

Date: 02/07/2024

To
Dr Arup Kanti Konar
Principal
Achhruram Memorial College
Jhalda, Purulia
West Bengal

Website: www.amcollege.ac.in
E-mail: ticprincipalamc@gmail.com

Subject: Environmental Audit Report Submission from Experts

Dear 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 period of 2022-'23, here, we are submitting the Report of "Environmental/Green Audit" of your College of the period of 2022-'23 for your kind perusal in the attached sheet.

We request you to please acknowledge and oblige.

Sincerely yours,

SDG 21/7/24
Dr Subrata Kr Dey
Professor in Chemistry &
Head-in-Charge of Environmental Sc.
Sidho-Kanho-Birsha University
Purulia

Dr. Subrata K. Dey
Professor & Head
Department of Chemistry
Sidho-Kanho-Birsha University
Purulia-723104- W.B.

Dr. Ghosh 21/7/24
Dr Apurba Ratan Ghosh
Professor & Head
Deptt. of Environmental Science
The University of Burdwan
Burdwan

Professor & Head
Environmental Science
The University of Burdwan
Burdwan

Tapan Kumar Hazra 02.07.2024
Tapan Kumar Hazra
Inspector of Colleges
Sidho-Kanho-Birsha University
Purulia
Inspector of Colleges
Sidho-Kanho-Birsha University
Purulia - 723104

Date: 02/07/2024

**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 Achhruram Memorial College, Jhalda, Purulia (AISHE Code: C-44790) is based on the original data collected during the period of 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 Green Audit Committee team members of Achhruram Memorial College, Jhalda, Purulia 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 "Green Audit Team" constituted by the Sidho-Kanho-Birsha University, Purulia 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 'Green Audit Committee' team members during preparing their Report of the concerned year 2022 - '23.

Subg 2/7/24

Dr Subrata Kr Dey
Professor in Chemistry &
Head-in-Charge of Environmental Sc.
Sidho-Kanho-Birsha University
Purulia

Dr. Subrata K. Dey
Professor & ~~Head~~
Department of Chemistry
Sidho-Kanho-Birsha University
Purulia-723104- W.B.

Apurba
2/7/24

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

Professor & Head
Environmental Science
The University of Burdwan
Burdwan

Tapan
02.07.2024

Tapan Kumar Hazra
Inspector of Colleges
Sidho-Kanho-Birsha University
Purulia

Inspector of Colleges
Sidho-Kanho-Birsha University
Purulia - 723104



Ph : 03252-202419

SIDHO-KANHO-BIRSHA UNIVERSITY

P.O – Purulia Sainik School. Ranchi Road. Dist-Purulia. WB - 723104

Office of the Registrar

website: www.skbu.ac.in

e-mail: registrarskbu@gmail.com/registrar@skbu.ac.in

Green Audit – Achhruram Memorial College, Jhalda, Purulia

CERTIFICATE

This is to certify that the Energy Management Practices and Green Audit Report of Achhruram Memorial College, Jhalda, Purulia is based on the original data collected during the period of study. This has been independently assessed and is applicable to provide quality ambience in pursuing Higher Education, Training and Mental Support to the students for their enriched future and career. Further, it is certified that the baseline data on energy management and green/environmental monitoring was prepared by internal Green Audit Team of Achhruram Memorial College, Jhalda, Purulia and submitted to us. The content of the baseline data of the study has been personally verified by the Green Audit Team constituted by Sidho-Kanho-Birsha University, Purulia including one external expert member from other university, 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 either taken by the Audit Team or are provided by the Internal Audit Team.

Certificate Memo No.: R/CERT/ 209 /SKBU/24

Dt.: 02.07.2024

Date of Issue of the Certificate: 2nd June, 2024

The certificate is valid for one year from the date of issue.

Dr. Nachiketa Bandyopadhyay,
Registrar
Sidho-Kanho-Birsha University, Purulia

Registrar
Sidho-Kanho-Birsha University
Purulia-723104

**ACHHRURAM MEMORIAL COLLEGE
JHALDA, PURULIA**

ESTD. 1975

**REPORT ON
GREEN/ENVIRONMENTAL AUDIT
ACADEMIC PERIOD: 2022-'23**

*Prepared by
The Green Audit Team
Sidho-Kanho-Birsha University
Purulia*

Schedule for Environmental/Green Audit

July 2, 2024 Time	Schedule	Venue
11:30 AM	Introductory Meeting	Principal's Office
12:00 NOON	Meeting with Coordinator IQAC and Members	Principal's Office
12:00 NOON	Presentation by Convener of Green Audit Committee	Principal's Office
02:00 PM	Lunch	
02.30 PM	Interaction & Physical visit with Convener & Committee Members	Physical facility in and around the campus
03.00 PM	Visit to Campus	
04:45 PM	Exit Meeting	Seminar Hall, Academic Building
05:30 PM	Tea	

Dr Subrata Kr Dey

Dr Subrata Kr Dey
Professor in Chemistry &
Head-in-Charge of Environmental Sc.
Sidho-Kanho-Birsha University
Purulia

Dr. Subrata K. Dey
Professor & Head
Department of Chemistry
Sidho-Kanho-Birsha University
Purulia-723104- W.B.

Dr Apurba Ratan Ghosh

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

Professor & Head
Environmental Science
The University of Burdwan
Burdwan

Tapan Kumar Hazra

Tapan Kumar Hazra
Inspector of Colleges
Sidho-Kanho-Birsha University
Purulia

Inspector of Colleges
Sidho-Kanho-Birsha University
Purulia - 723104

I. Introduction

Achhruram Memorial College, Jhalda, Purulia, Purulia, a co-educational HE Institution came under the affiliation of the University of Burdwan since its establishment on 1975, but later became affiliated to SKB University from 2011. College was renamed as "Achhruram Memorial College" in the memory of Late Lala Achhruram Behl (1894-1964), an eminent industrialist and father of Late Sohanlal Behl, an eminent industrialist and the donor of the College.

The establishment of Achhruram Memorial College stands as a testament to the commitment to educational accessibility, addressing the needs of the local students and fostering a conducive environment for higher learning. Now, the College offers 14 UG Hons. Courses and 3 Program Courses; right now, there are 55 full-time teaching faculty, including 25 SACT serving in teaching-learning system.

Since inception 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.

Now, the College voluntarily has started the Environmental/Green audit for the last year 2022-'23 to look into its strengths and weaknesses and identify the scope of further improvement.

Audit Committee

The authority of the SKB University has constituted a three members committee to conduct Environmental/Green Audit of the Achhruram Memorial College, Jhalda, Purulia. The Audit Committee comprises the following members:

- Dr Subrata Kr Dey, Professor in Chemistry & Head-in-Charge of Environmental Sc., Sidho-Kanho-Birsha University, Purulia
- Dr Apurba Ratan Ghosh, Professor & Head, Deptt. of Environmental Science, The University of Burdwan, Burdwan
- Tapan Kumar Hazra, Inspector of Colleges, Sidho-Kanho-Birsha University, Purulia

II. Objective & Scope of the Audit

Members along with the Principal, Dr Arup Kanti Konar in presence of Convener of Green Audit Committee and IQAC members at a preliminary meeting, held on 02-07-2024 at 11.30 am, outlines the broad objectives of the environmental audit as an assessment of the College. Accordingly, the audit team members decided to look into the prevailing situation at the College along the following aspects in course of the audit.

The team is empowered and expected to express their views and give suggestions for the improvement of the systems being followed by the College.

II. Executive Summary

Achhruram Memorial College started on 1975. Initially, it was under the affiliation of the University of Burdwan, but later came under the affiliation to SKB University from 2011. During First Cycle on 2008, College awarded B by NAAC, now is preparing for Second Cycle of NAAC accreditation.

In accordance with the "Format of Green Audit: Questionnaire", Achhruram Memorial College is performed the audit on 2nd of July, 2024. The purpose of the audit was to

propose some best practices to be followed in near future in the campus which are in accordance with the Green Policy. With this in mind, the specific objectives of the audit were to evaluate the adequacy of the management control framework of Environment Sustainability.

The analysis was based upon a physical examination of the different sectors including green areas *etc.*, and standards that govern the environmental sustainability, 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.

III. Observations

a. General

College has a total campus area of 9.6 acres (38849 sq.mt), built up area 0.49 acres (2000 sq. mt.) and green area of 7.5 acres (30352 sq. mt.) and a total open space is of 9.1 acres (36849 sq.mt.). College has taken some efforts for sustainable development in the College campus and to maintain greenery.

1. College has constituted a team members to help the Audit Team members.
2. Some of the best practices such as maintaining tree plantation, introducing plastic free zone, celebration of World Environment Day, Earth Day, World Water Day, etc., are followed in the campus organized by the NSS.
3. College organises Tree Plantation Programs on regular basis collecting saplings from Mosina Forest Office with good survavility; entire campus is divided into different plots for maintain the greenery as well as giving exposure to the students about green campus.
4. College has storing-cum-dumping pit. Disposal mechanism of all degradable and non-degradable solid wastes is followed its own system, local municipality collect these wastes for disposal.
5. E-wastes are stored in a dedicated place.
6. College follows some practices relating to Environmental Awareness programmes like 'Rally on Cleanliness', Campus Cleaning, Cleaning of Puja Pandels & surroundings, etc., by involving students, NSS.
7. College maintains the ecological balance in the campus through maintaining gardens.
8. Rainwater is collected in specific water tank and used purposefully.
9. College has taken initiative for preparation of composting pit/vermicomposting pit.
10. Proposal of preparation of definite Butter Fly Garden is initiated.
11. WB-PCB has installed weather monitoring station for monitoring ambient air quality measurement, etc.
12. NSS units are actively participated on *Swachha Bharat Abhiyan* at adopted village Purano Jhalda.
13. College has installed 5 solar street lamps; College has procured one Green Generator for uninterrupted power supply.

On detailed review, it was observed that the college has already taken some measurements constitute "Green Audit Committee" to implement the Green Policy

with applicable standards. In addition, College is taking care of to improve their efficiency, fairness and consistency.

IV. Suggestions

1. College is requested to constitute the "College Environmental Committee" properly and prepare the Green/Environmental Policy. During formation of "College Environmental Committee" College should follow the composition, where Principal will act as Chairman with inclusion of student members from SEM I, III & V.
2. College is requested to maintain the gardens at different locations through students of different departments.
3. Medicinal Garden should be maintained properly.
4. Butterfly Garden be initiated in order for proper maintenance.
5. Students should be trained to handle the PBR through workshop *etc.*, mapping of plants be done accordingly.
6. Safe disposal methods should be adopted for solid, liquid, wooden wastes, electrical wastes, *etc.*, through proper disposal methods.
7. Existing composting system be managed properly.
8. Formal MoU with Local Panchayat or Municipality be maintained for long-term basis and periodical monitoring.
9. College should maintain the 'Green Budget' for the said purposes.
10. Plantation program be monitored and periodical maintenance of plants be followed.

AUDIT FRAMEWORK AND DETAILED ANALYSIS

V. Detailed findings & Analysis

The following audit framework is used for conducting Green Audit during the period of 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 offices.	The College has used some control measures to reduce the waste that it produces from the departments, staff offices, inside Campus, etc. Segregation method is followed properly by installing collecting bins in different locations of the buildings.
	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.	<i>College should dispose all wastes through local municipality/panchayat.</i>
	Compost, or cause to be composted, all organic waste, green waste and un-recycled cardboard produced in or collected from kitchens, gardens, offices and rooms.	The College uses different bins for disposal of different types of wastes. <i>The fallen dead leaves from the garden be managed properly in the composting/cistern pit.</i>
	Recycle or safely dispose of white goods, computers and electrical appliances.	<i>Safe disposal methods should be adopted for electrical wastes, printer cartridges, etc., through proper disposal methods.</i>
	Use reusable resources and containers and avoid unnecessary packaging where possible	<i>College should take proper steps for management of vegetable, food wastes produced from canteen.</i>
	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	Make specific arrangements for events, such as cultural Events, internal and external seminars and conferences, where significant recyclable waste is likely to be produced, in order to both minimize the waste produced and maximize what is recycled/reused	Amount of wastes generated during special events or occasions, such as Cultural Events, International and National seminars and Conferences, etc., be disposed through own system

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 is trying to follow environment friendly disposal management system 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 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	<i>College has to maintain sources of renewable energy and carbon-neutral electricity like solar panels.</i>
	Look into the possibility of on-site micro-generation of renewable electricity.	College has 5 solar street lamps.
	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 light as much as possible.
Effective energy consumption and management practices	Encourage staff, students and conference guests to save energy through visible reminders, incentives and information to increase awareness. This particularly concerns turning off electrical appliances when not in use in both communal and residential rooms	College has a mechanism to reduce the misuse of electricity by turning off the appliances when not required through MCP. All the stakeholders are aware and doing their bests and practices to save electricity.
	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	Students and all the members are used to follow this practice.
	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	Maintaining energy saving mechanism for most of the instruments; some of the equipment's are running on standby mode.

