

GREEN AUDIT REPORT

(2022-2023)

OF

MAHITOSH NANDY MAHAVIDYALAYA

(JANGIPARA, HOOGHLY, WEST BENGAL, INDIA)

Prepared by

HOWRAH JOUTHA PARIBESH SAMITY

(Registration No.—S0027086 of 2022-2023)

**Registered Office Address- Deulpur, Panchla, Howrah-
711411**

Website-hjjpm.com

Mail id-howrahjelajauthaparibeshmancha@gmail.com

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হাওড়া জেতা যৌথ পরিবেশ মঞ্চ

জেতার পরিবেশ সংগঠন ও পরিবেশপ্রেমী মানুষের মিলিত আওয়াজ

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CERTIFICATE

PRESENTED TO
MAHITOSH NANDY MAHAVIDYALAYA
Jangipara, Hooghly

Has been assessed by **Howrah Jautha Paribesh Samity** for the comprehensive study of environmental impacts on institutional working framework to fulfill the requirement of

GREEN AUDIT

The green initiative carried out by the institution has been verified on the report submitted and was found to be satisfactory.

The efforts taken by the management and the faculty towards environment and sustainability are appreciated and noteworthy.

Sauren Susekhar Biswas

President
HOWRAH JAUTHA PARIBESH SAMITY

Signature



03/07/2023

Date of Audit

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স্থান: কার্যালয় - মেঘাজান কলন, বেড়াবেড়িয়া, বাগমান, হাওড়া

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ACKNOWLEDGEMENT



Howrah Jautha Paribesh Samity would like to thank the management of MAHITOSH NANDY MAHAVIDYALAYA for assigning this important work of Green Audit. We appreciate the co-operation to the teams for completion of assessment. We would also like to thank ----

1. Prof. Dr. Tapas Kumar Munshi, Principal, Mahitosh Nandy Mahavidyalaya
2. Prof. Moumita Sil Roy, Coordinator, IQAC, Mahitosh Nandy Mahavidyalaya

for their continuous support and guidance, without which the completion of the project would not have been possible. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements. We are also thankful to—

1. Prof Saumya Kanti Bhattacharya, Asst. Professor, Department of English, Mahitosh Nandy Mahavidyalaya
2. Sri Santanu Nandi, SACT, Department of Geography, Mahitosh Nandy Mahavidyalaya

Last but not the least; we would like to thank the Governing Body of Mahitosh Nandy Mahavidyalaya for giving us an opportunity to evaluate the environmental performance of the campus.



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DISCLAIMER



Howrah Joutha Paribesh Samity Audit Team has prepared this report for MAHITOSH NANDY MAHAVIDYALAYA based on input data submitted by the representatives of college complemented with the best judgment capacity of the expert team.

While all sensible care has been taken in its preparation, details contained in this report have been compiled in good faith based on information gathered.

It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

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Sauren Sekhar Biswas

President
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CONCEPT AND CONTEXT

The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory from the academic year 2019–20 onwards that all Higher Educational Institutions should submit an annual Green, Environment and Energy Audit Report. Green Audit is assigned to the Criteria 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India that declares the institutions as Grade A, Grade B or Grade C according to the scores assigned at the time of accreditation. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of global warming through Carbon Footprint reduction measures. In view of the NAAC circular regarding Green auditing, the College management decided to conduct an external environment assessment study by a competent external professional auditor. The green audit aims to examine environmental practices within and outside the college campus, which impact directly or indirectly on the atmosphere. Green audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of college environment. It was initiated with the intention of reviewing the efforts within the institutions whose exercises can cause risk to the health of inhabitants and the environment. Through the green audit, a direction as how to improve the structure of environment and inclusion of several factors that can protect the environment can be commenced. This audit focuses on the Green Campus, Waste Management, Water Management, Air Pollution, Energy Management & Carbon Footprint etc. being implemented by the institution. The concepts, structure, objectives, methodology, tools of analysis, objectives of the audit as below:



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INTRODUCTION:

The green audit aims to analyze environmental practices within and outside the college campus, which will have an impact on the eco-friendly atmosphere. Green audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of college environment. It was initiated with the motive of inspecting the effort within the institutions whose exercises can cause threat to the health of inhabitants and the environment. Through the Green Audit, a direction is shown how to improve the structure of environment. Green auditing and the application of mitigation measures is a win-win situation for all the institutions, the learners and the mother earth. It can also result in health awareness and can promote the environmental awareness, values and beliefs. It provides a better understanding to staff and students about the Green impact on institution. Green auditing also upholds financial savings through reduction of resource usage. It gives an opportunity to the students and teachers for the development of ownership of the personal and social responsibility. The audit process involves primary data collection, site walk through with the team of university /college including the assessment of policies, activities, documents and records.



