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Green Audit Report (2018-19) Of

GOUR MAHAVIDYALAYA



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1. Introduction:

The introduction highlights the goals of the green audit and provides an overview of the college's commitment to sustainability. It also describes the scope of the audit. To evaluate the college's environmental impact, sustainability practices, and areas for growth, the Green Audit Report was conducted at GOUR. MAHAVIDYALAYA. This all-encompassing analysis has assessed the college's energy use, waste management, water consumption, transportation options, and general environmental consciousness analysis. The findings and suggestions to strengthen the college's dedication to environmental responsibility and sustainable practices are detailed in this study.

SI No:	Name of the Members	Designation
4	Dr. Ashim Kumar Sericar	Principal
2	Dr. Pulak Kumar kundu	IQAC Coordinator
3	Md. Murshed Alam	NAAC Coordinator
4	Dr. Niranjan Kumar Mridha	Bursar
5	Partho Chakraborty (SDO)	Administrator
6	Arup Roy	Member
7	Syfujjaman Tarafder	Member
8	Dichen Lhamu Sherpa	Member
9	Dipjyoti Singha	Member
10	Sangita Singha	Member
11	Sipendranath Mandal	Non-Teaching Member

Green Audit Working Team (2018-19):

2. The Necessity of a Green Audit:

The need for green audits, also known as environmental audits or sustainability audits, is rising in today's socrety for several reasons

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(a) Effects on the Environment: Green audits help to assess and lessen an organization's harmful environmental impact. They analyse factors such as energy consumption, trash generation, water use, and emissions to find areas that could be improved to decrease environmental harm.

(b) Conformity with Regulations: The environmental regulations and rules established in many countries must be followed by organizations. Green audits help colleges adhere to standards to avoid penalties or other legal implications for non-compliance.

(c) Savings on Expenses: Green audits can identify inefficient practices, providing opportunities for cost savings. By studying energy use, resource consumption, and waste management, businesses can put strategies into practice to reduce operational costs and increase overall efficiency.

(d) Reputation and the Expectations of Stakeholders: Customers and other stakeholders now call organisations to adopt more environmentally friendly practices. Green audits promote trust among customers, employees, investors, and communities by demonstrating an organization's transparency and commitment to sustainability.

(e) Risk Management:Environmental hazards can have serious financial and reputational ramifications for firms, including pollution events, regulatory noncompliance, and supply chain interruptions. By evaluating environmental management systems, ensuring sufficient controls are in place, and putting preventative measures in place to deal with possible problems, green audits assist in identifying and mitigating these risks.

(f) Continuous Improvement: Green audits encourage a continuing commitment to sustainability rather than being one-time events. Organizations can see trends, set goals, and implement improvement initiatives by routinely evaluating and tracking environmental performance. This iterative process promotes a culture of sustainability and propels long-lasting transformation.

(g) Sustainable Development Goals (SDGs): An international framework for solving urgent environmental and social issues is provided by the Sustainable Development Goals. Organizations can better align their operations with these objectives with the aid of green audits, paving the way for a more just and sustainable future. Green audits are essential to evaluate, enhance, and confirm

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environmental performance. They allow companies to control risks, comply with rules, cut costs, improve reputations, and support sustainable development.

3. Methodology for Green Audit:

Audits of an organization's environmental performance and practices are known as "green," "environmental," or "sustainability" audits. They entail assessing the company's influence on the environment, resource usage, waste management, and adherence to environmental legislation. Here is a procedure for carrying out a green audit:

- green auor:
- (a) Planning
- (b) Identify audit team and recources.

(c) Develop an audit plan: Create a detailed plan outlining audit activities, timelines, responsibilities, and communication channels.

- (d) Data Collection:
- (e) Gather information:
- (f) Conduct site visits and interviews:
- (g) Review documentation
- (h) Evaluation and Analysis:
- (i) Assess environmental impacts:
- (j) Evaluate compliance:
- (k) Identify strengths and weaknesses;
- (1) Quantify results:
- (m) Reporting:
- (n) Prepare an audit report:
- (o) Communicate results:
- (p) Follow-up and Improvement:
- (q) Develop an action plan
- (r) Monitor progress:
- (s) Continuous improvement:

The methodology adopted to conduct the Green Audit of the Institution had the following components.

3.1. On-site Visit:

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The Green Audit Team carried out the five-day field trip. The tour's main goal was to evaluate the Institution's waste management procedures, energy conservation tactics, and other aspects of its green cover. The protocols for sample collection, preservation, and analysis were followed scientifically.

3.2. Focus Group Discussion:

The nature club, staff, and management members participated in focus group discussions on various facets of the green audit. Identification of attitudes and awareness towards environmental issues at the institutional and local levels was the main topic of discussion.

3.3. Energy and waste management Survey:

The audit team evaluated the college's waste generation, disposal, and treatment facilities as well as its energy usage pattern with the assistance of teachers and students. A comprehensive questionnaire survey method was used to carry out the monitoring.

4. Target Areas of Green Auditing:

Energy Contumption)

The college's electrical and HVAC usage trends are dissected in this section. It detects energy-efficient practices and points out places to make improvements, such as through lighting retrofits, HVAC system optimisation, and the introduction of energy-saving devices.

Waste Management:

Recycling initiatives, landfill diversion rates, and other waste management practices on campus are all part of the evaluation. It proposes measures to cut down on garbage, boost recycling, and promote eco-friendly behaviour all over campus.

Water Usage:

The college's water consumption, conservation initiatives, and opportunities for water savings are all evaluated in this report. It recommends promoting water conservation through the use of water-efficient fixtures, rainwater collection, and educational programmes.

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Transportation:

In this section, we take a look at how the college neighbourhood gets around Bicycle-sharing initiatives, financial incentives for carpooling, and collaborations with public transportation providers are some of the eco-friendly commute solutions investigated.

Green Spaces and Biodiversity:

The report assesses the College's green areas, biodiversity protection initiatives, and landscaping methods. Preserving natural areas, growing native species and supporting programmes that help pollinators are all possible suggestions.



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Curriculum and Awareness:

This analysis considers the ways in which sustainability and environmental studies are taught and discussed on campus. It suggests fostering environmental awareness and green initiatives across all academic fields.

Stakeholder Engagement:

Student, professor, and staff participation in sustainability initiatives is assessed in this report. It suggests ways to increase participation and diversity in environmentally friendly activities.

Future Goals and Targets:

This section establishes attainable sustainability targets for the university based on audit findings. It lays out both immediate and far-off goals for improving the organization's environmental impact.

Conclusion

The implementation plan details the steps to be taken, who will be responsible for them, and when they will be completed in order to meet the suggested sustainability targets. Budgetary constraints, collaboration with external organisations, and methods for assessing performance are all possibilities.

Yearly Records (2018-19):

Electrical device/items	Number	Power(watt)	Usage time (hr/day)
Normal Tubelight	370	3000	10:00 am te 6:00 pm
LED Tubelight	212	29200	De
Normal Butb	62	0	De
LED Bulb	21	500	Do
Ceiling Fan	520	17100	Do
Wall fan	34	2640	Do

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Normal tube light & Fan

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Silent DG sets are designed to generate a very low level of background noise, just as their name suggests. Their structures are constructed to eliminate virtually all noise and vibrations due to careful design. Because of this, they are not harmful to the environment and are ideally suited for use in residential areas.

4.2. Waste Management:

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4.2.1. Recycling: Even though recycling containers could be found all throughout campus, the audit discovered that there was insufficient separation of recyclable items and inadequate information regarding products that might be recycled. Raising the recycling rate can be done in a number of ways, including by enhancing the signs, providing clear instructions, and implementing a comprehensive recycling education programme.

4.2.2. Composting: To appropriately dispose of organic waste produced by Hostel occupants (both boys and girls), composting facilities might be set up at the organisation. Composting not only reduces the quantity of waste sent to landfills but also produces useful compost that may be utilised for campus landscaping and gardening.

Types of waste	Particulars	Disposal method
E-Waste	Computers; electrical and electronic parts	After a while, we can offer these from a separate tank.
Plastic waste		Single-use plastic bottles, jars, and bags. Encourage reusable water bottles and other containers. Establish plastic recycling containers, and after a certain time, we can sell the recyclables directly.
Salid wastes	1 : [12:1:30:1:4+] (2:1:3:1:1:1:4:2:1:1:2:4:2:1:1:4:2:1:1:1:4:2:1:1:1:4:2:1:1:1:1	Maintenance energy conversion reuse. College composting systems turn food waste into nutrient-rich compost for campus landscaping and community gardens. Institutions can work with local farms to collect food waste.

Table: Different types of v	waste generated in the colle	ge and their disposal
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Chemical wastes	Laboratory waste	Water neutralises. Follow safety roles when handling hazardous waste
Wastewater	Washing, urinals, bathrooms	Soak pits
Glass waste	Broken glass wares from the labs	Glass should be recycled separately from other recyclables in glass recycling containers. Contact local recycling centres to recycle glass properly.
Sanitary Napkin		Burn

4.3. Water Usage:

4.3.1. Water Fixtures: Numerous locations within the college had outdated and ineffective water fixtures, which caused excessive water use. Water resources can be saved by swapping these fixtures for low-flow models and encouraging staff and students to practice water-saving habits.

Water management table:

Water Management Tasks	Frequency	Responsible Party	
Routine examination of water supplies	Monthly	Green Audit Working Team	
Testing for drinking water quality	Half-yearly	Do	
Awareness of water conservation	Half-yearly	Green Audit Working Team & various department	
Infrastructure for water distribution that needs upkeep and repair	As needed	Caretaker	
Reporting and analysis of water use total acartment Fubia	Annually	Green Audit Working Team & Caretaker	

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Learn what causes excessive	As needed	Caretaker	
water consumption.			

Tabular data detailing the subject at hand:

Sl. No	Parameters	Response	
	Source of water	Municipality, Underground, Pone (approx. 3 Bigha) & Rain Harvesting Water Note: The ground's water serves as a drinking water supply for around 4,500 people, including students and staff members.	
2	Source of Drinking Water	Ground's water	
3	Any treatment for drinking water	NilNote: Water purifiers has been installed in 1-2 numbers each floor (total 13 in number) a are maintained for 3-4 mon afterward.	
4	What is the total number of motors that are used?	13 numbers	
5	What is the total number of water tanks? Capacity of tank	13 numbers@ 1000 litres each	
6	Tap water	200 mumbers	
	Quantity of water pumped every day.	13000 litres /per day	
7	Do you waste water, and if so, why?	No	
8	How much water is required for gardening purposes?	600 litres /per day	
9	How many water coolers are there in total?	Not applicable	
10	Do you have access to rainwater harvesting?	r Yes	
11	The number of units harvested and the total volume of water	water canal to connect a college pond that is 1500 square feet and	

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		2,000 litres of tanks to store rainwater.
12	Any leaky taps	None
13	Daily amount of water that is lost.	Not applicable
14	Is there any kind of plan for the management of water?	Promote water conservation, pollution reduction, and sustainable water management. Water rights and allocation procedures should be clear to distribute water fairly among multiple users.
15	Have any methods for conserving water been implemented?	Rainwater Harvesting

4.4. Transportation:

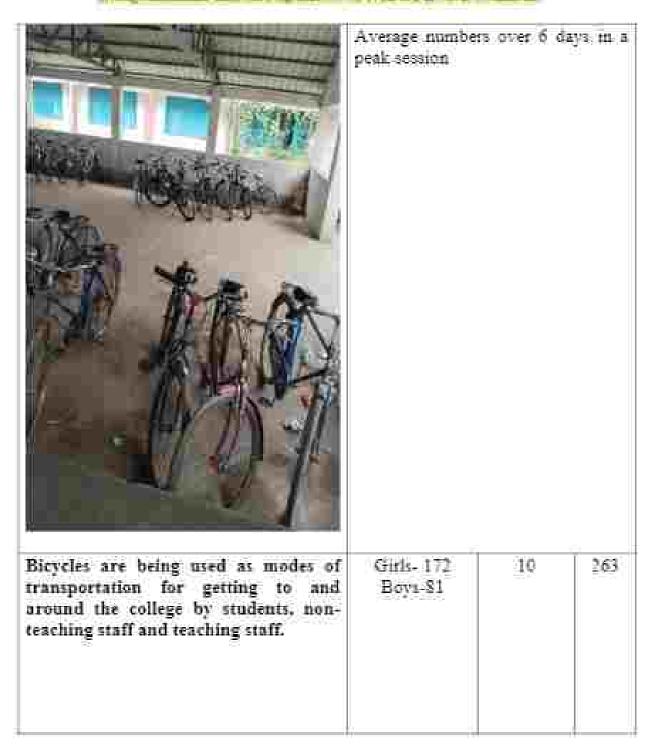
4.4.1. Public Transport: The college's carbon footprint can be significantly reduced by encouraging employees and students to use public transport. Sustainable transport solutions can be promoted by offering cheap bus passes, encouraging carpcoling, and supporting bicycle infrastructure.

Students	Employee Tota	Ē

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4.5. Overall Environmental Awareness:

4.5.1. Curriculum Integration: The institution can integrate environmental awareness and sustainability into its curriculum across various subject areas. This

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strategy will guarantee that students receive instruction and training in environmental stewardship, encouraging sustainable thinking.

Environmental awareness across different subjects	Parameters	Program time
Language Arts	Discuss texts from literature that are in some way connected to topics concerning the environment, such as conservation or environmental advocacy. Compose poetry or essays that argue for the protection of the environment and use persuasion Conduct research on a variety of environmental topics, then present your findings. Through various awareness programs, they understand the environmental laws and regulations that apply on the local, national, and international levels. Discuss the roles that governments, NGOs, and people play in the effort to solve environmental problems. Investigate the environmental concerna from both a historical and cultural point of view.	Whole year
Arta	Investigate the causes of climate change and possible solutions to the problem Analyse the impact that human activities have had on different landscapes as well as the distribution of natural resources. Studies should be done on urbanization, logging, and industry's impact on the natural environment. Investigate geographical approaches to resolving environmental issues, such as environmentally responsible land management planning.	Whole year
Pure Science	Conduct studies on environmental issues, such as assessing water quality, soil analysisobingPREF masterspringstics are sto	and the second

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	recycling To better comprehend environmental patterns and forecasts, consider using mathematical models. Investigate the repercussions of environmental actions on the economy, such as doing cost-benefit analyses for environmentally friendly projects.	
Bio-Science	Study subjects include ecosystems, biodiversity, and the interconnectedness of all living things	Whole year
Physical Education	Encourage students to develop an appreciation for the natural world by having them participate in outdoor sports and activities. Talk about the significance of physical activity for both one's own health and the health of the environment (for example, taking bike instead of the car).	Whole year
NSS	To enhance the amount of green cover and fight deforestation, organizing tree- planting events in local communities and educational institutions is important. To combat littering and to encourage a clean environment, it is important to organise routine clean-up efforts in public places like parks and beaches To educate both students and members of the general public about environmental issues such as climate change, waste management, renewable energy, and conservation, workshops and seminars should be organized. It should be a priority to create opportunities for individuals to engage with the natural world and develop a sense of ownership over its preservation through participating in hikes and other outdoor activities. To raise awareness about environmental issues and motivate	Whole year

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> people to take action, you might use social media, posters, and booklets



4.5.2. Student Engagement: A culture of sustainability can be promoted among students by supporting student-led projects, creating environmental groups, and holding awareness events and workshops.

5. Green Campus:

5.1.Floral Diversity:

The following are some actions to take into account when setting up a plantation programme at your college:

-Organise a group of academics, employees, and students who are interested in managing the plantation programme. Assign roles and duties to make the execution go smoothly.

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-Consult with local forestry professionals or environmental groups to discover native or adapted tree species that are well-suited to the climate, soil, and goal of the plantation programme. Research and choose suitable tree species.

-To obtain the necessary approvals or permits for planting trees on campus or in the neighbourhood, check with the college administration or other appropriate authorities.

- Look into possible funding options, including grants, sponsorships, or collaborations with nearby companies or environmental organizations. This will aid in defraving the price of buying trees, equipment, and other required supplies.

 Establish the plantation event's date, time, and venue. Plan the delivery of the trees, tools, and equipment to the planting location. Make sure that safety precautions are in place, including appropriate instruction on planting methods and equipment use.

-Promote the planting programme within the campus community by using various communication channels, such as posters, social media, emails, and word-of-mouth, in order to raise awareness and find volunteers. Encourage everyone to volunteer, including alumni, faculty, staff, and students.

-Volunteers should be gathered at the planting site on the appointed planting day. Give them the equipment, instructions, and direction they need to plant trees correctly. Foster a sense of accomplishment and community pride while fostering teamwork.

-Stress the significance of taking care of the freshly planted trees. This could entail routine weeding, mulching, watering, and pest or disease inspection. To guarantee the long-term well-being and survival of the trees, think about setting up a system for volunteers or staff members.

-After the plantation programme, evaluate the impact and accomplishment of the effort. Keep an eye on the trees' growth and survival rate. To determine areas for improvement and to organize upcoming plantation programmes, collect participant and stakeholder input.

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A lush green grassland improves the college campus's aesthetic beauty, making it more hospitable and alluring to students, faculty, and visitors.

5.2. Faunal Diversity:

Goor Mahavidyalaya holds 2.56 acres (building land approx. 0.68 acres) of land and a large water body of approx. 0.992 acres. Hence, Gour Mahavidyalaya boasts a rich faunal diversity, thanks to its lush greenery and expansive water body. Our college is situated in the region around English Bazar and Old Malda, which possess a variety of insects, amphibian species, reptiles, birds and mammals that thrive in its subtropical climate and riverine environment. Our estimation on faunal diversity is mostly based on random sampling. Majority of the data were gathered during college hours through direct observations. We have also gathered information from different students and staffs, who were not directly a member of survey group.

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Around the water body a huge number of invertebrates like the insects were observed, which require more active documentation.

Amphibians

- 1. Indian balloon frog (Uperodon globulozuz)
- 2 Asian Common Toad (Bufo melanosticius)
- 3 Common tree frog (Rachophoruzsp.)

Reptiles

- 1 Checkered Keelback (Xenochrophis piscator)
- 2 Buff Striped Keelback (Amphiesma stolatum)
- 3 Skink (Lampropholis sp.)
- 5 Oriental Garden Lizard (Colotes versicolor)
- 6 Wall Lizard (Hemidactylus frenatus)
- 7 Banded Krait (Bungarus fasciatus)

Birds

- 1. Crow (Corvus splendens)
- 2. House Sparrow (Passer domesticus)
- 3. Common Myna (Acridotheres tristis)
- 4. Red-vented Bulbul (Pycnonotus cafer)
- 5. Cattle Egret (Bubulcus ibis)
- 6. Black Dronge (Dierwrus maerocercus)
- 7. Barn Owl (Tyto alba)
- 8. Kingfisher (Alcedo atthis)
- 9. Parrot (Psittacula krameri)
- 19. Spotted Dove (Spilopelia chinensis)
- 11. Pegion (Columba sp.)

Insects

- 1. Butterflies (various species)
- 2. Honeybees (Apis cerana)
- 3. Dragonflies (various species)
- 4. Ants (various species)
- 5. Mosquitoes (Aedes and Culex species)
- 6. Grasshoppers (various species)
- 7. Termites (various species)
- 8. Ladybugs (Coccinellidae family)
- 9. Fireflies (Lampyridae family)

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1 Houseflies (Musca domestica)

Animals

- 1. Indian Hare (Lepus nigricollis)
- 2. Jackal (Caniz aureus) (Often enters college premises at night)
- 3. Indian Squirrel (Funambulus palmarum)
- 4. Rhesus Macaque (Macaca mulatta)
- 5. Indian Pipistrelle (Pipistrellus coromandra)
- 6. Rat (Raitus norvegicus)
- 7. Common Cat (Felis catus)
- 8. Common Dog (Canislupurs familiari)
- 9. Grey mangoose (Herpestidue sp.)

Our college is an oasis in the midst of concrete jungle. Conservation efforts are essential to maintain this ecological balance and protect the native species.



Plantation of Wild type Medicinal plants:

On the grounds of our college, we planted not one out two different medicinal gardens. Every day, more and more wild insedicinal plant kinds are becoming extinct as a direct result of human activity and pollution. Once we have determined the species of these plants, we will work to preserve them in our medicinal gardens by means of multiplication. Through the appropriate method, it is accessible to any and all interested parties or agencies. A medical garden is a specific location on the grounds of an educational institution that is devoted to the growth and maintenance of a large variety of different kinds of medicinal plants. Medical gardens are often found on university campuses. Students, staff members, and researchers all have access to it as a resource for teaching and study, which makes it possible for them to investigate and learn about the many different qualities and applications that medicinal plants can have. The cultivation of a medicinal garden on a college campus has the potential to confer significant value and benefiti on the surrounding academic community as well as on society.

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7. Conclusion: According to the results of a recent green audit, the GOUR MAHAVIDYALAYA has identified a few sites on campus that may use some work to further sustainability goals. Implementing the offered solutions has the potential to result in a number of positive environmental outcomes, including decreased energy consumption, improved waste management, enhanced water use efficiency, expanded sustainable transportation options, and heightened environmental consciousness. By putting these alterations into effect, GOUR MAHAVIDYALAYA will be able to demonstrate to its pupils how to responsibly care for the environment and make a contribution towards a more sustainable future.

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Green Audit Report (2019-20)

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1. Introduction:

The GOUR MAHAVIDYALAYA's Green Audit Report attempts to evaluate the institution's environmental effect, sustainability practices, and potential for development. We have assessed numerous facets of the college's operations, including energy use, waste management, water use, transportation, and general environmental awareness, by conducting an in-depth review. The conclusions and suggestions in this report are meant to strengthen the college's dedication to sustainable practices and environmental responsibility.

Sl No	Name of the Members	Designation
1	Dr. Ashim Kumar Sarkar	Principal
2	Dr. Pulak Kumar kundu	IQAC Coordinator
3	Md. Murshed Alam	NAAC Coordinator
4	Dr. Niranjan Kumar Mridha	Bursar
5	Partho Chakraborty (SDO)	Administrator
6	Arup Roy	Member
7	Syfujjaman Tarafder	Member
8	Dichen Lhamu Sherpa	Member
9	Dipjyoti Singha	Member
10	Sangita Singha	Member
11	Sipendranath Mandal	Non-Teaching Member

Green Audit Working Team (2019-20):

2. The Necessity of a Green Audit:

The need for green audits, also known as environmental audits or sustainability audits, is rising in today's society for a number of reasons.

(a) Effects on the Environment: Green audits help to assess and lessen an organization's harmful environmental impact. They analyse factors such as energy consumption, trash generation, water use, and emissions to find areas that could be improved to decrease environmental harm.

(b) Conformity with Regulations: The environmental regulations and rules that have been established in many countries must be followed by businesses. Green audits help companies adhere to standards so they can avoid penalties or other legal implications for non-compliance.

(c) Savings on Expenses: Green audits can identify inefficient practises and inefficiencies within manbusinesses into wider grappont with the state of the state

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studying energy use, resource consumption, and waste management, businesses can put strategies into practise to reduce operational costs and increase overall efficiency.

(d) **Reputation and the Expectations of Stakeholders:**Customers and other stakeholders now call organisations to adopt more environmentally friendly practises. Green audits promote trust among customers, employees, investors, and communities by demonstrating an organization's transparency and commitment to sustainability.

(e) **Risk Management:**Environmental hazards can have serious financial and reputational ramifications for firms, including pollution events, regulatory noncompliance, and supply chain interruptions. By evaluating environmental management systems, ensuring sufficient controls are in place, and putting preventative measures in place to deal with possible problems, green audits assist in identifying and mitigating these risks.

