



SDG-13

CLIMATE ACTION - A 'CARBON-NEUTRAL UNIVERSITY' BY 2050



Low-carbon energy use

Low-carbon energy tracking devices actively measure the amount of carbon energy used in the environment and have been incorporated across Comsats University Islamabad (CUI). Research conducted by the University indicates that direct emissions occurring within the boundaries of the University, emanating from fuel combustion for electric power generation and fuel combustion for space heating and cooking are considerably less than the indirect emissions that occur outside the University boundary, due to the government electric power generation plants and public transportation. Thus, the air quality inside CUI's lush green campuses is way better than what is outside its boundaries, providing a serene learning environment to its students.

The University's policy to reduce the carbon footprint has borne fruit and the quantum of carbon emissions at all campuses of CUI are gradually declining, having reduced by approximately 40% in 2020 over the last two years, as indicated by a recent study.

The mitigation values for the last four years have been given in tabular form as under:

Year	Consumption (GJ)	Mitigation (kwh)
2018	122453.7	128082
2019	139411.1	117660
2020	71792.3	96081
2021	75382.0	110493

projected values have been used for the year 2021 for both energy consumption and mitigation.

The emission and mitigation values for 2018, 2019, 2020, and 2021. Emission values for 2020 and 2021 are projected values since physical activities at CUI were shut down due to COVID-19 pandemic.

Carbon emissions reduced from 11,000 metric tons carbon dioxide in 2019 to just under 6,000 metric tons in 2020, showing a reduction of 45%. At the same time, the mitigation measures taken by the University almost doubled in year 2020, from the 2018 figures. Thus, CUI is moving towards the target of becoming a carbon neutral University by 2050.

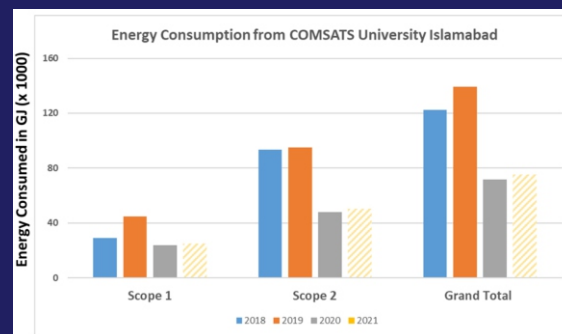


Figure Energy consumption of COMSATS University Islamabad during 2018, 2019, 2020 and 2021 (unit: Giga Joules x 1000)

Important Note: The energy consumption values for 2021 are projected values based on values for previous year. A factor of 5% rise in energy consumption has been used to compute value for 2021.

Environmental education measures

Multiple climate awareness programs, hands-on trainings and capacity building activities have been organized at all campuses. These include local education programs and campaigns on climate change risks, impact mitigation and reduction, adaptation, and devising an early warning mechanism.

CUI is actively engaged with the government on carbon mitigation activities, such as the one-billion tree plantation campaign, during which thousands of trees have been planted across all campuses, as well as in the surrounding community.



The University, in collaboration with other stakeholders, is actively working on environmental issues, like plastic pollution and

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CUI has committed to becoming a carbon-neutral university in the next 28 years and has set a target date of 2050, by which it hopes to become fully carbon neutral, as defined and measured by the Greenhouse Gas Protocols.

CCRD, in collaboration with the American Institute of Pakistan Studies (AIPS), organized a one-day seminar entitled, 'Achieving Net Zero: Where CUI Stands,' in June 2021. CCRD and the Center for Policy Studies jointly organized an interactive event involving students, 'Gaming Climate Change' in December 2021. It also organized a training workshop on air quality monitoring, during which a demo was given on the very innovative 'air visual pro monitoring' device. It also co-organized an exhibition at the Pakistan Council for Research in Water Resources (PCRWR) in December 2021 as a part of the Pakistan Water Week 2021 awareness campaign.



The 'Azadi (Freedom) Tree Plantation' drive was held at the Wah campus in August 2021. The Director Campus, Prof. Dr. Muhammad Abid planted a Eucalyptus and Alstonia saplings. Heads of the Departments also planted trees. A large number of faculty and staff members participated to make the Green & Clean campaign successful.