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NEED FOR GREEN AUDITING:

Green auditing is the process of identifying and determining whether institutional practices are eco-friendly and sustainable. Traditionally, we are good and efficient users of natural resources. But over the period of time excess use of resources like energy, water, have become habitual for everyone especially, in common areas.

Now, it is necessary to check whether our processes are consuming more than required resources? Whether we are handling resources carefully? Green audit regulates all such practices and gives an efficient way of natural resource utilization. In the era of climate change and resource depletion, it is necessary to verify the processes and convert it into green and clean one. Green audit provides an approach to it.

It also increases overall consciousness among the people working in institution towards an environment.



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GOALS OF GREEN AUDIT

Our college has conducted a green audit with specific goals as:

- 1. Identification and documentation of green practices followed by the institution.*
- 2. Identify strength and weakness in green practices.*
- 3. Analyze and suggest solution for problems identified.*
- 4. Assess facility of different types of waste management.*
- 5. Increase environmental awareness throughout campus.*
- 6. Identify and assess environmental risk.*
- 7. Motivates staff for optimized sustainable use of available resources.*
- 8. The long-term goal of the environmental audit program is to collect baseline data of environmental parameters and resolve environmental issue before they become problem.*



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BENEFITS OF GREEN AUDIT TO EDUCATIONAL INSTITUTIONS

There are many advantages of green audit to an Educational Institute:

- *It would help to protect the environment in and around the campus.*
- *Recognize the cost saving methods through waste minimization and energy conservation.*
- *Empower the organization to frame a better environmental performance.*
- *It portrays good image of institution through its clean and green campus.*

The broad aims/benefits of the eco-auditing system would be---

- *Environmental education through systematic environmental management approach*
- *Improving environmental standards*
- *Benchmarking for environmental protection initiatives*
- *Sustainable use of natural resource in the campus.*
- *Financial savings through a reduction in resource use*
- *Curriculum enrichment through practical experience*
- *Development of ownership, personal and social responsibility for the College campus and its environment*
- *Developing an environmental ethic and value systems in young people*



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পরিবেশ, কৃষি ও গ্রাম্য বিষয়
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EXECUTIVE SUMMARY

Green auditing is an essential step to identify and determine whether the institutional practices are sustainable and ecological. Traditionally, we were upright and efficient users of natural resources. But over the period of time, excessive usage of resources like water, electricity, petrol, etc. have become habitual for everyone especially, in urban and semi-urban areas. It is actually the right time to check if we (our process) are consuming more than required resources? Whether we are using resources sensibly? Green audit standardizes all such practices and provides an efficient way to use natural resources. In the time of climate change and resource exhaustion it is necessary to re-check the processes and convert them into green and sustainable. Green audit provides an approach for the same. It also increases overall awareness among the folks working in institution towards the eco-friendly environment.

This is the first attempt to conduct green audit of this campus for fulfillment of NAAC criteria. This audit was mainly focused on greening indicators like consumption of energy in terms of electricity and fossil fuel, quality of soil, water usage, vegetation, waste management practices and carbon foot print of the campus. Initially a questionnaire was shared to know about the existing resources of the campus and resource consumption pattern of the students and staff in the campus.



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MEMBERS OF THE GREEN AUDIT TEAM ON BEHALF OF Howrah Jautha Paribesh Samity

Sl. No.	Names	Designation
1	Sri Saurendu sekhar Biswas	President, Howrah Jautha Paribesh Samity. Doctor and Herbal Plant expert..
2	Kalyani Palui	General Secretary, Howrah Jautha Paribesh Samity. Environment activist
3	Dr. Saurav Dwari	Member, Expert committee , Howrah Jautha Paribesh samity. Teacher and Researcher
4	Sayan Dey	Treasurer, Howrah Jautha paribesh Samity. Teacher, Researcher and Environment Activist.

