

GREEN AUDIT REPORT 2020-2021



Prepared by
Green Audit Committee, Gushkara Mahavidyalaya



Gushkara Mahavidyalaya
PO- Gushkara, Dist- PurbaBardhaman
PIN-713128, West Bengal, India

Green Audit Committee Members

Chairman:

1. Dr. Swapan Pan (**Principal**, Gushkara Mahavidyalaya)

Members :

2. Mr. Taraknath Dutta (**IQAC coordinator**), Gushkara Mahavidyalaya
3. Ankit Bhakat (**Teachers' Council Secretary**), Gushkara Mahavidyalaya
4. Dr. Sunanda Mondal, Associate Professor of Botany, Convener, Gushkara Mahavidyalaya
5. Dr. Kanika Saha, Associate Professor of Geography, Jt. Convener, Gushkara Mahavidyalaya
6. Dr. Bholanath Sarkar, Associate Professor of Chemistry, Member, Gushkara Mahavidyalaya
7. Dr. Biswajit Mitra, Associate Professor of Geography, Member, Gushkara Mahavidyalaya
8. Mr. Ranjan Paul, Assistant Professor of Botany, Member, Gushkara Mahavidyalaya
9. Dr. Sukhendu Roy, Assistant Professor of Zoology, Member, Gushkara Mahavidyalaya
10. Dr. Saurabh Sarkar, Assistant Professor of Zoology, Member, Gushkara Mahavidyalaya
11. Miss. Poulomi Roy, State aided College teacher of Zoology, Member, Gushkara Mahavidyalaya
12. Basudeb Mukherjee, Non Teaching Staff, Gushkara Mahavidyalaya
13. Brajendranath Adhikari, Non Teaching Staff, Gushkara Mahavidyalaya
14. Student Representatives, Gushkara Mahavidyalaya
 - i. Ataur Mondal (1ST Sem, Chemistry)
 - ii. Adarsha Thakur (3RD Sem, Geography)
 - iii. Shib Shankar Ganguly (5th Sem, Botany)

Acknowledgments

We are grateful to all the departments of Science, Arts, Commerce, Office, and Library (teaching staff, non-teaching staff, casual staff and beloved students) for their contribution to the green audit. We are also, thankful to our Principal (Dr. Swapan Pan), IQAC Coordinator (Dr. Sabina Begam), and TCS (Ankit Bhakat) for their constant inspiration and co-operation during preparing the green audit report.

CONTENTS

CHAPTER		PAGE NO.
1	INTRODUCTION	
	1.1	Green Audit and General information of Gushkara Mahavidyalaya
	1.1	Basis of Green Audit
	1.2	Objectives of Green Audit
	1.3	Benefits of Green Audit
	1.5	Action taken by the Committee
	1.6	Future Programme of the Committee
	1.7	Policy Enforcement Strategies
	1.8	Awareness Programme conducted by the College
	1.9	Comments on several Programmes
2	BIOLOGICAL DIVERSITY AUDIT & BIODIVERSITY REGISTER	
	2.1	Importance of the biodiversity audit
	2.2	Biodiversity audit of the college
	2.3	Biodiversity Map
	2.4	Faunal Biodiversity Register
	2.5	Floral Biodiversity Register
3	WATER MANGEMENT	
	3.1	Water Audit
	3.2	Importance of Water Audit
	3.3	Water audit of the College
4	ELECTRICITY AND ENERGY AUDIT	
	4.1	Importance of the electricity and energy audit
	4.2	Electricity and energy of the college
	4.3	Renewable energy
	4.4	Other information about energy conservation
	4.5	Energy conservation strategies
	4.6	Recommendations
5	WASTE MANAGEMENT AUDIT	
	5.1	Importance of Waste Management Audit
	5.2	Waste Management Audit of the College
6	GREEN AREA MANAGEMENT	
	6.1	Campus Cleanliness
	6.2	Plantation Programmes
	6.3	Suggestions and Recommendations
7	CONCLUSIONS	

I INTRODUCTION

1.1 GREEN AUDIT AND GENERAL INFORMATION OF GUSHKARA MAHAVIDYALAYA

1.1.1 Year of Establishment of College:

Gushkara Mahavidyalaya was established in 1965, as the general degree college in Guskara, erstwhile Burdwan District (presently Purba Bardhaman district).

1.1.2 History behind the Establishment of the College:

Guskara, situated at a distance of 135 Km from Kolkata, is an sprawling municipal Town in the northern part of Burdwan Sadar Sub-division. To the north of Guskara lies Santiniketan where Great Poet Nobel laureate Rabindranath Tagore spent most of his creative years. The district town of Burdwan is 34 Km away from the Guskara. Gushkara Mahavidyalaya is fifty-eight years young. This institution having a land of 8.16 acres (24.684 Bighas) was established on 9th August, 1965. The major part of the land was donated by Guskara P.P. Institution, the oldest higher secondary school of the region. The founder principal was late Rakhahari Baksi. This is a metaphor for commitment, care and service, and these momentous hours of the history of our college make our ambition and aspiration for future. We are proud about the progress of Gushkara Mahavidyalaya today – a precious seed has prospered into a vital, virtuous tree. The college is evolving into a nationally ranked, multifaceted and co-educational institution.

Our Alumni occupy distinguished positions in almost all spheres of activity both in country as well as in abroad. It has been a long journey through the fifty-eight years and yet the journey has perhaps just begun. Until the end of time, the college wants to create an intellectual environment that will enhance individual growth, support, scholarly activities and creative endeavors to facilitate expansion of human knowledge and understanding.

Since its inception Gushkara Mahavidyalaya has been approved by UGC and affiliated to the University of Burdwan. The college offers undergraduate programme in Arts, Science and Commerce and Postgraduate programme in Bengali. At present this institution offers various facilities to its students including Computer Lab, Library, Yoga, Common Rooms, Hostels, Gymnasium, Play Grounds, Auditorium, Canteen, and more. Subjects offered undergraduate programme are Physics, Chemistry, Mathematics, Botany, Zoology, Nutrition, Bengali, English, Sanskrit, History, Geography, Political Science, Philosophy, Economics, Physical Education, Music and Commerce. Among these seventeen subjects fifteen are at the Honours level and Physical Education and Music is at the level of general course. The Department of Bengali offers PG programme. The college was accredited by NAAC with 'A' grade in the assessment and accreditation year 2016.

1.1.3 Total Area of the College

Total Campus Area	8.16 acres (355450 sq.ft.)
Total Built Up Area	70967 sq.ft.
Total Open Space Area	284483 sq. ft.
Playground Area	102083 sq.ft.
Total Green Area	182400 sq. ft.

1.1.4 Previous NAAC Grading:

Sl. No.	Phase	Grade	Year of Accreditation	Accreditation Period
1	1st Phase	B+	2007	2002-03 –2006-07
2	2nd Phase	A	2016	2010-11–2015-16
3	3rd Phase	ongoing	2023	2016-17–2022-23

1.2 BASIS OF GREEN AUDIT

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of various establishments. It aims to analyze environmental practices within and outside of the concerned sites, which will have an impact on the eco-friendly ambience. The green audit report can be a useful tool for a college to determine how and where they are using the most energy or water or resources; the college can then consider how to implement changes. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve the waste minimization plan. It can create health consciousness and promote environmental awareness, values and ethics. It provides staff and students with a better understanding of the green impact on campus.

The rapid urbanization and economic development at the local, regional and global levels have led to several environmental and ecological crises. On this background, it becomes essential to adopt the system of the Green Campus for the institutes which will lead to sustainable development and at the same time reduce a sizable amount of atmospheric CO₂ from the environment. The National Assessment and Accreditation Council (NAAC) has made it mandatory that all Higher Educational Institutions should submit an annual Green Audit Report. Moreover, it is a part of the Corporate Social Responsibility (CSR) of the Higher Education institutions to ensure that they contribute towards the reduction of global warming through carbon footprint reduction measures.

1.3 OBJECTIVES OF GREEN AUDIT

The general objective of green audit is to prepare a baseline report on biodiversity and other resources, measures to mitigate resource wastage and improve resource quality and sustainable practices. The specific objectives are:

- To prepare a checklist of flora and fauna diversity in and around the college campus
- To suggest measures to improve biodiversity within the college campus
- To monitor the energy consumption pattern of the college
- To assess the quantity of water usage within the college campus
- To suggest sustainable energy usage and water conservation practices
- To find out various sources of organic and solid waste generation and mitigation possibilities

1.4 BENEFITS OF GREEN AUDIT

There are many advantages of green audit to our institution.

- Since our college is located in a rural area with a large area of greenery around it, green audit can help protect the natural environment in and around the college campus.
- The college has limited financial resources and components of green audit like solar power generation and rain water harvesting can help in reducing expenditure and optimizing resources through waste minimization and energy conservation.

- It helps to develop the social and environmental awareness among teachers and students of various disciplines.
- Encouraging plastic free zone helps in promoting clean environment.
- Empower the organization to frame a better environmental performance.
- The institutional building has a large green campus which can be preserved and enhanced.
- Finally, it will help to build a positive impression through green initiatives for the upcoming assessment and accreditation processes.

1.4.1 Whether the college is implementing the Green Policy for the first time (mention date/month/year):

Yes, 12/09/2014: Club of Ecology and Environment (CEE)

GREEN AUDIT POLICY OF THE COLLEGE

The Green Campus Policy of the college envisions a Clean and Green Campus where environmental friendly practices and education combine to promote sustainable and ecofriendly practices in the campus and beyond the campus. It also offers the institution an opportunity to take the lead in redefining its environmental culture through instilling environmental ethics among the students and staff.

The college works towards creating a green, pollution-free and healthy environment with a missionary zeal and dedication. The students are given strict instructions to maintain the campus clean and green and it is reflected in our approach and attitude.

Initiatives Taken to Implement the Clean and Green Campus Policy

- Landscaping with Trees and Plants
- Medicinal Plant Garden.
- Aquaculture in natural water body.
- Biodiversity Register of Flora and Faunas present in the college.
- Ban on Single-Use Plastic
- Observance of Green Thursday to Restrict the Use of Petrol/Diesel Vehicles
- 10 kW Solar Plant in the College
- Use of LED Bulbs/Tubes and Power Efficient Equipments
- Rainwater Harvesting
- Emphasis given on Paperless Office and Communication
- Laboratory liquid waste management system through percolation system: -
- Hazardous Chemical Waste Management
- Sensor based water Management
- E-waste Management
- Display Boards to Promote Environmental Sensibility on College Campus
- Installation of Incinerator in the Girls' Common Room
- The Green, Environmental and Energy Audit
- Divyangian friendly college campus.
- A group of students dedicated to function of overseer to reduce the classroom electricity wastage

- The NSS unit and the NCC unit conduct clean and green campus on the campus every Sunday and observe cleanliness of the campus.

Whether green audit is followed annually, if so, please produce the year-wise recommendations of the Auditor along with report:

The college implemented the Green Policy for the first time under the aegis of “CEE Club” in the year 2014.

On 07.01.2020 under the supervision of IQAC Gushkara Mahavidyalaya, CEE (Club of Ecology And Environment) was directed to form a **Green Audit Committee** within 07.02.2020. Unfortunately, because of COVID-19 pandemic outbreak, it has been delayed.

The green audit process was carried out during 2020 to 2021. At first, all the secondary data required for the study was collected from various informant sources and concerned departments. A broadreference work and literature review was carried out to clear the idea of green auditing. Different case studies and methodologies were studied, and the following methodology was adopted for the present audit.

The Governing Body of the college asked the Principal to make a ‘Green Audit team’ for green audit. During a IQAC meeting dated 07.01.2020, IQAC Coordinator and Principal authorized the “CEE Club” to find and conduct the green audit process. Therefore, our green audit process was started on 07.02.2020 but due to COVID-19 situation, it has been deferred.

1.4.2 Has College constituted the “College Environmental Committee”:

The earlier “CEE (Club of Ecology and Environment) Committee” has been renamed as “Green Audit Committee” as per guideline of the NAAC.

**INTERNAL QUALITY ASSURANCE CELL
GUSHKARA MAHAVIDYALAYA**

P.O. Guskara, Dist. Purba Bardhaman

Date: 02.01.2020

Notice

A meeting of the IQAC of the college will be held on 07.01.2020 and the following agenda will be discussed.

Agenda:

1. Formation of Green Audit Committee
2. Misc.

Tarak Nath Sarkar
Coordinator
Co-ordinator
IQAC
Gushkara Mahavidyalaya
Gushkara, Purba Bardhaman



S. Pan
Principal
Gushkara Mahavidyalaya
Gushkara Mahavidyalaya

Members Present:

1. Dr. Swapan Kumar Pan
2. Prof. Taraknatha Datta
3. Dr. Sabina Begum
4. Dr. Bhol Nath Sarkar
5. Dr. Madhumita Bhattacharya
6. Dr. Biswajit Mitra
7. Mr. Sumantra Chandra
8. Prof. Ranjan Paul
9. Prof Ankit Kumar Bhagat
10. Dr. Papita Dutta
11. Dr. Sukhendu Roy
12. Sri. Dipankar Mondal
13. Sri. Brojendranath Adhikari
14. Sri. Udy Choudhuri
15. Sri Dr. Mrinal kanti Chottopadhyay (Alumni)
16. Smt. Sayantani Banerjee (Alumni)

Resolution of IQAC Meeting dated 07.01.2020

A meeting of the IQAC of the college has been held on 07.01.2020 under the Chairmanship of the Principal, Dr. Swapan Kumar Pan.

1. IQAC, Gushkara Mahavidyalaya instructed CEE (Club of Ecology and Environment which was formed on 12.09.2014) to form a Green Audit Committee within 07.03.2020.
2. Resolved that internal examinations of odd semesters will be completed within 31.01.2020

Compliance to the Decisions taken on the Meeting dated 21.12.2019

1. Dr Biswajit Mitra and Prof. Ranjan Paul started taking feedback from students at the time of issuing mark-sheets of examination in proper designed form.
2. Second and fourth semester classes started on 4th Feb, 2020. 6th Semester classes started w.e.f. 29/7/20. The New routine distribution of classes was made strictly as per number of lectures allotted in the syllabus. Also the interdepartmental classes are arranged in the new routine.
3. Steps have been taken for documentation of college programmes and activities.



Swapan
Principal
Principal
Gushkara Mahavidyalaya
Gushkara Mahavidyalaya

Name of the “College Environmental Committee”members:

Same members of Green audit Committee members.

Number of meetings conducted so far:

No meetings were held on basis of performing green audit of our college in this period.

1.5 ACTION TAKEN BY THE COMMITTEE

- **To Encourage student participation:** It was found that student body, which is a solid in-house source, should be tapped for collecting the data and efficiently evaluating them, which will in turn provide a platform for them to come closer to the environment.

- **Analysis by Experts:** It was also found that having a professional touch for this activity would mean a lot in terms of providing a strong routing, evaluation and analysis of the data collected, owing to tested methodologies being put to rightful use, making the process an effective one.
- **Experts to be Contacted for Continuous Monitoring:** In light of the several meeting and multiple informal collaborations with various organizations, one of the outcomes was to have a formal collaboration with an external agency which is actively involved in Green Audit Processes. This collaboration would be effective in acquiring better ideas, directions, and support for conducting, evaluating and continuously monitoring the process.

1.6 FUTURE PROGRAMMES OF THE COMMITTEE

Serial No.	Recommendations	Action Taken
1.	Encourage Students Participation	Sensitization of eco-friendly practices planned and promoted amongst students community through in-house and outreach programs.
2.	Analysis by Experts	Reports of various activities and programmes initiated are sent to experts for analysis.
3.	External experts to be contacted for continuous monitoring	Experts are invited to the campus at regular interval for sharing expertise and to evaluate the existing green practices for greater effectiveness.
4.	Enhance use of alternative energy and energy saving devices in the Institution.	Recommendations have been forwarded to management for approval to enhance the use of alternative energy and energy saving devices in the Institution.

1.7 POLICY ENFORCEMENT STRATEGIES

Policies are adopted according to:

- Water (Prevention and Control of Pollution) Act of 1974, amended in 1988
- Water (Prevention and Control of Pollution) Cess Act of 1977, amended in 1991
- Air (Prevention and Control of Pollution) Act of 1981, amended in 1987
- Environment (Protection) Act of 1986 (EPA)
- Fire prevention and fire safety act, 2005

Our college has taken oath to facilitate Divyangian friendly environment within our college campus for comfortable college hours of Divyangian. We have already providing Ramps and other basic facilities to all functional buildings for easy access to their classroom. Personal level human assistance is provided by our dedicated college staff(s) to Divyangians for their movements, informations, reading, scribe etc as required.



Divyangian friendly college campus

1.8 WHETHER COLLEGE HAS CONDUCTED ANY AWARENESS/RESPONSIBILITY PROGRAMME AMONG THE STAFF MEMBERS

Yes, programme was conducted with a few departments. But due to COVID-19 pandemic, we could not complete the programme. We have organized several awareness programmes on the Green Responsibilities in online and offline platform namely, World Environmental Day, Covid vaccination Programme, Aquaculture, Plantation programme etc. by different departments of the College.

The programmes include are as follows:

- Celebration of World Environmental Day **(28.07.2020)**
- Awareness Programme on light of Asian and African Elephants **(18.12.2020)**
- Celebration of World Environmental Day **(05.06.2021)**

(AWARENESS PROGRAMME ORGANIZED BY THE COLLEGE)

Sl.No.	Date	Programme	Organised by the Department	Documentation (If any)
1.	28.07.2020	Celebration of World Nature Conservation Day	IQAC, Dept. of Zoology and Dept.of Botany	
2.	18.12.2020	Awareness Programme on Plight of Asian and African Elephants	Department of Zoology and IQAC, Gushkara Mahavidyalaya	
3.	05.06.2021	Celebration of World Environmental Day	IQAC, Dept. of Nutrition, Geography and Dept.of Botany.	

1.8.1 Whether all the departments/teachers/non-teaching members/students are aware about the need of the environmental protection and audit

Yes, all the departments/teachers/non-teaching staff members/students have knowledge and awareness on the need of environmental protection and the audit. A few of them have participated in auditing activities.

1.8.2 Whether college has involved the students as volunteers in greening programmes

Yes, College has involved the students in the form of volunteers of NSS in greening programmes.

1.8.3 Whether construction/demolition/repairing are in compliances with green standard. (Certificate from ENGG Dept.)

Yes, we follow the green standards during construction/demolition/repairing works of our college.

Mob.: 7001805069

SAYAN ENTERPRISE

Sayan Hati
B.E. Civil, Reg No. – 181200110421 Of 2018-19
Baburbag, Purba Bardhaman, Pin - 713104
E-mail: sayanhati98@gmail.com

Report

Name Of Work: Construction Of New Disable Friendly Toilet Block for student at Guskara Mahavidyalaya

Estimate amount: Rs. 29,94,851.00


Rate : Prepared on the basis or W.B.P.W.D Building and Sanitary Schedule of the year 2017


History: The college authority has decided to construct a double storied toilet block to Cater the needs of the Students. This toilet at ground floor will be put into use partially by the disabled students while the entire first floor toilet needs to be used by the general students. This is a conventional Structure with 250mm b/w and R.C.C roof. The estimate covers the cost of construction based of current PWD Scheduled of rates.

Sayan Hati
Sayan Hati
B.E. (Civil)
B.C.R.E.C

1.8.4 Whether college has conducted any workshop/seminar/lecture on environmental awareness programme inside and/or outside the campus

Yes, we have observed the green programme (tree plantation) and many other activities by NSS volunteers in association with the several academic Departments.


GUSHKARA MAHAVIDYALAYA
 GUSHKARA : PURBA BARDHAMAN : 713 128 : WB
 (NAAC Accredited 'A' Grade Degree College)



Extension Activities of NSS Units I & II (2020-2021)

Name of the Community: SC/ST, at Baganpara & Majhpukurpar

Sl. No.	Name of the Activity	Name of the Scheme	Date	No. of students participating in such Activity	No. Of teachers participating in such Activity	Remarks
01	Tree Plantation in side of our college ground	National Afforestation Programme	9.8.2020	28	4	
02	Camp for distribution of Musk, Sanitization to control the spread of Covid-19	Central Govt. Health Programme	22.1.21	33	2	
03	Awareness Campaigning on Covid-19 at Baganpara	Central Govt. Health Programme	12.1.21	30	2	

Programme Officers *elk*
 NSS Unit I & 2 *5.10.21*

Principal
 Gushkara Mahavidyalay

Details of Extension Activities of NSS Units I & II (2020-2021)

SI No	Name of the Activity	Name of the Scheme	Date	Documents
	Tree plantation programme in the College Campus	National Aforestation Programme	09.08.2020	
	Mask distribution among people at New Town, Guskara	Central Govt. Health Programme	22.01.2021	
	Awareness Campaigning on Covid-19 at Baganpara	Central Govt. Health Programme	12.01.2021	

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

We have applied for permission to initiate a Department of Environmental Science as per the new syllabus of NEP 2020.

1.8.6 Whether College provides any community services, if so, give details:

Yes, our NSS as well as other students of our different departments perform the community services regularly on every Sunday. Generally, cleaning the local market, gardening, mushroom cultivation, etc. are conducted. More or less maximum number of students participated spontaneously throughout the year. Activities are discussed with documents on the above (1.8.4 para)

1.8.7 Whether the students are aware about the use of medicinal plants (any lecture/seminar/conference organized on it):

Yes, students are aware about the medicinal plants. Different types of awareness programmes have been arranged such as lecture, field visits seminar etc. But due to Covid-19 situation no field visit is conducted this session (2020-2021)

1.9 COMMENTS ON THE FOLLOWINGS:

1.9.1 Plantation program:

Yes, we regularly organize the plantation programme. (Details in Chapter- 6.2)

1.9.2 Formation of Natural club/Eco club:

Yes, since 12/09/2014 our Club of Ecology and Environment (CEE) is operational.

1.9.3 Management of natural resources, wildlife, conservation of species:

Yes, we have conserved species such as medicinally and economically important.

1.9.4 Any project sponsored by national funding agency/NGO, independent project related to environmental issues:

No

1.9.5 Is there any incidence of burning of plastics containing garbage within the campus?

No

1.9.6 Celebration of 5th June, Ozoneday, Earth Day etc.:

Every year college celebrates World Environment Day and Earth Day in the campus. The main focus of these programmes is to provide awareness among the students about the importance of the environment, its conservation and sustainable use of natural resources. The programmes are conducted in the form of seminars, poster presentation, quiz competition, debates etc.

1.9.7 Number of field visits/survey records:

Yes. Most of the Departments like Zoology, Botany, Geography, Nutrition, Chemistry, Bengali, English, Sanskrit, Pol. Science, History etc. organize such field visits each and every year (Records present in their Departmental file.)

2. BIOLOGICAL DIVERSITY AUDIT & BIODIVERSITY REGISTER

Human activities are the main cause of biodiversity loss. Habitat fragmentation, caused by urbanization and agriculture and the overexploitation of resources, leads to the depletion of species. Biodiversity is crucial for the well-being of people and the Earth. Ecological communities maintain the ecological and evolutionary processes that sustain life. These are necessary to help maintain the planet's chemical balance, moderate climate, renew soil, and conserve species diversity. Plant, animals and other species have intrinsic worth. They are also the source of all biological wealth—supplying food, raw materials, medicines, recreational resources, and a store of other goods and services. Biodiversity audit encompasses the assessment of current biotic resources through a set of tools and a biodiversity audit must be able to deliver authoritative advice, on

which individuals and organizations can rely in making decisions that affect the future of our community. The rapid biodiversity inventory may include documentation of existing flora and fauna, their current status, threats etc. to formulate biodiversity specific management plan.

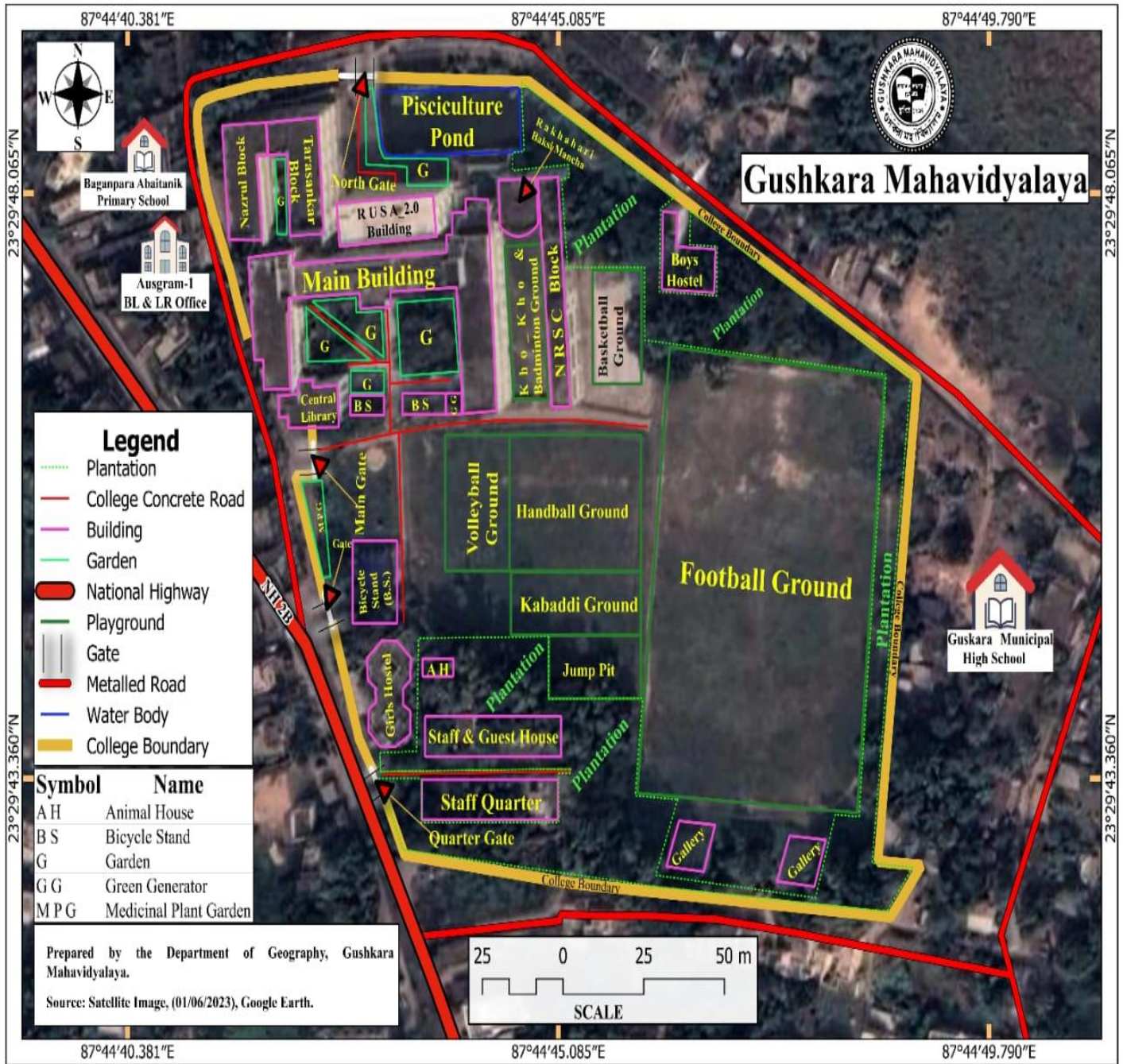
2.1 Importance of the biodiversity audit

- Biodiversity audit may deliver a current understanding of prevailing biotic resources of the surroundings
- Updated information on the flora and fauna diversity
- To identify possible threats and hazards to the existing diversity
- Formulate conservation measures on the existing biotic resources and increase carbon Stocks

2.2 Biodiversity audit of the college

Yes, our college mainly Department of Zoology and Botany follow biodiversity registration system. Biodiversity map is made by our Geography Department.

2.3 BIODIVERSIY MAP



2.4 FAUNAL BIODIVERSITY REGISTER (ANNEXURE-I)

2.5 FLORAL BIODIVERSITY REGISTER (ANNEXURE-II)

3. WATER MANAGEMENT

Water, a valuable natural national resource and is limited in quantity. Water availability is decreasing as the nation's population grows, and the per capita availability of utilizable water is diminishing. The need for freshwater is increasing day by day as a result of people's rising standards of living, industrialization, and urbanization. The unchecked dumping of industrial effluent into available water bodies is continuously lowering the quality of these abundant sources of water.

