

GREEN AND ENVIRONMENTAL AUDIT REPORT (2023-2024)



**GOVERNMENT GENERAL DEGREE COLLEGE LALGARH
JHARGRAM, WEST BENGAL**

**CONSULTRAIN MANAGEMENT SERVICES,
LAKE ROAD, KOLKATA**

**TROPICAL INSTITUTE OF EARTH AND
ENVIRONMENTAL RESEARCH (TIEER),
MEDINIPUR**

CONSULTRAIN MANAGEMENT SERVICE
Lake Road, Kolkata, West Bengal, India



TROPICAL INSTITUTE OF EARTH AND ENVIRONMENTAL RESEARCH (TIEER)
Reg. No. S/LL42578 of 2006-07
Office address: M-10, Bidhannagar, Medinipur-721101, W.B., India

GREEN AUDIT CERTIFICATE

Academic Year: 2023-2024

This is to certify that Government General Degree College Lalgarh, Jhargram, West Bengal has good and healthy eco-friendly environment created for saving Earth and Nature. Tropical Institute of Earth and Environmental Research associated with Consultrain Management Service are satisfied after Green Audit with moral support of Honorable Principal, IQAC Team, Staff and Students for academic year 2023-2024. This efforts taken by Faculties and Students towards environment and sustainable are highly appreciable and commendable.

B. Chandra *Pranab Sahoo* *Sanchita Bhattacharya* *Sudipta K. Maiti*

(Dr. Binoy Kr. Chanda) President, TIEER	(Dr. Pranab Sahoo) Asst. Professor & Secretary, TIEER	(Mrs. Sanchita Bhattachariya) ISO-Auditor & CEO, CMS	(Dr. Sudipta Kr. Maiti) Expert & Member, TIEER
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ACKNOWLEDGEMENT

We, The Environment Audit Team thank the management of Government General Degree College, Lalgarh, Jhargram, West Bengal for assigning us such an important work on Green & Environmental audit. We appreciate the cooperation to our team for the assigned study, giving us necessary inputs to carry out audit activities.

Our special thanks to:

- ❖ Principal of the College
- ❖ IQAC Members
- ❖ Teaching & supporting staff

AUDIT EXPERT MEMBERS

The Committee members are listed below:

SL. No.	NAME	DESIGNATION	AREA IN INTEREST
1.	Dr. Binoy Kr. Chanda	President, TIEER & Former IC, VU	Environment Science & Climatology
2.	Dr. Pranab Sahoo	Secretary, TIEER & Assistant Professor and HOD, Dept of Geography, S.B. Mahavidyalaya, Kaptai	Climate Change and Environment Management and Biogeography
3.	Mrs. Sanchita Bhattachariya	Consultant, Consultrain Management services, Kolkata, & Member, TIEER, ISO-9001,14001&50001 Certified Auditor.	Environment Management
4.	Dr. Sudipta Maiti	Faulty, Dept. of Botany, Raja N.L. Khan Womens' College, Midnapore	Plants Diversity & Carbon stocking, Green Management
5.	Dr. Chandan Karan	Faculty, Dept. of Geography, Seva Bharati Mahavidyalaya, Kaptai, W.B.	Land use Survey, Ecology and Map Designer
6.	Dr. Mrinmoy Ghorai	Assistant Professor in Zoology, Panskura Banomali college.	Fauna & Aqua animals and Biodiversity conservation
7.	Sri Ananda Das	Asst. Teacher & expert	Electro physics
8.	Sri Sarat Chatterjee	Surveyor	Water and Air Quality Measurement
9.	Sri Sanjib Mahata	Surveyor & Expert in RS & GIS	Map Designer
10.	Sri Soumitra Patra	M.Tech in Agriculture and surveyor	Micro irrigation technology and water management
11.	Mrs Sumita Swar	Surveyor and Expert ENVS	Waste and Environment Management

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1.0 INTRODUCTION :

The word “Green” means ecofriendly and produce better environment. Green and environmental Audit is a process of systematic, documented, periodic and objective evaluation of components of environmental diversity with the aim of ensuring readiness in eco-friendly environment and conservation of natural resources in its operations. The process starts with systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of the college. Green auditing is a means of assessing environmental performance. Green audit is a valuable means for a College to determine how and where they are using the most energy or water or other resources; the College can then consider how to implement changes and make savings. It can create healthy consciousness and promotes environmental awareness, values and ethics.



Lalgarh Government General Degree College premises

1.1 Goals & Objectives:

It aims to analyse environments within and outside of the concerned area, which will have an impact on the eco-friendly atmosphere. It provides staff and students better understanding of Resource management on their area of work.

The Main Objectives of Carrying of Green Environmental Audit:

- To ensure the performance of the Institution with respect to environmental activities they are involved in, in compliance with existing laws and regulations
- To locate the Green area and the Geographical location of the College – aerial view
- To document the floral and faunal diversity of the College
- To develop and follow the waste management system
- To reduce the energy consumption of the Institution
- To report the expenditure on green initiatives, carbon foot print
- To record the air, water quality of the Institution
- To conserve the natural resources

Areas of Concern:

- WATER MANAGEMENT
- WASTE MANAGEMENT
- AIR QUALITY AND CARBON FOOTPRINT
- E-WASTE MANAGEMENT
- ENERGY MANAGEMENT
- BIODIVERSITY



Entrance gate of Lalgarh Government General Degree College premises



Green coverage area of the college premises



Meeting with Hon'ble Principal & IQAC Team

This Audit has been conducted by a Committee constituted by the Experts & Scientists from different reputed Institutes. The Committee developed a questionnaire for audit based on the regulatory and statutory requirements of Centre as well State. The basic data was gathered and compiled, which the committee analyzed. By and large, the audit reveals a healthy environment inside the Lalgarh Government General Degree College campus. The committee has suggested short term as well as long-term suggestions for improved environmental conditions to a higher levels and authorities and all stakeholders of the College conforms that they will give due attention and utilize opportunities for identified improvements.

1.2 About the College :

The project of setting up a Government General Degree College at Lalgarh was taken in 2012 and it was established in the year 2014 the Govt. of West Bengal's aim to spread higher education among the less oriented areas of Junglemahal. It is one of the four govt. colleges that saw its opening in these areas of Western parts of Paschim Medinipur. The college was inaugurated by Hon'ble Chief Minister Smt. Mamata Banerjee on 14th July, 2014.

Welcome to Lalgarh Government College! The college is built on the wonderfully scenic environment along the river Kansaboti and is surrounded by lush green paddy fields. The college is built covering almost six acres of lands comprising two buildings: one, the main building having the office of the college and class rooms and the other, the Student's Activity Centre having two separate common rooms for the boys and girls, the Students' Union room and the college canteen and one hall room for assembly purposes. Construction activities are still going on in some parts the college.

As an active and throbbing teaching-learning community the college is committed to the mission of unearthing the latent possibilities and intellectual potentialities of the pupil of the area to enable them to culminate all the virtues of worthy and responsible citizens, who must carry out their duties to their society, state and nation uninterruptedly in their respective future life.

Vision & Mission of the College :

Government General Degree College, Lalgarh, nestled in the heart of Junglemahal, is committed to transcending the conventional paradigms of education to irrigate the arid intellectual landscapes of this economically challenged region. Our mission is to serve as a beacon of enlightenment, extending the transformative power of higher education to the underserved and underprivileged sections of society. With a steadfast dedication to inclusivity and excellence, we aspire to cultivate an environment where learning is not merely a transmission of knowledge but a holistic journey towards personal and communal upliftment.

We are dedicated to:

1. **Empowering Minds:** Provide equitable access to quality education, enabling students to overcome socio-economic barriers and achieve academic excellence.
2. **Fostering Intellectual Curiosity:** Encourage a spirit of inquiry and critical thinking, guiding students to explore and innovate beyond the confines of traditional syllabi.
3. **Holistic Development:** Promote the all-round development of students by integrating academic rigor with co-curricular and extracurricular activities.

4. **Community Engagement:** Instill a sense of social responsibility and encourage students to contribute positively to the local community and beyond.
5. **Sustainable Educational Practices:** Implement sustainable educational methodologies that are adaptable and resilient, ensuring long-term benefits for students and society.

Vision Statement

Our vision is to emerge as a distinguished center of learning, where education transcends the boundaries of classrooms and textbooks, fostering an enlightened and equitable society. We envision Government General Degree College, Lalgarh as a crucible of knowledge and wisdom, where students are nurtured to realize their fullest potential and equipped to contribute meaningfully to the world.

1. **Academic Excellence:** Strive to achieve the highest standards of academic excellence, providing a robust curriculum that is responsive to the evolving needs of society and the global landscape.
2. **Innovative Pedagogy:** Embrace innovative teaching methodologies that cater to diverse learning styles and foster a culture of continuous improvement and lifelong learning.
3. **Cultural and Intellectual Diversity:** Celebrate and promote cultural and intellectual diversity, creating an inclusive environment where every student feels valued and respected.
4. **Leadership and Professionalism:** Develop future leaders and professionals who are not only academically proficient but also possess strong ethical values, integrity, and a commitment to social justice.
5. **Research and Development:** Encourage a strong emphasis on research and development, fostering a spirit of innovation and discovery that contributes to the advancement of knowledge and societal progress.
6. **Global Perspective:** Equip students with a global perspective, preparing them to navigate and excel in an interconnected and dynamic world.

Core Values

1. **Inclusivity:** Ensuring that every student, regardless of their socio-economic background, has access to quality education and the opportunity to succeed.
2. **Integrity:** Upholding the highest standards of honesty, ethics, and transparency in all our endeavors.
3. **Excellence:** Striving for excellence in teaching, learning, and research, and continuously seeking to improve and innovate.
4. **Community:** Fostering a strong sense of community and social responsibility, encouraging students to engage with and contribute to their local and global communities.
5. **Sustainability:** Promoting sustainable practices in education and beyond, ensuring that our impact is positive and enduring.