(f) Continuous Improvement: Green audits encourage a continuing commitment to sustainability rather than being one-time events. Organizations can see trends, set goals, and implement improvement initiatives by routinely evaluating and tracking environmental performance. This iterative process promotes a culture of sustainability and propels long-lasting transformation.

(g) Sustainable Development Goals (SDGs): An international framework for solving urgent environmental and social issues is provided by the Sustainable Development Goals. Organizations can better align their operations with these objectives with the aid of green audits, paving the way for a more just and sustainable future. Green audits are essential to evaluate, enhance, and confirm environmental performance. They allow companies to control risks, comply with rules, cut costs, improve reputations, and support sustainable development.

3. Methodology for Green Audit:

Audits of an organization's environmental performance and practices are known as "green," "environmental," or "sustainability" audits. They entail assessing the company's influence on the environment, resource usage, waste management, and

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adherence to environmental legislation. Here is a procedure for carrying out a green audit:

- (a) Planning:
- (b) Identify audit team and resources:

(c) Develop an audit plan: Create a detailed plan outlining audit activities, timelines, responsibilities, and communication channels.

- (d) Data Collection:
- (e) Gather information:
- (f) Conduct site visits and interviews:
- (g) Review documentation:
- (h) Evaluation and Analysis:
- (i) Assess environmental impacts:
- (j) Evaluate compliance:
- (k) Identify strengths and weaknesses:
- (1) Quantify results:
- (m) Reporting:
- (n) Prepare an audit report:
- (o) Communicate results:
- (p) Follow-up and Improvement:
- (q) Develop an action plan:
- (r) Monitor progress:
- (s) Continuous improvement:

The methodology adopted to conduct the Green Audit of the Institution had the following components.

3.1. On-site Visit :

The Green Audit Team carried out the five-day field trip. The tour's main goal was to evaluate the Institution's waste management procedures, energy conservation tactics, and other aspects of its green cover. The protocols for sample collection, preservation, and analysis were followed scientifically.

3.2. Focus Group Discussion :

The nature club, staff, and management members participated in focus group discussions on various facets of the green audit. Identification of attitudes and UMA Apartment, Rishi Arobindo Road, Madhyamgram, Kolkata-700130

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awareness towards environmental issues at the institutional and local levels was the main topic of discussion.

3.3. Energy and waste management Survey:

The audit team evaluated the college's waste generation, disposal, and treatment facilities as well as its energy usage pattern with the assistance of teachers and students. A comprehensive questionnaire survey method was used to carry out the monitoring.

4. Target Areas of Green Auditing:

An environmental audit is one of the steps involved in the process of resource management. Green audits are useful despite the fact that they are one-off occurrences. This is due to the fact that they are carried out on a regular basis, and the results of the audits might shift or get better over time. The concept of an eco-campus centers primarily on making effective use of water and energy while simultaneously reducing pollution and the amount of trash produced.

Several indicators will be evaluated during the "Green Auditing of this Educational Institute" procedure. Eco-campus focuses on these goals in order to reduce emissions, obtain a reliable and affordable energy supply, encourage and improve energy conservation, decrease the institute's energy and water use, reduce the amount of waste that is sent to landfills, and incorporate environmental considerations into all contracts and services that are thought to have significant environmental impacts. Eco-campus also focuses on these goals in order to improve the quality of life on campus. The water, the electricity, the rubbish, and the green campuses are the key focuses of this environmental audit.

4.1. Energy Consumption:

4.1.1. Lighting:According to the findings of the audit, a significant number of the college's lighting fixtures are both inefficient and out of date. It is recommended to make advantage of natural light whenever it is feasible, to install occupancy sensors, and to replace traditional light bulbs with LED light bulbs that are more energy efficient.

4.1.2. Heating, Ventilation, and Air Conditioning (HVAC):

It was found that the HVAC systems were operating at a lower level of efficiency than was required. Switching to heating, ventilation, and air conditioning

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(HVAC) equipment that is more energy-efficient, installing thermostats that are programmable, and keeping up with normal maintenance can significantly cut energy consumption.

4.1.3. Energy Awareness:Both the faculty and the student body should be encouraged to engage in energy-saving behaviours by the college. Campaigns, instructional activities, and financial incentives for projects that save energy are all potential ways to assist in accomplishing this goal.

Electrical device/items	Number	Power(watt)	Usage time (hr/day)
Normal Tubelight	370	3000	10:00 am to 6:00 pm
LED Tubelight	216	29200	Do
Normal Bulb	60	0	Do
LED Bulb	25	500	Do
Ceiling Fan	520	17100	Do
Wall fan	40	2640	Do

Details electrical requirements:



Normal tube light UMA Apartment, Rishi Arobindo Road, Madhyamgram, Kolkata-700130 Email ID: <u>managementsystemconsultancy@gmail.com</u> Website: <u>www.msystemcon.com</u>



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	E E
LED Bulb& save energy	Performing routine maintenance on electrical fans. The accumulation of dust and debris can hinder the fan's performance. Regular cleaning of the grilles, blades, and motor housing is necessary to maintain optimal operation, ensure smooth airflow& save energy.

- del

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are not harmful to the environment and are ideally suited for use in residential areas.

4.2. Waste Management:

4.2.1. Recycling:Despite the fact that recycling canisters were located all around the campus, the audit indicated that there was insufficient separation of recyclable materials and inadequate information regarding products that might be recycled. This was the case despite the fact that recycling canisters were located everywhere. An increase in the percentage of materials that are recycled can be

Silent DG sets are designed to generate a very low level of background noise, just as their name suggests. Their structures are constructed to eliminate virtually all noise and vibrations due to careful design. Because of this, they accomplished in a number of different ways; some of these ways include making the signs clearer, providing instructions that are free of ambiguity, and carrying out an intensive recycling education programme.

4.2.2. Composting:At the organisation, composting facilities can be established so that the organic waste that is produced by the residents of the hostel (both boys and girls) can be disposed of in an appropriate manner. Composting not only produces useful compost that can be utilised for campus landscaping and gardening, but it also contributes greatly to a reduction in the amount of waste that is dumped in landfills. This is one of the many benefits of composting.

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

Types of waste	Particulars	Disposal method
E-Waste	Computers, electrical	Store these in a separate
	and electronic parts	tank, and we can start
		selling them directly
		after a certain amount of
		time.
Plastic waste	Pen, Refill, Plastic water	Items made of plastic
	bottles and other plastic	that are only intended to
	containers, wrappers etc	be used once, such as
		bottles, jars, and
		bags. Encourage people
		to use water bottles and
		other containers that may
		be reused. Establish
		distinct recycling
		containers for plastic
		garbage, and after a
		predetermined period of
		time, we will be able to
		begin selling the
		collected recyclables directly.
Solid wastes	Paper waste, Damaged	Reuse after maintenance
Solid wastes	furniture, paper plates,	energy conversion.
	food wastes	Installing composting
	1000 wastes	systems on a college
		campus will allow for the
		conversion of discarded
		food into nutrient-dense
		compost that may be
		used in the campus
		landscaping or in
		community gardens.
		Another option is for
		institutions to form
		partnerships with
		farmers in the

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		surrounding area to collect food waste.
Chemical wastes	Laboratory waste	Water should be used to neutralise. When dealing with hazardous garbage, adhere strictly to all safety regulations.
Wastewater	Washing, urinals, bathrooms	Soak pits
Glass waste	Broken glass wares from the labs	Glass debris should be kept separate from other recyclable materials and disposed of in containers that are specifically intended for glass recycling. Make sure that you recycle glass in the correct manner by coordinating with the local recycling centers.
Sanitary Napkin	-	Napkin Incinerators

4.3. Water Usage:

4.3.1. Water Fixtures:Numerous locations within the college had outdated and ineffective water fixtures, which caused excessive water use. Water resources can be saved by swapping these fixtures for low-flow models and encouraging staff and students to practice water-saving habits.

Water management table:

Water Management Tasks	Frequency	Responsible Party
Routine examination of water	Monthly	Green Audit Working Team
supplies		
Testing for drinking water	Half-yearly	Do
quality		

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Awareness	of	water	Half-yearly	Green Audit Working Team &
conservation				various department
Infrastructure	for	water	As needed	Caretaker
distribution that needs upkeep				
and repair				
Reporting and analysis of			Annually	Green Audit Working Team &
water use				Caretaker
Learn what causes excessive		As needed	Caretaker	
water consumpt	tion.			

Tabular data detailing the subject at hand:

Sl No	Parameters	Response				
1	Source of water	Municipality, Underground, Pond				
		(approx. 03 Bigha) & Rain Harvesting				
		Water				
		Note: The ground's water serves as a				
		drinking water supply for around 4,500				
		people, including students and staff				
		members.				
2	Source of Drinking	Ground's water				
	Water					
3	Any treatment for	Nil, 16 numbers water purifier				
	drinking water	Note: Water purifiers have been				
		installed in 1-2 numbers on each floor				
		(total 13 in number) and are maintained				
		for 3–4 months afterward.				
4	What is the total number	13 numbers				
	of motors that are used?					
5	What is the total number	13 numbers@ 1000 liters each				
	of water tanks? Capacity					
	of tank					
6	Tap water	200 numbers				
	Quantity of water	13000 liters/per day				
	pumped every day	Road Madhvamgram Kolkata-700130				

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7	Do you wasta watan and	No
/	Do you waste water, and	INO
	if so, why?	
8	How much water is	600 liters/per day
	required for gardening	
	purposes?	
9	How many water coolers	Not applicable
	are there in total?	
10	Do you have access to	Yes
	rainwater harvesting?	
11	The number of units	01 number, We have constructed a water
	harvested and the total	canal to connect a college pond that is
	volume of water	1500 square feet and 2,000 liters of tanks
		to store rainwater.
12	Any leaky taps	None
13	Daily amount of water	Not applicable
	that is lost.	
14	Is there any kind of plan	Raise public awareness regarding the
	for the management of	importance of water conservation, the
	water?	prevention of pollution, and the
		implementation of sustainable water
		management practices. Unambiguous
		water rights and equitable water
		allocation regulations should be
		established to ensure that water is
		distributed fairly among the many
		different users.
15	Have any methods for	
	conserving water been	
	implemented?	

4.4 Transportation

4.4.1. Public Transport: The college's carbon footprint can be significantly reduced by encouraging employees and students to use public transport. UMA Apartment, Rishi Arobindo Road, Madhyamgram, Kolkata-700130

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Sustainable transport solutions can be promoted by offering cheap bus passes, encouraging carpooling, and supporting bicycle infrastructure.

	Students	Emplo yee	Total
	Average days in a p	numbers	
81	Girls- 172 Boys-81	10	263

4.5. Overall Environmental Awareness:

4.5.1. Curriculum Integration:The institution can incorporate environmental consciousness and sustainable practices into its curriculum in a variety of topic areas. Students will be provided with teaching and training in environmental stewardship thanks to this technique, which will also encourage them to think in a sustainable manner.

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Environmental	Parameters	Program
awareness across		time
different subjects		
Language Arts	Discuss texts from literature that are in	Whole year
	some way connected to topics	
	concerning the environment, such as	
	conservation or environmental	
	advocacy. Compose poetry or essays	
	that argue for the protection of the	
	environment and use persuasion.	
	Conduct research on a variety of	
	environmental topics, then present your	
	findings. Through various awareness	
	programs, they understand the environmental laws and regulations that	
	apply on the local, national, and	
	international levels. Discuss the roles	
	that governments, NGOs, and people	
	play in the effort to solve environmental	
	problems. Investigate the	
	environmental concerns from both a	
	historical and cultural point of view.	
Arts	Investigate the causes of climate change	Whole year
	and possible solutions to the	
	problem.Analyse the impact that human	
	activities have had on different	
	landscapes as well as the distribution of	
	natural resources. Studies should be	
	done on urbanization, logging, and	
	industry's impact on the natural	
	environment. Investigate geographical	
	approaches to resolving environmental	
	issues, such as environmentally	
Pure Science	responsible land management planning. Conduct studies on environmental	
	issues, such as assessing water quality,	Half-vearly/
	soil analysis, power consumption or	each program
	recycling.To better comprehend	Program
	environmental patterns and forecasts,	
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Bio-Science	 consider using mathematical models. Investigate the repercussions of environmental actions on the economy, such as doing cost-benefit analyses for environmentally friendly projects. Study subjects include ecosystems, biodiversity, and the interconnectedness of all living things. 	Whole year
Physical Education	of all living things. Encourage students to develop an appreciation for the natural world by having them participate in outdoor sports and activities. Talk about the significance of physical activity for both one's own health and the health of the environment (for example, taking bike instead of the car).	Whole year
NSS	To enhance the amount of green cover and fight deforestation, organizing tree- planting events in local communities and educational institutions is important. To combat littering and to encourage a clean environment, it is important to organize routine clean-up efforts in public places like parks and beaches.To educate both students and members of the general public about environmental issues such as climate change, waste management, renewable energy, and conservation, workshops and seminars should be organized. It should be a priority to create opportunities for individuals to engage with the natural world and develop a sense of ownership over its preservation through participating in hikes and other outdoor activities. To raise awareness about environmental issues and motivate people to take action, you	Whole year

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might use social media, posters, and	
booklets.	



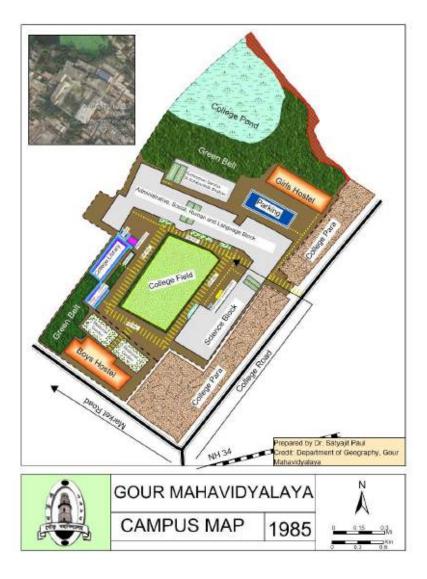
4.5.2. Student Engagement: A culture of sustainability can be promoted among students by supporting student-led projects, creating environmental groups, and holding awareness events and workshops.

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5. Green Campus:

5.1.Floral Diversity:

The following are some actions to take into account when setting up a plantation programme at our college:

-Organise a group of academics, employees, and students who are interested in managing the plantation programme. Assign roles and duties to make the execution go smoothly.

-Consult with local forestry professionals or environmental groups to discover native or adapted tree species that are well-suited to the climate, soil, and goal of the plantation programme. Research and choose suitable tree species.

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-To obtain the necessary approvals or permits for planting trees on campus or in the neighborhood, check with the college administration or other appropriate authorities.

Look into possible funding options, including grants, sponsorships, or collaborations with nearby companies or environmental organizations. This will aid in defraying the price of buying trees, equipment, and other required supplies.
Establish the plantation event's date, time, and venue. Plan the delivery of the trees, tools, and equipment to the planting location. Make sure that safety precautions are in place, including appropriate instruction on planting methods and equipment use.

-Promote the planting programme within the campus community by using various communication channels, such as posters, social media, emails, and word-of-mouth, in order to raise awareness and find volunteers. Encourage everyone to volunteer, including alumni, faculty, staff, and students.

-Volunteers should be gathered at the planting site on the appointed planting day. Give them the equipment, instructions, and direction they need to plant trees correctly. Foster a sense of accomplishment and community pride while fostering teamwork.

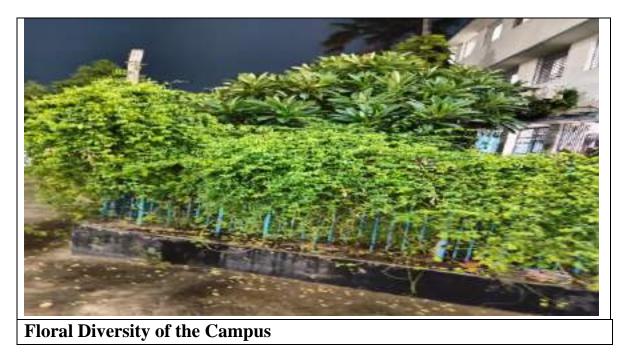
-Stress the significance of taking care of the freshly planted trees. This could entail routine weeding, mulching, watering, and pest or disease inspection. To guarantee the long-term well-being and survival of the trees, think about setting up a system for volunteers or staff members.

-After the plantation programme, evaluate the impact and accomplishment of the effort. Keep an eye on the trees' growth and survival rate. To determine areas for improvement and to organize upcoming plantation programmes, collect participant and stakeholder input.

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To encourage participation in the upkeep and preservation of the grassland, the institution's students, instructors, and staff should be encouraged to do so. Volunteer initiatives, instructional workshops, and awareness campaigns are all effective ways for reaching this objective. On grasslands, it is possible for many different kinds of plants and animals to flourish. By providing a home for a wide variety of plant and animal species and so making a contribution to the preservation of ecological equilibrium, a grassland promotes a higher level of biodiversity on a campus. Grasslands have the ability to collect carbon dioxide from the air and store it in their soil, which helps in the fight against climate change by lowering overall levels of greenhouse gases.

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Fig. College ground field.

The ability of the campus to maintain a healthy ecological balance is greatly dependent on the presence of ponds. They contribute to the recharging of groundwater supplies, help to limit the amount of erosion that occurs in the surrounding area, and support the ecology of the area by providing a habitat for a diverse array of flora and fauna.

5.2. Faunal Diversity:

Gour Mahavidyalaya holds 2.56 acres (building land approx. 0.68 acres) of land and a large water body of approx. 0.992 acres. Hence, Gour Mahavidyalaya boasts a rich faunal diversity, thanks to its lush greenery and expansive water body. Our college is situated in the region around English Bazar and Old Malda; which possess a variety of insects, amphibian species, reptiles, birds and mammals that thrive in its subtropical climate and riverine environment. Our estimation on faunal diversity is mostly based on random sampling. Majority of the data were gathered during college hours through direct observations. We

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have also gathered information from different students and staffs, who were not directlyamember ofsurvey-group. Around the water body a huge number of invertebrates like the insects were observed, which require more active documentation.

Amphibia

- 1. Indian balloon frog (Uperodon globulosus)
- 2 Asian Common Toad (Bufo melanostictus)
- 3 Common tree frog (Rachophorus sp.)

Reptiles

- 1 Checkered Keelback (Xenochrophis piscator)
- 2 Buff Striped Keelback (Amphiesma stolatum)
- 3 Skink (Lampropholis sp.)
- 5 Oriental Garden Lizard (Colotes versicolor)
- 6 Wall Lizard (Hemidactylus frenatus)
- 7 Banded Krait (Bungarus fasciatus)

Birds

- 1. Crow (Corvus splendens)
- 2. House Sparrow (Passer domesticus)
- 3. Common Myna (Acridotheres tristis)
- 4. Red-vented Bulbul (Pycnonotus cafer)
- 5. Cattle Egret (Bubulcus ibis)
- 6. Black Drongo (Dicrurus macrocercus)
- 7. Barn Owl (*Tyto alba*)
- 8. Kingfisher (Alcedo atthis)
- 9. Parrot (Psittacula krameri)
- 10. Spotted Dove (Spilopelia chinensis)
- 11. Pegion (Columba sp.)

Insects

- 1. Butterflies (various species)
- 2. Honeybees (Apis cerana)
- 3. Dragonflies (various species)
- 4. Ants (various species)
- 5. Mosquitoes (Aedes and Culex species)
- 6. Grasshoppers (various species)
- 7. Termites (various species)

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- 8. Ladybugs (Coccinellidae family)
- 9. Fireflies (Lampyridae family)
- 1 Houseflies (Musca domestica)

Animals

- 1. Indian Hare (Lepus nigricollis)
- 2. Jackal (Canis aureus) (Often enters college premises at night)
- 3. Indian Squirrel (Funambulus palmarum)
- 4. Rhesus Macaque (Macaca mulatta)
- 5. Indian Pipistrelle (Pipistrellus coromandra)
- 6. Rat (*Rattus norvegicus*)
- 7. Common Cat (Felis catus)
- 8. Common Dog (Canislupurs familiaris)
- 9. Grey mangoose (Herpestidae sp.)

Our college is an oasis in the midst of concrete jungle. Conservation efforts are essential to maintain this ecological balance and protect the native species



6. Wild type Medicinal plants at medidicinal garden:

Two medicinal gardens were developed at our college premises. Many wild medicinal plant varieties were lost daily due to anthropogenic activities and pollution. After identifying these plants, we conserve these through propagation in our medicinal gardens. Any interested people or agencies can access it through the proper channel. Medicinal garden is a specific area inside the grounds of a college that is dedicated to the cultivation and upkeep of a wide range of different sorts of medicinal plants. As an educational and research resource, it makes it possible for students, faculty members, and researchers to investigate and gain knowledge on medicinal plants' varied qualities and applications. Culturing a medicinal garden on a college campus can confer major value and benefits to the surrounding academic community and society.

Table: List of wild types of medicinal plants at the premises of GOURMAHAVIDYALAYA

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		G1	
S1.	Binomial name: <i>Syzygium aromaticum</i> (L)	Sl.	Binomial name: <i>Barleria prionitis</i> L.
No.	Merril & Perry	No.	Family: Acanthaceae
1	Family: Mytraceae	2	Common name: Bazradanti
	Common name: Labanga		Habit: Herb
	Habit: Tree		Parts used: Leaves
	Parts used: Dried flower bud, leaves		Medicinal use: Leaf juice is used to
	Medicinal use: Clove oil is used as a pain		prevent tissue maceration, stop gum
	killer, for dental problems, used for the		bleeding, and as an expectorant.
	treatment of hernia, Stomach upset and as		
	an expectorant.		
S1.	Binomial name: <i>Glycosmis pentaphyla</i>	Sl.	Binomial name: Trema orcientalis (L)
No.	(Retz) Correa	No.	Blume
3		4	
5	Family: Rutaceae	4	Family: Cannabaceae
	Common name: Ash shaowra		Common name: Jibanti
	Habit: Shrub		Habit: Tree
	Parts used: Leaves and stem		Parts used: Leaves and bark
	Medicinal use: Leaves are used for fever,		Medicinal use: Leaves & bark are used
	liver complaints, and stem for ulcer.		for cough, sore throat, asthma, and
			yellow fever.
S1.	Binomial name: <i>Blumea lacera</i> (Burm. F.)	S1.	Binomial name: <i>Clitoria ternatea</i> L.
No.	Dc.	No.	Family: Fabaceae
5	Family: Asteraceae	6	Common name: Aporajita
	Common name: Bara cooksina		Habit: Herb, Climber
	Habit: Herb		Parts used: Leaves
	Parts used: Whole plant		Medicinal use: Leaves are used as
	Medicinal use: Leaves used for liver tonic,		memory enhancer, antidepressant,
	antipyretic, diuretic, ophthalmic.		sedative agent.
Sl.	Binomial name: Aegel marmelos (L)	Sl.	Binomial name: <i>Elaeocarpus serratus</i>
No.		No.	L.
	correa		
7	Family: Rutaceae	8	Family: Elaeocarpaceae
	Common name: Bel		Common name: Jalpai
	Habit: Tree		Habit: Tree
	Parts used: Whole plant, Leaves, Fruit		Parts used: Leaves and Fruits
	Medicinal use: Fruit pulp is use for		Medicinal use: Leaves used for
	laxative, jaundice, constipation		rheumatism and antitode of poison
			and fruit for dysentery.
S1.	Binomial name :	S1.	Binomial name: Cympogon citrus (L.)
No.	Pogostemon cablin (Blanco) Benth	No.	Spreng
9	Family: Lamiaceae	10	Family: Poaceae
	Common name: Pachouri		Common name: Lebughash
	Habit: Herb		Habit: Herb
	Parts used: Leaves		Parts used: Leaves
	Medicinal use: Used in insect repellants,		Medicinal use: Pesticide, insecticide
	and antidepressant.		& antifungal and antibacterial and
			also used as insect repellent.
			aiso useu as insect repenent.