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 replacing all 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 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 cycle stand for students as well as 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.	<i>College should follow regular checking and maintenance of pipelines to control the water wastage through dedicated personnel.</i>
	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 judicious 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. <i>Advanced Sensor-based system be introduced to minimize the loss of water during storage, as well as in some places for effective saving of electricity.</i>
	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 two water cooler & purifier installed in the strategic location for the students and other members; <i>proper maintenance be adopted.</i>
	Install Water recycling mechanism, such as rain water harvesting system	Rainwater harvesting system is used purposefully. <i>It can be used for gardening and cleaning; College may develop groundwater recharge system more judiciously.</i>

Control objectives	Control(s)	Audit Observations
Minimize the risk of environmental health	Ensure that all cleaning products used by the University/Institute staff have a minimal detrimental impact on the environment, i.e., are biodegradable and non-toxic, even where this exceeds the Control of Substances Hazardous to Health (COSHH) regulations	Negligible amount of cleaning/washing liquids are used in the College. <i>College may maintain 'Green Budget' for the said purposes.</i>
	Minimize the use of fertilizers and pesticides in the University/Institutional gardens, opting for the use of compost produced on site wherever possible	College uses mostly organic fertilizers for maintenance of gardens, infected plants as and when required basis.
	Dispose the chemical waste generated from the laboratories in a scientific manner	Disposal of solid wastes are managed. <i>Drainage of liquid wastes from wash rooms, labs and other similar sources be managed properly.</i> <i>Liquid wastes from Chemistry department be managed properly.</i>
	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 increasing greenery. Tree plantation programmes are followed in different occasions on year-wise.
	Establish a Garden in the campus	<i>Students should be trained to handle People Biodiversity Register (PBR).</i>
	Encourage the faculties and students to plant trees in the garden	College conducts tree plantation programmes through students and staff members on year-wise. <i>Choice-plantation and fruit-plantations be followed on regular basis considering the suitability of the region.</i>
	Reviews periodically the list of trees planted in the garden periodically	<i>Periodical maintenance of gardens/plants be followed through student members.</i>
Ensure that environmental awareness is created	Conduct environmental awareness workshops as a part of the program.	College celebrates World Environment Day, Earth Day, World Animal Welfare Day, etc.
	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 or indirectly responsible in depletion and/or degradation of natural resources.

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 ENVIS 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.
Ensure that the Environmental Policy is enacted, enforced and reviewed	Establish the University/Institute Environmental Committee that will hold responsibility for the enactment, enforcement and review of the Environmental Policy. The Environmental Committee shall be the source of advice and guidance to staff and students on how to implement this Policy	<i>College should reframe College Environmental Committee properly.</i>
	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	<i>College may constitute one Eco Club for better functioning.</i>
Ensure that the Environmental Policy is enacted, enforced and reviewed	Ensure that on the Environmental Committee there will be the Green Officer from an external agency who is engaged in the profession of providing guidance on environmental impact	<i>College is required to reframe the Committee, one Green Officer may be included in this Committee for maintaining budget.</i>
	Ensure that the Environmental Committee will review the Environmental Policy on an annual basis, and will monitor progress and set measurable targets wherever possible	<i>College may adopt some steps for better disposal of 'Plastic Wastes'.</i>
	Ensure that the Environmental Policy is enforced regardless of whether its requirements exceed the mandate of the law	<i>Beautification and cleanliness be maintained involving students of different departments; the Green Policy of the College be framed.</i>
	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 team constituted by the College authority are actively engaged in maintaining green practices.
	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 2 nd of July 2024 based on the report of year 2022-'23.

VI. Recommendations

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

Criteria	Recommendations
Publication of Audit Report	<ol style="list-style-type: none"> 1. Formation of the proper "College Environmental Committee" 2. Resolutions of the "College Environmental Committee" along with audit report be published in the College website.
Maximize the proportion of waste that is recycled & minimize the quantity of non-recyclable refuse	<ol style="list-style-type: none"> 1. Composting system be developed for degradable/bio-wastes in a proper way. 2. College may go for partnership with <i>Local Municipality/Panchayat</i> in monitoring the disposal of solid wastes through sharing some outreach programs also. 4. Composting/Vermicomposting should be prepared considering its vegetable wastes, food wastes from canteens and campus litters.
Reduce energy consumption, especially of energy derived from fossil fuels,	<ol style="list-style-type: none"> 1. Use energy efficient lighting/solar light fully in and around the campus; Ecological street/Green corridor may be developed in and around the campus. 2. The control switch, MCB for monitoring of energy and sensor-based system for water consumption building wise/department wise be maintained through the involvement of student members. 3. Pedestrian access be marked.
Maintenance of Campus and biodiversity	<ol style="list-style-type: none"> 1. PUC (Pollution under control) certificate for all the vehicles entering the campus to be made mandatory and to be checked by security. 2. Students be aware importance of Medicinal Gardens and PBR for different locations. Proper training, workshop on maintenance of PBR for local villages and different locations as an outreach program be initiated. 3. Choice-plantation, fruit-plantation, artificial nesting, <i>etc.</i>, be followed to maintain attract birds and other animals within the campus. 4. Proposal of Butterfly Garden may be initiated.
Proper cleaning of water storage Tanks	<ol style="list-style-type: none"> 1. Proper cleaning of the water tanks for fruitful uses be followed; management of dead leaves, litters of trees inside the campus be taken care off on regular basis. 2. Sensor-based system be maintained for checking of wastage of tank water.
Project-based learning on Environment related subjects	<ol style="list-style-type: none"> 1. Creation of opportunity to start with technical, skill-oriented and hands-on-training programmes for environmental monitoring. 2. Recognition/Awards on green & clean campus from authorised persons/organisations.

VII. 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.

VIII. 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 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, Green Audit Committee and IQAC Coordinator and also members of the Committee.

Physical Inspection

Physical inspection was made on 2nd of July, 2024 and this audit report was prepared based on the physical verification and validation and interaction with the members of the College.

IX. Declaration

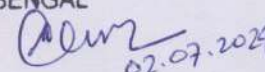
I agree with all the recommendation and observations mentioned in this report.

Date: 02/07/2024

Place: Achhruram Memorial College
Jhalda, Purulia

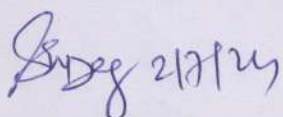


Signed by
Dr. Arun Kanti Konar
College Principal with Seal
PRINCIPAL
ACHHRURAM MEMORIAL COLLEGE
JHALDA, PURULIA
WEST BENGAL



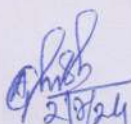
Tapan Kumar Hazra
Inspector of Colleges
Sidho-Kanho-Birsha University
Purulia

Inspector of Colleges
Sidho-Kanho-Birsha University
Purulia - 723104



Dr Subrata Kr Dey
Professor in Chemistry &
Head-in-Charge of Environmental Sc.
Sidho-Kanho-Birsha University
Purulia

Dr. Subrata K. Dey
Professor & Head
Department of Chemistry
Sidho-Kanho-Birsha University
Purulia-723104- W.B.



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

Professor & Head
Environmental Science
The University of Burdwan
Burdwan

ACHHRURAM MEMORIAL COLLEGE, JHALDA

FORMAT OF GREEN AUDIT: QUESTIONNAIRE

Environmental audit or **Green audit** is a general term that can reflect various types of evaluations intended to identify environmental compliance and management system implementation gaps, along with related corrective actions. In this way they perform an analogous (similar) function to financial audits. The term “Green” means eco-friendly or not damaging the environment. This can acronymically be called as “Global Readiness in Ensuring Ecological Neutrality” (GREEN). “Green Auditing”, an umbrella term, is known by another name “Environmental Auditing”.

There are generally two different types of environmental audits: compliance audits and management systems audits. Compliance audits tend to be the primary type in the US or within US-based multinationals.

The term "protocol" in environmental audit means the checklist used by environmental auditors as the guide for conducting the audit activities. Current technology supports many versions of computer-based protocols that attempt to simplify the audit process by converting regulatory requirements into questions with "yes", "no" and "not applicable" check boxes.

Green Audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. The ‘Green Audit’ aims to analyze environmental practices within and outside the college campus, which will have an impact on the eco-friendly ambience. It is based on exercises that can help to measure the risk to the health of inhabitants and the environment. Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out Green Audit.

This includes the plants, greenery and sustainability of the campus to ensure that the buildings conform to green standards. This also helps to monitor the Environmental Policy is enacted, enforced and reviewed using various environmental awareness programmes.

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The methodology include: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. It works on the several facets of ‘Green Campus’ including Water Conservation, Tree Plantation, Waste Management, Paperless Work, Alternative Energy and Mapping of Biodiversity.

‘Green Audit’ aims to analyze the environmental practices within and outside the college campus, which will have an impact on the eco-friendly ambience. Green audit is assigned to the criteria 7 of NAAC.

There are main three pillars i.e., zero environmental foot print, positive impact on occupant health and performance and 100% graduates demonstrating environmental literacy. The goal is to reduce CO2 emission, energy and water use, while creating an atmosphere where students can learn and be healthy. The college has to work on the several facets of 'Green Campus' including Water Conservation, Tree Plantation, Waste Management, Paperless Work, Alternative Energy and Mapping of Biodiversity.

Methodology

In order to perform green audit, the methodology included different tools such as preparation of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following areas to summarize the present status of environment management in the campus:

- Water management
- Energy Conservation
- Waste management
- E-waste management
- Green area management

A water audit is an on-site survey and assessment to determine the water use and hence improving the efficiency of its use and method(s) of conservation. Water is used for drinking purpose, canteen, toilets, laboratory and gardening. Loss of water must be checked, neither by any leakages, nor by over flow of water from overhead tanks. The green audit practically involves use of renewable sources, conservation of the energy, rain water harvesting program, and efforts of carbon neutrality, plantation of trees, E-waste management and hazardous waste management.

QUESTIONNAIRE FORMAT

1.GENERAL INFORMATION

1.1 Year of Establishment of college: 01/09/1975

1.2 History behind the establishment of the college:

It was a heart-felt desire of the people of Jhalda locality to have an academic institution for higher studies, a college for the local students to study degree course at under-graduate level. The initiative of common people including some eminent citizens gathered momentum during mid-1970s. With the banning of Ananda Marga College by Government of India in 1975, the necessity was felt even more strongly. After several meetings held in this direction in Jhalda and elsewhere, it was decided that a college namely “JHALDA COLLEGE” will be established “as a successor of Ananda Marga College” (as in the letter granting affiliation from the Registrar, Burdwan University). Later it was renamed as “ACHHRURAM MEMORIAL COLLEGE” in the memory of Late Lala Achhruram Behl (1894-1964), an eminent industrialist and father of Late Sohanlal Behl, an eminent industrialist himself and the donor of the college.

The college was formally started on 1st September 1975 in a building at the heart of Jhalda town. The college was then planned to be housed in a new college building and the foundation stone of this proposed building was laid on a gracious function on 9th February, 1979. The foundation stone was laid by Late Manoharlal Behl and function was presided over by Dr. Ramaranjan Mukherjee, the then Vice-Chancellor of the University of Burdwan. On 28th April 1981 the new college building was inaugurated by His Excellency, the Governor of West Bengal and the Chancellor of the University of Burdwan, Sri Trivuban Narayan Singh. Dr. Ramaranjan Mukherjee, the Vice-Chancellor of the University of Burdwan presided over this inaugural function.

After this the college never looked back. With the kind donations from Late Sohanlal Bahl, particularly in its formative stages, with able guidance of successive Vice-Chancellors and other officials of the University of Burdwan, with sincere perseverance by the teaching and non-teaching staff members of the college, with enthusiastic support and co-operation from the people of Jhalda and above all, with ever growing hunger for knowledge of the generations of students, Achhruram Memorial College has overcome all the hindrances to become what it is today, a youthful but matured premier academic institution of forty-nine years. A new phase has started in the history of the college since January 6, 2011, as the College, along with all the other colleges of the district, is now affiliated to the newly formed Sidho-Kanho-Birsha University.

1.3 Total campus area: 9.6 acres (38849sqmt)

1.4 Total built up area: 0.49 acres (2000sqmt)

1.5 Total open space area: 9.1 acres (36849sqmt)

1.6 Total green area: 7.5 acres (30352 sqmt)

1.7 Whether the college is implementing the Green Policy for the first time: **"yes", "no" and "not applicable"**
(mention date/month/year)

No. The college practices the green policies in the campus since back in the history. There was a committee called ‘**Campus development committee**’ who look after the green practices, and auditing of the environmental factors practicing in the college, since **2017**. However, in the year, 2022, this committee reformed and named as ‘**Green Campus Committee**’ under the leadership of chairperson.

1.8 Whether green audit is followed annually, if so, please produce the year-wise recommendations of the auditor along with report (as Annexure): **"yes", "no" and "not applicable"**

No

1.9 Whether college has constituted the “College Environmental Committee”, **"yes", "no" and "not applicable"**

(if so, give the details of it)

Yes

There was a dedicated committee to look after the issues related to green practices, energy and environmental practices since 2017 named as Campus development committee. However, in July, 2022, the members of the 'Campus development committee' convened under the chairmanship of the Principal to establish the 'Green Campus Committee.' Comprising 13 teachers, 4 NTS member, and four students, this committee focuses on environmental auditing. Its primary goal is to comprehensively assess the current state of environmental management on campus. The committee promotes the adoption of standard green auditing methods, including renewable energy sources, energy conservation, water management, waste and E-waste management, and the care of green areas (Flora) through tree planting. Additionally, it oversees the management and conservation of animal resources (Fauna). Each member contributes to maintaining a clean and green campus, akin to a radiant emerald.