Strategic Goals

1. **Enhanced Learning Environment:** Develop state-of-the-art facilities and resources that provide a conducive environment for learning and personal growth.
2. **Faculty Development:** Invest in the continuous professional development of our faculty, ensuring they are equipped with the latest pedagogical skills and knowledge.
3. **Student Support Services:** Strengthen student support services, including counseling, mentoring, and career guidance, to ensure the holistic well-being and success of our students.
4. **Collaborations and Partnerships:** Forge strategic partnerships with academic institutions, industry, and community organizations to enhance educational and career opportunities for our students.
5. **Research Initiatives:** Promote and support research initiatives that address local, national, and global challenges, fostering a culture of inquiry and innovation.
6. **Alumni Engagement:** Build a robust alumni network that contributes to the growth and development of the college and its students.

In conclusion, Lalgarh Government General Degree College is more than an educational institution; it is a catalyst for change, an incubator of dreams, and a harbinger of hope. We invite all stakeholders—students, faculty, parents, and the community—to join us in our mission to irrigate the deserts of deprivation with the waters of knowledge and wisdom. Together, we shall forge a path towards a brighter, more equitable future, where education serves as the cornerstone of societal transformation and national strength.

Come, let us step into this noble militia of sustainable educational development, hand in hand, heart to heart, and stride towards a horizon of endless possibilities and shared prosperity.

General Information :

- Total area of the college campus – 6.4 acres,
- Building area: 0.62 acres,
- Green & Vegetated area: 3.47 acres.
- Play Ground & Vacant land area: 2.31 acre
- Water Bodies area: 0.02acre
- Departments: 11 (Under Graduate)
- Laboratories: 3
- Students: 952
- Teaching & Non-teaching staff: 33
- Others stakeholder: 2
- Total Stake holders: 987
- Auditorium /Seminar hall:01

Table 1 Area Coverage of the College Campus

Area Coverage of College Premises:	Area in Percentage
Building and Construction	9.66
Vegetation Cover	54.04
Playground and Fallow land	36.00
Water Bodies	0.30

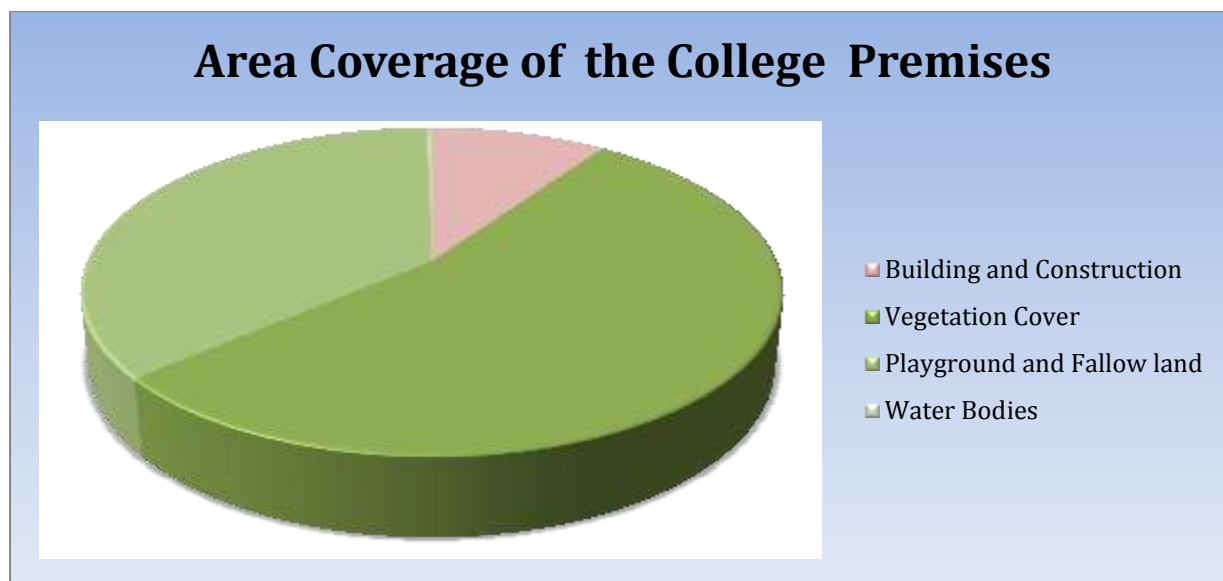


Fig. 1 Area Coverage of the College Premises

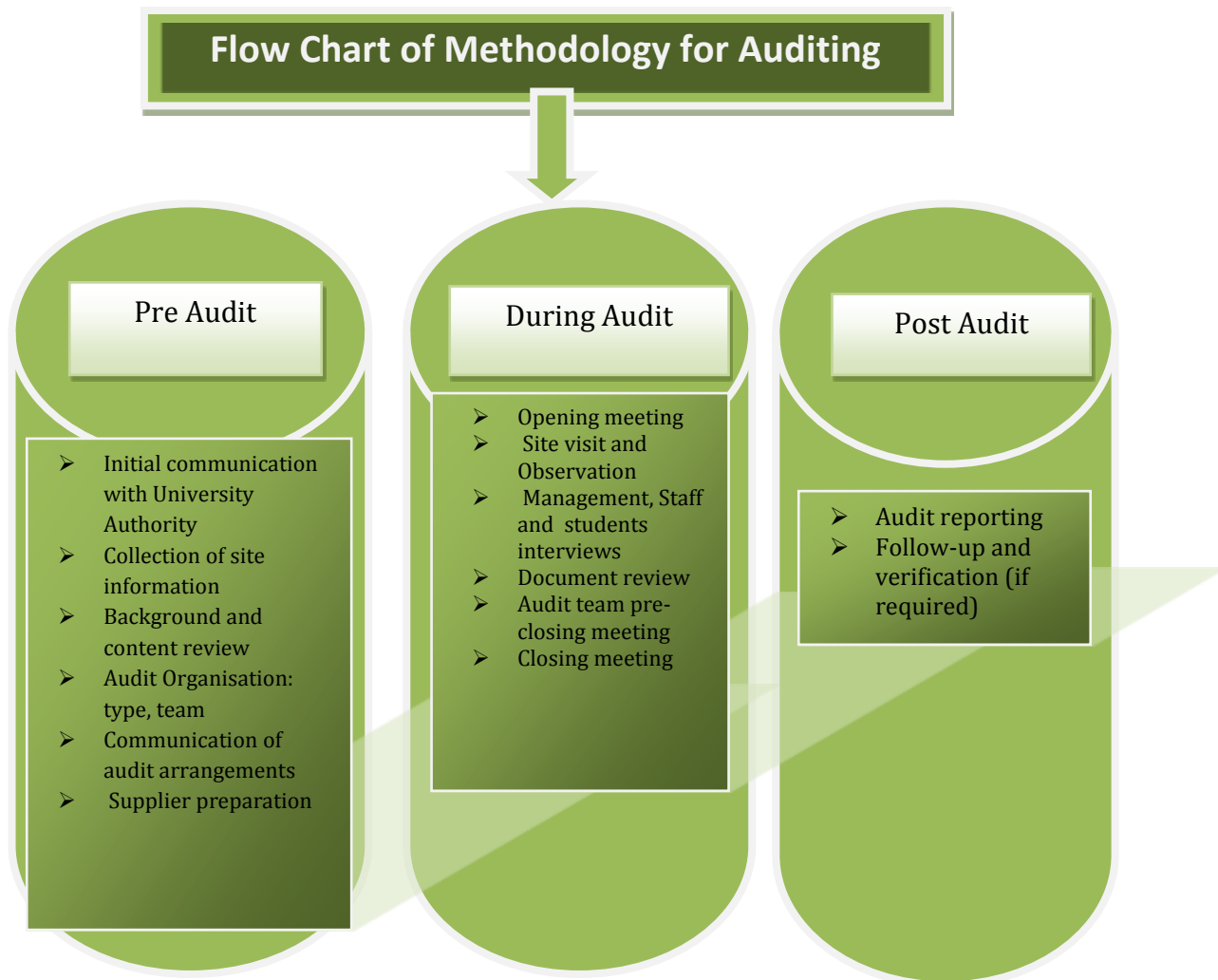
1.3 Purpose of Green and Environmental Auditing:

- To provide basis for improved sustainability.
- To create a green campus.
- To enable waste management through reduction of waste generation, solid- waste and water recycling.
- To promote plastic free campus and evolve health consciousness among the stakeholders.
- To recognize the cost saving methods through waste minimizing and managing.
- To empower the organizations to frame a better environmental performance.
- To develop an environmental ethics and values systems in youngsters.
- To establish valuable tools and methods for managing and monitoring of environmental and sustainable development programs.

2.0 PRE-AUDIT STAGE:

2.1 Methodology and Survey Schedules:

The methodology is adopted for this assessment by collecting the information by onsite visit, group discussion, campus survey, enquiry, observation. Perception study and opinion survey are also included in the Auditing Report.



2.2 Site Visit:

- College and its premises were visited and analyzed by the audit-teams several times to gather information.
- Campus trees were counted and identified.
- Medicinal garden, play grounds, canteen, library, All Department, office rooms, Canteen and parking grounds were also visited to collect data.
- Number and type of vehicles used by the stakeholders were counted and fuel consumption for each vehicle was verified with the user.
- Water taps were checked. Leakage of a few water taps and over-flow tanks were noticed during the site inspection.