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Sl.	Binomial name: Ocimum tenuiflorum L.	Sl.	Binomial name: Stephania japonica
No.	Family: Lamiaceae	No.	(Thumb). Micrs
11	Common name: Krishna Tulsi	12	Family: Menispermaceae
	Habit: Herb		Common name: Nimukha
	Parts used: Whole plant.		Habit : Climber, Herb
	Medicinal use: Reduce chest congestion,		Parts used: Whole plant and Leaves.
	germicide and tuberculosis.		Medicinal use: Leaves are used in
			fever, diarrhoea, dyspepsia. Root is
			used to treat fever, diarrhoea and
C1		<u>C1</u>	urinary disease.
Sl.	Binomial name: <i>Mikania scandense</i> B. L.	Sl.	Binomial name: <i>Aerva lantana</i> L.
No.	Rob.	No. 14	Family: Amaranthaceae
13	Family: Asteraceae Common name: Jarman lata	14	Common name: Chaya Habit: Herb
	Habit: Climbing Herb		Parts used: Whole plant
	Parts used: Leaves		Medicinal use: Antioxidant activity,
	Medicinal use: Gastric ulcer, wound insect		stop abnormal bleeding in
	bites stop bleeding from cut, It also has		menstruation.
	antimicrobial, antipyretic and anti-		
	inflammatory properties.		
Sl.	Binomial name: <i>Desmodium gangeticum</i>	Sl.	Binomial name: Costus specious (J.
No.	(L.) Dc.	No.	Koning.) C. Specht.
15	Family: Fabaceae	16	Family: Zingiberaceae
	Common name: Shalparni		Common name: Keu
	Habit: Herb		Habit: Herb
	Parts used: Leaves and roots		Parts used: Rhizome
	Medicinal use: Heart disease,		Medicinal use: Anti-diabetic, to treat
	rejuvenation, anti dysenteric		asthma, bronchitis and fever.
Sl.	Binomial name: Uraria picta (Jack) Dc.	Sl.	Binomial name: Iresine herbstii Hook.
No.	Family: Fabaceae	No.	ex Lindl.
17	Common name: Prishiparni	18	Family: Amaranthaceae
	Habit: Herb		Common name: Lal vishyalikarani
	Parts used: Whole plant, Leaves,		Habit: Herb
	Medicinal use: Hear trouble, fractured		Parts used: Leaves
	bone, cough.		Medicinal use: Healing property.
Sl.	Binomial name: Ruellia prostrata L.	Sl.	Binomial name: Barringtonia
No.	Family: Acanthaceae	No.	acutangula (L) Gaertn.
19	Common name: Patpati	20	Family: Lecythidaceae
	Habit: Herb		Common name: Hijol
	Parts used: Whole plant, Leaves		Habit: Herb
	Medicinal use: Anti-cancerous against the		Parts used: Whole plant, Leaves.
	epidermis of naso-pharynx.		Medicinal use: Seed extract for anti tumor and anti fungal
Sl.	Binomial name: Madhuca longifollia (J.	Sl.	tumor and anti fungal. Binomial name: <i>Cephalandra indica</i>
SI. No.			-
110.	Konig) Ja Eparthent, Rishi Arobindo Road, Mi	adhýam	gtam, Kotkata-700130

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21	Family: Sanotacasa	22	Family: Cuourbitaccoo
21	Family: Sapotaceae		Family: Cucurbitaceae
	Common name: Mahua		Common name: Talakuch
	Habit: Tree		Habit: Herb, Climber
	Parts used: Flower and Bark		Parts used: Whole plant
	Medicinal use: Bark used for tonsillitis,		Medicinal use: Flower- Jaundice,
	gum trouble, Flower used for stimulant,		Fruits- Leprosy, bronchitis, asthma,
	laxative anti-helminthes, cough reliving,		Leaves- Cough, skin disease, Root-
	respiratory disorder.		Diabetes, gonorrhea.
S1.	Scientific name: Hemidesmus indicus R.	S1.	Scientific name: Syzazium jambos L.
No.	Br.	No.	(Aloston)
23	Family: Asclepedaceae	24	Family: Mytraceae
	Common name: Ananta mul		Common name: Jam
	Habit: Herb		Habit: Tree
	Parts used: Whole plant, Leaves,		Parts used: Seeds and young Leaves
	Uses: Oligo-spermia, skin disease, piles,		Uses: Diabetes (seed), dysentery, anti-
	leucorrhoea.		inflammatory effect.
S1.	Scientific name: Artemisia vulguris L.	S1.	Scientific name: Ocimum gratissimum
No.	Family: Asteraceae	No.	L.
25	Common name: Nagdola	26	Family: Lamiaceae
	Habit: Herb		Common name: Chandan tulsi
	Parts used: Whole plant,		Habit: Herb
	Uses: Malaria fever, worm repellant.		Parts used: Whole plant,
	·····		Uses: Antiseptic, anti microbial
			property used in common cold and
			respiratory trouble.
S1.	Scientific name: Morinda critifolia L.	Sl.	Scientific name: Saraca asoca
No.	Family: Rubiaceae	No.	(Roxb.) Willd.
27	Common name: Noni	28	Family: Fabaceae
	Habit: Shrub		Common name: Ashok
	Parts used: Fruit and Leaves		Habit: Tree
	Uses: Leaf, fruit, bark used to treat AIDS		Parts used: Bark, leaves and seed
	liver disease, small pox, cancer.		Uses: Dysmenorrhoea, depression,
	nver discuse, sman pox, cancer.		leucorrhoea.
Sl.	Scientific name: Vitex negundo Linn.	Sl.	Scientific name: Murraya koenigii
No.	Family: Verbaneceae	No.	(L.) Spreng.
1NO. 29	Common name: Nishinda	30	Family: Rutaceae
29	Habit: Herb	50	Common name: Kari Pata
			Habit: Shrub
	Parts used: Whole plant,		Parts used: Leaves
	Uses: Skin disease eczema, ring worm,		
	spleen enlargement, expectorant,		Uses: Anti-diabetic, also used to treat
	bronchitis, asthma.		piles, inflammation, itching,
		<u></u>	dysentery.
Sl.	Scientific name: Withania somnifera (L.)	Sl.	Scientific name: Cissus
No.	Kuntze	No.	quadrangularis L.
31	Family: Solanaceae	32	Family: Vitaceae
1	Common name: Awshagandhaindo Road, Mi	dhuam	Common name: Harjora

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Sl. No. 33	 Habit: Herb Parts used: Seed, Leaves and root Uses: Arthritis, anxiety, oligspermia, asthma, insomnia, ulcer and neurological disorder. Scientific name: Amomum aromaticum Roxb. Family: Zingiberaceae Common name: Alach Habit: Herb Parts used: Seed Uses: Anti oxidant, antiseptic, stomachic 	Sl. No. 34	Habit: Climbing Herb Parts used: Whole plant Uses: Heal the broken bone and ligament. Scientific name: <i>Clerodendrum</i> <i>indicum</i> L. Family: Verbenaceae Common name: Bamunhati Habit: small tree Parts used: Leaves Uses: Allergy, asthma, fever,
Sl. No. 35	digestive. Scientific name: <i>Psidium guajava</i> Linn. Family: Mytraceae Common name: Payara Habit: Tree Parts used: Fruits and Leaves Uses: Fruit is used asa laxative and leaf is used for wound ulcers.	S1. No. 36	bronchitis, liver problem, tuberculosis. Scientific name: <i>Adhatoda vasica</i> Nees Family: Acanthaceae Common name: Vashak Habit: Shrub Parts used: Leaves Uses: Bronchial disease, cough, expectorates
Sl. No. 37	Scientific name: <i>Wedelia calendula</i> (L.) Less. Family: Asteraceae Common name: Bhringaraj Habit: Herb Parts used: Leaves, Uses: Hair fall treatment, skin disease.	Sl. No. 38	Scientific name: <i>Terminalia chebula</i> Retz. Family: Combrataceae Common name: Haritaki Habit: Tree Parts used: Fruits and seed Uses: Laxative, digestive, purgative, and healing property.
Sl. No. 39	Scientific name: <i>Asparagus racemosus</i> Willd Family: Asparagaceae Common name: Satamuli Habit: Climber, Herb Parts used: Roots and Leaves Uses: Uterine tonic, hyper-acidity, galactogogue.	Sl. No. 40	Scientific name: <i>Euphorbia tirucalli</i> L. Family: Euphorbiaceae Common name: Lankaseji Habit: Herb Parts used: Whole plant Uses: Used for treatment of cancer, tomour.
Sl. No. 41	Scientific name: <i>Justicia gendarusa</i> Burm. f. Family: Acanthaceae Common name: Bishahari Habit: Herb Parts used: Leaves Uses: Asthma, rheumatism, colic of children Apartment, Rishi Arobindo Road, Ma	Sl. No. 42 adhyam	Scientific name: Stachytarpheta jamaicensis L. Family: Verbenaceae Common name: Jerbo Habit: Herb Parts used: Leaves Uses: Fresh leaf juice used to treat asthma.stomach.ulcer

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e: <i>Centella asiatica</i> L. eae e: Thankuni
: Thankuni
ives
tract is used for liver
gastric trouble, skin
ic dysentery.
e: Abutilon indicum (L.)
ceae
ecue e: Atibol
ds and Bark
d in piles, gonorrhea
4 1:
name: Anacardium
rdiaceae
e: Kaju
ole plant, Leaves,
d as purgative, fruit
isease.
e: Bauhinia purpuria L.
pinaceae
: Rakta kanchan
ole plant, Leaves
ed for skin disease, and
d used in piles.
e: <i>Mimosa pudica</i> L.
saceae
e: Lajjabati
-1. ulaud I.a
ole plant, Leaves
nd rootsare used in piles
name: Bryophyllum
n.) Oken
laceae
D 1
e: Pasan veda
e: Pasan veda

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	Uses: Plant can be anticantia qualities		Uses: Dysontomy cough asthma favor
	Uses: Plant sap has antiseptic qualities,		Uses: Dysentery, cough, asthma, fever,
Sl.	and leaves are used for bandages.	Sl.	constipation. Scientific name: <i>Azadirachta indica</i> A.
SI. No.	Scientific name: <i>Kalanchoe pinnata</i> .		
	Lamm	No.	Juss.
55	Family: Crassulaceae	56	Family: Meliaceae
	Common name: Patharkuchi		Common name: Neem
	Habit: Herb		Habit: Herb
	Parts used: Whole plant, Leaves,		Parts used: Whole plant, Leaves,
	Uses: Diuretic, wound healing,		Uses: Leucoderma, piles, wounds, all
<u></u>	inflammatory activity.	<u>C1</u>	types of skin inflammation.
Sl.	Scientific name: Nyctanthus arbortristis	Sl.	Scientific name: Termelia arjuna
No.	Linn.	No.	(Roxb) Wight & Ara.
57	Family: Oleaceae	58	Family: Combretaceae
	Common name: Sheuli		Common name: Arjun
	Habit: Herb		Habit: Herb
	Parts used: Whole plant, Leaves		Parts used: Whole plant, Leaves
	Uses: Dry cough, Sciatica, arthritis,		Uses: Hypolipiderma, reduced
	Dengue fever, ringworm.		cholesterol level, cardiac stimulant.
S1.	Scientific name: Ocimum sanctum L.	S1.	Scientific name: Crotalaria juncea L.
No.	Family: Lamiaceae	No.	Family: Fabaceae
59	Common name: Tulshi	60	Common name: Atashi
	Habit: Herb		Habit: Herb
	Parts used: Whole plant, Leaves		Parts used: Whole plant, Leaves
	Uses: Common cold & antiseptic.		Uses:-To treat urinary problems,
			Eczema, and skin problem.
S1.	Scientific name: Swietentia mahagoni (L)	S1.	Scientific name: Mentha arvenensis
No.	Jacq	No.	Linn.
61	Family: Meliaceae	62	Family: Lamiaceae
	Common name: Mehogani		Common name: Pudina
	Habit: Tree		Habit: Herb
	Parts used: Bark, Leaves and seed		Parts used: Whole plant, Leaves
	Uses: Cure colon cancer, boost immunity,		Uses: Antiseptic, diuretic digestive
	reduce cholesterol level.		
Sl.	Scientific name: Duranta erecta L.	S1.	Scientific name: Ziziphus jujube Mill.
No.	Family: Verbenaceae	No.	Family: Rhamnaceae
63	Common name: Duranta	64	Common name: Kul
	Habit: Small Shrub		Habit: Tree
	Parts used: Leaves		Parts used: Fruit
	Uses: Mosquito repellant, used to treat		Uses: Used for treating fever, and
	jaundice		wound ulcers, leaves used for anti-
			helminths, stress and reduce
			constipation.
Sl.	Scientific name: Emblica officinalis L.	Sl.	Scientific name: <i>Mimusops enlengi</i> L.
L71-			
No. 65	Family: Euphorbiaceae Common name: Amlaki	No. 66	Family: Sapotaceae Common name: Bakul

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	Parts used: Whole plant, Leaves Uses: Antioxidant		Parts used: Whole plant, Leaves Uses: Prevent bleeding of gum, used to treat
Sl. No. 67	Scientific name: <i>Aerva aspera</i> L. Family: Amaranthaceae Common name: Apang Habit: Herb Parts used: Whole plant and seed Uses: Used for treatment of depression, anxiety and hydrophobia.	Sl. No. 68	dental carries, pyorrhea. Scientific name: <i>Crenum asiaticum</i> L. Family: Amaryllidaceae Common name: Sukha darshan Habit: Herb Parts used: Leaves Uses: Leaves are used in carbuncle, cancer, and wound.
Sl. No. 69	Scientific name: <i>Aloe berberadensis</i> Mill. Family: Liliaceae Common name: Ghrita kumari Habit: Herb Parts used: Leaves Uses: Joint pain, skin disease, liver problem.	Sl. No. 70	Scientific name: <i>Rauvolfia serpentine</i> (wall.) Benth. ex. Hook. f. Family: Apocynaceae Common name: Sarphagandha Habit: Herb Parts used: Roots and seeds Uses: Hypertension, reduce high blood pressure.
Sl. No. 71	Scientific name: <i>Gomphrena globosa</i> Family: Amaranthaceae Common name: Botam phul Habit: Herb Parts used: Leaves Uses: Cough, diabetes, oliguria (child)	Sl. No. 72	Scientific name: <i>Euphorbia ayapana</i> Vent. Family: Euphorbiaceae Common name: Ayapon Habit: Herb Parts used: Leaves Uses: Leaves used in antiseptic, haemorrhage, foul ulcer, stomachache, anti-bacterial and anti fungal.
Sl. No. 73	Scientific name: <i>Amaranthus spinosus</i> L. Family: Amaranthaceae Common name: Kata Notey Habit: Herb Parts used: Whole plant Uses: Whole plant as laxative, diuretic, stomachic, anti-pyretic, improve appetite, hallucination, bronchitis, Leucorrhoea	Sl. No. 74	Scientific name: Andrographis paniculata (Brum. f.) Wall. ex. Nees Family: Acanthaceae Common name: Kal Megh Habit: Herb Parts used: Whole plant Uses: Whole plant used in fever, dyspepsia, scabies, leprosy, whooping cough, liver disorder, and loss of appetite.
Sl. No. 75	Scientific name: <i>Amaranthus viridis</i> L. Family: Amaranthaceae Common name: Bon Notey Habit: Herb Parts used: Whole plant Uses: Whole plant used in stomachic, diuretic, colic pain, piles, gonorrhea, Root- stop bleeding from cut stomaching Road, Ma	SI. No. 76	Scientific name: <i>Cassia tora</i> L. Family: Caselpinaceae Common name: Chakwar Habit: Herb Parts used: Seed and Leaves Uses: Leaves used in dysentery and skin disease.

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S1.	Scientific name: Carrica papya	Sl.	Scientific name: Curcuma longa L.
No.	Family: Caricaceae	No.	Family: Zingiberaceae
77	Common name: Pepe	78	Common name: Halud
//	Habit: Small tree	70	Habit: Herb
	Parts used: Fruit and Milky juice, and		Parts used: Rhizome
	leaves		Uses: Anti-oxidant, anti-
	Uses: Milky fruit juice used to remove		inflammatory, anti-microbial and
	blemishes, anti-helminthes, diuretic,		have healing properties
	constipation, glandular tumor, eczema.		have heating properties
Sl.	Scientific name: <i>Paederia foetida</i> L.	S1.	Scientific nome: Tridar procumbers
No.		No.	Scientific name: <i>Tridax procumbens</i> .
1NO. 79	Family: Rubiaceae		Family: Asteraceae
19	Common name: Gadal	80	Common name: Tridakha
	Habit: Climber, Herb		Habit: Herb
	Parts used: Whole plant		Parts used: Whole plant
	Uses: Rheumatism, Leaves- applied to		Uses: Wound healing, anti-coagulant,
	urinary infection, urinary bladder stone,		anti-fungal and insect repellent,
	flatulence, diarrhoea and dysentery, Fruit-		infectious skin disease, liver disorder,
	toothache, Root- piles and liver		gastritis, heart burn.
	inflammation.	G1	
Sl.	Scientific name: <i>Pouzolzia indica</i> .	Sl.	Scientific name: Commelina
No.	Family: Uitriaceae	No.	benghalensis.
81	Common name: Tuici	82	Family: Comelinaceae
	Habit: Herb		Common name: Kansira
	Parts used: Leaves and root		Habit: Herb
	Uses: Leaves used in gangrenous ulcers,		Parts used: Whole plant.
	syphilis, and gonorrhea.		Uses: Leprosy, infertility in women,
~ 1		~1	sore throat and burns, diarrhoea.
S1.	Scientific name: Agaratum conyzoids	Sl.	Scientific name: Sida cordifolia Linn.
No.	Family: Asteraceae	No.	Family: Malvaceae
83	Common name: Uchunti	84	Common name: Bala
	Habit: Herb		Habit: Erect perennial herb
	Parts used: Whole plant		Parts used: Roots, Leaves and bark
	Uses: (i) Whole plant: The whole plant is		Uses: (i) Root juice: Healing the
	anti-inflammatory and anti-allergic. The		wounds
	plant's juice is used for healing wounds,		(ii) Leaves: Used in ophthalmia, the
	cuts, etc.		decoction of plants used in piles. It also
	(ii) Leaves: The fume of dried leaves used		used for respiratory troubles.
	as mosquito repellents.		(iii) Barks: It is used as an astringent
S1.	Scientific name: Sonchus arvensis Linn.	Sl.	Scientific name: <i>Piper longum L</i> .
No.	Family: Asteraceae	No.	Family: Piperaceae
85	Common name: Dudhi	86	Common name: pipul
	Habit: Annual herb		Habit: Climber
	Part Uses: Roots and leaves		Parts used: Seed and leaves
	Uses: Root-useful in jaundice and leaves -		Uses: Commonly used in chronic
	cooling, sedative, diuretic, useful in cough,		bronchitis, asthma, constipation,
	bronchitis and asthma	adhyam	gonorthoea, paralysis of the tongue,

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			diarrhea, cholera, malaria and
			respiratory trouble
S1.	Scientific name: Ricinus communis Linn.	Sl.	Scientific name: Phyllanthus niruri
No.	Family: Euphorbiaceae	No.	Auct.
87	Common name: Varenda	88	Family: Phyllanthaceae
	Habit: Annual Shrubs		Common name: Bhui amla
	Parts Uses: Leaves and seed		Habit: Annual Herbs
	Uses: Seed oil is purgative, and leaf paste		Part uses: Whole plant
	is used as poultice on sore, gout, or		Uses: Seed is used in jaundice, liver
	rheumatic swelling.		disease. The whole plant treats
	C C		gonorrhea, menorrhagia and other
			genital disease. The leaves are used in
			stomachic, dysentery and ulcer.
Sl.	Scientific name: Oxalis corniculata Linn.	Sl.	Scientific name: <i>Heliotropium</i>
No.	Family:- Oxalidaceae	No.	indicum Linn.
89	Common name: Amrul	90	Family: Boraginaceae
07	Habit: Small perennial Herb	20	Common name: Hatisur
	Parts Uses: Entire plant		Habit: Erect annual herbs
	Uses: Pant is used to treating scurvy,		Parts Uses: Leaves
	influenza fever, urinary tract infection,		Uses: Leaves - applied to boils,
	muscular swelling and in stomachic		ulcers, wounds, and in stings of insect
Sl.	Scientific name: <i>Ocimum basilicum</i> Linn.	Sl.	Scientific name: <i>Nicotiana</i>
No.	Family: Lamiaceae	No.	plumbaginifolia Viv.
91	Common name: Babui tulsi	92	Family: Solanaceae
71	Habit: Branched scented herb	12	Common name: Bon tamak
	Part Uses: Whole plant		Habit: Annual Herbs
	Uses: Root is used in bowel complaints of		Parts Uses: Leaves
	children, Seed-useful in dysentery,		Uses: Sedative, emetic, antiseptic used
	diarrhoea, Flower-diuretic, carminative		in rheumatic pain and swelling, and
	and Leaves are used in respiratory trouble.		also in skin disease.
Sl.	Scientific name: <i>Nerium olenader</i> Linn.	Sl.	Scientific name: <i>Cajanus cajan</i> (Lin)
No.	Family: Apocynaceae	No.	Mill
93	Common name: Rakta karabi	94	Family: Papilionaceae
15	Habit: Small tree	74	Common name: Arahar
	Parts Uses: Leaves and roots		Habit: Shrub
	Uses: Root bark is used in skin diseases of		Parts used: Leaves and seeds
	a scaly nature and leprosy. Leaf paste is		Uses: Leaves are used in the treatment
	used to reduce swelling.		of cough, bronchitis, diarrhoea, sores,
	used to reduce swerning.		wounds and liver problem. Seed are
			used to treat mouth ulcers, tumors, and
			vomiting.
Sl.	Scientific name: <i>Nymphaea stellata</i> Wild.	S1.	Scientific name: Lawsonia inermis
No.	Family: Nymphaeaceae	No.	Lin.
95	Common name: Saluk	96	Family: Lythraceae
50	Parts used: Whole plants, seeds, flower	20	Common name: Mehendi
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	 Uses: i) It has antiseptic and anti-microbial properties. ii) It is used for the treatment of chronic diarrhoea. iii) Seed: Seed is used for diabetes iv) Flower: Flower cooling is used as an astringent for piles, liver disease 		Parts used: Leaves and Bark Uses: Bark is useful in jaundice, enlargement of the spleen, and skin disease. Leaves externally used in headaches, promote hair growth and burning feet.
S1.	Scientific name: <i>Mimosa pudica</i> Linn.	Sl.	Scientific name: <i>Boerhaavia repens</i> L.
No.	Family: Mimosaceae	No.	Family: Nyctaginaceae
97	Common name: Lajjabati	98	Common name: Punarnava
	Habit: Small prostrate diffuse herb		Habit: Branched diffused herbs
	Parts used: Root and leaves		Parts use: Whole plant
	Uses: i) Root and leaves: Root and leaves		Uses: i) Whole plant is a diuretic,
	are used in piles and fistula.		laxative, expectorant, useful in asthma,
	ii) Leaves: The pest of Leaves are applied		diarrhoea, dysentery, Oedema,
Sl.	to cure for hydrocele. Scientific name: <i>Euphorbia hirta</i> Linn.	Sl.	anaemia, Jaundice, Cholera Scientific name: <i>Acalypha indica</i>
No.	Family: Euphorbiacea	No.	Linn.
99	Common name: Dudurli	100	Family: Euphorbiacea
	Habit: Herb		Common name: Muktojhuri
	Parts used: Whole plant		Habit: Erect annual herbs
	Uses: i) Plant is used in the disease of		Parts used: Root, leaves
	children worm, bowel complaints, cough,		Uses: Root: Decoction of root is
	bronchial infection, asthma, dysentery etc.		emetic, expectorant, and useful in
			pneumonia and asthma. ii) Leaves: Laxative and also used in
			scabies.
S1.	Scientific name: Croton bonplandianum	Sl.	Scientific name: Solanum nigram
No.	L.	No.	Linn.
101	Family: Euphorbiacea	102	Family: Solanaceae
	Common name: Bontulsi		Common name: Kakamachi
	Habit: Erect much-branched herb		Habit: Annual herb
	Parts used: Root, bark, seed and leaf		Parts used: Leaves, fruits
	Uses: Seed and bark are used for the		Uses: (i) Leaf is used to treatment for
	treatment of jaundice, acute constipation ii) Leaves are used for the treatment of		skin diseases like scabies, ringworm, swelling, and herpes disease.
	ringworm, bronchitis, asthma and body		(ii) Leaf juice used for the treatment of
	swelling		rat bites.
	0		(iii) Leaves, fruits: Leaf and fruit used
			in asthma.
S1.	Scientific name: Physalis minima	S1.	Scientific name: Vernonia cinerea
No.	Family: Solanaceae	No.	Linn.
103	Common name: Bantepari or patka	104	Family: Asteraceae
	Habit: Small annual Herb		Common name: Kukasim
	Parts used: Fruit and leaf		Habit: Perennial herb
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	Uses: leaves used for treatment of diabetes, jaundice, leprosy, measles, worm manifestation ii) Fruit used as diuretic and purgative		Uses: the paste of the leaves and stem is used for the treatment of wounds and localize swelling, elephantiasis disease, skin disease Root and leaves are also used in constipation.
S1.	Scientific name: Eclipta alba	S1.	Scientific name: Scoparia dulcis
No.	Family: Asteraceae	No.	Family: Plantaginaceae
105	Common name: Keshuth	106	Common name: Bon dhone
	Habit: Herb		Habit: Small Herb
	Parts used: Leaves and root.		Parts used: Leaves
	Uses: Root-emeti, purgative, applied externally as antiseptic to ulcers and		Uses: Traditionally used in diabetes, dysentery, headache, toothache,
	wounds. Leaves are useful to jaundice and		earache stomach problems.
	also promote the hair growth.		eardene stomaen problems.
S1.	Scientific name: <i>Cassia occidentalis</i> L.	Sl.	Scientific name: Cassia alata L.
No.	Family: Caesalpiniaceae	No.	Family: Caesalpiniaceae
107	Common name: Chakor	108	Common name: Dadmari
	Habit: Small shrub		Habit: Shrub
	Parts used: Whole plants		Parts used: Leaves,
	Uses: Plant- purgative, diuretic, febrifuge,		Uses: i) Leaves: The leaves are used as
	tonic and used fully in skin disease		asthma, diuretic, purgative, ringworm and other skin diseases.
S1.	Scientific name: Cyperous rotundus L.	Sl.	Scientific name: Cassia alata (L.)
No.	Family: Cyperaceae	No.	Roxb.
109	Common name: Muthaghas	110	Family: Fabaceae
	Habit: Herb		Common name: Dadmari
	Parts used: Herb, Rhizome/		Habit: Shurb
	Uses: 2-3 teaspoons of rhizome extract or		Parts used: Leaves
	paste of (5 rhizomes) are used to treat for		Uses: Scabies, eczema, candidacies
	eliminating female infertility and irregular menstrual cycle 21 days after every		and fungal disease
	menstrual cycle.		
S1.	Scientific name: Euphorbia meriifolia	S1.	Scientific name: Barleria lupulina
No.	Family: Euphorbiaceae	No.	Lindl.
111	Common name: Manasa Gach	112	Family: Acanthaceae
	Habit: Shrub,		Common name: Kata Bishalya Karani
	Parts used: old Leaves		Habit: Shrub
	Uses: Dry cough, chest pain, broken bone		Parts used: Leaves
	pain.		Uses: Eczema, stop bleeding from cuts
			and wounds and accelerate their
			recovery.