STATEMENT OF ASSURANCE

This audit has been conducted for the first time in this college. The audit

Procedure tried to meet the terms of International Standards of Internal Auditing. In our decision, sufficient and appropriate procedures were completed and evidence gathered to support the precision of the conclusions reached and contained in this report. The conclusions are based on a comparison of the situations as they existed at the time of the audit.



Signature

Saurendu Sekhar Biswas

President
HOWRAH JAUTHA PARIBESH SAMITY

03/07/2023



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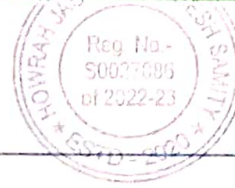
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ABOUT THE COLLEGE



The student and faculty strength of the college is listed bellow

Sl No	Departments (honours & gen.)	No. of students	No of faculty Members
1	Bengali	84	03
2	English	27	03
3	History	38	05
4	Education	57	03
5	Philosophy	19	02
6	Sanskrit	7	04
7	Arabic	44	05
8	Political Science	(only gen)	02
9	Geography	(only gen)	03
10	B.A. General	226	--

Physical structure

The college is located in about 7688.26 sq meters of land. The built up area of the college is 1620 sq meters

Sl No	Type of room	Nos.
1	Class rooms	23
2	Library and Reading hall	01
3	Admin and faculty offices	04
4	Geography Laboratory	01

Office/Building Survey

Information on office based environmental impacts like built-up area, utility bills, energy saving device and IT equipments were collected. This information was added to the carbon footprint data, generating a fairly clearer picture of the institution's annual greenhouse gas emission and impact of the reduction measures undertaken.

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Methodology

Twenty questions related to environment had been fielded to the focus group members to assess their understanding of environment related issues.

The questions focused on four concerns:

1. Whether they consider themselves eco-conscious?
2. Do they consider the institution eco-friendly?
3. What do they think are the top priorities that should be tackled to improve the green campus status of the institution?
4. Whether the students and teachers who own vehicles are aware of the quantity of CO₂ emissions by their vehicles?

Of the 100 respondents 80% are eco-conscious. But they were ignorant of the quantity of carbon emission at the national, state or at campus level. About 60% of them were not well-informed of the simple carbon emission mitigation measures to be carried out in their homes.



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AUDIT FRAMEWORK AND DETAILED FINDINGS

The following audits framework is used for conducting Green Audit in 2022-2023. The framework also listed the findings and observations for every criterion

Control objective	Control(s)	Audit Observation
WATER MANAGEMENT	Repair source of water leakage, such as dripping taps	Regular checking and maintenance of pipelines are done to control water wastage
	Minimize wastage of water and use of electricity during water filtration process, if used, such as water purifier.	Yes, the college has water purifier installed in college corridors for students, in office room for non-teaching staff and also in staff room for teachers.
	Use an efficient and hygienic water storage mechanism to minimize the loss of water during storage	The water tanks is released and cleaned frequently to maintain water hygiene of the tank.
	Encourage to decrease excess water usage	Though wastage of water is nominal in the college, but still placards are set up in the college premises encouraging all stakeholders not to waste water.
	Waste water recycling mechanism	Such mechanism is adopted by the college to reuse waste water in gardens after filtration. A 4000 liter tank is installed to serve this purpose.
	Rain water harvesting mechanism	Such mechanism is adopted by the college to harvest and use rain water in gardens after filtration. A 5000 liter tank is installed to serve this purpose.



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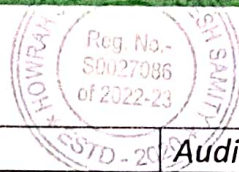
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Control objective	Control(s)	Audit Observation
ENERGY MANAGEMENT	It is preferable to purchase electricity from a company that invests in new sources of renewable and carbon neutral electricity	The college does not have any choice other than WBSEDCL for electric supply. But the college has an eco-friendly 1 KV inverter for supplying electricity in time of power-cut.
	Install renewable energy system	Yet, no such system is adopted.
	Give preference to the most energy efficient and environmentally sound appliances available. This includes energy saving bulbs, tubes, refrigerator, A.C machine, water cooler, monitors, printers, Xerox-machine etc.	The college is using LED and CFL lights as much as practicable. The college does not have any refrigerator, A.C machine, water cooler etc. Energy consumption is low. LED and LCD monitors, Laser printers, one Xerox machine of low power consumption are installed.
	Encourage all stakeholders to save energy through visible reminders to increase awareness.	Yes, the college has put several posters and reminder notes in classrooms and other relevant places to turn off electric appliances when not in use.
	Monitor and understand the importance of different sources of energy consumption.	The college puts the main switch off when there is no need of electricity.
	Ensures that all electronic and electrical equipments are switched off when not in use.	It is practiced by the college.



