QM 004

SONAR BHARAT ENVIRONMENT & ECOLOGY (P) LIMITED
(ISO 9001:2015 CERTIFIED COMPANY)
ISO Certificate No. IND/QMS/NAB-C3313/3200
Registered Office: Flat No. 1A N368, Baishnabghata Patuli,
Kolkata -700 094
Head Office : 35, Chittaranjan Avenue, 3rd Floor Kolkata – 700 012
Phone : (91-33) 2211 –3034/0397, 033 4003 1179,
E-mail : sonarbharat2010@gmail.com
sonarbharat2017@gmail.com

Date : 30.07.2024

ENERGY AUDIT CERTIFICATE

- Name of Institution : **SHREE AGRASEN MAHAVIDYALAYA**
- Duration of Audit : 16.07.2024 to 17.07.2024
- Period of Audit : 2023-2024
- Sonar Bharat Environment & Ecology Pvt. Ltd. has conducted Energy Audit in the campus of **SHREE AGRASEN MAHAVIDYALAYA, P.O. Dalkhola, Dist. : Uttar Dinajpur, West Bengal – 733 201.**
- With the cooperation of Honourable Principal, IQAC Co-ordinator, faculty members and other staffs audit has been successfully completed.

Suvra Majumdar

Suvra Majumdar
BEE-EA-5723, AEA-221
Chartered Engineer
(India) – Electrical Engineering Div.

Sonar Bharat Environment & Ecology Pvt. Ltd. Kolkata Pin - 700012

Parimal Sarkar

Parimal Sarkar
(Director)

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Phone : (91-33) 2211 –3034/0397, 033 4003 1179,
E-mail : sonarbharat2010@gmail.com
sonarbharat2017@gmail.com

Date : 30.07.2024

ENVIRONMENTAL AUDIT CERTIFICATE

- Name of Institution : **SHREE AGRASEN MAHAVIDYALAYA**
- Duration of Audit : 16.07.2024 to 17.07.2024
- Period of Audit : 2023-2024
- Sonar Bharat Environment & Ecology Pvt. Ltd. has conducted Environmental Audit in the campus of **SHREE AGRASEN MAHAVIDYALAYA, P.O. Dalkhola, Dist. : Uttar Dinajpur, West Bengal – 733201.**
- With the cooperation of Honourable Principal, IQAC Co-ordinator, faculty members and other staffs audit has been successfully completed.

Subrata Desarkar
(Auditor)

Sonar Bharat Environment & Ecology Pvt. Ltd. Kolkata Pin - 700012

Parimal Sarkar
(Director)

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Phone : (91-33) 2211 –3034/0397, 033 4003 1179,
E-mail : sonarbharat2010@gmail.com
sonarbharat2017@gmail.com

Date : 30.07.2024

GREEN AUDIT CERTIFICATE

- Name of Institution : **SHREE AGRASEN MAHAVIDYALAYA**
- Duration of Audit : 16.07.2024 to 17.07.2024
- Period of Audit : 2023-2024
- Sonar Bharat Environment & Ecology Pvt. Ltd. has conducted Green Audit in the campus of **SHREE AGRASEN MAHAVIDYALAYA, P.O. Dalkhola, Dist. : Uttar Dinajpur, West Bengal – 733 201.**
- With the cooperation of Honourable Principal, IQAC Co-ordinator, faculty members and other staffs audit has been successfully completed.

Subrata Desarkar
(Auditor)

Sonar Bharat Environment & Ecology Pvt. Ltd. Kolkata Pin - 700012

Parimal Sarkar
(Director)

GREEN AUDIT REPORT
OF
SHREE AGRASEN MAHAVIDYALAYA

2023-2024

INTERNAL QUALITY ASSURANCE CELL (IQAC)

P.O. Dalkhola, Dist. Uttar Dinajpur,
West Bengal – 733 201.

CONTENTS

EXECUTIVE SUMMARY

Rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crises. On this background it becomes essential to adopt the system of the green campus for the institute which will lead for sustainable development. Shree Agrasen Mahavidyalaya is deeply concerned and unconditionally believes that there is an urgent need to address these fundamental problems and reverse the trends. Being a premier institution of higher studies, the college has initiated 'The Green Campus' programme few years back that actively promote various projects for environment protection and sustainability.

Purpose of this audit is to ensure that the practices followed in the campus are in accordance with the green policy adopted by the institution, it works on several facets of Green Campus including water conservation, electricity conservation, tree plantation, waste management, paperless work, mapping of biodiversity etc. With this in mind, specific objectives of the audit is to evaluate adequacy of the management control framework of environment sustainability as well as the degree to which the departments are in compliance with the applicable regulations, policies and standards. It can make a tremendous impact on students' health and learning, college operational costs and the environment. The criteria methods and recommendations used in the audit were based on the identified risks.

Sonar Bharat Environment & Ecology Pvt. Ltd.
Parimal Sarkar
Director

CHAPTER – 1

INTRODUCTION

1.1 Green Audit

Environmental or Green Audit is a systematic, documented, periodic and objective review by regulated entities of facility operations and practices adopted to meet the environmental requirements (EPA, 2003). In other words, it is a management tool, comprising of systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing with the aim of helping to safeguard the environment by facilitating management controlof practices and assessing compliance with Institutional policies, which would include regulatory requirements and standards applicable.

Environmental auditing is essentially an environmental management tool for measuring the effects of certain activities on the environment against set criteria or standards. Depending on the types of standards and the focus of the audit, there are different types of environmental audit. Organizations of all kinds now recognize the importance of environmental matters and accept that their environmental performance will be scrutinized by a wide range of interested parties.

Considering the present environmental problems of pollution and excessive use of natural resources, Honourable Prime Minister, Shri. Narendra Modi has declared the Mission of Swachch Bharat Abhiyan. Also, University Grants Commission has mentioned the “Green Campus, Clean Campus" mission mandatory for all higher educational institutes. 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.

1.2 Why Green Audit

- To ensure that the performance of the institution with respect to environmental activitiesis in compliance with existing laws and regulations.
- To check the functionality and their operating success including water supply, energy related matters and other similar matters that are related to green operations in the campus.
- To formulate or update the institution's environmental policy, if warranted.
- To measure the environmental impact of operational process related to green activities inthe campus.
- To measure the performance of each green related operations and actions in the campus.
- To generate a database of green activities for continuous monitoring to assessthe success of each of them.
- To identify future potential liabilities.
- To align the institution's developmental and day to day activities with the stated vision,mission, strategies.
- To identify possible ways to reduce expenditure and running costs on equipments,appliances, etc. or try enhance revenue income.
- To improve process and materials efficiency, and in response to stakeholder requests forincreased disclosure.

1.3 Goals of Green Audit

College has conducted a green audit with specific goals as:

- Assess facility of different types of waste management.
- Increase environmental awareness throughout campus.
- Identificationanddocumentationofgreenpracticesfollowedbyuniversity.
- Identify strengths and weaknesses in green practices.
- Conduct a survey to know the ground reality about green practices.
- Analyze and suggest solutions for problems identified from the survey.
- Identify and assess environmental risk.
- The long-term goal of the environmental audit program is to collect baseline dataof environmental parameters and resolve environmental issues.
- To motivate staff for optimized sustainable use of available resources.

