University	:	Karunya Institute of Technology and Sciences
Country	:	India
Web Address	:	www.karunya.edu/

[2] Energy and Climate Change (EC)

[2.11] Please Provide The Total Carbon Footprint (CO_2 emission in the last 12 months, in metric tons)

CO_2 (electricity)

$$= \frac{electricity\ usage\ per\ year\ (kWh)}{1000} \times 0.84$$

$$= \frac{62,07,259\ kWh}{1000} \times 0.84$$

= 5214.09756 metric tons

CO_2 (bus)

$$= \frac{\begin{array}{c} number\ of\ shuttle\ bus\ in\ your\ university \times total\ trips\ for\ shuttle\ bus\ service\ each\ day \\ \times approximate\ travel\ distance\ of\ vehicle\ each\ day\ inside\ campus\ only\ (KM) \times 240 \end{array}}{100} \times 0.01$$

$$= \frac{13 \times 26 \times 0.2 \times 240}{100} \times 0.01$$

= 1.62 metric tons

CO_2 (cars)

$$= \frac{number\ of\ cars\ entering\ your\ university \times 2 \times approximate\ travel\ distance\ of\ vehicle\ each\ day\ inside\ campus\ only\ (KM) \times 240}{100} \times 0.02$$

$$= \frac{95 \times 2 \times 0.5 \times 240}{100} \times 0.02$$

= 4.56 metric tons

CO_2 (motorcycle)

$$= \frac{number\ of\ motorcycle\ entering\ your\ university \times 2 \times approximate\ travel\ distance\ of\ vehicle\ each\ day\ inside\ campus\ only\ (KM)}{100} \times 0.01$$

$$= \frac{130 \times 2 \times 0.4 \times 240}{100} \times 0.01$$

= 2.5 metric tons

CO_2 (total)

= 5214.10 + 1.62 + 4.56+2.5

= 5222.78 metric tons

Carbon footprint in March 2024 - April 2025 = 5222.78 metric tons

Example of Total Carbon Footprint (UI GreenMetric)

Description:

Karunya University's total carbon footprint for the past 12 months amounts to 5222.78 metric tons, with the majority of emissions coming from electricity consumption (5214.09 metric tons). Additional emissions are generated by shuttle buses (1.62 metric tons), cars (4.56 metric tons), and motorcycles (2.5 metric tons) operating within the campus. These figures are calculated following UI Green Metric recommendations, using energy consumption data and transportation metrics to accurately capture CO_2 emissions.

The university is committed to identifying ways to reduce these emissions through the promotion of renewable energy, sustainable transportation, and energy-efficient practices. Such efforts contribute to achieving the Sustainable Development Goals (SDGs):

- **SDG 7: Affordable and Clean Energy** – Promoting renewable energy sources and improving energy efficiency.
- **SDG 11: Sustainable Cities and Communities** – Implementing sustainable transportation systems.
- **SDG 12: Responsible Consumption and Production** – Reducing resource use and waste.
- **SDG 13: Climate Action** – Actively monitoring and reducing carbon emissions to combat climate change.

Additional Evidence
https://www.karunya.edu/iqac/ranking/UIGreenMetric