five-stage Bardenpho process. The treatment process includes screening, grit removal, selector tank, and

anaerobic–anoxic–aerobic–anoxic–aerobic tanks (a five-stage Bardenpho process) accompanied by a subsequent clarifier. The sludge treatment consists of sludge screening and homogenization followed by mechanical thickening and dewatering and lime stabilization. The treated wastewater is discharged into the Marmara Sea. Unfortunately, there is no recycling program for the wastewater generated by the university.

Water consumed at the campus in 2021 was 884 049 m³. Water consumption has a decreasing trend.

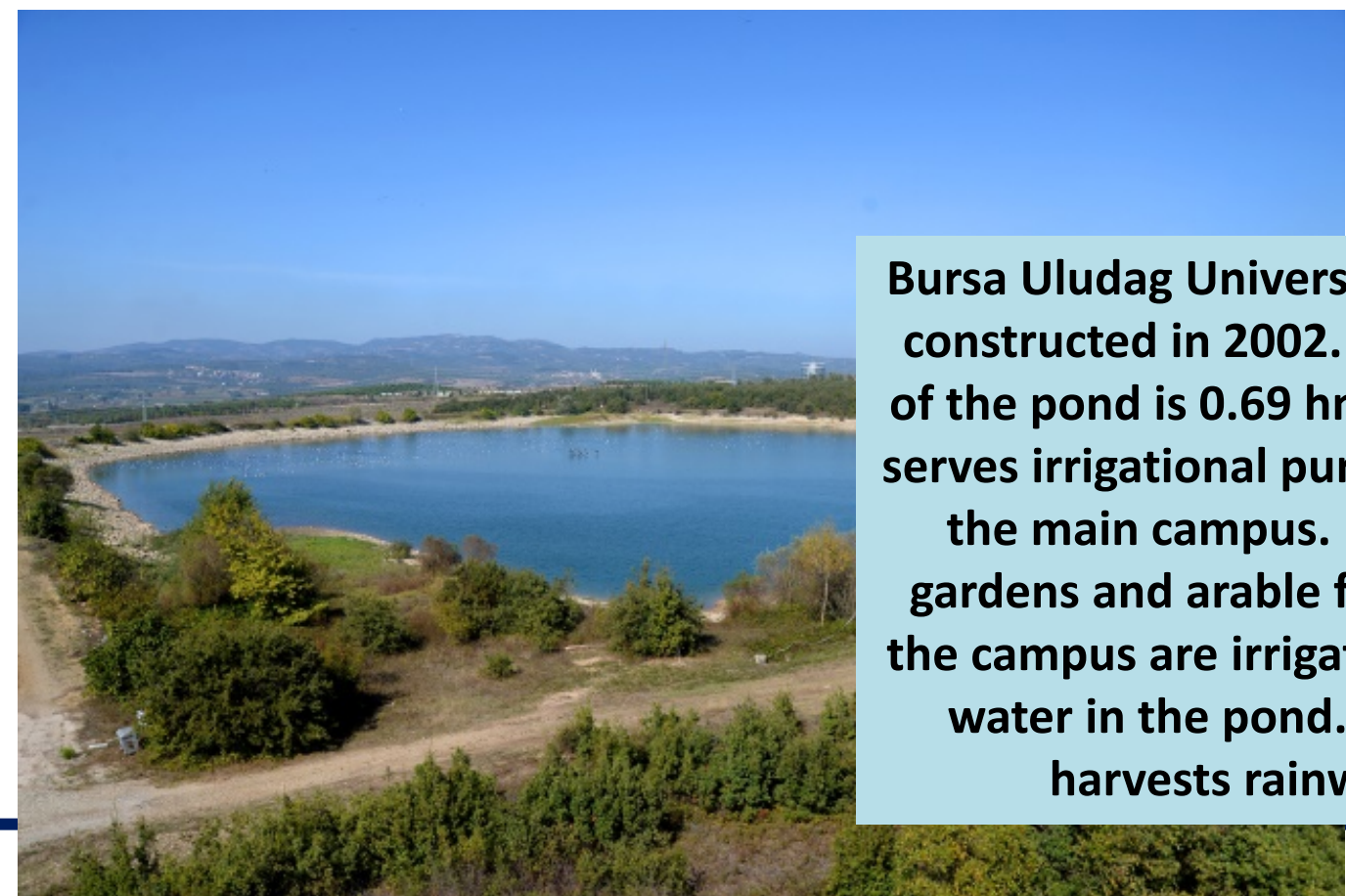


Water



We can do better.