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bone pain, joint pain

Sl.	Scientific name: Stephania japonica	S1.	Scientific name: Jatropha
No.	(Thumb) Miers		gossypifolia Linn.
113	Family: Meninspermaceae		Family: Euphorbiaceae
	Common name: Nemuwa		Common name: Lal Vanda
	Habit: Climber,		Habit: Shrub
	Parts used: Stem, Leaves		Parts used: Exudates
	Uses: Rheumatic pain, arthritis, broken		Uses: Dysentery, skin diseases,

rheumatism



7. Conclusion:According to the results of a recent green audit, the GOUR MAHAVIDYALAYA has identified a few sites on campus that may use some work to further sustainability goals. Implementing the offered solutions has the potential to result in a number of positive environmental outcomes, including decreased energy consumption, improved waste management, enhanced water use efficiency, expanded sustainable transportation options, and heightened environmental consciousness. By putting these alterations into effect, GOUR MAHAVIDYALAYA will be able to demonstrate to its pupils how to responsibly care for the environment and make a contribution towards a more sustainable future.

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Green Audit Report (2020-21) Of GOUR MAHAVIDYALAYA



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1. Introduction:

Between the years 2020 and 2021, the Green Audit Committee at GOUR MAHAVIDYALAYA carried out a comprehensive environmental review of the institution. This audit's primary objective was to analyse the college's overall sustainability initiatives, as well as the college's ecological effect, energy consumption, waste management practices, and trash disposal procedures. This report provides an overview of the most important findings, recommendations, and a proposed action plan to enhance the environmental performance of the college.

Sl No	Name of the Members	Designation
1	Dr. Ashim Kumar Sarkar	Principal
2	Dr. Pulak Kumar kundu	IQAC Coordinator
3	Dr. Md. Murshed Alam	NAAC Coordinator
4	Dr. Niranjan Kumar Mridha	Bursar
5	Suresh Rano (SDO)	Administrator
6	Arup Roy	Member
7	Syfujjaman Tarafder	Member
8	Dichen Lhamu Sherpa	Member
9	Dipjyoti Singha	Member
10	Sangita Singha	Member
11	Sipendranath Mandal	Non-Teaching Member

Green Audit Working Team (2020-21):

2. The Necessity of a Green Audit:

The need for green audits, also known as environmental audits or sustainability audits, is rising in today's society for a number of reasons.

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(a) Effects on the Environment: Green audits help to assess and lessen an organization's harmful environmental impact. They analyse factors such as energy consumption, trash generation, water use, and emissions to find areas that could be improved to decrease environmental harm.

(b) Conformity with Regulations: The environmental regulations and rules that have been established in many countries must be followed by businesses. Green audits help companies adhere to standards so they can avoid penalties or other legal implications for non-compliance.

(c) Savings on Expenses:Green audits can identify inefficient practises and inefficiencies within a business, providing opportunities for cost savings. By studying energy use, resource consumption, and waste management, businesses can put strategies into practise to reduce operational costs and increase overall efficiency.

(d) **Reputation and the Expectations of Stakeholders:**Customers and other stakeholders now call organisations to adopt more environmentally friendly practises. Green audits promote trust among customers, employees, investors, and communities by demonstrating an organization's transparency and commitment to sustainability.

(e) **Risk Management:**Environmental hazards can have serious financial and reputational ramifications for firms, including pollution events, regulatory noncompliance, and supply chain interruptions. By evaluating environmental management systems, ensuring sufficient controls are in place, and putting preventative measures in place to deal with possible problems, green audits assist in identifying and mitigating these risks.

(f) Continuous Improvement: Green audits encourage a continuing commitment to sustainability rather than being one-time events. Organizations can see trends, set goals, and implement improvement initiatives by routinely evaluating and tracking environmental performance. This iterative process promotes a culture of sustainability and propels long-lasting transformation.

(g) Sustainable Development Goals (SDGs): An international framework for solving urgent environmental and social issues is provided by the Sustainable Development Goals. Organizations can better align their operations with these objectives with the aid of green audits, paving the way for a more just and sustainable future. Green audits are essential to evaluate, enhance, and confirm

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environmental performance. They allow companies to control risks, comply with rules, cut costs, improve reputations, and support sustainable development.

3. Methodology for Green Audit:

Audits of an organization's environmental performance and practices are known as "green," "environmental," or "sustainability" audits. They entail assessing the company's influence on the environment, resource usage, waste management, and adherence to environmental legislation. Here is a procedure for carrying out a green audit:

- (a) Planning:
- (b) Identify audit team and resources:

(c) Develop an audit plan: Create a detailed plan outlining audit activities, timelines, responsibilities, and communication channels.

- (d) Data Collection:
- (e) Gather information:
- (f) Conduct site visits and interviews:
- (g) Review documentation:
- (h) Evaluation and Analysis:
- (i) Assess environmental impacts:
- (j) Evaluate compliance:
- (k) Identify strengths and weaknesses:
- (1) Quantify results:
- (m) Reporting:
- (n) Prepare an audit report:
- (o) Communicate results:
- (p) Follow-up and Improvement:
- (q) Develop an action plan:
- (r) Monitor progress:
- (s) Continuous improvement:

The methodology adopted to conduct the Green Audit of the Institution had the following components.

3.1. On-site Visit :

The Green Audit Team carried out the five-day field trip. The tour's main goal was to evaluate the Institution's waste management procedures, energy



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conservation tactics, and other aspects of its green cover. The protocols for sample collection, preservation, and analysis were followed scientifically.

3.2. Focus Group Discussion :

The nature club, staff, and management members participated in focus group discussions on various facets of the green audit. Identification of attitudes and awareness towards environmental issues at the institutional and local levels was the main topic of discussion.

3.3. Energy and waste management Survey:

The audit team evaluated the college's waste generation, disposal, and treatment facilities as well as its energy usage pattern with the assistance of teachers and students. A comprehensive questionnaire survey method was used to carry out the monitoring.

4. Target Areas of Green Auditing:

An environmental audit is one of the steps involved in the process of resource management. Green audits are useful despite the fact that they are one-off occurrences. This is due to the fact that they are carried out on a regular basis, and the results of the audits might shift or get better over time. The concept of an eco-campus centers primarily on making effective use of water and energy while simultaneously reducing pollution and the amount of trash produced.

Several indicators will be evaluated during the "Green Auditing of this Educational Institute" procedure. Eco-campus focuses on these goals in order to reduce emissions, obtain a reliable and affordable energy supply, encourage and improve energy conservation, decrease the institute's energy and water use, reduce the amount of waste that is sent to landfills, and incorporate environmental considerations into all contracts and services that are thought to have significant environmental impacts. Eco-campus also focuses on these goals in order to improve the quality of life on campus. The water, the electricity, the rubbish, and the green campuses are the key focuses of this environmental audit.

4.1. Energy Consumption:

4.1.1. Lighting:According to the findings of the audit, a significant number of the college's lighting fixtures are both inefficient and out of date. It is recommended to make advantage of natural light whenever it is feasible, to install



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occupancy sensors, and to replace traditional light bulbs with LED light bulbs that are more energy efficient.

4.1.2. Heating, Ventilation, and Air Conditioning (HVAC):

It was found that the HVAC systems were operating at a lower level of efficiency than was required. Switching to heating, ventilation, and air conditioning (HVAC) equipment that is more energy-efficient, installing thermostats that are programmable, and keeping up with normal maintenance can significantly cut energy consumption.

4.1.3. Energy Awareness:Both the faculty and the student body should be encouraged to engage in energy-saving behaviours by the college. Campaigns, instructional activities, and financial incentives for projects that save energy are all potential ways to assist in accomplishing this goal.

Electrical device/items	Number	Power(watt)	Usage time (hr/day)
Normal Tubelight	380	15200	10:00 am to 6:00 pm
LED Tubelight	200	2800	Do
Normal Bulb	55	5500	Do

Details electrical requirements:

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LED Bulb	21	1294	Do
Ceiling Fan	517	51700	Do
Wall fan	36	3600	Do

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Silent DG sets are designed to generate a very low level of background noise, just as their name suggests. Their structures are constructed to eliminate virtually all noise and vibrations due to careful design. Because

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of this, they are not harmful to the environment and are ideally suited for use in residential areas.

4.2. Waste Management:

4.2.1. Recycling:Despite the fact that recycling canisters were located all around the campus, the audit indicated that there was insufficient separation of recyclable materials and inadequate information regarding products that might be recycled. This was the case despite the fact that recycling canisters were located everywhere. An increase in the percentage of materials that are recycled can be accomplished in a number of different ways; some of these ways include making the signs clearer, providing instructions that are free of ambiguity, and carrying out an intensive recycling education programme.

4.2.2. Composting: At the organisation, composting facilities can be established so that the organic waste that is produced by the residents of the hostel (both boys and girls) can be disposed of in an appropriate manner. Composting not only produces useful compost that can be utilised for campus landscaping and gardening, but it also contributes greatly to a reduction in the amount of waste that is dumped in landfills. This is one of the many benefits of composting.

able. Different types of waste generated in the conege and then disposal				
Types of waste	Particulars	Disposal method		
E-Waste	Computers, electrical	Store these in a separate		
	and electronic parts	tank, and we can start		
		selling them directly		
		after a certain amount of		
		time.		
Plastic waste	Pen, Refill, Plastic water	Items made of plastic		
	bottles and other plastic	that are only intended to		
	containers, wrappers etc	be used once, such as		
		bottles, jars, and		
		bags. Encourage people		
		to use water bottles and		
		other containers that may		
		be reused. Establish		
		distinct recycling		
		containers for plastic		
		garbage, and after a		
		predetermined period of		

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



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adhere strictly to all safety regulations.WastewaterWashing, urinals, bathroomsSoak pitsGlass wasteBroken glass wares from the labsGlass debris should be kept separate from other recyclable materials and disposed of in containers that are specifically intended for glass	Solid wastes	Paper waste, Damaged furniture, paper plates, food wastes	time, we will be able to begin selling the collected recyclables directly. Reuse after maintenance energy conversion. Installing composting systems on a college campus will allow for the conversion of discarded food into nutrient-dense compost that may be used in the campus landscaping or in community gardens. Another option is for institutions to form partnerships with farmers in the surrounding area to
WastewaterWashing, urinals, bathroomsSoak pitsGlass wasteBroken glass wares from the labsGlass debris should be kept separate from other recyclable materials and disposed of in containers that are specifically intended for glass recycling. Make sure that you recycle glass in the correct manner by coordinating with the local recycling centers.	Chemical wastes	Laboratory waste	Water should be used to neutralise. When dealing with hazardous garbage, adhere strictly to all
Glass wasteBroken glass wares from the labsGlass debris should be kept separate from other recyclable materials and disposed of in containers that are specifically intended for glass recycling. Make sure that you recycle glass in the correct manner by coordinating with the local recycling centers.	Wastewater	•	
Nantary Nankin Incineratory		Broken glass wares from	kept separate from other recyclable materials and disposed of in containers that are specifically intended for glass recycling. Make sure that you recycle glass in the correct manner by coordinating with the local recycling centers.



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4.3. Water Usage:

4.3.1. Water Fixtures:Numerous locations within the college had outdated and ineffective water fixtures, which caused excessive water use. Water resources can be saved by swapping these fixtures for low-flow models and encouraging staff and students to practice water-saving habits.

Water	management	table:
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Water Management Tasks	Frequency	Responsible Party
Routine examination of water	Monthly	Green Audit Working Team
supplies		
Testing for drinking water	Half-yearly	Do
quality		
Awareness of water	Half-yearly	Green Audit Working Team &
conservation		various department
Infrastructure for water	As needed	Caretaker
distribution that needs upkeep		
and repair		
Reporting and analysis of	Annually	Green Audit Working Team &
water use		Caretaker
Learn what causes excessive	As needed	Caretaker
water consumption.		

Tabular data detailing the subject at hand:

Sl No	Parameters	Response
1	Source of water	Municipality, Underground, Pond
		(approx. 3 Bigha) & Rain Harvesting
		Water
		Note: The ground's water serves as a
		drinking water supply for around 3000
		people, including students and staff
		members.
2	Source of Drinking	Ground's water, 13 numbers water
	Water	purifier

•		
3	Any treatment for	, I
	drinking water	Note: Water purifiers have been
		installed in 1-2 numbers on each floor
		and are maintained for 3-4 months
		afterward.
4	What is the total number	13 numbers
	of motors that are used?	
5	What is the total number	13 numbers@ 1000 liters each
	of water tanks? Capacity	
	of tank	
6	Tap water	200numbers
	Quantity of water	12000 liters/per day
	pumped every day	
7	Do you waste water, and	No
	if so, why?	
8	How much water is	500 liters/per day
	required for gardening	
	purposes?	
10	Do you have access to	Yes
	rainwater harvesting?	
11	The number of units	01 number, We have constructed a water
	harvested and the total	canal to connect a college pond that is
	volume of water	1500 square feet and 2,000 liters of 02
		tanks to store rainwater.
12	Any leaky taps	None
13	Daily amount of water	Not applicable
	that is lost.	
14	Is there any kind of plan	Raise public awareness regarding the
	for the management of	importance of water conservation, the
	water?	prevention of pollution, and the
		implementation of sustainable water
		management practices. Unambiguous
		water rights and equitable water
		allocation regulations should be
		established to ensure that water is



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		distributed fairly among the many different users.
15	Have any methods for conserving water been implemented?	Rainwater Harvesting

4.4.1. Public Transport: Cycle, van, Rikhsha, Train, bus etc.

4.5. Overall Environmental Awareness:

4.5.1. Curriculum Integration:The institution can incorporate environmental consciousness and sustainable practices into its curriculum in a variety of topic areas. Students will be provided with teaching and training in environmental stewardship thanks to this technique, which will also encourage them to think in a sustainable manner.

Environmental Parameters Program					
	1 al alletet s	Program			
awareness across		time			
different subjects					
Language Arts	Discuss texts from literature that are in some way connected to topics concerning the environment, such as conservation or environmental advocacy. Compose poetry or essays that argue for the protection of the environment and use persuasion. Conduct research on a variety of environmental topics, then present your findings. Through various awareness programs, they understand the environmental laws and regulations that apply on the local, national, and international levels. Discuss the roles that governments, NGOs, and people play in the effort to solve environmental problems. Investigate the environmental concerns from both a historical and cultural point of view.	Whole year			

Environmental awareness:

	T (1) (1) 1	XX 71 1
Arts	Investigate the causes of climate change and possible solutions to the problem.Analyse the impact that human activities have had on different landscapes as well as the distribution of natural resources. Studies should be done on urbanization, logging, and industry's impact on the natural environment. Investigate geographical approaches to resolving environmental issues, such as environmentally responsible land management planning.	Whole year
Pure Science	Conduct studies on environmental issues, such as assessing water quality, soil analysis, power consumption or recycling.To better comprehend environmental patterns and forecasts, consider using mathematical models. Investigate the repercussions of environmental actions on the economy, such as doing cost-benefit analyses for environmentally friendly projects.	each program
Bio-Science	Study subjects include ecosystems, biodiversity, and the interconnectedness of all living things.	Whole year
Physical Education	Encourage students to develop an appreciation for the natural world by having them participate in outdoor sports and activities. Talk about the significance of physical activity for both one's own health and the health of the environment (for example, taking bike instead of the car).	Whole year
NSS	To enhance the amount of green cover and fight deforestation, organizing tree- planting events in local communities and educational institutions is important. To combat littering and to encourage a clean environment, it is important to organize routine clean-up	Whole year



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> efforts in public places like parks and beaches. To educate both students and members of the general public about environmental issues such as climate change, waste management, renewable energy, and conservation, workshops and seminars should be organized. It should be priority to create a opportunities for individuals to engage with the natural world and develop a sense of ownership over its preservation through participating in hikes and other outdoor activities. To raise awareness environmental about issues and motivate people to take action, you might use social media, posters, and booklets.



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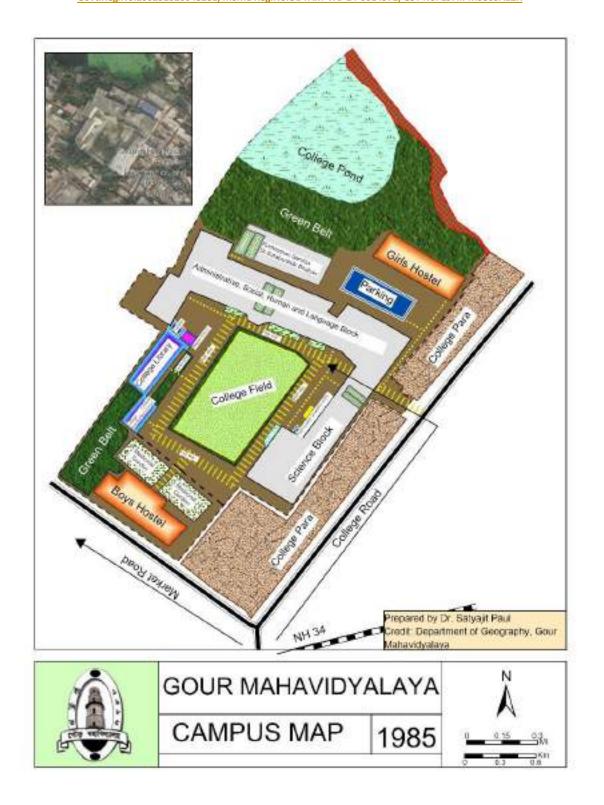


4.5.2. Student Engagement: A culture of sustainability can be promoted among students by supporting student-led projects, creating environmental groups, and holding awareness events and workshops.

The second light Danishing

MANAGEMENT SYSTEM CONSULTANCY

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5. Green Campus:

5.1.Floral Diversity:

The following are some actions to take into account when setting up a plantation programme at your college:

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-Organise a group of academics, employees, and students who are interested in managing the plantation programme. Assign roles and duties to make the execution go smoothly.

-Consult with local forestry professionals or environmental groups to discover native or adapted tree species that are well-suited to the climate, soil, and goal of the plantation programme. Research and choose suitable tree species.

-To obtain the necessary approvals or permits for planting trees on campus or in the neighborhood, check with the college administration or other appropriate authorities.

- Look into possible funding options, including grants, sponsorships, or collaborations with nearby companies or environmental organizations. This will aid in defraying the price of buying trees, equipment, and other required supplies. - Establish the plantation event's date, time, and venue. Plan the delivery of the trees, tools, and equipment to the planting location. Make sure that safety precautions are in place, including appropriate instruction on planting methods and equipment use.

-Promote the planting programme within the campus community by using various communication channels, such as posters, social media, emails, and word-of-mouth, in order to raise awareness and find volunteers. Encourage everyone to volunteer, including alumni, faculty, staff, and students.

-Volunteers should be gathered at the planting site on the appointed planting day. Give them the equipment, instructions, and direction they need to plant trees correctly. Foster a sense of accomplishment and community pride while fostering teamwork.

-Stress the significance of taking care of the freshly planted trees. This could entail routine weeding, mulching, watering, and pest or disease inspection. To guarantee the long-term well-being and survival of the trees, think about setting up a system for volunteers or staff members.

-After the plantation programme, evaluate the impact and accomplishment of the effort. Keep an eye on the trees' growth and survival rate. To determine areas for improvement and to organize upcoming plantation programmes, collect participant and stakeholder input.

To encourage participation in the upkeep and preservation of the grassland, the institution's students, instructors, and staff should be encouraged to do so.

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Volunteer initiatives, instructional workshops, and awareness campaigns are all effective ways for reaching this objective. On grasslands, it is possible for many different kinds of plants and animals to flourish. By providing a home for a wide variety of plant and animal species and so making a contribution to the preservation of ecological equilibrium, a grassland promotes a higher level of biodiversity on a campus. Grasslands have the ability to collect carbon dioxide from the air and store it in their soil, which helps in the fight against climate change by lowering overall levels of greenhouse gases.