হাওড়া জোতা যৌথ পরিবেশ মঞ্চ

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মুখান কার্যালয় - মেহাজলি ভবন, বেড়াবেড়িয়া, বাসানান, হাওড়া

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Control objective	Control(s)	Audit Observation
GREEN CAMPUS	Establish a garden in the campus	The college has 100 full-grown trees, 25 semi-grown trees and 50 bushes covering all the sides of institute boundary. Moreover, college has a medicinal plant garden of 30(approx) plants.
	Encourage the faculties and students to plant trees	The faculties and NSS unit of the college plant trees and plants during monsoon almost each year through tree plantation programmes.
WASTE MANAGEMENT	Make full use of all recycling facilities from students' canteen and private suppliers, including glass, batteries, print cartridges, cardboard and furniture.	College has a contract with Jangipara Panchayet who collects all these wastes at regular intervals for recycling.
	Provide sufficient, accessible and well-publicized collection points for recyclable waste, with responsibility for recycling.	The college has set up separate bins to ensure proper collection of various wastes. These are- (a) biodegradable (b) non-biodegradable wastes. College has a contract with Jangipara Panchayet who collects all these wastes at regular intervals for recycling.
	Encourage all stakeholders through visible reminders to increase awareness.	Yes, the college has put several posters and reminder notes in relevant places to put waste in a dust/waste bin.
	Dispose all waste, whether solid or otherwise, in a scientific manner and ensure that it is not released directly to the environment.	Yes, the college disposes all wastes, whether solid or otherwise, in a scientific manner and ensures that it is not released directly to the environment.



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CARBON FOOTPRINT	Ensure use of eco-friendly transport option	About 50% of the total students and teaching and non-teaching staff use public transport as the main mode of transport. The rest 50% students use bicycle.
	Reduce the rate at which the college contributes to the depletion and degradation of natural resources.	College does not participate in depletion and degradation of natural resources.
	Create awareness of environmental sustainability	College does aware its students of environmental sustainability through Environmental Studies class that is in the curriculum.
	Conduct environmental awareness posters and seminars as part of the programme.	Yes, the college places several posters and placards in the campus to ensure environmental awareness. But no such seminars have been organized by the college.
	Carbon footprint or emission of the campus.	Calculating carbon footprint of the carbon emission to determine how best to approach minimizing impact on global warming.



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RECOMMENDATIONS

Criteria	Recommendation
Maximize the renewable flow energy to initiate healthy and continuous flow of energy.	Install solar energy to initiate healthy and continuous flow of energy.
To channelize flow sources	Rainwater harvesting facility should be adopted by digging wells and building rooftop tanks to store rain water.

Carbon Footprint

Carbon Footprint is historically define as the total set of greenhouse emissions caused by an individual, event, organization or product, expressed as carbon dioxide equivalent.

Data collected from the following sources were taken into consideration to calculate carbon footprint emission and reduction. The floristic richness of the campus total number of plants, trees, shrubs-was estimated. The impact of alternate green energy production and consumption to reduce fossils fuel based energy was assessed, e.g. the number of CFL, LED, tube light (FTL) and electronic chokes was counted. The Carbon Footprint calculator enables the measurement of Carbon emission by the institution. Besides, by breaking down the value to key 'carbon devices'. The institution can know how much of carbon footprint comes from which type of behavior (high power-consuming incandescent bulbs vs. LED light, solid waste management, etc).



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☎ 8910634755, 9064570985, 9893356553

📞 9038545600, 8918575367, 8145328141

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📧 howrah.jautha.paribesh.samity@gmail.com

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Carbon Audit Tools Analysis

The Carbon Audit tools analysis methodology were developed collective by Green Audit team and based on that the audit was conducted in three major thematic areas.