1.9.1 Name of the Committee members:

Composition of the Green Campus Committee is as follows:

1. Dr. Arup Kanti Konar, Principal (Chairperson)
2. Dr. Tarun Kumar Barik, Associate Professor, Physics Dept. – IQAC Coordinator
3. Teacher's Council Secretary
4. Dr. Sharmistha Mukherjee, Assistant Prof., Geography dept. (Convener)
5. Dr. Sandeep Chakraborty, Assistant Prof., Botany Dept. (Joint Convener)
6. Bursar
7. Mrs. Riptika Pal, Assistant Librarian (NSS nodal officer)
8. Dr. Debmalya Das, Assistant Prof., English Dept. (NSS nodal officer)
9. Mr. Khokan Naskar, Assistant Prof., Zoology Dept. (NSS nodal officer)
10. Dr. Ghanashyam Mahato, Assistant Prof., Botany Dept. (NCC nodal officer)
11. Mr. Arindam Biswas, Assistant Prof., Physics Dept. (Member)
12. Dr. Madhab Dule, Assistant Prof., Chemistry Dept. (Member)
13. Md. Masud Ansary, Assistant Prof., Zoology Dept. (Member)
14. Mr. Prasanta Choudhury, Assistant Prof., Mathematics Dept. (Member)
15. Mr. Mahendra Kandu, Lab attendant, Zoology Dept. (Member)
16. Mr. Sishupal Sing Baraik, Lab attendant, Botany Dept. (Member)
17. Mr. Prasanta Sen, Lab attendant, Geography Dept. (Member)
18. Mr. Kamdev Kuiry, Gardener (Member)
19. NSS and NCC Volunteer students (4)

1.9.2 Number of meetings conducted so far: **06**

1.9.3 Resolution of the meetings:

1. Formation of an **Eco-club** for performing various activities for a sustainable environment. Involvement of the students of NSS units in this club as the volunteer has been decided.
2. In the commencement of an academic session, the academic orientation should be aided with a special lecture to introduce the importance of environment sustainability to the students of various departments so that maximum number of students can participate in this club.
3. Celebration of **environmentally important days** such as World water day, World Earth day, World biodiversity day, World Environment day, World Ozone day etc. and to conduct various awareness programs, surveys and tree plantation programs to support sustainable environment.
4. Implementation of artificial nests to attract birds in the college campus.

5. **Plant health management programs** must be arranged in every month in our college campus to check the health of plant and to eradicate weeds and other pests by various biological approaches.
6. Various campaigns related to the health of local people as well as staff members must be organized.
7. Various MoUs must be signed with national/international/NGOs for collaborative work to promote environmental protection.
8. A plan to study the biodiversity of college campus every year by the students of Botany and Zoology. The study should be guided by the appropriate mentors and must be recorded as a short communication or as a documentary.
9. Green campus committee will conduct the environmental audit for every year involving the staff members, NSS volunteer as well as students.
10. The committee decided to participate and to organize more and more workshops/seminars/training programs related to solid/e-waste/liquid waste management.
11. For various waste management in college campus, vendors must be appointed for better execution.
12. Recycling/repairing for the laboratory electronic equipments and other computer equipments must be done for E-waste management.
13. Training on the mechanism of vermi-composting, plastic recycling, cultivation of horticultural and medicinal plants must be given to the students as well as local tribes to promote green entrepreneurship.
14. Decision of organizing add-on courses with certificates was made for the topics like gardening, ecotourism, sustainable development.
15. Introduction of grease trap system in the liquid waste disposal area of canteen to prevent the mixing of oil and fats with the liquid waste of municipal disposal. This mechanism will also reduce the BOD in effluent waste water of the canteen.
16. More awareness should be done in energy-themed resolutions like to switch off the lights, when in no use, to reduce heat and to use daylight instead. Moreover, it has been advised to all the staff members of the college to activate the power management features on computer and monitor so that it will go into a low power 'sleep mode' when not in use.
17. Awareness about not to use packaged food, junk food etc must be spread.
18. For clean campus initiatives, awareness among the staff and students with the vision of 'Swachh Bharat' must be done. Every week NSS units must be involved in the cleaning of campus. Posters, slogans, essay writing competitions should be organized for more cleanliness awareness. Rallies must be conducted for mass awareness. Workshops must be arranged in 3R: Reduce, reuse, recycle.
19. Water-level sensor must be immediately introduced to check the waste through overflow of water by the tanks.
20. Renovation of pond inside the college campus area.

1.9.4 Action taken by the Committee

For a successful Green Campus, the initiative must start at the highest level and permeate throughout the entire campus. Without a clear commitment and active involvement from both the Chairperson and Committee Members, well-intentioned efforts may remain fragmented and fail to achieve Institute-wide participation. Therefore, the committee executes the following based on the above resolutions: -

1. Decision was made to prepare a calendar at the start of the session having all the important dates to celebrate environmental issues and other outreach programs.
2. A plan to establish environmental ethics awareness campaign by the help of NSS and NCC volunteers.
3. A project for installing more energy saving systems in the college for sustainability was proposed to the Panchayat for its quick implementation.
4. Replacement of CFL and conventional lights with LED all over the institute premises.
5. Conduction of green audit by the committee members annually.

6. Decision was made to purchase only energy efficient appliances (5-star) like AC, refrigerator, computers etc.
7. Establishing relationship with the private/public organizations which are associated with the waste-management.
8. More than 100 trees were planted with 85% survival rate in the onset of monsoon by our volunteers.
9. Rainwater harvesting systems was set-up to collect the rainwater for its proper use.
10. Artificial nests were prepared in various localities of the college suitable for inhabitation of birds.
11. The pond of the college has been renovated and now maintained very well so that it supports the aqua resources in it.
12. A significant number of palm trees have planted which increases the beautification as well as the greenery of the campus as palm garden.
13. Significant number of medicinal plants were introduced in the existing herbal garden.
14. A significant number of rallies and awareness programs had been conducted to educate students as well as local people about sustainability and conservation.
15. The college premises has successfully minimized the use of high-emission vehicles by the staff and students. Most of the students and staff uses public transport, bicycles and bike.
16. The college has installed a digital pollution and other parameters displaying board near the entry gate of the campus which shows real-time parameters which help the staff and students to know about these parameters. This is done in collaboration with the West Bengal Pollution Control Board.
17. An ecofriendly workshop of paper bags making with a message to use paper over plastics was successfully conducted.
18. The faculty members organized a funded-seminar on biodiversity theme with eminent speakers

1.9.5 Future programmes of the Committee:

1. Involvement of a greater number of students from different departments to participate in the environmental activities.
2. As the college will complete 50 years of its establishment next year, the committee members will conduct the foundation day celebration throughout the year with an **eco-friendly theme**, since on this occasion the college will gather maximum number of students.
3. More ideas should be implemented in the campus for biodiversity conservation like planting more fruit trees to attract birds. Introducing **sunflower seeds** also causes to attract birds.
4. A focus on the survival rate of small sized plants would be given importance. To fulfil this, periodic visit to the campus with some **plant health management** strategies will be helpful.
5. To support the biodiversity, various ideas of **microhabitats in the corridors** must be applied. Bird **feeders, baths** should be placed throughout the campus which will attract the birds.
6. MoUs with various agencies/government organizations must be signed which actively helps in environmental issues.
7. A biodiversity study by the students in the college campus must be carried out every year. Faculty members from Botany and Zoology departments must act as mentors to guide the students. The following study can be presented by the students as a short communication.
8. Awareness about carbon footprints and the importance of carbon-free energy among students and the staff members should be increased by arranging various seminars/training programs.
9. E-waste management should be targeted to be reduced near to zero since, most of the gadgets can be repaired, refilled or reused.
10. Various certificate courses should be introduced related to environmental issues which could help the students for their entrepreneurship like vermicomposting, mushroom cultivation, horticulture, plant cultivation techniques, bee-hiving etc.

11. A project related to biogas forming system must be implemented for green practices.

1.9.6 Policy enforcement strategies

Vision

The College acknowledges its responsibility toward environmental protection and sustainability as it pursues its strategic goals, particularly in research and teaching. By exercising proper control over all activities, the College aims to ensure sustainable resource use and prevent damage to the natural attributes and landscape. This environmental policy is a crucial part of the broader sustainability strategy. It applies to all College-controlled land, premises, and activities. Specific policies addressing environmental issues (such as the Policies related to wildlife conservation, biodiversity etc.) will be supported by management standards and guidance for responsible groups and individuals.

Aims and objectives

Environmental management

- Promote environmentally responsible policies and practices throughout the College.
- Minimize pollution wherever possible.
- Set targets to enhance environmental performance.
- Implement effective carbon management strategies, including energy efficiency.
- Reduce greenhouse gas emissions in alignment with College goals.
- Encouragement in adapting low-carbon technologies in building and equipments.

Water management

- Implementation of the measures to reduce water wastage on campus.
- Efficient management of water resources to provide clean water for all stakeholders.
- Raising awareness about sustainable water management among students, faculty, and staff.
- Application of documented systems for reusing treated water sustainably.

Waste reduction and recycling

- Organization of events with minimal waste generation by using reusable materials and encouraging recycling.
- Raising awareness about the benefits of recycling and waste reduction among students and faculty.
- Collaborating closely with campus sustainability offices to develop effective waste management strategies.
- Collection of data on waste quantities to track progress and identify areas for improvement.
- Understanding the location of recycling bins and optimizes their placement.

Transport

- Encouragement the use of vehicles only for essential business activities and by disabled staff, students, or visitors.
- Promotion of cycling as an eco-friendly mode of transportation within the college community.

College infrastructure

- Establishing campus gardens where students can grow produce or raise livestock for dining halls or the local community. This reduces emissions from food transportation and provides valuable urban farming experience.
- Encouraging students to use reusable water bottles by installing water fountains and refill stations across campus, reducing single-use plastic waste.
- Setting up of separate bins for trash and recycling, promoting responsible waste disposal. Consider compost bins to eliminate food waste.

- Exploring solar panels and other renewable energy sources for powering campus facilities.
- Creation of wildlife-friendly areas, arboretums, and rooftop green spaces to enhance biodiversity and provide natural habitats.

Responsibilities

The Environmental Protection Committee and the Principal hold the primary responsibility for implementing this policy. Heads of Departments, NSS, and NCC Services must ensure compliance within their areas of control. The Environmental Committee actively monitors College and Department performance in achieving the policy's aims. While the College bears the main responsibility, individuals play a crucial role by cooperating with those responsible for environmental protection and adhering to policy rules.

1.10 Whether college has conducted any awareness/responsibility programme among the staff members: **"yes", "no" and "not applicable"** –

Yes, awareness program was conducted for the staff members regarding various issues of environment occasionally.

1.11 Whether all the departments/teachers/non-teaching members/students are aware about the need of the environmental protection and audit: **"yes", "no" and "not applicable"**-

Yes, for teachers and students various awareness programs and webinar have been conducted for various environmental aspects. NSS, NCC units and members of Green Campus Committee actively participate for these programs.

1.12 Whether college has involved the students as volunteers in greening programmes: **"yes", "no" and "not applicable"**-

Yes, from the 3 units of NSS, many students were participated as volunteers and get involved weekly in the cleaning campus program to make the campus 'a plastic-free zone' as well as various involved in the various rallies for the awareness.

1.13 Whether construction/demolition/repairing are in compliances with green standard: **"yes", "no" and "not applicable"**

No, however resolutions have been made that in future any construction must be done by including green standards.

1.14 Whether college has conducted any workshop/seminar/lecture on environmental awareness programme inside and/or outside the campus: **"yes", "no" and "not applicable"** –

Yes, college staff and the students were actively participating in various workshop/seminar/lectures on environmental awareness. Outside the campus, most active were our NSS units of our college who involved their volunteers with their mentors to adapt various villages near to our college campus every year and conduct various awareness related to health, hygiene and other environmental issues. Supporting files were attached.

1.15 Whether the institute has department of Law/Environmental Science/3-Year degree Course/Course curriculum

"yes", "no" and "not applicable"

(if so, how does it takes part in greening programmes)

No

1.16 Whether college provides any community services, if so, give details (as Annexure): **"yes", "no" and "not applicable"**

Yes

1.17 Whether the students are aware about the use of medicinal plants (any lecture/seminar/conference organized on it): **"yes", "no" and "not applicable"**-

Yes

1.18 Comments on the following:

1.18.1 Plantation program: Y / N - **Yes**

1.18.2 Formation of Natural club/Eco club: Y / N - **Yes**

1.18.3 Management of natural resources, wildlife, conservation of species: Y / N **Yes**

- i.** Maintaining a ratio of significant green space inside the college campus with potential to support wildlife taxa.
- ii.** Researches have proved that despite the factors like institution type, size and location, wildlife habitat and species conservation initiatives are not affected negatively and can be maintained by various measures.
- iii.** Initiatives to protect wildlife in our college campus also includes activities like providing food, water, cover and places to raise the young.
- iv.** The green area of campus is maintained to provide a healthy habitat for the pollinators.
- v.** Moreover, maintaining a plastic free zone all over the campus also helps to a great extent to manage and conserve wildlife resources.
- vi.** An annual tracking of the record is maintained for the biodiversity of the campus.