A water audit is a qualitative and quantitative review of water consumption to find opportunities for water conservation, reuse, and recycling. A water audit is a strategy or approach for identifying water conservation opportunities by identifying inefficiencies in the water distribution system. Water losses due to various uses in the system or any utility must be measured in order to adopt water conservation measures in such a facility.

3.1 Water Audit

The amount of water consumed on campus for all activities from various water sources is referred to as water audit. Here the water usage was categorized based on their utilities in all academic buildings, on campus, and the grounds. Water that is moved off-campus is referred to as wastewater. Sewerage, residential, hall water used in cooking, showering, and clothes washing, as well as wastewater from chemical and biological laboratories are all examples of wastewater that eventually end up in a sink or drainage system.

3.2 Importance of Water Audit

- When problems are identified, it is easier to work on solutions
- The process is more systematic
- It is possible to implement a tracking system

3.3 Water Audit of the College

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

Yes. We have efficient and hygiene water storage mechanism.



3.3.2 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, Aqua Guards and/or large water filter with coolers are in working condition, regularly maintained out of college development funds. No they are not under AMC.



3.3.3 Whether college has its own mechanism in repairing of water leakage:

Due to COVID-19 no question of any repairing of water leakage and other related faults.

3.3.4 Is there any rainwater harvesting unit in college:

As part of rainwater harvesting, rainwater is collected and used for gardening purposes.

3.3.5 Whether college has developed any reuse and recyclable of water system:

Yes, a small area has been developed to phytoremediation, due to COVID-19 situation which is not maintained properly, however, this will be restored soon.

3.3.6 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.) :

Due to COVID-19 Pandemic college was closed during 2020-21 and no question of measurement of water quality.

3.3.7 Water consumption (lit/day)

Departments/Labs	Average no. of Students	Average practical hours	Water consumption (lit/day)
Chemistry	No students present in the college due to COVID-19	Due to COVID-19 no off-line classes held .	NIL
Zoology			
Botany			
Geography			
All Arts department	No students present in the college due to COVID-19	Due to COVID-19 no off-line classes held .	NIL
Office (Day)			
Vivekananda Chhatrabas			
Nibedita Chhatrinibas			
Office (Morning)			
Staff room			
Aqua guards			
Student toilets			
Total consumption			

3.3.8 Whether college has sufficient/adequate drainage system:

Yes, all the departments have sufficient drainage system for water discharging.

4. ELECTRICITY AND ENERGY AUDIT

Energy is one of the foremost inputs for the economic development of all nations. Energy management is aimed to produce goods and provide services with the least cost and least environmental effect. The energy audit is a key to a systematic approach for decision-making in the area of energy management. It attempts to balance the total energy inputs with its use and serves to identify all the energy streams in a facility.

4.1 Importance of the electricity and energy audit

From a general point of view, an energy audit provides enormous benefits in different areas:

- It helps reduce energy costs in your facility.
- With a reduction in production costs, the competitiveness of your company will be improved.
- It helps reduce the dependence on foreign energy sources.
- It helps reduce environmental damage and pollution.
- It can increase the security of your energy supply.
- It can reduce the consumption of natural resources.
- It can reduce damage to the environment associated with the exploitation of resources.
- It helps reduce the impact of greenhouse gas emissions.

4.2 Electricity and energy of the college

Energy sources utilized by all the departments and services of this college include electricity, petroleum vapour (in Chemistry department only) and solar energy. The major use of energy is at office, canteen, hostel and laboratories for lighting, cooking, laboratory and construction works. The energy consumption was calculated by employing standard method.

Total Electric Consumption Amount.....42,225 kW/yr

Average Electrical Consumption in a Month... 3,500 kW/yr

Total Requirement of Energy :

Due to COVID-19 Pandemic college was closed during 2020-21 and energy consumption is almost negligible.

4.3 Renewable energy of the College

The college takes some serious initiatives for moving towards the renewable energy sources considering recent carbon emission and climate change. After discussing State Pollution Control Board accordingly, Solar Panels are already installed (dated 04.03.2020) in our college with capacity of 10kW/yr

The total renewable electricity generation can be achieved by using solar panels are given below:

Table. Current status of renewable energy: Our Solar Power Generation Capacity =10kW/y

Power requirement met by renewable energy sources	Total power requirement	Renewable energy source	Renewable energy generated and used	Energy supplied to the grid	Year(Jan -Dec)	Percent age
UNKNOWN	11507kW/yr	SOLAR	259 kW/yr	UNKNOWN	2020-21	1.25%

Enlisted in: **ANNEXURE-(III)**

4.4 Other information about energy conservation

4.4.1 Whether college has any provision/choice of renewable and carbon-neutral electricity options:

Yes, college has initiated to use renewable energy sources, like solar power.

4.4.2 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, the staff members of all sectors and our students are concerned about turning off the electrical appliances when not in use in both academic and residential areas. In all the cases, after use, power is switched off carefully.

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

Yes, Miniature Circuit Breakers (MCBs), a specialized electronic switch, is fitted in every floor that leads to avoid short-circuit and power saving. Planning is going on to establish sensor systems with electric line which put off the lights and fans automatically when there is no person in the room. Students are entrusted to do this job after their class hours.

4.4.4 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, electrical assistants are employed to follow all electrical gadgets to measure their performance.3

4.4.5 Is there any options for equipment's running on standby mode:

Yes, modern electronic gadgets have automatic standby mode, which leads power saving (e.g., computer, WiFi router, etc.).

4.4.6 Whether college has taken initiative to purchase efficient and environmentally electrical appliances in order to fulfill the green budget:

Yes, all new electrical equipments are purchased with high electrical efficiency, with BEE Certifications.

As far as practicable we use

- LED bulbs & LED tubes
- Solar panels
- Low wattage electrical items like fans, bulbs etc.



INSTALATION OF SOLAR SYSTEM



SOLAR PANEL



USE OF LED TUBES IN THE EXAMINATION HALL

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

Yes, Miniature Circuit Breakers (MCBs), a specialized electronic switch, is fitted in every floor that leads to avoid short-circuit and power saving. When a electrical fault or short circuit occurs, the entire circuit under this MCB is shut down. Our college has own electrical staff, who repair as early as possible.

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

Yes, all class rooms are having sufficient illumination in day time and constructed with sufficient ventilation. Number of lights & fans in class room (average): 5 LED tubes, and 5 fans. Use of light & fans in the day time (average hours): 5-6 hours. Number of windows per class: 3-4, number of windows depends on room size and overall room set up. Natural light source in day time (in hours) (average per class): Generally, classes are held in natural day light, during cloudy days electrical bulbs/ tube lights are used.



CLASSES TAKEN IN NATURAL LIGHT AND ATMOSPHERE

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

Approximately, 75% notice are given by e-governance for academic/administrative purposes in a month.

E-NOTICE OF GUSHKARA MAHAVIDYALAYA FROM 2020-2021

The screenshot shows a web browser window with the following details:

- Browser Tabs:** morning.camsguskaramahavidya X, Notice Board : Gushkara Mahavidyalaya X
- Address Bar:** gushkaramahavidyalaya.ac.in/notice_board.php
- Navigation Menu:** Home, Administration, Departments, Admission, Student's Desk, Academic, Student's Activities, Facilities, NAAC, Gallery
- Section:** Contact Us
- Notice Board Table:**

Notice ID	Notice Description	Date	Action
357	Admits of 4th Sem. 2021 students	16/08/2021	Download
358	B.Sc. Hons. 3rd Sem. Admit Cards	05/03/2021	Download
359	B.A. Hons. 3rd Sem. Admit Cards	05/03/2021	Download
360	B.A. Gen. 3rd Sem. Admit Cards	05/03/2021	Download
361	B.Com. Hons. 3rd Semester Admit Cards	05/03/2021	Download
362	B.Com. Gen. 3rd Sem. Admit Cards	05/03/2021	Download
363	B.Sc. Gen. 3rd Semester Admit Cards	05/03/2021	Download
364	B.Sc. Hons. Admit Card 2020	30/09/2020	Download
365	B.Sc.Part-III Hons. Admit Card 2020	30/09/2020	Download
366	B.Sc.Part-III General Admit Card 2020	30/09/2020	Download
367	University Review Form	18/09/2020	Download
368	Subject/Course Title of 6th Semester	11/09/2020	Download
- Windows Taskbar:** Search bar (Type here to search), system tray showing 29°C Partly sunny, 08:42, 12-09-2023, and notification icons.

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

Approximately, 25% notices are issued in papers for academic/administrative purposes in a month.

4.4.11 Total number of computers, printer, Laptop, Xerox machine

Name of the Equipments	Number
Desktop Computer	56
Printer	45
Laptop Computer	30
Xerox machine	5

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

We have designed and planned a seminar to be occurred in coming days shortly.

4.5 Energy conservation strategies

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

Yes, windows and doors are set up at 5-6 ft. distance that allows entry of sufficient day light.

Windows are of 60 ft² and this leads to passage of natural air and light leading to minimization of electricity consumption.

b) Whether fluorescent bulbs are replaced with CFL bulbs/LEDs:

Yes, fluorescent tubes have been replaced by LED bulbs. Some of the bulbs are replaced with CFL bulbs and LED tubes.

4.6 Future Planning

- i. Moving more towards solar and other non-conventional energy can reduce burden on heavy electric energy consumption.
- ii. Reduce streetlight and other areas where lighting is not required at all times. Installing sensor-based lighting system can be introduced to sustainably manage the electrical resources.
- iii. Streetlight and other lights in hostel buildings can be converted into solar-panel based lighting system.
- iv. Old laboratory equipment and other power consume old technology can be replaced by energy savings system and green technology.
- v. Planning workshops on energy conservation to educate students, faculty and Staff.
- vi. Students, faculty and staff should unplug overhead projectors, computers, and other electrical appliances when not in use. This simple way to conserve energy can help save a large amount of power and money in the long run.

5. Waste Management Report

Wastes are unused byproducts that can be formed through different activities in our daily life. Waste is a significant global issue. Increasing volumes of waste are being generated as the global population and living standards rise. The environmental impact is significant, with massive volumes of waste generated annually with only basic or little treatment to minimize its impact. Wastes may be classified into different categories depending on their source, structure, adverse effect etc. In the educational institute different kinds of wastes like are E-waste, plastic wastes, chemical waste, solid wastes, liquid wastes, biodegradable wastes etc are produced which are intended to be disposed of or are required to be disposed of. A waste management audit is a total and clear representation for identifying all waste streams that an agency is responsible for producing, or for managing on behalf of others. The type and amount of waste generated by an institute is explained by a waste management audit. Waste management audit can evoke current waste performance and offers potential missing controls and improvements that could be made to the systems in place through scientific and sustainable approaches. The type and amount of waste generated by an institute are explained by a waste management audit.

5.1 Importance of Waste Management Audit

- Deterioration of environmental status can be occurred due to the unavailability of proper waste management practices.
 - A waste management audit helps one educational institute to be better prepared to efficiently and responsibly dispose of the waste that it generates every day.
 - By designing a more efficient waste disposal program through a waste audit, we can enhance recycling practices.
 - Improved resource efficiency
 - Improved environmental performance

5.2 Waste Management Audit of the College

5.2.1 Solid Waste

The college has taken several initiatives to reduce the adverse effects of waste. All the teaching, non-teaching staff and students are encouraged to maintain proper waste management habits. The college has constructed 2 Pits and marked as biodegradable and non-biodegradable trashes. The collected wastes of the college are disposed of accordingly in these pits. In the different corners of the campus, the college has arranged to put adequate numbers of trash bin from where biodegradable and non-biodegradable wastes are collected separately. All the accumulated wastes are finally collected and disposed of at the municipality vats, located near the college canteen. All the accumulated wastes are transferred to the municipality vats time to time.

5.2.2 Liquid waste

To collect the chemical solutions from different science laboratories, the college has constructed an underground safety tank of area. The other liquid wastes from bathrooms and basins are also disposed in the tank. All the accumulated liquid wastes are transferred to the municipality vats time to time.

Municipality Certificate and MOU with local Municipality is attached .

☎ : (03452) 255 164 / 255 767

Fax : (03452) 256 600

✉ : guskaramunicipality@yahoo.in

OFFICE OF THE
GUSKARA MUNICIPALITY

P.O.: Guskara, Dist.: Purba Bardhaman, Pin - 713128, W.B.

ESTD.: 1988

Memo No.

2072/G.M



Dated, Guskara, the

14.07.2023

TO WHOM IT MAY CONCERN

This is to certify that "Guskara Municipality" has an active Memorandum of understanding with "Guskara Mahavidyalaya" for collecting the sewage of solid and liquid nature including hazardous chemical waste since last five years and the Municipality has its own mechanism of managing the waste without effecting the environment in accordance with rules laid down by the Ministry of Environment.

V. J. 14.7.23
Chairman

Guskara Municipality

Chairman
Guskara Municipality





GUSHKARA MAHAVIDYALAYA

P.O.: Gushkara, Dist.: Purba Bardhaman, Pin - 713128 (W.B.)

E-mail : guskaramahavidyalaya@gmail.com

Phone : 03452 - 255 105
Fax : 03452 - 257 635

Ref. No.

Date

**Renewed Memorandum of Understanding
BETWEEN
GUSKARA MUNICIPALITY
GUSHKARA, PURBA BARDHAMAN - 713128
&
GUSHKARA MAHAVIDYALAYA,
DIST. PURBA BURDWAN, PIN 713128**

GUSKARA MUNICIPALITY, GUSHKARA, PURBA BARDHAMAN - 713128 and GUSHKARA MAHAVIDYALAYA, DIST. PURBA BURDWAN, PIN- 713128 entered into this agreement to facilitate collaboration in connection with the collection of Solid, Liquid, and Hazardous as well as Biological/Biomedical waste and similar other issues from the college and in return to facilitate the use of college ground for organizing different sports and social events as far as practicable.

The general purpose of this MOU is to facilitate collaboration in connection with the collection of Solid, Liquid, and Hazardous as well as Biological/Biomedical waste and similar other issues from the college and in return to facilitate the use of college ground for organizing different sports and social events as far as practicable.

This renewed MoU will be considered as a continuation of an earlier agreement between two parties, in existence for at least the last five years.


All stakeholders of the institution and adjoining locality will greatly benefit either directly or indirectly through this agreement as it will have a greater impact on the overall academic, social, and ethnic environment of the locality as a whole along with the institution.

It will remain valid till any of the parties chooses to withdraw from the linkage.

Any notice or other communication under this MOU shall be given in writing and delivered by hand, sent by post, facsimiled transmission, or e-mail.


This MOU constitutes the agreement in principle to proceed and work out more detailed modalities to operationalize the same between the parties. No amendments consent or waiver of terms of this MOU shall bind either party unless in writing and signed by both parties.

Signed on behalf of
GUSKARA MUNICIPALITY


Chairman,
Guskara Municipality
Date: 22-05-2023



Signed on behalf of
GUSHKARA MAHAVIDYALAYA, DIST.- PURBA BURDWAN


Principal
Gushkara Mahavidyalaya
Date: 22/05/23



For the last few years, college is following zero organic waste protocol throughout the campus. The food waste generated by the students and staffs are taken by them to their own home, so that, minimum waste is generated inside the campus. In addition, the organic waste generated in the hostel is reused. Vegetable wastes and other leaf litters are used to feed in the pit and the resulting compost is used as manure in the garden. The chemicals from the laboratories are disposed in a sealed tank along with water, so that the chemicals undergo neutralization with the water.

5.2.3 Is there any method of segregation of waste materials?

Yes, we are following the waste management guidelines of Central Pollution Control Board. We are tried to segregate the wastes by making use of different trash bins namely biodegradable, non- biodegradable, liquid waste etc.

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

Approximately, on an average 5-8 kg of solid wastes including tree dropping and lawn wastes are generated in a normal working day.

5.2.5 Whether college arrange any workshop/seminar/conference for awareness the students/staff for specific arrangements for recyclable wastes:

Yes, our Science Department has arranged the workshops for waste recycles, and students are involved to propagate the knowledge to other non-aware students (By Model presentation, Poster presentation in Science Fare, In Laboratory day celebration in many other programme in our college).

5.2.6 Whether college follow specific disposal method for solid or liquid waste in specific manner:

In fact, the wastes generated by college are directly taken and disposed of by local municipality.

5.2.7 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.

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

Yes.

5.2.9 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, phytoremediation is taken to liquid waste management. A programme on Wetland Conservation along with Natural Sewage Treatment has been initiated recently.

5.2.10 Minimize use of chemical pollutants

Sl No.	Department	Name of the waste			Total (a+b+c) (kg/month)	Characterization (if any)	Method of disposal	Agency if any
		Chemical (a)	Biological waste (b)	Microbial waste (c)				
1	Chemistry	Laboratory waste, cleaner	N.A	N.A	NIL	N.A	NA	N.A
1.	Zoology	Laboratory waste, cleaner	Practical waste	Practical waste	NIL	N.A	NA	N.A
2.	Physics	Laboratory waste, cleaner	N.A	N.A	NIL	N.A	NA	N.A
4.	Botany	Laboratory waste, cleaner	Practical waste	Practical waste	NIL	N.A	NA	N.A
6.	Mathematics	Cleaner Chemical	N.A	N.A	NIL	N.A	NA	N.A
7.	Geography	Laboratory waste, cleaner	N.A	N.A	NIL	N.A	NA	N.A
8.	Arts	Bathroom cleaner	N.A	N.A	NIL	N.A	NA	N.A
9.	Commerce	Bathroom cleaner	N.A	N.A	NIL	N.A	NA	N.A
10.	Office and staff room	Bathroom cleaner	N.A	N.A	NIL	N.A	NA	N.A

Table: Different types of waste generated in the college and their disposal

Type of Waste	Particulars	Direct method
E-Waste	Computers, electrical and electronic parts	Due to Covid -19 classes were suspended so no such waste generated in this period.
Plastics waste	Pen, refill, Plastics water bottles and other plastic containers, wrappers etc.	
Solid waste	Damaged furniture, paper waste, paper plastics, food wastes	
Chemical Wastes	Laboratory waste	
	Solid	
	Liquid	
	Hazardous Chemical Material	
Biological Waste	Discarded blood, sharps, unwanted microbiological cultures and stocks, identifiable body parts (including those as a result of amputation), other human or animal tissue, used bandages and dressings, discarded gloves, other medical	
Waste water	Washing, Urinals, Bathrooms	
Glass waste	Broken glass wares from labs	
Sanitary Napkin/ pad	--	

5.2.11 Records of dustbins/collection bins inside the campus

- Biodegradable – Nil
- Non-biodegradable – Nil
- Biodegradable – Nil(labs)
- Non-biodegradable – Nil
- Hazardous Chemicals – Nil
- E-waste collected – Nil
- Glass waste – Nil
- Dry leaves – 2kg/day(approx.)

5.2.12 Whether the cleaning products used by the college staff are eco-friendly and under the COSHH (Control of Substances Hazard to Health) regulations:

Nil

5.2.13 Whether the college is using fertilizers, pesticides for any purposes, if so, amount used per month and places of uses

Yes

5.2.14E-WASTE MANAGEMENT

- a) **Quantity of e-waste generated:**
Nil
- b) **Number of cartridges used month-wise:**
Nil
- c) **Number of cartridges disposed in a year (average):**
Nil
- d) **Number of times refilling & reusing method of disposal of e-waste (if any):**
Nil
- e) **Whether college has conducted any awareness programme on e-waste management:**
No
- f) **Is there any means of disposal of unused computers, printers and electronic wastes through authorized agents:**
Nil

6.GREEN AREA MANAGEMENT

6.1 Campus Cleanliness

We regularly clean the entire campus, wastes are collected, namely, biodegradables e.g., papers, plant parts, canteen wastes etc. and non-biodegradables e.g., plastics, glass items, construction garbage like broken tiles, metal pieces etc.

6.1.2 Is there any garden in the college campus/outside the campus under college custody?

Yes, the college has taken the place of the plantation garden as an "Economically important plantation garden"

6.1.3 Whether the garden is watered by using drip/sprinkler irrigation system:

We have designed and planned to establish drip/sprinkler irrigation system in coming days shortly.

6.1.4 Is there any mechanism of review of periodical monitoring of tree species:

Yes, Botany Department along with Club of Ecology and Environment play active role to review the periodical monitoring of tree species.

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

Nil

6.1.6 Carbon dioxide neutrality on the campus by developing greenery

Carbon Neutrality means annual zero net anthropogenic (human caused or influenced) CO₂ emissions by a certain date. By definition, carbon neutrality means every ton of anthropogenic CO₂ emitted is compensated with an equivalent amount of CO₂ removed. Following points are emphasized:

- **Sustainable Water Management,**
- **Switching to Renewable,**
- **Single use plastic free campus and**
- **Plantation and Sustainability.**

So, we need to share our knowledge with others so that they can learn and also get motivated to make their own campus carbon neutral. The commitment and steady progress can help to maintain everyone's support. The brand of the institution can be improved by achieving progress towards carbon neutral campus.

6.1.7 Man-made nest to attract some birds to maintain ecological balance

No.

6.1.8 Restriction in use of plastic and plastic products

Yes, we made the college campus plastic free and fixed posters and stickers in different corners of our college.

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

Yes, aquaculture is practiced in the water body (pond) within our college premises maintained by “Aquaculture Research and Training Unit” under Department of Zoology.

Main function of this Unit are:

- Maintain in-campus aquatic ecosystem
- Conserve & Culture aquatic species
- Habitat Conservation
- Green Campus Initiative



6.1.10 Green monitoring by green committee/volunteers/team

Yes, The Club of Ecology and Environment (CEE) is active in our college, they are working to maintain biodiversity, waste management in our college premises.

6.1.11 Training on vermicomposting

We have designed and planned a Hands-on-Training programme to be occurred in coming days shortly.

6.1.12 Celebration of 'No vehicle Day' on a particular day

On first Friday of the month.

6.1.13 Dams inside the campus to meet the demand for water

We do not possess any dams within our campus but we do have pond, ditches and other water bodies.

6.1.14 Installation of fire safety instruments in all the buildings/departments

Yes, fire safety instruments have been installed in all susceptible departments and AMC is also maintained.

6.1.15 Toilets/separate toilets for differentlyabled students

Yes. The total number of toilets in our college is 44 but there are no toilets earmarked for differentlyabled students because no students were recorded in this category.

6.1.16 Over all noise level

Table. Noise level for different sampling area by SLM (data by Dept. of Botany, Zoology and Chemistry, Gushkara Mahavidyalaya).

Sl.No.	Sampling Area	Day time (8.00 a.m. to 5.00 p.m) Mean (\pm SD)	L90 (dB) Mean (\pm SD)
1.	Class Room 1	As because classes were suspended due to Covid-19. so no question of noise arises at this period in the classroom.	
1.	Class Room 2		
2.	Class Room 19		
4.	Class Room 26		
5.	Office room		
6.	Staff room		
7.	Library		
8.	Chemistry Laboratory		
9.	Zoology Laboratory		
10.	Botany Laboratory		
11.	Playground		
11.	Gate (1)		
12.	Gate (2)		
14.	RUSA Building		
15.	Boys Hostel		
16.	Cycle and Bike Standing area		

6.1.17 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):

No

6.1.18 Minimize the use of unsustainable transport

A large number of students of the locality use bicycle as their mode of transportation. A large number of teachers and staff members also use bicycle, thereby minimizing the vehicular emission.

6.1.19 What are the available/maximum transport facility used by the staff members/students etc., - mention the number (in average per day):


All faculties, Students and Staff are used personal Car, Bike and Bicycle.

Car	Bike	Bicycle
Nil		

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

Yes, almost all the students, teachers and nonteaching staff use public transports.

6.2 Plantation Programmes (2020-2021)

Programme	Date of functioning	No. of tree planted	Present status of the species	Programme Conducted by	Documentation (If any)	No. of beneficiaries
NAP (National Afforestation Programme) by NSS	09.08.2020	10	10	NSS units		<p>i. To save the endangered environment and to beautify our ambience.</p> <p>ii. To create a sustainable and thriving environment within educational settings.</p> <p>iii. To create cleaner and healthier air for students and staff.</p> <p>iv. To beautify the campus that provides a conducive learning environment.</p>

6.3 FUTURE PLANNING:

- i. Installation Biogas plant and Compost units
- ii. Increase of Solar panels to generate more electricity
- iii. Installation of rain water harvest methods on roof top and ground.
- iv. Dig sufficient rain water pits in the campus wherever possible and maintain it regularly.
- v. Set up water recycling unit where the recycled water can be used for gardening in college and hostels.
- vi. Grow up vegetable garden and improve medicinal garden and gradually develop it as a nursery.
- vii. Develop a butterfly garden that arouses appreciation towards flora and fauna diversity.

- viii. Layout 'Green Chemistry' that reduces or eliminates the use or generation of hazardous substances in the design, manufacture and application of chemical products.
- ix. Install waste water system for chemistry labs.
- x. Conduct exhibitions for parents and public on environment and sustainable practices.
- xi. Arrange training programmes on environmental management system and nature conservation.
- xii. Establish an E-waste collection centre in campus.
- xiii. Ensure participation of students and teachers in local environmental issues.
- xiv. Renovation of cooking system in the canteen to save gas.
- xv. Establish a purchase policy that is energy saving and eco-friendly.
- xvi. Conduct seminars, workshops and exhibitions on environmental education.
- xvii. Introduce add-on courses eco-friendly income generating to all interested students.

7. OUTCOME OF ACTIVITY BY COMMITTEE

The current assessment tried to capture the overall scenarios on water, wastewater, waste management and biodiversity condition of the Gushkara Mahavidyalaya. Every section provides a precise methodology applied and findings in a systematic manner. Finally, sets of recommendations were provided for each section to improve the prevailing energy and biotic components of the college campus. The college has already taken a series of initiatives to maintain a healthy and green environment on the campus. The situation can be further accelerated by considering suggested recommendations from the study. The major activities, approaches and innovations were undertaken by the college toward transforming a green campus is as follows:

8. INITIATIONS BY THE COLLEGE AS PER PROPOSED OF COMMITTEE

1. The college has introduced rainwater harvesting.
2. The college has introduced more solar Panel as renewable energy sources to compensate electric consumption.
3. The college has replaced all the lamps with LED bulbs for efficient energy savings.
4. The college has introduced municipality advocated color coded waste collecting bins to collect different forms of solid and semi-liquid waste.
5. The college has introduced innovative waste recycling by using empty plastic bottles for plantation of saplings in growing seasons.
6. Construction related wastes effectively utilized for approach road preparation.

7. The college has directed the “Eco Club” by involving enthusiastic students to performedifferent environmental conservation and awareness related activities.
8. College involved in yearly plantation activities with all classes of participants includingstudents, teachers and other staffs.
9. Promote environment education through different IEC materials like banner, poster,wall magazine etc. to propagate and popularize environment and nature.
10. College maintains a well-documented biodiversityregister for resources of fauna and flora diversity.

GREEN AUDIT REPORT 2021-2022



Prepared by
Green Audit Committee, Gushkara Mahavidyalaya



Gushkara Mahavidyalaya
PO- Gushkara, Dist- PurbaBardhaman
PIN-713128, West Bengal, India

Green Audit Committee Members

Chairman:

1. Dr. Swapan Pan (**Principal**, Gushkara Mahavidyalaya)

Members:

2. Dr. Sabina Begum (**IQAC coordinator**), Gushkara Mahavidyalaya
3. Dr. Sukalyan Chanda (**Teachers' Council Secretary**), Gushkara Mahavidyalaya
4. Dr. Sunanda Mondal, Associate Professor of Botany, Convener, Gushkara Mahavidyalaya
5. Dr. Kanika Saha, Associate Professor of Geography, Jt. Convener, Gushkara Mahavidyalaya
6. Dr. Bholanath Sarkar, Associate Professor of Chemistry, Member, Gushkara Mahavidyalaya
7. Dr. Biswajit Mitra, Associate Professor of Geography, Member, Gushkara Mahavidyalaya
8. Mr. Ranjan Paul, Assistant Professor of Botany, Member, Gushkara Mahavidyalaya
9. Dr. Sukhendu Roy, Assistant Professor of Zoology, Member, Gushkara Mahavidyalaya
10. Dr. Saurabh Sarkar, Assistant Professor of Zoology, Member, Gushkara Mahavidyalaya
11. Miss. Poulomi Roy, State aided College teacher of Zoology, Member, Gushkara Mahavidyalaya
12. Basudeb Mukherjee, NonTeaching Staff, Gushkara Mahavidyalaya
13. Brajendranath Adhikari, Non Teaching Staff, Gushkara Mahavidyalaya
14. Student Representatives , Gushkara Mahavidyalaya
 - i. Rupsa Ghosh (1ST Sem, Geography)
 - ii. Ataur Mondal (3RD Sem, Chemistry)
 - iii. Kastav Banerjee (5TH Sem, Geography)

Acknowledgments

We are grateful to all the departments of Science, Arts, Commerce, Office, and Library (teaching staff, non-teaching staff, casual staff and beloved students) for their contribution to the green audit. We are also, thankful to our Principal (Dr. Swapan Pan), IQAC Coordinator (Dr. Sabina Begam), and TCS (Ankit Bhakat) for their constant inspiration and co-operation during preparing the green audit report.

