

Chaksrikrishnapur-Kulberia :: Kulberia :: Purba Medinipur 721649

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Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.3 Policy document on environment and energy usage Certificate from the auditing agency.

LINKS FOR RELEVANT DOCUMENTS

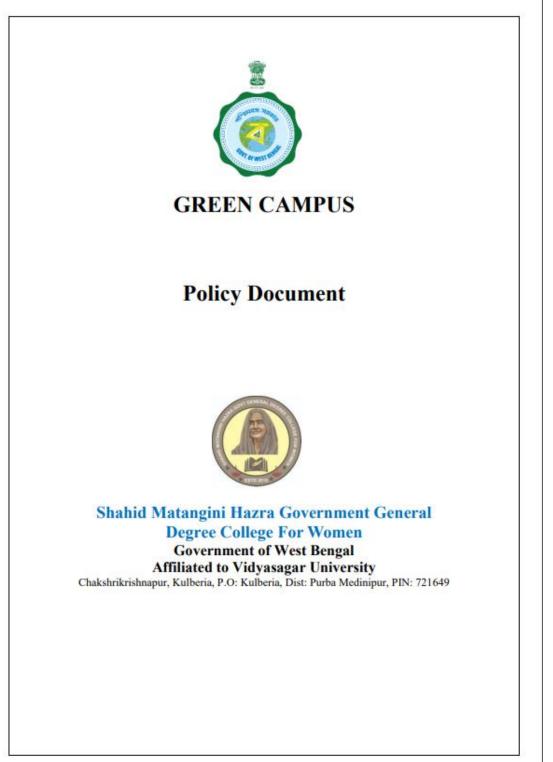
No	Description of the documents
1.	Photographs of Green Campus Policy
2.	Sample Photograph of Self-Assessed Green and Energy Audit - related part
3.	Sample Photographs of Notice / Circulars

I Principal Shahid Natangini Hazra Government General Degree College for Women Cheksribrishnapur, Kurberia, Mintouri Tamluk, Purba Medinipur Principal Shahid Matangini Hazra Govt. General Degree College for Women,



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Self Assessed Green and Environmental Audit



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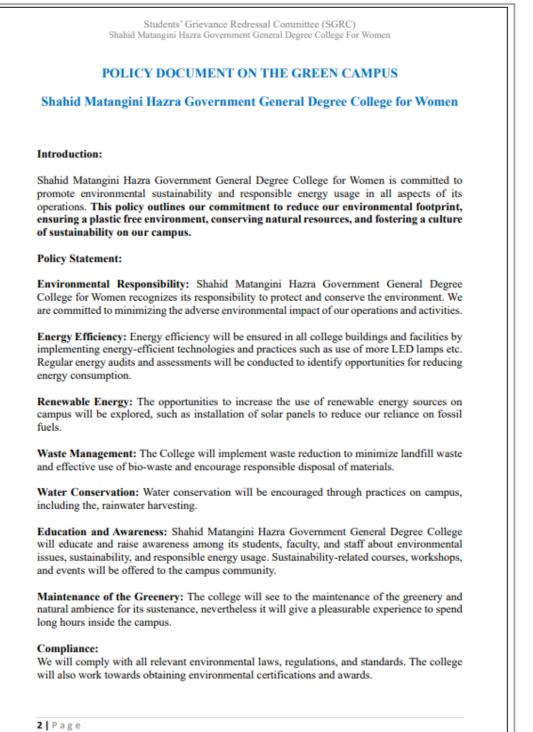


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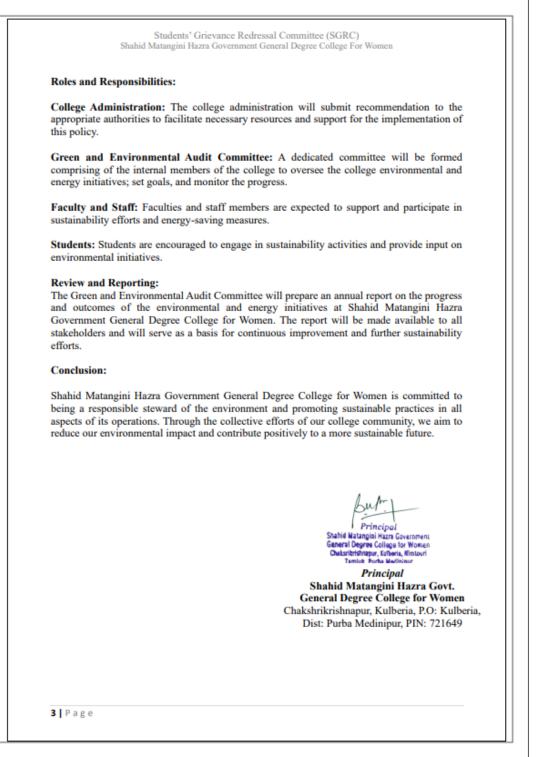