Rainwater harvest at the campus



Bursa Uludag University pond was constructed in 2002. The volume of the pond is 0.69 hm³. The pond serves irrigational purposes within the main campus. All of the gardens and arable fields within the campus are irrigated using the water in the pond. The pond harvests rainwater.

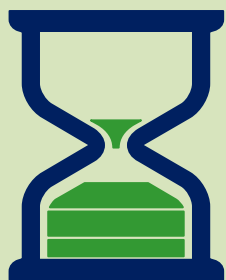
Plant Conservation

The flora at the main campus of Bursa Uludag University is under conservation. 252 species of 219 genus from 59 families were detected. The phytogeographic regions of the species were determined as Mediterranean (22%), Euro-Siberian (10%), Irano-Turanien (1%), and Euxine (0.08%). The families with the highest number of species are Asteraceae, Fabaceae, Lamiaceae, Liliaceae, Boraginaceae, Poaceae. 9 of the 252 species at the campus area are endemic.

There is a special conservation and cultivation zone for medical and aromatic plants, which covers an area of 1000 m². Medical plants, spices plants, perfume and cosmetic plants, dye plants, onion plants and shrub type plants are cultivated at this area. This area is being protected and used for research and educational purposes.



Biodiversity



We are close to our target.

Animal and Wildlife Protection

A special conservation program was developed at Bursa Uludag University Main Campus for Red Deer, which is the biggest deer species in the world and biggest land mammal in Turkey. An area of 720000 m² is dedicated as a conservation zone for Red Deer at the campus. Health service is provided by the Faculty of

Veterinary and Animal Hospital of Bursa Uludag University. Besides the deer, there are also other animal types such as coyotes, fox, squirrels, stoats, hedgehogs, and many reptiles and bird species that live at the main campus. Health services for these animals are given by the Animal Hospital at the campus.