CONTENTS

CHAPTER		PAGE NO.
1	INTRODUCTION	
	1.1	Green Audit and General information of Gushkara Mahavidyalaya
	1.1	Basis of Green Audit
	1.2	Objectives of Green Audit
	1.3	Benefits of Green Audit
	1.5	Action taken by the Committee
	1.6	Future Programme of the Committee
	1.7	Policy Enforcement Strategies
	1.8	Awareness Programme conducted by the College
	1.9	Comments on several Programmes
2	BIOLOGICAL DIVERSITY AUDIT & BIODIVERSITY REGISTER	
	2.1	Importance of the biodiversity audit
	2.2	Biodiversity audit of the college
	2.3	Biodiversity Map
	2.4	Faunal Biodiversity Register
	2.5	Floral Biodiversity Register
3	WATER MANGEMENT	
	3.1	Water Audit
	3.2	Importance of Water Audit
	3.3	Water audit of the College
4	ELECTRICITY AND ENERGY AUDIT	
	4.1	Importance of the electricity and energy audit
	4.2	Electricity and energy of the college
	4.3	Renewable energy
	4.4	Other information about energy conservation
	4.5	Energy conservation strategies
	4.6	Recommendations
5	WASTE MANAGEMENT AUDIT	
	5.1	Importance of Waste Management Audit
	5.2	Waste Management Audit of the College
6	GREEN AREA MANAGEMENT	
	6.1	Campus Cleanliness
	6.2	Plantation Programmes
	6.3	Suggestions and Recommendations
7	CONCLUSIONS	

I INTRODUCTION

1.1 GREEN AUDIT AND GENERAL INFORMATION OF GUSHKARA MAHAVIDYALAYA

1.1.1 Year of Establishment of College:

Gushkara Mahavidyalaya was established in 1965, as the general degree college in Guskara, erstwhile Burdwan district (presently Purba Bardhaman district).

1.1.2 History behind the Establishment of the College:

Guskara, situated at a distance of 135 Km from Kolkata, is an sprawling municipal Town in the northern part of Burdwan Sadar Sub-division. To the north of Guskara lies Santiniketan where Great Poet Nobel laureate Rabindranath Tagore spent most of his creative years. The district town of Burdwan is 34 Km away from the Guskara. Gushkara Mahavidyalaya is fifty-eight years young. This institution having a land of 8.16 acres (24.684 Bighas) was established on 9th August, 1965. The major part of the land was donated by Guskara P.P. Institution, the oldest higher secondary school of the region. The founder principal was late Rakhahari Baksi. This is a metaphor for commitment, care and service, and these momentous hours of the history of our college make our ambition and aspiration for future. We are proud about the progress of Gushkara Mahavidyalaya today – a precious seed has prospered into a vital, virtuous tree. The college is evolving into a nationally ranked, multifaceted and co-educational institution.

Our Alumni occupy distinguished positions in almost all spheres of activity both in country as well as in abroad. It has been a long journey through the fifty-eight years and yet the journey has perhaps just begun. Until the end of time, the college wants to create an intellectual environment that will enhance individual growth, support, scholarly activities and creative endeavors to facilitate expansion of human knowledge and understanding.

Since its inception Gushkara Mahavidyalaya has been approved by UGC and affiliated to the University of Burdwan. The college offers undergraduate programme in Arts, Science and Commerce and Postgraduate programme in Bengali. At present this institution offers various facilities to its students including Computer Lab, Library, Yoga, Common Rooms, Hostels, Gymnasium, Play Grounds, Auditorium, Canteen, and more. Subjects offered undergraduate programme are Physics, Chemistry, Mathematics, Botany, Zoology, Nutrition, Bengali, English, Sanskrit, History, Geography, Political Science, Philosophy, Economics, Physical Education, Music and Commerce. Among these seventeen subjects fifteen are at the Honours level and Physical Education and Music is at the level of general course. The Department of Bengali offers PG programme. The college was accredited by NAAC with 'A' grade in the assessment and accreditation year 2016

1.1.3 Total Area of the College

Total Campus Area	8.16 acres (355450 sq.ft.)
Total Built Up Area	70967sq.ft.
Total Open Space Area	284483 sq. ft.
Playground Area	102083 sq.ft.
Total Green Area	182400 sq. ft.

1.1.4 Previous NAAC Grading:

Sl. No.	Phase	Grade	Year of Accreditation	Accreditation Period
1	1st Phase	B+	2007	2002-03 –2006-07
2	2nd Phase	A	2016	2010-11–2015-16
3	3rd Phase	ongoing	2023	2016-17–2022-23

1.2 BASIS OF GREEN AUDIT

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of various establishments. It aims to analyze environmental practices within and outside of the concerned sites, which will have an impact on the eco-friendly ambience. The green audit report can be a useful tool for a college to determine how and where they are using the most energy or water or resources; the college can then consider how to implement changes. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve the waste minimization plan. It can create health consciousness and promote environmental awareness, values and ethics. It provides staff and students with a better understanding of the green impact on campus.

The rapid urbanization and economic development at the local, regional and global levels have led to several environmental and ecological crises. On this background, it becomes essential to adopt the system of the Green Campus for the institutes which will lead to sustainable development and at the same time reduce a sizable amount of atmospheric CO₂ from the environment. The National Assessment and Accreditation Council (NAAC) has made it mandatory that all Higher Educational Institutions should submit an annual Green Audit Report. Moreover, it is a part of the Corporate Social Responsibility (CSR) of the Higher Education institutions to ensure that they contribute towards the reduction of global warming through carbon footprint reduction measures.

1.3 OBJECTIVES OF GREEN AUDIT

The general objective of green audit is to prepare a baseline report on biodiversity and other resources, measures to mitigate resource wastage and improve resource quality and sustainable practices. The specific objectives are:

- To prepare a checklist of flora and fauna diversity in and around the college campus
- To suggest measures to improve biodiversity within the college campus
- To monitor the energy consumption pattern of the college
- To assess the quantity of water usage within the college campus
- To suggest sustainable energy usage and water conservation practices
- To find out various sources of organic and solid waste generation and mitigation possibilities

1.4 BENEFITS OF GREEN AUDIT

There are many advantages of green audit to our institution.

- Since our college is located in a rural area with a large area of greenery around it, green audit can help protect the natural environment in and around the college campus.
- The college has limited financial resources and components of green audit like solar power generation and rain water harvesting can help in reducing expenditure and optimizing resources through waste minimization and energy conservation.

- It helps to develop the social and environmental awareness among teachers and students of various disciplines.
- Encouraging plastic free zone helps in promoting clean environment.
- Empower the organization to frame a better environmental performance.
- The institutional building has a large green campus which can be preserved and enhanced.
- Finally, it will help to build a positive impression through green initiatives for the upcoming assessment and accreditation processes.

1.4.1 Whether the college is implementing the Green Policy for the first time (mention date/month/year):

Yes, 12/09/2014: Club of Ecology and Environment (CEE)

GREEN AUDIT POLICY OF THE COLLEGE

The Green Campus Policy of the college envisions a Clean and Green Campus where environmental friendly practices and education combine to promote sustainable and eco friendly practices in the campus and beyond the campus. It also offers the institution an opportunity to take the lead in redefining its environmental culture through instilling environmental ethics among the students and staff.

The college works towards creating a green, pollution-free and healthy environment with a missionary zeal and dedication. The students are given strict instructions to maintain the campus clean and green and it is reflected in our approach and attitude.

Initiatives Taken to Implement the Clean and Green Campus Policy

- Landscaping with Trees and Plants
- Medicinal Plant Garden.
- Aquaculture in natural water body.
- Biodiversity Register of Flora and Faunas present in the college.
- Ban on Single-Use Plastic
- Observance of Green Thursday to Restrict the Use of Petrol/Diesel Vehicles
- 10 kW Solar Plant in the College
- Use of LED Bulbs/Tubes and Power Efficient Equipments
- Rainwater Harvesting
- Emphasis given on Paperless Office and Communication
- Laboratory liquid waste management system through percolation system: -
- Hazardous Chemical Waste Management
- Sensor based water Management
- E-waste Management
- Display Boards to Promote Environmental Sensibility on College Campus
- Installation of Incinerator in the Girls' Common Room
- The Green, Environmental and Energy Audit
- Divyangian friendly college campus.
- A group of students dedicated to function of overseer to reduce the classroom electricity wastage

- The NSS unit and the NCC unit conduct clean and green campus on the campus every Sunday and observe cleanliness of the campus.

Whether green audit is followed annually, if so, please produce the year-wise recommendations of the Auditor along with report (as enlisted in: Annexure):

The college implemented the Green Policy for the first time under the aegis of “CEE Club” in the year 2014.

On 07.01.2020 under the supervision of IQAC Gushkara Mahavidyalaya, CEE (Club of Ecology And Environment) was directed to form a **Green Audit Committee** within 07.02.2020. Unfortunately, because of COVID-19 pandemic outbreak, it has been delayed.

The green audit process was carried out during 2021 to 2022. At first, all the secondary data required for the study was collected from various informant sources and concerned departments. A broadreference work and literature review was carried out to clear the idea of green auditing. Different case studies and methodologies were studied, and the following methodology was adopted for the present audit.

The Governing Body of the college asked the Principal to make a ‘Green Audit team’ for green audit. During a IQAC meeting dated 07.01.2020, IQAC Coordinator and Principal authorized the “CEE Club” to find and conduct the green audit process. Therefore, our green audit process was started on 07.02.2020 but due to COVID-19 situation, it has been deferred.

1.4.Has College constituted the “College Environmental Committee”:

The earlier “CEE (Club of Ecology And Environment) Committee” has been renamed as “Green Audit Committee” as per guideline of the NAAC.

Name of the “College Environmental Committee”members:

Same members of Green audit Committee members.

Number of meetings conducted so far:

Meetings were held on basis of performing green audit of our college. Several aspects like identifying Significant areas, viz., Water Management, Solid Waste management, Energy Audit, Observed Biodiversity and some other related issues were discussed in detail in these meetings.

20/10/2021

GUSHKARA MAHAVIDYALAYA
GUSKARA: PURBA BARDHAMAN: 713 128
Phone No. 03452 255 105

Date: 13.12.2021

Notice

A meeting of Green Audit Committee will be held on 20th December 2021, Monday, at 2:30 pm in the Principal's chamber to discuss the following issues:

- i. Review of action taken by green audit team.
- ii. Reformation of Green Audit Committee.
- iii. Miscellaneous

All the members are requested to be present in this meeting.

Sarapan K. Pan
Dr. Swapan Kumar Pan
Principal
Gushkara Mahavidyalaya
Guskhara, Bardhaman

Dr. Sunanda Mondal & Dr. Karika Saha
Jt. Convener, Green Audit Committee, GM

Members:

1. Dr. Sabina Begum (IQAC Coordinator)
2. Dr. Sukalyan Chanda (Teachers' Council Secretary)
3. Dr. Bhola Nath Sarkar (Associate Professor of Chemistry) Member, GM
4. Dr. Biswajit Mitra, (Associate Professor of Geography) Member, GM
5. Mr. Ranjan Paul (Assistant Professor of Botany) Member, GM
6. Dr. Sukhendu Roy (Assistant Professor of Zoology) Member, GM
7. Dr. Saurabh Sarkar (Assistant Professor of Zoology) Member, GM
8. Dr. Pialee Roy (Assistant Professor of Chemistry) Member, GM
9. Miss. Poulomi Roy (SACT of Zoology) Member, GM
10. Mr. Basudeb Mukherjee, (NTS), Member, GM
11. Mr. Brojendra Nath Adhikari (NTS), Member, GM
12. Representative of Students, Member, GM

Atanu Mondal (Student)
Kaustav Banerjee (Student)

GUSHKARA MAHAVIDYALAYA
GUSKARA: PURBA BARDHAMAN: 713 128
Phone No. 03452 255 105

Date: 20.12.2021

Resolutions:

1. Due to Covid-19 all the actions of the Green Audit Committee are deferred for a long period, now with the new normal situation activities of the committee again started. Green Audit Committee going to take initiatives in connection with Solid and Liquid Waste Management, Department of chemistry is requested to take special care in this regard.
2. In view of the recruitment of Dr. Pialee Roy in the Department Chemistry the committee resolved that she would be the new member of the Green Audit Committee from this very day.

Sarapan K. Pan
Dr. Sunanda Mondal
Dr. Karika Saha

GUSHKARA MAHAVIDYALAYA
GUSKARA: PURBA BARDHAMAN: 713 128
Phone No. 03452 255 105

Date: 18.05.2022

Notice

A meeting of Green Audit Committee will be held on 28th May 2022, Saturday, at 2:00 pm in the Principal's chamber to discuss the following issues:

- Regarding the preparation of Biodiversity register.
- Regarding the preparation of Biodiversity map with Google locations.
- Miscellaneous

All the members are requested to be present in this meeting.

Surapan B. Pan
Dr. Surapan Kumar Pan
Principal
Gushkara Mahavidyalaya
Guskarapurba, Bardhaman

Dr. Sunanda Mondal & Dr. Anika Saha
Dr. Sunanda Mondal & Dr. Anika Saha
Jt. Convener, Green Audit Committee, GM

Members:

- Dr. Sahina Begum (QAC Coordinator)
- Dr. Sukalyan Chanda (Teachers' Council Secretary)
- Dr. Bhoja Nath Sarkar (Associate Professor of Chemistry) Member, GM
- Dr. Biswajit Mitra, (Associate Professor of Geography) Member, GM
- Mr. Rajan Paul (Assistant Professor of Botany) Member, GM
- Dr. Sukhendu Roy (Assistant Professor of Botany) Member, GM
- Dr. Saarab Sarkar (Assistant Professor of Zoology) Member, GM
- Dr. Pritoo Roy (Assistant Professor of Zoology) Member, GM
- Miss. Poulami Roy (SACT of Zoology) Member, GM
- Mr. Binasdeb Mukherjee, (NTS), Member, GM
- Mr. Brijendra Nath Adhikari (NTS), Member, GM
- Representative of Students, Member, GM

Members present:

1. *S. Pan*
2. *A. Saha*
3. *S. Paul*
4. *B. Mitra*
5. *B. Roy*
6. *B. Roy*
7. *S. Roy*
8. *A. Mondal*
9. *K. Banerjee*
10. *R. Choudhury*
11. *S. Choudhury*

GUSHKARA MAHAVIDYALAYA
GUSKARA: PURBA BARDHAMAN: 713 128
Phone No. 03452 255 105

Date: 28.05.2022

Resolutions:

- As our College is full of floras and faunas, Green Audit committee takes the initiatives to prepare biodiversity register of the College. In this context Department of Zoology and Department of Botany are conferred the responsibility of preparing the Register of Fauna and Register of Floras respectively.
 - Regarding Biodiversity Map with Google location of the College, the Department of Geography is requested to take the project to generate it.
- As there is no other item to be discussed so meeting is ended with thanks from and to the Chair.

Surapan B. Pan

S. Pan
A. Saha

Notice and Resolution of the meetings

1.5 ACTION TAKEN BY THE COMMITTEE

- To Encourage student participation:** It was found that student body, which is a solid in-house source, should be tapped for collecting the data and efficiently evaluating them, which will in turn provide a platform for them to come closer to the environment.
- Analysis by Experts:** It was also found that having a professional touch for this activity would mean a lot in terms of providing a strong routing, evaluation and analysis of the data collected, owing to tested methodologies being put to rightful use, making the process an effective one.
- Experts to be Contacted for Continuous Monitoring:** In light of the several meeting and multiple informal collaborations with various organizations, one of the outcomes was to have a formal collaboration with an external agency which is actively involved in Green Audit Processes. This collaboration would be effective in acquiring better ideas, directions, and support for conducting, evaluating and continuously monitoring the process.

1.6 FUTURE PROGRAMMES OF THE COMMITTEE

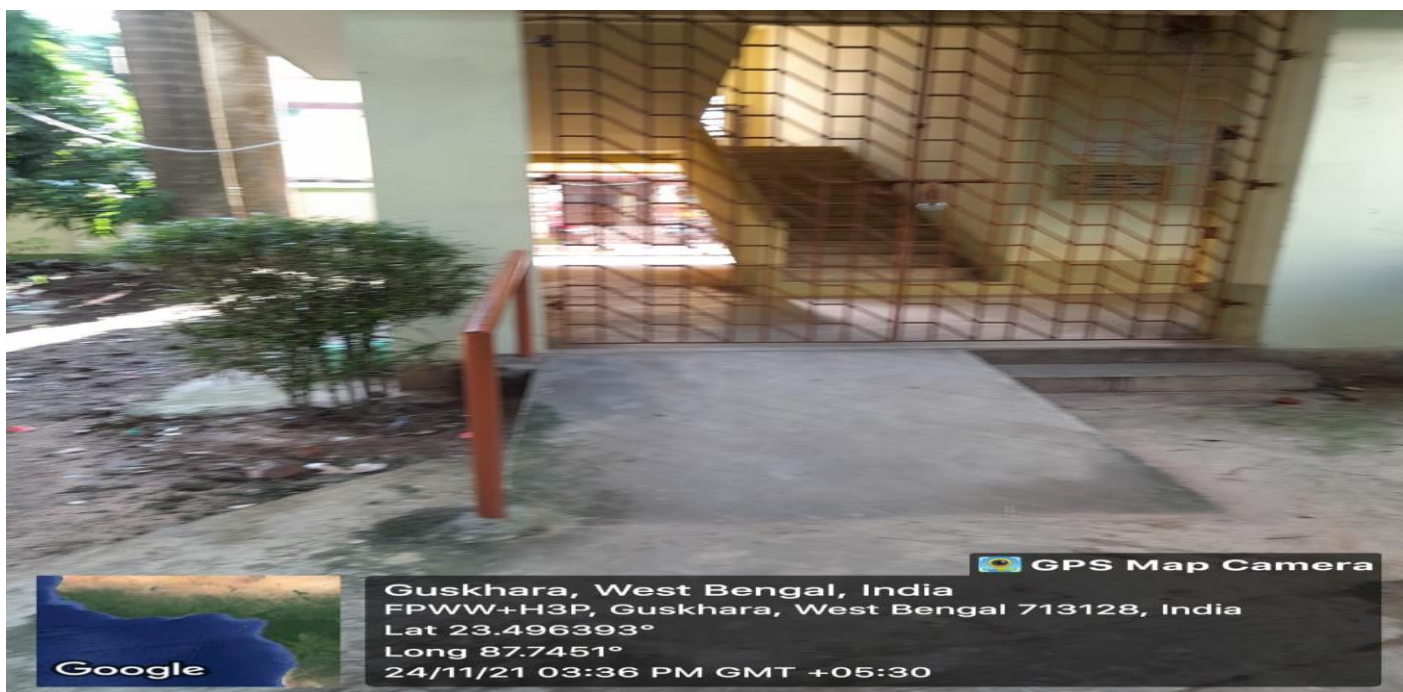
Serial No.	Recommendations	Action Taken
1.	Encourage Students Participation	Sensitization of eco-friendly practices planned and promoted amongst students community through in-house and outreach programs.
2.	Analysis by Experts	Reports of various activities and programmes initiated are sent to experts for analysis.
3.	External experts to be contacted for continuous monitoring	Experts are invited to the campus at regular interval for sharing expertise and to evaluate the existing green practices for greater effectiveness.
4.	Enhance use of alternative energy and energy saving devices in the Institution.	Recommendations have been forwarded to management for approval to enhance the use of alternative energy and energy saving devices in the Institution.

1.7 POLICY ENFORCEMENT STRATEGIES

Policies are adopted according to:

- Water (Prevention and Control of Pollution) Act of 1974, amended in 1988
- Water (Prevention and Control of Pollution) Cess Act of 1977, amended in 1991
- Air (Prevention and Control of Pollution) Act of 1981, amended in 1987
- Environment (Protection) Act of 1986 (EPA)
- Fire prevention and fire safety act, 2005

Our college has taken oath to facilitate Divyangian friendly environment within our college campus for comfortable college hours of Divyangian. We have already providing Ramps and other basic facilities to all functional buildings for easy access to their classroom. Personal level human assistance is provided by our dedicated college staff(s) to Divyangians for their movements, informations, reading, scribe etc as required.



Divyangian friendly college campus

1.8 WHETHER COLLEGE HAS CONDUCTED ANY AWARENESS/RESPONSIBILITY PROGRAMME AMONG THE STAFF MEMBERS

Yes, programme was conducted with a few departments. But due to COVID-19 pandemic, we could not complete the programme. We have organized several awareness programmes on the Green Responsibilities in online and offline platform namely, World Environmental Day, Covid vaccination Programme, Aquaculture, Plantation programme etc. by different departments of the College.

The programmes include are as follows:

1. Plantation programme by different departments (09.08.2021)
2. Covid Vaccination Camp for Students (30.09.2021-02.10.2021)
3. Cleaning Campaign at college Campus (26.12.2021)

4.National Youth Day(16.01.2022)


5.‘HLçV N;R HLçV □□□□□’ awareness Programme(08.03.2022)


6.Seminar on “Child marriage and its effect on society(05.05.2022)

7. Tree plantation programme(26.05.2022)

(AWARENESS PROGRAMME ORGANIZED BY THE COLLEGE)

Sl.No.	Date	Programme	Organised by the Department	Documentation (If any)
1.	09.08.2021	Plantation Programme	Gushkara Mahavidyalaya	
2.	30.09.2021-02.09.2021	COVID Vaccination Programme	Gushkara Mahavidyalaya	
3.	01.09.2021	Mask distribution	Gushkara Mahavidyalaya with NSS	

<p>4.</p>	<p>26.12.2021</p>	<p>Cleaning Campaign at college Campus</p>	<p>The Swachha Bharat Abhiyan</p>	
<p>5.</p>	<p>16.01.2022</p>	<p>Webinar on 159th Birth of Swami Vivekananda and 38th National Youth Day</p>	<p>National Youth Day</p>	
<p>6.</p>	<p>08.03.2022</p>	<p>Seminar on awareness programme</p>	<p>‘HLçV NjR HLçV□□ □□□’ organized by the College</p>	
<p>7.</p>	<p>05.05.2022</p>	<p>Seminar on “Child Marriage and its effects on society” by Mrs Soma Tewari ,Supervisor of ICDS.</p>	<p>College Programme with NSS</p>	

8.	26.05.2022	Tree plantation at our college premises	National Forestation Programme	
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1.8.1 Whether all the departments/teachers/non-teaching members/students are aware about the need of the environmental protection and audit

Yes, all the departments/teachers/non-teaching staff members/students have knowledge and awareness on the need of environmental protection and the audit. A few of them have participated in auditing activities.

1.8.2 Whether college has involved the students as volunteers in greening programmes

Yes, College has involved the students in the form of volunteers of NSS in greening programmes.

1.8.3 Whether construction/demolition/repairing are in compliances with green standard(Certificate from ENGG Dept.)

Yes, we follow the green standards during construction/demolition/repairing works of our college.

Mob.: 7001805069

SAYAN ENTERPRISE

Sayan Hati
B.E. Civil, Reg No. – 181200110421 Of 2018-19
Baburbag, Purba Bardhaman, Pin - 713104
E-mail: sayanhati98@gmail.com

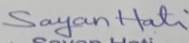
Report

Name Of Work: Construction Of New Cycle Sheed, cement concrete road and repair of existing W.C.(Ladies) at Guskara Mahavidyalaya

Estimate amount: Rs. 29,94,831.00

Rate : Prepared on the basis or W.B.P.W.D Building and Sanifary Schedule of the year 2017

History : Construction of at Cycle stand was a long pending demand of the student of this college. The college authority has decided to contract a cycle stand for the student accommodating nearly 150 nos. of cycle to redrss the suffering of the students. This Structure of the cycle stand include G.C.I Sheet roof above the steel trust with concrete pillers.


 Sayan Hati
 B.E. (Civil)
 B.C.R.E.C

1.8.4 Whether college has conducted any workshop/seminar/lecture on environmental awareness programme inside and/or outside the campus



Yes, we have observed the green programme (tree plantation) and many other activities by NSS volunteers in association with the several academic Departments.






**NATIONAL SERVICE SCHEME
GUSHKARA MAHAVIDYALAYA
(NAAC Re-accredited 'A' Grade Degree College)
P.O: Gushkara, Dist: Purba Bardhaman
PIN: 713128, Ph: 03452-255105**






Details of Extension Activities of NSS Units I & II (2021-2022)

Sl No	Name of the Activity	Name of the Scheme	Date	Documents
1	Dengue Awareness Campaigning at Baganpara	National Programme under NHM	05.11.2021	
2	Seminar on Adult Education Programme.	National Policy of Education-1986.	12.12.2021	

<p>3</p>	<p>Pre- schooling education at Baganpara</p>	<p>ICDS Programme</p>	<p>19.12.2021</p>	
<p>4</p>	<p>Cleaning Campaign at college Campus</p>	<p>The Swachha Bharat Abhiyan</p>	<p>26.12.2021</p>	
<p>5</p>	<p>Webinar on 159th Birth of Swami Vivekananda and 38th National Youth Day</p>	<p>National Youth Day</p>	<p>16.01.2022</p>	
<p>6</p>	<p>Mask distribution among people at New Town, Guskara</p>	<p>Central Govt. Health Programme</p>	<p>13.02.2022</p>	

7	Cleaning Campaign at BDO office campus	The Swachha Bharat Abhiyan	20.02.2022	
8	Cleaning Campaign at Baganpara	The Swachha Bharat Abhiyan	06.03.2022	
9	Books distribution among children at Baganpara	The Complementary Book Distribution	13.03.2022	
10	Thalassemia Awareness Programme at Majhpukurpar	National Health Mission	27.03.2022	

12	Cleaning Campaign the Primary Hospital, Guskara	The Swachha Bharat Abhiyan	10.04.2022	
17	Pre- schooling education at Majhpukurpar	ICDS Programme	22.05.2022	
18	Tree plantation at our college premises	National Forestation Programme	26.05.2022	

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

We have applied for permission to initiate a Department of Environmental Science as per the new syllabus of NEP 2020.


1.8.6 Whether College provides any community services, if so, give details:




Yes, our NSS as well as other students of our different departments perform the community services regularly on every Sunday. Generally, cleaning the local market, gardening, mushroom cultivation, etc. are conducted. More or less maximum number of students participated spontaneously throughout the year. Activities are discussed with documents on the above (1.8.4 Para)



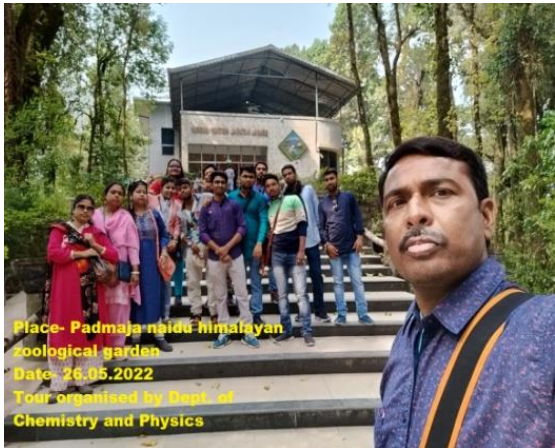
1.8.7 Whether the students are aware about the use of medicinal plants (any lecture/seminar/conference organized on it):

Yes, students are aware about the medicinal plants. Different types of awareness programmes have been arranged such as lecture, field visits seminar etc.

