# SWARNAMOYEE JOGENDRANATH MAHAYIDYALAYA AMDABAD, NANDIGRAM BLOCK II PURBA MEDINIPUR ESTD. 2014

CONSOLIDATED

ENVIRONMENTAL AUDIT/
GREEN AUDIT REPORT
[2021-'22 & 2022-'23]

Prepared by
The Audit Committee

Date: 03/04/2024

To The Principal Swarnamoyee Jogendranath Mahavidyalaya Amdabad Nandigram Block II Purba Medinipur West Bengal

Website: www.sjmahavidyalaya.in E-mail: sjmahavidyalaya@gmail.com

Subject: Environmental Audit Report Submission from Experts

Sir

After verification of all the aspects in the College and necessary assessment of the report on "Environmental/Green Audit" mentioning the "Energy Monitoring & Management System" submitted by your College for the periods of 2021-'22 & 2022-'23, here, we are submitting the Audit Report of "Environmental/Green" Audit" of your College of the periods of 2021-'22 & 2022-'23 for your kind perusal in the attached sheet.

We request you to please acknowledge and oblige.

Yours sincerely,

Dr Apurba R Professor & Head

Deptt. of Environmental Science The University of Burdwan

Burdwan

Professor & Head Deptt. Enviornmental Sc. The University of Burdwan Burdwan, W.B.

Dr Dipak Kumar

Principal

Egra Sarada Shashi Bhusan College Egra, Purba Medinipore

> Principal EGRA S.S.B. COLLEGE P.O.- Egra, Purba Medinipur

Dr Asok Kanti Sanyal Ex-Chairman West Bengal Biodiversity Board

Kolkata

Dr. Asok Kanti Sanyal Chairman West Bengal Biodiversity Board Dept. of Environment, Govt. of West Bengal)

Date: 03/04/2024

# AUDIT REPORT ON ENVIRONMENTAL AUDIT/ GREEN AUDIT

### CERTIFICATE

This is to certify that the Environmental Audit/Green Audit Report and Energy Monitoring & Management System followed at Amdabad, Jogendranath Mahavidyalaya, Swarnamoyee Nandigram Block II, Purba Medinipur, West Bengal is based on the original data collected during the periods of 2021-'22 & 2022-'23. This has been assessed and is applicable to provide quality ambience for continued Higher Education, Training and Mental health to the students for their smart future and career. Further, it is certified that the baseline data was prepared by internal Environmental Development Committee team members of Amdabad, Mahavidyalaya, Jogendranath Swarnamoyee Nandigram and submitted to us. The content of the baseline data of the study and Energy Monitoring & Management System has been personally verified by the Expert Team constituted by the Governing Body of the College for validity and reliability. The data used in the study are original in nature and have not been presented or published elsewhere. Data & Photographs used in the report are taken by the College Environmental Committee team members during preparing their Report of the concerned years 2021-'22 & 2022 - '23.

Dr Apurba kajan Ghosh Professor & Head Deptt. of Environmental Science The University of Burdwan Burdwan

Professor & Head Deptt. Enviornmental Sc. The University of Burdwan Burdwan, W.B. Dr Dipak Kumar Tamini Principal

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Principal
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Dr Asok Kanti Sanyal Ex-Chairman

West Bengal Biodiversity Board Kolkata

Dr. Asok Kanti Sanyal

West Bengal Biodiversity Board
(Dept of Environment, Govt. of West Bengal

### Schedule for Environmental Audit/Green Audit

(April 3, 2024)

Time	Schedule		Venue
11:30 AM	Introductory Meeting with Principal	the	Office Chamber of the Principal
12:00 NOON	Meeting with the IQAC Co	oordinator	Office Chamber of the Principal
12:30 PM – 1.30 PM	Presentation of College Environmental Committee		
02:00 PM		Lunch	
02:30 PM – 05.30 PM	Physical visit and Prepar		port
02:30 PM – 05.30 PM		ation of Re	port
02:30 PM -			port

