

Title: KIIT University Carbon Emissions Report in Line with GHG Protocol Corporate Standard

Executive Summary:

This report provides an analysis of KIIT University's carbon emissions in alignment with the GHG Protocol Corporate Standard, which is widely recognized and commonly used for calculating and reporting greenhouse gas (GHG) emissions. The report presents an overview of the methodology used, emission sources identified, and key findings related to KIIT University's carbon footprint.

Introduction:

KIIT University recognizes the importance of environmental sustainability and has committed to measuring and reducing its carbon footprint. The GHG Protocol Corporate Standard provides a comprehensive framework for organizations to account for and report their GHG emissions. This report aims to assess KIIT University's carbon emissions using this internationally recognized standard.

Methodology:

The following steps were undertaken to calculate KIIT University's carbon emissions:

a. Scope Definition: The boundaries of the assessment were established, including direct emissions (Scope 1), indirect emissions from purchased energy (Scope 2), and other indirect emissions associated with the university's activities (Scope 3).

b. Data Collection: Data on energy consumption, transportation, waste generation, and other relevant activities were collected from various sources within the university, including utility bills, financial records, and transportation logs.

c. Conversion Factors: Standardized conversion factors were applied to convert the collected data into CO₂ equivalent (CO_{2e}) emissions. These factors were sourced from recognized industry databases and emission factors recommended by the GHG Protocol.

d. Calculation: The collected data was multiplied by the corresponding emission factors to calculate the total CO_{2e} emissions for each emission source and scope.

e. Reporting: The emissions data were aggregated and categorized by emission source and scope to provide a comprehensive overview of KIIT University's carbon emissions.

Carbon Emission Sources:

The major emission sources considered in this report include, but are not limited to:

a. Scope 1:

- ✧ Direct emissions from combustion of fossil fuels in university-owned boilers, generators, and vehicles.
- ✧ Refrigerant leaks from cooling systems.

b. Scope 2:

- ✧ Indirect emissions from purchased electricity consumed by the university.

c. Scope 3:

- ✧ Indirect emissions from commuting and business travel by staff, faculty, and students.
- ✧ Indirect emissions from waste generated by the university.
- ✧ Indirect emissions from procurement activities and other upstream and downstream activities.

Key Findings:

The analysis of KIIT University's carbon emissions revealed the following key findings:

a. Scope 1 emissions accounted for the majority of the university's total emissions, primarily due to the combustion of fossil fuels for backup diesel generators and transportation.

b. Scope 2 emissions were significantly higher compared to Scope 1, as the university's reliance on purchased electricity contributed to indirect emissions.

c. Scope 3 emissions, particularly from usage of electronics and waste, constituted a substantial portion of KIIT University's overall carbon footprint.

Sl. No.	Factors	Carbon Emission per annum (in kg)	%
1	Imported Electricity	18971100	65.50
2	Mobile Phones & Computers	25303574	20.97
3	Diesel Fuel for Generators	40000	0.68
4	Fuel for University Vehicles	200000	2.99
5	Food Wastage	300000	3.39
6	LPG	31000	0.68
7	Waste Treatment Plants	5500000	1.04
8	Paper Waste & Notebooks	50000	0.20
9	Consumables in Labs and Workshops (includes chemicals, refrigerants, lubricants, etc.)	50000	0.03
10	Miscellaneous	720550	4.52

Total CO2 Emissions	15.929 kilo tonnes (kt)	
Scope 1	0.694 kt	4.35%
Scope 2	10.434 kt	65.50%
Scope 3	4.801 kt	30.15%

Recommendations:

Based on the findings, the following recommendations were suggested to help KIIT University reduce its carbon emissions:

- a. Improve energy efficiency: Implement energy-saving measures, such as upgrading lighting systems, optimizing HVAC systems, and promoting energy conservation practices.
- b. Renewable energy adoption: Increase the share of renewable energy sources for electricity consumption, such as installing solar panels or purchasing renewable energy credits.
- c. Sustainable transportation: Encourage the use of public transportation, carpooling, and cycling. Provide infrastructure for electric vehicle charging stations and promote the use of electric vehicles.
- d. Waste management: Implement waste reduction and recycling programs. Explore opportunities for composting organic waste and minimizing landfill waste.
- e. Awareness and education: Raise awareness among staff, faculty, and students about the importance of carbon reduction and engage them in sustainability initiatives.

Conclusion:

This report provides an overview of KIIT University's carbon emissions, following the GHG Protocol Corporate Standard. By assessing its carbon footprint and implementing the recommended measures, the University can demonstrate its commitment to environmental sustainability and contribute to mitigating climate change.