1.18.4 Any project sponsored by national funding agency/NGO, independent project related to environmental issues: Y / N **Yes**

A **biodiversity awareness national seminar** was organized titled, **‘Snake and Snake Bites: Myth, Reality and Challenges’** By the Department of Geography and Department of Zoology. It was funded by West Bengal Biodiversity Board. Our college hosted the seminar. It was a one-day seminar which included participants (teacher and students) from the other colleges under SKBU, Burdwan university and other Universities. A good session headed by resource persons and was followed by a nice poster presentation session. Seminar was only about the information of snakes and snake bites where many misconceptions regarding the snake biology and general facts have been cleared among students as well as people of rural areas near the college campus where snake bite is a threat for the people. Many people kill the snakes without knowing their basic facts whether it is poisonous or non-poisonous. Hence, this seminar gave a message which directly leads to the conservation of snake population.

Another **international symposium** was conducted organized by the college in collaboration with the **National Autonomous University of Mexico** titled, **‘Insects as food and medicine for human and livestock’**. It was a one day symposium where students acquired knowledge on the importance of insect’s biodiversity and the balance between human being and insects as an ecological equilibrium.

1.18.5 Is there any incidence of burning of plastics containing garbage within the campus for necessary reduction: Y / N - **No**

1.18.6 Celebration of 5th June, Ozone day, Earth Day etc.: Y / N - **Yes**

1.18.7 Number of field visits/survey records: Y / N (if Y number) – **Yes**

In the session from 2020-21 to 2022-23, students were visited to field tour under proper guidance of their respective mentors from the department of Geography, Botany and Zoology. However, the session 2020-21 and initial phase of 2021-22 was affected due to the pandemic situation, where it was prohibited to conduct any kind of field tour. So, the field tour was conducted on the session 2022-23. The number of tour is 01 from the geography department.

1.18.8 Campus biodiversity register

Yes. A biodiversity register is maintained which includes the updated records of the floral and faunal species found inside the campus.

1.19 General aspects (express in statements)

1.19.1 Campus cleanliness: As the saying goes “cleanliness is next to godliness”, we have tried our best to inculcate the values of maintaining a clean and healthy ambience in the college campus. Although, there are regular casual staffs who maintain proper hygiene by cleaning the college campus, classrooms, toilets, office rooms, library etc. on a regular basis; the teachers, non-teaching staffs and students have taken a new initiative to develop the values of a clean and healthy living. On the last Saturday of every month, all the employees and students of the college clean their rooms and surroundings. The teachers collectively clean the teachers’ room; and their respective shelves, desks and chairs. On the other hand, the students clean their common rooms, benches, blackboards and other utensils. Few students, mostly from the Physical Education department, clean the college playground. The office staffs also actively participate in this noble task by tidying up their own tables, chairs, computers, shelves, files and papers etc. On this particular day, the casual workers associated with sweeping/ cleaning are given rest for the day. The main objective of this event is to develop the habit of cleanliness and to show due respect to the workers (example, sweepers, sewage cleaners etc.) who toil day and night to maintain proper hygiene in our society. The students should also learn to give due credit to their contributions. They must realize that no work is ‘inferior’ or ‘contemptible’. Each and every human being makes a certain degree of contribution to this society. We must acknowledge that contribution to the utmost extent. Furthermore, both the central government and state government have taken necessary measures to promote the habit of cleanliness among the larger masses. The “Swachh Bharat Abhiyan” is a country-wide campaign initiated in 2014 to eliminate open defecation and improve waste management influenced highly by the ideals of Mahatma Gandhi. The state counterpart of this mass campaign is “Nirmal Bangla Mission” which aims to ensure sufficient toilets in educational institutions and in rural villages.

1.19.2 Rainwater harvesting:

Yes. The college has actively implemented the rooftop rainwater harvesting system which collects the rainwater of the area of SC girl’s hostel to the State highway 4A. The pond inside the college campus acts as a reservoir for collecting the rainwater. The college uses this pond for pisciculture.

1.19.3 Solar street lamps:

Solar energy is tapped effectively. Four solar street lights are in operation. 70 units per month are conserved by installing the lamps. Solar energy deep submersible pump with 2000L water capacity is installed in our college.

1.19.4 Carbon dioxide neutrality on the campus by developing greenery:

Transitioning to carbon dioxide neutrality on campus through the development of greenery is not just environmentally responsible but also a smart move for sustainability. By planting more trees, implementing green roofs, and creating green spaces, campuses can absorb carbon dioxide, mitigate the urban heat island effect, and enhance biodiversity. Additionally, integrating renewable energy sources and promoting energy efficiency can further reduce carbon emissions. This holistic approach not only benefits the environment but also improves the overall quality of campus life. For neutralizing the CO₂ effect, various plantation drives have been occurred in the campus regularly before during the monsoon. Moreover, awareness programs have been conducted regarding the carbon free energy sources. Already solar panels were installed in the campus, and proposal for more panel installation in roof top was

prepared to get processed. Bicycle day, No vehicle day etc. were celebrated by conducting road rallies, to make local people understand the harmful effects of carbon emissions as well as importance of renewable resources of energy.

1.19.7 Man-made nest to attract some birds to maintain ecological balance:

Creating man-made nests by the college to attract birds is a proactive step towards maintaining ecological balance. We know that birds play crucial roles in ecosystems, such as pollination, seed dispersal, and pest control. By providing artificial nests, you can encourage bird populations to thrive in areas where natural nesting sites might be scarce due to urbanization or habitat loss. This helps to preserve biodiversity and contributes to the overall health of the ecosystem. Additionally, attracting birds to nest in specific areas can also help control insect populations naturally, reducing the need for harmful pesticides. It's a simple yet effective way to support the environment and promote ecological harmony.

1.19.8 Restriction in use of plastic and plastic products: Implementing restrictions on the use of plastic and plastic products is a critical step in mitigating environmental pollution and safeguarding ecosystems. Plastic pollution poses significant threats to marine life, terrestrial habitats, and human health. Our college campaigns for limiting the use of single-use plastics such as bags, straws, and disposable utensils, and promoting alternatives like biodegradable materials or reusable options. We also launched some movement for reduce the amount of plastic waste entering the environment. Additionally, regulating the production and disposal of plastic products can encourage innovation in eco-friendly alternatives and promote sustainable consumption patterns. Education and awareness campaigns can help to change consumer behavior and encourage responsible plastic use. Overall, implementing restrictions on plastic usage is essential for preserving natural resources and combating the global plastic pollution crisis.

1.19.9 Culture of some ducks, swans etc., for scenic beauty in pond or any water body resources (if available)

Yes. College has a pond resource in its campus where pisciculture is actively done. Every year, the concerned stakeholders of the college release the seeds of fishes in pond. Mainly fish seeds include Rohu and Catla. This culture also induces the nearby farmers to start their fish farms. The breeding of fishes and their maturity in due course also minimizes the growth of harmful larvae of mosquitoes and harmful blooms. This practice in the college pond is also beneficial for our students to understand the science of fishery and pond ecosystem.

1.19.10 Green monitoring by green committee/volunteers/team:

Yes. Green Campus Committee is solely dedicated for the management of green practices inside the campus as well as for the conduction of green audit annually.

1.19.11 Training on vermicomposting:

Yes. The theoretical as well as practical sessions regarding vermi-composting is already added in the curriculum of CBCS. In the third semester course of Botany (Hons), skill enhancement course includes the concept of vermicomposting. During the curriculum, accordingly students were taught by the faculties by the help of lectures, videos, and field visits.

1.19.12 Celebration of 'No vehicle Day' on a particular day - Yes

1.19.13 Dams inside the campus to meet the demand for water - Yes

1.19.14 Installation of fire safety instruments in all the buildings/departments - Yes

1.19.15 Toilets/separate toilets for differently abled students - Yes

1.20 Over all noise level

Sl no.	Inside campus area	Outside campus	Class room	Lawn	Office	Laboratory	Canteen
1.	51 dB	59 dB	48 dB	50 dB	48dB	44dB	54 dB

1.21 Is there any device (preferably HVS: High Volume Sampler) for measuring ambient air quality in the campus (if so, pl mention the data month wise): **"yes", "no" and "not applicable"**.

Yes. The college has installed a digital pollution and other parameters displaying board near the entry gate of the campus which shows real-time parameters which help the staff and students to know about these parameters. This is done in collaboration with the West Bengal Pollution Control Board. Students of various departments were assigned to collect the data from the display board in the variant times of a day which were monitored regularly. Students also learn in this analysis about the environmental parameters.

2. WATER MANAGEMENT

2.1 Whether college has an efficient and hygiene water storage mechanism to minimize the loss of water during storage

"Yes"

2.2 Whether college is using water filter with RO, Aqua Guard and/or large water filter with cooler at the strategic locations in the college. If so, are they under AMC: **"Yes"**

2.3 Whether college has its own mechanism in repairing of water leakage: **"yes"**

2.4 Is there any rainwater harvesting unit in college: **"yes"**

(if so, what are the uses of this water:)

a) pisciculture

b) aquatic diversity

c) sustainable development of water and green environment

d) a balance ecosystem

2.5 Whether college has developed any reuse and recyclable of water system: **"yes"**

2.6 Is there any scope of measurement of water quality parameters used in hostel, lab, office, canteen, tap water (if so, parameters: pH, EC, TDS etc.): **"yes"**

2.7 Lab-wise water consumption (lt/d)

Chemistry 30

Zoology 18

Botany 12

Physiology 5

Geography 5

2.8 Whether college has sufficient/adequate drainage system: **"yes"**

3. ENERGY CONSERVATION

3.1 Reduction of energy consumptions, especially fossil fuel energy

3.1.1 Total electric consumption amount: **72 KWH/Yr**

3.1.2 Average electrical consumption in a month: **6 kW**

3.1.3 Total No. of

i) LED - 139

ii) CFL- 04

iii) Tube lights - 40

iv) Incandescent lamps- 00

v) Fans - (Ceiling fan) 76 + (Wall fan) 21 + (Stand fan) 12= 109

vi) Air conditioners/Air Coolers- 01

3.1.4 Whether college has any provision/choice of renewable and carbon-neutral electricity options: **"yes", "no" and "not applicable"** – **Yes**. The college campus has installed solar panels in the year 2017, which can be an option of a renewable and carbon-free energy source of electricity to light up the areas of college campus during the evening. Solar panel submersible pump has also been installed with the project starting on 07.06.2023.

3.1.5 Whether college has planned to install solar panels: **"yes", "no" and "not applicable"**-

(if so, Project installed/working: Date/Month/Year)

Yes. The **solar panels** in the street were installed under the project of District magistrate, Purulia in the year **2017**. One more solar panel attached with the solar pump and pipeline was installed under the scheme **'Drinking water Supply Schemes** on **07.06.2023**.

3.1.6 Whether college has efficient water heating system: **"yes", "no" and "not applicable"**

No

3.1.7 Whether the staff members of all sectors are concerned in turning off electrical appliances when not in use in both commercial and residential area: **"yes", "no" and "not applicable"**

Yes

3.1.7 Is there any monitoring system – like put off the main switch where there is no need of electricity?

"yes", "no" and "not applicable"–Yes.

- For the CPU and monitors, it has been instructed to set the power management options of the system, so that when not in use for a particular time, the system will move towards a 'low-power sleep mode'.
- In case of switches for other electrical appliances, staff members and students were advised to switch off the appliances whenever not in use. Casual staff of the college has been appointed to look after the switches of the appliances in the absence of faculty members in department.
- The classrooms of the departments were so constructed having large sized windows technically called **window wall**, which allows abundant natural light to enter the room during day-time. It is also advised to the staff and students to minimize the use of lights during daytime, instead better using the natural light.

3.1.8 Whether the users follow the appropriate and measurable targets for a reduction of energy, such as, computer, printers, electrical equipment when not in use: **"yes", "no" and "not applicable"**

Yes

3.1.9 Is there any options for equipment's running on standby mode: **"yes", "no" and "not applicable"**

Yes

3.1.10 Whether college has taken initiative to purchase efficient and environmentally sound appliances in order to fulfill the green budget: **"yes", "no" and "not applicable"**

Yes

3.1.11 Whether college has its own mechanism in repairing of electrical fault:

"yes", "no" and "not applicable"

Yes

3.1.12 Whether the class rooms are with sufficient illumination in day time and ventilation:

"yes", "no" and "not applicable"

Yes

Number of lights & fans in class room (average): 04 LED lights and 03 fans

Use of light & fans in the day time (average hours): 05 hrs

Number of windows per class: 06 (Windows of the classrooms were large-sized technically called 'window wall')

Natural light source in day time (in hours) (average per class): 06 hrs

3.1.13 How many (%) e-notice generated by the college for academic/administrative purposes in a month- 80%

3.1.14 How many (%) paper-notice generated by the college for academic/administrative purposes in a month- 20%

3.1.15 Total number of computer, printer, Laptop, Xerox machine

Computer- 87

Printer- 20

Laptop- 02

Xerox machine - 01

3.1.16 Whether college has organized lectures on energy conservation in order to give awareness to the students:

Yes

3.2 Energy conservation strategies

3.2.1 Whether the architectural design for college is based upon use of natural lighting & ventilation, to save extra power for bulbs and fans: **Yes**

3.2.2 Whether florescent bulbs are replaced with CFL bulbs/LEDs: **Yes**

3.3 Minimize the use of unsustainable transport

3.3.1 What are the available/maximum transport facilities used by the staff members/students etc., - mention the number (in average per day): NIL. College itself has no transport facility. However students mostly use bicycle as the transportation medium and some of them use Motor-cycles.