FIELD VISIT BY DIFFERENT DEPARTMENTS

Date	Programme (Field visit to)	Organised by the Department	Documentation (If any)
24.03.2022- 30.03.2022	Excursion towards Lava, Rishop, Kalimpong	Department of Botany	
26.03.22	Purulia	Department of Geography	

<p>29.03.2022</p>	<p>Workshop in the Department of Tea Science, North Bengal University</p>	<p>Department of Nutrition</p>	
<p>02.04.2022</p>	<p>Sujata Griha at Bodhgaya & Lomasharishi Cave on Gaya</p>	<p>Department of History</p>	
<p>18.04.2022</p>	<p>Darjeeling</p>	<p>Department of Sanskrit</p>	

08.05.2022	Dooars	Department of Zoology	
25.05.2022	Mirik	Department of Chemistry & Physics	
26.05.2022	Padmaja Naidu Himalayan Zoological Garden	Department of Chemistry & Physics	

1.9 COMMENTS ON THE FOLLOWINGS:

1.9.1 Plantation program:

Yes, we regularly organize the plantation programme (Details in Chapter-6.2)

1.9.2 Formation of Natural club/Eco club:

Yes, since 12/09/2014 our Club of Ecology and Environment (CEE) is operational.

1.9.3 Management of natural resources, wildlife, conservation of species:

Yes, we have conserved species such as medicinally and economically important. We have already decided about the Conservation of Natural Wetland with their natural Ecosystem.

1.9.4 Any project sponsored by national funding agency/NGO, independent project related to environmental issues:

We have already submitted a project proposal on "Faunal Diversity in the Campus of Gushkara Mahavidyalaya".

1.9.5 Is there any incidence of burning of plastics containing garbage within the campus?

No

1.9.6 Celebration of 5th June, Ozone day, Earth Day etc.:

Every year college celebrates World Environment Day, Earth Day and Laboratory day in the campus. The main focus of these programmes is to provide awareness among the students about the importance of the environment, its conservation and sustainable use of natural resources. The programmes are conducted in the form of seminars, poster presentation, quiz competition, debates etc.

SEMINAR ON LABORATORY DAY CELEBRATION ON 05.05.2022 & 06.05.2022





Participation of school students
in Laboratory Day Celebration Programme



Prize distribution of Model competition by
Municipality Chairman, Guskara.

MODEL PRESENTATION ON LABORATORY DAY CELEBRATION BY DIFFERENT DEPARTMENTS ON 05.05.2022 & 06.05.2022



DEPARTMENT OF BOTANY



DEPARTMENT OF GEOGRAPHY



DEPARTMENT OF PHYSICS



DEPARTMENT OF CHEMISTRY



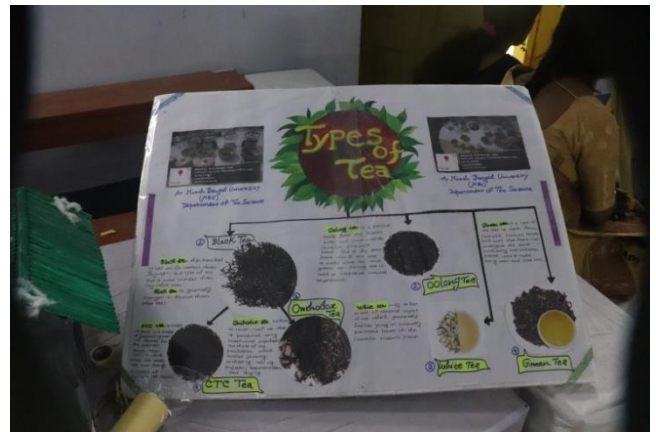
DEPARTMENT OF ZOOLOGY



DEPARTMENT OF NUTRITION



VISIT OF STUDENTS OF DIFFERENT SCHOOLS



DEPARTMENT OF NUTRITION



INSPECTION OF MODEL EXHIBITION BY OUR VICE-CHANCELLER AND EMINENT PERSONS OF BURDWAN UNIVERSITY



POSTER PRESENTATION ON LABORATORY DAY CELEBRATION BY DIFFERENT DEPARTMENTS ON 05.05.2022 & 06.05.2022



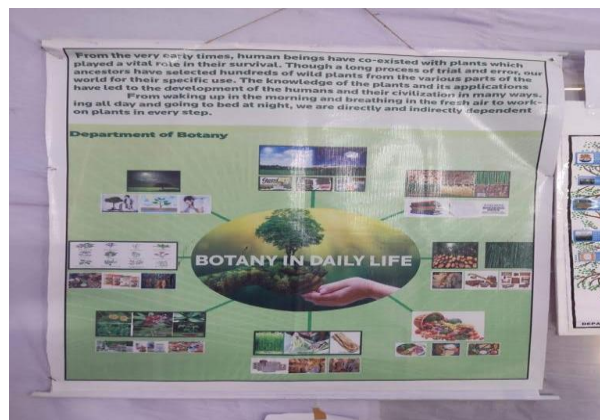
DEPARTMENT OF GEOGRAPHY



DEPARTMENT OF CHEMISTRY



DEPARTMENT OF BOTANY



DEPARTMENT OF PHYSICS

1.9.7 Number of field visits/survey records:

Yes. Most of the Departments like Zoology, Botany, Geography, Nutrition, Chemistry, Bengali, English, Sanskrit, Pol. Science, History etc. organize such field visits each and every year (Records present in their Departmental file.)

2. BIOLOGICAL DIVERSITY AUDIT & BIODIVERSITY REGISTER

Human activities are the main cause of biodiversity loss. Habitat fragmentation, caused by urbanization and agriculture and the overexploitation of resources, leads to the depletion of species. Biodiversity is crucial for the well-being of people and the Earth. Ecological communities maintain the ecological and evolutionary processes that sustain life. These are necessary to help maintain the planet's chemical balance, moderate climate, renew soil, and conserve species diversity. Plant, animals and other species have intrinsic worth. They are also the source of all biological wealth—supplying food, raw materials, medicines, recreational resources, and a store of other goods and services. Biodiversity audit encompasses the assessment of current biotic resources through a set of tools and a biodiversity audit must be able to deliver authoritative advice, on which individuals and organizations can rely in making decisions that affect the future of our community. The rapid biodiversity inventory may include documentation of existing flora and fauna, their current status, threats etc. to formulate biodiversity specific management plan.

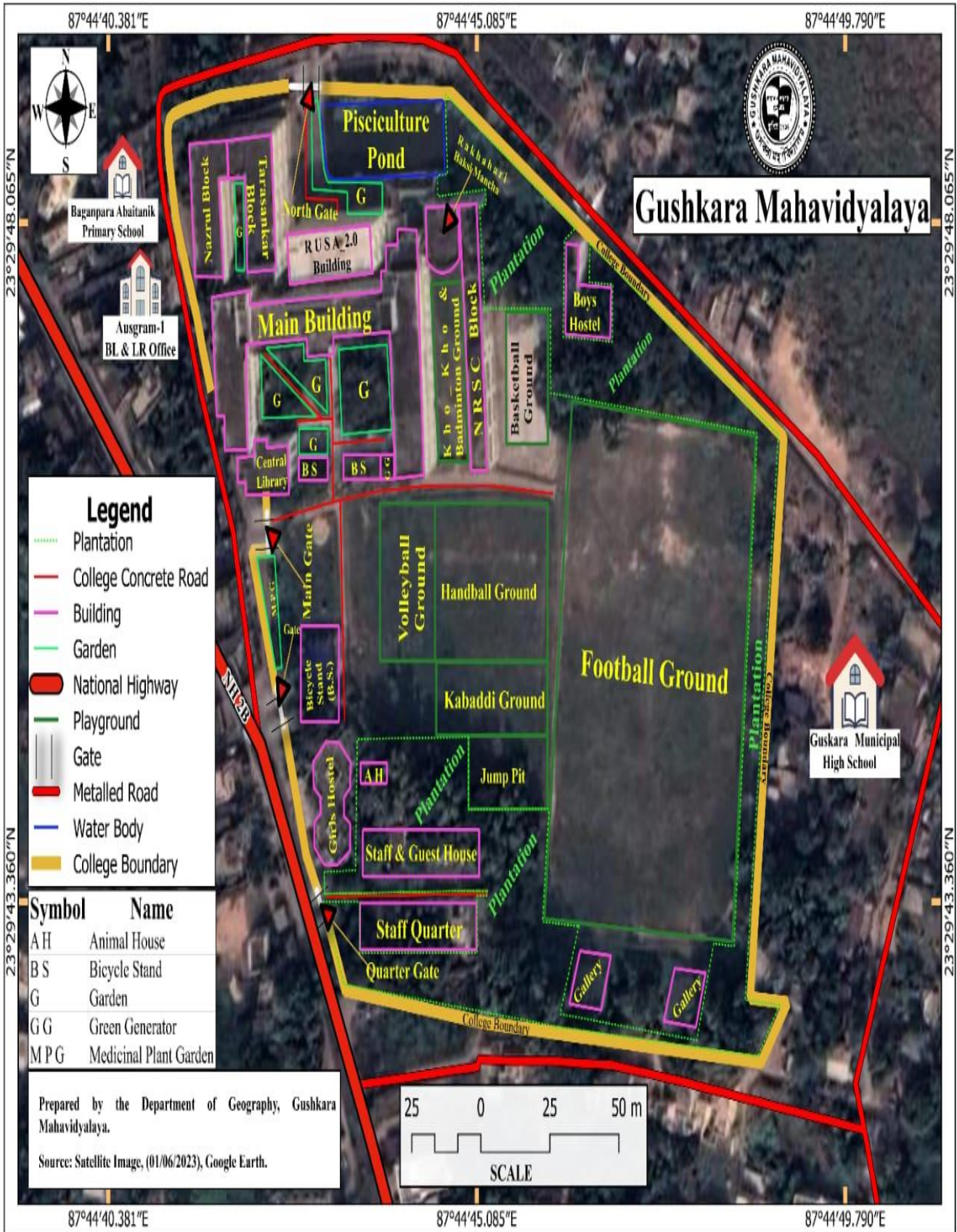
2.1 Importance of the biodiversity audit

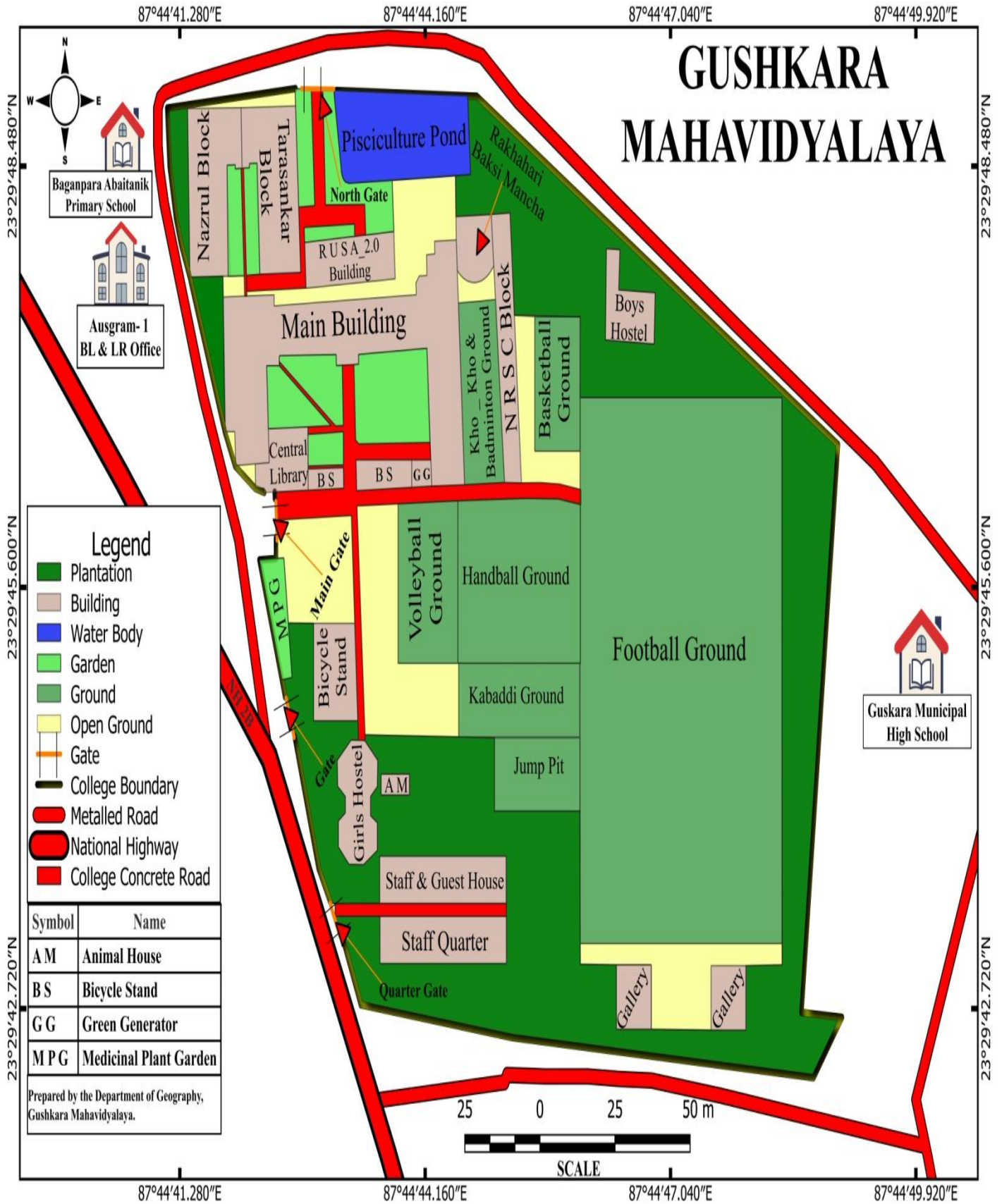
- Biodiversity audit may deliver a current understanding of prevailing biotic resources of the surroundings
- Updated information on the flora and fauna diversity
- To identify possible threats and hazards to the existing diversity
- Formulate conservation measures on the existing biotic resources and increase carbon Stocks

2.2 Biodiversity audit of the college

Yes, our college mainly Department of Zoology and Botany follow biodiversity registration system. Biodiversity map is made by our Geography Department.

2.3 BIODIVERSITY MAP





2.4 FAUNAL BIODIVERSITY REGISTER (Maintained by the Department of Zoology)

2.5 FLORAL BIODIVERSITY REGISTER (Maintained by the Department of Botany)

3. WATER MANAGEMENT

Water, a valuable natural resource and is limited in quantity. Water availability is decreasing as the nation's population grows, and the per capita availability of utilizable water is diminishing. The need for freshwater is increasing day by day as a result of people's rising standards of living, industrialization, and urbanization. The unchecked dumping of industrial effluent into available water bodies is continuously lowering the quality of these abundant sources of water.

A water audit is a qualitative and quantitative review of water consumption to find opportunities for water conservation, reuse, and recycling. A water audit is a strategy or approach for identifying water conservation opportunities by identifying inefficiencies in the water distribution system. Water losses due to various uses in the system or any utility must be measured in order to adopt water conservation measures in such a facility.

3.1 Water Audit

The amount of water consumed on campus for all activities from various water sources is referred to as water audit. Here the water usage was categorized based on their utilities in all academic buildings, on campus, and the grounds. Water that is moved off-campus is referred to as wastewater. Sewerage, residential, hall water used in cooking, showering, and clothes washing, as well as wastewater from chemical and biological laboratories are all examples of wastewater that eventually end up in a sink or drainage system.

3.2 Importance of Water Audit

- When problems are identified, it is easier to work on solutions
- The process is more systematic
- It is possible to implement a tracking system

3.3 Water Audit of the College

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

Yes, our water storage reservoirs are equipped with sensors for minimize the loss of water.



3.3. 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, Aqua Guards and/or large water filter with coolers are in working condition, regularly maintained out of college development funds





3.3.3 Whether college has its own mechanism in repairing of water leakage:

Yes, repairing of water leakage and other related faults in water works are maintained from college development fund.

Payment Voucher

<https://camsguskaramahavidyalaya.in/Accounts/Poucherprint>

GUSHKARA MAHAVIDYALAYA
GUSKARA, PURBA BARDHAMAN, 713121, W.B., INDIA

Payment Voucher

Voucher No : 173
Ref. No : 122

Voucher Date : 24-09-2021 00:00:00
Year : 2021-2022

Particulars	CONTINGENCY EXPENSES	Amount(Rs.)
COL.WEL.FUNDS.WEL.FUND		390.00

Payment with thanks...Total Rs: 390.00

Amount (in words): Rs. Three Hundred and Ninety Rupees Only
Through CASH
EXPENSES FOR TREE GUARD & LOCK & KEY.
Pay to: HEMANTA MUKHOPADHYAY

Accountant/Clerk: *[Signature]* 21
Bursar: *[Signature]* 24/9/2021
Principal: *[Signature]* 24/9/2021

Received Rs. 390.00 (Rs. Three Hundred and Ninety Rupees Only) in Cash.

PAY CASH
24 SEP 2021
Gushkara Mahavidyalaya

মোবাইল : ৯৪৭৪৪০২১২০

মানস্বী চাটাই ঘর

প্রোঃ বিমল সরকার
দে ঘরের বেড়া, প্যাংকোল সরকার, নিয়ে বাড়ীর গেট, পাছের খেঁরা, শানেল
গোলা, বাটের চাটাই প্রকৃতি তৈরী করা ও বিক্রয় করা হয়।
গুসকরা (টোলফার্মের পাশে) * বর্ধমান

তারিখ : 1/9/21

গাছের ঘেরা - ১৫৫ ৫০
5 মিঃ বেড়া -
৫৪৫ - 3001

[Signature]
24/9/21

22/9/21

PAY CASH
24 SEP 2021
Gushkara Mahavidyalaya

গুসকরা মহাবিদ্যালয়
গুসকরা, বর্ধমান
কাজের বিবরণ - কলেজ প্রাঙ্গণে গাছের পরিচর্যা করা

ক্র.সং.	শ্রমিকের নাম	কাজের মোট দিন	দৈনিক (১২) মজুরি হার	মোট	শ্রমিকের সই/টিপসই	তদারককারীর সই
১	সন্ন্যাসী দাস পিতার নাম- রনাই দাস	২৬দিন	১৪৫/-	৩৭৭০/-		

অধ্যক্ষ
গুসকরা মহাবিদ্যালয়

Payment Voucher

GUSHKARA MAHAVIDYALAYA
GUSKARA, PURBA BARDHAMAN, 713121, W.B., INDIA

Payment Voucher

Voucher No : 201
Ref. No : 145

Voucher Date : 01-10-2021
Year : 2021-2022

Particulars	Amount(Rs.)
DEVELOPMENT FEES	3770.00
LABOUR CHARGES	
Payment with thanks...Total Rs: 3770.00	

Amount (in words) : Rs. Three Thousand Seven Hundred and Seventy Rupees Only
Through - CASH
LABOUR CHARGES FOR GARDENING FOR SEPT.2021.
Pay to : SANNYASI DAS

Accountant's Sign: [Signature] 01/10/21
Bursar: [Signature]
Principal: [Signature]

Received Rs. 3770.00 (Rs. Three Thousand Seven Hundred and Seventy Rupees Only) in Cash.

Signature of the Receiving Party: [Signature]

3.3.4 Is there any rainwater harvesting unit in college:

As part of rainwater harvesting, rainwater is collected and used for gardening purposes.

3.3.5 Whether college has developed any reuse and recyclable of water system:

Yes, a small area has been developed to phytoremediation, due to COVID-19 situation which is not maintained properly, however, this will be restored soon.

3.3.6 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, our Green Audit Committee in association with the Environmental Science Department of Shyam Sundar College, Purba Bardhaman, has analyzed the water of hostel, lab, office, tap water. All water qualities are below the permissible limit as per BIS standard.

Reports in July, 2022

Parameters	Dissolved Oxygen (mg/L)	Acidity (mg/L)	Alkalinity (mg/L)	Chloride (mg/L)	Total Hardness (mg/L)	Conductivity (µS/L)	pH	TDS	Salinity (mg/L)	Total Coliform (cfu/100 mL)
Hostel (Boys)	6.89	22	18	36.7	NIL	104	6.88	78	0.08	NIL
Hostel (Girls)	6.76	21	15	36.1	NIL	101.23	6.84	79	0.044	NIL
Lab (ENVS)	6.78	22	13	30.8	NIL	112	6.23	74	0.034	NIL
Lab (Zoology)	6.87	26	17	31.2	NIL	108	6.73	75	0.055	NIL
Lab	6.53	27	18	34.6	NIL	107	6.81	74	0.064	NIL

(Botany)										
Lab (Chemistry)	6.89	25	19	31.7	NIL	107	6.78	76	0.055	NIL
Lab (Physics)	6.79	29	17	32.9	NIL	108	6.89	77	0.078	NIL
Lab (Geography)	7.81	27	16	32.8	NIL	106	6.83	72	0.056	NIL
Office	5.68	27	21	34.2	NIL	104	6.61	84	0.089	NIL
Staff room-1	6.09	26	19	32.9	NIL	107	6.54	81	0.087	NIL
Staff room-2	6.37	21	20	31.6	NIL	105	6.34	82	0.067	NIL
Boys' common Room	6.35	22	17	31.4	NIL	104	6.74	74	0.087	NIL
Girls' Common Rooms	6.77	29	18	31.6	NIL	107	7.01	75	0.093	NIL
BIS standard	6-8	200	200	250	200	--	6.5-7.8	500	0	0

3.3.7 Water consumption (lit/day)

Departments/Labs	Average no. of Students	Average practical hours	Water consumption (lit/day)
Chemistry	45-60	Two hours	35-50
Zoology	15-20	Two hours	15-25
Botany	08-10	Two hours	5-7
Geography	25-30	Two hours	09-11
All Arts department			17-20
Office (Day)			40-56
Vivekananda Chhatrabas	15-20		100-150
Nibedita Chhatrinibas	05-07		40-65
Office (Morning)			20-26
Staff room			100-120
Aqua guards			200-250
Student toilets			200-250
Total consumption 781-1030 lit/day (approx)			

3.3.8 Whether college has sufficient/adequate drainage system:

Yes, all the departments have sufficient drainage system for water discharging.



4.ELECTRICITY AND ENERGY AUDIT

Energy is one of the foremost inputs for the economic development of all nations. Energy management is aimed to produce goods and provide services with the least cost and least environmental effect. The energy audit is a key to a systematic approach for decision-making in the area of energy management. It attempts to balance the total energy inputs with its use and serves to identify all the energy streams in a facility.

4.1 Importance of the electricity and energy audit

From a general point of view, an energy audit provides enormous benefits in different areas:

- It helps reduce energy costs in your facility.
- With a reduction in production costs, the competitiveness of your company will be improved.
- It helps reduce the dependence on foreign energy sources.
- It helps reduce environmental damage and pollution.
- It can increase the security of your energy supply.
- It can reduce the consumption of natural resources.
- It can reduce damage to the environment associated with the exploitation of resources.
- It helps reduce the impact of greenhouse gas emissions.

4.2Electricity and energy of the college

Energy sources utilized by all the departments and services of this college include electricity, petroleum vapour (in Chemisry department only) and solar energy. The major use of energy is at office, canteen,hostel and laboratories for lighting, cooking, laboratory and construction works. The energy consumption was calculated by employing standard method.

Total Electric Consumption Amount.....42,225 kW/yr

Average Electrical Consumption in a Month... 3,500 kW/yr

Total Requirement of Energy

Table: Requirement of power consumption in a month

Electrical Appliances/ instruments	Number	Power (W.unit)	Total power (W)	Kw	Operation /day	kW/hr	No of days in month (Average)	Total consumption per month (unit)
CFL	50	20	1000	1.0	20	2.6	25	70
Tube Lights	115	40	4600	4.6	50	1.0	25	40.0
LED Bulb	40	9	360	0.36	4	0.036	25	0.9
LED Tube	391	20	7820	7.82	250	5.0	25	105.0
Metal LED	4	100	400	0.4	2	0.2	25	5.0
Projector	20	250	1000	1.0	12	2.0	25	55.0
Speakers	6	250	1500	1.5	1	0.25	25	6.25
Wifi Router	10	20	200	0.2	10	0.2	25	5.0
CCTV Cameras	15	15	225	0.225	15	0.225	25	5.63
Fan	387	100	38700	38.7	275	27.5	25	580
Computers	56	120	6720	6.72	30	2.6	25	90.0
Laptops	30	65	1680	1.68	15	0.975	25	24.38
Printers	45	100	4500	4.5	20	1.0	25	50.0
Photocopier	5	930	4650	4.65	2	1.86	25	46.5
Scanner	10	100	1000	1.0	5	0.5	25	11.5
UPS	42	530	22260	21.26	30	15.9	25	397.5
Induction	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Air Conditioner	6	1500	9000	9.0	3	4.5	25	111.5
Refrigerator	9	110	990	0.99	9	0.99	25	24.75
Table Fan	12	100	1200	1.2	7	0.7	25	17.5
Mixer Grinder	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Oven	5	1500			2	2.0	25	75.0
Centrifuge	1	150	150	0.15	1	0.15	25	2.75
Autoclave	2	750	1400	1.4	1	0.75	25	18.75
Pump	4	750	3000	2.0	4	2.0	25	75.0
Laminar Flow	3	150	450	0.45	3	0.45	25	11.25
Exhaust Fan	5	100	500	0.5	2	1.0	25	25.0
Iron Box	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Note Counting Machine	2	100	200	0.2	10	0.2	25	5.0
Color Bulb	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Incubator	2	300	600	0.6	2	0.6	25	15.0
Distillation Unit	2	1000	2000	1.0	1	1.0	25	25.0
Other Lab Instruments								
Water Filter	9	100	900	0.9	7	0.7	25	17.5
Vending Machine	1	1200	1200	1.2	Not working	-	-	-
Total = 1925 (Approx.)								

4.3 Renewable energy of the College

The college takes some serious initiatives for moving towards the renewable energy sources

considering recent carbon emission and climate change. After discussing State Pollution Control Board accordingly, Solar Panels are already installed (dated 04.03.2020) in our college with capacity of 10kW/yr.

The total renewable electricity generation can be achieved by using solar panels are given below:

Table. Current status of renewable energy: Our Solar Power Generation Capacity =10kW/y

Power requirement met by renewable energy sources	Total power requirement	Renewable energy source	Renewable energy generated and used	Energy supplied to the grid	Year(Jan-Dec)	Percentage
UNKNOWN	18209kW/yr	SOLAR	6767.2 kW/yr	UNKNOWN	2021-22	37.16%

(Documents enlisted in ANNEXURE-I)

4.4 Other information about energy conservation

4.4.1 Whether college has any provision/choice of renewable and carbon-neutral electricity options:

Yes, college has initiated to use renewable energy sources, like solar power.

4.4.2 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, the staff members of all sectors and our students are concerned about turning off the electrical appliances when not in use in both academic and residential areas. In all the cases, after use, power is switched off carefully.

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

Yes, Miniature Circuit Breakers (MCBs), a specialized electronic switch, is fitted in every floor that leads to avoid short-circuit and power saving. Planning is going on to establish sensor systems with electric line which put off the lights and fans automatically when there is no person in the room. Students are entrusted to do this job after their class hours.

4.4.4 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, electrical assistants are employed to follow all electrical gadgets to measure their performance.

4.4.5 Is there any options for equipment's running on standby mode:

Yes, modern electronic gadgets have automatic standby mode, which leads power saving (e.g., computer, WiFi router, etc.).

4.4.6 Whether college has taken initiative to purchase efficient and environmentally electrical appliances in order to fulfill the green budget:

Yes, all new electrical equipments are purchased with high electrical efficiency, with BEE Certifications.

As far as practicable we use

- LED bulbs & LED tubes
- Solar panels

- Low wattage electrical items like fans, bulbs etc.



INSTALATION OF SOLAR SYSTEM



SOLAR PANEL



USE OF LED TUBES IN THE EXAMINATION HALLSOLAR PANEL



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

Yes, Miniature Circuit Breakers (MCBs), a specialized electronic switch, is fitted in every floor that leads to avoid short-circuit and power saving. When a electrical fault or short circuit occurs, the entire circuit under this MCB is shut down. Our college has own electrical staff, who repair as early as possible.

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

Yes, all class rooms are having sufficient illumination in day time and constructed with sufficient ventilation. Number of lights & fans in class room (average): 5 LED tubes, and 5 fans. Use of light & fans in the day time (average hours): 5-6 hours. Number of windows per class: 3-4, number of windows depends on room size and overall room set up. Natural light source in day time (in hours) (average per class): Generally, classes are held in natural day light, during cloudy days electrical bulbs/ tube lights are used.