Following steps were taken for data collection:

- Survey to each Department, Laboratories, Library, Canteen etc.
- Data collected by observation and interview.
- Assessment of the environmental condition through measurement

2.3 Survey & Data Collection:

- A Questionnaire was developed covering all aspects of Green and Environment aspects for collection of data.
- Arrangement of Bird eye views and survey was made available to cover every corner of the college and its neighborhood areas.
- Data Analysis - Calculation of energy consumption, analysis of water reused, waste generation & disposal arrangements.
- Recommendation - On the basis of results of data analysis and observations, some steps for reducing power consumption, water consumption, waste management etc. were recommended.

We have discussed and interacted with different groups like teachers, students and staff to identify the attitudes and awareness towards environmental issues at the institutional, district, national and global level. Data and information were also collected from utility bills, reuse of water, waste management, use of energy-saving devices and e-waste. This information was added to the carbon footprint data, generating a fairly clearer picture of the emissions and impact of the reduction measures undertaken.

3.0 AUDIT STAGE :

3.1 Campus Survey and Enquiry:

Green and Environmental audit forms part of a resource management process. Total area including neighborhoods was surveyed and the data derived from this survey was detailed in our report.

Eco-campus concept mainly focuses on the reduction of contribution to emissions, on the efficient use of energy and water; Minimize waste generation or pollution and also economic efficiency. All these indicators are assessed in process of "Green Auditing of educational institute". Covered areas included in this green auditing are water, energy, air quality & carbon footprint, waste, biodiversity campus.

The Audit covered the following major areas:

- Water Efficiency and Water Management
- Energy Efficiency and Energy Management
- Air Quality and Carbon foot print and Management
- Waste and Waste Management
- Biodiversity and Green Zone and management



Departmental Visit

Table-2 Total Stakeholders of the College

Students -	952 persons
Teaching, Non-teaching and Other Stakeholders	35 persons
Total	987 persons
Approximate no of visitor (per day)	10 persons

3.2 Water Efficiency and Water Management :

The concerned auditor investigates the relevant method that can be adopted and implemented to balance the demand and supply of water and also proper water management practices along with rooftop rain water harvesting system must be installed in whole campus for recharging ground water and meeting part of the water requirements. It is therefore essential that any environmentally responsible institution examine its water use and Re-use practices.

Usage of water	That water is use for Drinking, Washing, Cleaning, Grading and gardening purpose. The maximum water are use for washroom and Drinking purpose in the college. About 20100 Litre water has been consumed for these purpose.
Total Consumption of water	About 30000Litre water per day
Water wastage	The leakage and misuse of water is about 500Litre in whole campus. Small drip from a leaky tap, sewage water from pan in toilets and over flow can waste significant amount of water per day.
Surface water Harvesting	The surface water bodies are available in college campus. About 0.02 acre area has covered with three site.

Table-3 Use of water in Different Purpose of College Premises

Use of water in Different Purpose Per Day	Use in Percentage
Washroom	39
Drinking	28
Laboratory	17
Cleaning and Grading	13
Others	3

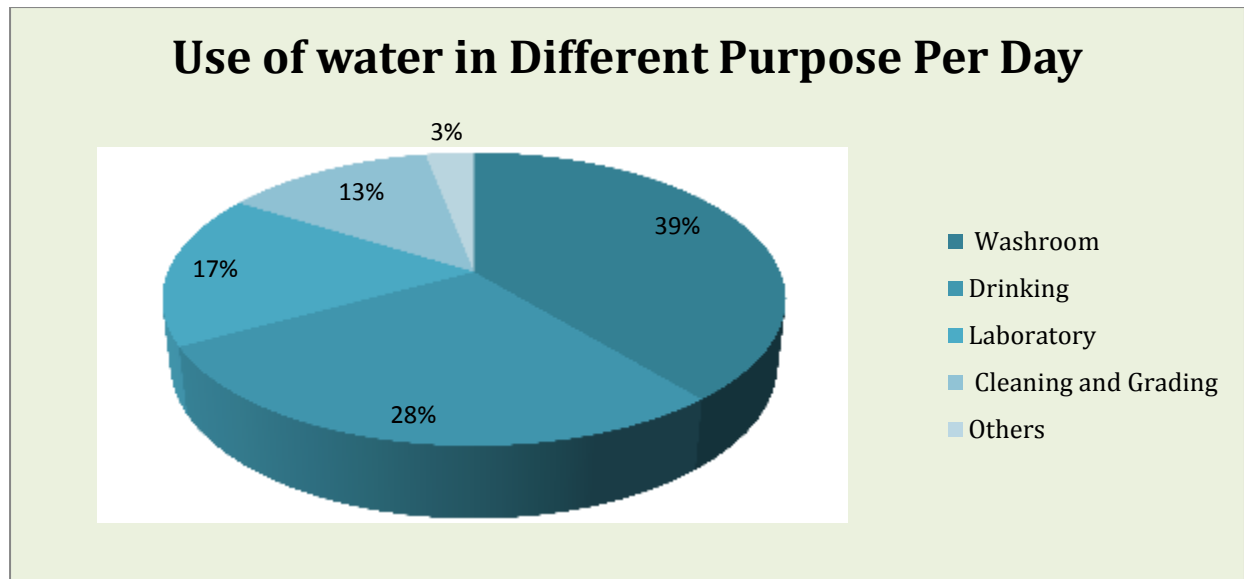


Fig.2 Use of water in Different Purpose Per Day



Drinking water quality assessment



Factors	Weightage
Quality of Water	H
Re-use of water	L
Water Harvesting & Recharge	M
Use of Surface Water	L

* H denote- Taken management policy level above 60%

** M denote- Taken management policy level 40%-60%

*** L denote-Taken management policy level below 40%

Recommendation

Water conservation faucets in washrooms were not seen. Installation of such faucets can save water and will help in minimising the water footprint of the institute. Sanitary wastewater generated from washrooms is connected to sewerage system.



Rainwater harvesting site in the college premises

3.3 Energy Efficiency and Energy Management:

Energy sources	Sources of Energy: Conventional Electricity and Diesel
Energy consumption	The useable energy is Conventional. The used Electricity energy is 37142 units which costing is Rs.195000/-. The Maximum energy is consumed for Light-Fan, AC and Computer Section amounting to 69% of total consumption.

Table-4 Source of Energy in Percentage

Source of Energy	In Percentage
Conventional	100
Non -Conventional	0

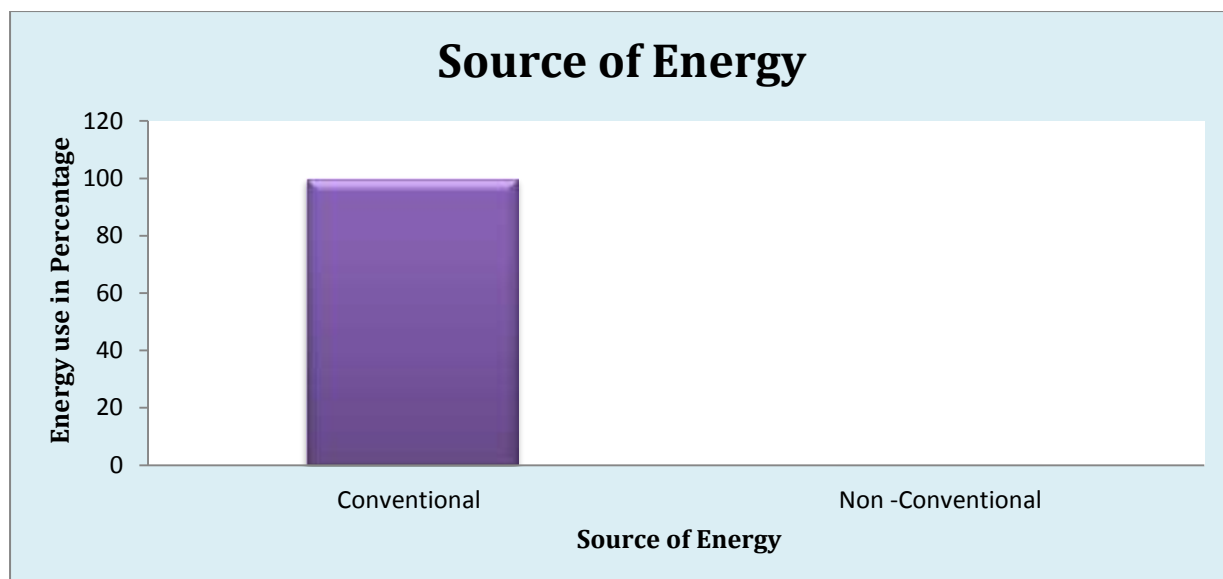


Fig. 3 Use of Energy in Percentage

Table-5 Energy Consumption in different Purpose in Percentage

Energy Consumption in different Purpose	In Percentage
Light and Fans	38
AC	16
Computer, Laptop and Printer	15
Pump	12
Refrigerator	8
Xerox Machine	7
Others	4

