



SHYAM LAL COLLEGE

ENVIRONMENT AUDIT REPORT



Prepared by
EHS ALLIANCE SERVICES

CONTENTS

CONTENTS

AUDIT CERTIFICATE	2
ACKNOWLEDGEMENT	3
DISCLAIMER	4
CONTEXT & CONCEPT	5
INTRODUCTION	6
OVERVIEW OF CAMPUS	7
AUDIT OBJECTIVES & SCOPE	11
AUDIT PARTICIPANTS	11
GENERAL INFORMATION OF CAMPUS	12
EXECUTIVE SUMMARY	13
WASTE MANAGEMENT	14
ENERGY CONSERVATION	15
WATER & WASTEWATER MANAGEMENT	16
AIR QUALITY MANAGEMENT	17
LEGISLATIVE COMPLIANCE	17
CARBON FOOTPRINT – EMISSION & ABJORBPTION	17
BEST PRACTICES AND INITIATIVES	19
RECOMMENDATION	19
CONCLUSION	20
REFERENCE	20
ANNEXURE – <i>PHOTOGRAPHS OF ENVIRONMENT CONSCIOUSNESS</i>	22

Certificate –Environment Audit



CERTIFICATE No. EHSAC2124B

CERTIFICATE

M/s Shyam Lal College – University of Delhi

G.T. Road, Shahdara, New Delhi 110032, India

Has been assessed by us for the comprehensive study of environmental impact on institutional working framework to fulfill the requirement of

Environment Audit

The environment legal compliances and initiatives carried out by the college have been verified on the report submitted and was found to be satisfactory.

The efforts taken by management and faculty towards environment and sustainability are highly appreciated and noteworthy.

Date of Audit: 17 Dec, 2021


Puneet Kaushik
For EHS Alliance Services



EHS Alliance Services

Plot No A-72, Surya Vihar, Near Sector-4, Gurugram (Haryana)-122001
Phone-0124-2250624, Email: ehsalliance@gmail.com, www.eshall.in

Acknowledgement

EHS Alliance Services Environment Audit Team thanks the management of Shyam Lal College, for assigning this important work of Environment Audit. We appreciate the co-operation of our team for the completion of the study.

Our special thanks are due to:

Prof. Rabi Narayan Kar, Principal

Audit Coordinator – Niti Agarwal (Associate Professor - Physics), Atul Kumar Jain (A. O.)

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



Disclaimer

EHS Alliance Services Environment Audit Team has prepared this report for Shyam Lal College, University of Delhi based on input data submitted by the representatives of the campus complemented with the best judgment capacity of the expert team.

While all sensible care has been taken in its preparation, details contained in this report have been compiled in good faith based on information gathered.

It is further informed that the conclusions have arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

If you wish to distribute copies of this report external to your organization, then all pages must be included.

EHS Alliance, its staff and agents shall keep confidential all information relating to your organization and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies. EHS Alliance staff, agents and accreditation bodies have signed individual confidentiality undertakings and will only receive confidential information on a 'need to know' basis.



Dr. Uday Pratap
Lead Auditor EMS ISO 14001:2015



Puneet Kaushik
EHS Consultant & Lead Auditor EMS

Context and Concept

In India, the process for environmental audit was first mentioned under the Environment Protection Act, 1986 by the Ministry of Environment of forests on 13th March 1992. As per this act, every person owning an industry or performing an operation or process needs legal consent and must submit an environmental report or statement.

The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory from the academic year 2019–20 onwards that all Higher Educational Institutions should submit an annual Green, Environment and Energy Audit Report. Moreover, it is part of the Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of global warming through Carbon Footprint reduction measures.

In view of the NAAC circular regarding environment auditing, the college management decided to conduct an external environment assessment study by a competent external professional auditor headed by Mrs. Niti Agarwal, Associate Professor – Physics, Shyam Lal College, University of Delhi.

The term ‘Environmental audit’ or ‘Green audit’ means differently to different people. Terms like ‘assessment’, ‘survey’ and ‘review’ are also used to describe similar activities. Furthermore, some organizations believe that an ‘environmental audit’ addresses only environmental matters, whereas others use the term to mean an audit of health, safety and environment-related matters. Although there is no universal definition of Green Audit, many leading companies/institutions follow the basic philosophy and approach summarized by the broad definition adopted by the International Chambers of Commerce (ICC) in its publication of Environmental Auditing (1989).

The ICC defines Environmental Auditing as:

“A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing intending to safeguard the environment and natural resources in its operations/projects.”

The outcome of the audit should be established with concrete evidence that the measures are undertaken and facilities in the institution are under auditing. This audit focuses on the Green Campus, Waste Management, Water Management, Air Pollution, Energy Management & Carbon Footprint etc. being implemented by the institution. The concepts, structure, objectives, methodology, tools of analysis, objectives of the audit are discussed below.

Introduction

Nature is a very precious gift for all life forms. Disturbance in nature causes environmental Problems increasing day by day due to the development of urbanization and industrialization on earth. Unplanned utilization of resources planet facing tremendous pressure resulting temperature is increasing. Therefore, there is an urgent need to planning for the consumption of the resources sustainably to conserve natural resources for the future generation.