1.4 Objective of Green Audit

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

- To prepare a checklist of flora and fauna diversity in and around the college campus.

- To suggest measures to improve biodiversity within the college campus.
- To monitor the energy consumption pattern of the college.
- To assess the quantity of water usage within the college campus.
- To suggest sustainable energy usage and water conservation practices.

- To find out various sources of organic and solid waste generation and mitigationpossibilities.

- To inculcate values of sustainable development practices through green auditmechanism.

1.5 About Criteria 7 of NAAC

National Assessment and Accreditation Council (NAAC) is a self-governing organization that rated the institutions according to the scores assigned at the time of accreditation of the institution. Green Audit has become a mandatory procedure for educational institutes under Criterion VII of NAAC. The intention of the green audits is to upgrade the environmental condition inside and around the institution. It is performed by considering environmental parameters like water and wastewater accounting, energy conservation, waste management, air, noise monitoring, etc. for making the institution eco-friendlier.

Students are the major strength of any academic institution. Practicing green action in any educational institution will inculcate the good habit of caring for natural resources in students. Many environmental activities like plantation and nurturing saplings and trees, Cleanliness drives, no vehicle day, Rainwater harvesting, etc. will make the students good citizens of the country. Through Green Audit, higher educational institutions can ensure that they contribute towards the reduction of global warming through Carbon Footprint reduction measures.

1.6 Benefit of Green Audit to an Educational Institute

There are many advantages of green audit to an Educational Institute.

- It would help to protect the environment in and around the campus.
- Recognize the cost-saving methods through waste minimization and energyconservation.
- Empower the organization to frame a better environmental performance.
- It portrays a good image of the institution through its clean and green campus.
- More efficient resource management.
- To create a green campus.
- To enable waste management through reduction of waste generation, solid andwaste.
- To create plastic-free campus and evolve health consciousness among the Stakeholder.
- Recognize the cost-saving methods through waste minimizing and managing.
- Authenticate conformity with the implemented laws.
- Empower the organizations to frame a better environmental performance.
- Enhance the alertness for environmental guidelines and duties.
- Impart environmental education through systematic environmental managementapproach and Improving environmental standards.
- Benchmarking for environmental protection initiatives.
- Financial savings through a reduction in resource use.
- Development of ownership, personal and social responsibility for the Universityand its environment.
- Developing an environmental ethic and value systems in youngsters.
- Green auditing should become a valuable tool in the management and monitoring of environmental and sustainable development programs of the University.
- Finally, it will help to build a positive impression through green initiatives for theupcoming NAAC visit.

1.7 Introduction of Auditing Firm

Name of Firm	M/s. Sonar Bharat Environment & Ecology (P) Ltd. (An ISO 9001:2015 Certified Company)
Address	35, C. R. Avenue, 3rd floor, Kolkata - 700012
Contact details	033-40031179

Details of Team Member

Sr. No.	Name	Designation/ Technical	Technical Experience /Qualification
1	Shri Parimal Sarkar	Legal Expert	➢ M.Sc. in Disaster Management ➢ Post Graduate Diploma in Environmental Law from National Law School, Bangalore ➢ Lead Auditor in ISO 14000 (Environmental Management)
2	Shri Subrata De Sarkar	General Manager	➢ General Manager in Central Public Sector undertaking. ➢ 12 years experience in Environmental Auditing ➢ Lead Auditor in ISO 50001:2011

List of Experts

Sl.No.	Name	Designation/Qualification	Experience
1	Shri Suvra Majumdar	➢ Post Graduate Diploma in Energy Management (MBA) ➢ B.Tech (Electrical Engineering)	➢ 15 years experience of Energy audit
2	Shri Gautam Ghosh	➢ Diploma in Mechanical & Electrical Engineering from Calcutta Technical School	➢ 27 Years experience of working in electrical engineering department in different industries. ➢ 12 years experience in independent electrical auditing
3	Shri Suman Chattaraj	Environmental Specialist	➢ M.Tech in Environmental Science ➢ 20 years experience in Environmental Impact Studies and Auditing
4	Amit Poddar	➢ Diploma in Insustrial Safety, M.Sc. Biotechnology from Berharampur College	➢ 27 years experience of working in Industrial Area.
5	P. K. Koley	➢ M.Tech in "Safety and Occupational Health" from BESU (now IIEST)	➢ 30 years experience of working in BPCL.

Energy Audit Team

SN	Name	Designation/ Qualification	Experience
1	Shri Suvra Majumdar	➢ Post Graduate Diploma in Energy Management (MBA) ➢ B.Tech (Electrical Engineering)	➢ 15 years experience of Energy audit
2	Shri Gautam Ghosh	➢ Diploma in Mechanical & Electrical Engineering from Calcutta Technical School	➢ 27 Years experience of working in electrical engineering department in different industries. ➢ 12 years experience in independent electrical auditing

1.8 List of Instruments Energy Audit

Following are the instrument used at the time of the Energy Audit.

Sr.	Instrument	Make/Sr.No.
1	Digital LUX Meter	HTC/2222600
2	Digital Micro OHM Meter	Innova/I-259
3	Digital Multi Meter	KusamMeco/162180630
4	Digital Clampmeter	Waco/1910149152
5	Megger	Waco/307421
6	Load analyser	Waco/2954563

1.9 List of Laboratory Instruments for Environmental Monitoring

Sl. No.	Name of Equipment	Make	Model
1	Field Dust Sampler	Envirotech/Lata Envirotech	APM – 550, PM 2.5 & 10
2	Respirable Dust Sampler	Envirotech/Lata Envirotech	APM-460BL
3	Stack Kit Sampler	Envirotech/Lata Envirotech	APM-620, PM-602
4	Sound Level Meter (AUTOMEDTIC)	Envirotech	SLM-101
5	Sound Level Meter	Lutron	SLM-4001
6	Local Air Quality Sampler	Vayubodhan	APM-414
7	Auto Metric Whather Monitor	Spectrum Technology	WM-272
8	Depth Sampler	NA	NA

1.10 General steps involved in Green Audit

1. Systematic and exhaustive data collection.
2. Evidence based documentation of activities.
3. Regular monitoring.
4. Provide standards and methods for improvement by establishing cost effectivegreen action plan

CHAPTER - 2

SHREE AGRASEN MAHAVIDYALAYA

2.1 About the College

Shree Agrasen Mahavidyalaya occupies a place of pride in the annals of Higher Education in the District of Uttar Dinajpur. It is affiliated to University of Gour banga.The institution has an impeccable academic record. Students intending to study the traditional courses come to the campus of Shree Agrasen Mahavidyalaya every year.The institute arrange two courses 1) Honours Course – Bengali (Hons.), History (Hons.), English (Hons.), Political Science (Hons.), Sociology (Hons.), Hindy (Hons.), Accountancy (Hons.). 2) General Course – B.A., B.Sc., B.Com.