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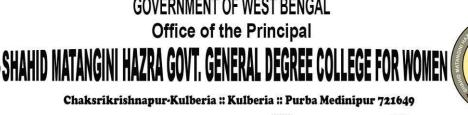
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Self Assessed Green and Environmental Audit



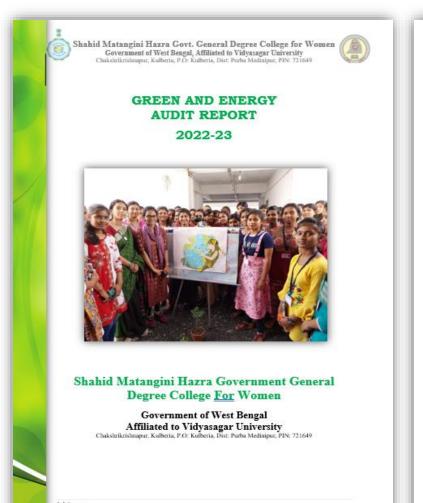
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Sample Photograph of Self-Assessed Green and Energy Audit - related part



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3.1 Campus Survey

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Green and Energy audit forms part of the resource management process. The Eco-campus concept mainly focuses on the efficient use of energy and water; minimizes waste generation or pollution and also ensures economic efficiency. All these indicators are assessed in the process. Eco campus focuses on the reduction of contribution to emissions, procure a cost effective and secure supply of energy, encourage and enhance energy use conservation, promotes personal action, reduce the institute's energy and water consumption, reduce wastes to landfill, and integrate environmental considerations into all contracts and services considered to have significant environmental impacts.

The Green and Energy Audit approach covered the following major areas:

- 1. Water Efficiency and Water Management
- 2. Energy Efficiency and Energy Management 3. Air Quality &Carbon footprint Management
- 4. Types of Waste and Waste Managem
- 5. Biodiversity & Green Zone management

3.2 Water Efficiency and Water Management

The assessment of water requirement comprises of sanitation, laboratory, kitchen, drinking etc. The water is used for drinking, cleaning, cooking etc. purposes. Main water resource is underground water resource and electric pumps are used to get such water to fill-up the overhead water storage tank. The Water Storage Capacity of the overhead tank is 8000 litres. Qty of water used per day___ 6400 litres (approx.) Water harvesting unit is not installed.

SI No	Particulars	Nos	Amount of Water used/day	Use (%)
1.	No of Water filters/coolers/Drinking Water Taps	6	600	9%
2.	No of Water Taps in Laboratories	39	300	5%
3.	No of Water Taps in Washrooms	66	4500	70%
4.	No of Water Taps in Canteen / others	17	1000	16%
5.	Amount of water used per day	128	6400	100%

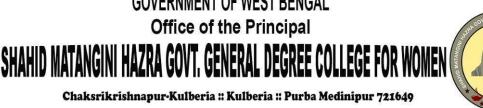
3.3 Energy Efficiency and Energy Management

This indicator addresses energy consumption, energy sources, energy monitoring, lighting appliances. Energy use is an important aspect of campus sustainability. All tubes and lights are to be converted to an energy efficient light emitting diode (LED) uses only less than 10/20W W. The uses energy is 24395 units which Rs. Amount is Rs.3,44,922'- in the year 2022-2023. It is therefore essential that any environmentally responsible institution examine its energy use practices. Energy cannot be seen, but we know it is there because we can see its effects in the forms of heat, light and power. The details for Energy consumption are given below:

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Periodic Energy Consumption Table:

S1 No	Particulars	KWH	Amount
1.	July 2022	2444	31551
2.	August 2022	2337	30705
3.	September 2022	2406	31852
4.	October 2022	2894	34195
5.	November 2022	1910	28004
6.	December 2022	2182	29974
7.	January 2023	1914	28855
8.	February 2023	1630	26653
9.	March 2023	1462	25405
10.	April 2023	1887	23386
11.	May 2023	1577	26216
12	June 2023	1752	28126
	Total for the Year	24395	344922
Total St	rength of the College 1054	23.15 kWh	nerson/year

Demand Charge included Rs.15300/- every month and Annual Demand Charge arrives Rs.1,83,600/- which is 53% of the total amount paid.