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Chairman
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(Cept. of Environment, Govt. of West Bengal)

#### 1.0 Introduction

The Environmental Audit or Green Audit is a systematic identification, quantification, recording, reporting and analysis of the different components of environmental diversity. The 'Environmental Audit'/'Green Audit' aims to assess the various parameters involved in environmental practices in and around the HE Institutional campus, actually, it means to impress the congenial and environment-friendly atmosphere for the all stakeholders. It is formulated with an objective of looking after the practices performed by the authority within the institution, otherwise which may cause risk to the health of dwellers and the environment. Under the present format of AQAR and SSR Environmental Audit/Green audit is a mandatory parameter as per requirement of National Assessment and Accreditation Council (NAAC) which is a self-governing organization of India which declares the Institutional Grade.

### 2.0 Executive Summary

Swarnamoyee Jogendranath Mahavidyalaya, Amdabad, Nandigram Block II, Purba Medinipur, West Bengal was emerged as a Govt. aided General Degree College since 2014 under the approval of HE Department, GoWB. It is affiliated to Vidyasagar University. It was started with the primary objectives to offer higher education to the rural young students. Now, the College is maintaining its academic and administrative excellence, and has been continuously upgrading the curricula and infrastructure in order to improve the quality of education as well as producing empowered and enlightened individuals. Through its distinctiveness as an academic institution over eight years of time, the authorities of the College believes in continuous improvement. It has total Present teaching faculty strength is 27. Presently, there are 13 subjects including Physical Education.

The College is now preparing for accreditation by NAAC.

In accordance with the "Format of Green Audit: Questionnaire" of Swarnamoyee Jogendranath Mahavidyalaya, Amdabad, Nandigram for the periods of 2021-'22 & 2022-'23 the audit is performed on 3<sup>rd</sup> of April, 2024. The purpose of the audit was to ensure that the green practices followed in the campus are in accordance with the Green Policy & Management practices adopted by the Institution. With this in mind, the specific objectives of the audit were to evaluate the adequacy of the management control framework of Environment Sustainability as well as the degree to which the Departments are in compliance with the applicable regulations, policies and standards.

The analysis was based upon a physical examination of the different sectors including labs etc., and standards that govern the environmental sustainability, on data analysis, and on the results of preliminary interviews with personnel considered key in the environmental management in the campus.

The methodology used included the physical inspection of the campus, review of the relevant documentation and interviews.

## 3.0 Observations

College has a total campus area of 18818 sq.m, open space of 11124 sq.m. with a green area of

- 1. College has to constitute the "College Environmental Committee" and proposed some initiatives
- for sustainable development in the College campus and to maintain greenery.
- 2. College is requested to reframe the 'Green Policy' as early as possible to organize different green initiatives. College may form Eco Club along with College Environmental Committee.
- College celebrates different environmental awareness programmes.
- 4. Disposal of all degradable and non-degradable solid wastes is followed through its own system.
- 5. Rainwater is directly drained into the adjacent pond.
- College effectively disposes the solid wastes.
- 7. College has to create Divyangian Friendly Environment.

### b. Suggestions

- 1. College should follow the composition of Environmental Committee, where Principal will act as Chairman and inclusion of student members from SEM I, III & V and one Convener/Coordinator.
- College is requested to reframe the Green/Environmental Policy.
- College is requested to maintain the open space properly;
- 6. Students should be educated to handle the PBR through training, workshop etc., every year and be involved in outreach program for studying PBR in nearby places.
- 7. Increase the use of LED as much as practicable by replacing the tube light, etc.
- 8. E-waste be disposed through proper/authorized License holder party in near future.

### 3.0 Statement of Assurance

This audit has been conducted in accordance with the report submitted by the College Environmental Committee. On the basis of the data and physical inspection audit procedure was completed and evidence gathered to support the accuracy 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 with the established criteria.

