

GREEN AUDIT REPORT

TRANSPORT, ELECTRICITY & WATER AUDIT CONDUCTED IN SHRI SHIKSHAYATAN COLLEGE, 2021-2022

“Development around the world is putting pressure on our environment with flora and fauna diminishing, carbon emissions not sufficiently constrained, and freshwater vital to our health, security, and economy under increasing pressure- our future prosperity is dependent upon addressing these impacts.

WWF has welcomed the Government’s commitment to the environment by recognizing prosperity including health and well-being as well as vital environment services and resources, and to unlock the potential for a sustainable and prosperous future for all.”

The rapid urbanization and economic development at the local, regional and global levels have led to several environmental and ecological crises. On this level, it becomes essential to adopt the system of the Green Campus for the Institute which will lead to sustainable development.

Green Audit defines the systematic identification, quantification, recording, reporting, and analysis of components of environmental diversity. The ‘Green Audit’ aims to analyse environmental practices within and outside the college campus which will have an impact on the eco-friendly ambiance. Through Green Audit one gets a direction as to how to improve the condition of the environment and various factors have determined the growth of carrying out Green Audit.

Green Audit is assigned to the criteria 7 of NAAC.

ENERGY USED AND CONSERVATION

The indicator addresses energy consumption, energy sources, energy monitoring, lighting, appliances, natural gas, and vehicles. Energy use is clearly an important aspect of campus sustainability and thus requires no explanation for its inclusion in the assessment.

Electricity being one of the basic requirements in the day-to-day activities, it is seen that the energy source utilized by all the departments and common facility centres is electricity only.

Total Energy Consumption by major consuming Equipment - 14866 KWH/Year

Average Cost Audit of Total Energy Consumption - $(14866 \times 7.03) + 42 = \text{Rs. } 104,549.98$

Daily Carbon Footprint - $14866 \text{ KWH} \times 0.98 \text{ Kg CO}_2 = 14,568.68 \text{ Kg CO}_2$

Per Capita Emission of CO₂ - 7.28 Kg CO_2

One of the main sources of Carbon emission is from the combustion of fossil fuels by vehicles while commuting between different places. With the increased rate of use of personal vehicles this value is growing continuously. Thus, to keep in check the carbon footprint of the college due to commutation by the students, an audit was performed.

TRANSPORT AUDIT

Sample Size - 90

Mode of Transportation - Two-wheeler, Auto-rickshaw, Car (Diesel), Car (Petrol), Pool Car (Diesel), Bus, Metro, Electric-Train.

Per Capita Emission of CO₂/Day by Two-wheeler - 0.365 Kg CO_2

Per Capita Emission of CO₂ annually by Two-wheeler (150 working days in college) - 54.75 Kg CO_2

Per Capita Emission of CO₂/ Day by Auto-rickshaw - 0.395 Kg CO_2

Per Capita Emission of CO₂ annually by Auto-rickshaw (150 working days in college) - 59.25 Kg CO_2

Per Capita Emission of CO₂/ Day by Car (Diesel) - 2.62 Kg CO_2

Per Capita Emission of CO₂ annually by Car (Diesel) (150 working days in college) - 393 Kg CO_2

Per Capita Emission of CO₂/ Day by Car (Petrol) - 1.91 Kg CO_2

Per Capita Emission of CO₂ annually by Car (Petrol) (150 working days in college) - 286.5 Kg CO_2

Per Capita Emission of CO₂/Day by Pool Car (Diesel) - 0.92 Kg CO_2

Per Capita Emission of CO₂ annually by Pool Car (Diesel) (150 working days in college) - 138 Kg CO_2

Per Capita Emission of CO₂/ Day by Bus – 1.91 Kg CO₂

Per Capita Emission of CO₂ annually by Bus (150 working days in college) – 286.5 Kg CO₂

Per Capita Emission of CO₂ / Day by Metro, Electric Train – 2.28 Kg CO₂

Per Capita Emission of CO₂ annually by Metro, Electric Train (150 working days in college) – 342 Kg CO₂

The above obtained value is well below the present per capita CO₂ emission in India (i.e., 1700Kg).

WATER AUDIT

Water is the most essential natural resource required for human survival and carrying out a diverse set of activities from the domestic to the manufacturing sector. Thus, it is absolutely essential to increase the awareness about water conservation and prevention of freshwater wastage wherever possible. The main source of water wastage in domestic environments like homes and colleges is through leakage of taps and other water sources. The following audit represents the usage of water without wastage.

No. of buildings – 4

Water Devices Inspected – Toilets, Laboratories, and Water Purifying System.

No Leakage was found anywhere; therefore, no wastage of water was recorded.

Saswati Sen

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