

8. ENVIRONMENT AUDIT (CARBON FOOTPRINT ANALYSIS)

8.1. Facility Description

The carbon footprint is "the total amount of greenhouse gas (GHG) emissions caused by an organization, event or product". Global warming and climate change are the foremost environmental challenges facing the world today. It is our responsibility to minimize the consumption of energy and hence reduce the emissions of greenhouse gases.

8.2. Institutional Initiatives for Environment Conservation

8.2.1. Awareness campaign on environment conservation

Management has taken steps to create awareness among students and staff regarding:

- Creating awareness campaigns on Environment Conservation
- Awareness campaigns on avoiding use of plastics

Environment awareness drawing competition is been conducted for the students.

8.2.2. Workshop on trees in Bangalore

The management has conducted various workshop and expert talks to create the awareness among the students in environment conservation and sustainability activities. The picture of expert talk on types of trees available in Bangalore and the benefits is shown in figure 8-1.



Figure 8-1: Expert talk on types of trees available in Bangalore

8.2.3. Ramp for barrier friendly movement

Wheelchair ramps enable differently-abled as well as elderly people to enjoy complete freedom, as they allow users to move in and around the campus safely. The ramp facility available in college is shown in figure 8-2.



Figure 8-2: Ramp facility at college

8.2.4. Wheel chairs and Washrooms for differently abled persons

Wheelchair ramps, wheel chair and wash room are available for differently abled as well as elderly people. The ramp facility available in college is shown in figure 8-3.



Figure 8-3: Wheelchair and wash room for differently abled

8.2.5. Transport facility for students

The college provides safe and reliable transportation to students. The college operates a fleet of buses which are well connected with the city and provide students, faculty, and staff with the best transportation facilities. Students are picked up and dropped off by the buses on different routes throughout the city.

To ensure the safety and security of all commuters, buses are regularly inspected, checked, and cleaned.

The sample image of transport facility is shown in figure 8-4.



Figure 8-4: Transport facility for students

8.2.6. Day-light Integration

During the audit phase classrooms, Staff-rooms, computer lab, UPS & batteries room and library areas were surveyed for illumination levels and fresh air-circulation. It was observed most of the rooms are well ventilated and day-light integrated; sample photos are shown in figure 8-5.



Figure 8-5: Well-ventilated and day-light integrated class room and Library

8.2.7. Installation of LED lights

In the campus, LED fixtures are used to conserve energy. LED fixtures are used in the class rooms, staff-rooms, seminar hall corridors, hostel, dining area, etc. Sample photo of LED lamp used in the some of the locations of the college area are shown in figure 5-8 and sample LED purchase bill is shown in figure 8-6.



Figure 8-6: LED lights installed in Campus

8.2.8. Installation of Solar Water Heater

Solar water heaters are installed in hostel for generating hot water. Sample photo of solar water heater used in the campus are shown in figure 8-7.



Figure 8-7: Solar Water Heater

The cost savings by installation of solar water heater are given in table 8-1.

S. No.	Description	Unit	Values
1	Solar water heater installed	L	3000
2	Total amount of heat produced	kCal/hr	90000
3	Electricity equivalent	kWh	104.7
4	No. of working days per year	days	250.0
5	Annual electricity savings	kWh	26162.8
6	Average electricity cost	Rs./kWh	8.25
7	Annual cost savings achieved per year	Rs. lakh/year	2.2
8	CO2 mitigations per year	Tons/year	22.2

Table 8-1: Annual cost savings by installation of Solar Water Heater