Sustainable development is becoming popular in the world for saving the earth. Utilizing resources judiciously can save the earth's precious resources. Measurement of environmental components is the most effective step to conserve and protect natural resources.

Environmental auditing had begun in the early 1970s with the provision of civil lawsuits for non-compliance with environmental regulations. Environment auditing involves on-site visits, collection of samples, performing analyses, and report results to competent authorities. Industry, the corporate world is initiating auditing for saving natural resources. Academic institutions also can contribute to the preservation and conservation of resources within their premises.

In thin "Environment Audit" report would help everyone to think about preserving resources, show a willingness to learn their importance, adopt steps to minimize resource use and set an example for others to follow the path of eco-friendly practices to achieve the goal of sustainable development. Effective implementation of environmental auditing helps in minimization of environmental risks at a low cost.



Overview of Shyam Lal College

Shyam Lal College (SLC), a co-educational constituent college of the University of Delhi, was established in 1964 by the great visionary and entrepreneur Padmashree (late) Shri Shyam Lal Gupta, the then Chairman of Shyam Lal charitable trust. The foundation stone of the college was laid down by Dr. Zakir Hussain, the then Hon'ble Vice President of India and Chancellor of the University of Delhi. The aim of the college, at the time of inception, was to make quality education accessible to the students, especially girls, from the economically and educationally disadvantaged community of East Delhi. Since its establishment in 1964, SLC has come a long way and has become a center of academic excellence in University of Delhi.



Spread over on a sprawling campus of 29,501 square meters and a built up area of 7,505,40 square meters, SLC offers 13 undergraduate courses in various streams of science, commerce and humanities and one postgraduate course (in Hindi). At present, there are

3265 students enrolled in the College. SLC has a highly dedicated faculty of 146 teachers and 67 non-teaching staff (including the temporary faculty and the nonteaching staff).



In order to keep up with the rising pedagogical demands, the college recently upgraded its infrastructure and other academic facilities. The college is a Wi-Fi zone with internet access to every student and the staff. Last year, the college added an entire new building - the Porta Block - to its existing infrastructure including a 100 seater state-of-the art seminar room equipped with the latest ICT facility. Most of the rooms in the main building have been upgraded with LCD projector and other facilities. There are 07 well-equipped undergraduate labs in the college – Physics Lab, Chemistry Lab, Biology Lab, Electronics Lab and three Computer Labs. The computer labs of the college offer the very best in terms of hardware and software to the students and the faculty. Staff room, library, office and canteen have been recently renovated into fine air-conditioned spaces. The entire campus is under CCTV surveillance.

SLC has a rich and well stocked ICT enabled library. It has more than 76000 books and subscribed journals on diverse subjects. The library also has OPAC facility to make the task of locating books easier for the students and the faculty. Our library is automated and RFID technology will be introduced in the library in the near future. We also have a fully air conditioned knowledge resource centre where students and teachers can acquire sufficient knowledge through e-resources by accessing world's best databases, e-journals, e-books and reports in an easy and expeditious manner.



With the primary objective of providing quality education to all, SLC makes special efforts to enable and facilitate learning among the students belonging to the underprivileged Shyam Lal College, University of Delhi 2021 sections. The college ensures that special classes – Remedial as well as Spoken English are held on continuous basis for the students who have difficulty in coping with the demands of the curriculum. The Equal Opportunity Cell of the college takes care of these classes with support from the respective faculty of the college who are accessible to the students for any type of help. Fee concession is also given to the needy students. Besides, the college has a SC/ST Cell and a liaison officer to facilitate activities of these sections. The College makes every effort to provide barrier free mobility to all PwD students everywhere in the campus.

Ramps and signage on passages have been provided at maximum possible places. Due to unavoidable circumstances, where 100% barrier free mobility cannot be assured, classes for PwD students are conducted on the ground floor to cause minimum inconvenience to them. The college has set up a well-equipped facilitation centre for PwD students. The activities are actively monitored by the Nodal Officer, PwD.

The college, in its effort to maximize the teaching learning outcome, has established seven important Centres that offer unique platform and opportunity to the students to have a wholesome learning experience. These centres are: Centre for Holistic Development (CHD), Centre for Industry Interaction (CII), Center for Skill Development (CSD), Enterpreneurship Cell (EC), Women Development Cell (WDC), Ambedkar Study Circle (ASC) and Gandhi Study Circle (GSC). The important events organized and initiatives taken by these centres have evidently opened the minds of the students to newer ways of thinking. These Centres have taken up cross-cutting issues related to modern lifestyle, gender, caste identity in India, professional challenges, social anomalies etc. SLC is guided by its vision to develop itself as a premier educational institution offering vibrant inclusive environment for the development of excellence in academics, culture, sports and other student empowered activities.

Shyam Lal College Location



Geo Coordinates from Google maps: 28.673318, 77.2805947

Vision and Mission of College

VISION

SLC strives for meaningful transformation of learners to responsible citizens by providing them with an all-inclusive and value based education.