3.3.2 Whether college has any common car sharing/car pool among the students and faculty:

No

4.WASTE MANAGEMENT

4.1 Maximization of the process of wastes & minimization of non-renewable refuse

4.1.1 Is there any method of segregation of waste materials? "**yes**", "**no**" and "**not applicable**"

Yes. In our college campus, we have separate fixed waste bins for collecting the wastes like, Biodegradable waste, non-biodegradable waste and a separate collection area for hazardous waste which is later incinerated.

4.1.2 Total amount of solid waste generated in the campus (including tree droppings & Lawn wastes)

Total number of staff – 74 (including teaching, non-teaching, casual, contractual, official staffs)

Per capita production per day – Average 3.5kg per day which vary according to the environment.

4.1.3 Whether college arrange any workshop/seminar/conference for awaring the students/staff for specific arrangements for recyclable wastes: "**yes**", "**no**" and "**not applicable**"

Yes. NSS Units arranged workshops for the local people as well as to demonstrate the staff and students about the methods of proper waste management since, it is an integral part of sustainable sanitation. Various rallies and lectures were organized for the awareness and to give the message that by proper solid and liquid waste management following goals can be achieve: -

i. Prevent or reduce environmental pollution.

ii. Keep rural villages, towns and cities very clean and aesthetic.

iii. Protect human health from various solid and liquid waste related diseases.

iv. Reuse of non-bio waste through proper recycling techniques.

v. Solid and Liquid waste management projects generate income opportunities for local communities. Segregation of waste, transportation, recycling or disposal generates employment.

4.1.4 Whether college follow specific disposal method for solid or liquid waste in specific manner: **Yes**. The wastes from the college campus were segregated right from the source in various color-coded dust bins (for biodegradable and non-biodegradable) to the disposal site for further processing. We believe that collection of solid waste in a segregated way right from the beginning reduces labor, cost and time. After the collection of waste, the municipal corporation vehicle carries it to the dumping yard with care so that the carts were covered tight during the collection and transportation. Besides the regular disposal and collection of wastes by municipality, we, in our college campus, use garbage bins with proper indication of throwing the wastes.

Compost pit is also built in the college premises which is used for collecting the bio waste. These wastes were recycled and used as manure for the trees and shrubs inside the college campus.

Vermicomposting is also a method practiced inside college premises where useful worms were mixed with the biowaste to convert it into vermi-compost in future.

Liquid waste mainly contains water waste in the form of grey water/black water which is managed by connecting its flow to the sewerage line.

4.1.5 Whether the recycling/collection facilities are provided by the city Municipality and/or private suppliers (including glass, white plastic bottle, printer cartridges, cardboard, furniture, plastics, thermocol, waste papers, electrical goods & alliances, electronic gadgets, instruments, equipment, packing materials):

"yes", "no" and "not applicable". Yes. As mentioned earlier solid waste from the college premises were treated by various means. Majority of solid waste were timely collected by municipality for the disposal. Rest of the solid waste as well as hazardous waste was disposed for incineration in various pits. Other biodegradable waste was recycled by other means.

4.1.6 Whether college has any composting ground/vat or any collection unit *etc.*:

"yes", "no" and "not applicable"

(if yes, what is the percentage of waste undergone composting and the final use of the products)

Yes. College had a pit meant for the formation of vermi-compost. Rate of formation varies every year depending upon the dry weight of waste, climatic condition and the moisture content. Basically, the amount of compost formed at the end comprises of around 12-15% weight of the raw material used.

4.1.7 Is there any mechanism of treatment/uses of domestic influent in the college campus (if so, what is the capacity of treatment plant/composting *etc.*): **"yes", "no" and "not applicable"**

Yes. Solid biodegradable wastes were disposed in the vermicompost pit resulting in the formation of vermicompost. Chemical waste from the chemistry departments were collected in specialized containers and provided to the third party for proper disposal.

4.1.8 Minimize use of chemical pollutants

Sl No.	Department	Name of the waste			Total (a+b+c)	Characterization(if any)	Method of disposal	Agency if any
		Chemical (a)	Biological waste (b)	Microbial waste (c)				
1.	Chemistry	a. Heavy metals like Pb, Hg, Cr, Cd			01	Release in very low concentration and not regularly	Neutralization, adsorption	

		<p>b. Organic and inorganic acids</p> <p>c. Organic solvents</p> <p>d. aromatic and aliphatic compounds</p>				discharged	and solidification	
2.	Botany	<p>a. Organic and inorganic solvents</p> <p>b. Staining and dye materials</p>	<p>a. Left over work-out plant materials like root, stem, leaves etc.</p>	<p>a. Bacterial culture</p>	03		<p>All the biological waste was recycled by composting.</p> <p>Microbial waste also help to augment the composting process.</p> <p>Chemical wastes were disposed by neutralization, incineration etc.</p>	
3.	Zoology	<p>a. Organic and inorganic solvents</p> <p>b. Staining and dye materials</p>	<p>a. Animal dead body parts after the work out</p>	<p>Bacterial culture</p>	03	<p>Most of the waste are biodegradable while the chemical wastes were released in a very low concentration</p>		

--	--	--	--	--	--	--	--	--

4.1.9 Records of dustbins/collection bins inside the campus

Sl no.	Location of dustbin	No. of dustbins			Quantity of collection (per day)	Disposal time	Cleaning by ecofriendly product Y/N
		Biodegradable	Non-biodegradable	Plastic waste			
1.	Near the entrance of the college	01	01		1.0	5:00 pm	Yes
2.	Near the canteen of the college	01	01		2.0	5:00 pm	Yes
3.	Near the library building	01	01		0.8	5:00 pm	Yes
4.	Near the office	01	01		0.7	5:00 pm	Yes

4.1.9 Whether the cleaning products used by the college staff are ecofriendly and under the COSHH (Control of Substances Hazard to Health) regulations: **"yes", "no" and "not applicable"**

Yes

Whether the college is using fertilizers, pesticides for any purposes, if so, amount used per month and places of uses: **College use only the fertilizers of biological origin prepared by vermin-composting and only used for proper plant health management whenever required.**

Use of public transport: **"yes", "no" and "not applicable"**

Yes

5.E-WASTE MANAGEMENT

5.1 Quantity of e-waste generated: 20

5.2 Number of cartridge used month-wise: 04

5.3 Number of cartridge disposed in a year (average): 10

5.4 Number of times refilling & reusing method of disposal of e-waste (if any): 38

5.5 Whether college has conducted any awareness programme on e-waste management:

"yes", "no" and "not applicable"

Yes

5.6 Is there any means of disposal of unused computers, printers and electronic wastes through authorized agents:

"yes", "no" and "not applicable"

Yes

5.7 Disposal methods

Sl No.	Location	Amount of generation	Method of disposal	Name of the Agency (if any) for disposal
1.	College premises		Third party	

6. GREEN AREA MANAGEMENT

6.1 Is there any garden in the college campus/outside the campus under college custody:

"yes", "no" and "not applicable" –

Yes

- i. Inside our college campus, there is an ornamental garden where various varieties of horticultural plants have been cultivated. This garden has varieties of ornamental plants which attracts many pollinators seasonally.
- ii. A medicinal garden is also present which contains economically as well as medicinally important plants as a herbal resource.
- iii. Besides these two gardens, there is a major green area inside the campus where more than 180 trees have been planted which are economically as well as ecologically important.

The campus development committee of our college organizes regular meetings regarding the maintenance and development of the gardens. Both the gardens were maintained under the department of Botany of our college and gardener has been appointed for the caretaking of the garden.

6.2 Whether the garden is watered by using drip/sprinkler irrigation system: **"yes", "no" and "not applicable"**

No. There is no drip/sprinkler system of irrigation facility present for the watering purpose. College premises has a well and a pond area which is the main resource of watering the plants inside the campus. Watering is done regularly by means of pipe.

6.3 Is there any mechanism of review of periodical monitoring of tree species: **"yes", "no" and "not applicable"**

Yes. Campus development committee and College environment committee takes part in the monitoring of the planted trees regularly for watering purpose. Gardeners appointed were properly instructed to use biofertilizers exclusively for the growing crop plants. Moreover, the disease management of the crop plants as well as trees is also regularly done so that plant should grow in its good health. Diseased trees which are dead were safely cut and remove to prevent the biological spread of the inoculum of fungus/pest/bacterial source, which might affect the healthy plants nearby.

6.4 Whether the college has taken any programme for plantation of some fruit trees which can attract birds, bees etc.

"yes", "no" and "not applicable"

Yes. Plantation drives have been conducted every year in a proper climatic condition to promote reforestation. More amount of fruit trees is introduced in the campus in last 3 years so that it must attract the pollinators. NSS volunteers, college environment committee as well as campus development committee actively participate in the plantation drive as organized in special occasions. Some important fruit trees which are fast growing have been planted in the college premises which includes, Papaya (*Carica papaya*), Kul (*Ziziphus mauritiana*), Banana (*Musa paradisiaca*), Guava (*Psidium guajava*), Fig (*Ficus carica*), Batabi (*Citrus maxima*) and other fruit trees planted include Mango (*Mangifera indica*), Jackfruit (*Artocarpus heterophyllus*), Jamun (*Syzygiumcumini*). Many bird species and monkeys visit the campus occasionally for depending on the fruits of the trees.

6.5 Biodiversity mapping

Flora of Achhruram Memorial College:

Sl No.	Name of the place	Area	Type of plantation				Species name & quantity	Name of the Family	Total no. of plant units
			Indigenous plants	Medicinal plants	Ornamental plants	Exotic plants			
1.	Achhruram Memorial College Campus	7.5 acres	52	14	27	10	<i>Schleicheraoleosa</i>	Sapindaceae	03
2.							<i>Azadirachta indica</i>	Meliaceae	03
3.							<i>Alangiumsalviifolium</i>	Cornaceae	01
4.							<i>Tabernaemontanadivaricata</i>	Apocynaceae	05
5.							<i>Terminalia arjuna</i>	Combretaceae	02
6.							<i>Albizia lebeck</i>	Fabaceae	12
7.							<i>Gmelina arborea</i>	Lamiaceae	05
8.							<i>Dypsislutescens</i>	Arecaceae	30
9.							<i>Cocos nucifera</i>	Arecaceae	12
10.							<i>Tecoma stans</i>	Bignoniaceae	03
11.							<i>Carica papaya</i>	Caricaceae	02
12.							<i>Micheliachampaca</i>	Magnoliaceae	01
13.							<i>Hibiscus rosa sinensis</i>	Malvaceae	11
14.							<i>Acacia auriculoformis</i>	Mimosoidae	01
15.							<i>Washingtoniafilifera</i>	Arecaceae	01
16.							<i>Tectona grandis</i>	Verbenaceae	94
17.							<i>Strelitzia nicolai</i>	Strelitziaceae	06
18.							<i>Codiaeum variegatum</i>	Euphorbiaceae	01
19.							<i>Cycas revoluta</i>	Cycadaceae	03
20.							<i>Calyptanthescalu</i>	Myrtaceae	01

						<i>siifolia</i>		
21.						<i>Alstoniascholaris</i>	Apocynaceae	06
22.						<i>Ixora coccinea</i>	Rubiaceae	01
23.						<i>Plumeria alba</i>	Apocynaceae	02
24.						<i>Aegle marmelos</i>	Rutaceae	02
25.						<i>Thuja occidentalis</i>	Cupressaceae	04
26.						<i>Saracaasoca</i>	Fabaceae	17
27.						<i>Mangifera indica</i>	Anacardiaceae	12
28.						<i>Psidium guajava</i>	Myrtaceae	02
29.						<i>Syzygiumcumini</i>	Myrtaceae	06
30.						<i>Nerium indicum</i>	Apocynaceae	01
31.						<i>Bryophyllumpinn atum</i>	Crassulaceae	01
32.						<i>Terminalia chebula</i>	Combretaceae	02
33.						<i>Litchi chinensis</i>	Sapindaceae	01
34.						<i>Bombax ceiba</i>	Bombacaceae	01
35.						<i>Murrayakoenigii</i>	Rutaceae	01
36.						<i>Murraya paniculata</i>	Rutaceae	03
37.						<i>Gardenia jasminoides</i>	Rubiaceae	01
38.						<i>Citrus maxima</i>	Rutaceae	01
39.						<i>Cinnamomum tamala</i>	Lauraceae	02
40.						<i>Tamarindus indica</i>	Leguminosae	01
41.						<i>Bambusa vulgaris</i>	Poaceae	01
42.						<i>Dalbergia sisoo</i>	Fabaceae	02
43.						<i>Delonix regia</i>	Fabaceae	03
44.						<i>Lantana camara</i>	Verbenaceae	01
45.						<i>Solanum torvum</i>	Solanaceae	01
46.						<i>Ficus hispida</i>	Moraceae	01
47.						<i>Leucaena leucocephala</i>	Fabaceae	01
48.						<i>Calotropis gigantea</i>	Apocynaceae	03
49.						<i>Nyctanthes arbor-tristis</i>	Oleaceae	01
50.						<i>Cascabelatheveti a</i>	Apocynaceae	01
51.						<i>Musa paradisiaca</i>	Musaceae	01
52.						<i>Moringa oleifera</i>	Moringaceae	02

53.						<i>Areca catechu</i>	Arecaceae	06
54.						<i>Artocarpus heterophyllus</i>	Moraceae	01
55.						<i>Aurocaria heterophylla</i>	Aurocariaceae	03
56.						<i>Punica granatum</i>	Lythraceae	01
57.						<i>Agave angustifolia</i>	Asparagaceae	03
58.						<i>Zamia furfuracea</i>	Zamiaceae	01
59.						<i>Rosa rubiginosa</i>	Rosaceae	20
60.						<i>Chlorophytum comosum</i>	Asparagaceae	01
61.						<i>Roystonea regia</i>	Arecaceae	01
62.						<i>Hibiscus mutabilis</i>	Malvaceae	01