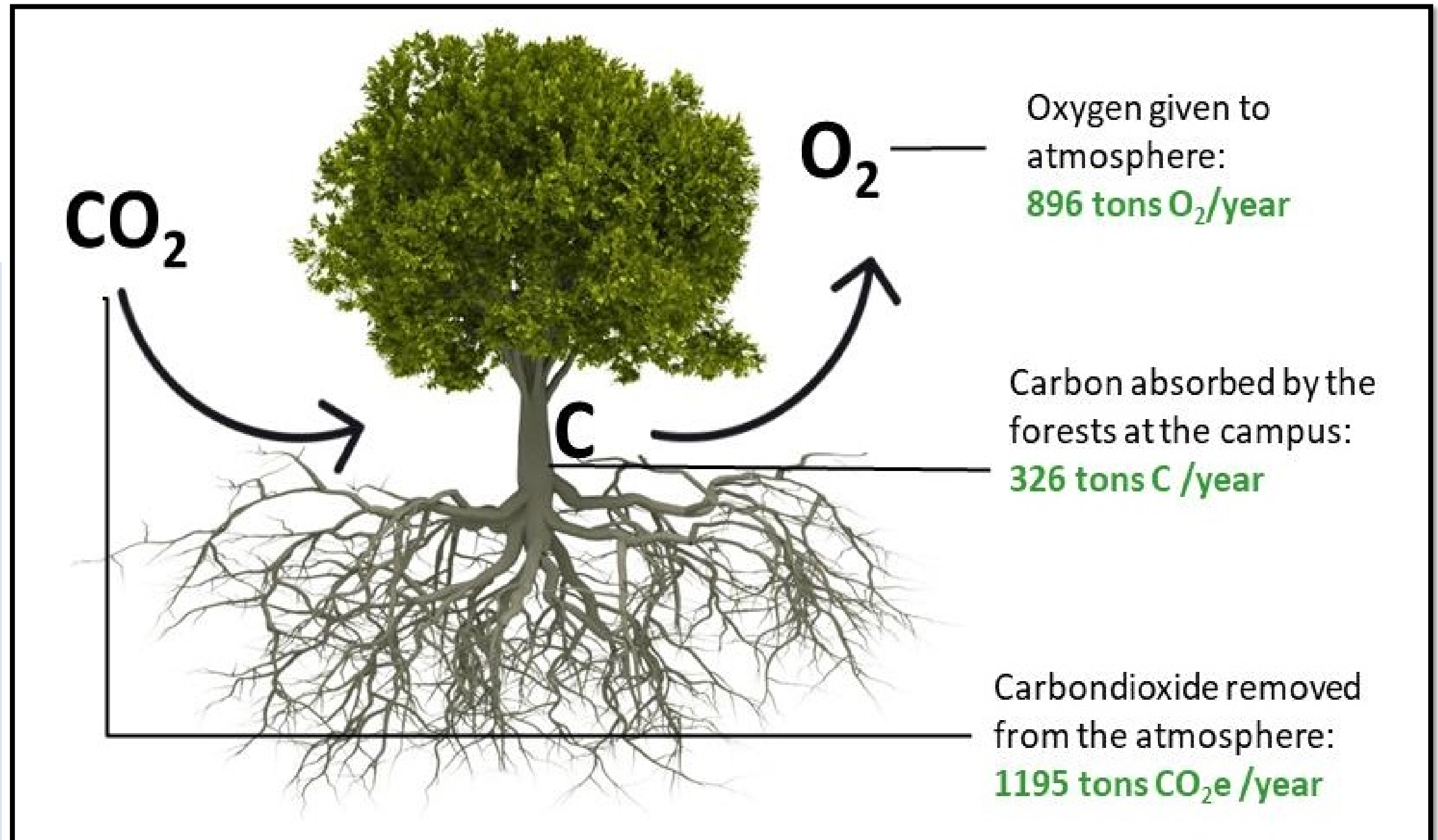
Carbon absorption by the sinks at the BUU campus

Carbon Sinks

Total C wealth of the biomass at the campus:
9857,74 tons C

Annual Carbon absorption by the biomass at the campus:
326,03 C/year

CO₂ yearly equivalent of the absorption:
1195,44 metric tons





Transportation



We can do better.

The university in collaboration with the district municipality provide the bicycles for a reasonable cost to the students.

Vehicle	Total Number/year
Car managed by the university	46
Cars entering the university	7763
Motorcycles entering the university	400
Total	8209

Several local foods such as milk, yogurt, cheese are being produced by the Faculty of Veterinary Medicine and sold to the campus community and the visiting public.

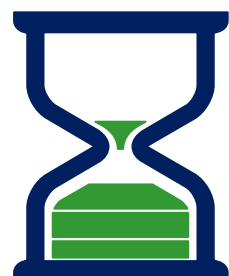
The Faculty of Agriculture produces milk and meat products to be sold. The university has large farms for stock farming and free-range egg farming, etc., not only for research but also for local

food production. The animals at the farms are nourished with only healthy and quality feedstuff, and there is enough open space for grazing.