2.2 College History

With the missionary ideals in heart, thirst for knowledge in mind, untiring efforts for noble sacrifices, unmixed stewardship and bold initiative of the local people of Dalkhola in general, an attempt was made by them for establishment of a college in the locality. Consequently, Shree Agrasen Mahavidyalaya was brought into existence as a center for higher education on the auspicious day of 1st September, 1995 to fulfill the increasing desire and demand for higher studies in the locality after a long period of 48 years of our independence. Shree Agrasen Mahavidyalaya was the perfect one of which right choice of location was made for providing encouragement and patronage to the poor and backwards students. It is located at Bhusamani at a distance of 2.5 km. from the nearest railway station Dalkihola and 500 meters away from National Highway 34 (N.H. 34) possessing a good campus comprising 3.88 acres of land enriched with the potentiality for developing it further into an ideal, modern and progressive institution for higher education.

Shree Agrasen Mahavidyalaya located at an ideal site within the Municipal area surrounded by picturesque landscape with ever green, calm and quite atmosphere free from pollution, dins and bustles of Municipal crowd, is the sixth degree college in the district of present Uttar Dinajpur (then West Dinajpur). It was initially affiliated to the University of North Bengal. Subsequently it comes under the jurisdiction of the University of Gour Banga. So it is now affiliated to the University of Gour Banga. Meanwhile, it has come into limelight for its brilliant performance and excellent result of the students in the university examinations comparable with many other star colleges of the University. The College was honored by the International Business Council, New Delhi with National Udyog Excellence Award in 2004. But it has still long way to go to achieve many more accolades in the field of education and other extension activities.

2.3 Location of the College

The College is located on Bhusamani at a distance of 2.5 km from nearest railway station of Dalkihola and 500 meters away from National Highway (N.H. 34).

Fig. 1 Location Map

2.4 Communication and Transportation

This college is well connected with different parts of Uttar Dinajpur district by bus and trains. Lot of bus services to Malda, is available here. The nearest railway station is Dalkhola station. The nearest airport is Bagdogra.

CHAPTER - 3

GREEN AUDIT METHODOLOGY

3.1 Utility of Green Auditing

Green audit is used to improve existing anthropogenic activities, with the object to reduce the adverse effects of these activities upon environment. An environmental auditor will study an organization's efforts to conserve the environment in a systematic and documented manner and will produce an environmental audit report.

3.2 Objectives of the Study

The basic objective of green audit is to promote environment management and conservation in the college campus. Purpose of the audit is to identify, quantify, describe and prioritize the framework of environmental sustainability in compliance with the applicable regulations, policies and standards. Major objectives of carrying out green audit are:

- To introduce an awareness among the students regarding the importance of environment and its sustainability
- To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource use on the campus.
- To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requires high cost.
- To bring out a present status report on environmental compliance.

3.3 Methodology

In order to perform green audit, methodology included different techniques such as physical inspection of the campuses, observation and review of the documentation, interviewing key persons and data analysis, measurement of the present status of environment management in the campuses:

CHAPTER - 4

LAND USE ANALYSIS, SHREE AGRASEN MAHAVIDYALAYA, UTTAR DINAJPUR, WEST BENGAL.

4.1 General overview of the concept of Land Use:

Land use refers to man's activities and the various uses which are carried on and derived from land. Viewing the earth from space, it is now very crucial in man's activities on natural resource. In situations of rapid changes in land use, observations of the Earth from space give the information of human activities and utilization of the landscape.

4.2 Methodology adopted for Land Use mapping

Three types of data that are GPS points, field survey data and Google earth data for Geo-referencing have been used in this study. Land use map of the study area have been prepared using field survey

4.3 Classification scheme for land use analysis of buildup area

Level-I	**Level-II**
1. Built- up land area	1.1 Dense 1.2 Moderate 1.3 Sparse

Therefore, attempt has been made in this study to map land use for Shree Agrasen Mahavidyalaya with a view to detect the land consumption in the built-up land area.

LAND USE DATA OF COLLEGE OF SHREE AGRASEN MAHAVIDYALAYA

CATEGORIES OF LAND USE	AREA IN SQ METRES
OPEN SPACE AND PLANTATION	13010.67
Ground Coverage	2691.33
TOTAL AREA	15702.00

Ground coverage of 17.14%% (i.e 2691.33 sq metres) consists of the buildings.

FINDINGS:

Shree Agrasen Mahavidyalaya, which was established in the year 1985, has an eco-friendly environment. It has a long legacy of healthy environmental practices including periodic plantation, their preservation and maintenance. Its land use is such that about 82.86% of the total area is occupied by open land and plantation that generates a better and sustainable campus environment.

CHAPTER - 5

Water Quality Assessment, Consumption & Management

Water quality analysis was conducted by Qualissure Laboratory Services

5.1 WATER QUALITY ANALYSIS TEST REPORT

Qualissure Laboratory Services

361, Prantick Pally,
45/361, Bose Pukur Road,
Kolkata - 700107
Email : qualissure@gmail.com
Mob. No. : 9831287086
9830093976

DOC NO : QLS/SAMP/08-D/00

TEST REPORT

Name & Address Of the Customer :	Report No. : QLS/MR/W/24-25/C/504
M/s. Shree Agrasen Mahavidyalaya	Date : 25.07.2024
Dalkhola, Uttar Dinajpur – 733 201.	Sample No. : QLS/MR/W/24-25/504
	Sample Description : Drinking Water
	Sample Location : Acquaguard
	Sample Drawn On : 16.07.2024
	Date of Performance : 17.07.2024 -25.07.2024

Analysis Result

(A) Microbiological Analysis

Sl. No.	Characteristic	Limit as per Drinking Water Standard : IS:10500, 2012 RA: 2018 Amd. 2	Test Method	Result
1.	Total Coliform Bacteria/100ml	Not Detectable	IS 15185-2016	Not Detected
2.	E.coli /100ml	Not Detectable	IS 15185: 2016	Not Detected

(B) Chemical Analysis

Sl. No.	Test Parameter	Test Method	As per Drinking Water Standard : IS:10500, 2012 RA: 2018 Amd. 1 & 2		Result
			Acceptable Limit	Permissible Limit	
1.	pH Value at 25°C	IS 3025 (Part 11)- 1984 RA: 2019	6.5-8.5	No Relaxation	6.84
2.	Turbidity in NTU	IS 3025 (Part 10)- 1984 RA: 2017	1	5	<1.0
3.	Total Dissolved Solids (TDS) in mg/l	IS 3025 (Part 16): 1984 (RA 2017)	500	2000	199
4.	Calcium(as Ca) in mg/l	IS 3025 (Part 40): 1991(RA 2019)	75	200	25.5
5.	Chloride(as Cl) in mg/l	IS 3025 (Part 32): 1988 (RA 2019)	250	1000	75.7
6.	Iron (as Fe) in mg/l	IS 3025 (Part 53): 1988(RA 2019)	1.0	No Relaxation	<0.15
7.	Magnesium(as Mg) in mg/l	APHA 24th Edition- 2023, 3500 Mg	30	100	10.7
8.	Nitrate (as NO_3) in mg/l	IS 3025 (Part 34): 1988(RA 2019)	45	No Relaxation	<0.5
9.	Free Residual Chlorine in mg/l	IS 3025 (Part 26) 1986 RA: 2021	0.2	1.0	<0.1
10.	Sulphate (as SO_4) in mg/l	IS 3025 (Part 24): 1986 (RA 2022)	200	400	12.5
11.	Alkalinity (as $CaCO_3$) in mg/l	IS 3025 (Part 23): 1986(RA 2019)	200	600	121.9
12.	Total Arsenic(as As) in mg/l	IS 3025 (Part 37): 1988 (RA 2019)	0.01	No Relaxation	<0.01
13.	Total Hardness (as $CaCO_3$) in mg/l	IS 3025 (Part 21): 2019	200	600	107.9