Faunal diversity in the Achhruram Memorial College Campus:

S.No.	Name of the place	Area	Species name	Family
1.	College Campus	7.5 acres	<i>Bos indicus</i>	Bovidae
2.			<i>Canis familiaris</i>	Canidae
3.			<i>Grus grus</i>	Gruidae
4.			Grasshopper	Acrididae
5.			Ant	Formicidae
6.			Bee	Apidae
7.			Beetle	Coleoptera
8.			Millipede	Eurymerodesmidae

6.6 Records of Plantation programmes:

Sl No.	Programme conducted	Date of functioning	No. of tree planted	Present status of the species	Documentation (if any)	No. of beneficiaries
1.	World Environment Day, 2019	05/06/2019	40	80% survived	Yes	Entire college
2.	World Environment Day, 2020	05/06/2020	50	90% survived	Yes	Entire college
3.	World Environment Day, 2021	05/06/2021	80	90% survived	Yes	Entire college

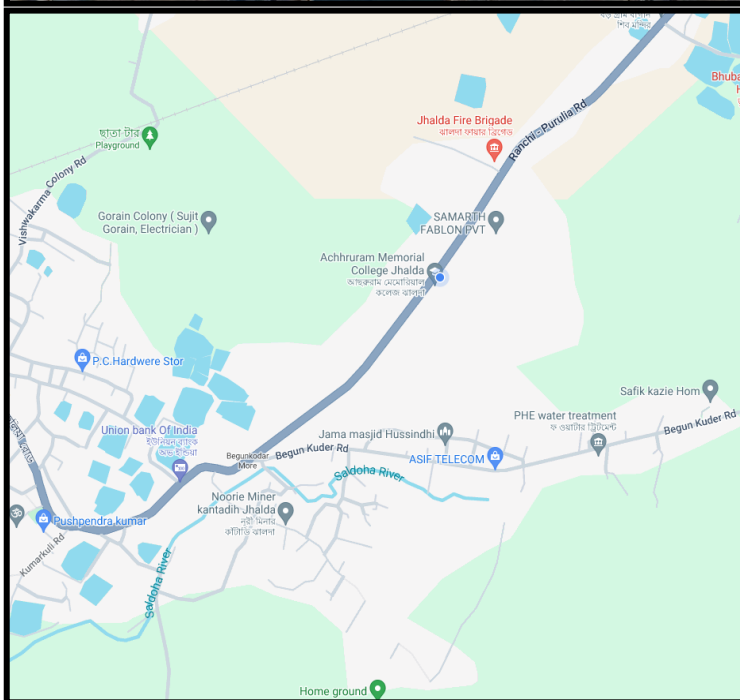
ANNEXURE-1

Some of the Outreach activities of the college related to Environment:

1. SWACHH BHARAT MISSION (10.8.22)- On the occasion of 'Azadi ka Amrit Mahotsav', an awareness rally on cleanliness has been performed by the volunteers on 10th August, 2022. The rally was performed from the college campus to the Jhalda Municipality. A college campus cleaning programme was also performed by the volunteers on the same day. Total 24 volunteers were participated in the aforesaid 2 programmes.
2. ADOPTED VILLAGE SURVEY (22.9.22)- An awareness cum training camp for our NSS volunteers of our college, Unit III about Social and Behaviour Change Communication(SBCC) is held at or adopted village (Purano Jhalda) on 22.09.2022 from 12.30 pm to 4.30 pm on proper usage of toilets. Our NSS volunteers, NSS Programme Officer, SBCC District Coordinator and staff, Head Master of Purano Jhalda Primary School and many villagers participated in this programme. Coordinator of SBCC Cell carefully trained the NSS volunteers and villagers about nutrition, sanitation, prevention of child marriage, proper way of hand washing etc. After successful training all NSS volunteers visited the adopted village families to aware village people about the above matter.
3. NSS DAY CELEBRATION - The NSS units have celebrated NSS Day on 24th September, 2022. An awareness rally on cleanliness was performed by our volunteers. Then a quiz contest has been organized for the volunteers. Prizes have been distributed on the same day.
4. CLEAN INDIA 2.0 (16.10.23) -On this occasion the volunteers cleaned their homes, Puja Pandels and surroundings.
5. WORLD WATER DAY OBSERVED- (22.3.23) The NSS Units of the college celebrated World Water Day on 22nd March, 2023. Total 23 volunteers participated in the programme. A Rally was organized to spread awareness for save water to the locality.
6. INTERNATIONAL YOGA DAY OBSERVED On the occasion of Yoga Day on 21st June, 2023 our volunteers came to college to celebrate the day by various types of Yoga. Total 23 volunteers participated in the programme.
7. WORLD AIDS DAY The NSS Units have organized an awareness rally on 1st December, 2022 for World's Aids Day. Total 25 volunteers were participated in this programme.
8. BLOOD DONATION CAMP A Blood Donation Camp has been organized on 29.11.2022. Total 30 donors donated their blood in this camp.
9. FIT INDIA 3.0 The volunteers of the Unit III performed yoga on 19.10.2022. They also cleaned college premises. 15 volunteers participated in this programme.

10. **NSS DAY CELEBRATION** The NSS units have celebrated NSS Day on 24th September, 2022. An awareness rally on cleanliness was performed by our volunteers. Then a quiz contest has been organized for the volunteers. Prizes have been distributed on the same day.
11. **AZADI KA AMRIT MAHOTSAV** On 13th August, 2022 a door to door campaign was conducted by the volunteers. Our National Flag was distributed to the people.
12. **ONLINE COVID AWARENESS CAMPAIGN** : Posters made by NCC 12 cadets on covid awareness on January 2021.
13. **ONLINE QUIZ COMPETITION AND CERTIFICATE PROGRAM ON COVID AWARENESS**: On may 31, 2021, around 500 students participated from all over India.
14. **WORLD ENVIRONMENT DAY CELEBRATION AND PLANTATION OF TREES**: Total 80 cadets of NCC planted 80 trees in the campus on this occasion on 5.6.2021.
15. **ROAD RALLY AGAINST WATER POLLUTION**: Total 60 cadets of NCC participated on 04, July, 2021.
16. **ANTI-TOBACCO DAY**- On 31 May, 2022, an anti-tobacco day was celebrated. Total 120 NCC cadets participated.
17. **WORLD BICYCLE DAY**: Celebrated on 3 June, 2022 by NCC volunteers. Road rally for the awareness was conducted.