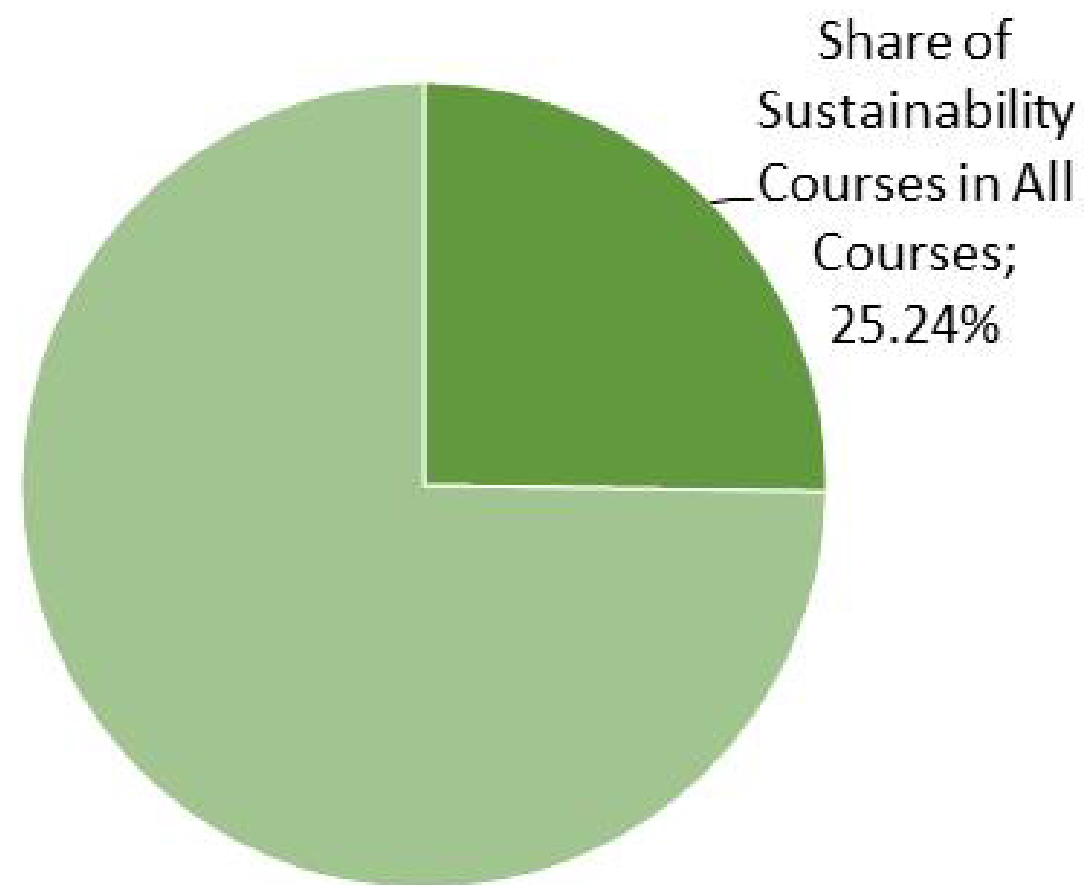
Technical Sciences Vocational School developed a local ice cream with the milk they obtained from the farms of the Faculty of Agriculture. This local ice cream was put on the market with a brand named UNIDO.



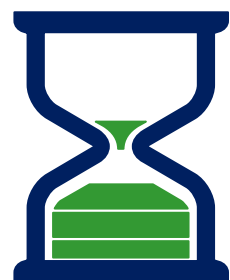
Sustainable Food



We are close to our target.



Education



We are close to our target.

FACULTIES	All Courses		Sustainability Courses	
	Under-graduate	Graduate	Under-graduate	Graduate
Faculty of Engineering	825	513	127	187
Faculty of Education	763	902	156	191
Faculty of Agriculture	889	588	251	252
Faculty of Economics and Administrative Sciences	338	458	22	162
Faculty of Arts and Sciences	1119	577	246	217
Faculty of Architecture	135	120	8	9
Sports Science Faculty	127	41	2	3
Faculty of Health Sciences	72	118	38	41
Faculty of Medicine	184	217	86	82
Faculty of veterinary medicine	159	349	12	65
TOTAL	4611	3883	948	1209

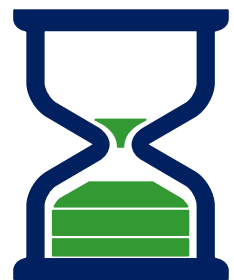
Vocational Schools	All Courses	Sustainability Courses
Vocational School of Technical Science	816	89
Vocational School of Mennan Pasinli	44	3
Vocational School of Health Sciences	533	247
TOTAL	1393	339



Sustainability Events

Total number of sustainability & environment related events in years 2021-2022 is more than 150.

A total average per annum over the last 3 years is more than 50 events (e.g. conferences, workshops, awareness raising, practical training, etc).



We are close to our target.