Report Prepared By:

for Qualissure Laboratory Services
Reviewed & Authorized By
Soumy Chakraborty, Microbiologist
(Authorized Signatory)

for Qualissure Laboratory Services
Reviewed & Authorized By
Bishnupriya Bangrjee, Chemist
(Authorized Signatory)

-------End of Report--------

- *The results relate only to the item(s) tested.*
- *This Test Report shall not be reproduced without the permission of Qualissure Laboratory Services.*
- *The reserved part of sample(s), except perishable sample(s), shall be retained for 30 days from the date of issue of the Test Report.*

SOURCES OF WATER

• From Borewell

The college receives total requirement of water from Borewell. Supplied water is stored in underground tank from where, water is distributed to different points.

Fig. 2 Water Tank with Motor

CHAPTER - 6

AMBIENT AIR QUALITY ANALYSIS REPORT

6.1 AMBIENT AIR QUALITY TEST REPORT

Qualissure Laboratory Services

361, Prantick Pally,
45/361, Bose Pukur Road,
Kolkata - 700107
Email : qualissure@gmail.com
Mob. No. : 9831287086
9830093976

DOCNO:QLS/SAMP/08-A/00

TEST REPORT

Name & Address Of the Customer: **M/s. Shree Agrasen Mahavidyalaya** Dalkhola, Uttar Dinajpur – 733 201.	Report No. :QLS/MR/A/24-25/C/431 Date :30.07.2024 Sample No. :QLS/MR/A/24-25/431 Sample Description :Ambient Air Sample Mark :Near Main Gate

Analysis Result

Location : Near Main Gate			Date of sampling :16-17.07.2024	
Sampling Done by : B.Mondal			Sampling done as per : CPCB Guidelines (Volume-1)	
Environmental Condition : Clear & Sunny			AverageTemperature:31°C	
Barometric Pressure:750 mm of Hg			Average Humidity :55%	
Sl. No.	**Pollutants**	**Result**	**Limit as perCPCB**	**Method of Test Reference**
1	Particulate matter(<10µm) in µg/m^3	90	100	IS:5182(Part-23),Reff 2022
2	Particulate matter(<2.5µm) inµg/m^3	52	60	IS:5182(Part-24),Reff 2024
3	Sulphurdioxide (SO_2) inµg/m^3	8.3	80	IS:5182(Part-2),Reff 2023
4	Nitrogen dioxide(NO_2) inµg/m^3	35.4	80	IS:5182(Part-6),Reff 2017
5	Carbon Monoxide (CO) inµg/m^3	941	2000	IS:5182(Part-10),Reff 2019
NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality.				

Report Prepared By :

for **Qualissure Laboratory Services**
Reviewed & Authorized By

Benimadhab Gorai, Chemist
(Authorized Signatory)

-------End of Report--------

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CHAPTER - 7

NOISE MONITORING

7.1 AMBIENT NOISE MONITORING STATUS

Qualissure Laboratory Services

361, Prantick Pally,
45/361, Bose Pukur Road,
Kolkata - 700107
Email : qualissure@gmail.com
Mob. No. : 9831287086
9830093976

DOC NO : QLS/SAMP/08-C/00

TEST REPORT

Name & Address Of the Customer:	Report No.	: QLS/MR/A/24-25/C/402
M/s. Shree Agrasen Mahavidyalaya	Date	: 30.07.2024
Dalkhola, Uttar Dinajpur – 733 201.	Sample No.	: QLS/MR/A/24-25/402
	Sample Description	: Ambient Noise

Monitoring Result of Noise

Sampling Done By : B. Mondal

Sampling Guideline : As per IS: 9876: 1981 (RA-2001)

Sample No.	Date of Monitoring	Location	Leq dB (A) Day Time	Leq dB (A) Night Time
402	16.07.2024-17.07.2024	Near Garden	59.3	48.8

Code/ Category	Leq dB(A)Day Time	Leq dB(A Night Time	
A/Industrial	75	70	*NOTE:*
B/Commercial	65	55	*Day Time : 06.00 Hr. – 22.00 Hr.*
C/Residential	55	45	*Night Time : 22.00 Hr. – 06.00 Hr.*
D/Ecological Sensitive	50	40	

Report Prepared By :

for **Qualissure Laboratory Services**
Reviewed & Authorized By

Benimadhab Gorai, Chemist
(Authorized Signatory)

-------End of Report--------

- *The results relate only to the item(s) tested.*
- *This Test Report shall not be reproduced without the permission of Qualissure Laboratory Services.*
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CHAPTER - 8

RAIN WATER HARVESTING SYSTEM

8.1 Rain Water Harvesting System

A vital environmental concern has been addressed recently by developing Rain Water Harvesting system. Arrangements have been made for collection of rain water from the rooftop, roads and paved areas, Collected water is stored in tank from where it is used for maintenance of greenery.

Fig. 3 Rain Water Harvesting UG Tank

CHAPTER - 9

Electricity Consumption [in Units) and Management

9.1 General Details

Sl.No.	PARTICULARS	DETAILS	
1	Name & Address of College	Shree Agrasen Mahavidyalaya P.O. Dalkhola, Dist. Uttar Dinajpur – 733 201.3	
	Web Site	https://samdlk.ac.in	
2	Name of Contact Officer	Dr. Jayeeta Basu	
	Designation	Principal	
	Name of Alternative Officer	Dr. Leena Sarkar Bhaduri	
	Designation	Coordinator - IQAC	
3	Telephone No. Mobile No.	NA 9830830091	
	Fax No. e-mail ID	shreeagrasenmahavidyalaya@gmail.com	
	No. of shift	03Shifts: 9.00 AM to 08.00 PM	
	No. of Employees (Approx)	42	
4	Electricity Consumption	Imported (Purchased) 22342	
5	Specific Energy Consumption	Fuel	Electricity
		1,802/-	Rs. 19,108/- (Per Month)
6	LPG	NIL	
7	EPI	8.03	

9.2 Electrical Details

TRANSFORMERS

	No. 1
Voltage Ratio	N/A
KVA	N/A
% Impendence	N/A

ELECTRICITY CONSUMPTION

	Particulars	**Demand**
A	Contract demand KVA	4.710
B	Maximum demand	--
C	Total Energy units consumed / year	21631
D	Avg. Power Factor(P.F.)	0.91
E	Avg. Energy bills (Rs/Yearly)	Rs.229,298/-

9.3 Detailed list of Electric Motors operating in the College

S.NO.	**NAME OF THE PLANT**	**RATING OF MOTOR (KW)**	**NO. OF MOTORS**
1	Shree Agrasen Mahavidyalaya, Uttar Dinajpur	1.49	2 nos.