CLASSES TAKEN IN NATURAL LIGHT

4.4.9 How many (%) e-notice generated by the college for academic/administrative purposes in a month
Approximately, 75% notice are given by e-governance for academic/administrative purposes in a month.

E-NOTICE OF GUSHKARA MAHAVIDYALAYA FROM 2021-2022

Sl. No.	Notice Title	Date	Action
341	4th Sem B.Com. Hons. Admit Cards	27/06/2022	Download
342	4th Sem B.Com. Gen. Admit Cards	27/06/2022	Download
343	4th Sem B.A. Gen. Admit Cards	27/06/2022	Download
344	4th Semester form fillup list 2022	18/06/2022	Download
345	B.A. Gen. 6th Sem Admit Card 2022	14/06/2022	Download
346	B.A. Hons. 6th Sem. Admit Card 2022	14/06/2022	Download
347	B.Com Hons. and Gen. 6th Sem. Admit Card 2022	14/06/2022	Download
348	B.Sc. 6th Sem. Hons. and Gen. Admit Card 2022	14/06/2022	Download
349	Admit Cards of B.Com. 1st Sem. Hons. and General Courses	05/03/2022	Download
350	Admit Cards of B.Sc. 1st Sem. Hons. and Gen. Courses	05/03/2022	Download
351	Admit Cards of B.A. 1st Sem. Hons. and Gen. Course	05/03/2022	Download
352	Notice regarding submission of ENVIS answerscripts	04/03/2022	Download

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

Approximately, 25% notices are issued in papers for academic/administrative purposes in a month.

4.4.11 Total number of computers, printer, Laptop, Xerox machine

Name of the Equipments	Number
Desktop Computer	56
Printer	45
Laptop Computer	30
Xerox machine	5

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

We have designed and planned a seminar to be occurred in coming days shortly.

4.5 Energy conservation strategies

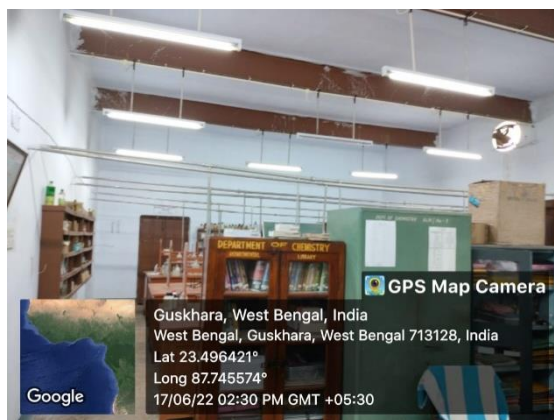
- a) **Whether the architectural design for college is based upon use of natural lighting & ventilation, to save extra power for bulbs and fans:**

Yes, windows and doors are set up at 5-6 ft. distance that allows entry of sufficient day light.

Windows are of 60 ft² and this leads to passage of natural air and light leading to minimization of electricity consumption.

- b) **Whether fluorescent bulbs are replaced with CFL bulbs/LEDs:**

Yes, fluorescent tubes have been replaced by LED bulbs. Almost all the bulbs are replaced with CFL bulbs and LED tubes.



4.6 Future Planning

- i. Moving more towards solar and other non-conventional energy can reduce burden on heavy electric energy consumption.
- ii. Reduce streetlight and other areas where lighting is not required at all times. Installing sensor-based lighting system can be introduced to sustainably manage the electrical resources.
- iii. Streetlight and other lights in hostel buildings can be converted into solar-panel based lighting system.
- iv. Old laboratory equipment and other power consume old technology can be replaced by energy savings system and green technology.
- v. Planning workshops on energy conservation to educate students, faculty and Staff .
- vi. Students, faculty and staff should unplug overhead projectors, computers, and other electrical appliances when not in use. This simple way to conserve energy can help save a large amount of power and money in the long run.

5. Waste Management Report

Wastes are unused byproducts that can be formed through different activities in our daily life. Waste is a significant global issue. Increasing volumes of waste are being generated as the global population and living standards rise. The environmental impact is significant, with massive volumes of waste generated annually with only basic or little treatment to minimize its impact. Wastes may be classified into different categories depending on their source, structure, adverse effect etc. In the educational institute different kinds of wastes like are E-waste, plastic wastes, chemical waste, solid wastes, liquid wastes, biodegradable wastes etc are produced which are intended to be disposed of or are required to be disposed of. A waste management audit is a total and clear representation for identifying all waste streams that an agency is responsible for producing, or for managing on behalf of others. The type and amount of waste generated by an institute is explained by a waste management audit. Waste management audit can evoke current waste performance and offers potential missing controls and improvements that could be made to the systems in place through scientific and sustainable approaches. The type and amount of waste generated by an institute are explained by a waste management audit.

5.1 Importance of Waste Management Audit

- Deterioration of environmental status can be occurred due to the unavailability of proper waste management practices.
 - A waste management audit helps one educational institute to be better prepared to efficiently and responsibly dispose of the waste that it generates every day.
 - By designing a more efficient waste disposal program through a waste audit, we can enhance recycling practices.
 - Improved resource efficiency
 - Improved environmental performance

5.2 Waste Management Audit of the College

5.2.1 Solid Waste

The college has taken several initiatives to reduce the adverse effects of waste. All the teaching, nonteaching staff and students are encouraged to maintain proper waste management habits. The college has constructed 2 Pits and marked as biodegradable and non-biodegradable trashes. The collected wastes of the college are disposed of accordingly in these pits. In the different corners of the campus, the college has arranged to put adequate numbers of trash bin from where biodegradable and non-biodegradable wastes are collected separately. All the accumulated wastes are finally collected and disposed of at the municipality vats, located near the college canteen. All the accumulated wastes are transferred to the municipality vats time to time.

5.2.2 Liquid waste

To collect the chemical solutions from different science laboratories, the college has constructed an underground safety tank of area. The other liquid wastes from bathrooms and basins are also disposed in the tank. All the accumulated liquid wastes are transferred to the municipality vats time to time.

For the last few years, college is following zero organic waste protocol throughout the campus. The food waste generated by the students and staffs are taken by them to their own home, so that, minimum waste is generated inside the campus. In addition, the organic waste generated in the hostel is reused. Vegetable wastes and other leaf litters are used to feed in the compost pit, and the resulting compost is used as manure in the garden. The chemicals from the laboratories are disposed in a sealed tank along with water, so that the chemicals undergo neutralization with the water. All the accumulated wastes are transferred to the municipality vats time to time.

5.2.3 Is there any method of segregation of waste materials?

Yes, we are following the waste management guidelines of Central Pollution Control Board. We are tried to segregate the wastes by making use of different trash bins namely biodegradable, non-biodegradable, liquid waste etc.

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

Approximately, on an average 5-8 kg of solid wastes including tree dropping and lawn wastes are generated in a normal working day.

5.2.5 Whether college arrange any workshop/seminar/conference for awareness the students/staff for specific arrangements for recyclable wastes:

Yes, our Science Department has arranged the workshops for waste recycles, and students are involved to propagate the knowledge to other non-aware students (By Model presentation, Poster presentation in Science Fare, In Laboratory day celebration in many other programme in our college).

5.2.6 Whether college follow specific disposal method for solid or liquid waste in specific manner:

In fact, the wastes generated by college are directly taken and disposed of by local municipality.

5.2.7 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.

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

Yes.

5.2.9 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, phytoremediation is taken to liquid waste management. A programme on Wetland Conservation along with Natural Sewage Treatment has been initiated recently.

5.2.10 Minimize use of chemical pollutants

Sl No.	Department	Name of the waste			Total (a+b+c) (kg/month)	Characterization (if any)	Method of disposal	Agency if any
		Chemical (a)	Biological waste (b)	Microbial waste (c)				
1	Chemistry	Laboratory waste, cleaner	N.A	N.A	4.36	N.A	Given table	N.A
1.	Zoology	Laboratory waste, cleaner	Practical waste	Practical waste	1.33	N.A	Given table	N.A
2.	Physics	Laboratory waste, cleaner	N.A	N.A	0.34	N.A	Given table	N.A
4.	Botany	Laboratory waste, cleaner	Practical waste	Practical waste	1.12	N.A	Given table	N.A
6.	Mathematics	Cleaner chemical	N.A	N.A	0.3	N.A	Given table	N.A
7.	Geography	Laboratory waste, cleaner	N.A	N.A	0.75	N.A	Given table	N.A
8.	Arts	Bathroom cleaner	N.A	N.A	1.23	N.A	Given table	N.A
9.	Commerce	Bathroom cleaner	N.A	N.A	0.77	N.A	Given table	N.A
10.	Office and staff room	Bathroom cleaner	N.A	N.A	0.34	N.A	Given table	N.A

☎ : (03452) 255 164 / 255 767

Fax : (03452) 256 600

✉ : guskaramunicipality@yahoo.in

OFFICE OF THE
GUSKARA MUNICIPALITY

P.O.: Guskara, Dist.: Purba Bardhaman, Pin - 713128, W.B.

ESTD.: 1988

Memo No. 2072/G.M



Dated, Guskara, the 14.07.2023

TO WHOM IT MAY CONCERN

This is to certify that "Guskara Municipality" has an active Memorandum of understanding with "Guskara Mahavidyalaya" for collecting the sewage of solid and liquid nature including hazardous chemical waste since last five years and the Municipality has its own mechanism of managing the waste without effecting the environment in accordance with rules laid down by the Ministry of Environment.

14.7.23
Chairman

Guskara Municipality

Chairman
Guskara Municipality



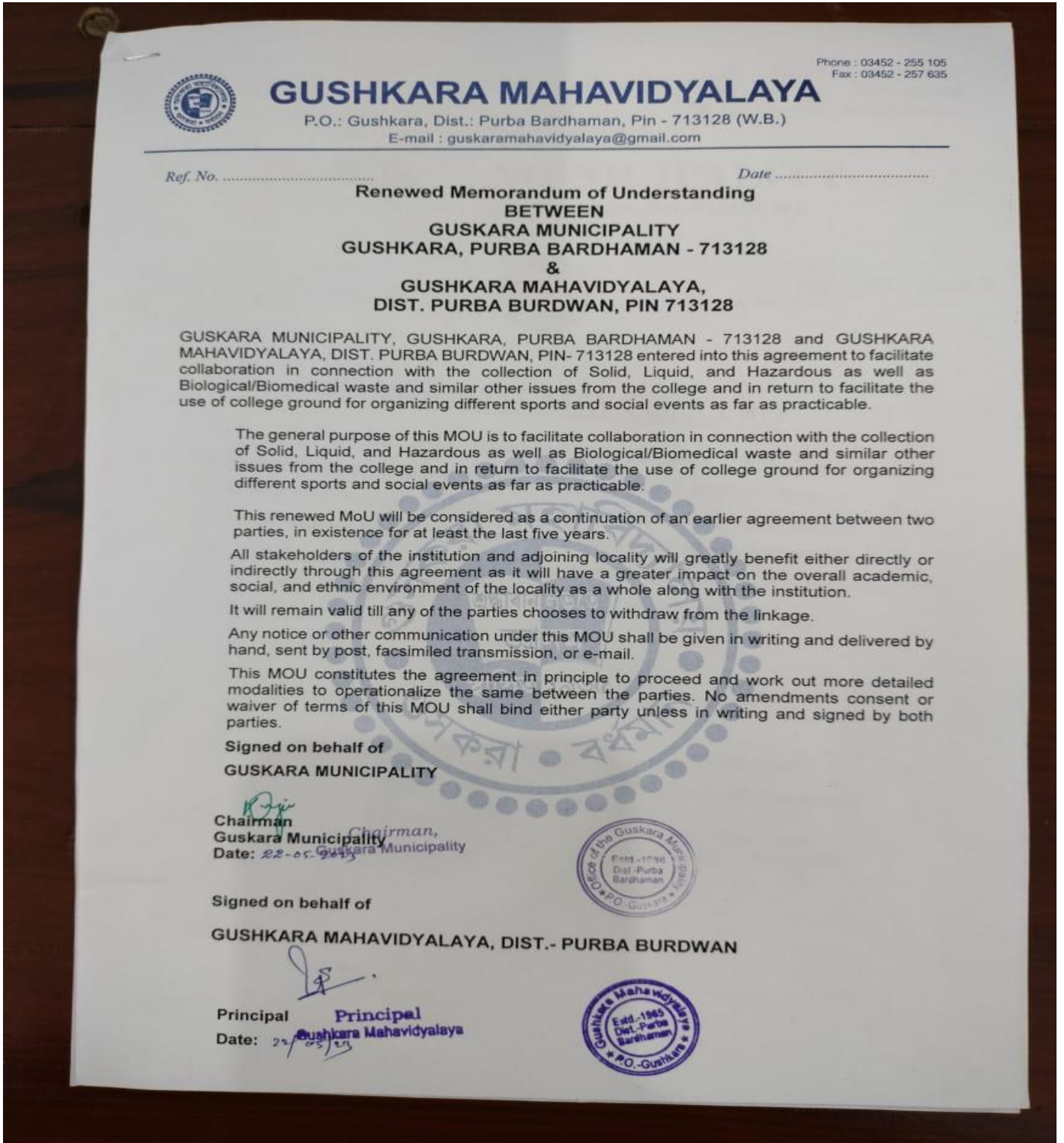


Table: Different types of waste generated in the college and their disposal

Type of Waste	Particulars	Direct method
---------------	-------------	---------------

E-Waste	Computers, electrical and electronic parts	Exchanging with new model
Plastics waste	Pen, refill, Plastics water bottles and other plastic containers, wrappers etc.	Reuse after refilling etc.
Solid waste	Damaged furniture, paper waste, paper plastics, food wastes	Reuse after maintenance energy conversion
Chemical Wastes	Laboratory waste	Neutralize with water
	Solid	Wastes are collected from Labs and separated in trash bin on the basis of bio-degradability and finally collected by the local municipality. Broken glass wares are sold out periodically.
	Liquid	Liquid wastes are neutralized with water and collected in a pit
	Hazardous Chemical Material	Regarding hazardous chemical materials, chemistry department follows the following steps- <ul style="list-style-type: none"> • Initiates the greener approach mainly semimicro method (i.e.in milligram scale) to the lab experiment. • Use of hazardous chemicals are restricted. Use of radioactive materials are now discarded from the university syllabus. • In situ preparation of H₂S instead of Kipp's apparatus. • Minor treatment of some carcinogenic materials like Cr⁺⁶ by H₂SO₄ Mohr Salt before drainage
Biological Waste	Discarded blood, sharps, unwanted microbiological cultures and stocks, identifiable body parts (including those as a result of amputation), other human or animal tissue, used bandages and dressings, discarded gloves, other medical	Autoclave, and Disinfection then dispose sanitary land filling
Waste water	Washing, Urinals, Bathrooms	Soak pits, phytoremediation
Glass waste	Broken glass wares from labs	Direct selling
Sanitary Napkin/ pad	--	Burning by vending machine.

5.2.11 Records of dustbins/collection bins inside the campus

- Biodegradable – 1 kg/day (Office and class rooms)
- Non-biodegradable –1.5 kg/day
- Biodegradable – 2 kg/day (labs)
- Non-biodegradable – ½ kg/day (labs)

- Hazardous Chemicals –112 mg/day (labs)
- E-waste collected – 30-35 kg/year
- Glass waste – 4.6 kg/year
- Dry leaves – 1-2 kg/day

5.2.12 Whether the cleaning products used by the college staff are eco-friendly and under the COSHH (Control of Substances Hazard to Health) regulations:

Yes.

5.2.13 Whether the college is using fertilizers, pesticides for any purposes, if so, amount used per month and places of uses

Yes

5.2.14E-WASTE MANAGEMENT

- Quantity of e-waste generated:**
30-35 kg/year
- Number of cartridges used month-wise:**
5 pieces/month
- Number of cartridges disposed in a year (average):**
30 pieces
- Number of times refilling & reusing method of disposal of e-waste (if any):**
4-5 time refilling and reused methods.
- Whether college has conducted any awareness programme on e-waste management:**

Yes. Someawarenessprogramme done by different academic department of the college.

- Is there any means of disposal of unused computers, printers and electronic wastes through authorizedagents:**

We generally exchange the old computers that lower the cost of new ones and helps in recycling process.

6.GREEN AREA MANAGEMENT

6.1 Campus Cleanliness

We regularly clean the entire campus, wastes are collected, namely, biodegradables e.g., papers, plant parts,canteen wastes etc. and non-biodegradables e.g., plastics, glass items, construction garbage like broken tiles,metal pieces etc.

6.1.2Is there any garden in the college campus/outside the campus under college custody?

Yes, the college has taken the place of the plantation garden as an "Economically important plantation garden"

6.1. 3Whether the garden is watered by using drip/sprinkler irrigation system:

We have designed and planned to establish drip/sprinkler irrigation system in coming days shortly.

6.1.4Is there any mechanism of review of periodical monitoring of tree species:

Yes, Botany Department along with Club of Ecology and Environment play active role to review the

periodical monitoring of tree species.

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

Yes. Department of Botany along with Club of Ecology and Environment take part actively for different types of plantation programme for this purpose.

6.1.6 Carbon dioxide neutrality on the campus by developing greenery

Carbon Neutrality means annual zero net anthropogenic (human caused or influenced) CO₂ emissions by a certain date. By definition, carbon neutrality means every ton of anthropogenic CO₂ emitted is compensated with an equivalent amount of CO₂ removed. Following points are emphasized:

- **Sustainable Water Management,**
- **Switching to Renewable,**
- **Single use plastic free campus and**
- **Plantation and Sustainability.**

So, we need to share our knowledge with others so that they can learn and also get motivated to make their own campus carbon neutral. The commitment and steady progress can help to maintain everyone's support. The brand of the institution can be improved by achieving progress towards carbon neutral campus.

6.1.7 Man-made nest to attract some birds to maintain ecological balance

Yes. Natural Habitat Conservation of Birds along with Artificial Bird Nesting has been maintained in our institution under the guidance of “CEE Club” and specially trained our Green Audit Team member.

6.1.8 Restriction in use of plastic and plastic products

Yes, we made the college campus plastic free and fixed posters and stickers in different corners of our college.

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

Yes, aquaculture is practiced in the water body (pond) within our college premises, maintained by “Aquaculture Research and Training Unit” under Department of Zoology. The pond is surrounded by medicinal plants garden maintained by Department of Botany.

Main function of this Unit are:

- Maintain in-campus aquatic ecosystem
- Conserve & Culture aquatic species
- Habitat Conservation
- Green Campus Initiative



6.1.10 Green monitoring by green committee/volunteers/team

Yes, The Club of Ecology and Environment (CEE) is active in our college, they are working to maintain biodiversity, waste management in our college premises.

6.1.11 Training on vermin composting

We have designed and planned a Hands-on-Training programme to be occurred in coming days shortly.

6.1.12 Celebration of 'No vehicle Day' on a particular day

On first Friday of the month.

6.1.13 Dams inside the campus to meet the demand for water

We do not possess any dams within our campus but we do have pond, ditches and other water bodies.

6.1.14 Installation of fire safety instruments in all the buildings/departments

Yes, fire safety instruments have been installed in all susceptible departments and AMC is also maintained.

6.1.15 Toilets/separate toilets for differently abled students

Yes. The total number of toilets in our college is 44 and there are a number of toilets earmarked for differently abled students.

6.1.16 Over all noise level

Table. Noise level for different sampling area by SLM (data by Dept. of Botany, Zoology and Chemistry, Gushkara Mahavidyalaya).

Sl.No.	Sampling Area	Day time (8.00 a.m. to 5.00 p.m) Mean (\pm SD)	L90 (dB) Mean (\pm SD)
1.	Class Room 1	45 \pm 5.23	36.25 \pm 5.23

1.	Class Room 2	47± 1.35	37.25± 5.23
2.	Class Room 19	48.56± 7.56	48.78± 2.31
4.	Class Room 26	56.45± 5.45	41.22± 4.15
5.	Office room	66.23± 6.23	47.26± 6.23
6.	Staff room	62.22± 7.45	51.22± 5.21
7.	Library	40.56± 6.63	31.22± 4.57
8.	Chemistry Laboratory	51.25± 6.25	36.22± 2.26
9.	Zoology Laboratory	51.66± 6.56	45.23± 5.91
10.	Botany Laboratory	58.36± 6.53	36.22± 5.76
11.	Playground	70.55± 7.25	56.22± 5.29
11.	Gate (1)	87.23± 6.23	65.89± 5.79
12.	Gate (2)	77.23± 8.29	67.22± 5.19
14.	RUSA Building	45.56± 9.88	36.22± 1.49
15.	Boys Hostel	40.56± 5.69	27.23± 2.54
16.	Cycle and Bike Standing area	40.56± 6.63	31.22± 4.57

6.1.17 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):

No

6.1.18 Minimize the use of unsustainable transport

A large number of students of the locality use bicycle as their mode of transportation. A large number of teachers and staff members also use bicycle, thereby minimizing the vehicular emission.



6.1.19 What are the available/maximum transport facility used by the staff members/students etc., - Mention the number (in average per day):


All faculties, Students and Staff are used personal Car, Bike and Bicycle.

Car	Bike	Bicycle
18	47	154

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

Yes, almost all the students, teachers and nonteaching staff use public transports.

6.2 Plantation Programmes						
Programme	Date of functioning	No. of tree planted	Present status of the species	Programme Conducted by	Documentation (If any)	No. of beneficiaries
“Ekti Gach Ekti Pran”	08.02.2022	10	10	IQAC and NSS units		<p>i. To save the endangered environment and to beautify our ambience.</p> <p>ii. To create a sustainable and thriving environment within educational settings.</p> <p>iii. To create cleaner and healthier air for students and staff.</p>
Tree plantation Programme	26.05.2022	10	08	IQAC , NCC and Department of Botany and NSS units		<p>iv. To beautify the campus that provides a conducive learning environment.</p>

Tree plantation Programme	26.05.2022	10	08	Department of Bengali and Department of Botany		
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6.3 FUTURE PLANNING:

- i. Installation Biogas plant and Compost units
- ii. Increase of Solar panels to generate more electricity
- iii. Installation of rain water harvest methods on roof top and ground.
- iv. Dig sufficient rain water pits in the campus wherever possible and maintain it regularly.
- v. Set up water recycling unit where the recycled water can be used for gardening in college and hostels.
- vi. Grow up vegetable garden and improve medicinal garden and gradually develop it as a nursery.
- vii. Develop a butterfly garden that arouses appreciation towards flora and fauna diversity.
- viii. Layout 'Green Chemistry' that reduces or eliminates the use or generation of hazardous substances in the design, manufacture and application of chemical products.
- ix. Install waste water system for chemistry labs.
- x. Conduct exhibitions for parents and public on environment and sustainable practices.
- xi. Arrange training programmes on environmental management system and nature conservation.
- xii. Establish an E-waste collection centre in campus.
- xiii. Ensure participation of students and teachers in local environmental issues.
- xiv. Renovation of cooking system in the canteen to save gas.

- xv. Establish a purchase policy that is energy saving and eco-friendly.
- xvi. Conduct seminars, workshops and exhibitions on environmental education.
- xvii. Introduce add-on courses eco-friendly income generating to all interested students.

7. OUTCOME OF ACTIVITY BY COMMITTEE

The current assessment tried to capture the overall scenarios on water, wastewater, waste management and biodiversity condition of the Gushkara Mahavidyalaya. Every section provides a precise methodology applied and findings in a systematic manner. Finally, sets of recommendations were provided for each section to improve the prevailing energy and biotic components of the college campus. The college has already taken a series of initiatives to maintain a healthy and green environment on the campus. The situation can be further accelerated by considering suggested recommendations from the study. The major activities, approaches and innovations were undertaken by the college toward transforming a green campus is as follows:

8. INITIATIONS BY THE COLLEGE AS PER PROPOSED OF COMMITTEE

1. The college has introduced rainwater harvesting.
2. The college has introduced more solar Panel as renewable energy sources to compensate electric consumption.
3. The college has replaced all the lamps with LED bulbs for efficient energy savings.
4. The college has introduced municipality advocated color coded waste collecting bins to collect different forms of solid and semi-liquid waste.
5. The college has introduced innovative waste recycling by using empty plastic bottles for plantation of saplings in growing seasons.
6. Construction related wastes effectively utilized for approach road preparation.
7. The college has directed the “Eco Club” by involving enthusiastic students to perform different environmental conservation and awareness related activities.
8. College involved in yearly plantation activities with all classes of participants including students, teachers and other staffs.
9. Promote environment education through different IEC materials like banner, poster, wall magazine etc. to propagate and popularize environment and nature.
10. College maintains a well-documented biodiversity register for resources of fauna and flora diversity.

GREEN AUDIT REPORT

2022-2023



Prepared by
Green Audit Committee, Gushkara Mahavidyalaya



Gushkara Mahavidyalaya
PO- Gushkara, Dist- PurbaBardhaman
PIN-713128, West Bengal, India

Green Audit Committee Members

Chairman:

1. Dr. Sabina Begum (**Teacher in charge**, upto 16.05.2023), Gushkara Mahavidyalaya
Dr. Sudip Chatterjee (**Principal** from 17.05.2022), Gushkara Mahavidyalaya

Members :

2. Dr. Madhumita Bhattacharya (**IQAC coordinator**), Gushkara Mahavidyalaya
3. Dr. Sukalyan Chanda (**Teachers' Council Secretary**), Gushkara Mahavidyalaya
4. Dr. Sunanda Mondal, Associate Professor of Botany, Convener, Gushkara Mahavidyalaya
5. Dr. Kanika Saha, Associate Professor of Geography, Jt. Convener, Gushkara Mahavidyalaya
6. Dr. Bholanath Sarkar, Associate Professor of Chemistry, Member, Gushkara Mahavidyalaya
7. Dr. Biswajit Mitra, Associate Professor of Geography, Member, Gushkara Mahavidyalaya
8. Mr. Ranjan Paul, Assistant Professor of Botany, Member, Gushkara Mahavidyalaya
9. Dr. Sukhendu Roy, Assistant Professor of Zoology, Member, Gushkara Mahavidyalaya
10. Dr. Saurabh Sarkar, Assistant Professor of Zoology, Member, Gushkara Mahavidyalaya
11. Miss. Poulomi Roy, State aided College teacher of Zoology, Member, Gushkara Mahavidyalaya
12. Dr. Piale Roy, Assistant Professor of Chemistry, Member, Gushkara Mahavidyalaya
13. Basudeb Mukherjee, Non Teaching Staff, Gushkara Mahavidyalaya
14. Brajendranath Adhikari, Non Teaching Staff, Gushkara Mahavidyalaya
15. Student Representatives , Gushkara Mahavidyalaya
 - i. Rumela Ghosh (1st Sem, Botany)
 - ii. Rupsa Ghosh (3RD Sem, Geography)
 - iii. Ataur Mondal (5TH Sem, Chemistry)

Acknowledgments

We are thankful to our Teacher in charge Dr. Sabina Begum and Principal (Dr. Sudip Chatterjee) for their continuous logistic and moral support and encouragement during preparing the green audit report. We are grateful to the departments of Science, Arts, Commerce, Office, and Library (teaching staff, non-teaching staff, casual staff and beloved students) for their valuable contribution to the green audit. We are also, thankful, IQAC Coordinator (Dr. Madhumita Bhattacharya), and TCS (Dr. Sukalyan Chanda) for their constant inspiration and co-operation during preparing the green audit report.



Certificate of Registration

This is to certify that

GUSHKARA MAHAVIDYALAYA

**P.O. GUSKARA, DIST. PURBA BARDHAMAN,
WEST BENGAL - 713128, INDIA**

has been independently assessed by QRO
and is compliant with the requirement of:

ISO 14001:2015

Environmental Management System

For the following scope of activities:

**PROVIDING THE COURSES OF UNDER GRADUATE, POST
GRADUATE, CERTIFICATE AND INTERNSHIP COURSES ALONG
WITH SUSTAINABLE DEVELOPMENT**

Date of Certification: 25th July 2023

2nd Surveillance Audit Due: 24th July 2025

1st Surveillance Audit Due: 24th July 2024

Certificate Expiry: 24th July 2026

Certificate Number: 305023072533E



Chandan ..

Head of Certification

Validity of this certificate is subject to annual surveillance audits to be done successfully on or before 365 days from date of the audit.
(In case surveillance audit is not allowed to be conducted; this certificate shall be suspended / withdrawn).