Shahid Matangini Hazra Government General Degree College for Women falls in Warm & Humid Climate Zone. In a warm and humid climate zone, energy consumption is often higher due to the need for cooling systems to maintain comfort levels. This makes it particularly important for institutions to implement energy-efficient practices and technologies to minimize environmental impact and operational costs. The Energy Performance Index (EPI) measured from the above table as 23.15 kWh/person/year.

Major consumptions of electricity are from the following devices/equipment:

SI No	Particulars		
01.	Fans		
02.	Lights	_	
03.	Computer and Peripherals		
04.	Laboratories	_	
05.	Electric Pump Set and Other Devices		

Other Observations:

- All the corridors receive moderate daylight
- Corridors are wide with good ceiling height.
- Classrooms also have high ceilings with wide doors and windows.
- Windows are kept open to receive natural light. Due to the location some classrooms do not receive ample natural light and fresh air. All rooms are provided with tube lights and fans.
- Computers are always kept on standby mode with power saving screensavers. There are signages encouraging users to switch off light and fans to save electricity.
- Providing signage through screensavers & posters near electrical switches help in making students responsible for conservation of electricity.



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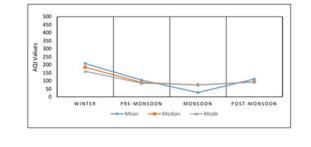
- · Standard Operation Procedures (SOPs) should be prepared and followed for green purchasing wherein equipment with star rating; those using eco-friendly materials; those with safe disposal policy or return to supplier after the end of life, can be considered.
- For purchasing new electronic appliances, star rating provided by Bureau of Energy Efficiency (BEE) should be considered. The equipment which has maximum star ratings could be purchased, which will consume less energy, ensure environm ntal sustainability and also operate at low cost.
- Notices/ signage can be put up/ displayed near switches and on notice boards, informing students and staff to switch off all electrical gadgets of all Departments & Sectors when not in use
- · Use of large number of percentage renewable energy should be considered.

3.4 Air Ouality & Carbon footprint Management

Commutation of stakeholders has an impact on the environment through the emission of greenhouse gases into the atmosphere consequent to burning of fossil fuels (such as Petrol, Diesel, LPG Gas). The most common greenhouse gases are carbon dioxide, CFC, water vapour, methane, nitrous oxide and ozone. It was observed that the Outdoor air quality is moderately fresh for breathing. A comprehensive study has been conducted by the Dept. of Geography and Dept. of Geology of the College involving students.



Figure 3: Statistical parameters showing the seasonal variation of AQI during the year 2023 at the SMHGGDCW monitoring station



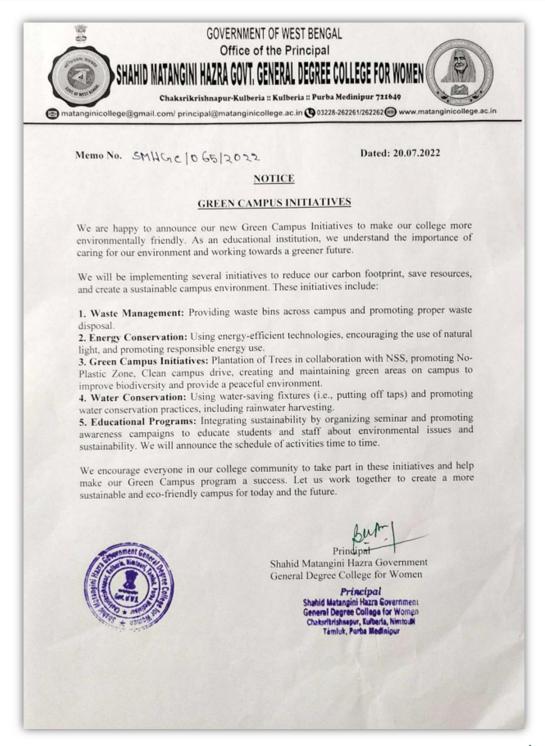
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