Fig. College ground field.

The ability of the campus to maintain a healthy ecological balance is greatly dependent on the presence of ponds. They contribute to the recharging of groundwater supplies, help to limit the amount of erosion that occurs in the surrounding area, and support the ecology of the area by providing a habitat for a diverse array of flora and fauna.

5.2. Faunal Diversity:

Gour Mahavidyalaya holds approx. 2.56 acres (building land approx. 0.68 acres) of land and a large water body of approx. 0.992 acres. Hence, Gour Mhvidyalaya boasts a rich faunal diversity, thanks to its lush greenery and expansive water body. Our college is situated in the region around English Bazar and Old Malda; which possess a variety of insects, amphibian species, reptiles, birds and mammals that thrive in its subtropical climate and riverine environment. Our estimation on faunal diversity is mostly based on random sampling. Majority of the data were gathered during college hours through direct observations. We have also gathered information from different students and staffs, who were not directly member а of survey group. Around the water body a huge number of invertebrates like the insects were observed, which require more active documentation.

Amphibia

1. Indian balloon frog (*Uperodon globulosus*)

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- 2 Asian Common Toad (Bufo melanostictus)
- 3 Common tree frog (Rachophorus sp.)

Reptiles

- 1 Checkered Keelback (Xenochrophis piscator)
- 2 Buff Striped Keelback (Amphiesma stolatum)
- 3 Skink (Lampropholis sp.)
- 5 Oriental Garden Lizard (Colotes versicolor)
- 6 Wall Lizard (Hemidactylus frenatus)
- 7 Banded Krait (Bungarus fasciatus)

Birds

- 1. Crow (Corvus splendens)
- 2. House Sparrow (Passer domesticus)
- 3. Common Myna (Acridotheres tristis)
- 4. Red-vented Bulbul (Pycnonotus cafer)
- 5. Cattle Egret (Bubulcus ibis)
- 6. Black Drongo (Dicrurus macrocercus)
- 7. Barn Owl (*Tyto alba*)
- 8. Kingfisher (Alcedo atthis)
- 9. Parrot (Psittacula krameri)
- 10. Spotted Dove (Spilopelia chinensis)
- 11. Pegion (Columba sp.)

Insects

- 1. Butterflies (various species)
- 2. Honeybees (Apis cerana)
- 3. Dragonflies (various species)
- 4. Ants (various species)
- 5. Mosquitoes (Aedes and Culex species)
- 6. Grasshoppers (various species)
- 7. Termites (various species)
- 8. Ladybugs (Coccinellidae family)
- 9. Fireflies (Lampyridae family)
- 1 Houseflies (Musca domestica)

Animals

- 1. Indian Hare (Lepus nigricollis)
- 2. Jackal (Canis aureus) (Often enters college premises at night)
- 3. Indian Squirrel (Funambulus palmarum)
- 4. Rhesus Macaque (Macaca mulatta)



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- 5. Indian Pipistrelle (Pipistrellus coromandra)
- 6. Rat (*Rattus norvegicus*)
- 7. Common Cat (Felis catus)
- 8. Common Dog (Canislupurs familiaris)
- 9. Grey mangoose (Herpestidae sp.)

Our college is an oasis in the midst of concrete jungle. Conservation efforts are essential to maintain this ecological balance and protect the native species



6. Wild type Medicinal plants at medidicinal garden:

Two medicinal gardens were developed at our college premises. Many wild medicinal plant varieties were lost daily due to anthropogenic activities and pollution. After identifying these plants, we conserve these through propagation in our medicinal gardens. Any interested people or agencies can access it through the proper channel. Medicinal garden is a specific area inside the grounds of a college that is dedicated to the cultivation and upkeep of a wide range of different sorts of medicinal plants. As an educational and research resource, it makes it possible for students, faculty members, and researchers to investigate and gain knowledge on medicinal plants' varied qualities and applications. Culturing a medicinal garden on a college campus can confer major value and benefits to the surrounding academic community and society.

Table: List of wild types of medicinal plants at the premises of GOURMAHAVIDYALAYA

Sl.	Binomial name: <i>Syzygium aromaticum</i> (L)	S1.	Binomial name: Barleria prionitis L.
No.	Merril & Perry	No.	Family: Acanthaceae
1	Family: Mytraceae	2	Common name: Bazradanti
	Common name: Labanga		Habit: Herb
	Habit: Tree		Parts used: Leaves
	Parts used: Dried flower bud, leaves		Medicinal use: Leaf juice is used to
	Medicinal use: Clove oil is used as a pain		prevent tissue maceration, stop gum
	killer, for dental problems, used for the		bleeding, and as an expectorant.

	treatment of hernia, Stomach upset and as an expectorant.		
S1. No. 3	Binomial name: <i>Glycosmis pentaphyla</i> (Retz) Correa Family: Rutaceae Common name: Ash shaowra Habit: Shrub Parts used: Leaves and stem Medicinal use: Leaves are used for fever, liver complaints, and stem for ulcer.	Sl. No. 4	Binomial name: <i>Trema orcientalis</i> (L) Blume Family: Cannabaceae Common name: Jibanti Habit: Tree Parts used: Leaves and bark Medicinal use: Leaves & bark are used for cough, sore throat, asthma, and yellow fever.
Sl. No. 5	Binomial name: <i>Blumea lacera</i> (Burm. F.) Dc. Family: Asteraceae Common name: Bara cooksina Habit: Herb Parts used: Whole plant Medicinal use: Leaves used for liver tonic, antipyretic, diuretic, ophthalmic.	Sl. No. 6	Binomial name: <i>Clitoria ternatea</i> L. Family: Fabaceae Common name: Aporajita Habit: Herb, Climber Parts used: Leaves Medicinal use: Leaves are used as memory enhancer, antidepressant, sedative agent.
Sl. No. 7	Binomial name: <i>Aegel marmelos</i> (L) correa Family: Rutaceae Common name: Bel Habit: Tree Parts used: Whole plant, Leaves, Fruit Medicinal use: Fruit pulp is use for laxative, jaundice, constipation	S1. No. 8	Binomial name: <i>Elaeocarpus serratus</i> L. Family: Elaeocarpaceae Common name: Jalpai Habit: Tree Parts used: Leaves and Fruits Medicinal use: Leaves used for rheumatism and antitode of poison and fruit for dysentery.
Sl. No. 9	Binomial name : <i>Pogostemon cablin</i> (Blanco) Benth Family: Lamiaceae Common name: Pachouri Habit: Herb Parts used: Leaves Medicinal use: Used in insect repellants, and antidepressant.	Sl. No. 10	Binomial name: <i>Cympogon citrus</i> (L.) Spreng Family: Poaceae Common name: Lebughash Habit: Herb Parts used: Leaves Medicinal use: Pesticide, insecticide & antifungal and antibacterial and also used as insect repellent.
SI. No. 11	 Binomial name: Ocimum tenuiflorum L. Family: Lamiaceae Common name: Krishna Tulsi Habit: Herb Parts used: Whole plant. Medicinal use: Reduce chest congestion, germicide and tuberculosis. 	Sl. No. 12	Binomial name: <i>Stephania japonica</i> (Thumb). Micrs Family: Menispermaceae Common name: Nimukha Habit : Climber, Herb Parts used: Whole plant and Leaves. Medicinal use: Leaves are used in fever, diarrhoea, dyspepsia. Root is used to treat fever, diarrhoea and urinary disease.

G1		G1	
Sl.	Binomial name: Mikania scandense B. L.	Sl.	Binomial name: Aerva lantana L.
No.	Rob.	No.	Family: Amaranthaceae
13	Family: Asteraceae	14	Common name: Chaya
	Common name: Jarman lata		Habit: Herb
	Habit: Climbing Herb		Parts used: Whole plant
	Parts used: Leaves		Medicinal use: Antioxidant activity,
	Medicinal use: Gastric ulcer, wound insect		stop abnormal bleeding in
	bites stop bleeding from cut, It also has		menstruation.
	antimicrobial, antipyretic and anti-		
	inflammatory properties.		
S1.	Binomial name: Desmodium gangeticum	Sl.	Binomial name: Costus specious (J.
No.	(L.) Dc.	No.	Koning.) C. Specht.
15	Family: Fabaceae	16	Family: Zingiberaceae
	Common name: Shalparni		Common name: Keu
	Habit: Herb		Habit: Herb
	Parts used: Leaves and roots		Parts used: Rhizome
	Medicinal use: Heart disease,		Medicinal use: Anti-diabetic, to treat
	rejuvenation, anti dysenteric		asthma, bronchitis and fever.
S1.	Binomial name: Uraria picta (Jack) Dc.	Sl.	Binomial name: Iresine herbstii Hook.
No.	Family: Fabaceae	No.	ex Lindl.
17	Common name: Prishiparni	18	Family: Amaranthaceae
	Habit: Herb		Common name: Lal vishyalikarani
	Parts used: Whole plant, Leaves,		Habit: Herb
	Medicinal use: Hear trouble, fractured		Parts used: Leaves
	bone, cough.		Medicinal use: Healing property.
S1.	Binomial name: <i>Ruellia prostrata</i> L.	Sl.	Binomial name: <i>Barringtonia</i>
No.	Family: Acanthaceae	No.	acutangula (L) Gaertn.
19	Common name: Patpati	20	Family: Lecythidaceae
	Habit: Herb		Common name: Hijol
	Parts used: Whole plant, Leaves		Habit: Herb
	Medicinal use: Anti-cancerous against the		Parts used: Whole plant, Leaves.
	epidermis of naso-pharynx.		Medicinal use: Seed extract for anti
	opractiting of mase primy init		tumor and anti fungal.
Sl.	Binomial name: Madhuca longifollia (J.	Sl.	Binomial name: <i>Cephalandra indica</i>
No.	Konig) J. F. Macbr	No.	(W. and A.) Naud
21	Family: Sapotaceae	22	Family: Cucurbitaceae
	Common name: Mahua		Common name: Talakuch
	Habit: Tree		Habit: Herb, Climber
	Parts used: Flower and Bark		Parts used: Whole plant
	Medicinal use: Bark used for tonsillitis,		Medicinal use: Flower- Jaundice,
	gum trouble, Flower used for stimulant,		Fruits- Leprosy, bronchitis, asthma,
	laxative anti-helminthes, cough reliving,		Leaves- Cough, skin disease, Root-
S1.	respiratory disorder. Scientific name: <i>Hemidesmus indicus</i> R.	Sl.	Diabetes, gonorrhea.
			Scientific name: <i>Syzazium jambos</i> L.
No.	Br. Family: Asalanadaaaaa	No.	(Aloston)
23	Family: Asclepedaceae	24	Family: Mytraceae

	Common name: Ananta mul		Common name: Jam
	Habit: Herb		Habit: Tree
	Parts used: Whole plant, Leaves,		Parts used: Seeds and young Leaves
	Uses: Oligo-spermia, skin disease, piles,		Uses: Diabetes (seed), dysentery, anti-
	leucorrhoea.		inflammatory effect.
S1.	Scientific name: Artemisia vulguris L.	S1.	Scientific name: Ocimum gratissimum
No.	Family: Asteraceae	No.	L.
25	Common name: Nagdola	26	Family: Lamiaceae
	Habit: Herb		Common name: Chandan tulsi
	Parts used: Whole plant,		Habit: Herb
	Uses: Malaria fever, worm repellant.		Parts used: Whole plant,
	-		Uses: Antiseptic, anti microbial
			property used in common cold and
			respiratory trouble.
S1.	Scientific name: Morinda critifolia L.	S1.	Scientific name: Saraca asoca
No.	Family: Rubiaceae	No.	(Roxb.) Willd.
27	Common name: Noni	28	Family: Fabaceae
_,	Habit: Shrub	20	Common name: Ashok
	Parts used: Fruit and Leaves		Habit: Tree
	Uses: Leaf, fruit, bark used to treat AIDS		Parts used: Bark, leaves and seed
	liver disease, small pox, cancer.		Uses: Dysmenorrhoea, depression,
	nver diseuse, sman pox, euleen.		leucorrhoea.
S1.	Scientific name: Vitex negundo Linn.	Sl.	Scientific name: Murraya koenigii
No.	Family: Verbaneceae	No.	(L.) Spreng.
29	Common name: Nishinda	30	Family: Rutaceae
2,	Habit: Herb	50	Common name: Kari Pata
	Parts used: Whole plant,		Habit: Shrub
	Uses: Skin disease eczema, ring worm,		Parts used: Leaves
	spleen enlargement, expectorant,		Uses: Anti-diabetic, also used to treat
	bronchitis, asthma.		piles, inflammation, itching,
	bronemens, astimu.		dysentery.
Sl.	Scientific name: Withania somnifera (L.)	Sl.	Scientific name: <i>Cissus</i>
No.	Kuntze	No.	quadrangularis L.
31	Family: Solanaceae	32	Family: Vitaceae
51	Common name: Awshagandha	52	Common name: Harjora
	Habit: Herb		Habit: Climbing Herb
	Parts used: Seed, Leaves and root		Parts used: Whole plant
			1
	Uses: Arthritis, anxiety, oligspermia,		Uses: Heal the broken bone and
	asthma, insomnia, ulcer and neurological disorder.		ligament.
<u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>		C 1	Scientific nome: Clausday day
Sl.	Scientific name: Amomum aromaticum	Sl.	Scientific name: <i>Clerodendrum</i>
No.	Roxb.	No.	indicum L.
33	Family: Zingiberaceae	34	Family: Verbenaceae
	Common name: Alach		Common name: Bamunhati
	Habit: Herb		Habit: small tree
1	Parts used: Seed		Parts used: Leaves

	Uses: Anti oxidant, antiseptic, stomachic digestive.		Uses: Allergy, asthma, fever, bronchitis, liver problem, tuberculosis.
SI. No. 35	Scientific name: <i>Psidium guajava</i> Linn. Family: Mytraceae Common name: Payara Habit: Tree Parts used: Fruits and Leaves Uses: Fruit is used asa laxative and leaf is used for wound ulcers.	SI. No. 36	Scientific name: Adhatoda vasica Nees Family: Acanthaceae Common name: Vashak Habit: Shrub Parts used: Leaves Uses: Bronchial disease, cough, expectorates
SI. No. 37	Scientific name: <i>Wedelia calendula</i> (L.) Less. Family: Asteraceae Common name: Bhringaraj Habit: Herb Parts used: Leaves, Uses: Hair fall treatment, skin disease.	S1. No. 38	Scientific name: <i>Terminalia chebula</i> Retz. Family: Combrataceae Common name: Haritaki Habit: Tree Parts used: Fruits and seed Uses: Laxative, digestive, purgative, and healing property.
S1. No. 39	Scientific name: <i>Asparagus racemosus</i> Willd Family: Asparagaceae Common name: Satamuli Habit: Climber, Herb Parts used: Roots and Leaves Uses: Uterine tonic, hyper-acidity, galactogogue.	S1. No. 40	Scientific name: <i>Euphorbia tirucalli</i> L. Family: Euphorbiaceae Common name: Lankaseji Habit: Herb Parts used: Whole plant Uses: Used for treatment of cancer, tomour.
Sl. No. 41	Scientific name: <i>Justicia gendarusa</i> Burm. f. Family: Acanthaceae Common name: Bishahari Habit: Herb Parts used: Leaves Uses: Asthma, rheumatism, colic of children	Sl. No. 42	Scientific name: Stachytarpheta jamaicensis L. Family: Verbenaceae Common name: Jerbo Habit: Herb Parts used: Leaves Uses: Fresh leaf juice used to treat asthma, stomach ulcer
SI. No. 43	Scientific name: <i>Coleus aromaticus</i> Benth. Family: Lamiaceae Common name: Aijawan Habit: Herb Parts used: Leaves Uses: Treatment of cough, sore throat, nasal	Sl. No. 44	Scientific name: <i>Centella asiatica</i> L. Family: Apiaceae Common name: Thankuni Habit: Herb Parts used: Leaves Uses: Leaf extract is used for liver complaints, gastric trouble, skin disease, amoebic dysentery.
Sl. No. 45	Scientific name: <i>Hygrophyla spinosa</i> T. Anderson Family: Acanthaceae Common name: Kulekhara	Sl. No. 46	Scientific name: <i>Abutilon indicum</i> (L.) Sweet Family: Malvaceae Common name: Atibol

	1		
	Habit: Herb		Habit: Shrubs
	Parts used: Leaves		Parts used: Seeds and Bark
	Uses: The leaf juice is used to treat		Uses: Seed used in piles, gonorrhea
	anaemia, jaundice, and body pain.		
S1.	Scientific name: Alstonia scholaris R. Br.	S1.	Scientific name: Anacardium
No.	Family: Apocynaceae	No.	occidentali L.
47	Common name: Chatim	48	Family: Anacardiaceae
	Habit: Herb		Common name: Kaju
	Parts used: Whole plant, Leaves,		Habit: Herb
	Uses: The bark is used for digestive,		Parts used: Whole plant, Leaves,
	antipyretic, laxative, malaria fever, tumor,		Uses: Root used as purgative, fruit
	ulcer, and cancer.		used for skin disease.
Sl.	Scientific name: <i>Acacia auriculiformis</i> A.	Sl.	Scientific name: <i>Bauhinia purpuria</i> L.
No.	Cunn. ex Benth.	No.	Family: Caesalpinaceae
49	Family: Mimosaceae	50	Common name: Rakta kanchan
77	Common name: Sonajhuri	50	Habit: Herb
	Habit: Herb		Parts used: Whole plant, Leaves
	Parts used: Whole plant, Leaves,		Uses: Bark used for skin disease, and
	Uses: Leaves used in dysentery.		
Sl.		Sl.	ulcer, dried bud used in piles.
	Scientific name: <i>Gardenia latifolia</i> G. Don		Scientific name: <i>Mimosa pudica</i> L.
No.	Family: Rubiaceae	No.	Family: Mimosaceae
51	Common name: Gandharaj	52	Common name: Lajjabati
	Habit: Herb		Habit: Herb
	Parts used: Whole plant, Leaves		Parts used: Whole plant, Leaves
	Uses: Root anti-helminths, antiseptic,		Uses: Leaves and rootsare used in piles
	dyspepsia, and nervous disorder.		and fistula.
Sl.	Scientific name: <i>Sanscvieriaroxburghiana</i>	Sl.	Scientific name: Bryophyllum
No.	Schult & Schult. f.	No.	<i>pinnatum</i> (Lam.) Oken
53		54	•
33	Family: Asperagaceae	54	Family: Crassulaceae
	Common name: Murga		Common name: Pasan veda
	Habit: Herb		Habit: Herb
	Parts used: Whole plant, Leaves,		Parts used: Whole plant, Leaves,
	Uses: Plant sap has antiseptic qualities,		Uses: Dysentery, cough, asthma, fever,
	and leaves are used for bandages.		constipation.
Sl.	Scientific name: Kalanchoe pinnata.	Sl.	Scientific name: <i>Azadirachta indica</i> A.
No.	Lamm	No.	Juss.
55	Family: Crassulaceae	56	Family: Meliaceae
	Common name: Patharkuchi		Common name: Neem
	Habit: Herb		Habit: Herb
	Parts used: Whole plant, Leaves,		Parts used: Whole plant, Leaves,
	Uses: Diuretic, wound healing,		Uses: Leucoderma, piles, wounds, all
	inflammatory activity.		types of skin inflammation.
S1.	Scientific name: Nyctanthus arbortristis	S1.	Scientific name: Termelia arjuna
No.	Linn.	No.	(Roxb) Wight & Ara.
57	Family: Oleaceae	58	Family: Combretaceae
	Common name: Sheuli		Common name: Arjun
		1	

	Habit: Herb		Habit: Herb
	Parts used: Whole plant, Leaves		
	Uses: Dry cough, Sciatica, arthritis,		Parts used: Whole plant, Leaves Uses: Hypolipiderma, reduced
	Dengue fever, ringworm.		Uses: Hypolipiderma, reduced cholesterol level, cardiac stimulant.
S1.	Scientific name: <i>Ocimum sanctum</i> L.	S1.	
No.		No.	Scientific name: <i>Crotalaria juncea</i> L.
	Family: Lamiaceae Common name: Tulshi	1NO. 60	Family: Fabaceae
59		60	Common name: Atashi
	Habit: Herb		Habit: Herb
	Parts used: Whole plant, Leaves		Parts used: Whole plant, Leaves
	Uses: Common cold & antiseptic.		Uses:-To treat urinary problems,
01		01	Eczema, and skin problem.
Sl.	Scientific name: <i>Swietentia mahagoni</i> (L)	Sl.	Scientific name: Mentha arvenensis
No.	Jacq	No.	Linn.
61	Family: Meliaceae	62	Family: Lamiaceae
	Common name: Mehogani		Common name: Pudina
	Habit: Tree		Habit: Herb
	Parts used: Bark, Leaves and seed		Parts used: Whole plant, Leaves
	Uses: Cure colon cancer, boost immunity,		Uses: Antiseptic, diuretic digestive
<u></u>	reduce cholesterol level.	<u></u>	
Sl.	Scientific name: <i>Duranta erecta</i> L.	Sl.	Scientific name: Ziziphus jujube Mill.
No.	Family: Verbenaceae	No.	Family: Rhamnaceae
63	Common name: Duranta	64	Common name: Kul
	Habit: Small Shrub		Habit: Tree
	Parts used: Leaves		Parts used: Fruit
	Uses: Mosquito repellant, used to treat		Uses: Used for treating fever, and
	jaundice		wound ulcers, leaves used for anti-
			helminths, stress and reduce
<u></u>		01	constipation.
Sl.	Scientific name: <i>Emblica officinalis</i> L.	Sl.	Scientific name: <i>Mimusops enlengi</i> L.
No.	Family: Euphorbiaceae	No.	Family: Sapotaceae
65	Common name: Amlaki	66	Common name: Bakul
	Habit: Herb		Habit: Herb
	Parts used: Whole plant, Leaves		Parts used: Whole plant, Leaves
	Uses: Antioxidant		Uses: Prevent bleeding of gum, used to
			treat
G1		C1	dental carries, pyorrhea.
Sl.	Scientific name: Aerva aspera L.	Sl.	Scientific name: <i>Crenum asiaticum</i> L.
No.	Family: Amaranthaceae	No.	Family: Amaryllidaceae
67	Common name: Apang	68	Common name: Sukha darshan
	Habit: Herb		Habit: Herb
	Parts used: Whole plant and seed		Parts used: Leaves
	Uses: Used for treatment of depression,		Uses: Leaves are used in carbuncle,
~	anxiety and hydrophobia.		cancer, and wound.
Sl.	Scientific name: <i>Aloe berberadensis</i> Mill.	Sl.	Scientific name: Rauvolfia serpentine
No.	Family: Liliaceae	No.	(wall.) Benth. ex. Hook. f.
69	Common name: Ghrita kumari	70	Family: Apocynaceae
	Habit: Herb		Common name: Sarphagandha