CONNECTED LOAD

	EQUIPMENT	TOTAL NUMBERS	LOAD IN KW (TOTAL)
A	Motors : Greater than 10kW	NIL	NIL
	: Less than 10 kW	2Nos.	1.49 KW
B	AC & Ventilation with TR capacity		
a)	Others (Package ACs/ Split ACs / Windows ACs) with TR	**Room AC of Split/Window type –** 12 Nos. 63.29KW	
C	Total Process Load (in kW)	64.78 KW	
D	Total Lighting Load (in kW) & Luminaries details	**No's of lighting luminaries** (LED+T/L) Tube Light, Led Light, Metal etc. -3.77 KW Electric Fan - 13.08 KW	
	Total Load (in kW)	**81.63 kw**	

A. Lux Measurements :

Sl.no.	Room	LUX level	Remarks
1.	Wing 1		
	Ground Floor	211,205,212,213,205	
	1st floor	213,217,214,219,216	
2.	Wing - II	**LUX level**	
	Ground Floor	211,205,208,209,203	
	1st floor	208,214,209,207,208	
3.	Wing - III	**LUX level**	
	Ground Floor	213,204,206,209,200	
	1st floor	204,199,198,206,208	
4	Wing - IV	LUX level	
	Ground Floor	203,202,207,205,209	
	1st floor	204,207,208,202,203	
	2nd floor	202,199,209,214,208,	

Illumination Level Comparison

Area	Average Lighting Level (LUX)	NBC Recommended
Wing - I	225	300-500
Wing - II	208	300-500
Wing - III	204	300-500
Wing - IV	193 .	300-500

Remarks: Lights needs cleaning at an interval of one month and old light to be replaced by new to get desired LUX value

9.4 Use of alternate Energy

The institute has taken an important step for reduction in pollution level by installation of solar panel and photo voltaic cell for generating electricity. Combined generation capacity is 12 KW.

For reducing carbon emission, and dependence on fossil fuel, the institution has resorted to using green energy by harnessing solar power. In order to increase generation of solar energy, installation of solar panels in the open space around the building may be considered.

Generated power is transferred to the grid. This helps in reducing carbon emission

Fig. 4 Solar Street light

CHAPTER - 10

WASTE MANAGEMENT

The present Prime Minister of India Sri Narendra Modi launched 'Swachh Bharat Abhiyan' (Clean India Mission) on 2nd October, 2014. In this mission, the proper use of dust/waste bins is one of the major priorities. To implement this mission, collective mass effort is necessary. For proper segregation and management of waste bins is the only solution for waste management purpose in the college campuses.

10.1 Solid Waste & Liquid waste

Solid Waste

The waste is generated by all sorts of routine activities carried out in the College that include paper, plastics, glass, metals, foods, etc. The waste is segregated at each level and source. The administrative supervisor in each block ensures that the waste on each floor is collected at designated time intervals. The block safai workers on each floor collect, clean, segregate and compile the waste in the dustbins (Green and Blue) provided on each floor. Municipality regularly collects waste from the college.

Fig. 5 Solid Waste collect Dust Bin

Liquid Waste

The source of wastewater is Domestic Waste Water i.e., Sewage water. The Sewage water mainly comes from laboratory of different departments, toilets of college, hostel, kitchen and canteen. Those waters are used for gardening purpose.

10.2 E-Waste

Substantial quality of e waste is generated due to extensive use of computer.

All members particularly students have been advised not to throw used pen drive etc. any where, but to keep in designated bins. Waste thus collected is stored in secured place.

A covered area is to earmarked for storage of e waste.

Fig. 6 E-Waste Material

CHAPTER – 11

ENVIRONMENT AUDIT

BIODIVERSITY STATUS OF THE COLLEGE CAMPUSES

11.1 Introduction

Shree Agrasen Mahavidyalaya campus is very rich in the term of biodiversity. To conserve this biodiversity, our first need is to learn about the existing diversity of the place. Unless we know whom to conserve, we will not be able to plan proper conservation initiatives. Also, it is important to have an understanding of the biodiversity of an area so that the local people can be aware of the richness of biodiversity of the place they are living in and their responsibility to maintain that richness.

11.2 Objective

The main objective of this study is to get a baseline data of bio-diversity of the area which will include:

1. Documentation of the floral diversity of the area: its trees, herbs, shrubs, climbers and aquatic vegetations.

2. Documentation of the major faunal groups like mammals, reptiles, amphibians, birds and among the insects, butterflies and dragonflies.

3. Documentation of the specific interdependence of floral and faunal life.

Survey Area

Shree Agrasen Mahavidyalaya premises and its surrounding areas: Situated at Dalkhola, Uttar Dinajpur – 733 301, Dalkhola Railway Station nearby around 3 km. from college.

11.3 Method of Study

Brief methodology for the floral and faunal survey is given below:

a. Sampling was done mostly is random manner.
b. Surveys were conducted for the maximum possible hours in day time.

c. Tree species were documented through physical verification on foot and photographed each species as much as possible.

d. The total area was surveyed by walking at day time.

e. For faunal species we emphasized mainly on the direct sighting. Also call of variousbirds and amphibians and nesting of some faunal species were considered as direct evidences.

f. Observing mammals depend critically on the size of the species and its natural history. Diurnal species are common and highly visible. Nocturnal species, however, are rare and difficult to detect. Small mammals like the field rats were found near their burrows, particularly during their entry or exit times in or out from their burrows respectively. In some cases, deposits and footprints were also observed that served as a potential clue for the presence and absence of the concerned species. These secondary evidences were all noted with time and space co-ordinates.

g. Birds are often brightly coloured, highly vocal at certain times of the year and relatively easy to see. Sampling was done on the basis of direct sighting, call determination and from the nests of some bird species

.

h. Reptiles were found mostly by looking in potential shelter sites like crevices of building, logs, tree hollows and leaf litter and also among and underneath the hedges. Sometimes some species, particularly the garden lizards were also observed in open spaces (on twigs and branches and even on brick constructions) while they were basking under direct and bright sunlight.

i. Amphibians act as potential ecological indicators. However, most of them are highly secretive in their habits and may spend the greater part of their lives underground or otherwise inaccessible to biologists. These animals do venture out but typically only at night. They were searched near pond, road beside wetland and in other possible areas. Diurnal search operations are also successful.

j. Active invertebrates like the insects require more active search. For larger winged insects like butterflies, dragonflies and damselflies, random samplings were carried and point sampling was also done.

k. The easiest way to observe many of the invertebrates is simply looking for them in the suitable habitat or microhabitat. Searching was carried out under stones, logs, bark, in crevices in the walls and rocks and also in leaf litter, dung etc. slogs and snails are more conspicuous during wet weather and especially at night when they were found using torch.