LOCATION OF THE INSTITUTION



Latitude - 23.37N Longitude - 85.989E

Achhruram Memorial College, Jhalda



Solar and LED Set-up_2022-23



Solar Light



Solar Pump fitted Underground Boring with Water Tank

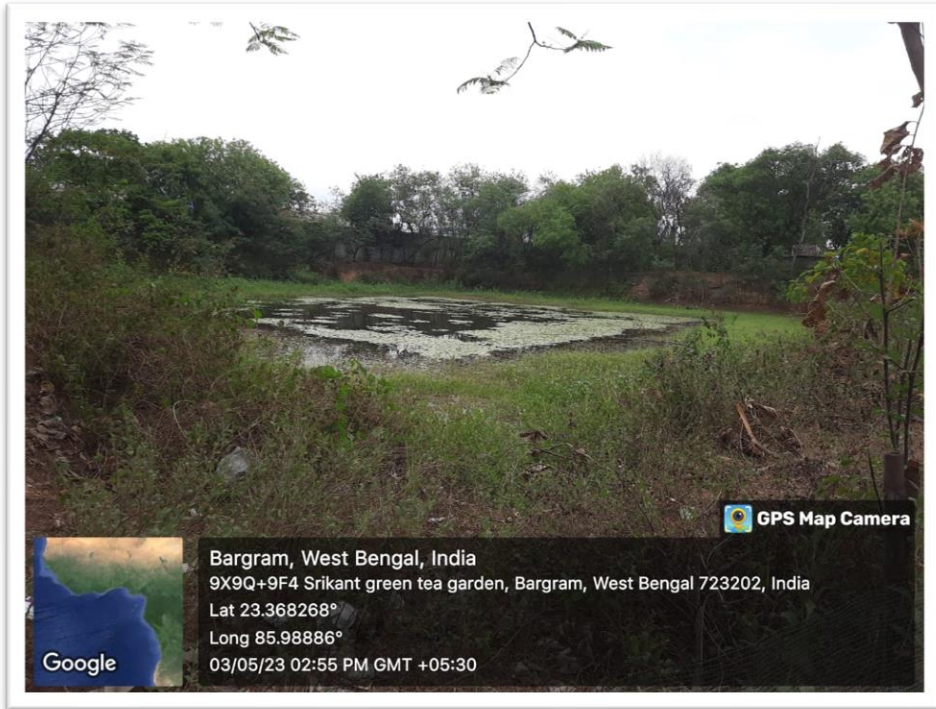
Achhruram Memorial College, Jhalda



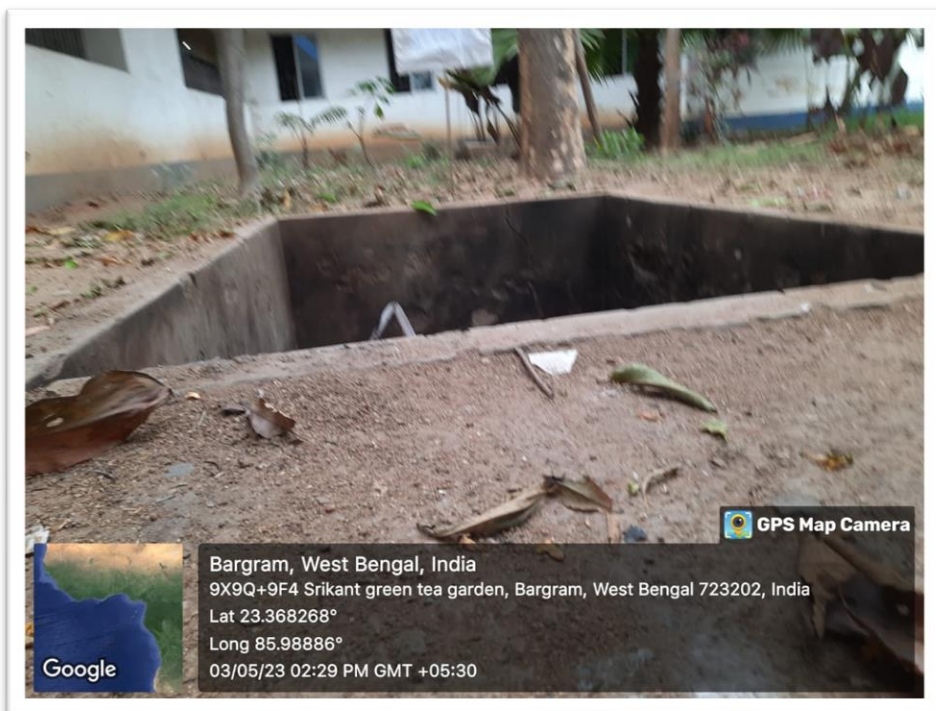
Waste Management_2022-23



Dustbin for Disposable Materials



Pond for Rain Water Harvesting in the Campus



Bio-Disposal Pit



Dustbin for Solid Material



Bio-Chemical Disposal Pit

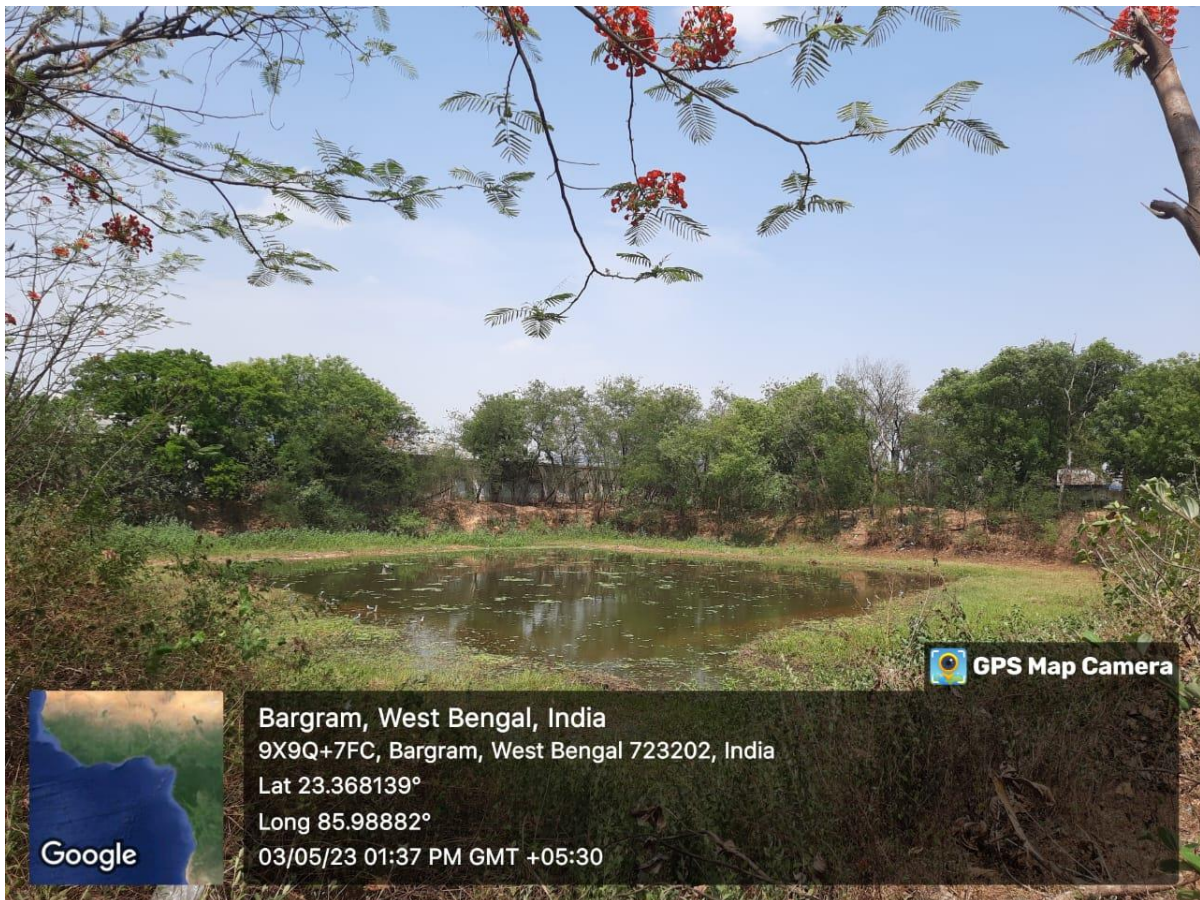


Dustbin for Non-Disposal Materials

Achhruram Memorial College, Jhalda



Water Conservation Facilities and Resources_2022-23



Pond as Water Resources and Rain Water Harvesting Systems



Bore Well



Pump House of Bore Well

Roof Top Rain Water Harvesting System





Sufficient number of Tube-wells for Water Resources



Water Filter with Cooling Technology



Solar Pump fitted Underground Boring with Water Tank



Electric Pump fitted Deep/Underground Boring

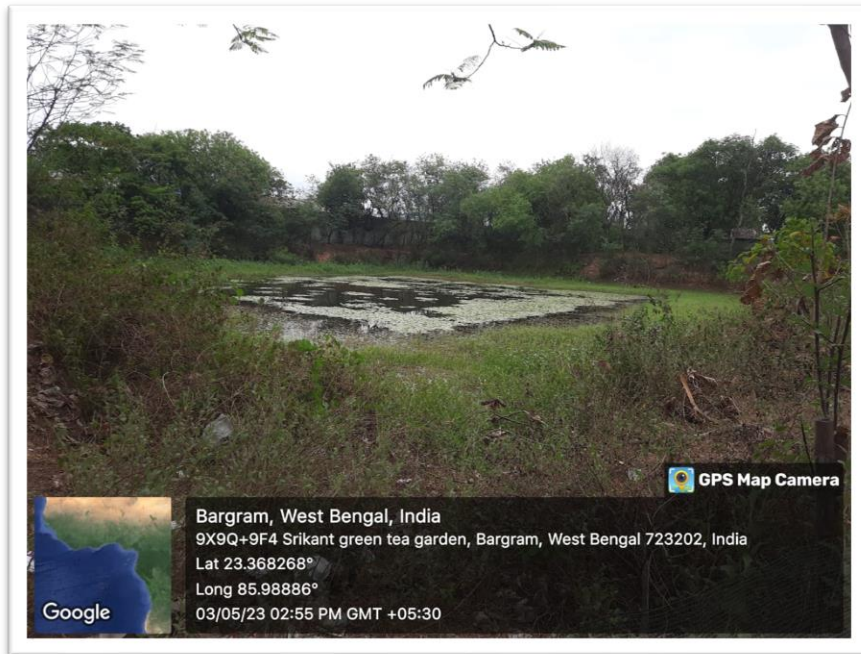
Achhruram Memorial College, Jhalda



Green Campus Initiatives_2022-23



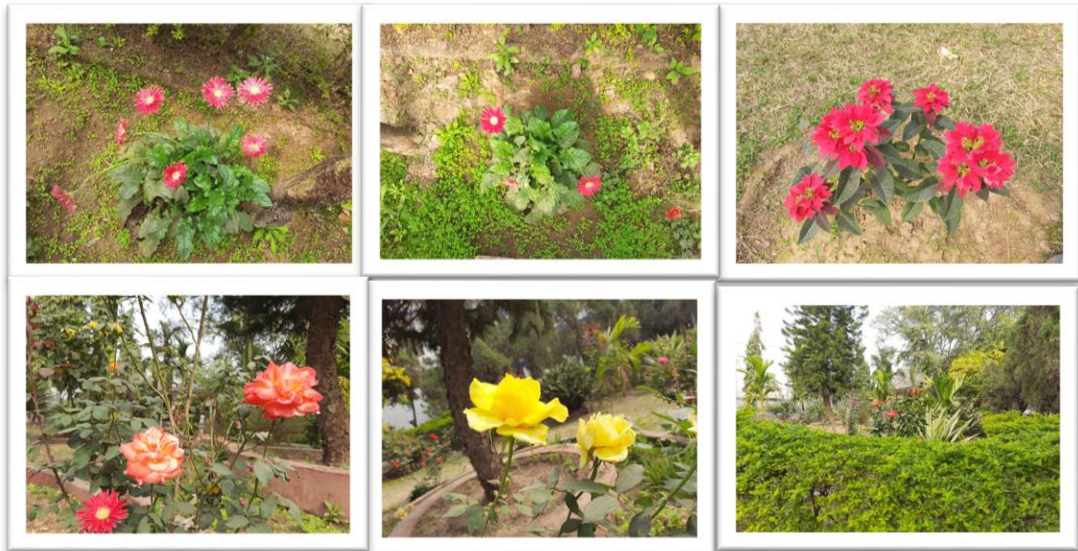
Drone View of the Campus



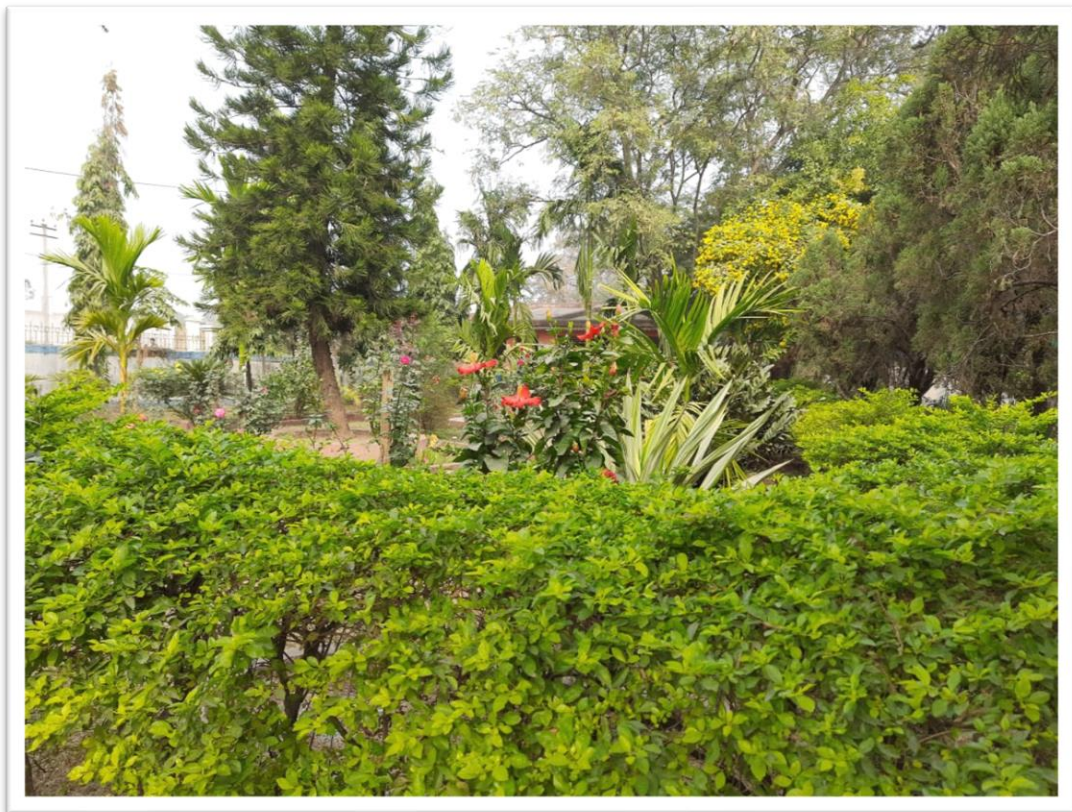
Pond for Sustain Ecosystem and Rain Water Harvesting in the Campus



Water Supply for Gardening



Various types of Flowers in Campus Garden



Green Scenario in Front of the College



Solar Light



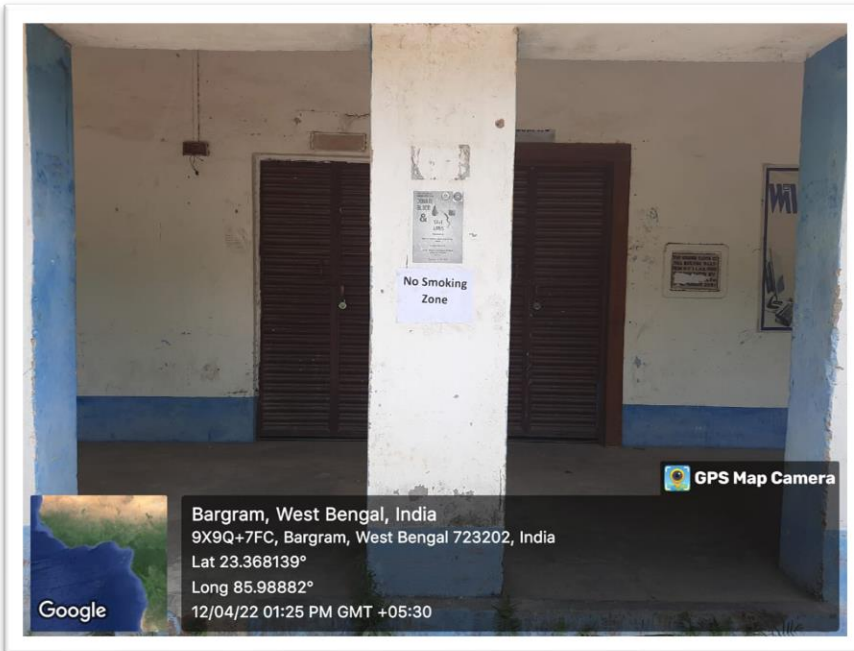
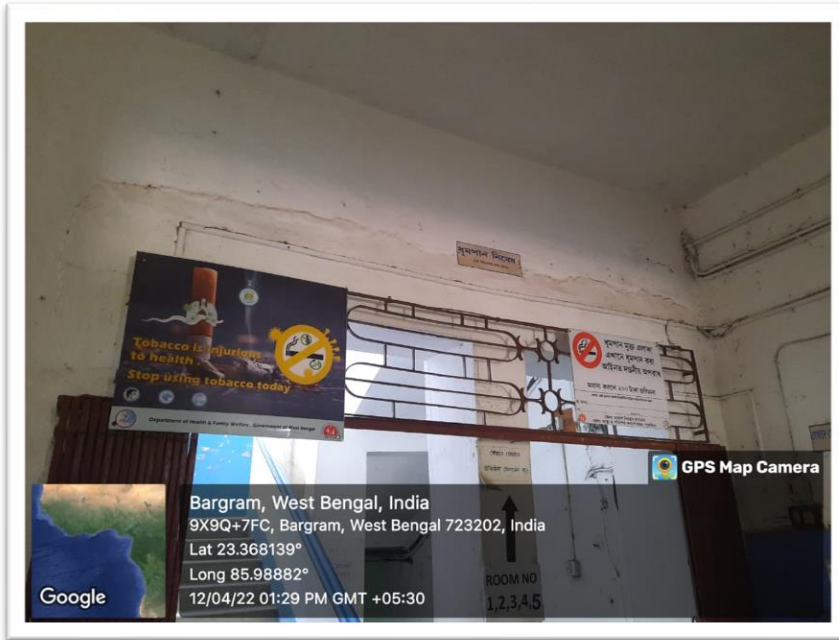
Way to Canteen