AİLE HEKİMLİĞİ ANABİLİM DALI



#BUUSürdürülebilirKampüs

ASANSÖRSÜZ GÜN
Bursa Uludağ Üniversitesi
4 TEMMUZ 2022





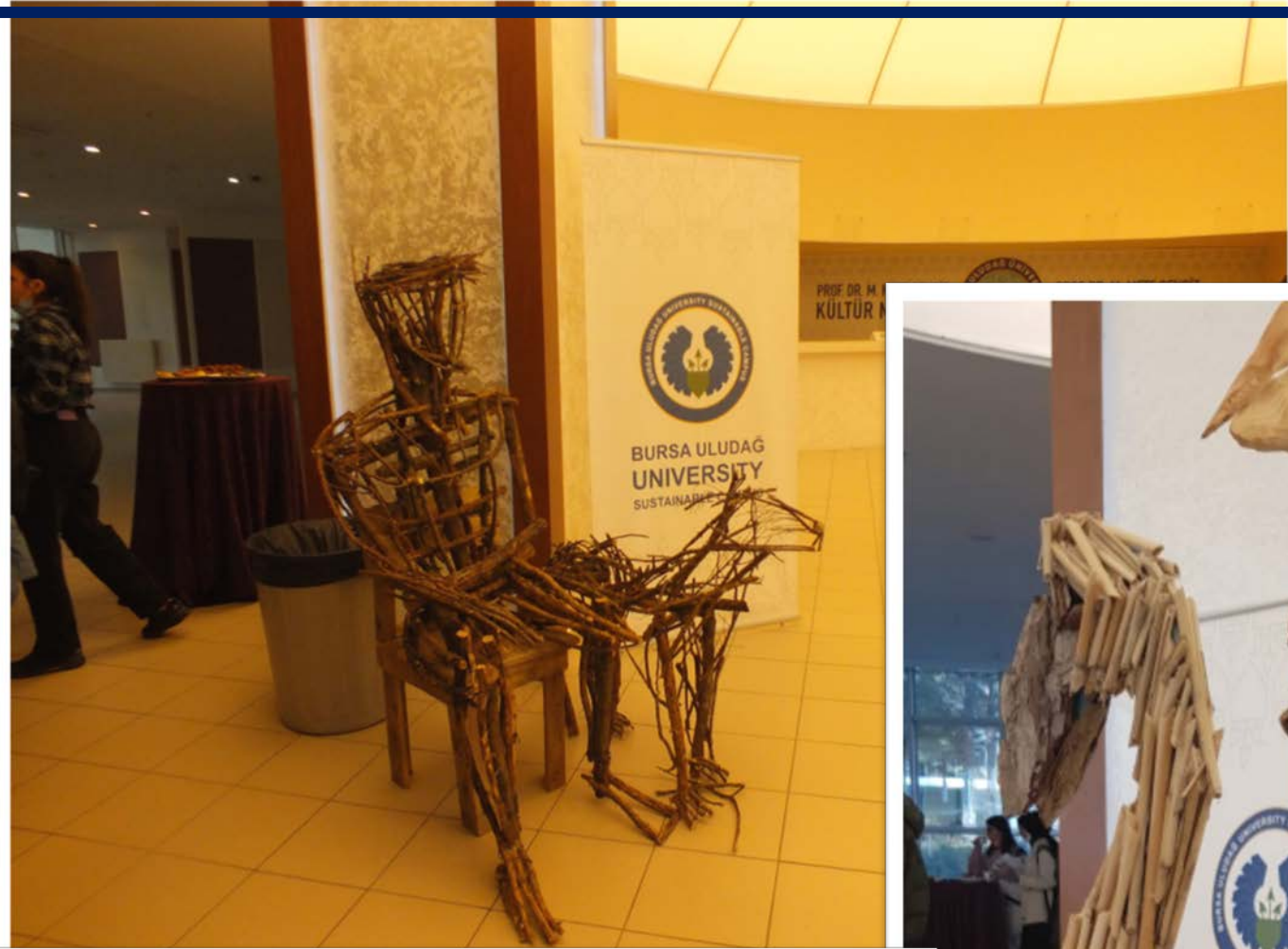
Sustainability Events





Sustainability Events

Sustainability Events





Join Us!

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