11.4 Plant Diversity of the College

Actually, the college campus is eco-friendly with rich flora of bryophyte, pteridophytes, gymnosperms and flowering plants like trees, shrubs, herbs, grasses and aquatic plants too. The herbs mostly recorded are naturally grown in the campus. These plants are listed and depicted as following:

Tree

Sl.No.	Scientific name of the Plants	Family	Local/Common Names
1	*Syzygium cumini (L.) Skeels.*	Myrtaceae	Jam/Jamun
2	*Casuarina equisetifolia L.*	Casuarinaceae	Jhau/Australian Pine
3	*Roystonea regia (Kunth) O. F. Cook*	Arecaceae	Royal Palm
4	*Thespesia populnea Corr.*	Malvaceae	Paresh pipul /Indian Tulip
5	*Eucalyptus citriodora (Hook.) K.D. Hill & L.A.S. Johnston*	Myrtaceae	Lemon Scented Gum
6	*Alstonia scholaris B. Br.*	Apocynaceae	Saptaparni/Chhatim
7	*Ravenala madagascariensis Sonn.*	Strelitziaceae	Panthopadap/Traveller's Palm
8	*Caryota urens L.*	Arecaceae	Chaaur/Solitary Fishtail Palm
9	*Callistemon linearis Schrad.*	Myrtaceae	Bottlebrush
10	*Mangifera indica L.*	Anacardiaceae	Aam, Mango
11	*Mimusops elengi L*	Sapotaceae	Bokul
12.	*Neolamarckia cadamba(Roxb.) Bosser*	Rubiaceae	Kadam
13	*Acacia auriculiformis A. Cunn. ex. Benth.*	Fabaceae	Akashmoni/Sonajhuri
14	*Areca catechu L.*	Arecaceae	Shupari /betel nut
15	*Samanea saman (Jacq.) Merr.*	Fabaceae	Koroi/ Pink siris
	Monoon longifolium(Sonn.)B.Xue & R.M.K.Saunders	Annonaceae	Debdaru
16	*Vitex negundo L.*	Lamiaceae	Nisindha/Sindhubar
17	*Ficus racemosa L.*	Moraceae	Yogna Dumur
18	*Lagerstroemia speciosa (L.) Pers.*	Lythraceae	Jarul
19	*Livistona chinensis (Jacquin.) R. Brown ex Martius*	Arecaceae	Chinese Fan Palm/Fountain Palm
20	*Ficus benghalensis L.*	Moraceae	Bot/ Banyan tree
21.	*Terminalia arjuna (Roxb.) Wight & Arn.*	Combretaceae	Arjun
22.	*Borassus flabellifer L.*	Arecaceae	Tal/ Fan Palm
23	*Ficus hispida L.*	Moraceae	Dumur
24	*Bombax ceiba L.*	Malvaceae	Shimul
25.	*Phyllanthus emblica L.*	Euphorbiaceae	Amlaki
26.	*Peltophorum pterocarpum (DC.) K.Heyne*	Fabaceae	Radhachura

Fig. 7 Major Plants in the Campus Area

*11.5 **Medicinal Plants in the Campus*:**

A number of plants with medicinal properties are growing in the campus, specially in the medicinal plant garden.

SL. NO.	COMMON NAME	SCIENTIFIC NAME	USES
1	Tulsi	*Ocimum sanctum*	Leaf
2	Ghritakumari	*Aloe vera*	Leaf
3	Thankuni	*Cantellaasiatica*	Leaf
4	Black Tulsi	*Ocimumtenuiflorum*	Whole Plant, Leaf, Seed
5	Muthagrass	*Cyperus rotundus*	Root
6	Blue porterweed	*Stachytarpheta jamaicensis (Verbenaceae)*	Root, leaves
7	Costus	*Costus sp (Zingiberaceae)*	Rhizome
8	Guava	*Psidium guajava*	Leaves
9	Atasi	*Crotalaria retusa L.*	Leaves
10	Lemon grass	*Cymbopogon microthecus*	Leaves
11	Adlay millet	*Coix lacryma-jobi*	Fruit
12	Nayantara	*Catharanthus roseus*	Leaves

Fig. 8 Medicinal Plants

11.6 Faunal diversity in the College Campus

The college campus has a rich faunal diversity with the existence of following members:

Sl. No	**Division**	**Common Name**	**Scientific Name**	**Bengali Name**
1.	Annelida	Earthworm	*Pheretima* sp.	Kencho
2.	Arthropoda	Carpenter ant	*Camponotus* sp.	Kath pipre
3.	Arthropoda	Fire ant	*Solenopsis* sp.	Pipre
4	Arthropoda	Yellow paper wasp	*Polistes* sp.	Bolta
5	Arthropoda	Italian bee	*Apis mellifera*	Moumachhi
6	Arthropoda	Little bee	*Apis florea*	Moumachhi
7	Arthropoda	Termite	*Microtermes* sp.	Uipoka
8	Arthropoda	*Water strider*	Gerris sp.	
9	Arthropoda	Dragonfly	*Tramea limbata*	Phoring
10	Mollusca	Freshwater snail	*Bellamya bengalensis*	Gugli
11	Mollusca	Terrestrial snail	*Achatina fulica*	Sthal Shamuk
12	Mollusca	Apple snail	*Pila globosa*	Apel shamuk

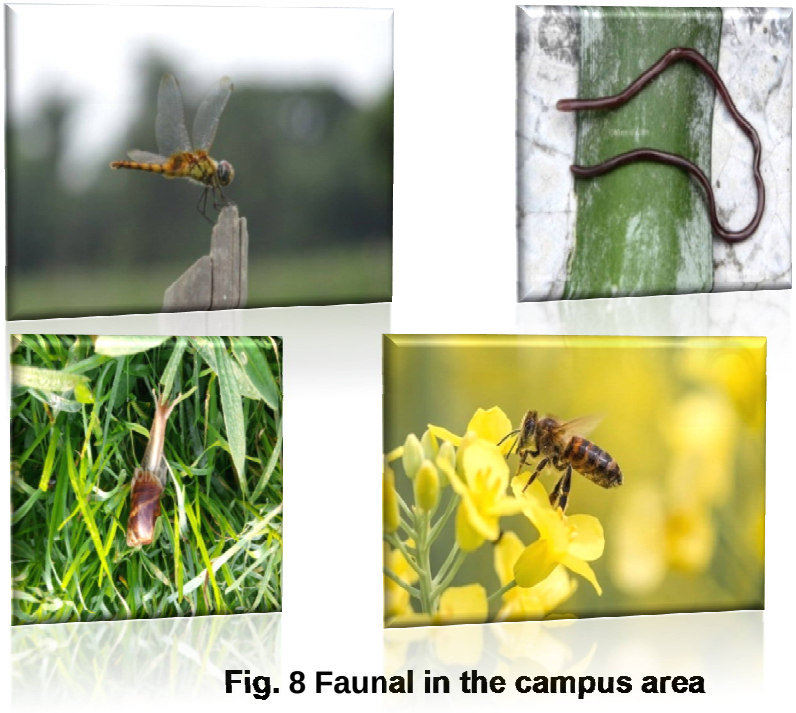

Fig. 8 Faunal in the campus area

Reptiles

Sl. No.	Common name	Scientific Name	Bengali Name
1	Checkered Keelback	Xenochrophis piscator	Joldhora
2	Buff Striped Keelback	Amphiesma stolatum	Hele
3	Rat Snake	Zamenis longissimus	Darash
4	Skink	Lampropholis sp.	Anjani
5	Oriental Garden Lizard	Colotes versicolor	Girgiti
6	Common House Gecko/Gekko	Hemidactylus frenotus	Tiktiki

Fig. 9 Reptiles

Birds

A total of 59 types of bird species were found in the campus, which is quite a good number, in spite of the industrialized surrounding around it.