The Mahitosh Nandy Mahavidyalaya, Hooghly, West Bengal is located in about 7688.26 sq meter of land in the city of Hooghly, West Bengal after understanding the built-up area 1620 sq meter.

There are following types of trees, shrubs, herbs (including potted plants) in campus

- 10 species of trees
- 15 species of shrubs
- 30 species of herbs in Lawn

About 560 to 700 fully grown trees shall be raised in 1 acre of land. This depends on the types of soil, species of the tree and the spacing. However, with the normal spacing of 6X10 feet, the total number of trees shall be taken up as 600/acre. This is a theoretically assumption. Some faculty members of the college counted the number of plants: full-grown tree (above 10 years), Semi-grown tree (below 10 years), shrubs and lawn (sq ft area).

The following tables will illustration these figures

Sl. No.	Particulars of flora	Numbers/area
1	Full-grown trees	63
2	Semi-grown trees	92
3	Bushes	100
4	Lawn	3218.20 sq m



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TOOLS TO MEASURE CARBON ABSORPTION

Assumptions

1. Number of these in 1 acre=700
2. Carbon absorption capacity of 700 trees is equivalent to carbon by a speeding car for 26000 miles.
3. 26000 miles= 41843 km
4. Average km covered by a car 20km/lit petrol
5. Total quantity of petrol consumed by car (41843/20) =2092 liters

The carbon emitted by car due to consumption of 1 litre of petrol is 2.3 kg CO₂. At this rate the total quantity of carbon emitted by 2092 litres of petrol (2092X2.3)=4812kg CO₂ or 4.8 tonnes of CO₂. Therefore, the carbon absorption of one full-grown tree is 4812/700=6.8 kg CO₂. The footprint calculation is based on the standard unit of petrol=2.3kg CO₂

Carbon Footprint Reduction Table

Carbon dioxide absorption

Sl No	Flora	Quantity of CO ₂ (tonnes)
1	100 Full grown trees	0.68
2	25 semi-grown trees	0.084
3	50 bushes	0.010
4	20,596.48 sq.ft of Lawn	7.620
Total		8.394



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Oxygen Emission by Flora

Sl	Flora	Quality of O2 (tonnes)
1	100 Full grown trees	11.746
2	25 semi-grown trees	01.467
3	50 bushes	25.09
4	20,596.48 sq.ft of Lawn	165137.49
Total		165175.793



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Energy-Saving Measures and Carbon Footprint Reduction



The Energy Audit Report of the college during the year 2022-2023 revealed that the total consumption of electricity was 7725 Units.

1 unit = 1000 watts (1 kw/hour). It requires 0.53 kg of coal to produce 1 unit of electricity.

The total quantity of coal required to produce 7725 units of electricity (7725×0.538 kg coal) = 4040.175 kg or 4.040175 tonnes.

CO2 Emission by Coal

1 kilogram of coal emits 2.86 kg of CO₂; thereby increasing the carbon footprint in turn contributes to global warming.

Calculation of Oxygen Emission by Flora

The number of liters in 1 kilogram depends on the density of the substance being measured. Liter is a unit of volume and kilogram a unit of mass. Liters and kilograms are approximately equivalent when the substance measured has a density of close to 1 kilogram per liter. On average, 1 full-grown tree produces nearly 260 pounds or 117 kg of oxygen each year. 2 mature trees can provide enough oxygen for a family of four.

- Total oxygen emitted by 100 full-grown trees per year ($117.6 \text{ kg} \times 100$) = 11760 kg or 11.76 tonnes.
- Total oxygen emitted by semi-grown trees ($58.8 \text{ kg} \times 25$ = 1470 kg or 14.70 tonnes. (Oxygen emission is 50 % of that of the full grown trees)

Total oxygen emitted by 100 bushes is calculated based on the following oxygen inhaling requirement per person per day. A normal human being requires 550 liters of oxygen per day. 400 bushes produce enough oxygen per day to enable a person to breathe



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☎ 9038545600, 8918575367, 8145328141

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- i) adequate quantity of oxygen of 550 liters. Total quantum of oxygen produced by 400 plants per day is 550 liters of oxygen.