### **GREEN AUDIT WORKING FORMAT**

5.0 Audit Framework and detailed findings

The following audit framework is used for conducting Green Audit during the periods of 2021-'22 & 2022-'23. The framework also lists the findings and observations for every criterion.

Control objectives	Control(s)	Audit Observations
Maximize the proportion of waste that is recycled & minimize the quantity of non-recyclable refuse	Reduce the absolute amount of waste that it produces from the Institute & Staff	The College has used some control measures to reduce the absolute amount of waste that it produces from the departments, staff offices, inside Campus, etc.  Segregation method to be followed for disposing.
	Make full use of all recycling facilities provided by City Municipality and private suppliers, including glass, cans, white, coloured and brown paper, plastic bottles, batteries, print cartridges, cardboard and furniture.	College is managing its all wastes through its own system.  Formal Agreement/MoU may be signed with Local Panchayat.
	Compost, or cause to be composted, all organic waste, green waste and unrecycled cardboard produced in or collected from kitchens, gardens, offices and rooms.	The College uses different bins for disposal of different types of wastes.
	Recycle or safely dispose of white goods, computers and electrical appliances.	Safe disposal methods be followed.
	Use reusable resources and containers and avoid unnecessary packaging where possible	College has taken proper initiatives for solid waste management and reusable resources and containers and unnecessary packaging where possible.
	Provide sufficient, accessible and well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated	The College has limited scope of accessible and well-publicized collection points for recyclable waste.
Minimize the quantity of wastes during special events/ occasions	The state of the s	Amount of wastes generated during special events or occasions, such as Cultural Events, National seminars and Conferences, etc., be disposed through Local Panchayat.

Control objectives	Control(s)	Audit Observations
	Promote reuse of items and waste recycling among staff, students and conference guests through training, posters and incentives	The College has limited scope of reuse of items and waste recycling among staff, students and conference guests through some incentives.
	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, liquid or otherwise, and ensures that it is not released directly to the environment.
Reduce energy consumption, especially of energy derived from fossil fuels	Support renewable and carbon-neutral electricity options on any energy-purchasing consortium, with the aim of supplying all college properties with electricity that can be attributed to renewable and carbon-neutral sources.	College follows paper-less communications through using digital media like Website notice, Whatsapp, generate maximum e-notice for academic/ administrative purposes.
	Appreciate that it is preferable to purchase electricity from a company that invests in new sources of renewable and carbon-neutral electricity	College is required to install new sources of renewable and carbon-neutral electricity.
	Look into the possibility of on-site micro- generation of renewable electricity.	College may initiate the installation of 'in grid system of SOLAR PANNELS'.
	Give preference to the most energy efficient and environmentally sound appliances available, this includes only using energy-saving light bulbs	The College is using LED as much as possible.
Effective energy consumption and management practices	Encourage staff, students and conference	the misuse of electricity by turning off the appliances when not required. All the stakeholders are to be aware and doing their best and practices to
	Ensure that all electronic and electrical equipment's, such as computers, are switched off when not in use, and is generally configured in power saving mode when such option is available	to follow this practice.  Sensor-based system be adopted.
	Ensure that the equipment's running on standby mode, reduce the energy consumption on standby mode or minimize the running of equipment's on standby mode	mechanism for most of the cases.