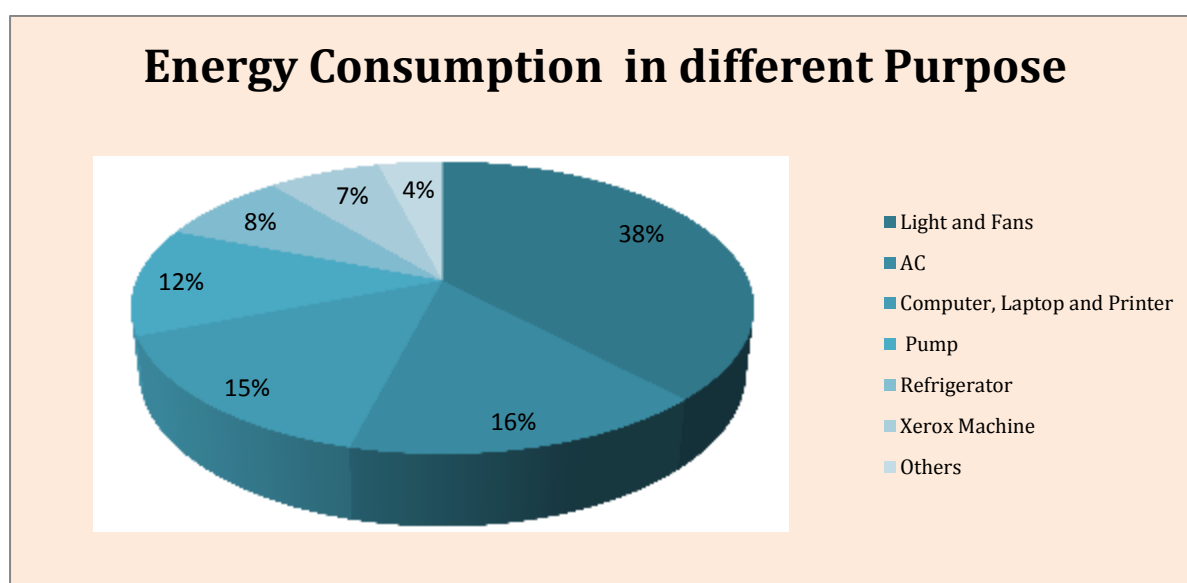


Fig. 4 Percentage of Energy Consumption in different Purpose



survey of Lalgarh Govt. College
Medinipur, Medinipur Division 721516
India
22°34'23.034"N 87°2'44.874"E ±1.80m
01:18pm

Site for Energy consumption unit in the college premises



survey of Lalgarh Govt. College
22°34'25.488"N 87°2'46.512"E ±6.90m
01:22pm



survey of Lalgarh Govt. College
22°34'25.602"N 87°2'46.152"E ±6.10m
01:22pm

Energy Uses in different consumption purpose

Recommendations:

- a) Standard Operation Procedures (SOPs) should be prepared and followed for green purchasing wherein equipment's with star rating; those using eco-friendly materials; those with safe disposal policy or return to supplier after unused, can be considered.
- b) For purchasing new electronic appliances, star rating provided by Bureau of Energy Efficiency (BEE) should be considered. The equipment which has maximum star ratings could be purchased, which will consume less energy, ensure environmental sustainability and also operate at low cost.
- c) Every classroom and lab with central switch board should have a diagram linking place of tube light, fan etc. with corresponding switch. This will ensure that correct fitting is switched on/ off and can save time & unnecessary operation.
- d) Installation of automatic lights with sensors can be considered.
- e) Usage of light reflectors is recommended as the reflectors can spread light to relatively large areas.
- f) Notices/ signage can be put up/ displayed near switches and on notice boards, informing students and staff to switch off all Departments & Sectors when not in use.
- g) Use of large percentage renewable energy should be considered.

3.4 Air Quality and Carbon Footprints :

Commutation of stakeholders has an impact on the environment through the emission of greenhouse gases into the atmosphere consequent to burning of fossil fuels (such as petrol and Diesel). The most common greenhouse gases are Carbon Dioxide, CFC, water vapor, methane, nitrous oxide and ozone. Of all the greenhouse gases, carbon dioxide is the most leading greenhouse gas, comprising about 214ppm (2022) to the Earth's atmosphere. It undertakes the measure of bulk of carbon dioxide equivalents exhaled by the organization through which the carbon accounting is done. It is observed that the Outdoor air quality is Fresh and comfortable for breathing to human life.

Table-6 Amount of CO₂ (ppm) in different location of the College Campus

Different location of the College Premises	Amount of CO ₂ (ppm)
Principal Office	420
Administrative Office	420
Zoology lab	390
library	380
Botany Lab	390
Computer Lab and Smart class room	400
Play Ground	370
Outdoor	375

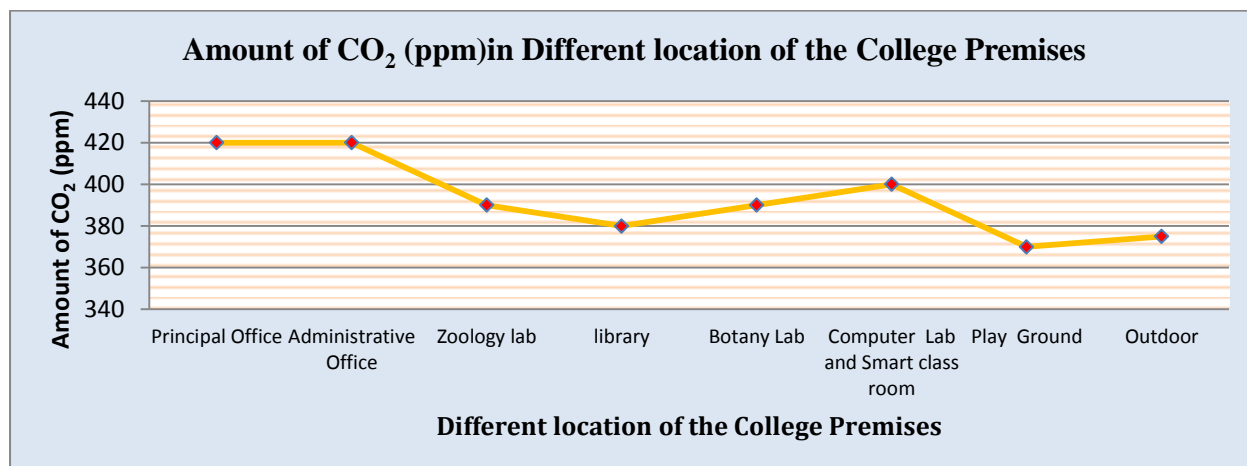


Fig. 5 Amount of CO₂ (ppm) in Different Location of the College Premises

Table-7 Amount of CO₂ (ppm) in the air in different location(College Campus) session 2022-2023

Amount of CO ₂ (ppm) in the Air in Different places of the College Premises	Amount of CO ₂ (ppm)
Outdoor	380
Indoor (Class room)	400
Indoor (Laboratories)	420

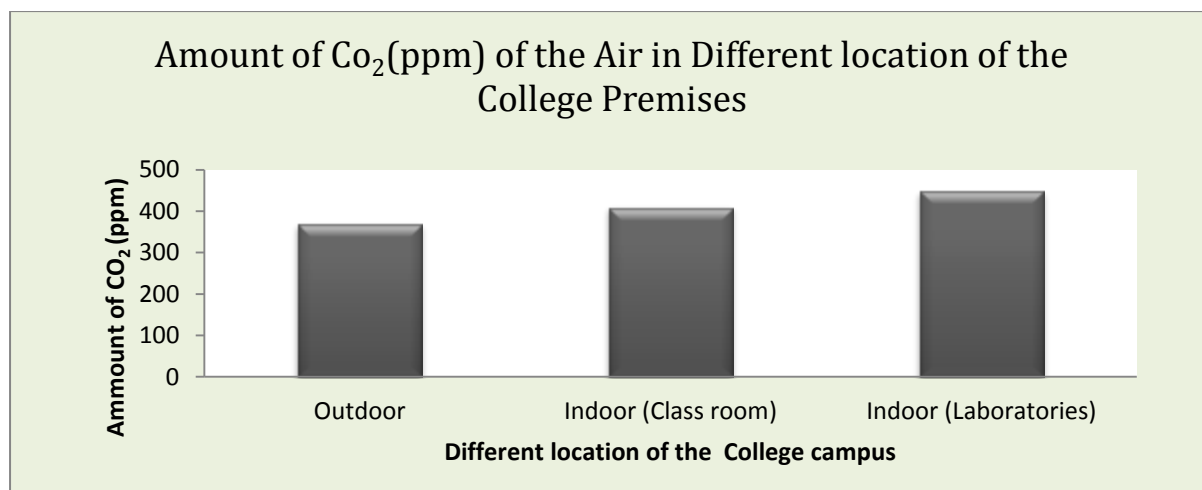


Fig. 6 Amount of Co₂(ppm) of the Air in Different location of the College Premises



Gymnasium Hall of the college

Recommendation:

- a) Ventilation is achieved by fans in the institute and air conditioners in Official and Lab. places.
- b) Heating Ventilation and Air Conditioning (HVAC) system is not installed.
- c) No indoor plants were observed in the entire institute. Indoor plants can be plotted not only for the aesthetic appearance but also for health benefits.

3.5 Generation of Waste and Waste Management:

Waste (or wastes) is useless or unusable materials or components which are discarded after principal use. Sometimes, it is a defective article and of no use. In modern outlook waste may be a valuable substance subject to an appropriate operation or action on the waste. With the context of waste management RRR (Reduce, Reuse and Recycle) model may be followed in appropriate fashion.

The auditor diagnoses the prevailing waste disposal policies and suggests the best way to combat the problems. It is therefore essential that any environmentally responsible institution examine its waste processing practices. Keeping the objective of the audit the

following study will be limited to the waste generated in an academic campus and surroundings.

Table-8 Types of wastes

Type of Wastage in Per Day	Amount in Kg
Degradable	50
Non degradable	10

The following categories of wastes are generated in the College campus:

a) Solid waste - Waste generated through paper, plastic packaging causes nuisance. Some wastes are generated after various experiments, primarily, chemistry laboratory; broken test tube, glassware are the example.

b) Liquid waste - There are bio-chemical wastes generated through various chemical reactions and biological processes. Generally, these are being drained to nearby Surface water bodies contaminating water and soil. Appropriate means is suggested to adopt scientific liquid waste management practices. These are neutralization, bacterial control, and natural control through plantation.