Taking 400 plants as one unit, the number of units of bushes in the campus $(100/400) = 0.25$ unit is $(0.25 \times 550 \text{ liters}) = 137.5$ liters of oxygen per day. The annual production of oxygen at this rate $(137.5 \times 365) = 50187.5$ liters or kg of oxygen, which is approximately 50.18750 tonnes of oxygen.

Lawn is an incredible oxygen making machine. A 25 square feet area will supply enough oxygen to support one person for a day. Quantitatively speaking this area of grass produces 550 litres of oxygen per day.

The total area of lawn in the campus is 1499.22 sq. meter or 165137.49 sq. feet in units, the value $(165137.49 / 25) = 660.50$ units which produce $(660.50 \times 550) = 363275$ liters of oxygen per day. Total quantity of oxygen produced by the square feet of lawn $(363275 \times 365) = 132595375$ liters 132595.375 tonnes per year.

Therefore, 56.85 tonnes of coal consumed indirectly by the institute through consumption of 105672 units of electricity led to the emission $(56851.53 \text{ kg} \times 2.86 \text{ CO}_2) = 162595.3758 \text{ kg}$ or 162.59537 tonnes of CO₂ into the atmosphere.

The management of college is conscious of this damage to the environment and has been implementing various program activities to reduce energy consumption on the one hand and increase green energy sources on the other.

They are—

- *Replacing high energy consuming lighting system with energy efficient lighting systems.
- *Renewable energy system is required to be installed.

Analysis of CO₂ Reduction through the Following Measures

Installing energy efficient lighting system



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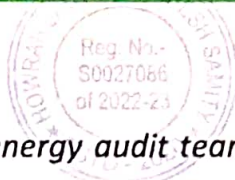
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Based on the recommendations of the energy audit team, the institution has reduced CO2 emissions indirectly by replacing high energy consuming electric bulbs with energy efficient LED lighting systems. To understand the carbon emission reduction, it is appropriate to compare the units of electricity consumed between incandescent lamps and LED.

The following table illustrates this—

Sl No	Contents	Value
1	Total numbers of tube light used earlier	125
2	Average energy consumption by an tube light	40
3	Energy consumption by 125 FTL for 5 hr./day	25 kw/hr or 25 units
4	Energy consumption by 125 FTL for 300 days/year	1500kw hr or 1500 units
125 tube light are replaced with 125 LEDs		
5	Energy consumption by 125 for LED for 5 hr/day	12.5 kw hr. or 12.5 units
6	Energy consumption of LED 125 for 300 days/ year	750 units
7	Energy saver by LED for 5 hr/day	25 units-12.5=12.5 units
8	Energy saved by LED for 300 days/year	750 units

CARBON FOOTPRINT REDUCTION ANALYSIS

One FTL consumes 40 watt energy, 1 LED bulb consumes 18 watt of energy.

First, it is appropriate to analyses the carbon emission due to consumption of 1500 units of electricity by 125 FTL lamps per year. The standard tool of analysis employed in this green audit is coal equivalent of electricity.

0.538 kg of coal is required to produce 1 unit of electricity.

Total units of electricity consume by 125 FTL lamps=1500 units



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Coal equivalent 1500 units (1500X0.538)=807 kg

1 kg coal emits 2.86 kg CO2 into atmosphere.

At, this rate 807 kg coal emits (807 X 2.86) = 2065.95 kg CO2.

The following are the CO2 reduction measures adopted in the institution.

LED

125 FTL which consume 1500 units of electricity were replaced with 125 LED lamps. At this rate the coal equivalent (750 X 0.538 kg) = 403.3 kg

Carbon emission by 403.3 kg coal (403.3 kg X 2.86) = 1141.20 kg. Carbon emission reduction achieved through use of LED bulbs (807-403.3) = 404.70 kg.





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WATER AUDIT

Conservation of rain water through rain water harvesting system is practiced by the college. The college has a tank of 5000 liters for rain water harvesting. College also has waste water management system. A tank of 4000 liters is used to serve the purpose.

IMPRESSION, SUGGESTIONS and RECOMMENDATIONS

Impression

The overall impression one gets while green auditing the campus is that it qualifies to be labeled as a green campus. The geographical terrain and the vast area at the disposal of the institution is a contributing factor to further green the campus. The college management and the faculty deserve appreciation for their efforts to reduce carbon footprint through installation of various energy efficient measures. One example is replacing incandescent and fluorescent bulbs with less energy consuming CFL and LED bulbs.