The Validity of this certificate can be verified at www.qrocert.org

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CONTENTS

CHAPTER		PAGE NO.
1	INTRODUCTION	
	1.1	Green Audit and General information of Gushkara Mahavidyalaya
	1.1	Basis of Green Audit
	1.2	Objectives of Green Audit
	1.3	Benefits of Green Audit
	1.5	Action taken by the Committee
	1.6	Future Programme of the Committee
	1.7	Policy Enforcement Strategies
	1.8	Awareness Programme conducted by the College
	1.9	Comments on several Programmes
2	BIOLOGICAL DIVERSITY AUDIT & BIODIVERSITY REGISTER	
	2.1	Importance of the biodiversity audit
	2.2	Biodiversity audit of the college
	2.3	Biodiversity Map
	2.4	Faunal Biodiversity Register
	2.5	Floral Biodiversity Register
3	WATER MANGEMENT	
	3.1	Water Audit
	3.2	Importance of Water Audit
	3.3	Water audit of the College
4	ELECTRICITY AND ENERGY AUDIT	
	4.1	Importance of the electricity and energy audit
	4.2	Electricity and energy of the college
	4.3	Renewable energy
	4.4	Other information about energy conservation
	4.5	Energy conservation strategies
	4.6	Recommendations
5	WASTE MANAGEMENT AUDIT	
	5.1	Importance of Waste Management Audit
	5.2	Waste Management Audit of the College
6	GREEN AREA MANAGEMENT	
	6.1	Campus Cleanliness
	6.2	Plantation Programmes
	6.3	Suggestions and Recommendations
7	CONCLUSIONS	

I INTRODUCTION

1.1 GREEN AUDIT AND GENERAL INFORMATION OF GUSHKARA MAHAVIDYALAYA

1.1.1 Year of Establishment of College:

Gushkara Mahavidyalaya was established in 1965, as the general degree college in Guskara, erstwhile Burdwan District (presently Purba Bardhaman district).

1.1.2 History behind the Establishment of the College:

Guskara, situated at a distance of 135 Km from Kolkata, is an sprawling municipal Town in the northern part of Burdwan Sadar Sub-division. To the north of Guskara lies Santiniketan where Great Poet Nobel laureate Rabindranath Tagore spent most of his creative years. The district town of Burdwan is 34 Km away from the Guskara. Gushkara Mahavidyalaya is fifty-eight years young. This institution having a land of 8.16 acres (24.684 Bighas) was established on 9th August, 1965. The major part of the land was donated by Guskara P.P. Institution, the oldest higher secondary school of the region. The founder principal was late Rakhahari Baksi. This is a metaphor for commitment, care and service, and these momentous hours of the history of our college make our ambition and aspiration for future. We are proud about the progress of Gushkara Mahavidyalaya today – a precious seed has prospered into a vital, virtuous tree. The college is evolving into a nationally ranked, multifaceted and co-educational institution.

Our Alumni occupy distinguished positions in almost all spheres of activity both in country as well as in abroad. It has been a long journey through the fifty-eight years and yet the journey has perhaps just begun. Until the end of time, the college wants to create an intellectual environment that will enhance individual growth, support, scholarly activities and creative endeavors to facilitate expansion of human knowledge and understanding.

Since its inception Gushkara Mahavidyalaya has been approved by UGC and affiliated to the University of Burdwan. The college offers undergraduate programme in Arts, Science and Commerce and Postgraduate programme in Bengali. At present this institution offers various facilities to its students including Computer Lab, Library, Yoga, Common Rooms, Hostels, Gymnasium, Play Grounds, Auditorium, Canteen, and more. Subjects offered undergraduate programme are Physics, Chemistry, Mathematics, Botany, Zoology, Nutrition, Bengali, English, Sanskrit, History, Geography, Political Science, Philosophy, Economics, Physical Education, Music and Commerce. Among these seventeen subjects sixteen are at the Honours level and only one (Music) is at the level of general course. The Department of Bengali offers PG programme. The college was accredited by NAAC with A grade in the assessment and accreditation year 2016.

1.1.3 Total Area of the College

Total Campus Area	8.16 acres (355450 sq.ft.)
Total Built Up Area	70967 sq.ft.
Total Open Space Area	284483 sq. ft.
Playground Area	102083 sq.ft.
Total Green Area	182400 sq. ft.

1.1.4 Previous NAAC Grading:

Sl. No.	Phase	Grade	Year of Accreditation	Accreditation Period
1	1st Phase	B+	2007	2002-03 –2006-07
2	2nd Phase	A	2016	2010-11–2015-16
3	3rd Phase	ongoing	2023	2016-17–2022-23

1.2 BASIS OF GREEN AUDIT

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of various establishments. It aims to analyze environmental practices within and outside of the concerned sites, which will have an impact on the eco-friendly ambience. The green audit report can be a useful tool for a college to determine how and where they are using the most energy or water or resources; the college can then consider how to implement changes. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve the waste minimization plan. It can create health consciousness and promote environmental awareness, values and ethics. It provides staff and students with a better understanding of the green impact on campus.

The rapid urbanization and economic development at the local, regional and global levels have led to several environmental and ecological crises. On this background, it becomes essential to adopt the system of the Green Campus for the institutes which will lead to sustainable development and at the same time reduce a sizable amount of atmospheric CO₂ from the environment. The National Assessment and Accreditation Council (NAAC) has made it mandatory that all Higher Educational Institutions should submit an annual Green Audit Report. Moreover, it is a part of the Corporate Social Responsibility (CSR) of the Higher Education institutions to ensure that they contribute towards the reduction of global warming through carbon footprint reduction measures.

1.3 OBJECTIVES OF GREEN AUDIT

The general objective of green audit is to prepare a baseline report on biodiversity and other resources, measures to mitigate resource wastage and improve resource quality and sustainable practices. The specific objectives are:

- To prepare a checklist of flora and fauna diversity in and around the college campus
- To suggest measures to improve biodiversity within the college campus
- To monitor the energy consumption pattern of the college
- To assess the quantity of water usage within the college campus
- To suggest sustainable energy usage and water conservation practices
- To find out various sources of organic and solid waste generation and mitigation possibilities

1.4 BENEFITS OF GREEN AUDIT

There are many advantages of green audit to our institution.

- Since our college is located in a rural area with a large area of greenery around it, green audit can help protect the natural environment in and around the college campus.
- The college has limited financial resources and components of green audit like solar power generation and rain water harvesting can help in reducing expenditure and optimizing resources through waste minimization and energy conservation.

- It helps to develop the social and environmental awareness among teachers and students of various disciplines.
- Encouraging plastic free zone helps in promoting clean environment.
- Empower the organization to frame a better environmental performance.
- The institutional building has a large green campus which can be preserved and enhanced.
- Finally, it will help to build a positive impression through green initiatives for the upcoming assessment and accreditation processes.

1.4.1 Whether the college is implementing the Green Policy for the first time (mention date/month/year):

Yes, 12/09/2014: Club of Ecology and Environment (CEE)

GREEN AUDIT POLICY OF THE COLLEGE

The Green Campus Policy of the college envisions a Clean and Green Campus where environmental friendly practices and education combine to promote sustainable and ecofriendly practices in the campus and beyond the campus. It also offers the institution an opportunity to take the lead in redefining its environmental culture through instilling environmental ethics among the students and staff.

The college works towards creating a green, pollution-free and healthy environment with a missionary zeal and dedication. The students are given strict instructions to maintain the campus clean and green and it is reflected in our approach and attitude.

Initiatives Taken to Implement the Clean and Green Campus Policy

- Landscaping with Trees and Plants
- Medicinal Plant Garden.
- Aquaculture in natural water body.
- Biodiversity Register of Flora and Faunas present in the college.
- Ban on Single-Use Plastic
- Observance of Green Thursday to Restrict the Use of Petrol/Diesel Vehicles
- 10 kW Solar Plant in the College
- Use of LED Bulbs/Tubes and Power Efficient Equipments
- Rainwater Harvesting
- Emphasis given on Paperless Office and Communication
- Laboratory liquid waste management system through percolation system: -
- Hazardous Chemical Waste Management
- Sensor based water Management
- E-waste Management
- Display Boards to Promote Environmental Sensibility on College Campus
- Installation of Incinerator in the Girls' Common Room
- The Green, Environmental and Energy Audit
- Divyangian friendly college campus.
- A group of students dedicated to function of overseer to reduce the classroom electricity wastage

- The NSS unit and the NCC unit conduct clean and green campus on the campus every Sunday and observe cleanliness of the campus.

Whether green audit is followed annually, if so, please produce the year-wise recommendations of the Auditor along with report (as enlisted in: Annexure):

The college implemented the Green Policy for the first time under the aegis of “CEE Club” in the year 2014.

On 07.01.2020 under the supervision of IQAC Gushkara Mahavidyalaya, CEE (Club of Ecology And Environment) was directed to form a **Green Audit Committee** within 07.02.2020. Unfortunately, because of COVID-19 pandemic outbreak, it has been delayed.

The green audit process was carried out during 2022- 2023. At first, all the secondary data required for the study was collected from various informant sources and concerned departments. A broadreference work and literature review was carried out to clear the idea of green auditing. Different case studies and methodologies were studied, and the following methodology was adopted for the present audit.

The Governing Body of the college asked the Principal to make a ‘Green Audit team’ for green audit. During a IQAC meeting dated 07.01.2020, IQAC Coordinator and Principal authorized the “CEE Club” to find and conduct the green audit process. Therefore, our green audit process was started on 07.02.2020 but due to COVID-19 situation, it has been deferred.

1.4.2 Has College constituted the “College Environmental Committee”:

The earlier “CEE (Club of Ecology and Environment) Committee” has been renamed as “Green Audit Committee” as per guideline of the NAAC.

Name of the “College Environmental Committee”members:

Same members of Green audit Committee members.

Number of meetings conducted so far:

Meetings were held on basis of performing green audit of our college. Several aspects like identifying Significant areas, viz., Water Management, Solid Waste management, Energy Audit, Observed Biodiversity and some other related issues were discussed in detail in these meetings.

GUSHKARA MAHAVIDYALAYA
GUSKARA: PURBA BARDHAMAN: 713 128
Phone No. 03452 255 105 Date: 01.02.2023

Notice

A meeting of Green Audit Committee will be held on 7th February 2023, Tuesday, at 2:30 pm in the Principal's chamber to discuss the following issues:

1. Regarding the overall cleanliness of college campus & Eco-Club monitoring.
2. Regarding adjacent village survey.
3. Complete banning of plastics (>120 micron) within the college.
4. Miscellaneous.

All the members are requested to be present in this meeting.

Dr. Sabina Begum
Teacher in Charge
Gushkara Mahavidyalaya
Gushkara, Purba Bardhaman

Dr. Sunanda Mondal & Dr. Kanika Saha
Jt. Convener, Green Audit Committee, GM

Members:

1. Dr. Madhumita Bhattacharya (IQAC Coordinator)
2. Dr. Sukalyan Chanda (Teachers' Council Secretary)
3. Dr. Bhola Nath Sarkar (Associate Professor of Chemistry) Member, GM
4. Dr. Biswajit Mitra, (Associate Professor of Geography) Member, GM
5. Mr. Ranjan Paul (Assistant Professor of Botany) Member, GM
6. Dr. Sukhendu Roy (Assistant Professor of Zoology) Member, GM
7. Dr. Saurabh Sarkar (Assistant Professor of Zoology) Member, GM
8. Dr. Pialek Roy (Assistant Professor of Chemistry) Member, GM
9. Miss. Poulomi Roy (SACT of Zoology) Member, GM
10. Mr. Bausdeb Mukherjee, (NTS), Member, GM
11. Mr. Brojendra Nath Adhikari (NTS), Member, GM
12. Representative of Students, Member, GM

7.02.2023

Members present:

1. Begum
2. Chanda
3. Sarkar
4. Mitra
5. Paul
6. Roy
7. Sarkar
8. Roy
9. Poulomi
10. Bausdeb
11. Brojendra
12. Mahattacharya

GUSHKARA MAHAVIDYALAYA
GUSKARA: PURBA BARDHAMAN: 713 128
Phone No. 03452 255 105 Date: 07.02.2023

Resolutions:

1. Committee members express their full support to the activities of the Eco-Club regarding overall cleanliness and request the club to chalk out plan for different eco-friendly awareness programme in the College.
2. Eco-club is requested to take initiatives in socio-economic survey of the villages adjacent to the college.
3. Committee resolve to start a joint venture along with College NSS Group to host awareness programme, rally etc. in complete banning of plastics below 120 micron thickness.

As there is no other item to be discussed so meeting is ended with thanks from and to the Chair.

GUSHKARA MAHAVIDYALAYA
GUSKARA: PURBA BARDHAMAN: 713 128
Phone No. 03452 255 105 Date: 23.06.2023

Notice

A meeting of Green Audit Committee will be held on 26th June 2023, Monday, at 1:30 pm in the Principal's chamber to discuss the following issues:

- i. Regarding the preparation for green budget.
- ii. Regarding e-Waste Management.
- iii. Miscellaneous

All the members are requested to be present in this meeting.

Dr. Sudip Chatterjee
Principal
Gushkara Mahavidyalaya
Gushkara, Purba Bardhaman

Dr. Sunanda Mondal & Dr. Kanika Saha
Jt. Convener, Green Audit Committee, GM

Members:

1. Dr. Sabina Begum (IQAC Coordinator)
2. Dr. Sukalyan Chanda (Teachers' Council Secretary)
3. Dr. Bhola Nath Sarkar (Associate Professor of Chemistry) Member, GM
4. Dr. Biswajit Mitra, (Associate Professor of Geography) Member, GM
5. Mr. Ranjan Paul (Assistant Professor of Botany) Member, GM
6. Dr. Sukhendu Roy (Assistant Professor of Zoology) Member, GM
7. Dr. Saurabh Sarkar (Assistant Professor of Zoology) Member, GM
8. Dr. Pialek Roy (Assistant Professor of Chemistry) Member, GM
9. Miss. Poulomi Roy (SACT of Zoology) Member, GM
10. Mr. Bausdeb Mukherjee, (NTS), Member, GM
11. Mr. Brojendra Nath Adhikari (NTS), Member, GM
12. Representative of Students, Member, GM

26.06.2023

Members present:

1. Begum
2. Chanda
3. Sarkar
4. Mitra
5. Paul
6. Roy
7. Sarkar
8. Roy
9. Poulomi
10. Bausdeb
11. Brojendra
12. Adhikari

GUSHKARA MAHAVIDYALAYA
GUSKARA: PURBA BARDHAMAN: 713 128
Phone No. 03452 255 105 Date: 26.06.2023

Resolution:-

1. Considering the ensuing NAAC visit to the College, the members of the Green Audit Committee resolved to initiate Green Budget with immediate effect. Committee requests Dr. Sunanda Mondal to make a core team for the Budget.
2. Regarding e-Waste, committee members agreed to make an annual appraisal for the quantity of e-waste product in our college, also resolved to organize awareness programmes about the reuse and proper disposal of the e-waste to minimize the hazards.
3. Committee members cordially acknowledge the College NSS group for their cooperation extended to the Green Audit Committee in overall cleaning of the College Campus.

As there is no other item to be discussed so meeting is ended with thanks from and to the Chair.

GUSHKARA MAHAVIDYALAYA
GUSKARA: PURBA BARDHAMAN: 713 128
Phone No. 03452-255105
E-mail: gushkaramah@rediffmail.com Date: 02.09.2023

Notice

An urgent meeting of Green Audit Committee will be held today on 2nd September 2023, Saturday, at 02:30 pm in the Principal's chamber to discuss the following issues:

- i. Preparation for green audit report
- ii. Miscellaneous

All the members are requested to be present in this meeting.

Dr. Sudip Chatterjee
Principal
Gushkara Mahavidyalaya

Dr. Sunanda Mondal & Dr. Kanika Saha
Jt. Convener, Green Audit Committee
Gushkara Mahavidyalaya

Members:

1. Dr. Sabina Begum (IQAC coordinator)
2. Dr. Sukalyan Chanda (Teachers' Council Secretary)
3. Dr. Bhola Nath Sarkar (Associate Professor of Chemistry) Member, GM
4. Dr. Biswajit Mitra, (Associate Professor of Geography) Member, GM
5. Mr. Ranjan Paul (Assistant Professor of Botany) Member, GM
6. Dr. Sukhendu Roy (Assistant Professor of Zoology) Member, GM
7. Dr. Saurabh Sarkar (Assistant Professor of Zoology) Member, GM
8. Dr. Pialek Roy (Assistant Professor of Chemistry) Member, GM
9. Miss. Poulomi Roy (SACT of Zoology) Member, GM
10. Mr. Bausdeb Mukherjee (NTS), Gushkara Mahavidyalaya, GM
11. Brojendra Nath Adhikari (NTS), Gushkara Mahavidyalaya, GM
12. Representative of Students, Gushkara Mahavidyalaya, GM

02/09/2023
02:30 pm

Meeting regarding Green Audit

Members present:

1. Begum
2. Chanda
3. Sarkar
4. Mitra
5. Paul
6. Roy
7. Sarkar
8. Roy
9. Poulomi
10. Bausdeb
11. Brojendra
12. Adhikari

GUSHKARA MAHAVIDYALAYA
GUSKARA: BURDWAN: 713 128
Phone No. 03452 255 105 Date: 02.09.2023

Resolution:-

The meeting started with the Principal Dr. Sudip Chatterjee on chair.

1. At the onset of meeting all the members express their gratitude to the Principal Sir and IQAC Coordinator for the Seminar conducted on Academic and Green Audit in our College on 22.07.2023. Principal Sir proclaims that the date of our Green Audit is fixed on 16.09.2023. After making full review of our progress a few points are raised, regarding the generation of solar energy which are automatically channeled to the WBSE power grid are not clear from electric bill of our College, so it is to be cleared up from electricity supply office of Guskara. Mr. Sanjoy Pal is requested to do the job. Regarding the collection of solid waste from different laboratory it is decided in the meeting to dig Pit behind basket ball ground. Here also to be mentioned that College always conscious about the use of bio friendly products for its day to day work and recommend on the use of bio pesticides and bio fertilizers for its own gardening and bio organic cleansing materials for its overall cleaning.

As there is no other item to be discussed so meeting is ended with thanks from and to the Chair.

GUSHKARA MAHAVIDYALAYA
GUSKARA: BURDWAN: 713 128
Phone No. 03452 255 105
Date: 07.09.2023

Notice

A meeting of Green Audit Committee will be held on 9th September 2023, Saturday, at 12:15 pm in the Principal's chamber to discuss the following issues:

- Preparation for green audit report
- Miscellaneous

All the members are requested to be present in this meeting.

Dr. Sudip Chatterjee
Principal
Gushkara Mahavidyalaya
Burdwan, West Bengal

Dr. Sunanda Mondal & Dr. Kanika Saha
Jt. Convener, Green Audit Committee, GM

- Members:
- Dr. Sabina Begum (IQAC coordinator)
 - Dr. Sakalyan Chanda (Teachers' Council Secretary)
 - Dr. Bhola Nath Sarkar (Associate Professor of Chemistry) Member, GM
 - Dr. Biswajit Mitra, (Associate Professor of Geography) Member, GM
 - Mr. Ranjan Paul (Assistant Professor of Botany) Member, GM
 - Dr. Sukhendu Roy (Assistant Professor of Zoology) Member, GM
 - Dr. Sourav Sarkar (Assistant Professor of Zoology) Member, GM
 - Dr. Pooles Roy (Assistant Professor of Chemistry) Member, GM
 - Miss. Poulomi Roy (SACT of Zoology) Member, GM
 - Basudeb Mukherjee (NITS, Gushkara Mahavidyalaya), GM
 - Brijendra Nath Adhikari (NITS, Gushkara Mahavidyalaya), GM
 - Secretary (Student Union) Gushkara Mahavidyalaya, GM

Members Present

1. *S. Begum*
2. *S. Chanda*
3. *S. Sarkar*
4. *M. Mitra*
5. *R. Paul*
6. *S. Roy*
7. *S. Sarkar*
8. *P. Roy*
9. *M. Roy*
10. *B. Mukherjee*
11. *B. Adhikari*
12. *S. Maji*

09.09.2023



GUSHKARA MAHAVIDYALAYA
GUSKARA: BURDWAN: 713 128
Phone No. 03452 255 105

Date: 09.09.2023

Resolution:-

- The meeting started with the Principal Dr. Sudip Chatterjee on chair.
- At the beginning of meeting all the members express their readiness to face the green audit team in our college. Dr. Sunanda Mondal and Dr. Kanika Saha briefed the committee about the progress of ensuing Green Audit. Both of them show a power point presentation of the whole course of action. Few points rose regarding the management of e-waste of our college, Dr. Sourav Sarkar requests to take initiatives regarding the issue. Besides, a little shortfall appears before the committee regarding the preparedness towards Physically Challenged students and staff of our college (although none of our staff is of that category now). Committee resolved to give special emphasis regarding this issue with immediate effect.
 - In Misc. Item both of our Joint Convener demand whole hearted co-operation from all the committee members and solicit their best performance to the upcoming green audit.
As there is no other item to be discussed so meeting is ended with thanks from and to the Chair.

Sudip Chatterjee
Principal
09/09/23

GUSHKARA MAHAVIDYALAYA
GUSKARA: PURBA BARDHAMAN: 713 128
Phone No. 03452 255 105
Date: 12.09.2023

Notice

A meeting of Green Audit Committee will be held on 15th September, 2023, Friday, at 12:15 pm in the Principal's chamber to discuss the following issues:

- Final discussion on green audit report submission.
- Discussion regarding submission of supporting documents through digital mode.
- Misc.

All the members are requested to be present in this meeting.

Dr. Sudip Chatterjee
Principal
Gushkara Mahavidyalaya
Burdwan, West Bengal

Dr. Sunanda Mondal & Dr. Kanika Saha
Jt. Convener, Green Audit Committee, GM

- Members:
- Dr. Sabina Begum (IQAC Coordinator)
 - Dr. Sakalyan Chanda (Teachers' Council Secretary)
 - Dr. Bhola Nath Sarkar (Associate Professor of Chemistry) Member, GM
 - Dr. Biswajit Mitra, (Associate Professor of Geography) Member, GM
 - Mr. Ranjan Paul (Assistant Professor of Botany) Member, GM
 - Dr. Sukhendu Roy (Assistant Professor of Zoology) Member, GM
 - Dr. Sourabh Sarkar (Assistant Professor of Zoology) Member, GM
 - Dr. Pooles Roy (Assistant Professor of Chemistry) Member, GM
 - Miss. Poulomi Roy (SACT of Zoology) Member, GM
 - Mr. Basudeb Mukherjee (NITS), Member, GM
 - Mr. Brijendra Nath Adhikari (NITS), Member, GM
 - Students representative, Member, GM

GUSHKARA MAHAVIDYALAYA

P.O. Guskara, Dist. Purba Bardhaman, West Bengal - 713128
Ph. 03452-255105, Website: gushkaramahavidyalaya.ac.in
E-mail: gushkaramahavidyalaya@gmail.com, office@gushkaramahavidyalaya.ac.in
ISO - 9001:2015 and ISO - 14001:2015

Ref. No. _____ Date: 15/09/2023

NOTICE ON GREEN AUDIT

All concerned are hereby informed that in accordance with the NAAC evaluation process the Green Audit for 2020-2023 A.Y will be conducted on 16/09/2023 (12 noon onwards) by duly Auditors from the Registrar, The University of Burdwan viz: Dr. Apurba Ratan Ghosh (P Environmental Science, The University of Burdwan), Dr. Tommay Dasgupta (Professor and HOD, The University of Burdwan) and Dr. G.S. Bandyopadhyay (Principal, Syamsundar College).

In this connection, the following members of the Green Audit team of the college will remain and the allotted classes of the following teachers/members will remain suspended from 11.30 a rest of the day on 16/09/2023 for the said reason.

- Dr. Sunanda Mondal, Associate Professor of Geography, Jt. Convener, Gushkara Mahavidyalaya
- Dr. Kanika Saha, Associate Professor of Chemistry, Jt. Convener, Gushkara Mahavidyalaya
- Dr. Bhola Nath Sarkar, Associate Professor of Chemistry, Member, Gushkara Mahavidyalaya
- Dr. Biswajit Mitra, Associate Professor of Geography, Member, Gushkara Mahavidyalaya
- Mr. Ranjan Paul, Assistant Professor of Botany, Member, Gushkara Mahavidyalaya
- Dr. Sukhendu Roy, Assistant Professor of Zoology, Member, Gushkara Mahavidyalaya
- Dr. Sourabh Sarkar, Assistant Professor of Zoology, Member, Gushkara Mahavidyalaya
- Dr. Pooles Roy, Assistant Professor of Chemistry, Member, Gushkara Mahavidyalaya
- Miss. Poulomi Roy, State aided College teacher of Zoology, Member, Gushkara Mahavidyalaya
- Dr. Sabina Begum (Coordinator of IQAC)
- Dr. Sakalyan Chanda (TCS, Gushkara Mahavidyalaya)



Principal
Gushkara Mahavidyalaya

1.5 ACTION TAKEN BY THE COMMITTEE

- To Encourage student participation:** It was found that student body, which is a solid in-house source, should be tapped for collecting the data and efficiently evaluating them, which will in turn provide a platform for them to come closer to the environment.
- Analysis by Experts:** It was also found that having a professional touch for this activity would mean a lot in terms of providing a strong routing, evaluation and analysis of the data collected, owing to tested methodologies being put to rightful use, making the process an effective one.
- Experts to be Contacted for Continuous Monitoring:** In light of the several meeting and multiple informal collaborations with various organizations, one of the outcomes was to have a formal

collaboration with an external agency which is actively involved in Green Audit Processes. This collaboration would be effective in acquiring better ideas, directions, and support for conducting, evaluating and continuously monitoring the process.

1.6 FUTURE PROGRAMMES OF THE COMMITTEE

Serial No.	Recommendations	Action Taken
1.	Encourage Students Participation	Sensitization of eco-friendly practices planned and promoted amongst students community through in-house and outreach programs.
2.	Analysis by Experts	Reports of various activities and programmes initiated are sent to experts for analysis.
3.	External experts to be contacted for continuous monitoring	Experts are invited to the campus at regular interval for sharing expertise and to evaluate the existing green practices for greater effectiveness.
4.	Enhance use of alternative energy and energy saving devices in the Institution.	Recommendations have been forwarded to management for approval to enhance the use of alternative energy and energy saving devices in the Institution.

1.7 POLICY ENFORCEMENT STRATEGIES

Policies are adopted according to:

- Water (Prevention and Control of Pollution) Act of 1974, amended in 1988
- Water (Prevention and Control of Pollution) Cess Act of 1977, amended in 1991
- Air (Prevention and Control of Pollution) Act of 1981, amended in 1987
- Environment (Protection) Act of 1986 (EPA)
- Fire prevention and fire safety act, 2005

Our college has taken oath to facilitate Divyangian friendly environment within our college campus for comfortable college hours of Divyangian. We have already providing Ramps and other basic facilities to all functional buildings for easy access to their classroom. Personal level human assistance is provided by our dedicated college staff(s) to Divyangians for their movements, informations, reading, scribe etc as required.



Divyangian friendly college campus

1.8 WHETHER COLLEGE HAS CONDUCTED ANY AWARENESS/RESPONSIBILITY PROGRAMME AMONG THE STAFF MEMBERS



Yes, programme was conducted with a few departments. But due to COVID-19 pandemic, we could not complete the programme. We have organized several awareness programmes on the Green Responsibilities in online and offline platform namely, World Environmental Day, Covid vaccination Programme, Aquaculture, Plantation programme etc. by different departments of the College.