Total bird species encountered in the college campus.

COMMON NAME	SCIENTIFIC NAME
1. Indian cormorant	*Phalacrocorax fuscicollis*
2. Little cormorant	*Microcarbo niger*
3. Little Egret	*Egretta garzetta*
4. Cattle Egret	*Bubulcus ibis*
5. Black Kite	*Milvus migrans*
6. Black shouldered kite	*Elanus axillaris*
7. Common kestrel	*Falco tinnunculus*
8. Shikra	*Accipiter badius*
9. White breasted water hen	*Amaurornis phoenicurus*
10. Pond Heron	*Ardeola grayii*
11. Common sandpiper	*Actitis hypoleucos*
12. Yellow Footed Green pigeon	*Treron phoenicoptera*
13. Rock pigeon	*Columba livia*
14. Spotted dove	*Spilopelia chinesis*
15. Ring necked dove	*Streptopelia capicola*
16. Alexandrian parakeet	*Psittacula eupatria*
17. Common Cuckoo	*Cuculus canorus*
18. Spotted Owlet	*Athene brama*
19. White throated Kingfisher	*Halcyon smyrnensis*
20. Small blue Kingfisher	*Alcedo atthis*
21. Stork billed Kingfisher	*Pelargopsis capensis*
22. Pied Kingfisher	*Ceryle rudis*
23. Common Hoopoe	*Upupa epops*
24. Chestnut headed Bee-eater	*Merops leschenaulti*
25. Green Bee-eater	*Merops orientalis*

COMMON NAME	SCIENTIFIC NAME
26. Black-rumped Flameback	*Dinopium benghalense*
27. Brown-capped Pygmy Woodpecke	*Yungipicus nanus*
28. Coppersmith Barbet	*Megalaima haemacephala*
29. Blue throated Barbet	*Megalaima asiatica*
30. Lineated Barbet	*Megalaima lineata*
31. Brown-capped Woodpecker	*Dendrocopos nanus*
32. Brown Shrike	*Lanius cristatus*
33. Long tailed Shrike	*Lanius schach*
34. House Sparrow	*Passer domesticus*
35. Black hooded Oriole	*Oriolus xanthornus*
36. Golden Oriole	*Orious oriolus*
37. Black Drongo	*Dicrurus macrocercus*
38. Bronze winged Drongo	*Dicrurus aeneus*
39. Common Myna	*Acridotheres tristis*
40. Asian pied Starling	*Gracupica conta*
41. Chestnut tailed Starling	*Sturnia malabarica*
42. Jungle Myna	*Acridotheres fuscus*
43. Rufous Treepie	*Dendrocitta vagabunda*
44. Common Crow	*Corvus brachyrhynchos*
45. Red vented Bulbul	*Pycnonotus cafer*
46. Red whiskered Bulbul	*Pycnonotus jocosus*
47. Common Prinia	*Prinia inornata*
48. Ashy Prinia	*Prinia socialis*
49. Common Babbler	*Turdoides caudata*
50. Brown breasted Flycatcher	*Muscicapa muttui*
51. Taiga Flycatcher	*Ficedula albicilla*
52. Tailorbird	*Orthotomus sutorius*
53. Bluethroat	*Luscinia svecica*
54. Pied Bushchat	Saxicola *caprata*
55. Oriental Magpie robin	*Copsychus saularis*
56. Pale billed Flowerpecker	*Dicaeum erythrorhynchos*
57. White Wagtail	*Motacilla alba*
58. Pied Wagtail	*Motacilla alba*
59. Yellow Wagtail	*Motacilla flava*

Fig. 10 Local Birds in the Campus Area

Mammals

Sl. No.	Common name	Scientific name	Bengali name
1	Indian palm squirrel	*Funumbulus sp.*	Kathberali
2	Frugivorous bat	Suborder Megachiroptera	Badur
3	Insectivorus bat	Suborder Microchiroptera	Chamchike
4	House mouse	*Mus musculus*	Indur
5	Rat	*Rattus norvegicus*	Dhere indur

Fig. 11 Mammals

11.7 Checklist of Ferns and Seasonal Flowers

Sl. No.	Local Name	Common Name	Scientific Name
1.	Bird-nest-Fern	Bird-nest Fern	Asplenium sp.
2.	Fishtail Fern	Fishtail Fern	Microsorum punctatum
3.	Oakleaf Fern	Oakleat Fern	Drynaria quercifolia
4.	Dog flower, Snadragon	Dog flower, Snapdragon	Antirrhinum majus
5.	Garden stock, Common stock	Garden stock, Common stock	Matthiola incana
6.	Gazania	Gazania	Gazania sp.
7.	Gladiolus	Gladiolus	Gladiolus sp.
8.	Himsagar	Flaming katy, Florist kalanchoe	Kalanchoe blossfelddiana
9.	Maiden Pink	Maiden Pink	Dianthus deltoids
10.	Mike Ful	Amaryllis	Hippeastrum sp.
11.	Pansy, Garden Pansy	Pansy, Garden Pansy	Viola tricolor var.
12.	Petunia	Petunia	Petunia hybrid
13.	Verbena	Verbena	Verbena sp.

Fig. 12 Flowering Plants of the College Premises

CHAPTER - 12

GREEN INITIATIVES

Shree Agrasen Mahavidyalaya aims to protect and conserve its biodiversity, fresh and clean ambiance through the following green initiatives to protect and conserve nature.

12.1 Plantation Programme

Plantation programme of Shree Agrasen Mahavidyalaya promotes environment management and conservation in the college campus with the following objectives:

1. To motivate the students to keep their surroundings green and clean by undertakingplantation of trees.

2. Promote ethos of conservation of water by minimizing the use of water.

3. Motivate students to imbibe habits and life style for minimum waste generation, sourceseparation of waste and disposing the waste to the nearest storage points.

4. To create awareness amongst public and sanitary workers, so as to stop the indiscriminate burning of waste which causes respiratory diseases.

5. To minimize the use of plastic bags, not to throw them in public places as they choke drains and sewers, cause water logging and provide breeding ground for mosquitoes.