		T	
	Parts used: Leaves		Habit: Herb
	Uses: Joint pain, skin disease, liver		Parts used: Roots and seeds
	problem.		Uses: Hypertension, reduce high blood
	1		pressure.
S1.	Scientific name: Gomphrena globosa	S1.	Scientific name: Euphorbia ayapana
No.	Family: Amaranthaceae	No.	Vent.
71	Common name: Botam phul	72	Family: Euphorbiaceae
/1	Habit: Herb	12	• •
			Common name: Ayapon
	Parts used: Leaves		Habit: Herb
	Uses: Cough, diabetes, oliguria (child)		Parts used: Leaves
			Uses: Leaves used in antiseptic,
			haemorrhage, foul ulcer, stomachache,
			anti-bacterial and anti fungal.
S1.	Scientific name: Amaranthus spinosus L.	Sl.	Scientific name: Andrographis
No.	Family: Amaranthaceae	No.	paniculata (Brum. f.) Wall. ex. Nees
73	Common name: Kata Notey	74	Family: Acanthaceae
	Habit: Herb		Common name: Kal Megh
	Parts used: Whole plant		Habit: Herb
	Uses: Whole plant as laxative, diuretic,		Parts used: Whole plant
	stomachic, anti-pyretic, improve appetite,		Uses: Whole plant used in fever,
	hallucination, bronchitis, Leucorrhoea		dyspepsia, scabies, leprosy, whooping
			cough, liver disorder, and loss of
			appetite.
S1.	Scientific name: Amaranthus viridis L.	S1.	Scientific name: Cassia tora L.
No.	Family: Amaranthaceae	No.	Family: Caselpinaceae
75	Common name: Bon Notey	76	Common name: Chakwar
	Habit: Herb		Habit: Herb
	Parts used: Whole plant		Parts used: Seed and Leaves
	Uses: Whole plant used in stomachic,		Uses: Leaves used in dysentery and
	diuretic, colic pain, piles, gonorrhea, Root-		skin disease.
	stop bleeding from cut wounds.		
Sl.	Scientific name: <i>Carrica papya</i>	Sl.	Scientific name: Curcuma longa L.
No.	Family: Caricaceae	No.	Family: Zingiberaceae
77	-	78	Common name: Halud
//	Common name: Pepe	10	
	Habit: Small tree		Habit: Herb
	Parts used: Fruit and Milky juice, and		Parts used: Rhizome
	leaves		Uses: Anti-oxidant, anti-
	Uses: Milky fruit juice used to remove		inflammatory, anti-microbial and
	blemishes, anti-helminthes, diuretic,		have healing properties
	constipation, glandular tumor, eczema.		
Sl.	Scientific name: Paederia foetida L.	S1.	Scientific name: Tridax procumbens.
No.	Family: Rubiaceae	No.	Family: Asteraceae
79	Common name: Gadal	80	Common name: Tridakha
	Habit: Climber, Herb		Habit: Herb
	Parts used: Whole plant		Parts used: Whole plant
	Uses: Rheumatism, Leaves- applied to		Uses: Wound healing, anti-coagulant,
	urinary infection, urinary bladder stone,		anti-fungal and insect repellent,
	I unnary miterion, unnary blauder stolle,		and-rungar and motor repetitin,

	flatulence, diarrhoea and dysentery, Fruit- toothache, Root- piles and liver inflammation.		infectious skin disease, liver disorder, gastritis, heart burn.
Sl. No. 81	Scientific name: <i>Pouzolzia indica</i> . Family: Uitriaceae Common name: Tuici Habit: Herb Parts used: Leaves and root Uses: Leaves used in gangrenous ulcers, syphilis, and gonorrhea.	Sl. No. 82	Scientificname:Commelinabenghalensis.Family: ComelinaceaeCommon name: KansiraHabit: HerbParts used: Whole plant.Uses: Leprosy, infertility in women,sore throat and burns, diarrhoea.
Sl. No. 83	Scientific name: <i>Agaratum conyzoids</i> Family: Asteraceae Common name: Uchunti Habit: Herb Parts used: Whole plant Uses: (i) Whole plant: The whole plant is anti-inflammatory and anti-allergic. The plant's juice is used for healing wounds, cuts, etc. (ii) Leaves: The fume of dried leaves used as mosquito repellents.	Sl. No. 84	Scientific name: <i>Sida cordifolia</i> Linn. Family: Malvaceae Common name: Bala Habit: Erect perennial herb Parts used: Roots, Leaves and bark Uses: (i) Root juice: Healing the wounds (ii) Leaves: Used in ophthalmia, the decoction of plants used in piles. It also used for respiratory troubles. (iii) Barks: It is used as an astringent
S1. No. 85	Scientific name: <i>Sonchus arvensis</i> Linn. Family: Asteraceae Common name: Dudhi Habit: Annual herb Part Uses: Roots and leaves Uses: Root-useful in jaundice and leaves - cooling, sedative,diuretic, useful in cough, bronchitis and asthma	S1. No. 86	Scientific name: <i>Piper longum L.</i> Family: Piperaceae Common name: pipul Habit: Climber Parts used: Seed and leaves Uses: Commonly used in chronic bronchitis, asthma, constipation, gonorrhoea, paralysis of the tongue, diarrhea, cholera, malaria and respiratory trouble
Sl. No. 87	Scientific name: <i>Ricinus communis</i> Linn. Family: Euphorbiaceae Common name: Varenda Habit: Annual Shrubs Parts Uses: Leaves and seed Uses: Seed oil is purgative, and leaf paste is used as poultice on sore, gout, or rheumatic swelling.	Sl. No. 88	Scientific name: <i>Phyllanthus niruri</i> Auct. Family: Phyllanthaceae Common name: Bhui amla Habit: Annual Herbs Part uses: Whole plant Uses: Seed is used in jaundice, liver disease. The whole plant treats gonorrhea, menorrhagia and other genital disease. The leaves are used in stomachic, dysentery and ulcer.
Sl. No. 89	Scientific name: <i>Oxalis corniculata</i> Linn. Family:- Oxalidaceae Common name: Amrul Habit: Small perennial Herb	Sl. No. 90	Scientific name: <i>Heliotropium</i> <i>indicum</i> Linn. Family: Boraginaceae Common name: Hatisur

		T	1
	Parts Uses: Entire plant		Habit: Erect annual herbs
	Uses: Pant is used to treating scurvy,		Parts Uses: Leaves
	influenza fever, urinary tract infection,		Uses: Leaves - applied to boils,
	muscular swelling and in stomachic		ulcers, wounds, and in stings of insect
Sl.	Scientific name: Ocimum basilicum Linn.	Sl.	Scientific name: Nicotiana
No.	Family: Lamiaceae	No.	plumbaginifolia Viv.
91	Common name: Babui tulsi	92	Family: Solanaceae
	Habit: Branched scented herb		Common name: Bon tamak
	Part Uses: Whole plant		Habit: Annual Herbs
	Uses: Root is used in bowel complaints of		Parts Uses: Leaves
	children, Seed-useful in dysentery,		Uses: Sedative, emetic, antiseptic used
	diarrhoea, Flower-diuretic, carminative		in rheumatic pain and swelling, and
	and Leaves are used in respiratory trouble.		also in skin disease.
Sl.	Scientific name: <i>Nerium olenader</i> Linn.	Sl.	Scientific name: <i>Cajanus cajan</i> (Lin)
No.	Family: Apocynaceae	No.	Mill
93	Common name: Rakta karabi	94	
93	Habit: Small tree	94	Family: Papilionaceae Common name: Arahar
	Parts Uses: Leaves and roots		Habit: Shrub
	Uses: Root bark is used in skin diseases of		Parts used: Leaves and seeds
	a scaly nature and leprosy. Leaf paste is		Uses: Leaves are used in the treatment
	used to reduce swelling.		of cough, bronchitis, diarrhoea, sores,
			wounds and liver problem. Seed are
			used to treat mouth ulcers, tumors, and
			vomiting.
Sl.	Scientific name: <i>Nymphaea stellata</i> Wild.	Sl.	Scientific name: Lawsonia inermis
No.	Family: Nymphaeaceae	No.	Lin.
95	Common name: Saluk	96	Family: Lythraceae
	Parts used: Whole plants, seeds, flower		Common name: Mehendi
	Uses: i) It has antiseptic and anti-microbial		Habit: Shrub
	properties.		Parts used: Leaves and Bark
	ii) It is used for the treatment of chronic		Uses: Bark is useful in jaundice,
	diarrhoea.		enlargement of the spleen, and skin
	iii) Seed: Seed is used for diabetes		disease. Leaves externally used in
	iv) Flower: Flower cooling is used as an		headaches, promote hair growth and
	astringent for piles, liver disease		burning feet.
S1.	Scientific name: Mimosa pudica Linn.	S1.	Scientific name: Boerhaavia repens L.
No.	Family: Mimosaceae	No.	Family: Nyctaginaceae
97	Common name: Lajjabati	98	Common name: Punarnava
	Habit: Small prostrate diffuse herb		Habit: Branched diffused herbs
	Parts used: Root and leaves		Parts use: Whole plant
	Uses: i) Root and leaves: Root and leaves		Uses: i) Whole plant is a diuretic,
	are used in piles and fistula.		laxative, expectorant, useful in asthma,
	ii) Leaves: The pest of Leaves are applied		diarrhoea, dysentery, Oedema,
	to cure for hydrocele.		anaemia, Jaundice, Cholera
Sl.	Scientific name: <i>Euphorbia hirta</i> Linn.	Sl.	Scientific name: Acalypha indica
No.	Family: Euphorbiacea	No.	Linn.
99	Common name: Dudurli	100	Family: Euphorbiacea
<i>,,</i>		100	r uning. Euphoronacoa

	Habit: Herb		Common name: Muktojhuri
	Parts used: Whole plant		Habit: Erect annual herbs
	Uses: i) Plant is used in the disease of		Parts used: Root, leaves
	children worm, bowel complaints, cough,		Uses: Root: Decoction of root is
	bronchial infection, asthma, dysentery etc.		emetic, expectorant, and useful in
			pneumonia and asthma.
			ii) Leaves: Laxative and also used in
			scabies.
S1.	Scientific name: Croton bonplandianum	S1.	Scientific name: Solanum nigram
No.	L.	No.	Linn.
101	Family: Euphorbiacea	102	Family: Solanaceae
	Common name: Bontulsi		Common name: Kakamachi
	Habit: Erect much-branched herb		Habit: Annual herb
	Parts used: Root, bark, seed and leaf		Parts used: Leaves, fruits
	Uses: Seed and bark are used for the		Uses: (i) Leaf is used to treatment for
	treatment of jaundice, acute constipation		skin diseases like scabies, ringworm,
	ii) Leaves are used for the treatment of		swelling, and herpes disease.
	ringworm, bronchitis, asthma and body		(ii) Leaf juice used for the treatment of
	swelling		rat bites.
	s weining		(iii) Leaves, fruits: Leaf and fruit used
			in asthma.
Sl.	Scientific name: Physalis minima	Sl.	Scientific name: Vernonia cinerea
No.	Family: Solanaceae	No.	Linn.
103	Common name: Bantepari or patka	104	Family: Asteraceae
105	Habit: Small annual Herb	101	Common name: Kukasim
			-
			-
	in Fruit used as difference and purgative		
<u>C1</u>		<u>C1</u>	•
	-		-
	5		
105		106	
	Uses: Root-emeti, purgative, applied		-
	externally as antiseptic to ulcers and		dysentery, headache, toothache,
1	wounds. Leaves are useful to jaundice and		earache stomach problems.
	also promote the hair growth.		1
S1. No. 105	Parts used: Fruit and leaf Uses: leaves used for treatment of diabetes, jaundice, leprosy, measles, worm manifestation ii) Fruit used as diuretic and purgative Scientific name: <i>Eclipta alba</i> Family: Asteraceae Common name: Keshuth Habit: Herb Parts used: Leaves and root. Uses: Root-emeti, purgative, applied externally as antiseptic to ulcers and	Sl. No. 106	Habit: Perennial herb Parts used: Entire plant Uses: the paste of the leaves and stem is used for the treatment of wounds and localize swelling, elephantiasis disease, skin disease Root and leaves are also used in constipation. Scientific name: <i>Scoparia dulcis</i> Family: Plantaginaceae Common name: Bon dhone Habit: Small Herb Parts used: Leaves Uses: Traditionally used in diabetes, dysentery, headache, toothache,

01	Griendifie manual Construction 11 of 11 I	01	Colored Control I
Sl.	Scientific name: <i>Cassia occidentalis</i> L.	Sl.	Scientific name: <i>Cassia alata</i> L.
No.	Family: Caesalpiniaceae	No.	Family: Caesalpiniaceae
107	Common name: Chakor	108	Common name: Dadmari
	Habit: Small shrub		Habit: Shrub
	Parts used: Whole plants		Parts used: Leaves,
	Uses: Plant- purgative, diuretic, febrifuge,		Uses: i) Leaves: The leaves are used as
	tonic and used fully in skin disease		asthma, diuretic, purgative, ringworm
			and other skin diseases.
S1.	Scientific name: Cyperous rotundus L.	S1.	Scientific name: Cassia alata (L.)
No.	Family: Cyperaceae	No.	Roxb.
109	Common name: Muthaghas	110	Family: Fabaceae
	Habit: Herb		Common name: Dadmari
	Parts used: Herb, Rhizome/		Habit: Shurb
	Uses: 2-3 teaspoons of rhizome extract or		Parts used: Leaves
	paste of (5 rhizomes) are used to treat for		Uses: Scabies, eczema, candidacies
	eliminating female infertility and irregular		and fungal disease
	menstrual cycle 21 days after every		6
	menstrual cycle.		
Sl.	Scientific name: <i>Euphorbia meriifolia</i>	S1.	Scientific name: Barleria lupulina
No.	Family: Euphorbiaceae	No.	Lindl.
111	Common name: Manasa Gach	112	Family: Acanthaceae
	Habit: Shrub,		Common name: Kata Bishalya Karani
	Parts used: old Leaves		Habit: Shrub
	Uses: Dry cough, chest pain, broken bone		Parts used: Leaves
	pain.		Uses: Eczema, stop bleeding from cuts
	pam.		and wounds and accelerate their
			recovery.
Sl.	Scientific name: Stephania japonica	Sl.	Scientific name: Jatropha
No.	(Thumb) Miers	No.	gossypifolia Linn.
113	Family: Meninspermaceae	114	Family: Euphorbiaceae
	Common name: Nemuwa		Common name: Lal Vanda
			Habit: Shrub
	Habit Climber		
	Habit: Climber, Parts used: Stem Leaves		
	Parts used: Stem, Leaves		Parts used: Exudates
	,		

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Figure: Our medicinal garden (114 numbers of medicinal plants)

7. Conclusion:According to the findings of a recent green audit, the GOUR MAHAVIDYALAYA has identified a few locations on campus that can benefit from some additional work in order to advance its sustainability goals. The application of the proposed solutions has the potential to result in a number of beneficial consequences for the environment, such as a reduction in energy consumption, an improvement in waste management, an increase in the efficiency with which water is used, an expansion of sustainable transportation options, and a heightened environmental consciousness. By putting these changes into effect, GOUR MAHAVIDYALAYA will be able to show its students how to appropriately care for the environment and contribute towards a more sustainable future. In addition, the college will be able to better prepare its students for the world of the future.

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Green Audit Report (2021-22) of GOUR MAHAVIDYALAYA



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Certificated ISO base

1. Introduction:

The results and conclusions and suggestions from a thorough green audit carried out at GOUR MAHAVIDYALAYA are presented in the report that continues. The audit's goals were to evaluate the college's environmental impact and spot areas where sustainability may be improved. The audit addressed topics like journeys, disposal of trash, water use, electricity consumption, and general environmental awareness.

Sl No	Name of the Members	Designation
1	Dr. Ashim Kumar Sarkar	Principal
2	Dr. Pulak Kumar kundu	IQAC Coordinator
3	Dr. Md. Murshed Alam	NAAC Coordinator
4	Dr. Niranjan Kumar Mridha	Bursar
5	Suresh Ram(SDO)	Administrator
6	Arup Roy	Member
7	Syfujjaman Tarafder	Member
8	Urmimala Basak Roy	Member
9	Dipjyoti Singha	Member
10	Sangita Singha	Member
11	Sipendranath Mandal	Non-Teaching Member

Green Audit Working Team (2021-22):

2. Need for Green Audit:

Green audits, also known as environmental audits or sustainability audits, are becoming more and more necessary in today's society for several reasons:

(a) Environmental Impact: Green audits assist in evaluating and reducing an organization's negative environmental impact. They assess variables like energy use, waste production, water use, and emissions, identifying areas that might be improved to lessen environmental harm.

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(b) **Regulatory Compliance:**Businesses must abide by the environmental laws and standards that have been set in many nations. Green audits assist businesses in complying with regulations and avoiding fines or other legal repercussions for non-compliance.

(c) Cost Reduction: Green audits can reveal inefficiencies and wasteful behaviours within a company, opening up chances for cost savings. Businesses can apply methods to save operational costs and boost overall efficiency by analyzing energy usage, resource consumption, and waste management.

(d) **Reputation and Stakeholder Expectations:**Consumers and other stakeholders now demand more environmentally conscious company practices. Green audits offer organization transparency and prove its dedication to sustainability, strengthening its reputation and fostering trust among clients, staff, investors, and communities.

(e) **Risk Management:**Environmental hazards can have serious financial and reputational ramifications for firms, including pollution events, regulatory noncompliance, and supply chain interruptions. By evaluating environmental management systems, ensuring sufficient controls are in place, and putting preventative measures in place to deal with possible problems, green audits assist in identifying and mitigating these risks.

(f) Continuous Improvement: Green audits encourage a continuing commitment to sustainability rather than being one-time events. Organizations can see trends, set goals, and implement improvement initiatives by routinely evaluating and tracking environmental performance. This iterative process promotes a culture of sustainability and propels long-lasting transformation.

(g) Sustainable Development Goals (SDGs): An international framework for solving urgent environmental and social issues is provided by the Sustainable Development Goals. Organizations can better align their operations with these objectives with the aid of green audits, paving the way for a more just and sustainable future. To evaluate, enhance, and confirm environmental performance, green audits are essential. They allow companies to control risks, comply with rules, cut costs, improve reputations, and support sustainable development.

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3. Methodology for Green Audit:

Audits of an organization's environmental performance and practices are known as "green," "environmental," or "sustainability" audits. They entail assessing the company's influence on the environment, resource usage, waste management, and adherence to environmental legislation. Here is a procedure for carrying out a green audit:

(a) Planning:

(b) Identify audit team and resources:

(c) Develop an audit plan: Create a detailed plan outlining audit activities, timelines, responsibilities, and communication channels.

(d) Data Collection:

(e) Gather information:

(f) Conduct site visits and interviews:

(g) Review documentation:

(h) Evaluation and Analysis:

(i) Assess environmental impacts:

(j) Evaluate compliance:

(k) Identify strengths and weaknesses:

(1) Quantify results:

(m) Reporting:

(n) Prepare an audit report:

(o) Communicate results:

(p) Follow-up and Improvement:

(q) Develop an action plan:

(r) Monitor progress:

(s) Continuous improvement:

The methodology adopted to conduct the Green Audit of the Institution had the following components.

3.1. On-site Visit :

The Green Audit Team carried out the five-day field trip. The tour's main goal was to evaluate the Institution's waste management procedures, energy

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conservation tactics, and other aspects of its green cover. The protocols for sample collection, preservation, and analysis were followed scientifically.

3.2. Focus Group Discussion :

The nature club, staff, and management members participated in focus group discussions on various facets of the green audit. Identification of attitudes and awareness towards environmental issues at the institutional and local levels was the main topic of discussion.

3.3. Energy and waste management Survey:

The audit team evaluated the college's waste generation, disposal, and treatment facilities as well as its energy usage pattern with the assistance of teachers and students. A comprehensive questionnaire survey method was used to carry out the monitoring.

4. Target Areas of Green Auditing:

A process for resource management includes a green audit. The actual usefulness of green audits lies in the fact that they are conducted at predetermined intervals and that the results might show improvement or change over time, even though they are individual events. The concept of an eco-campus primarily emphasizes the effective use of energy and water, the reduction of waste output or pollution, and economic efficiency.

These indications are evaluated during the "Green Auditing of this Educational Institute" procedure. In order to reduce emissions, obtain a reliable and affordable energy supply, promote personal responsibility, encourage and improve energy conservation, reduce the institute's energy and water use, reduce waste going to landfills, and incorporate environmental considerations into all contracts and services deemed to have significant environmental impacts, Eco-campus focuses on these goals. Water, energy, trash, and green campus are the focus topics for this green audit.

4.1. Energy Consumption:

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4.1.1. Lighting:The audit showed that many of the college's lighting fixtures were ineffective and outdated. It is advised to use natural light whenever possible, add occupancy sensors, and swap out conventional light bulbs for energy-efficient LED ones.

4.1.2. Heating, Ventilation, and Air Conditioning (HVAC):

The HVAC systems were discovered to be working less efficiently than necessary. Energy usage can be considerably decreased by switching to energyefficient HVAC equipment, using programmable thermostats, and performing routine maintenance.

4.1.3. Energy Awareness:The college should promote energy conservation practices among employees and students. Campaigns, educational activities, and financial incentives for energy-saving projects can all help achieve this.

Electrical device/items	Number	Power (watt)	Usage time (hr/day)
Normal Tubelight	680	27200	10:00 am to 6:00 pm
LED Tubelight	88	1232	Do
Normal Bulb	65	6500	Do
LED Bulb	175	2100	Do
Ceiling Fan	516	51600	Do
Wall fan	47	4700	Do

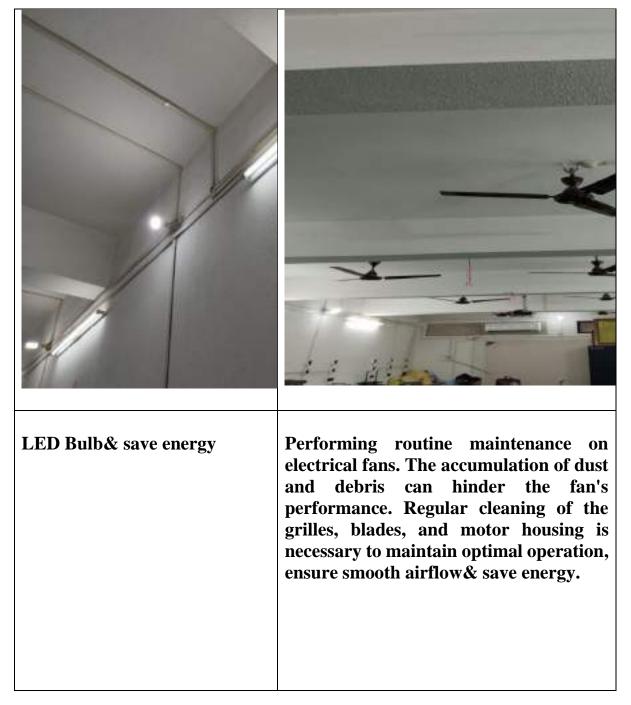
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In many classroom places, we must replace common tubes with lowwattage LED tubes instead. Just behind the head, on a long upright frame, are the tubes that have been set up (6.3 feet). As a direct consequence, we obtain sufficient illumination with low-wattage led tubes. As a result of this, we conserve power.Note: The fact that all of the power switches are on demonstrates that the electrical equipment is being maintained properly.

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Silent DG sets are designed to generate a very low level of background noise, just as their name suggests. Their structures are constructed to eliminate virtually all noise and vibrations due to careful design. Because

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of this, they are not harmful to the environment and are ideally suited for use in residential areas.

4.2. Waste Management:

4.2.1. Recycling: Although there were recycling containers all across the campus, the audit showed that there was a lack of effective separation and information about recyclable products. Increased recycling rates can be achieved by upgrading signage, giving clear instructions and implementing a comprehensive recycling education programme.

4.2.2. Composting: The institution can set up a composting system to handle the organic waste produced by Hostel members (Boys & Girls Hostel). Composting can help drastically reduce the quantity of garbage dumped in landfills while also producing beneficial compost for campus landscaping and gardening.