Control objectives	Control(s)	Audit Observations
	Purchase efficient and environmentally sound appliances and consider replacing old stock with 'greener', more efficient alternatives.	Presently, College is using environmental-friendly appliances as much as possible and taking initiative to replace the tube lights with LEDs, etc., as effective alternatives.
Minimize the use of unsustainable transport	Make available information about bicycle and pedestrian routes, public transport services and car share schemes to staff and students.	The College is connected through roadways like bus services; usually, most of them avail bus services.
	Reduce the proportion of travel on the University/Institute business carried out in private transport and eliminate unnecessary and inefficient use of the University/Institute vehicles	College does not have any common bus services to all stakeholders. College has one Bicycle stand for the students and staff members.
	Promote car sharing / car pool among the students and faculty members	No, the College does not promote car sharing/car pool among the students and faculty members.
Minimize consumption of water	Repair sources of water leakage, such as dripping taps and showers as quickly as possible.	Regular checking and maintenance of pipelines be followed to control the water wastage through sensor-based mechanism/ dedicated personnel.
	Install appliances which reduce water consumption	Practised as much as possible.
	Encourage a decrease in water usage among staff, students and conference guests	All the stakeholders of the College are encouraged in judicial use of water.
	Use an efficient and hygienic water storage mechanism is to minimize the loss of water during storage	College is taking some steps to aware about use of hygienic water, proper storage of water.  Sensor-based system be introduced to minimize the loss of water during storage.
	Minimize wastage of water and use of electricity during water filtration process, if used, such as RO filtration process and ensure that the equipment's used for such usage, are regularly serviced, and the wastage of water is not below the industry average for such equipment's used in similar capacity	Inside the Campus building, there are existing drinking water supply installed in the strategic location for the students and other members, and one Water Purifier and Cooler.
	Install Water recycling mechanism, such as rain water harvesting system	Rainwater is drained directly into the pond for groundwater recharging.  Rainwater conservation be developed through more advanced mechanism.

Control objectives	Control(s)	Audit Observations
Minimize the risk of environmental health	A CONTRACT OF THE PROPERTY OF	Negligible amount of cleaning/washing liquids are used in the College.  College may maintain 'Green Budget' for the said purposes.
	Minimize the use of fertilizers and pesticides in the University/Institutional gardens, opting for the use of compost produced on site wherever possible	College is maintaining the garden properly.  Vertical / Hanging garden proposal be initiated.
	Dispose the chemical waste generated from the laboratories in a scientific manner	Disposal of solid wastes are managed.  Drainage of liquid wastes from Science and other labs be managed properly.
	Reduce the practice of burning plastic and other materials that emit the harmful gas on burning is prevented in the campus.	No such burning.
Maintenance of green campus	Ensure the green environment	College is positive about maintenance of green-clean environment.  Tree plantation programmes is followed in different occasions on year-wise in different places outside the campus.
	Establish a Garden in the campus	Students should be trained to handle People Biodiversity Register.
	Encourage the faculties and students to plant trees in the garden	Choice-plantation, fruit-plantation like palm, dates etc., may be encouraged mostly considering the suitability of the region in adopted sites.
	Reviews periodically the list of trees planted in the garden periodically	Periodical maintenance of gardens/plants be followed through student members.
Ensure that environmental awareness is created	Conduct environmental awareness workshops as a part of the program.	College celebrates different environmental awareness programmes.
	Create awareness of environmental sustainability and takes actions to ensure environmental sustainability.	College conducts environmental awareness programmes to ensure environmental sustainability.
	Reduce the rate at which the University/Institute contributes to the depletion and degradation of natural resources	College is not directly

Control objectives x	Control(s)	Audit Observations
	Promote environmental awareness as a part of course work in various curricular areas, independent research projects, and community service	Compulsory ENVS paper as per University guidelines for all the students of all streams are mandatory to have an awareness on Environmental.
Ensure that the buildings conform to green standards	Review architecture of existing buildings and reviews ways, in consultation with experts, to reduce usage of energy for such buildings, offering greatest efficiency for energy and water usage, and reducing carbon emission	Presently, there is no proposal of new construction.  In case of new constructions, green standards be followed in near future.
Ensure that the Environmental Policy is enacted, enforced and reviewed	Environmental Committee that will hold	College Environmental Committee be constituted properly.
	Ensure that on the Nature Club/Environmental Committee there will be appropriate representatives of the relevant university departments and authorities – such as catering, gardening, maintenance, cleaning and finance	College Environmental Committee may further constitute Eco-Club for better functioning.
Ensure that the Environmental Policy is enacted, enforced and reviewed	Ensure that on the Environmental Committee there will be the Green Officer	College may depute one Coordinator/Green Officer in the Environmental Committee.
	Ensure that the Environmental Committee will review the Environmental Policy on an annual basis, and will monitor progress and set measurable targets wherever possible	College campus may be declared as 'Plastic Free Zone'.
	Ensure that the Environmental Policy is enforced regardless of whether its requirements exceed the mandate of the law	Beautification and cleanliness be maintained inside the campus; the Green Policy of the College be framed.
	Require that every staff and student member recognizes their responsibility to ensure that the commitments in the Environmental Policy are properly put into practice	Members of the College administration are active.
	Ensure that an audit is conducted annually and action is taken on the basis of audit report, recommendation and findings	First 'Green Audit' is conducted on 3 <sup>rd</sup> of April 2024 and is based on the report of years 2021-'22 & 2022-'23.