Table-9 Source of Wastage in Different Sector (per day in Kg)

Source of Wastage in Different Sector(per day in Kg)	Degradable wastage Amount in Kg.	Non Degradable wastage Amount in Kg.
Office	22	3.5
Laboratories	10	2
Forest and Garden	9	0.5
Canteen	7	3.5
Others	2	0.5

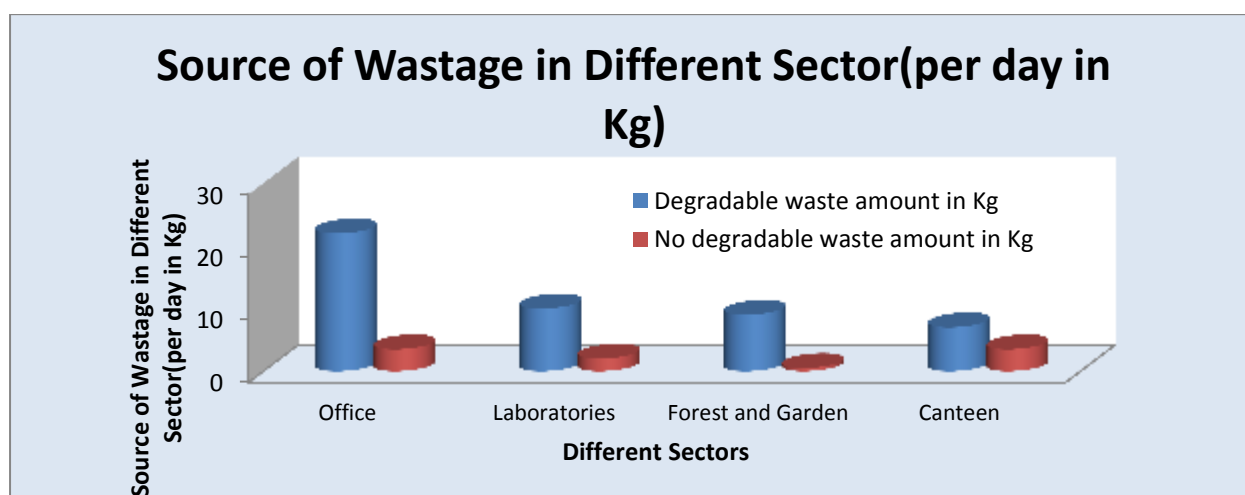


Fig 7 Source and Amount of Wastage in Different Sector (per day in Kg)

The following are being emphasized during audit of waste management:

- a) Name of the waste
- b) Category of waste
- c) Quantity of waste
- d) Hazardous effect of the waste
- e) Institutional action and mechanism for waste management

Compliance audit of waste issues:

At the present stage the institute is capable in managing their waste. They are complying with the essential requirements of waste management although suggestions are given for future improvements.



Canteen and waste management in the college premises

Performance Audit of Waste Issues:

No critical audit issue is there with respect to the waste management.

Implemented wastes management	
Factors/Indicators	Weightage
Plastic and Polythene free	M
Re-use of papers	H
Hazardous effect waste management	M
Removal of E-Wastes	M
Organic & food waste	M
Others solid wastes	M

* H denote- Taken management policy level above 60%

** M denote- Taken management policy level 40%-60%

*** L denote-Taken management policy level below 40%

3.6 Auditing for Biodiversity & Green Campus Management:

Unfortunately, biodiversity is facing serious threats from habitat loss, pollution, over consumption and invasive species. Species are disappearing at an alarming rate and each loss affects nature's delicate balance and our quality of life. In one year, a single mature tree will absorb up to pounds of Carbon dioxide from the atmosphere, and release it as Oxygen. The amount of oxygen that a single tree produces is enough to provide one day's supply of oxygen for people. So while you are busy studying and working on earning those good grades, all the trees on campus are also working hard to make the air cleaner for us. Trees on our campus impact our mental health as well; studies have shown that trees greatly reduce stress, which a huge deal is considering many students are under some amount of stress.

Table 10 Area Coverage of the College Campus

Area Coverage of College Premises:	Area in Percentage
Building and Construction	9.66
Vegetation Cover	54.04
Playground and Fallow land	36
Water Bodies	0.3

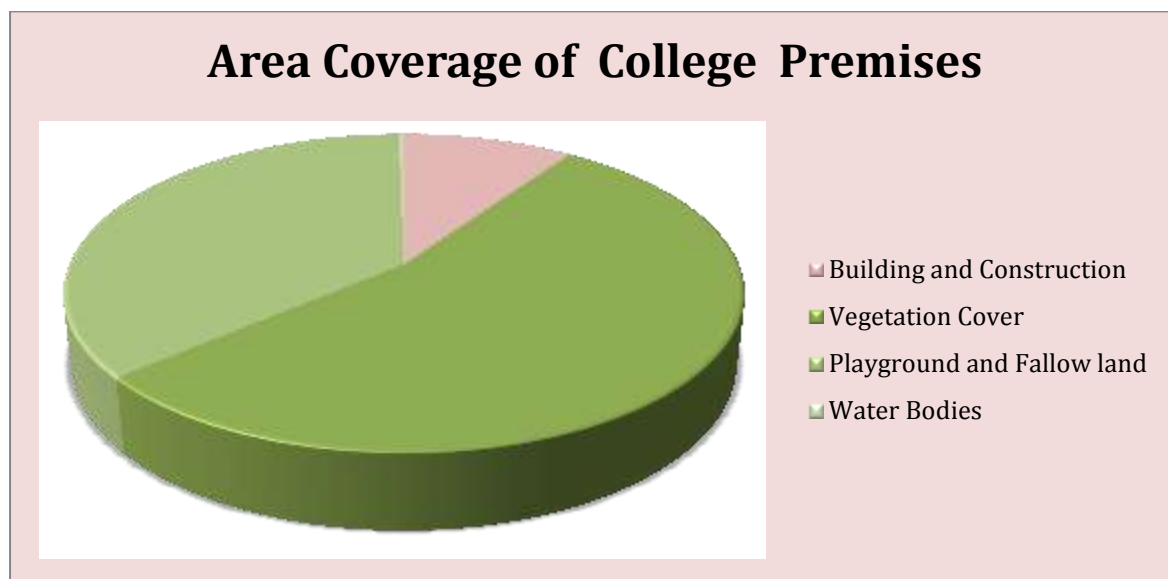


Fig. 8 Area Coverage of College Premises

Biodiversity Study:

Plant Diversity –Lalgarh Government Degree College is established on 2014. Initially the area was abundant. It is located very near to the Kansawati river. Though the soil of this area is lateritic but the area surrounded by the college is sandy loam. After ten year’s protection a dramatic vegetation has been regenerated. Huge Sissoo, Kanta Simul, Piasal, Jayanti, Trema etc. are growing vigorously. Area is so undisturbed that mushrooms are growing naturally.

The campus of Lalgarh Government Degree College is lashing green on bank of the river Kansawati. There are two part in the campus. Front part of the campus is covering by academic building, Car and cycle stand, Canteen, student activity area etc. in the rest part there is a playground and lush green area. The play ground is surrounded by Sissoo (*Dalbergia sissoo*), Akashmoni (*Acacia auriculiformis*) etc. Though the campus harbours a huge number of plants but we identified Trees of 25 species, shrubs 13 species, herbs 28 species and one Gymnosperm (Table-11,12,13,14, Fig-9). Dominant tree species is *Dalbergia sissoo*, *Acacia auriculiformis*, *Bombax pentandra*, *Pterocarpus marsupium* etc. There are few special area for green cover like, Front garden, Butterfly garden, surrounding areas of play ground.

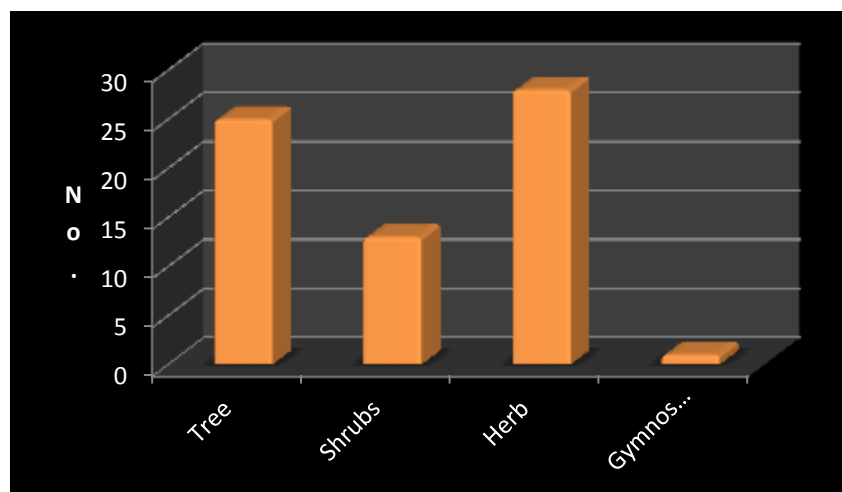


Fig. 9: Vegetation Diversity of the college campus

- Front garden – this is a round shaped small garden for ornamental plants situated in front of the academic building. Though it is not properly maintained but look so

beautiful. There are plants like *Thuja sp.*, *Catharanthus roseus*, *Tagetes petula*, *Hibiscus sp.* etc.

- Butterfly garden – there is a butterfly garden on the east side of the academic building. It is also not properly maintained but cover by naturally regenerated plants like, *Leucaena leucocephala*, *Acacia arabica*, *Vernonia cineria*, *Desmodium gangeticum*, *Urena lobata*, *Xanthium strumerium* etc.(Table-15).
- Play ground – there is a large playground (2.31 acre) situated in the south eastern corner of the college campus. The whole ground is surrounded by *Dalbergia sissoo*, *Acacia auriculiformis*, *Bombax pentandra*. There is a road on the northern side of the play ground and covered by Sissoo trees only.

Carbon stored in different GBH of trees.