Types of waste	Particulars	Disposal method
E-Waste	Computers, electrical	Store these in a separate
	and electronic parts	tank, and we can start
		selling them directly
		after a certain amount of
		time.
Plastic waste	Pen, Refill, Plastic water	Items made of plastic
	bottles and other plastic	that are only intended to
	containers, wrappers etc	be used once, such as
		bottles, jars, and
		bags. Encourage people
		to use water bottles and
		other containers that may
		be reused. Establish
		distinct recycling
		containers for plastic
		garbage, and after a
		predetermined period of
		time, we will be able to
		begin selling the
		collected recyclables
		directly.

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

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Paper waste, Damaged | Reuse after maintenance Solid wastes furniture, paper plates, energy conversion. Installing food wastes composting systems on a college campus will allow for the conversion of discarded food into nutrient-dense compost that may be used in the campus landscaping or in community gardens. Another option is for institutions form to with partnerships farmers in the surrounding area to collect food waste. Chemical wastes Laboratory waste Water should be used to neutralise. When dealing with hazardous garbage, adhere strictly to all safety regulations. Soak pits Wastewater Washing, urinals. bathrooms Glass debris should be Glass waste Broken glass wares from the labs kept separate from other recyclable materials and disposed of in containers that are specifically intended for glass recycling. Make sure that you recycle glass in the correct manner by coordinating with the local recycling centers. Napkin Incinerators Sanitary Napkin _

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4.3. Water Usage:

4.3.1. Water Fixtures:Numerous locations within the college had outdated and ineffective water fixtures, which caused excessive water use. Water resources can be saved by swapping these fixtures for low-flow models and encouraging staff and students to practice water-saving habits.

Water Management Tasks	Frequency	Responsible Party
Routine examination of water	Monthly	Green Audit Working Team
supplies		
Testing for drinking water	Half-yearly	Do
quality		
Awareness of water	Half-yearly	Green Audit Working Team &
conservation		various department
Infrastructure for water	As needed	Caretaker
distribution that needs upkeep		
and repair		
Reporting and analysis of	Annually	Green Audit Working Team &
water use		Caretaker
Learn what causes excessive	As needed	Caretaker
water consumption.		

Water management table:

Tabular data detailing the subject at hand:

Sl No	Parameters	Response
1	Source of water	Municipality, Underground, Pond
		(approx. 3 Bigha) & Rain Harvesting
		Water
		Note: The ground's water serves as a
		drinking water supply for around 2778
		people, including students and staff
		members.
2	Source of Drinking	Ground's water
	Water	

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3	Any treatment for	Nil
	drinking water	Note: ofWater purifiers have been
	8	installed in 1-2 numbers on each floor
		(toal13innumbers)and are maintained
		for 3–4 months afterward.
4	What is the total number	13 numbers
	of motors that are used?	
5	What is the total number	13numbers@ 1000 liters each
	of water tanks? Capacity	
	of tank	
6	Tap water	180numbers
	Quantity of water	13000 liters/per day
	pumped every day	
7	Do you waste water, and	No
	if so, why?	
	How much water is	600 liters/per day
	required for gardening	
	purposes?	
9		Not applicable
10	are there in total?	N/
	Do you have access to	Yes
	rainwater harvesting?	01 averbar We have constructed a victor
11		01 number, We have constructed a water
	volume of water	canal to connect a college pond that is 1500 square feet and 2,000 liters of 02
	volume of water	tanks to store rainwater.
12	Any leaky taps	None
	Daily amount of water	Not applicable
	that is lost.	rot approable
14	Is there any kind of plan	Raise public awareness regarding the
	for the management of	importance of water conservation, the
	water?	prevention of pollution, and the
		implementation of sustainable water

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		management practices. Unambiguous water rights and equitable water allocation regulations should be established to ensure that water is distributed fairly among the many
		different users.
15	Have any methods for	Rainwater Harvesting
	conserving water been	
	implemented?	

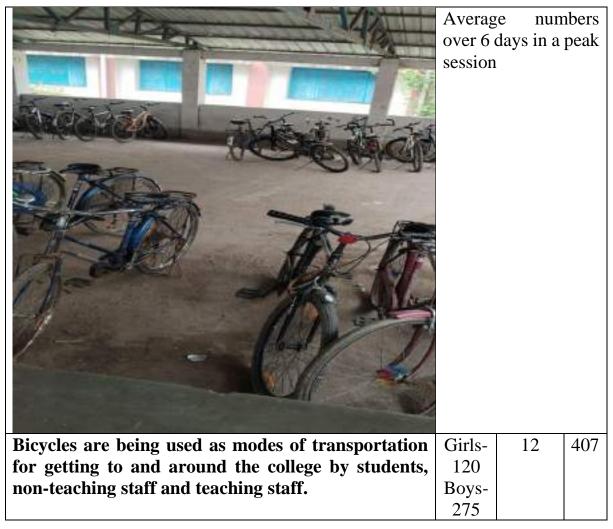
4.4. Transportation:

4.4.1. Public Transport:The college's carbon footprint can be significantly reduced by encouraging employees and students to use public transport. Sustainable transport solutions can be promoted by offering cheap bus passes, encouraging carpooling, and supporting bicycle infrastructure.

Stude	Empl	Tot
nts	oyee	al

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4.5. Overall Environmental Awareness:

4.5.1. Curriculum Integration:The institution can integrate environmental awareness and sustainability into its curriculum across various subject areas. This strategy will guarantee that students receive instruction and training in environmental stewardship, encouraging sustainable thinking.

Environmental awareness across different subjects	Parameters	Program time
Language Arts	Discuss texts from literature that are in some way connected to topics concerning the environment, such as	Whole year

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		I
	conservation or environmental	
	advocacy. Compose poetry or essays	
	that argue for the protection of the	
	environment and use persuasion.	
	Conduct research on a variety of	
	environmental topics, then present your	
	findings. Through various awareness	
	programs, they understand the	
	environmental laws and regulations that	
	apply on the local, national, and	
	international levels. Discuss the roles	
	that governments, NGOs, and people	
	play in the effort to solve environmental	
	problems. Investigate the	
	environmental concerns from both a	
	historical and cultural point of view.	
Arts	Investigate the causes of climate change	Whole year
	and possible solutions to the	-
	problem. Analyse the impact that human	
	activities have had on different	
	landscapes as well as the distribution of	
	natural resources. Studies should be	
	done on urbanization, logging, and	
	industry's impact on the natural	
	environment. Investigate geographical	
	approaches to resolving environmental	
	issues, such as environmentally	
	responsible land management planning.	
Pure Science	Conduct studies on environmental	
	issues, such as assessing water quality,	Half-yearly/
	soil analysis, power consumption or	each program
	recycling.To better comprehend	r C
	environmental patterns and forecasts,	
	consider using mathematical models.	
	Investigate the repercussions of	
	environmental actions on the economy,	
	such as doing cost-benefit analyses for	
	environmentally friendly projects.	
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Bio-Science	Study subjects include ecosystems, biodiversity, and the interconnectedness of all living things.	Whole year
Physical Education	Encourage students to develop an appreciation for the natural world by having them participate in outdoor sports and activities. Talk about the significance of physical activity for both one's own health and the health of the environment (for example, taking bike instead of the car).	Whole year

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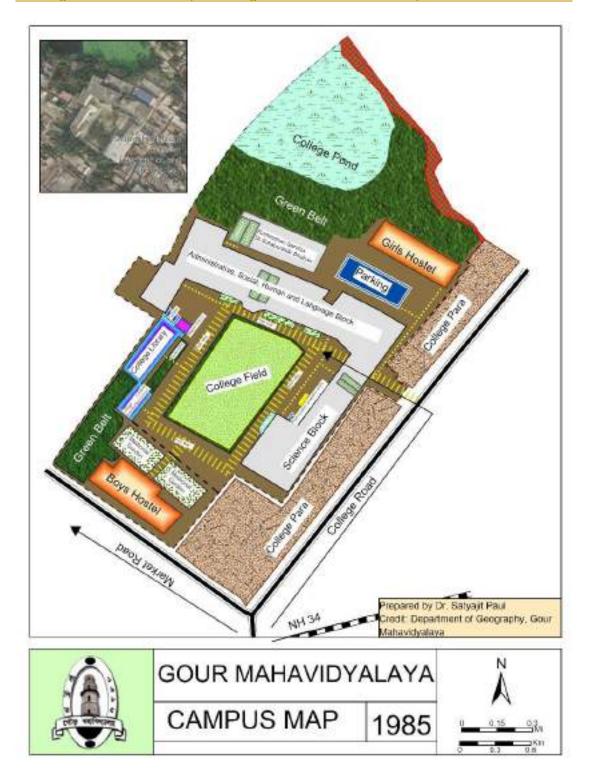
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4.5.2. Student Engagement: A culture of sustainability can be promoted among students by supporting student-led projects, creating environmental groups, and holding awareness events and workshops.

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5. Green Campus:

5.1.Floral Diversity:

The following are some actions to take into account when setting up a plantation programme at your college:

-Organise a group of academics, employees, and students who are interested in managing the plantation programme. Assign roles and duties to make the execution go smoothly.

-Consult with local forestry professionals or environmental groups to discover native or adapted tree species that are well-suited to the climate, soil, and goal of the plantation programme. Research and choose suitable tree species.

-To obtain the necessary approvals or permits for planting trees on campus or in the neighborhood, check with the college administration or other appropriate authorities.

Look into possible funding options, including grants, sponsorships, or collaborations with nearby companies or environmental organizations. This will aid in defraying the price of buying trees, equipment, and other required supplies.
Establish the plantation event's date, time, and venue. Plan the delivery of the trees, tools, and equipment to the planting location. Make sure that safety precautions are in place, including appropriate instruction on planting methods

and equipment use.

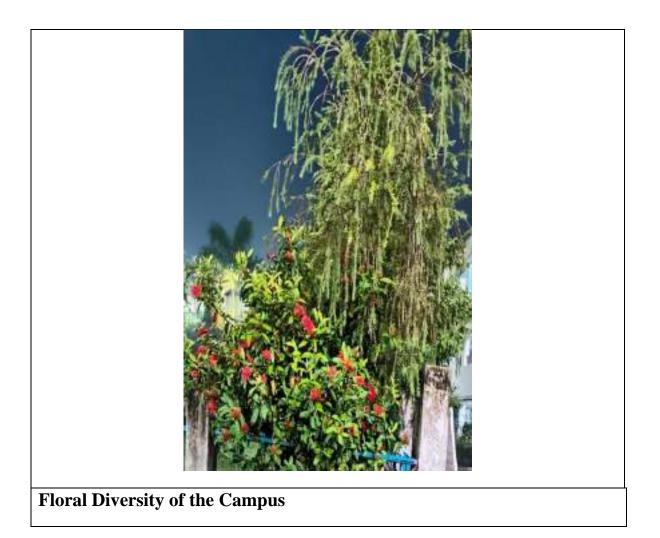
-Promote the planting programme within the campus community by using various communication channels, such as posters, social media, emails, and word-of-mouth, in order to raise awareness and find volunteers. Encourage everyone to volunteer, including alumni, faculty, staff, and students.

-Volunteers should be gathered at the planting site on the appointed planting day. Give them the equipment, instructions, and direction they need to plant trees correctly. Foster a sense of accomplishment and community pride while fostering teamwork.

-Stress the significance of taking care of the freshly planted trees. This could entail routine weeding, mulching, watering, and pest or disease inspection. To guarantee the long-term well-being and survival of the trees, think about setting up a system for volunteers or staff members.

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-After the plantation programme, evaluate the impact and accomplishment of the effort. Keep an eye on the trees' growth and survival rate. To determine areas for improvement and to organize upcoming plantation programmes, collect participant and stakeholder input.



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The aesthetic attractiveness of the college campus is enhanced by a football field with lush grassland, which makes the institution more welcoming and appealing to students, professors and visitors.

5.2. Faunal Diversity:

Gour Mahavidyalaya holds 2.56 acres (building land approx. 0.68 acres) of land and a large water body of approx. 0.992 acres. Hence, Gour Mahavidyalaya boasts a rich faunal diversity, thanks to its lush greenery and expansive water body. Our college is situated in the region around English Bazar and Old Malda; which possess a variety of insects, amphibian species, reptiles, birds and mammals that thrive in its subtropical climate and riverine environment. Our estimation on faunal diversity is mostly based on random sampling. Majority of the data were gathered during college hours through direct observations. We have also gathered information from different students and staffs, who were not directly a member of survey group.

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Around the water body a huge number of invertebrates like the insects were observed, which require more active documentation.

Amphibia

- 1. Indian balloon frog (Uperodon globulosus)
- 2 Asian Common Toad (Bufo melanostictus)
- 3 Common tree frog (Rachophorus sp.)

Reptiles

- 1 Checkered Keelback (Xenochrophis piscator)
- 2 Buff Striped Keelback (Amphiesma stolatum)
- 3 Skink (Lampropholis sp.)
- 5 Oriental Garden Lizard (Colotes versicolor)
- 6 Wall Lizard (Hemidactylus frenatus)
- 7 Banded Krait (Bungarus fasciatus)

Birds

- 1. Crow (Corvus splendens)
- 2. House Sparrow (Passer domesticus)
- 3. Common Myna (Acridotheres tristis)
- 4. Red-vented Bulbul (Pycnonotus cafer)
- 5. Cattle Egret (Bubulcus ibis)
- 6. Black Drongo (Dicrurus macrocercus)
- 7. Barn Owl (Tyto alba)
- 8. Kingfisher (Alcedo atthis)
- 9. Parrot (Psittacula krameri)
- 10. Spotted Dove (Spilopelia chinensis)
- 11. Pegion (*Columba* sp.)

Insects

- 1. Butterflies (various species)
- 2. Honeybees (Apis cerana)
- 3. Dragonflies (various species)
- 4. Ants (various species)
- 5. Mosquitoes (Aedes and Culex species)
- 6. Grasshoppers (various species)
- 7. Termites (various species)
- 8. Ladybugs (Coccinellidae family)

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- 9. Fireflies (Lampyridae family)
- 1 Houseflies (Musca domestica)

Animals

- 1. Indian Hare (Lepus nigricollis)
- 2. Jackal (Canis aureus) (Often enters college premises at night)
- 3. Indian Squirrel (Funambulus palmarum)
- 4. Rhesus Macaque (*Macaca mulatta*)
- 5. Indian Pipistrelle (Pipistrellus coromandra)
- 6. Rat (*Rattus norvegicus*)
- 7. Common Cat (Felis catus)
- 8. Common Dog (Canislupurs familiaris)
- 9. Grey mangoose (Herpestidae sp.)

Our college is an oasis in the midst of concrete jungle. Conservation efforts are essential to maintain this ecological balance and protect the native species



6. Plantation of Wild type Medicinal plants:

Two medicinal gardens were developed at our college premises. Many wild medicinal plant varieties were lost daily due to anthropogenic activities and pollution. After identifying these plants, we conserve these through propagation in our medicinal gardens. Any interested people or agencies can access it through the proper channel. Medicinal garden is a specific area inside the grounds of a college that is dedicated to the cultivation and upkeep of a wide range of different sorts of medicinal plants. As an educational and research resource, it makes it possible for students, faculty members, and researchers to investigate and gain knowledge on medicinal plants' varied qualities and applications. Culturing a medicinal garden on a college campus can confer major value and benefits to the surrounding academic community and society.

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Figure: Our medicinal garden (114 numbers of medicinal plants)

7. Conclusion:The GOUR MAHAVIDYALAYA 's green audit identifies some areas that should be improved to advance sustainability initiatives on campus. Reduced energy use, better waste management, optimized water use, sustainable transportation options, and raised environmental awareness can all result from implementing the suggested solutions. GOUR MAHAVIDYALAYA can set an example of environmental stewardship for its students and contribute to a cleaner future by implementing these improvements.



Green Audit Report (2022-23) of GOUR MAHAVIDYALAYA



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L Introduction

The results and conclusions and suggestions from a thorough green audit carried out at GOUR MAHAVIDYALAYA are presented in the report that continues. The audit's goals were to evaluate the University's environmental impact and spot areas where sustainability may be improved. The audit addressed topics like journeys, disposal of trash, water use, electricity consumption, and general environmental awareness.

Si No	Name of the Members	Designation
1	Dr. Ashim Kumar Sarkar	Principal
3	Dr Pulak Kunsar kundu / Dr Dhritunan Chakraborty	033310435104-334
3	Dr. Md. Murshed Alam	NAAC Coordinator
4	Dr Niranjan Kumar Mridha	Bursar
1	Suresh Rano Panka Tamang (SDO)	Administrator
6	Arup Roy	Member
7	Dr Syfuganian Tarafder	Member.
8	Umminsala Basale Roy	Member
9	Dipyvoti Singha	Member
10	Sangita Singha	Member
11	Stpendranath Mandal	Non-Teaching Member

Green Audit Working Team (2022-23)

2. Nand for Green Audits

Green audits, also known as environmental audits or sustainability audits, are becomingmore and more necessary in today's society for several reasons:

(a) Environmental Impact:Green audits assist in evaluating and reducing an organization's negative environmental impact. They assess variables like energy use, waste production, water use, and emissions, identifying areas that might be improved to lesses environmental harm.

(b) Regulatory Compliance: Businesses must abide by the environmental laws and standards that have been set in many nations. Green audits assist businesses in complying with regulations and avoiding fines or other legal repercussions for non-compliance.

(c) Cost Reduction Green audits can reveal inefficiencies and wasteful behaviours within a company, opening up chances for cost savings. Businesses can apply methods to save.

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operational costs and boost overall efficiency by analyzing energy usage, resource, consumption, and waste management.

(d) Reputation and Stakeholder Expectations: Comments and other stakeholders now demand more environmentally conscious company practices. Green audits offer organization transparency and prove its dedication to sustainability, strengthening its reputation and fostering trust among clients, staff, investors, and communities.

(e) Risk Management Environmental hazards can have serious financial and reputational ramifications for firms, including pollution events, regulatory non-compliance, and supply chain interruptions. By evaluating environmental management systems, ensuring sufficient controls are in place, and putting preventative measures in place to deal with possible problems, green audute assist in identifying and mitigating these risks.

(f) Continuous Improvement:Green audits encourage a continuing commitment to sustainability rather than being one-time events. Organizations can see trends, set goals, and implement improvement initiatives by routinely evaluating and tracking environmental performance. This iterative process promotes a culture of sustainability and propels long-lasting transformation.

(g) Surtainable Development Goals (SDGs): An international framework for solving urgent environmental and social issues is provided by the Sustainable Development Goals. Organizations can better align their operations with these objectives with the aid of green aridits, paring the way for a more just and sustainable finture. To evaluate, enhance, and confirm environmental performance, green audits are essential. They allow companies to control risks, comply with rules, cut costs, improve reputations, and support sustainable development.

3. Methodology for Green Audit:

Audits of an organization's environmental performance and practices are known as "green," "environmental," or "sustainability" audits. They entail assessing the company's influence on the environment, resource usage, waste management, and adherence to environmental legislation. Here is a procedure for carrying out a green audit.

(a) Flamming:

(b) Identify audit team and tescurces:

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(c) Develop an audit plan. Create a detailed plan outlining audit activities, timelines, responsibilities, and communication chamiels.

- (d) Data Collection:
- (e) Gather information:
- (f) Conduct site visits and interviews
- (g) Review documentation
- (h) Evaluation and Analysis:
- (i) Assess environmental impacts:
- (j) Evaluate compliance
- (k) Identify strengths and weaknesses:
- (I) Quantify results:
- (m) Reporting:
- (iii) Prepare an audit report:
- (o) Communicate results:
- (p) Follow-up and Improvement
- (q) Develop an action plan.
- (r) Monitor progress:
- (s) Continuous improvement

The methodology adopted to conduct the Green Audit of the Institution had the following components.

3.1. On-siteVisit 1

The Green Audit Team carried out the five-day field trip. The tour's main goal was to evaluate the Institution's waste management procedures, energy conservation tactics, and other aspects of its green cover. The protocols for sample collection, preservation, and analysis were followed scientifically.

3.2. Focus Group Discussion :

The nature club, staff, and management members participated in focus group discussions on various facets of the green audit. Identification of attitudes and assureness towards environmental insures at the institutional and local levels uses the main topic of discussion.

3.3. Energy and waste management Survey:

UNA Apartment, Alex Antonios Foas, Maniyangan, Konata-705(30) Email O. managana (1), stan consultance (2) mail.com Babetra (1), 71, material data

The andit team evaluated the University's waste generation, disposal, and treatment facilities as well as its energy unage pattern with the assistance of teachers and students. A comprehensive questionstance survey method was used to carry out the monitoring.

4. Target Areas of Green Auditing:

A process for resource management includes a green andit. The actual unefulness of green audits lies in the fact that they are conducted at predetermined intervals and that the results might show improvement or change over time, even though they are individual events. The concept of an eco-campus primarily emphasizes the effective use of energy and water, the reduction of waste output or pollution, and economic efficiency.

These indications are evaluated during the 'Green Auditing of this Educational Institute' procedure. In order to reduce emissions, obtain a reliable and affordable energy supply, promote personal responsibility, encourage and improve energy conservation, reduce the institute's energy and water use, reduce waste going to landfills, and incorporate environmental considerations into all contracts and services deemed to have significant environmental impacts. Eco-campus focuses on these goals. Water, energy, trash, and green campus are the focus topics for this green audit.

4.1. Energy Consumption:

4.1.1. Lighting: The audit showed that many of theUniversity's lighting futures were ineffective and outdated. It is advised to use natural light whenever possible, add occupancy sensors, and swap out conventional light bulbs for energy-efficient LED ones.

4.1.2. Heating, Ventilation, and Air Conditioning (HVAC):

The HVAC systems were discovered to be working less efficiently than necessary. Energy usage can be considerably decreased by switching to energy-efficient HVAC equipment, using programmable thermostats, and performing routine maintenance.

4.1.3. Energy Awareness: TheUniversity should promote energy conservation practices aniong employees and students. Campaigns, educational activities, and financial moentives for energy-saving projects can all help achieve this.

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MANAGEMENT SYSTEM CONSULTANCY In the Names and Safety Fragility and Safety and Safety And Social Sciences Specify, Concerning, 1982, 1982, 208 million State Construction and Constr

Electrical device/items	Number	Power (watt)	Utage time (luriday)
Normal Tubelight	311	12840	10:00 am te 6:00 pm
LED Tubelight	265	\$710	Do
Normal Bulb	19	1300	Do
LED Bulb	362	3144	Do
Cailing Fan	509	50900	Do
Wall fan	40	1600	De

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In many classroom places, we must replace common tubes with low-wattage LED tubes instead. Just behind the head, on a long upright frame, are the tubes that have been set up (6.3 feet). As a direct consequence, we obtain sufficient illumination with low-wattage led tubes. As a result of this, we conserve power.Note: The fact that all of the power switches are on demonstrates that the electrical equipment is being maintained properly.

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Jacoba Secondar Saget Safety High Division and Second Seco

LED Bulb& save energy	Performing routine maintenance on electrical fant. The accumulation of dust and debrit can hinder the fan's performance. Regular cleaning of the grilles, blades, and motor housing is necessary to maintain optimal operation, ensure smooth airflow& tave energy.

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MANAGEMENT SYSTEM CONSULTANCY

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Silent DG sets are designed to generate a very low level of background noise, just at their name suggests. Their structures are constructed to eliminate virtually all noise and vibrations due to careful design. Because of this, they are not harmful to the environment and are ideally suited for use in residential areas.

4.2. Watte Management:

4.2.1. Recycling: Although there were recycling containers all across the campus, the audit showed that there was a lack of effective separation and information about recyclable.

UMA Apartmant, New Antonios Poas, Marinjangian, Konata-100330 Email O. maragarianti, dan cirila fario (Sama), com Matematikan (Marina), ang maragarian

products. Increased recycling rates can be achieved by upgrading signage, giving clear, instructions and implementing a comprehensive recycling education programme.