#### 6.0 Recommendations

Considering the audit, following recommendations were made to the management.

Criteria	Recommendations		
Publication of Audit Report	Resolutions of the "College Environmental Committee" along with audit report be published in the College website.		
Maximize the proportion	1. The College should go for ISO 9001:2015 Certification.		
of waste that is recycled &	2. College may go for partnership with Local body in sharing some outreach		
minimize the quantity of	programs.		
non-recyclable refuse			
Reduce energy	1. Use energy efficient lighting/solar light fully inside the campus.		
consumption, especially of	2. Installation of number of control switch, MCP for monitoring of energy and		
energy derived from fossil	sensor-based system for water consumption building wise/department wise be		
fuels,	operated through the involvement of student members.		
Maintenance of Campus	1. Students be aware importance of Medicinal Gardens and PBR.		
and biodiversity	2. Proper training, workshop on maintenance of PBR for local areas and		
	different locations as an outreach program be initiated.		
	3. More number of Choice-plantation, fruit-plantation, artificial nesting, etc.,		
	be followed to maintain attract birds and other animals within the campus.		
Proper cleaning of water	1. Proper cleaning of the water tanks for fruitful uses be followed.		
storage Tanks	2. Sensor-based system be maintained for checking of wastage of tank water.		
Project-based learning on			
Environment related			
subjects	2. Certification from authenticated body/person like		
	DFO/BDO/SDO/ADM/MP be appreciated.		

#### 7.0 Objectives and Scope

The purpose of this audit was to ensure that the Green Management Practices are followed and implemented in the campus, across all departments, administrative bodies and students.

### 8.0 Methodology

The methodology includes - preparation and filling up of questionnaire, screening of the report, physical interaction with the members in presence of Principal and the Members of the College Environmental Committee as well as Members of IQAC, record checking and review of the submitted documentations, interviewing key persons and data analysis, measurements and recommendations. It works on the several aspects of 'Green Audit' including Water Conservation, Tree Plantation, Waste Management, Paperless Work, Alternative Energy and proposal of Mapping of Biodiversity.

- a. In order to meet these objectives, this audit was based on report submitted by the College authority and reviewing of relevant documents as far as possible and interviews with authority, Coordinator and staff members physically.
- b. Review of the Documentations
- c. For the purpose of this audit the Green Policy of the institute was reviewed. Other relevant standards, Green audit framework etc., was also considered.

#### Interviews

Interviews were conducted with the Principal, IQAC Coordinator, Coordinator of College Environmental Committee and also members of the Committee.

### **Physical Inspection**

Physical inspection was made on 3<sup>rd</sup> April 2024 and report was prepared based on the physical verification and validation and interaction with the members of the College.

#### 9.0 Declaration

I agree with all the recommendation and observations mentioned in this report.

Date: 03/04/2024

Place: Swarnamoyee Jogendranath Mahavidyalaya

Amdabad, Nandigram Block II

Estd -2014
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Dist - Purba
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Pist-721650
X

Bamanta 03.04.2024

Signed by
College Principal with Seal
Principal

Swarnamoyee Jogendranath Mahavidyalaya Amdabad :: Purba Medinipur :: Pin-721650

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