6. 6.Organize tree plantation programmes, awareness programmes such as Quiz, essay, painting competitions, rallys, nukkad natak etc. regarding various environmental issues and educate children about re-use of waste material & preparation of products out of waste

7. 7.Organize Nature Trail in Wild Life Sanctuaries/Parks/Forest areas to know about the Bio-diversity

Fig. 13 : Plantation Programme

12.2 ***Green computing practice***

Being an academic institution, papers are used for various purposes like exam answer sheets, circulars, notices, office work, document printing, and Xeroxing. Since the trees are cut for paper manufacturing, the sequestration of carbon is reduced increasing carbon footprint. To cut down the carbon footprint, the university administration and various departments follow paperless methods of communication by using emails, online forms submission, etc. The paperless work was helpful in reducing tons of CO_2. The tons of biomass are saved by this green computing practice.

CHAPTER - 13

CONSOLIDATION OF AUDIT FINDINGS

Green Audit will create a greater appreciation and under-standing of the impact of college activities on the environment. Shree Agrasen Mahavidyalaya has successfully been able to identify the impacts on the environment through the various auditing exercises. The green auditing exercise has brainstormed and provided insights on practical ways to reduce negative impact on the environment. Participating in this green auditing procedure has increased knowledge about the need of maintaining sustainability of the college campus. It will create awareness around the use of the Earth's resources in your home, college, local community and beyond. Shree Agrasen Mahavidyalaya should adopt an Environmentally Responsible Purchasing Policy, and work towards creating and implementing a strategy to reduce the environmental impact of its purchasing decisions. White good producing companies are rapidly developing in the area of energy efficiency. Many computer hardware and electrical supply companies now cooperate with customers to reclaim old or damaged parts. Shree Agrasen Mahavidyalaya has a tie with a Company (the entrepreneur is an alumnus of our College) which reclaims old or damaged computers and repair or replace them if possible. Although over twice as expensive up front, LCD monitors are estimated to us 40-60% less energy overall than CRTs. All computers purchased by the college have an Energy Star rating, which is beginning to be a standard requirement for computers.

13.1 Preparation of action plan

Management's policies referring to College and approach towards the use of resources need to be considered in purview of green audit report. An environmental policy should be formulated by the management of the college. The college should have a policy on green awareness raising or training programmes for students and staff, seminars on Environment Awareness are often organized by different departments of the institution, green awareness policy right from kitchen staff to procurement policy by the management. Based on the policies, college should have an action plan. The green auditing report will be a base line for the action plan to be evolved.

13.2 Follow up action and plans

Green Audit is an exercise which generates considerable quantities of valuable environment and resource management information. The time and effort and cost involved in this exercise is often considerable and in order to be able to justify this expenditure, it is important to ensure that the findings and recommendations of the audit are considered at the correct level within the organization and action plans and implementation programmes will be conducted n the basis of the audit findings.

13.3 Environmental Education

The following environmental education programmes may be implemented in the college before the next green auditing:-

Training programmes in solid waste management, liquid waste management setting up of biodiversity garden, tree management, medicinal plant nursery, vegetable cultivation, water management, energy management, landscape management, pollution mitigation methods, and water filtration methods.

- Give priority to environmental clubs and its programmes
- Conduct exhibition on throw away plastic danger, recyclable products etc.
- Display various slogans and pictures to protect environment.

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CHAPTER - 14

ConClusion and Recommenda tions

Green Audit is the most efficient way to identify the strength and weakness of environmental sustainable practices and to find a way to solve problem. Green Audit is one kind of professional approach towards a responsible way in utilizing economic, financial, social and environmental resources. Green audits can “add value” to the management approaches being taken by the college and is a way of identifying, evaluating and managing environmental risks (known and unknown). There is scope for further improvement, particularly in relation to waste, energy and water management. The college is recent years consider the environmental impacts of most of its actions and makes a concerted effort to act in an environmentally responsible manner. Even though the college does perform fairly well, the recommendations in this report highlight many ways in which the college can work to improve its activities and become a more sustainable institution.

14.1 Suggestions

a) Adopt the proposed Environmentally Responsible Purchasing Policy, and work towards creating and implementing a strategy to reduce the environmental impact of its purchasing decisions.

b) Increase recycling education on campus.

c) Increase awareness of Environmentally Sustainable Development – Use every opportunity to raise public, government, industry, foundation, and college awareness by openly addressing the urgent need to move toward an environmentally sustainable future.

14.2 Recommendations

1) Environment should be celebrated everyday instead of just celebrating environment day.

2) Misuse of paper to be avoided as much as possible and working paperless to be encouraged where possible.

3) A few tube light/bulbs which are still used in the campus, should be kept dust free within permissible limit.

4) The trees planted needs to be managed regularly. Burning should be totally avoided.

5) Ensure that green audit is conducted annually. And action is taken on the basis of audit report and recommendation and findings

6) Vehicular exhausts should be examined regularly in the college as per the Central Motor Vehicle Act 1988.

7) Fire Safety System should be strengthened.

Sonar Bharat Environment & Ecology Pvt. Ltd.
Parimal Sarkar
Director

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ACKNOWLEDGEMENT

Sonar Bharat Environment & Ecology Pvt. Ltd. (SBEEPL) Green Audit Team thanks the management of Shree Agrasen Mahavidyalaya for assigning this important work of Green Audit. We appreciate the co-operation to your team for completion of study.

Our special word thanks is extended to :

01. Dr. Jayeeta Basu – Principal
02. Dr. Leena Sarkar Bhaduri

For giving us necessary inputs to carry out this very vital exercise of Green Audit. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

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Sonar Bharat Environment & Ecology Pvt. Ltd.
Parimal Sarkar
Director

Certificate of Compliance

INTEGRATED QUALITY CERTIFICATION PRIVATE LIMITED

hereby certifies that the Quality Management Systems of

Sonar Bharat Environment & Ecology Pvt. Ltd.

35, Chittaranjan Avenue, 3rd Floor,
Kolkata - 700 012.

has been assessed and conforms to the
Quality Management Systems
ISO 9001:2015

Scope: Consultancy Services on Safety Related Study, Audit Services for Energy, Green, Electrical & Safety and Providing Services Related to Obtaining Statutory Approvals

Division	: 70	Current issue date	: 14.10.2022
Class	: 70.22	Current expiry date	: 13.10.2025
Process(es) not applicable	: 8.3	1st Surveillance due	: 13.10.2023
Certificate number	: IND/QMS/NAB-C3313/3200	2nd Surveillance due	: 13.10.2024
Attachment(s)	: None		

H.Narasimhaiah
Director

Certificate of compliance has an expiry period of 3 years from the current certification cycle start date but shall be considered as expired if the surveillance audit programme indicated in this certificate of compliance is not implemented to maintain confidence that the certified management system continues to fulfil requirements unless otherwise supported by a letter of continued compliance issued by the registered office of Integrated Quality Certification Pvt. Ltd. Certificate of compliance shall be updated in website/registry as suspended and/or withdrawn if the surveillance programme prior to the due date indicated above is not coordinated and implemented. Written information on any significant organizational changes with impact on the certificate of compliance shall be communicated to Integrated Quality Certification Pvt. Ltd prior to the planned audit schedule.

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THE END