4.2.2. Composing: The institution can set up a composting system to handle the organic waste produced by Hostel members (Boys & Girls Hostel). Composting can help drastically reduce the quantity of garbage dumped in landfills while also producing beneficial compost for campus landscaping and gardening.

Types of white	Particulars	Dispesal method
E-Waste	Computers, electrical and electronic parts	Store these in a separate tank, and we can start selling them directly after a certain amount of time
Plastir waste		Items made of plastic that are only intended to be used once, such as bottles, jars, and bags Encourage people to use water bottles and other containers that may be reused. Establish distinct recycling containers for plastic garbage, and after a predetermined period of time, we will be able to begin selling the collected recyclables directly.
Solid wastes	Paper waste, Damaged fumiture, paper plates, food wastes	Reuse after maintenance energy conversion. Installing composting systems on aUniversity campus will allow for the conversion of discarded food into nutrient-dense compost that may be used in the campus

Table: Different types of wante generated in the University and their dispotal

UNA Apartman, Andri Antonio Poas, Marin (Angran, Konata-100,130 Email © Interapping Handbard States, States, Long Beostal Show An America States, States

Bendar fremen hant School fe		anda departa de la cara de mais
		landscaping or in community gardens. Another option is for institutions to form partnerships with farmers in the surrounding area to collect food waste
Chemical wastes	Laboratory wasts	Water should be used to neutralise. When dealing with hazardroin garbage, adhere strictly to all safety regulations.
Wastewater	Washing, urinals, bathrooms	Soak pits
Glass waste	Broken glass wares from the labs	Giass debris should be kept separate from other recyclable materials and disposed of in containers that are specifically intended for glass recycling Make sure that you recycle glass in the correct manner by coordinating with the local recycling centers.
Samtary Napkin	<u>2</u> (Napkut Incinerators

4.3. Water Unager

4.3.1. Water Finturen:Numerous locations within theUniversity had outdated and ineffective water fixtures, which caused excessive water use. Water resources can be saved by swapping these fixtures for low-flow models and encouraging staff and students to practice water-saving habits.

ater Management Tasks	Frequency	Responsible Party
	Contract in Vision in the Contract of Street	
Total Solutions Andre	Laina da Basa algon	1011-10-11-11-177-175
and the second carried a second	Anisando Road, Madri Agana Martin, Martinia	(87)gram, Yolkans-700(30)

Jan far Franker Sand, Silver, Ma, Sortemann, Swipp Auff, 60127 Johnson Sansty, Symmetric, 6522, 6522, 218 Frank Bachart Tarihitmen and Territogowiew.

Det des te	C. D. Ball, Say the (Difference)	A A ALL ALL AND A REAL AND A
Routine examination of water supplies	Monthly	Green Audit Working Team
Testing for drinking water- quality	Half-yearly	Do
Awareness of water conservation	Half-yearly	Green Audit Working Team & various department
Infrastructure for water distribution first needs upkeep and repair	As needed	Caretaker
Reporting and analysis of water use	Annually	Green Audit Working Team & Caretaker
Learn what causes excessive water consumption	As needed	Catetaker

Tabular data detailing the subject at hand:

SINo	Parameters	Response
1	Source of water	Municipality, Underground, Pond (approx. 3 bigha) & Rain Harmesting Water Note: The ground's water serves as a drinking water supply for around 3000 people, including students and staff members.
2	Source of Drinking Water	Ground's water
33	Any treatment for drinking vorter	Nil Note: Water purifiers have been installed in 1-2 numbers on each floor (total number 13)and are maintained for 3-4 months afterward
4	What is the total number of motors that are used?	13 numbers
\$	What is the total number of water tanks? Capacity of tank	13 mmbers 🕃 1000 liters each

UMA Apartman, Karl Anomor Poar, Manyangran, Yokata-700(30 Email C. managamanta, standarda tarib Samakari Beostar (2017), Managaman

handar berner samt Safer, Haulterberner, brige half ann 22 Johnness Janob, Cresseller, B.M., Blan 20, Half and

6	Tap water	183 numbers	
	Quantity of water pumped every day	13000 liters per day	
7	Do you waste water, and if so, why?	No	
\$	How much water is required for gardening purposes [*]	600 liters/per dzy	
9	How many water coolers are there in total	Not applicable	
10	Do you have access to rainwater harvesting?	Yes	
11	The number of units harvested and the total volume of water		
12	Any leaky taps	None	
13	Daily amount of water that is lost.	Not applicable	
14	Is there any kind of plan for the management of water?	Raise public awareness regarding the importance of water conservation, the prevention of pollution, and the implementation of sustainable water management practices. Unambiguous water rights and equitable water allocation regulations should be established to ensure that water is distributed fairly among the many different users.	
15	Have any methods for conserving water been umplemented?	Rainvater Harvesting	

4.4. Transportation:

UNA Apartmany, Ann Animise Poae, Manyangan, Yokats-705(35) Pinal O. managana (b), stands to be a gama) com Refere (b), yokats paganati

4.4.1. Public Transport: TheUnit ersity's carbon footprint can be significantly reduced by encouraging employees and students to use public transport. Sustainable transport solutions can be promoted by offering classip bus passes, encouraging carpooling, and supporting bicycle infrastructure.

The second se	Students	Employee	Tetal
	Atterage num peak session	ibers over 6 d	ņs in a
Bicycles are being used as modes of transportation for getting to and around theUniversity by students, non-teaching staff and teaching staff.	Girls- 120 Boys-215	12	407

4.5. Overall Environmental Awareness

4.5.1. Curriculum Integration: The institution can integrate environmental awareness and sustainability into its curriculum across various subject areas. This strategy will

> UNA Apartolain, Alex Antonios Poas, Machinergian, Colass-705(30) Entel O Inarias za risustance sustaine Sama Lean Bearte Sangura (Alexandre Sangura)

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guarantee that students receive instruction and training in environmental stewardship, encouraging sustainable thinking

Environmental awareness across different subjects	Parameters	Program time
Language Arta	Discuss texts from literature that are in some way connected to topics concerning the environment, such as conservation or environmental advocacy. Compose poetry or assays that argue for the protection of the environment and use persuasion. Conduct research on a variety of environmental topics, then present your findings. Through various avareness programs, they understand the environmental laws and regulations that apply on the local, national, and international levels. Discuss the roles that governments, NGOs, and people play in the effort to solve environmental problems. Investigate the environmental problems investigate the environmental concerns from both a historical and enitural point of view.	Whole year
Ans	Investigate the causes of climate change and possible solutions to the problem Analyse the impact that human activities have had on different landscapes as well as the distribution of natural resources. Studies should be done on urbanization, logging, and industry's impact on the natural environment. Investigate geographical approaches to resolving environmental issues, such as environmentally responsible land management planning.	- 111,122, 554-2, 9
Puse Science	Conduct studies on environmental issues, such as assessing water quality, soil analysis, power consumption or recycling To better comprehend environmental patterns and forecasts, consider using mathematical models. Investigate the repercussions of	each

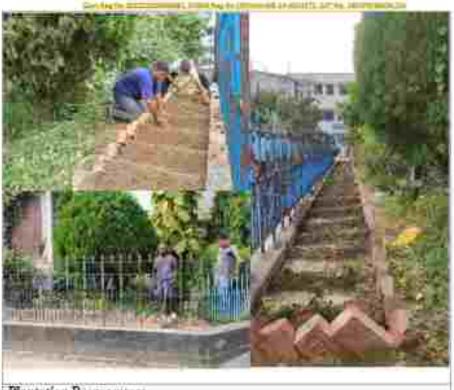
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dependent of the other risk band HE AN ADDRESS AND NO. 3411 er: nonmental actions on the economy, such as doing cost-benefit analyses for en nonmentally friendly projects. Bic-Science Study subjects include ecosystems, Whole year modiversity, and the interconnectedness of all living things. Physical Education Whole year Encourage students to develop an appreciation for the natural world by having them participate in outdoor sports and activities. Talk about the significance of physical activity for both one's own health and the health of the environment (for example, taking take matead of the car). 1288 To enhance the amount of green cover and Whole year fight defocestation, organizing tree-planting events in local communities and educational institutions is important. To combat littering and to encourage a clean environment, it is important to organize soutine clean-up efforts in public places like parks and beaches Toeducate both students and members of the general public about environmental issues such as climate change, waste management, senewable energy, and conservation, workshops and seminars should be organized. It should be a priority to create opportunities for individuals to esigage with the natural world and develop a sense of ownership over its preservation through participating in hikes and other outdoor activities. To raise awareness about environmental issues and motivate people to take action, you might use social media, posters, and bookdets.

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Piantation Programmet

4.5.2. Student Engagement: A culture of sustainability can be promoted among students by supporting student-led projects, creating environmental groups, and holding awareness, events and workshops.

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8. Green Camput:

5.1.Floral Diversity:

The following are some actions to take into account when setting up a plantation, programme at yourUniversity:

-Organise a group of academics, employees, and students who are interested in managing the plantation programme. Assign roles and duties to make the execution go smoothly

-Consult with local forestry professionals or environmental groups to discover native or adapted tree species that are well-suited to the climate, soil, and goal of the plantation programme. Research and choose suitable tree species.

 To obtain the necessary approvals or permits for planting trees on campus or in the neighborhood, check with the University administration or other appropriate authorities.

 Look into possible funding options, including grants, sponsorships, or collaborations with nearby companies or environmental organizations. This will aid in defraying the price of buying trees, equipment, and other required supplies.

 Establish the plantation event's date, time, and venue. Flan the delivery of the trees, tools, and equipment to the planting location. Make sure that safety precautions are in place, including appropriate instruction on planting methods and equipment use.

-Promote the planting programme within the campus community by using various communication channels, such as posters, social media, emails, and word-of-mouth, in order to raise awareness and find volunteers. Encourage everyone to volunteer, including alumni, faculty, staff, and students.

 Volunteers should be gathered at the planting site on the appointed planting day. Give them the equipment, instructions, and direction they need to plant trees correctly. Foster a sense of accomplishment and community pride while fostering teamwork.

-Stress the significance of taking care of the freshly planted trees. This could entail routine weeding, mulching, watering, and pest or disease inspection. To guarantee the long-term well-being and survival of the trees, think about setting up a system for volunteers or staff members.

 After the plantation programme, evaluate the impact and accomplishment of the effort.
 Keep an eye on the trees' growth and survival rate. To determine areas for improvement and to organize upcoming plantation programmes, collect participant and stakeholder input.

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Floral Diversity of the Camput



Encourage participation from the pupils at the institution, family, and staff in the upkeep and preservation of the graniland. Volupteer programmer, instructional workshops, and awareness campaigns are all excellent avanues for accompliching this goal. A mide variety of plant and animal species can thrive on gravilands. A grassland encourages biodiversity on campus by serving as a habitat for various plant and animal species, thereby contributing to the maintenance of ecological equilibrium. Gravilands can remove carbon dioxide from the air and stove it in their soil, which contributes to the light against climate change by lowering system?

> UMA Apartmant, Mor Antonios Poas, Marin (Angran, Yorkers-700)30 Email O. managamanta, stainer surface, Samah com Medicine Service (Marine Section)

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The aesthetic attractiveness of the college campus is enhanced by a

football field with bith graziland, which makes the institution more welcoming and appealing to students, professors and visitors.

5.2. Faunal Diversity:

Goor Mahavidyalaya holds 2.56 acres/ building land approx 0.68 acres) and the set land and a large water body of approx, 0.992 acres. Hence, Gour Mahavidyalaya boasts a rick fantsal diversity, thanks to its lush greekery and expansive water body. Our college is situated in the region around English Bazar and Old Malda; which possess a variety of insects, amphibian species, reptiles, birds and mammals that thrive in its subtropical climate. and invesine. ministrimen! Our estimation on faunal diversity is mostly based on random sampling. Majority of the data were gathered during college hours tinningh direct observations. We have also gathered information from different students and staffs, who were not directly a member oF SHITLEY ELCHIP. Around the water body a huge number of invertebrates like the intects were observed.

Around fise water body a image number of unvertebrates like the insects were observed, which require more active documentation.

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Amphibia

- 1 Indian balloon frog (Uperodon globulozus)
- 2 Asian Common Toad (Bufo melanosticout)
- 3 Common tree frog (Rackopkovar sp.)

Reptiles

- 1 Checkered Keelback (Renocluophit piscator)
- 2 Buff Striped Keelback (Angshterma stolanow)
- 3 Skink (Lawprophalts sp.)
- 5 Oriental Garden Lizard (Colors: verticolor)
- 6 Wall Lizard (Henridontyluz frenomiz)
- Banded Krait (Bungarus fascianus)

Birds

- 1. Crow (Corvus splandens)
- 2. House Sparrow (Passes domesticus)
- 3. Common Myna (Acridotheret trutts)
- 4. Red-vented Bulbul (Pycenomonuccufer)
- 5. Cattle Egret (Bubulcus ibis)
- 6. Black Drongo (Dierurumaeroesreus)
- 7. Barn Otvl (Tyto alba)
- 8. Kingfisher (dicedoatthiz)
- 9. Parrot (Psittuculakrameri)
- 10. Spotted Dove (Spilopeliachinemia)
- 11. Pegion (Columba sp.)

Innecto

- 1. Butterflies (various species)
- 2. Honeybees (Aptrovana)
- 3. Dragonflies (various species)
- 4. Aists (various species)
- 5. Mosquitoes (dedst and Culex species)
- Grasshoppers (various species)
- 7. Termites (various species)
- 8. Ladybugs (Coccinellidae family)
- 9. Fireflies (Lampyridae family)
- 1 Housethes (Mutradometrica)

Animals

UNA Apartment, Alex Anison de Poas, Marin (arrigan, Konata-705130) Ernall O. mariaga yanth, stan consultance (arrait com Matematica), Alexandro (arrait)

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In some the internet of the sound in the later

- 1. Indian Have (Lepumgricoliu)
- Jackal (Contrativent) (Often enters college premises at night)
- 3. Indian Squirrel (Fuerambulic palmarum)
- 4. Rhesus Macaque (Macacumulana)
- 5. Indian Pupismelle (Pupismelluzcoromandra)
- 6 Rat (Rattie norvegicus)
- 7. Common Cat (Felircanus)
- 8. Common Dog. (Canitlupartfamiliaris)
- 9. Grey mangoose (Herpertidae sp.)



Our college is an oasis in the midst of concrete jungle. Conservation efforts are essential to maintain this ecological balance and protect the native species.

6. Plantation of Wild type Medicinal plants:

Two medicinal partiess were developed at occordings premises. Many wild medicinal plant varieties were lost daily due to anthropogenic attivities and pollutian. After identifying these plants, we conserve these through propagation in our medicinal gardens. Any interested people or againties can access it through the proper channel. Medicinal gardens is a specific area inside the grounds of allowersby that is dedicated to the cultivation and opkeep of a wide range of different sorts of medicinal plants. As an educational and research resource, it makes it possible for nucleons, faculty members, and researchers to investigate and gain knowledge on medicinal plants varied qualities and applications. Culturing a medicinal garden on aConversity tampus can confer major value and benefits to the surrounding scadencic community and society.

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Figure: Our medicinal garden (114 numbers of medicinal plants)

CARBON FOOT PRINT ASSESSMENT

ABOUT: Carbon Footprint is a measure of total quantity of green house gases being emitted by an individual or an Institution as a result of its daily activities. Carbon Footprint talls the impact on the environment due to various activities inside the campus and quantifies the same in the form of total greenhouse gases being emitted. The most common greenhouse gases are carbon dioxide, water vapor, methane, nitrous oxide and ozone. Of all the greenhouse gases, carbon dioxide is the most prominent greenhouse gas, comprising 402 ppm of the Earth's atmosphere. There issue of carbon dioxide gas into the Earth's atmosphere through human activities is commonly known as carbon emission. The question is what should be done to reduce carbon emissions. Many colleges want to reduce

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their carbon distribute (COI) emissions but it is a difficult task, given a range of factors determine carbon emissions, including mobility, waste, and energy consumption. So, gaining insight into CO2 emissions is extremely important. An important aspect of doing a carbon foot print audit is to account the carbon foot print of the campus by determining the net amount of greenhouse gas emitted from various activities in the campus so that the can adopt better ways to reduce its carbon foot print. One aspect is to consider the d travelled and mode of travel used to commute between home and students and staffs. So the carbon foot print auditing determine the total carbon foot print of the campus and analyzes whether the campus is eco-friendly and follows environmentally sustainable practices. It is therefore assential that any environmentally responsive Institution shall examine its carbon footprint.

Key Methodologies adopted for Carbon Footprint Audit

- A walk through survey was conducted in the entire campus to observe various greenhouse gas emission points.
- Base Line data was collected by face to face distributing online question through Google form. To the students and staff also by conducting interviews among staff.
- 3 Walk through survey and base line data collection was done between was done between 2022-23 secsion.
- 4 Based on the data collected, the Green House Gas Emission as CO2 Eq from the various sources was calculated.
- Observation was done to see whether if the authorities have implemented any Carbon Footprint Reduction Strategy.

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Carbon Footprint Auditing-Key Findings

Feasible emission inventories were selected to analyze the carbon footprint of the campus. The inventory survey was done for one academic year. The selected inventories are Human Factor, Transportation, Electricity, Solid Waste, Production and Consumption of Food, LPG & Natural Gas.

Data keepers are identified and the primary details were collected. Parameter wise and zone wisedetails were also collected. The received data were assembled and the missing gaps were recognized.

Humanfactor

Carbon dioxide emitted by a person per day is not negligible. It is equivalent to the mission of a car in a 5 km stretch. Humans emit 26 gigs tons of carbon dioxide per year while CO2 in the atmosphere is rising by only 15 gigstones per year. Just for breathing, humans emit per person each day 1140 grams of CO2, assuming that they eat normally and follow a mean diet of 2800 kcal The population details of each zone include the total number of teaching faculty; non-teaching staff and students were collected. The carbon dioxide emissions will be larger in the Zone having highest population. As the College Campus is concerned its limit is upto mark.

Transportation

Fossil fuels are used for transportation. The carbon dioxide emitted by different fuels is indifferent amounts. The engine of the vehicle burns fuel and creates a certain amount of CO2, depending upon its fuel type, fuel consumption and the driving distances. One litter of petrol and diesel emits 2.3 kg and 2.7 kg of carbon dioxide,

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respectively. Travelling by car for1000km can produce about 200-210 kg of carbon dioxide in to the atmosphere. If a person travels by a bus for 1000 km, it can add 1075 kg of CO2 to his her Carbon foot print. Worldwide, the fossil fuels used for transportation contribute over 13% of GHG emissions.

The approximate transportation details for the Institution campos like the type of vehicle, 240, of vehicles and the fuel used were collected. The carbon dioxide emitted from petrol is less compared to that of diesel. The Carbon footprint by the emission inventory transportation will be quite high.

It was noted that the finere was no direct transportation under the control of institution but institution encourage Staffs and others to use Electronic Vehicle.

Electricity

Electricity is one emission inventory which contributesmuch to the Carbon footprint of the Institution. On an average, electricity sources emit 1.297 lbs CO2 per livih i.e. 0.00055883 metrictons of CO2 perk Wh. The emission factor given by GRID 2010 version 1.1 for hydro electricity is 6.8956x 10-4 metrictons CO2/k Wh. 50 grams of CO2 is emitted from lumit of solar power.

The details of the consumption of electricity and the use of generators in different zones were surveyed. If the number of classrooms and labs are more in a zone, consumption of electricity in that zone is more.

It was noted that the Institution uses a lot of Renewable power especially Solar Model as a supplement to communicate power there by reducing emission of GHG to the atmosphere also contributing to the BIDC 'commitment pledged by Government of India.

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Solid waste

Generally, lkg of solid waste is generated percapita per day. For high moome countries, the solid waste generation is 1.1 – 5 kg percapita per day. For middle income countries, it is 0.52-1 kg and for low income countries the value is 0.450.89 kg capital day. One kilogram of solid waste can emit about 0.125 kg of carbon. The details regarding the solid waste generated in each zone is collected including the waste produced in canteen and hostels.

The solid waste generated in the canteen and hostel which is taken out of the campus comes under other indirect emissions. Solid Waste emits less amount of carbon dioxide compared toother emission inventories considered Their Solid waste disposal process found ok, so exposure is less.

LPG And Natural Gas

The consumption of 1L of LPG can release 1.5kg of CO2 to the atmosphere. Also, burning ofwood (250kg) can add 33kg of CO2 to the Carbon footprint. The consumption details of LPG and Natural Gas in cautaen and hostels were surveyed. It was noted that the Institution uses normal limit of LPG as required.

CarbonFootprintAnalysis

Carbon footprint analysis can be done by suitably combining data collected with respective emission factor of the selected emission inventories. Table represents emission factors of the selected inventories.

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Best Practices Observed in the Institution-Carbon Footprint Reduction

- Restriction of personal vehicle inside the campus enhancing reduction of carbon footprints.
- Use of battery operated Vehicles to commute inside the campus.
- Blending of Conventional fuel with biodiesel generated from Waste Cooking Oil thereby reducing the carbon footprint.
- Use of Solar system power the Instatution thereby reducing dependence on Conventional power.
- Use of Solar Lamps to light the Walk ways
- Use of limited LPG to Run the Kitchen
- Use of Walk ways to commute short distances
- All over the Campus the Green Area much more then the Working area.

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SUBGESTIONS AND RECOMMENDATIONS

- The primary power electricity used by the Institution also they have installed Secondary power Solar panel, in this context, solar energy also used as alternative energy source in the College campuses to reduce the dependency and Carbon emission
- The use of plastic products should be banned in the College campuses.
- The College camputes are indicadiblediversed but more plantations speciallymedicialplanutations are required in the campuses. Plantatics of fruit plants will attract more birds.
- There is urgent need to form a Green Monitoring Team. The priority of this body is to maintain the greenary of the College campuses
- The Green Monitoring Team sould consist of members from teaching staffs, nonteaching staffs, students and if possible, try to include some local interested people.
- Vermicompost facility may be practiced, the product of which can be used as manure or fertilizer for plantation purpose.
- Sustainable use of resources and ecological balance of the College campuses must be maintained throught the year.
- Increse the use of Electrical vehicle to reduce the pollution.
- Encourage to reduce dairy and meat in take No Meat Mondays! Animal products makeup 18% of greenhouse gas emissions. By replacing one or two of weekly meat and dairy meals to a vegetarian option, can help reduce emissions
- Encourage use of Bicycles.
- Improve garden: To grow healthy plants, you also need healthy soil. Improving soil
 quality is an ongoing process for a gardener. Good, rich in nutrients, and friable soil
 will offer the plants everything all on its own. Thus, you would need lesser fertilizers
 and pesticides.
- Improve. Water Harvesting Various passive strategies have been accordingly developed in attempt to improve the water harvesting capability, which can be roughly categorized into three types: (i) engineering new surfaces or materials for condensers to benefit dew generation and removal; (ii) cooling the condensing substrates to facilitate the dewing occurrence; and (iii) concentrating the moisture from air by sorbent-assisted systems to inhibit the environmental influences and raise the water yield.
- Promote awarnessbuildup programme on Environmental Issues time to time

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Conclusion;

Focus on Environmental is applicable. The GOUR MAHAVIDYALAYA have proper plan for Future Development on Environmental expect. We have also suggest them how to improve the Environmental expect in a better way.

Audit conducted by "Management System Consultancy"

Auditor

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Amalesh Kumar Mandal

(IRCA Accredited Lead Auditor on Quality, Environment, Energy Management System, Empanelled Auditor from IAF accredited Certification Body, Energy Management System Auditor from National Productivity Council, Environment Management System personnel from National Safety Council, 180 17020-2012 Competance Certified for Quality Council of India and Carbon Prootprint Calculator Certified from BSI)

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