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SUGGESTIONS and RECOMMENDATIONS



1. Environmental parameters shall be included in purchase policy to achieve a cradle to grave approach for sustainability.
2. Increase the capacity of solar PV so that it can fulfill at least 70% of the electricity requirement.
3. Water Meter should be installed at every building of institute for monitoring of water consumption per capita.
4. Bore well permission should be taken from authorized government department.
5. College should start drip irrigation to save water in campus.
6. College should increase the use of Sprinklers gardening purpose.
7. Flow rate of taps should be checked, it should not be more than 2.5 liters/minute.
8. Increase plantation drives in nearby villages, local bodies, NGO and Municipal Corporation in order to balance the carbon emission and absorption.
9. Arrange training programs on environmental management system and nature conservation for schools and local people.
10. College should initiate a practice where all guests should be given a planter as a gift rather than a bouquet of flowers. Also, plantation should be carried out in nearby villages.
11. Involve lower hierarchy staff in environmental awareness programs and campaigns.
12. Messages should be displayed at various locations to Aware the People about Energy Saving.
13. Green building guidelines for future expansion projects of the campus.



হাওড়া জেলা যৌথ পরিবেশ মঞ্চ

জেলার পরিবেশ সংগঠন ও পরিবেশপ্রেমী মানুষের মিলিত আওয়াজ
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☎ 8910634755, 9064570985, 9593356553
☎ 9038545600, 8918575367, 8145328141

Website - hijpm.com

✉ howrahjauthaparibeshsamity@gmail.com



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Reg. No. - S0027086 of 2022-2023

Registered
Office Address:
Dakshin
Bachchan,
Howrah, 711411

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Date.....

CONCLUSION

Overall 65% of Mahitosh Nandy Mahavidyalaya is for landscaping. The college makes a significant effort to act in an environmentally responsible manner and takes into account the environmental effects of the majority of its activities. The recommendations in this report suggest some more ways in which the college can work to improve its practices and develop into a more sustainable institution. It's important to begin a few things, such as installing of solar energy etc., initiating drip irrigation and checking the water flow from the taps. Additionally, we strongly advise installing water meters at each building/block and water balancing report.



হাওড়া জেলা যৌথ পরিবেশ মঞ্চ

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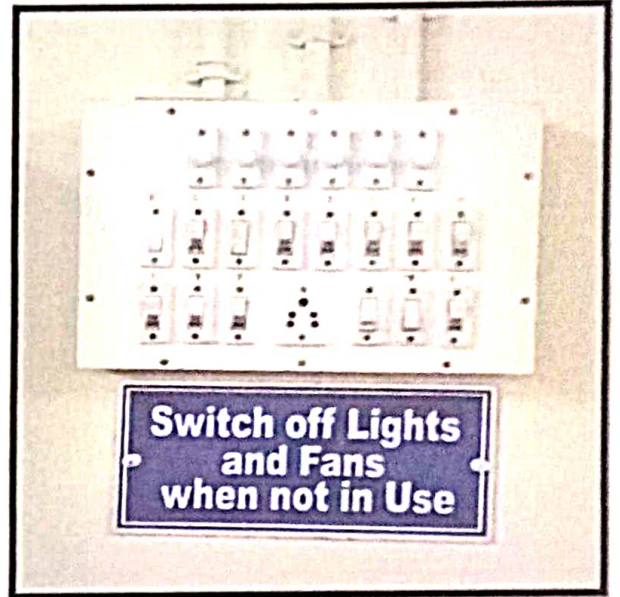
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বাংলাদেশ
কেন্দ্রীয় পরিবেশ
মন্ত্রণালয়
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ANNEXURE - PHOTOGRAPHS OF ENVIRONMENT CONSCIOUSNESS