The ecology of the vegetation study has been done through quadrat and Transact method. The length of the Transact was 30m. Two sets of quadrats have been laid in the main campus. For this purpose a standard method has been followed i.e. 10m x 10m for trees, 5m x 5m for shrubs and 1m x 1m for herbs (Table-16). Out of 15 trees there are three girth classes like 0-50cm, 51-100cm and 101-150cm. There are 15 trees and sequester **13128 kg of Carbon** till date (Fig.-10).

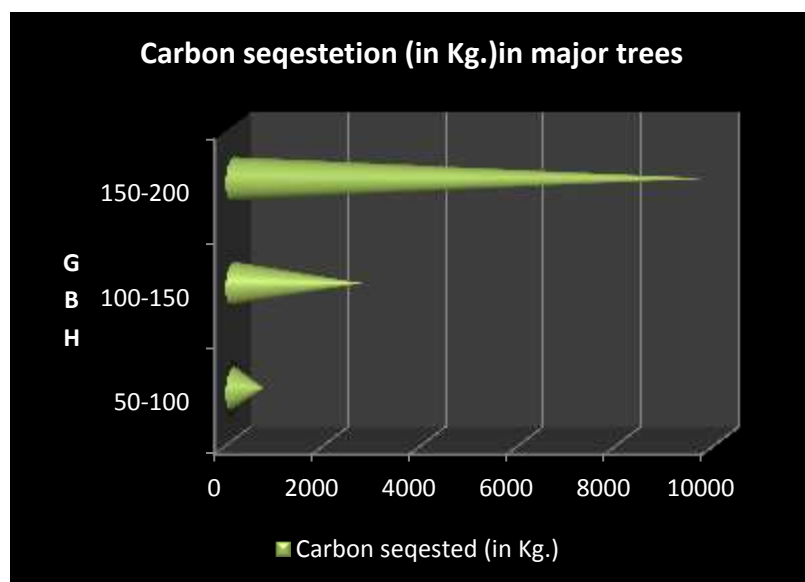


Fig.- 10: Carbon sequestration (in Kg.) in major trees

Table- 11: Tree species of the college campus at a glance

Sl. No	Scientific name	Family
1	<i>Acacia arabica</i>	Fabaceae
2	<i>Acacia auriculiformis</i>	Fabaceae
3	<i>Albizia lebbeck</i>	Fabaceae
4	<i>Alstonia scholaris</i>	Apocynaceae
5	<i>Azadirachta indica</i>	Meliaceae
6	<i>Bauhinia purpurea</i>	Fabaceae
7	<i>Bombax pentandra</i>	Bombaceae
8	<i>Butea monosperma</i>	Fabaceae
9	<i>Casuarina equisetifolia</i>	Casuarinaceae
10	<i>Dalbergia sissoo</i>	Fabaceae
11	<i>Ficus hispida</i>	Moraceae
12	<i>Ficus religiosa</i>	Moraceae
13	<i>Leucaena leucocephala</i>	Fabaceae
14	<i>Mangifera india</i>	Anacardiaceae
15	<i>Mimusops elengi</i>	Sapotaceae
16	<i>Moringa oleifera</i>	Moringaceae
17	<i>Peltophorum pterocarpum</i>	Caesalpiniaceae
18	<i>Psidium guajava</i>	Myrtaceae
19	<i>Psidium guajava</i>	Myrtaceae
20	<i>Pterocarpus marsupium</i>	Fabaceae
21	<i>Pterocarpus santalinus</i>	Fabaceae
22	<i>Roystonea regia</i>	Arecaceae
23	<i>Swietenia mahogany</i>	Meliaceae
24	<i>Trema orientalis</i>	Cannabaceae
25	<i>Zizyphus jujube</i>	Rhamnaceae

Table – 12: Shrub species of the college campus at a glance

Sl. No.	Scientific Name	Family
1	<i>Anisomeles ovata</i>	Labiatae
2	<i>Calotropis procera</i>	Asclepiadaceae
3	<i>Catharanthus roseus</i>	Apocynaceae

4	<i>Clerodendron infortunatum</i>	Verbenaceae
5	<i>Desmodium gangeticum</i>	Fabaceae
6	<i>Dioscorea pentaphylla</i>	Dioscoriaceae
7	<i>Duranta repens</i>	Verbenaceae
8	<i>Euphorbia mili</i>	Euphorbiaceae
9	<i>Hibiscus sp</i>	Malvaceae
10	<i>Mikania scandens</i>	Asteraceae
11	<i>Urena lobata</i>	Malvaceae
12	<i>Vitis quadrangularis</i>	Vitaceae
13	<i>Xanthium strumerium</i>	Malvaceae

Table -13: Available Herb species within the college campus

Sl. No.	Scientific name	Family
1	<i>Acalypha indica</i> L.	Euphorbiaceae
2	<i>Aerva lanata</i> (L.) Juss.	Amaranthaceae
3	<i>Alternanthera sessilis</i> (L.)R.Br.ex DC.	Amaranthaceae
4	<i>Alysicarpus vazinales</i>	Fabaceae
5	<i>Aristida adcenciones</i>	Poaceae
6	<i>Aschenomone asperea</i>	Fabaceae
7	<i>Boerhavia diffusa</i> L.	Nyctaginaceae
8	<i>Cardispermum helicacabum</i>	Solanaceae
9	<i>Chloris virgata</i>	Poaceae
10	<i>Commelina benghalensis</i>	Commelinaceae
11	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae

12	<i>Desmodium triflorum</i> (L.) DC.	Fabaceae
13	<i>Eragrostis tenella</i> (L.) Roem. & Schult.	Poaceae
14	<i>Euphorbia hirta</i> L.	Euphorbiaceae
15	<i>Kyllinga brevifolia</i> Rottb.	Cyperaceae
16	<i>Lufa cylindrica</i>	Fabaceae
17	<i>Oldenlandia corymbosa</i> L.	Rubiaceae
18	<i>Orthosiphon</i> sp.	Labiataea
19	<i>Scoparia dulcis</i> (L.) Kuntze.	Scrophulariaceae
20	<i>Sida cordifolia</i> L.	Malvaceae
21	<i>Solanum nigrum</i> L.	Solanaceae
22	<i>Solanum sisymbriifolium</i> Lam.	Solanaceae
23	<i>Spermacoce hispida</i> L.	Rubiaceae
24	<i>Tagetes petula</i>	Asteraceae
25	<i>Tephrocia purpurea</i>	Fabaceae
26	<i>Tridax procumbens</i> (L.) L.	Asteraceae
27	<i>Vernonia cineria</i>	Asteraceae
28	<i>Saccharum</i> sp.	Poaceae

Table -14: Available Gymnosperm species within the college campus

Sl. No.	Scientific name	Family
1	<i>Thuja</i> sp.	Cupressaceae

Table – 15: List of plants in Butterfly garden of the college campus at a glance

Sl. No.	Scientific Name	Family
1	<i>Acacia arabica</i>	Fabaceae
2	<i>Desmodium gangeticum</i>	Fabaceae

3	<i>Duranta repens</i>	Verbenaceae
4	<i>Euphorbia milii</i>	Euphorbiaceae
5	<i>Hibiscus rosasinensis</i>	Malvaceae
6	<i>Leucaena leucocephala</i>	Fabaceae
7	<i>Urena lobata</i>	Malvaceae
8	<i>Vernonia cineria</i>	Asteraceae
9	<i>Xanthium strumerium</i>	Malvaceae

Table -16: Carbon sequestration potential of trees of college campus

Sl. No.	GBH Class (in cm)	No. of Trees	Carbon stock (in Kg.)
1	Upto 50	6	636
2	50-100	4	2672
3	100-150	5	9820
	Total	15	13128

Faunal Diversity:

Lalgarh Government Degree College campus is a habitat of a number of wide varieties of fauna. Different types of insects including moths, butterfly, wasp, bees, amphibian, reptilian, birds and mammals are found here. Due to butterfly garden there are 10 species of butterfly found. Members of different phylum are given in figure (Fig.-11).

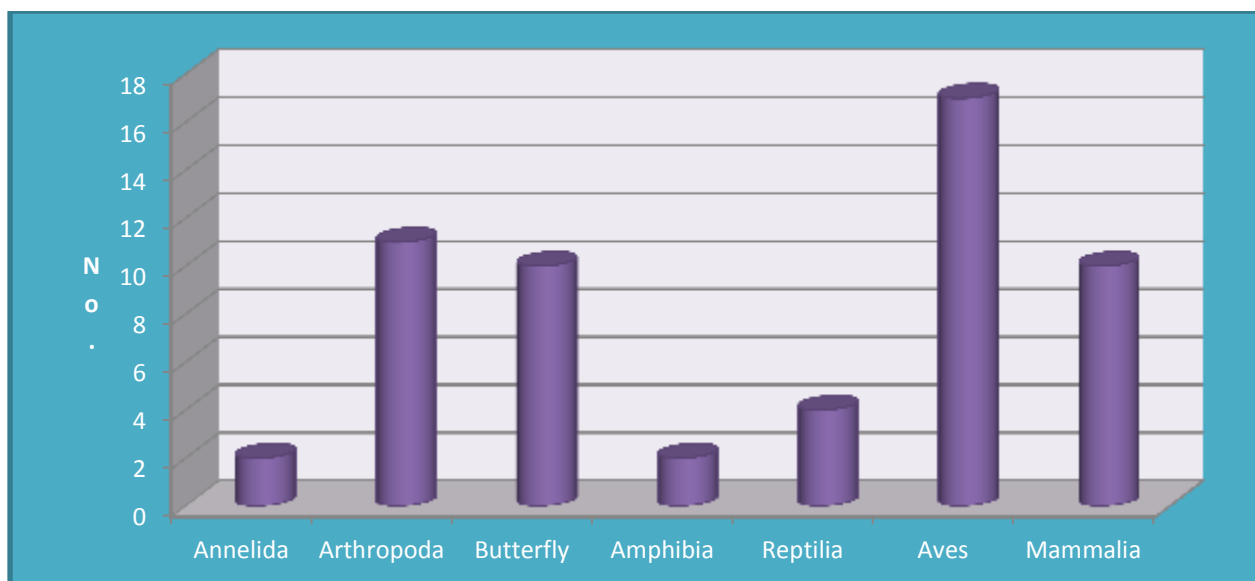


Fig.-11: Comparison between different animal members of different phylum found in the campus