The programmes included are as follows:


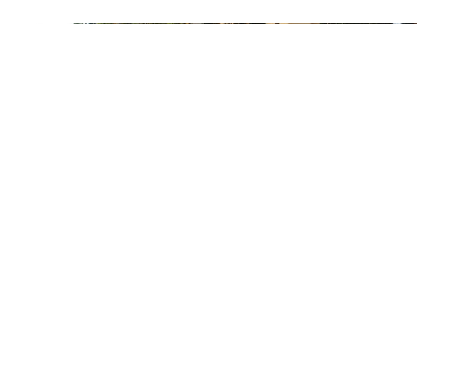

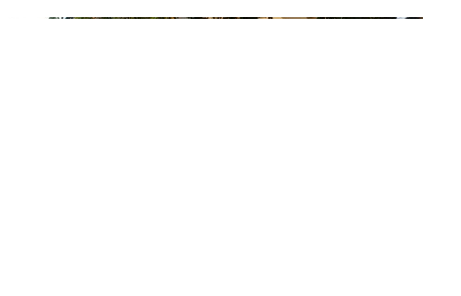
- 🌿 Tree plantation programme **12.08.2022**
- 🌿 Seminar on “ The Empowerment of Women” **12.08.2022**
- 🌿 Dengue Awareness Programme **06.11.2022**
- 🌿 Awareness programme on “প্লাস্টিক বর্জন করুন” **13.11.2022**
- 🌿 Cleaning Campaign at college Campus **20.11.2022**
- 🌿 Cleaning Campaign at college Campus **27.11.2022**
- 🌿 Rally on “Plastic Free Programme” **27.11.2022**
- 🌿 Tree plantation programme **26.03.2023**
- 🌿 Work on Pre Schooling **21.05.2023**
- 🌿 Tree plantation programme **24.05.2023**
- 🌿 Aquaculture in college pond for education, research as well as training **24.07.2023**
- 🌿 Awareness Programme on Various Mosquito borne disease **18.08.2023**
- 🌿 Larvicidal fish Culture Hub under Mosquito Control Programme **18.08.2023**
- 🌿 Wetland Conservation along with Natural Sewage Treatment Initiation **18.08.2023**
- 🌿 Medicinal Plant Garden **02.08.2022**





- Medicinal Plant Garden 12.08.2022
- Medicinal Plant Garden 24.05.2023
- Red Ribbon Club and 06.08.2022
- Seminar on HIV/AIDS 06.08.2022
- Survey on Socio-economic conditions of Tribal women, Role of Municipality on Environment Conservation 30.11.2022
- Aranya Saptaha Celebration 20.07.2023




AWARENESS PROGRAMME ORGANIZED BY THE COLLEGE

Sl.No.	Date	Programme	Organised by the Department	Documentation (If any)
1.	27.11.2022	Cleaning our college campus	Organised by the College and Municipality of Gushkara	 <p>Gushkara, West Bengal, India FPWW+64G, Gushkara, West Bengal 713128, India Lat 23.49637° Long 87.748218° 27/11/22 10:01 AM GMT +05:30</p>
2.	02.08.2022	Tree plantation at our college premises	Organised by the College and Department of Bengali with Botany	
3.	06.08.2022	Rally on N.S.S. and the college students	Organised by NSS and GM	 <p>Bardhaman, West Bengal, India FQJ2+54F, Bardhaman, West Bengal 713128, India Lat 23.496299° Long 87.745556° 06/08/22 10:27 AM</p>

4.	06.08.2022	<p>Red Ribbon Day Celebration and Special Lecture on “World Aids Day” by Mrs. Pratima Banerjee, Awareness of Aids and remedy by Dr. Sukhendu Roy and “Effects of Social Media within young generation” by Prof. Riya Koner.</p>	<p>Organised by NSS and GM</p>	
5.	06.08.2022	<p>Seminar on HIV/AIDS</p>	<p>Organised by the College</p>	
6.	06.08.2022	<p>Speech on ‘Red Ribbon Day’ by Honourable Teacher -in Charge Dr. Sabina Begam</p>	<p>Organised by IQAC and College with NSS</p>	
7.	12.08.2022	<p>Tree plantation at our college premises and Seminar on “ The Empowerment of Women” by Dr. Tamali Neogi</p>	<p>Organised by the College and Department of Bengali with Botany</p>	

8.	06.11.2022	Rally on Dengue Awareness Programme	Organised by NSS	
9.	20.11.2022	Cleaning Campaign at our college premises for SL Camp	The Swachha Bharat Abhiyan	
10.	13.11.2022	“প্লাস্টিকবর্জনকরুন”	Organised by NSS	
11.	20.11.2022	Cleaning Campaign at our college premises for SL Camp	The Swachha Bharat Abhiyan	

12.	26.11.2022	Flag hosting, Garlanding on the picture Swami Vivekananda and the importance of Special Camp by Honourable Teacher-in-Charge Dr. Sabina Begum.	Flag hosting organized by College	
13.	27.11.2022	Rally on “Plastic Free Programme” at Guskara College	College Programme	
14.	29.11.2022	Seminar on “Child Marriage and effects in the Society” by Dr. Papita Dutta.	College Programme	
15.	30.11.2022	Survey on Socio-economic conditions of Tribal women, Role of Municipality on Environment Conservation by Mr. Kusal Mukherjee and Seminar on Cybercrime and its effects by Mrs.	The Special Camp of 5thDay by NSS	

		Nitu Sing and her Team.		
16.	26.03.2023	Tree plantation at our college premeses	National Forestation Programme	
17.	21.05.2023	Work on Pre-schooling	Organised by College with NSS	 Guskhara, West Bengal, India FPVW+JJJ, Guskhara, West Bengal 713128, India Lat 23.494055° Long 87.746641° 21/05/23 09:29 AM GMT +05:30
18.	24.05.2023	Tree plantation at our college premeses	Organised by College	 Burdwan, West Bengal, India FPWW+8WM, Burdwan, West Bengal 713128, India Lat 23.495973° Long 87.746892° 24/05/23 11:42 AM GMT +05:30

19.	20.07.2023	Aranya Saptaha Celebration	Gushkara Mahavidyalaya	
20.	22.07.2023	One day College Level Seminar on Third Cycle Preparation of NAAC	IQAC, Gushkara Mahavidyalaya	
21.	24.07.2023	Natural Habitat Conservation	Dept. of Zoology and CEE Club	
22.	24.07.2023	Aquaculture in college pond for education, research as well as training	Dept.of Zoology	

23.	10.08.2023	Natural Habitat Conservation	Dept of Zoology CEE club	
24.	18.08.2023	Awareness Programme on Various Mosquito borne disease	IQAC.Dept. of Zoology, NSS , ECO Club of GM and Gushkara Municipality	
25.	18.08.2023	Larvicidal fish Culture Hub under Mosquito Control Programme	Dept. of Zoology and CEE Club	

1.8.1 Whether all the departments/teachers/non-teaching members/students are aware about the need of the environmental protection and audit

Yes, all the departments/teachers/non-teaching staff members/students have knowledge and awareness on the need of environmental protection and the audit. A few of them have participated in auditing activities.

1.8.2 Whether college has involved the students as volunteers in greening programmes

Yes, College has involved the students in the form of volunteers of NSS in greening programmes.

1.8.3 Whether construction/demolition/repairing are in compliances with green standard(Certificate from ENGG Dept.)

Yes, we follow the green standards during construction/demolition/repairing works of our college.

1.8.4 Whether college has conducted any workshop/seminar/lecture on environmental awareness programme inside and/or outside the campus

Yes, we have observed the green programme (tree plantation) and many other activities by NSS volunteers in association with the several academic Departments.

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

We have applied for permission to initiate a Department of Environmental Science as per the new syllabus of NEP 2020.

1.8.6 Whether College provides any community services, if so, give details:

Yes, our NSS as well as other students of our different departments perform the community services regularly on every Sunday. Generally, cleaning the local market, gardening, mushroom cultivation, etc. are conducted. More or less maximum number of students participated spontaneously throughout the year. A few activities as:





**NATIONAL SERVICE SCHEME
GUSHKARA MAHAVIDYALAYA
(NAAC Re-accredited 'A' Grade Degree College)
P.O: Gushkara, Dist: PurbaBardhaman
PIN: 713128. Ph: 03452-255105**

Details of Extension Activities of NSS Units I & II (2022-2023)

Sl No	Name of the Activity	Name of the Scheme	Date	No of Volunteer participating in such Activity	No of Teaching and non-teaching Staff participating in such Activity
1	Dengue Awareness Campaigning at Baganpara	National Programme under NHM	10.07.2022	31	3
2	Cleaning our college campus	The Swachha Bharat Abhiyan	31.07.2022	38	4
3	Rally on the awareness of Aids among the people of our society by the volunteers and Seminar on "Child Marriage and its effects on society" by Mrs. Pratima Banerjee and Mrs Soma Tewari both are Supervisor of ICDS.	ICDS Programme	06.08.2022	85	10
5	Adult Education Programme at Majhpukurpar	National Policy of Education-1986.	06.11.2022	27	4
8	Spread Bleaching powder & Literacy Programme at adopted village Baganpara	The Swachha Bharat Abhiyan & National Policy of Education-1986	27.11.2022	64	11
9	Cleaning at BDO premises, Rally on "Plastic Free Programme" at Guskara Town and the importance of "YOGA" by Dr. Manisha Mondal.	The Swachha Bharat Abhiyan	28.11.2022	66	10
11	Survey on Socio-economic conditions of Tribal women adopted village Baganpara, Role of Municipality on Environment Conservation by Mr. Kusal Mukherjee and Seminar on Cybercrime and its effects by Mrs. Nitu Sing and her Team.	The Special Camp of 5 th Day	30.11.2022	62	9
18	Tree plantation at our college premises	National Forestation Programme	26.03.2023	38	6
22	"SAFE DRIVE SAVE LIFE" at Gushaka	The West Bengal Govt. Programme	30.04.2023	35	4

24	Thalassemia Awareness Programme at Majhpukurpar	National Health Mission	14.05.2023	30	2
25	Cleaning our college campus	The Swachha Bharat Abhiyan	21.05.2023	31	3

1.8.7 Whether the students are aware about the use of medicinal plants (any lecture/seminar/conference organized on it):

Yes, students are aware about the medicinal plants. Different types of awareness programmes have been arranged such as lecture, field visits seminar etc.

FIELD VISIT BY DIFFERENT DEPARTMENTS



**DEPARTMENT OF GEOGRAPHY
IN MANAS NATIONAL PARK, ASSAM**



**DEPARTMENT OF ZOOLOGY
IN DOOARS**



**DEPARTMENT OF NUTRITION
IN SIKKIM UNIVERSITY**



**DEPARTMENT OF HISTORY
IN NILKHUTI, AUSHGRAM**



**DEPARTMENT OF BOTANY
IN RATHINDRA KRISHI VIGYAN KENDRA, SRINIKETAN**

1.9 COMMENTS ON THE FOLLOWINGS:

1.9.1 Plantation program:

Yes, we regularly organize the plantation programme.

1.9.2 Formation of Natural club/Eco club:

Yes, since 12/09/2014 our Club of Ecology and Environment (CEE) is operational.

1.9.3 Management of natural resources, wildlife, conservation of species:

Yes, we have conserved species such as medicinally and economically important. We are already maintaining “Natural Habitat Conservation of Birds along with Artificial Bird Nesting” and “Conservation of Natural Wetland with their natural Ecosystem”. Butterfly Conservation Park along with Biodiversity Park programme has been recently initiated.



Certificate for

“Natural Habitat Conservation of Birds along with Artificial Bird Nesting”

1.9.4 Any project sponsored by national funding agency/NGO, independent project related to environmental issues:

We have already submitted a project proposal on “Faunal Diversity in the Campus of Gushkara Mahavidyalaya”.

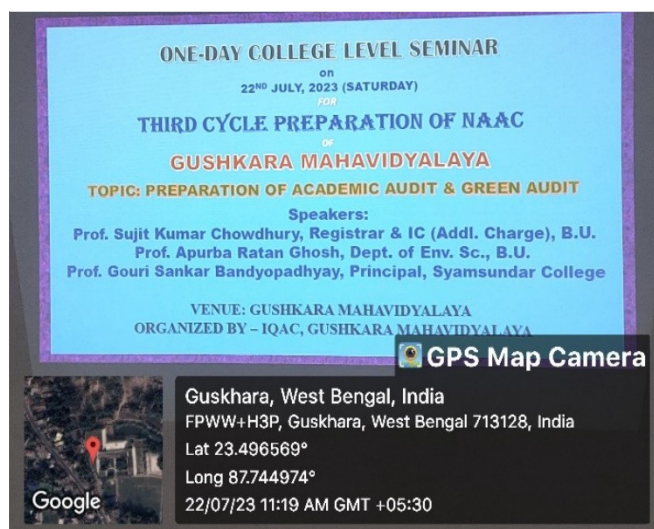
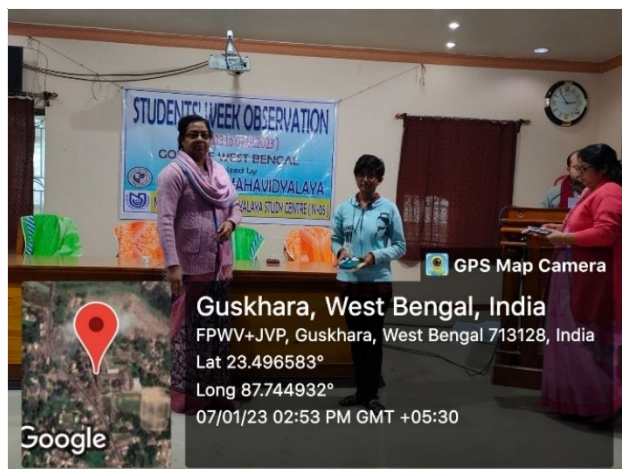
1.9.5 Is there any incidence of burning of plastics containing garbage within the campus?

No

1.9.6 Celebration of 5th June, Ozone day, Earth Day etc.:

Every year college celebrates World Environment Day and Earth Day in the campus. The main focus of these programmes is to provide awareness among the students about the importance of the environment, its conservation and sustainable use of natural resources. The programmes are conducted in the form of seminars, poster presentation, quiz competition, debates etc.

SEMINAR (2022-2023)



**POSTER PRESENTATION ON INTERNATIONAL SEMINER BY DIFFERENT DEPARTMENTS ON
05.03.2023& 06.03.2023**

DEPARTMENT OF ENGLISH DEPARTMENT OF PHILOSOPHY



DEPARTMENT OF PHYSICS

**DEPARTMENT OF BOTANY
AND
DEPARTMENT OF BENGALI**

DEPARTMENT OF CHEMISTRY**DEPARTMENT OF SANSKRIT****1.9.7 Number of field visits/survey records:**

Yes. Most of the Departments like Zoology, Botany, Geography, Nutrition, Chemistry, Bengali, English, Sanskrit, Pol. Science, History etc. organize such field visits each and every year (Records present in their Departmental file.)

2. BIOLOGICAL DIVERSITY AUDIT & BIODIVERSITY REGISTER

Human activities are the main cause of biodiversity loss. Habitat fragmentation, caused by urbanization and agriculture and the overexploitation of resources, leads to the depletion of species. Biodiversity is crucial for the well-being of people and the Earth. Ecological communities maintain the ecological and evolutionary processes that sustain life. These are necessary to help maintain the planet's chemical balance, moderate climate, renew soil, and conserve species diversity. Plant, animals and other species have intrinsic worth. They are also the source of all biological wealth—supplying food, raw materials, medicines, recreational resources, and a store of other goods and services. Biodiversity audit encompasses the assessment of current biotic resources through a set of tools and a biodiversity audit must be able to deliver authoritative advice, on which individuals and organizations can rely in making decisions that affect the future of our community. The rapid biodiversity inventory may include documentation of existing flora and fauna, their current status, threats etc. to formulate biodiversity specific management plan.

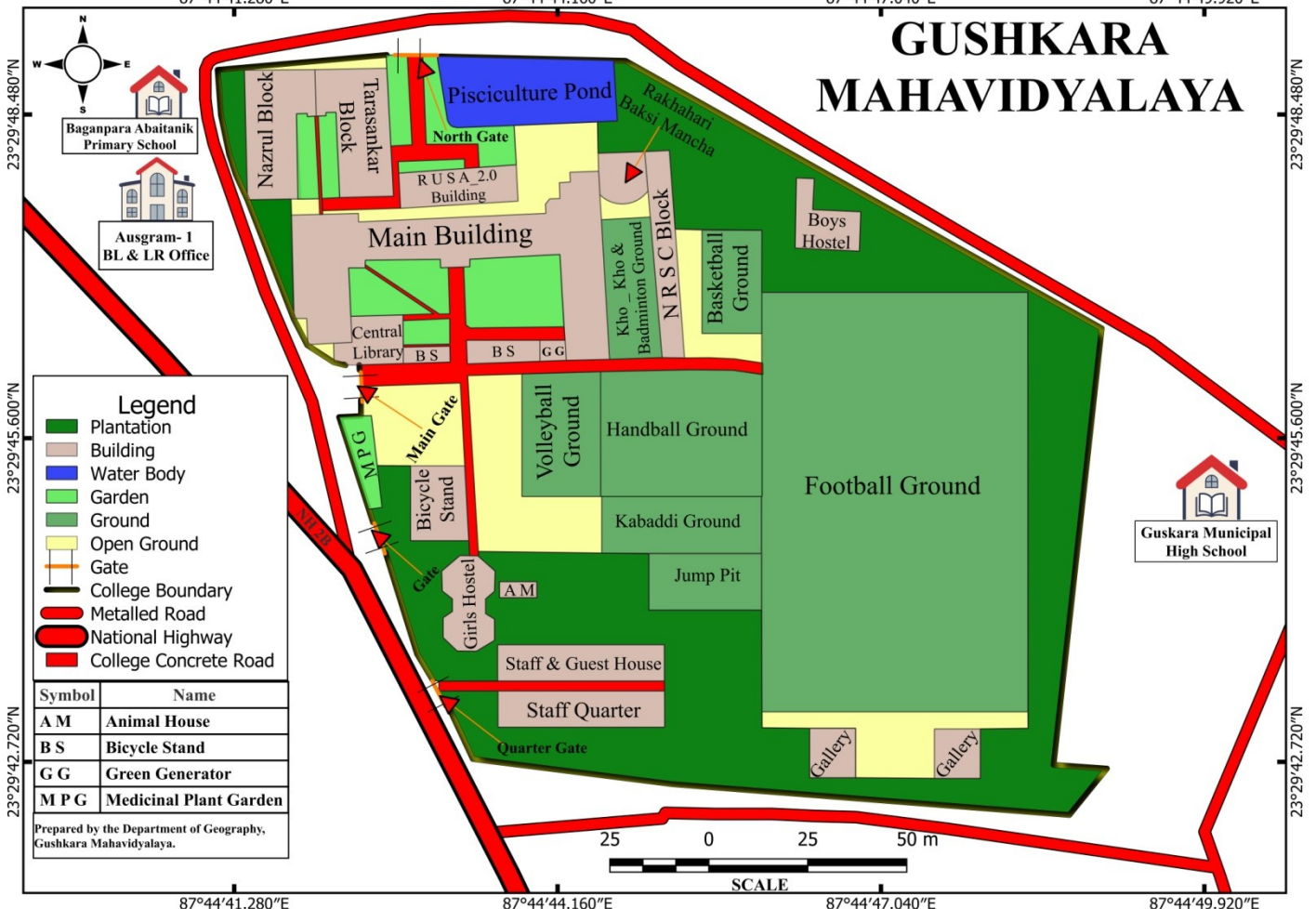
2.1 Importance of the biodiversity audit

- Biodiversity audit may deliver a current understanding of prevailing biotic resources of the surroundings
- Updated information on the flora and fauna diversity
- To identify possible threats and hazards to the existing diversity
- Formulate conservation measures on the existing biotic resources and increase carbon Stocks

2.2 Biodiversity audit of the college

Yes, our college mainly Department of Zoology and Botany follow biodiversity registration system. Biodiversity map is made by our Geography Department.

2.3 BIODIVERSITY MAP



2.4 FAUNAL BIODIVERSITY REGISTER (Maintained by the Department of Zoology)

2.5 FLORAL BIODIVERSITY REGISTER (Maintained by the Department of Botany)

3. WATER MANAGEMENT

Water, a valuable natural national resource and is limited in quantity. Water availability is decreasing as the nation's population grows, and the per capita availability of utilizable water is diminishing. The need for freshwater is increasing day by day as a result of people's rising standards of living, industrialization, and urbanization. The unchecked dumping of industrial effluent into available water bodies is continuously lowering the quality of these abundant sources of water.

A water audit is a qualitative and quantitative review of water consumption to find opportunities for water conservation, reuse, and recycling. A water audit is a strategy or approach for identifying water conservation opportunities by identifying inefficiencies in the water distribution system. Water losses due to various uses in the system or any utility must be measured in order to adopt water conservation measures in such a facility.

3.1 Water Audit

The amount of water consumed on campus for all activities from various water sources is referred to as water audit. Here the water usage was categorized based on their utilities in all academic buildings, on campus, and the grounds. Water that is moved off-campus is referred to as wastewater. Sewerage, residential, hall water used in cooking, showering, and clothes washing, as well as wastewater from chemical and biological laboratories are all examples of wastewater that eventually end up in a sink or drainage system.

3.2 Importance of Water Audit

- When problems are identified, it is easier to work on solutions
- The process is more systematic
- It is possible to implement a tracking system

3.3 Water Audit of the College

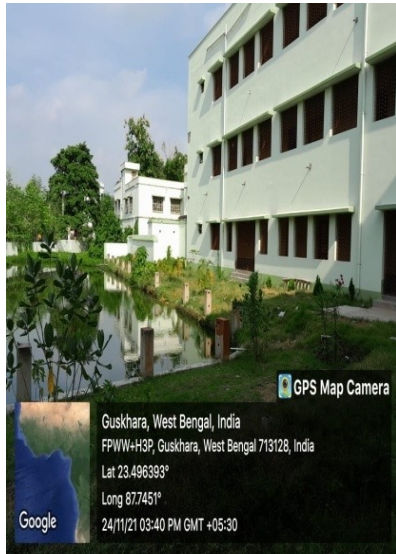
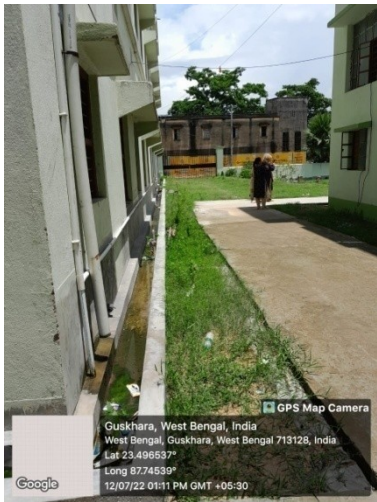
3.3.1 Whether college has an efficient and hygiene water storage mechanism to minimize the loss of water during storage.

Yes, our water storage reservoirs are equipped with sensors for minimize the loss of water.









3.3.2 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, Aqua Guards and/or large water filter with coolers are in working condition, regularly maintained out of college development funds



3.3.3 Whether college has its own mechanism in repairing of water leakage:

Yes, repairing of water leakage and other related faults in water works are maintained from college development fund.

3.3.4 Is there any rainwater harvesting unit in college:

As part of rainwater harvesting, rainwater is collected and used for gardening purposes.

3.3.5 Whether college has developed any reuse and recyclable of water system:

Yes, a small area has been developed to phytoremediation, due to COVID-19 situation which is not maintained properly, however, this will be restored soon.

3.3.6 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, our Green Audit Committee in association with the Environmental Science Department of Shyam Sundar College, Purba Bardhaman, has analyzed the water of hostel, lab, office, tap water. All water qualities are below the permissible limits as per BIS standard.

Reports in July, 2023

Parameters	Dissolved Oxygen (mg/L)	Acidity (mg/L)	Alkalinity (mg/L)	Chloride (mg/L)	Total Hardness (mg/L)	Conductivity (μ S/L)	pH	TDS	Salinity (mg/L)	Total Coliform (cfu/100 mL)
Hostel (Boys)	6.89	22	18	36.7	NIL	104	6.88	78	0.08	NIL
Hostel (Girls)	6.76	21	15	36.1	NIL	101.23	6.84	79	0.044	NIL
Lab (ENVS)	6.78	22	13	30.8	NIL	112	6.23	74	0.034	NIL
Lab (Zoology)	6.87	26	17	31.2	NIL	108	6.73	75	0.055	NIL
Lab (Botany)	6.53	27	18	34.6	NIL	107	6.81	74	0.064	NIL
Lab (Chemistry)	6.89	25	19	31.7	NIL	107	6.78	76	0.055	NIL
Lab (Physics)	6.79	29	17	32.9	NIL	108	6.89	77	0.078	NIL
Lab (Geography)	7.81	27	16	32.8	NIL	106	6.83	72	0.056	NIL
Office	5.68	27	21	34.2	NIL	104	6.61	84	0.089	NIL
Staff room-1	6.09	26	19	32.9	NIL	107	6.54	81	0.087	NIL
Staff room-2	6.37	21	20	31.6	NIL	105	6.34	82	0.067	NIL
Boys' common Room	6.35	22	17	31.4	NIL	104	6.74	74	0.087	NIL
Girls' Common Rooms	6.77	29	18	31.6	NIL	107	7.01	75	0.093	NIL
BIS standard	6-8	200	200	250	200	--	6.5-7.8	500	0	0

3.3.7 Water consumption (lit/day)

Departments/Labs	Average no. of Students	Average practical hours	Water consumption (lit/day)
Chemistry	45-60	Two hours	45-60

Zoology	15-20	Two hours	20-30
Botany	08-10	Two hours	6-8
Geography	25-30	Two hours	12.5-15
All Arts department			17-20
Office (Day)			40-56
Vivekananda Chhatrabas	15-20		150-200
NibeditaChhatrinibas	05-07		50-70
Office (Morning)			20-26
Staff room			100-120
Aqua guards			200-250
Student toilets			270-350
Total consumption			

3.3.8 Whether college has sufficient/adequate drainage system:

Yes, all the departments have sufficient drainage system for water discharging.

4. ELECTRICITY AND ENERGY AUDIT

Energy is one of the foremost inputs for the economic development of all nations. Energy management is aimed to produce goods and provide services with the least cost and least environmental effect. The energy audit is a key to a systematic approach for decision-making in the area of energy management. It attempts to balance the total energy inputs with its use and serves to identify all the energy streams in a facility.

4.1 Importance of the electricity and energy audit

From a general point of view, an energy audit provides enormous benefits in different areas:

- It helps reduce energy costs in your facility.
- With a reduction in production costs, the competitiveness of your company will be improved.
- It helps reduce the dependence on foreign energy sources.
- It helps reduce environmental damage and pollution.
- It can increase the security of your energy supply.
- It can reduce the consumption of natural resources.
- It can reduce damage to the environment associated with the exploitation of resources.
- It helps reduce the impact of greenhouse gas emissions.

4.2 Electricity and energy of the college

Energy sources utilized by all the departments and services of this college include electricity, petroleum vapour (in Chemisry department only) and solar energy. The major use of energy is at office, canteen, hostel and laboratories for lighting, cooking, laboratory and construction works. The energy consumption was calculated by employing standard method.

Total Electric Consumption Amount.....42,225 kW/yr

Average Electrical Consumption in a Month... 3,500 kW/yr

Total Requirement of Energy

Table: Requirement of power consumption in a month

Electrical Appliances/ instruments	Number	Power (W.unit)	Total power (W)	Kw	Operation /day	kW/hr	No of days in month (Average)	Total consumption per month (unit)
CFL	50	20	1000	1.0	20	2.6	25	90
Tube Lights	115	40	4600	4.6	50	1.0	25	50.0
LED Bulb	40	9	360	0.36	4	0.036	25	0.9
LED Tube	391	20	7820	7.82	250	5.0	25	125.0
Metal LED	4	100	400	0.4	2	0.2	25	5.0
Projector	20	250	1000	1.0	12	2.0	25	75.0
Speakers	6	250	1500	1.5	1	0.25	25	6.25
Wifi Router	10	20	200	0.2	10	0.2	25	5.0
CCTV Cameras	15	15	225	0.225	15	0.225	25	5.63
Fan	387	100	38700	38.7	275	27.5	25	687.5
Computers	56	120	6720	6.72	30	2.6	25	90.0
Laptops	30	65	1680	1.68	15	0.975	25	24.38
Printers	45	100	4500	4.5	20	1.0	25	50.0
Photocopier	5	930	4650	4.65	2	1.86	25	46.5
Scanner	10	100	1000	1.0	5	0.5	25	11.5
UPS	42	530	22260	21.26	30	15.9	25	397.5
Induction	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Air Conditioner	6	1500	9000	9.0	3	4.5	25	111.5
Refrigerator	9	110	990	0.99	9	0.99	25	24.75
Table Fan	12	100	1200	1.2	7	0.7	25	17.5
Mixer Grinder	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Oven	5	1500			2	2.0	25	75.0
Centrifuge	1	150	150	0.15	1	0.15	25	2.75
Autoclave	2	750	1400	1.4	1	0.75	25	18.75
Pump	4	750	3000	2.0	4	2.0	25	75.0
Laminar Flow	3	150	450	0.45	3	0.45	25	11.25
Exhaust Fan	5	100	500	0.5	2	1.0	25	25.0
Iron Box	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Note Counting Machine	2	100	200	0.2	10	0.2	25	5.0
Color Bulb	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Incubator	2	300	600	0.6	2	0.6	25	15.0
Distillation Unit	2	1000	2000	1.0	1	1.0	25	25.0
Other Lab Instruments								
Water Filter	9	100	900	0.9	7	0.7	25	17.5
Vending Machine	1	1200	1200	1.2	Not working	-	-	-

Total =	3768.32
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4.3 Renewable energy of the College

The college takes some serious initiatives for moving towards the renewable energy sources considering recent carbon emission and climate change. After discussing State Pollution Control Board accordingly, Solar Panels are already installed (dated 04.03.2020) in our college with capacity of 10kW/yr

The total renewable electricity generation can be achieved by using solar panels are given below:

Table. Current status of renewable energy: Our Solar Power Generation Capacity =10kW/y

Power requirement met by renewable energy sources	Total power requirement	Renewable energy source	Renewable energy generated and used	Energy supplied to the grid	Year(Jan-Dec)	Percentage
UNKNOWN	11507kW/yr	SOLAR	259 kW/yr	UNKNOWN	2020-21	1.25%
UNKNOWN	18209kW/yr	SOLAR	6767.2 kW/yr	UNKNOWN	2021-22	37.16%
UNKNOWN	32,751kW/yr	SOLAR	2939.8 kW/yr	UNKNOWN	2022-23	9%%

Enlisted in: ANNEXURE-I

4.4 Other information about energy conservation

4.4.1 Whether college has any provision/choice of renewable and carbon-neutral electricity options:

Yes, college has initiated to use renewable energy sources, like solar power.