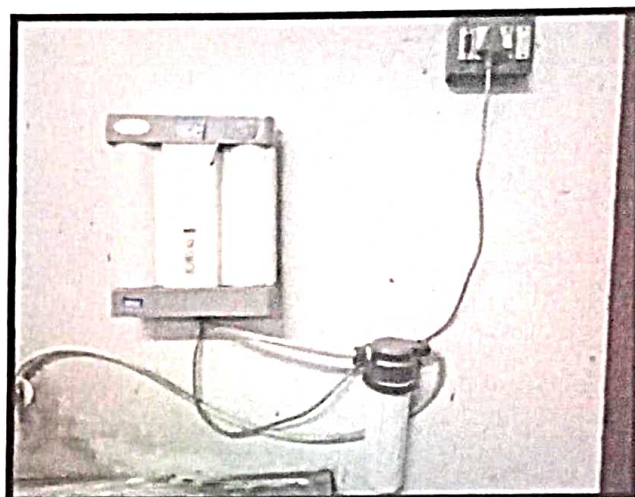
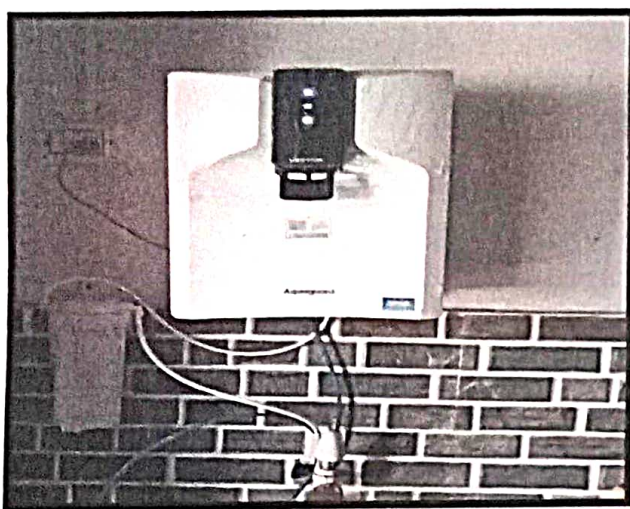


Energy Saving Measures Taken by the College

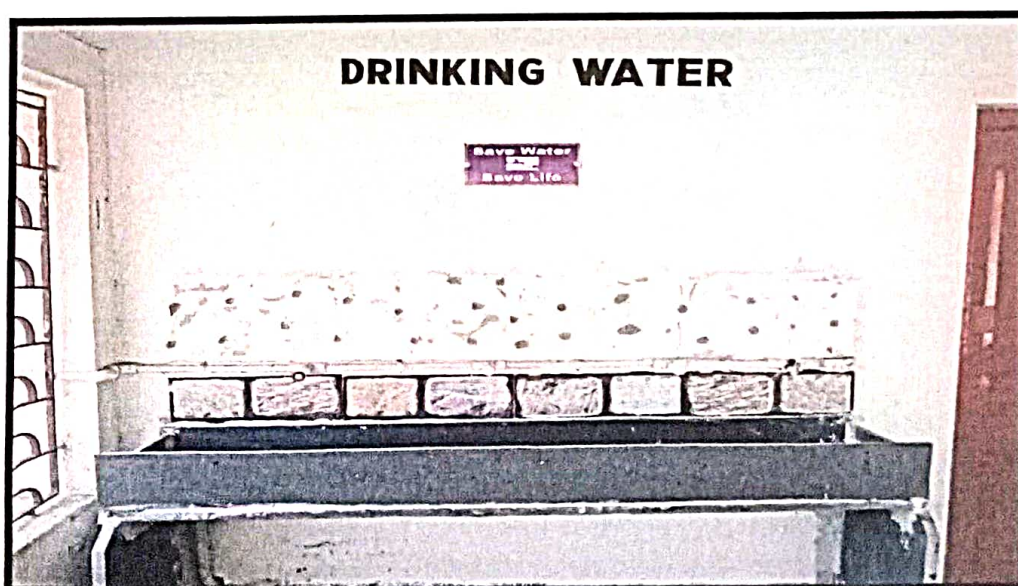
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Water Purifiers



Save water Measures





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A photograph showing a wide, green sports field, possibly a football pitch, viewed from an elevated position. The field is enclosed by a low, light-colored concrete or stone wall. In the foreground, there is a concrete structure that looks like a well or a small utility building, and some trees. The background features a line of trees and several buildings, including a large, light-colored building on the left and a smaller, darker building on the right. The sky is clear and blue.



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