Phylum: Annelida

Sl. No.	Scientific name	Local name
1.	<i>Hirudinaria</i> sp	Joke
2.	<i>Pheretima</i> sp.	Kecho

Phylum: Arthropoda

Sl. No.	Scientific name	Local name
1	<i>Anopheles</i> sp	Anopilis masa
2	<i>Apis</i> sp	Moumachi
3	<i>Galleria</i> sp	Moth
4	<i>Julus</i> sp	Kenno
5	<i>Lampyri snoctiluca</i>	Jonaki
6	<i>Muska domestica</i>	Machi
7	<i>Nephila</i> sp	Makarsa
8	<i>Oecophyllas maragdina</i>	Lalpipra
9	<i>Orthetrum</i> sp	Pharing
10	<i>Periplaneta americana</i>	Arsola
11	<i>Schistocera gregaria</i>	Pangapal

Inventory of Butterfly species

FAMILY	COMMON NAME	SCIENTIFIC NAME
Papilionidae	Jay, Common	<i>Graphiumdoson</i> (C. and R. Felder, 1864)
	Lime	<i>Papiliodemoleus</i> (Linnaeus, 1758)
	Mormon, Blue	<i>Papiliopolymnestor</i> (Cramer, 1775)
Pieridae	Jezebel, Common	<i>Delias eucharis</i> (Drury, 1773)
	Wanderer, Common	<i>Pareroniavaleria</i> (Cramer, 1776)
Nymphalidae	Palmfly, Common	<i>Elymniashypermenstra</i> (Linnaeus, 1758)
	Pansy, Lemon	<i>Junonialemonias</i> (Linnaeus, 1758)
Lycaenidae	Blue, Gram	<i>Euchrysopsnejus</i> (Fabricius, 1798)
Hesperiidae	Bob, Chestnut	<i>Iambrixsalsala</i> (Moore, 1866)

Class : Amphibia

Sl. No.	Scientific name	Local name
1	<i>Duttaphrynusmelano stictus</i>	Kuno bang
2	<i>Rana tigrina</i>	Sona bang

Class: Reptilia

Sl. No.	Scientific name	Local name
1	<i>Ahaetullana sutas</i>	Loudaga sap
2	<i>Viper russel</i>	Chandrabora
3	<i>Naja sp</i>	Keute
4	<i>Calottes versicolor</i>	
5	<i>Hemidactylus flaviviridis</i>	Tiktiki
6	<i>Ptyas mucosus</i>	Jamna sap
7	<i>Elachistodon westermanni</i>	Matiali
8	<i>Ptyas mucosus</i>	Damna
9	<i>Hemidactylus flaviviridis</i>	Tiktiki

Class : Aves

Sl. No.	Scientific name	Local name
1	<i>Acridotheres tristis</i>	Shalik
2	<i>Alcedo atthis</i>	Chotomachranga
3	<i>Amaurornis phoeniurus</i>	Dahuk
4	<i>Ardeola grayii</i>	Bak
5	<i>Athene brama</i>	Kuturepancha
6	<i>Columba livia</i>	Paيرا
7	<i>Copsychus aularis</i>	Doyel
8	<i>Corvus splendens</i>	Kak
9	<i>Dicrurous adsimilis</i>	Phinge
10	<i>Dinopium bengala</i>	Kat thokra
11	<i>Eudynamis scolopacea</i>	Kokil
12	<i>Merops orientalis</i>	Baspati
13	<i>Orthotomus</i>	Tuntuni
14	<i>Passer domesticus</i>	Charaipakhi
15	<i>Pittacula sp</i>	Tia
16	<i>Pycnonotus sp</i>	Bulbul
17	<i>Streptopelia chinensis</i>	Gughu

Class : Mammalia

Sl. No.	Scientific name	Local name
1	<i>Bandicota bengalensis</i>	Indur
3	<i>Funam buluspennantii</i>	Katbirali
4	<i>Herpestes edwardsii</i>	Neul
5	<i>Mus musculus</i>	Nenhtiindur
6	<i>Pipistrellus tenuis</i>	Chamchika
8	<i>Prionailurus viverrinus</i>	Hurrul
9	<i>Suncus murinus</i>	Chucha
10	<i>Canis aureus</i>	Jackel

Few suggestions for biodiversity management – The College has a lush green area with different ecological habitat for biotic components. Following suggestions are given for its better management.

- Name plates should be given to trees for their easy identification to students
- A board should be given in front of medicinal plant garden where use of every plant will be written there.
- A board should be given in front the pond where indigenous fish conservation is going on. The board will display about the type of fish conserved.
- If possible a bird watching area may be demarcated in front of hostel (North east corner of the campus)
- Rose garden may be converted to butterfly garden.

Implemented Biodiversity & Green Management	
Factors/ Indicators	Weightage
Plants Diversity	M
Birds and Insects	M
Mammals	M
Fishes and Amphibian	H
Fungus & Organisms	L

* H denote- Taken management policy level above 60%

** M denote- Taken management policy level 40%-60%

*** L denote-Taken management policy level below 40%

3.7 Reviews of Documents and Records:

Documents such as admission registers, registers of Engineering and water charge remittance, furniture register, laboratory equipment registers, purchase register, audited statements, and office registers were examined and data were collected. College calendars, college magazines, annual report of the college and NAAC self-assessment reports, UGC report etc. were also verified as part of data collection.

3.8 Review of Policies:

Discussions were made with the College management regarding their policies on environmental management. Future plans of the College were also discussed. The management would formulate a revised environment/green policy for the college in the light of green auditing. The purpose of the green audit was to ensure that the practices followed in the campus are to be in accordance with the Green Policy adopted by the institution.

3.9 Interviews:

In order to college information for green auditing different audit groups which are IQAC Cell, Dept. HOD, Teaching and non-teaching staff, students, Students Union, parents and other stakeholders of the College. Discussions were also made with the PTA office bearers to clarify doubts regarding certain points.

4.0 POST AUDIT STAGE :

4.1. Data Analysis and Assessment :

The base of any Green audit and Environmental audit is that its findings are supported by documents and verifiable information. The audit process seeks, on a sampled basis, to track past actions, activities, events, and procedures to ensure that they are carried out according to systems requirements and in the correct manner.

Although Green & Environmental audits are carried out using policies, procedures, documented systems and objectives as a test, there is always an element of subjectivity in an audit. Each of the three components are crucial in ensuring that the organization's environmental performance meets the goals set in its green policy. The individual functioning and the success of integration will all play a role in the degree of success or failure of the organization's environmental performance.

4.2 Results and Findings:

a) Water -

Water Audit and Assessment:

Object and Parameter	Observation and Finding
Source of water	<ul style="list-style-type: none"> ➤ Underground(30000liter) ➤ Surface water(1000litre) ➤ Surface water bodies(0.02 acre)
Capacity of water storage (Daily)	<ul style="list-style-type: none"> ➤ Reservoir and Overhead tanks- 30000liter ➤ Total amount of used -25500ltr ➤ Total misuse of water- 500 ltr
Amount of used water per day	25500 liter
Misuse of water in daily	Leakage, overflow and Misuse- 500 liter
Maximum used of water per day - Washroom purpose	39% (11700 liter)
Amount of water for used per day- Drinking Purpose	28% (8400 liter)
pH level of drinking water	7.1
TDS level of drinking water	70 ppm - 80ppm
Use of surface water	1000lt

b. Energy-

- a) Electricity Consumption – 37142 Unit (Conventional). Rs. 195000/- Per Year
- b) Conventional energy- 37142 Unit
- c) Payable cost of electricity – 195000/- Per Year
- d) Fossil fuel consumption per Year: Diesel used for green Generator- 100 liter
- e) Number of Green Generators - 1Unit
- f) Cost of fuel for Generator – Rs. 3000/-Month

Energy Audit and Assessment

Object and Parameter	Observation and Finding
Source of energy (conventional)	100%
Total consumption of Electric Power	97016 Units
The maximum use of Electric Power	Conventional - 100%
Maximum energy consumption in the purpose	Light & Fan- 47768 unit
Energy Consumption in Computer & Lab.	14113.96 unit
Amount of diesel used for green generator	100 liter
No. of Computers and use of energy	21(11 Unit/Day)
No. of AC and use of energy	6 (9 Unit/Day)

Energy consumption in different purpose, 2022-23	
Lights & Fans	14113.96unit
Air Condition	5942.72 unit
Computer & Dept. Lab	5571.30unit
Lifting of water(HP pump)	4457.04 unit
Refrigerator	2971.36 unit
Xerox Machine	2599.94 unit
Others(CCTV,TV, water cooler & others)	1485.68 unit

c. Wastes-

- Total Students – 952persons
- Other Stakeholders – 2 persons
- Total Stakeholders - 987 persons
- Departments – 11
- Canteen- 01
- Type of Wastes & Management: Biological Wastes Disposal by local authority & Bio-fertilizer Unit.
- E-wastes- computers, electrical and electronic parts – Disposal by selling
- Plastic waste- disposal by selling
- Solid wastes – Damaged furniture, Iron & Metal scraps- Disposal by Selling
- Food wastes – Waste Rice, Vegetable, Paper plates- Disposal to by local authority
- Chemical wastes – Laboratory waste treatment –Inadequate -No treatment
- Waste water – washing, urinals, and bathrooms in soak pits
- Glass waste – Broken glass wares from the labs to local authority
- Napkin & Clothes incinerators- Disposal to local authority