4.4.2 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, the staff members of all sectors and our students are concerned about turning off the electrical appliances when not in use in both academic and residential areas. In all the cases, after use, power is switched off carefully.

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

Yes, Miniature Circuit Breakers (MCBs), a specialized electronic switch, is fitted in every floor that leads to avoid short-circuit and power saving. Planning is going on to establish sensor systems with electric line which put off the lights and fans automatically when there is no person in the room. Students are entrusted to do this job after their class hours.

4.4.4 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, electrical assistants are employed to follow all electrical gadgets to measure their performance.3

4.4.5 Is there any options for equipment's running on standby mode:

Yes, modern electronic gadgets have automatic standby mode, which leads power saving (e.g., computer, WiFi router, etc.).

4.4.6 Whether college has taken initiative to purchase efficient and environmentally electrical appliances in order to fulfill the green budget:

Yes, all new electrical equipments are purchased with high electrical efficiency, with BEE Certifications.

As far as practicable we use

- LED bulbs & LED tubes
- Solar panels
- Low wattage electrical items like fans, bulbs etc.



INSTALATION OF SOLAR SYSTEM

SOLAR PANEL



USE OF LED TUBES IN THE EXAMINATION HALL SOLAR PANEL



ENTRY OF SUFFICIENT DAY LIGHT USE OF LED TUBE IN THE EXAMINATION HALL

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

Yes, Miniature Circuit Breakers (MCBs), a specialized electronic switch, is fitted in every floor that leads to avoid short-circuit and power saving. When a electrical fault or short circuit occurs, the entire circuit under this MCB is shut down. Our college has own electrical staff, who repair as early as possible.

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

Yes, all class rooms are having sufficient illumination in day time and constructed with sufficient ventilation. Number of lights & fans in class room (average): 5 LED tubes, and 5 fans. Use of light & fans in the day time (average hours): 5-6 hours. Number of windows per class: 3-4, number of windows depends on room size and overall room set up. Natural light source in day time (in hours) (average per class): Generally, classes are held in natural day light, during cloudy days electrical bulbs/ tube lights are used.



CLASSES TAKEN IN NATURAL LIGHT AND ATMOSPHERE

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

Approximately, 75% notice are given by e-governance for academic/administrative purposes in a month.



গুসকরা মহাবিদ্যালয়

Affiliated to The University of Burdwan
Gushkara * Purba Bardhaman



Home Administration ▾ Departments ▾ Admission ▾ Student's Desk ▾ Academic ▾ Student's Activities ▾ Facilities ▾ NAAC ▾ Gallery

Contact Us

Notice Board

1	Notice for class suspend on 09.09.2023 and 11.09.2023 NEW	08/09/2023	↓
2	Routine for AEC (L-1 MIL) Bengali of 1st Sem 2023-24 NEW	07/09/2023	↓
3	B. Sc. Sem VI marksheet 2023 NEW	07/09/2023	↓
4	Examination Centre for Sem-IV Exam. 2023 NEW	05/09/2023	↓
5	Sem-IV B.Sc. Gen. Admit Card 2023 NEW	05/09/2023	↓
6	Sem-IV B.Com Hons. Admit Card 2023 NEW	05/09/2023	↓
7	Sem-IV B.A. Hons. Admit Card 2023	05/09/2023	↓



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

Approximately, 25% notices are issued in papers for academic/administrative purposes in a month.

4.4.11 Total number of computers, printer, Laptop, Xerox machine

Name of the Equipments	Number
Computer	56
Printer	45
Laptop	30
Xerox machine	5

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

We have designed and planned a seminar to be occurred in coming days shortly.

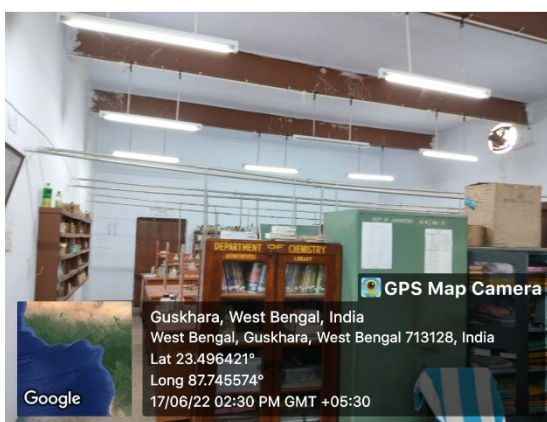
4.5 Energy conservation strategies

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

Yes, windows and doors are set up at 5-6 ft. distance that allows entry of sufficient day light. Windows are of 60 ft² and this leads to passage of natural air and light leading to minimization of electricity consumption.

b) Whether fluorescent bulbs are replaced with CFL bulbs/LEDs:

Yes, fluorescent tubes have been replaced by LED bulbs. Almost all the bulbs are replaced with CFL bulbs and LED tubes.



4.6 Future Planning

- i. Moving more towards solar and other non-conventional energy can reduce burden on heavy electric energy consumption.
- ii. Reduce streetlight and other areas where lighting is not required at all times. Installing sensor-based lighting system can be introduced to sustainably manage the electrical resources.
- iii. Streetlight and other lights in hostel buildings can be converted into solar-panel based lighting system.
- iv. Old laboratory equipment and other power consume old technology can be replaced by energy savings

system and green technology.

v. Planning workshops on energy conservation to educate students, faculty and Staff .

vi. Students, faculty and staff should unplug overhead projectors, computers, and other electrical appliances when not in use. This simple way to conserve energy can help save a large amount of power and money in the long run.

5. Waste Management Report

Wastes are unused byproducts that can be formed through different activities in our daily life. Waste is a significant global issue. Increasing volumes of waste are being generated as the global population and living standards rise. The environmental impact is significant, with massive volumes of waste generated annually with only basic or little treatment to minimize its impact. Wastes may be classified into different categories depending on their source, structure, adverse effect etc. In the educational institute different kinds of wastes like are E-waste, plastic wastes, chemical waste, solid wastes, liquid wastes, biodegradable wastes etc are produced which are intended to be disposed of or are required to be disposed of. A waste management audit is a total and clear representation for identifying all waste streams that an agency is responsible for producing, or for managing on behalf of others. The type and amount of waste generated by an institute is explained by a waste management audit. Waste management audit can evoke current waste performance and offers potential missing controls and improvements that could be made to the systems in place through scientific and sustainable approaches. The type and amount of waste generated by an institute are explained by a waste management audit.

5.1 Importance of Waste Management Audit

- Deterioration of environmental status can be occurred due to the unavailability of proper waste management practices.
 - A waste management audit helps one educational institute to be better prepared to efficiently and responsibly dispose of the waste that it generates every day.
 - By designing a more efficient waste disposal program through a waste audit, we can enhance recycling practices.
 - Improved resource efficiency
 - Improved environmental performance

5.2 Waste Management Audit of the College

5.2.1 Solid Waste

The college has taken several initiatives to reduce the adverse effects of waste. All the teaching and non-teaching staff and students are encouraged to maintain proper waste management habits. The college has constructed 2 Pits and marked as biodegradable and non-biodegradable trashes. The collected wastes of the college are disposed of accordingly in these pits. In the different corners of the campus, the college has arranged to put adequate numbers of trash bin from where biodegradable and non-biodegradable wastes are collected separately. All the accumulated wastes are finally collected and disposed of at the municipality vats, located near the college canteen. All the accumulated wastes are transferred to the municipality vats time to time.

5.2.2 Liquid waste

To collect the chemical solutions from different science laboratories, the college has constructed an underground safety tank of area. The other liquid wastes from bathrooms and basins are also disposed in the tank. All the accumulated liquid wastes are transferred to the municipality vats time to time.

Municipality Certificate and MOU with local Municipality is attached .



GUSHKARA MAHAVIDYALAYA

P.O.: Gushkara, Dist.: Purba Bardhaman, Pin - 713128 (W.B.)

E-mail : guskaramahavidyalaya@gmail.com

Phone : 03452 - 255 105
Fax : 03452 - 257 635

Ref. No.

Date

**Renewed Memorandum of Understanding
BETWEEN
GUSKARA MUNICIPALITY
GUSHKARA, PURBA BARDHAMAN - 713128
&
GUSHKARA MAHAVIDYALAYA,
DIST. PURBA BURDWAN, PIN 713128**

GUSKARA MUNICIPALITY, GUSHKARA, PURBA BARDHAMAN - 713128 and GUSHKARA MAHAVIDYALAYA, DIST. PURBA BURDWAN, PIN- 713128 entered into this agreement to facilitate collaboration in connection with the collection of Solid, Liquid, and Hazardous as well as Biological/Biomedical waste and similar other issues from the college and in return to facilitate the use of college ground for organizing different sports and social events as far as practicable.

The general purpose of this MOU is to facilitate collaboration in connection with the collection of Solid, Liquid, and Hazardous as well as Biological/Biomedical waste and similar other issues from the college and in return to facilitate the use of college ground for organizing different sports and social events as far as practicable.

This renewed MoU will be considered as a continuation of an earlier agreement between two parties, in existence for at least the last five years.

All stakeholders of the institution and adjoining locality will greatly benefit either directly or indirectly through this agreement as it will have a greater impact on the overall academic, social, and ethnic environment of the locality as a whole along with the institution.


It will remain valid till any of the parties chooses to withdraw from the linkage.

Any notice or other communication under this MOU shall be given in writing and delivered by hand, sent by post, facsimiled transmission, or e-mail.

This MOU constitutes the agreement in principle to proceed and work out more detailed modalities to operationalize the same between the parties. No amendments consent or waiver of terms of this MOU shall bind either party unless in writing and signed by both parties.

Signed on behalf of

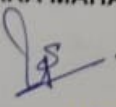
GUSKARA MUNICIPALITY


Chairman
Gushkara Municipality
Date: 22-05-2023



Signed on behalf of

GUSHKARA MAHAVIDYALAYA, DIST.- PURBA BURDWAN


Principal
Gushkara Mahavidyalaya
Date: 22/05/23



For the last few years, college is following zero organic waste protocol throughout the campus. The food waste generated by the students and staffs are taken by them to their own home, so that minimum waste is generated inside the campus. In addition, the organic waste generated in the hostel is reused. Vegetable wastes and other leaf litters are used to feed in the compost pit and the resulting compost is used as manure in the garden. The chemicals from the laboratories are disposed in a sealed tank along with water, so that the chemicals undergo neutralization with the water.

5.2.3 Is there any method of segregation of waste materials?

Yes, we are following the waste management guidelines of Central Pollution Control Board. We are tried to segregate the wastes by making use of different trash bins namely biodegradable, non- biodegradable, liquid waste etc.

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

Approximately, on an average 5-8 kg of solid wastes including tree dropping and lawn wastes are generated in a normal working day.

5.2.5 Whether college arrange any workshop/seminar/conference for awareness the students/staff for specific arrangements for recyclable wastes:

Yes, our Science Department has arranged the workshops for waste recycles, and students are involved to propagate the knowledge to other non-aware students (By Model presentation, Poster presentation in Science Fare, In Laboratory day celebration in many other programme in our college).

5.2.6 Whether college follow specific disposal method for solid or liquid waste in specific manner:

In fact, the wastes generated by college are directly taken and disposed of by local municipality.

5.2.7 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.

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

Yes,

5.2.9 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, phytoremediation is taken to liquid waste management. A programme on Wetland Conservation along with Natural Sewage Treatment has been initiated recently.

5.2.10 Minimize use of chemical pollutants

Sl No.	Department	Name of the waste			Total (a+b+c) (kg/month)	Characterization (if any)	Method of disposal	Agency if any
		Chemical (a)	Biological waste (b)	Microbial waste (c)				
1	Chemistry	Laboratory waste, cleaner	N.A	N.A	4.36	N.A	Given table	N.A
1.	Zoology	Laboratory waste, cleaner	Practical waste	Practical waste	1.33	N.A	Given table	N.A
2.	Physics	Laboratory waste, cleaner	N.A	N.A	0.34	N.A	Given table	N.A
4.	Botany	Laboratory waste, cleaner	Practical waste	Practical waste	1.12	N.A	Given table	N.A
6.	Mathematics	Cleaner chemical	N.A	N.A	0.3	N.A	Given table	N.A
7.	Geography	Laboratory waste, cleaner	N.A	N.A	0.75	N.A	Given table	N.A
8.	Arts	Bathroom cleaner	N.A	N.A	1.23	N.A	Given table	N.A
9.	Commerce	Bathroom cleaner	N.A	N.A	0.77	N.A	Given table	N.A
10.	Office and staff room	Bathroom cleaner	N.A	N.A	0.34	N.A	Given table	N.A

Table: Different types of waste generated in the college and their disposal

Type of Waste	Particulars	Direct method
E-Waste	Computers, electrical and electronic parts	Direct selling, Exchanging with new model
Plastics waste	Pen, refill, Plastics water bottles and other plastic containers, wrappers etc.	Direct selling
Solid waste	Damaged furniture, paper waste, paper plastics, food wastes	Reuse after maintenance energy conversion
Chemical Wastes	Laboratory waste	Neutralize with water
	Solid	Wastes are collected from Labs and separated in trash bin on the basis of bio-degradability and finally collected by the local

		municipality. Broken glass wares are sold out periodically.
	Liquid	Liquid wastes are neutralized with water and collected in a pit
	Hazardous Chemical Material	Regarding hazardous chemical materials, chemistry department follows the following steps- <ul style="list-style-type: none"> • Initiates the greener approach mainly semimicro method (i.e. in milligram scale) to the lab experiment. • Use of hazardous chemicals are restricted. Use of radioactive materials are now discarded from the university syllabus. • In situ preparation of H₂S instead of Kipp's apparatus. • Minor treatment of some carcinogenic materials like Cr⁺⁶ by H₂SO₄ Mohr Salt before drainage
Biological Waste	Discarded blood, sharps, unwanted microbiological cultures and stocks, identifiable body parts (including those as a result of amputation), other human or animal tissue, used bandages and dressings, discarded gloves, other medical	Autoclave, and Disinfection then dispose sanitary land filling
Waste water	Washing, Urinals, Bathrooms	Soak pits, phytoremediation
Glass waste	Broken glass wares from labs	Direct selling
Sanitary Napkin/ pad	--	Burning by vending machine.

5.2.11 Records of dustbins/collection bins inside the campus

- Biodegradable – 1 kg/day (Office and class rooms)
- Non-biodegradable – 1.5 kg/day
- Biodegradable – 2 kg/day (labs)
- Non-biodegradable – ½ kg/day (labs)
- Hazardous Chemicals – 112 mg/day (labs)
- E-waste collected – 30-35 kg/year
- Glass waste – 4.6 kg/year
- Dry leaves – 1-2 kg/day

5.2.12 Whether the cleaning products used by the college staff are eco-friendly and under the COSHH (Control of Substances Hazard to Health) regulations:

Yes.

5.2.13 Whether the college is using fertilizers, pesticides for any purposes, if so, amount used per

month and places of uses

Yes

5.2.14E-WASTE MANAGEMENT**a) Quantity of e-waste generated:**

30-35 kg/year

b) Number of cartridges used month-wise:

5 pieces/month

c) Number of cartridges disposed in a year (average):

30 pieces

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

4-5 time refilling and reused methods.

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

Yes. Some awareness programme done by different academic department of the college.

f) Is there any means of disposal of unused computers, printers and electronic wastes through Authorized agents:

We generally exchange the old computers that lower the cost of new ones and helps in recycling process.

6.GREEN AREA MANAGEMENT**6.1 Campus Cleanliness**

We regularly clean the entire campus, wastes are collected, namely, biodegradables e.g., papers, plant parts, canteen wastes etc. and non-biodegradables e.g., plastics, glass items, construction garbage like broken tiles, metal pieces etc.

6.1.2 Is there any garden in the college campus/outside the campus under college custody?

Yes, the college has taken the place of the plantation garden as an "Economically important plantation garden"

6.1.3 Whether the garden is watered by using drip/sprinkler irrigation system:

We have designed and planned to establish drip/sprinkler irrigation system in coming days shortly.

6.1.4 Is there any mechanism of review of periodical monitoring of tree species:

Yes, Botany Department along with Club of Ecology and Environment play active role to review the periodical monitoring of tree species.

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

Yes. Department of Botany along with Club of Ecology and Environment take part actively for different types of plantation programme for this purpose.

6.1.6 Carbon dioxide neutrality on the campus by developing greenery

Carbon Neutrality means annual zero net anthropogenic (human caused or influenced) CO₂ emissions by a certain date. By definition, carbon neutrality means every ton of anthropogenic CO₂ emitted is compensated with an equivalent amount of CO₂ removed. Following points are emphasized:

- **Sustainable Water Management,**
- **Switching to Renewable,**
- **Single use plastic free campus and**
- **Plantation and Sustainability.**

So, we need to share our knowledge with others so that they can learn and also get motivated to make their own campus carbon neutral. The commitment and steady progress can help to maintain everyone's support. The brand of the institution can be improved by achieving progress towards carbon neutral campus.

6.1.7 Man-made nest to attract some birds to maintain ecological balance

Yes. Natural Habitat Conservation of Birds along with Artificial Bird Nesting has been maintained in our institution under the guidance of “CEE Club” and specially trained our Green Audit Team member.

6.1.8 Restriction in use of plastic and plastic products

Yes, we made the college campus plastic free and fixed posters and stickers in different corners of our college.

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

Yes, aquaculture is practiced in the water body (pond) within our college premises, maintained by “Aquaculture Research and Training Unit” under Department of Zoology. “Larvicidal Fish Culture Hub under Mosquito Control Programme” as well as “Wetland Conservation along with Natural Sewage Treatment” has been already maintained under the guidance of “Aquaculture Research and Training Unit” and “Club of Ecology and Environment (CEE)”. These units are initiating culture of some aesthetic and economically important algae like *Azolla* sp a biofertilizer, some plants like Lotus (*Nilumbo nucifera*), Water Lily (*Nymphaea* sp) etc for beautification. The pond is surrounded by medicinal plants garden maintained by Department of Botany. “*Drosophila* Culture” is an ongoing programme in Animal House, Department of Zoology and Culture of ducks as well as swans is our future plan.

Main function of this Unit are:

- Maintain in-campus aquatic ecosystem
- Conserve & Culture aquatic species
- Habitat Conservation
- Green Campus Initiative





6.1.10 Green monitoring by green committee/volunteers/team

Yes, The Club of Ecology and Environment (CEE) is active in our college, they are working to maintain biodiversity, waste management in our college premises.

6.1.11 Training on vermicomposting

We have designed and planned a Hands-on-Training programme to be occurred in coming days shortly.

6.1.12 Celebration of 'No vehicle Day' on a particular day

On first Friday of the month.

6.1.13 Dams inside the campus to meet the demand for water

We do not possess any dams within our campus but we do have pond, ditches and other water bodies.

6.1.14 Installation of fire safety instruments in all the buildings/departments

Yes, fire safety instruments have been installed in all susceptible departments and AMC is also maintained.

6.1.15 Toilets/separate toilets for differently abled students

Yes. The total number of toilets in our college is 44 and there are a number of toilets earmarked for differently abled students.

6.1.16 Over all noise level

Table. Noise level for different sampling area by SLM (data by Dept. of Botany, Zoology and

Chemistry, Gushkara Mahavidyalaya).

Sl.No.	Sampling Area	Day time (8.00 a.m. to 5.00 p.m) Mean (\pm SD)	L90 (dB) Mean (\pm SD)
1.	Class Room 1	45 \pm 5.23	36.25 \pm 5.23
1.	Class Room 2	47 \pm 1.35	37.25 \pm 5.23
2.	Class Room 19	48.56 \pm 7.56	48.78 \pm 2.31
4.	Class Room 26	56.45 \pm 5.45	41.22 \pm 4.15
5.	Office room	66.23 \pm 6.23	47.26 \pm 6.23
6.	Staff room	62.22 \pm 7.45	51.22 \pm 5.21
7.	Library	40.56 \pm 6.63	31.22 \pm 4.57
8.	Chemistry Laboratory	51.25 \pm 6.25	36.22 \pm 2.26
9.	Zoology Laboratory	51.66 \pm 6.56	45.23 \pm 5.91
10.	Botany Laboratory	58.36 \pm 6.53	36.22 \pm 5.76
11.	Playground	70.55 \pm 7.25	56.22 \pm 5.29
11.	Gate (1)	87.23 \pm 6.23	65.89 \pm 5.79
12.	Gate (2)	77.23 \pm 8.29	67.22 \pm 5.19
14.	RUSA Building	45.56 \pm 9.88	36.22 \pm 1.49
15.	Boys Hostel	40.56 \pm 5.69	27.23 \pm 2.54
16.	Cycle and Bike Standing area	40.56 \pm 6.63	31.22 \pm 4.57

6.1.17 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):

No

6.1.18 Minimize the use of unsustainable transport

A large number of students of the locality use bicycle as their mode of transportation. A large number of teachers and staff members also use bicycle, thereby minimizing the vehicular emission.



6.1.19 What are the available/maximum transport facility used by the staff members/students etc., - Mention the number (in average per day):

All faculties, Students and Staff are used personal Car, Bike and Bicycle.

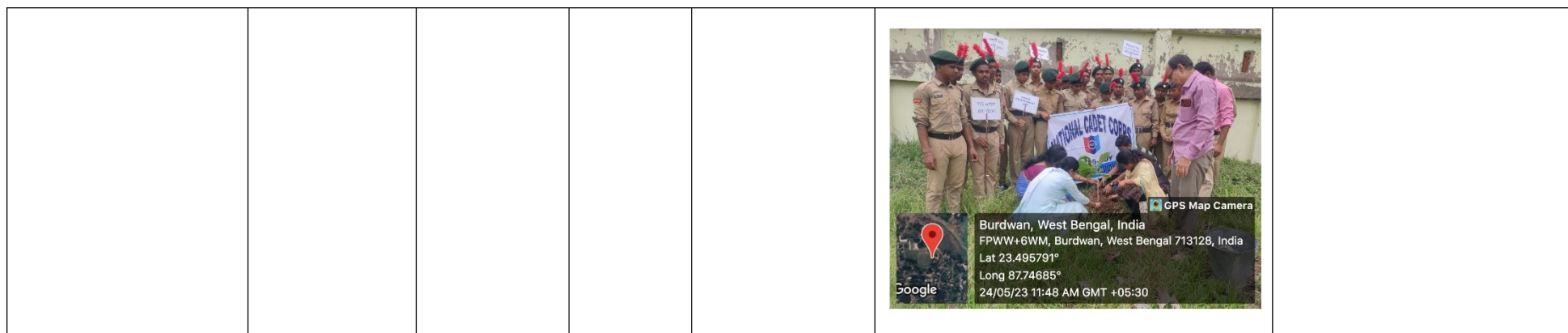
Car	Bike	Bicycle
18	47	154

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

Yes, almost all the students, teachers and nonteaching staff use public transports.

6.2 Plantation Programmes						
Programme	Date of functioning	No. of tree planted	Present status of the species	Programme Conducted by	Documentation (If any)	No. of beneficiaries
Tree plantation Programme	10.07.22	10 10	05 10	IQAC and NSS units IQAC and NSS units		<p>i. To save the endangered environment and to beautify our ambience.</p> <p>ii. To create a sustainable and thriving environment within educational settings.</p> <p>iii. To create cleaner and healthier air for students and staff.</p> <p>iv. To beautify the campus that provides a conducive learning environment.</p>
22 Se Srabon by Department of Bengali	26.07.2022	10	10	Department of Bengali and Department of Botany		

22 Se Srabon by Department of Bengali	26.07.2022	10	10	Department of Bengali and Department of Botany		<p>i. To save the endangered environment and to beautify our ambience.</p> <p>ii. To create a sustainable and thriving environment within educational settings.</p> <p>iii. To create cleaner and healthier air for students and staff.</p>
Plantation Programme	12.08.2022	10	10	IQAC and NSS units		<p>iv. To beautify the campus that provides a conducive learning environment.</p>
Annual Plantation Programme of the College	24.05.2023	15	15	IQAC, NSS and Dept. Of Botany		



6.3 FUTURE PLANNING:

- i. Installation Biogas plant and Compost units
- ii. Increase of Solar panels to generate more electricity
- iii. Installation of rain water harvest methods on roof top and ground.
- iv. Dig sufficient rain water pits in the campus wherever possible and maintain it regularly.
- v. Set up water recycling unit where the recycled water can be used for gardening in college and hostels.
- vi. Grow up vegetable garden and improve medicinal garden and gradually develop it as a nursery.
- vii. Develop a butterfly garden that arouses appreciation towards flora and fauna diversity.
- viii. Layout 'Green Chemistry' that reduces or eliminates the use or generation of hazardous substances in the design, manufacture and application of chemical products.
- ix. Install waste water system for chemistry labs.
- x. Conduct exhibitions for parents and public on environment and sustainable practices.
- xi. Arrange training programmes on environmental management system and nature conservation.
- xii. Establish an E-waste collection centre in campus.
- xiii. Ensure participation of students and teachers in local environmental issues.
- xiv. Renovation of cooking system in the canteen to save gas.
- xv. Establish a purchase policy that is energy saving and eco-friendly.
- xvi. Conduct seminars, workshops and exhibitions on environmental education.
- xvii. Introduce add-on courses eco-friendly income generating to all interested students.

7. OUTCOME OF ACTIVITY BY COMMITTEE

The current assessment tried to capture the overall scenarios on water, wastewater, waste management and biodiversity condition of the Gushkara Mahavidyalaya. Every section provides a precise methodology applied and findings in a systematic manner. Finally, sets of recommendations were provided for each section to improve the prevailing energy and biotic components of the college campus. The college has already taken a series of initiatives to maintain a healthy and green environment on the campus. The situation can be further accelerated by considering suggested recommendations from the study. The major activities, approaches and innovations were undertaken by the college towards transforming a green campus is as follows:

8. INITIATIONS BY THE COLLEGE AS PER PROPOSED OF COMMITTEE

1. The college has introduced rainwater harvesting.
2. The college has introduced more solar Panel as renewable energy sources to compensate electric consumption.
3. The college has replaced all the lamps with LED bulbs for efficient energy savings.
4. The college has introduced municipality advocated color coded waste collecting bins to collect different forms of solid and semi-liquid waste.
5. The college has introduced innovative waste recycling by using empty plastic bottles for plantation of saplings in growing seasons.
6. Construction related wastes effectively utilized for approach road preparation.
7. The college has directed the “Eco Club” by involving enthusiastic students to perform different environmental conservation and awareness related activities.
8. College involved in yearly plantation activities with all classes of participants including students, teachers and other staffs.
9. Promote environment education through different IEC materials like banner, poster, wall magazine etc. to propagate and popularize environment and nature.
10. College maintains a well-documented biodiversity register for resources of fauna and flora diversity.