Bio-Disposal Pit



Bio-Chemical Disposal Pit



Smoke Free Campus



Solar Pump fitted Underground Boring with Water Tank

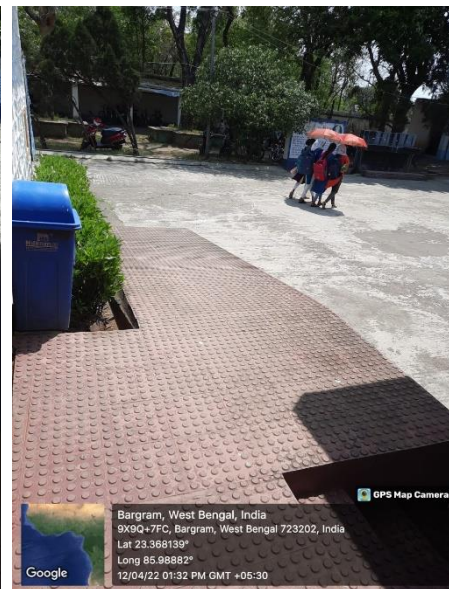
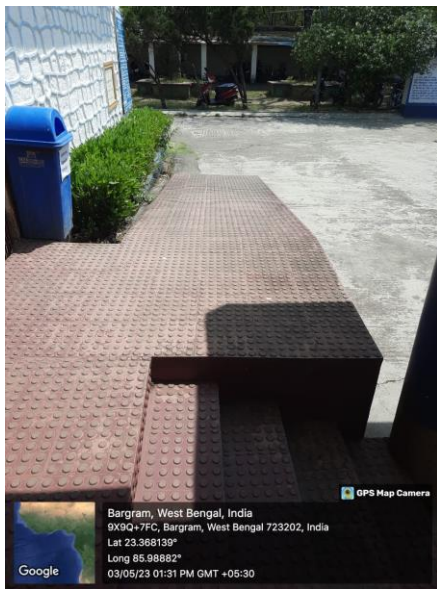
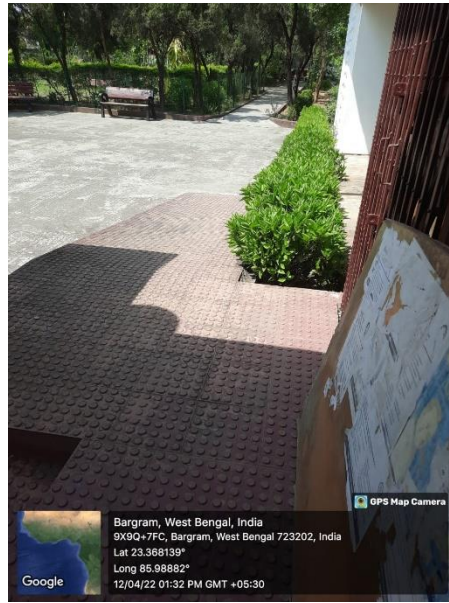
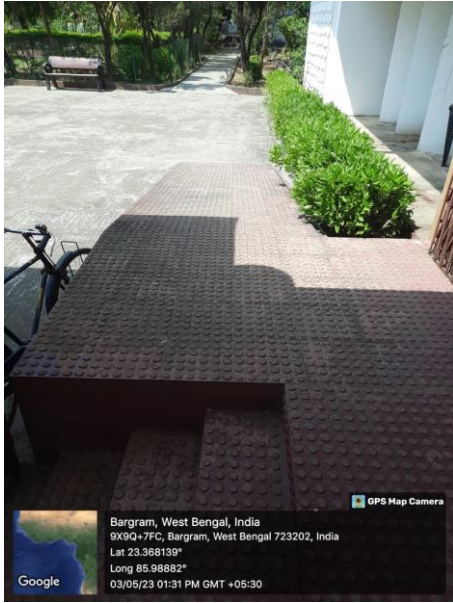


Pollution Display Board
donated by Pollution Control Board, Govt. of West Bengal

Achhruram Memorial College, Jhalda



Ramp for Physically Disable Persons_2022-23



Ramp at the Entrance of the College



Ramp at the Back Door of the College

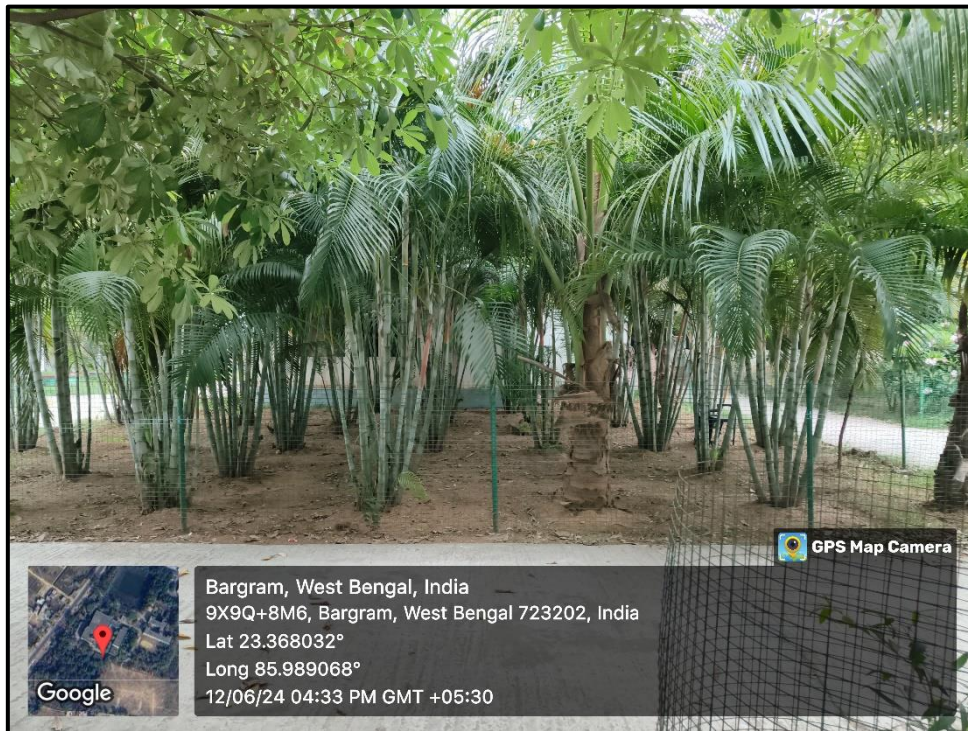
Plantation drives in the College



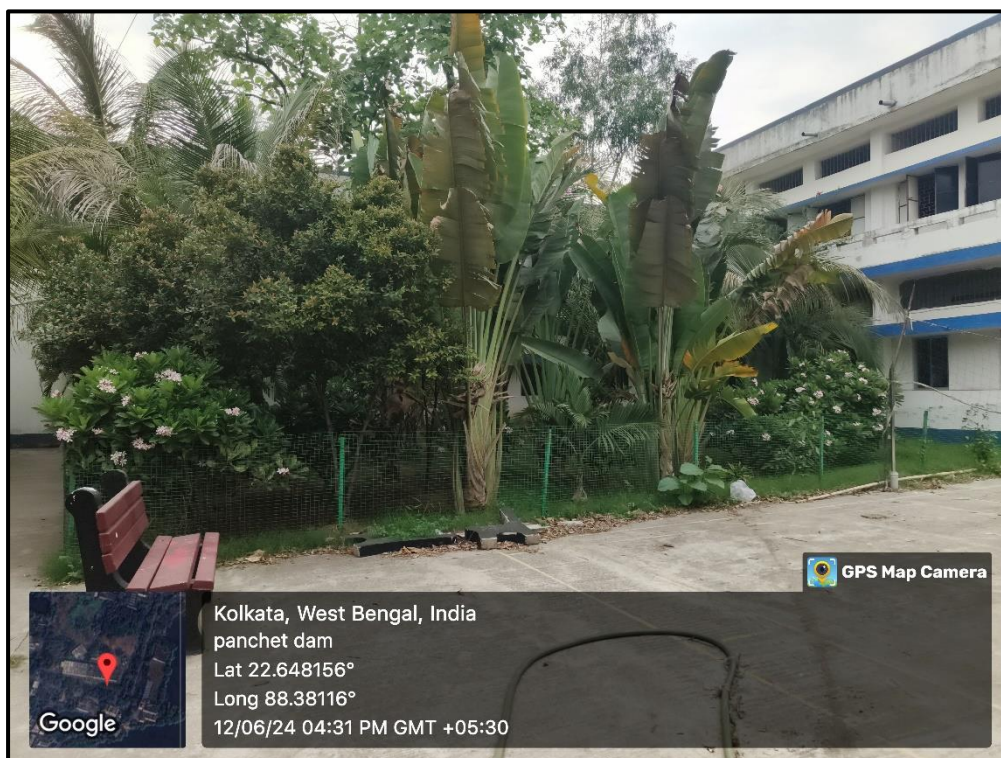
Cleanliness Drive in the College



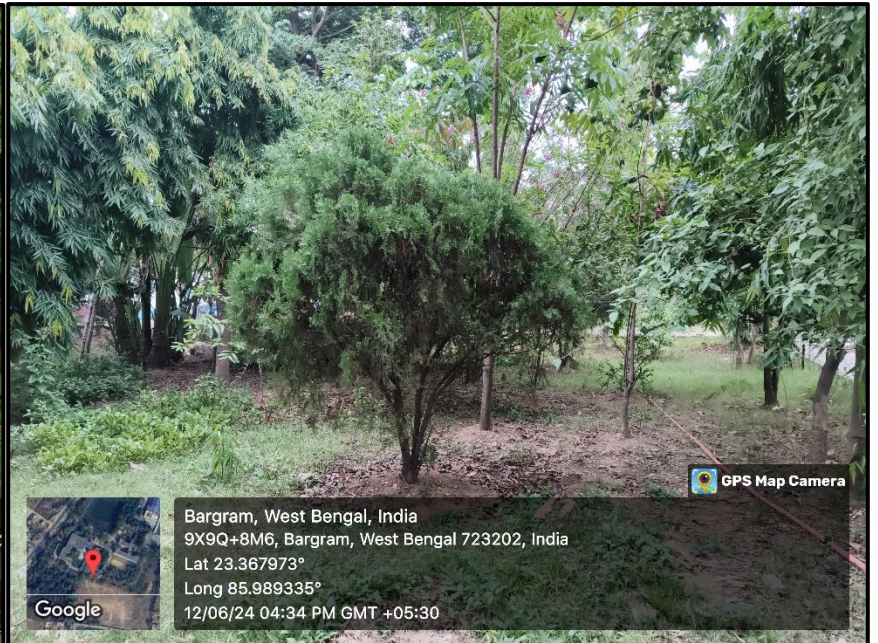
PALM GARDEN



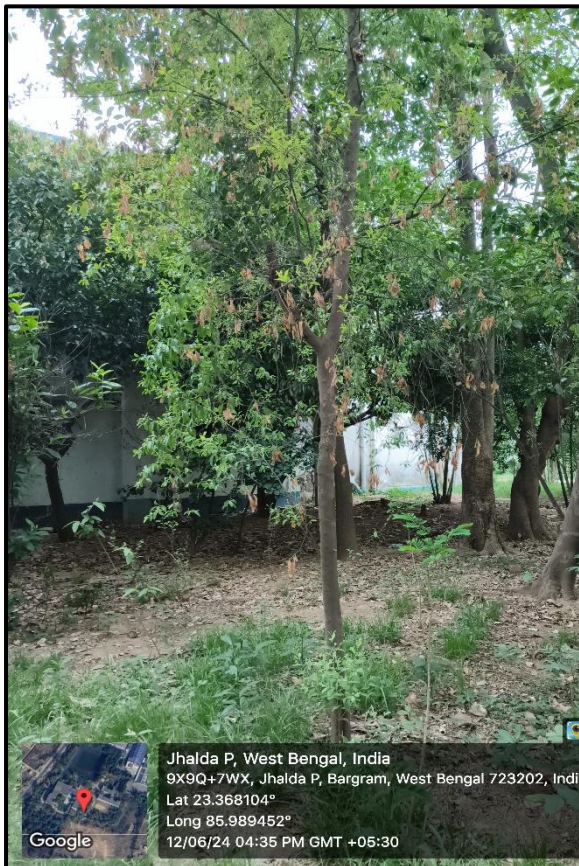
Green Area of the campus



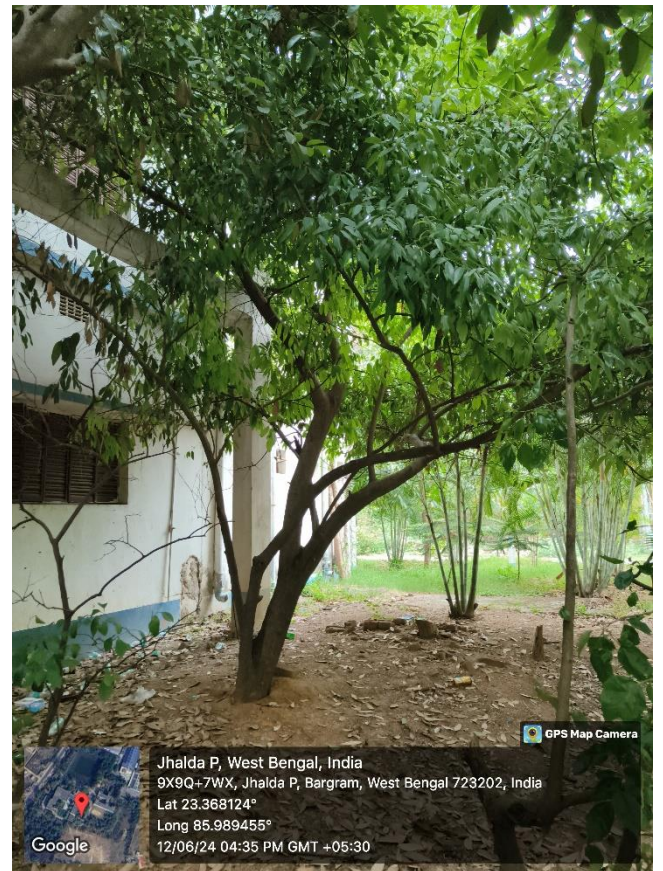
Herbal Garden



Thuja sp.



Santalum album (Swet Chandan)



Cinnamomum tamala (Tej Pata)

Artificial bird nest



Fruit tree



Punica granatum