Waste Audit and Assessment

Object and Parameter	Observation and Finding
Degradable waste	50(Kg/Day)
Non degradable	10(Kg/Day)
Source of waste (Organic)	Canteen and Garden
Source of waste (Chemical Waste)	Zoology Lab, Botany Lab
Plastic waste management	Use of separate dustbin and Established of different waste unit

g) Green Campus-

Green cover of the campus- 54.04% area

Free space including Playground-36% area

Table 18 Biodiversity and Green Coverage

Object and Parameter	Observation and Finding
Vegetation coverage area	54.04% Area
Types of green coverage	<ul style="list-style-type: none"> ➤ Native and Natural Vegetation- 69 % ➤ Medicinal plants-11% ➤ Agro-plants-13% ➤ Plantation-7%
Different types of Animal	<ul style="list-style-type: none"> ➤ Mammals -Squirrel, Rat, Free ranging Cat, Free ranging Dog, Field Rat, Bengal Fox etc. ➤ Amphibian-Snake, Frogs ➤ Birds- Crow, Common Moyna, Pigeon, etc. ➤ Insects- Ants, Butterfly, Spider etc.
Biodiversity and Green Management Programme	<ul style="list-style-type: none"> ➤ Awareness program arrange by- Dept. of Zoology and Dept. of Botany among the students and Staff through the year ➤ Observation and celebration of environmental days ➤ Maintain the ponds ecosystem & fishes cultivation

Table 19 Green Coverage of the College Premises

Green Coverage of the College Premises	Area in Percentage
Native and Natural Vegetation	69
Plantation	7
Agro-Plants	13
Medicinal Plants	11

h) Carbon Footprint-

- Number of Students & Staff using cycles – 110
- Number of persons using cars – 4
- Number of persons uses two wheelers – 10
- Number of students uses Buses - 214
- Number of visitors per day – 15
- Number of Faculty and staff staying in the quarters – 00
- Average distance travelled by stake holders – 12 kms /day
- Expenditure for transportation per person per day – Rs. 30/-



Cycle and Car parking site in the College premises



Green and Environmental Audit Expert team with College Authority

4.3 SUMMARY:

- I. The installation of solar panels, Fire extinguishers training, organic vegetable cultivation, Vermi composting practices are inadequate.
- II. The College campus is plastic free and maintained the outdoor air quality.
- III. The environmental awareness initiatives are adequate.
- IV. The College campus is plastic free and maintained the outdoor air quality.
- V. Indoor air quality of the laboratories is very uncomfortable and inhospitable.
- VI. Use of notice boards and signs are inadequate to reduce over exploitation of natural resources.
- VII. Fully carbon foot prints and wastes free zone actions should be taken to maintain this.
- VIII. Solar power generation, Bio Gas, Re-use of water environmental education programs have to be fully explored.
- IX. There is Nature club of the College towards its environmental performance for Community development.
- X. Programs on green initiatives have to be increased. Campus is declared "Clean Campus"

Implemented Air Quality management	
Indicator	Weightage
Carbon & Smoke free	H
Exhaust fans & Ventilation	L
Emission of GHGs	M
Indoor Plants	L

* H denote- Taken management policy level above 60%

** M denote- Taken management policy level 40%-60%

*** L denote- Taken management policy level below 40%

Major Audit Observations	
Sectors/Indicators	weightage
Water efficiency Audit	H
Energy efficiency Audit	L
Air Quality & Carbon foot print Audit	M
Wastes Audit	H
Green & Biodiversity Audit	H

* H denote- Taken management policy level above 60%

** M denote- Taken management policy level 40%-60%

*** L denote- Taken management policy level below 40%

4.4 Environmental Education:

The following environmental education program may be implemented in the College before the next green and environmental auditing:-

- ❖ Installation of different captions : No smoking, , switch OFF light and ON after use, plastic free campus etc.
- ❖ Training programs in solid waste management, liquid waste management, setting up of medicinal plant nursery, water management, vegetable cultivation, tree planting, energy management, landscape management, and rain water harvesting and water re-use methods.
- ❖ Conduct exhibition of recyclable waste products
- ❖ Activate the nature or green clubs
- ❖ Set up Organic vegetable garden, medicinal plant garden, Indigenous fish farm etc. for providing proper training to the students.

4.5 Common Recommendations

- ✓ Adopt an environmental policy for the college
- ✓ Introduce UGC Environmental Science course to all students
- ✓ Renovation of cooking system in the canteen
- ✓ Establish water, waste and energy management systems
- ✓ Establish a purchase policy for environmental friendly materials
- ✓ Conduct more seminars and group discussions on environmental education
- ✓ Students and staff can be permitted to solve local environmental problems

4.6 Criteria Wise Recommendations

Water Audit

- Drip irrigation for gardens and micro irrigation technology can be initiated.
- Establish water treatment systems.
- Remove damaged taps and install sensitive taps is possible.
- Establish the more water reuse unit in the college premises.
- Awareness programs on water conservation to be conducted.
- Drip irrigation for gardens and micro irrigation technology can be initiated.
- Establish the re-use water management methods.
- Establish rain water harvesting systems for each building and each campus.

Energy Audit

- Replace computers and TVs with LED monitors.
- More energy efficient fans, tubes and bulb should be replaced.
- Automatic power switch off systems may be introduced.
- Employment of more solar panels and other renewable energy sources.
- Conduct more save energy awareness programs for students and staff.

Waste Audit

- Practice of waste segregation to be initiated.
- Establish of a unit for chemical liquid wastes and Hazardous waste management
- A model Vermi composting plant to be set up in the Hostels, canteen and Quarters of Establish a Regular functional bio gas plant.
- A model solid waste treatment system to be established.
- Practice of waste segregation to be initiated.
- Establish of a unit for chemical liquid wastes and Hazardous waste management
- A model Vermi composting plant to be set up in the Hostels, canteen and Quarters of college campus.
- Establish an e-waste management unit.

Green Campus Audit

- All trees in the campus should be named scientifically.
- Develop the Herbal and medicinal plants garden for large area
- Create more space for planting in vacant land.
- Establish a butterfly park.

- Not just celebrating environment day but making it a daily habit.
- Providing funds to nature club for making campus more green
- Establish an Orchid ex-situ zone .
- Develop the Fruits trees area for Birds conservation
- Grow potted indoor plants at verandah, class rooms and Laboratories.
- Create automatic drip irrigation system during summer holidays.
- Not just celebrating environment day but making it a daily habit.
- Providing funds to nature club for making campus more green.
- Conducting competitions among departments for making students more interested in making the campus green.
- Encouraging students not just through words, but through action for making the campus green.
- Conducting competitions among departments for making students more interested in making the campus green.

Carbon footprint Audit

- Establish the indoor plants in office rooms, computer lab and other laboratories to CO₂ management.
- Providing more college bus services to the students and staff.
- Establish a system of carpooling among the staff and visitors to reduce the number of four wheelers coming to the college.
- Encourage students and staff to use cycles.
- Establish the indoor plants in office rooms, Gymnasium hall and Library also to CO₂ management.



Executive Summary: 2023-24

Environmental Audit is a process of systematic, documented, periodic and objective evaluation of components of environmental diversity with the aim of safeguarding the environment and natural resources. The process starts with the systematic identification, quantification, recording, reporting and analysis of components of environmental diversity and is a means of assessing environmental performance (Welford, 2002). It aims to analyze environments within and outside of the concerned area, which will have an impact on the eco-friendly atmosphere. Green and Environmental audit is a valuable means for an institution to determine how and where they are using the most resources; the institution can then consider how to implement changes and take necessary management measures. It can create health consciousness and promote environmental awareness, values and ethics. It provides staff and students better understanding of green impact on their area of work. Environmental auditing and the implementation of mitigation measures is a win-win situation for the institution, the learners and the planet. It can also create health consciousness and promote to holistic approaches to environmental management, awareness, values and ethics. Green and Environmental auditing promote financial savings through efficiency of resource usage. It gives an opportunity for the development of ownership, personal and social responsibility for the students and teachers. If self-enquiry is a natural and necessary outgrowth of a quality education, it could also be stated that institutional self-enquiry is a natural and necessary outgrowth of a quality educational institution. Thus it is imperative that the institute evaluate its own contributions toward a sustainable future. As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher educational institutions in relation to environmental sustainability is more prevalent.

In Government General Degree College, Lalgarh, Jhargram, W.B the audit process involved initial interviews with the teachers and staffs to clarify policies, activities, records and the cooperation in the implementation of mitigation measures. This was followed by collection of data through the questionnaires, review of records, observation and enquiry of practices and

observable outcomes. In addition, the approach ensured that the management and staff are active participants in the Green and Environmental auditing process. The baseline data prepared for the Government General Degree College, Lalgarh, Jhargram, W.B. will be a useful tool for campus greening, resource management, planning of future projects, and a document for implementation of sustainable development. Existing data will allow the College to compare its programmers and operations with those of peer institutions, identify areas in the need of improvement, and prioritize the implementation of future projects.

The area of the College premises is 6.4 acres out of which about 3.47acre areas is covered by trees, plants etc. and 0.02 acre areas is covered by surface water bodies and wetland. In the present audit report most of the aspects are covered such as tree plantation, awareness about environment programmers, rain water harvesting and plastic free premises. The College has already taken some steps to protect the environment with help of teachers, staff and students under the guidance of Prof. Bisweswar Chakraborty. Principal, Government General Degree College, Lalgarh, Jhargram, W.B. We expect that the management will be committed to implement the green and environmental audit recommendations. We are happy to submit this green and environmental audit report to the Government General Degree College, Lalgarh, West Bengal.