MISSION

SLC provides a constantly caring, supportive and secure teaching and learning environment for engagement with the students and other stakeholders to achieve excellence in academics, sports, extra-curricular activities and develop analytical temper with a focus on instilling strong values to prepare them as leaders. SLC adopts environment friendly practices and formulates strategies for strengthening research and innovation in the college that expand the realm of knowledge.

Audit Objectives

The broad aims/benefits of the eco-auditing system are:

- Environmental education through systematic environmental management approach
- Improving environmental standards
- Benchmarking for environmental protection initiatives
- Sustainable use of natural resource in the campus.
- Eco Friendly practices in campus for reduction in resource use.
- Curriculum enrichment through practical experience.
- Development of ownership, personal and social responsibility for the college campus and its environment
- Enhancement of college profile
- Inculcation of environmental ethic and value systems in young minds

Audit Participants

On behalf of Institute:

Name	Position/Department
Prof. (Dr.) Rabi Narayan Kar	Principal of Shyam Lal College
Ms. Niti Agrawal	Associate Professor - Physics
Prof. Kusha Tiwari	Convener, Garden Committee
Mr Atul Kumar Jain	Administrative Officer
Dr. Sunaina Zutshi	Member, Eco Club and Garden Committee
Mr. Anand Singh	Office Attendant

On behalf of EHS Alliance Services:

Name	Position	Qualification
Dr. Uday Pratap	Lead Auditor	Ph.D., QCI – WASH, Lead Auditor ISO 14001:2015
Mr Puneet Kaushik	<i>Co- Auditor</i>	M.Sc. M. Tech , PGDISM, Lead Auditor ISO 14001:2015, OHSAS 18001:2007

General Information of Shyam Lal College

Basic Information

Does any Environmental Audit conduct earlier?

No, This is the first time a systematic way of monitoring their environmental eminence initiative was taken by the college for environment protection.

What is the total permanent population of the Institute?

Population	Male	Female	Total	The approximate Number of Visitors (Per day) is 20 in the college campus.
Students	2183	1082	3265	
Teachers	77	69	146	
Non-Teaching Staff	63	04	67	
Sub Total	2323	1155	3478	
Population	Male	Female	Total	

What is the total number of working days of your campus in a year?

There are One Hundred Eighty (180) working days in a year.

Where is the campus located?

Shyam Lal College, a constituent college of University of Delhi, and is located at G.T. Road, Shahdara, New Delhi- 110032.

Which of the following are available in your institute?

Garden area	Available
Playground	Available
Kitchen	No
Toilets	Available
Garbage Or Waste Store Yard	Available
Laboratory	Available
Canteen	Available
Hostel Facility	No
Guest House	No

Which of the following are found near your institute?

Municipal dump yard	Not in the vicinity of the institute
Garbage heap	No Garbage heaps
Public convenience	Yes, public convenience is available
Sewer line	1 km sewer line within the campus
Stagnant water	No stagnant water
Open drainage	No
Industry - (Mention the type)	No
Bus / Railway/Metro station	Nearby campus
Market / Shopping complex	Yes

Executive Summary

The environment audit is a snapshot in time, in which one assesses campus performance in complying with applicable environmental laws and regulations. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to continue the effort of monitoring environmental compliance. Our approach to promoting a Green Campus is to inculcate the sustainable value systems among the students so that they carry the learning's and practices them in their future endeavors. This will ensure that Sustainability and Environmental practices get embedded in all the institutions and organizations in the country.

A Green Campus is a place where environmentally friendly practices and education combine to promote sustainability in the campus which ultimately offers an institution the opportunity to take the lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to environmental, social and economic needs of the mankind.

This is the very first environment audit of the university for doing their bit towards environmental protection and environmental awareness at the local and global front. Audit criterion is environmental cognizance, waste minimization and management, biodiversity conservation, water conservation, energy conservation and environmental legislative compliance by the campus. A questionnaire is used during the audit. This audit report contains observations and recommendations for the improvement of environmental consciousness.



Waste Management

Types of Waste on Campus

To create effective waste management plans, the campus first needs to know the types of waste they produce. Below, we have compiled a list of various kinds of waste commonly generated on institutional campus:

1. **Food Waste** - Campus does not generate food waste as there is not hostel canteen and mess. College has tuck shop with tea & coffee facility so there is food waste generation.
2. **Recyclable Paper, Cardboard, Plastic, Glass and Cans** -Campus tends to produce vast quantities of these recyclables. Even in the digital age, many students, professors and staff members still prefer handwritten notes and end up with piles of unwanted paper once their courses and projects are complete. The snacks so essential to late-night studying or socializing tend to come in recyclable plastic, glass or aluminium containers. And shipments of necessary items throughout the year are likely to arrive in recyclable plastic and cardboard packaging. Quantitative analysis should be carried out to reduce waste in the coming academic sessions. Have an MoU with Jaagruti Paper Recycle Services.
3. **E-Waste** - As campus continually upgrade their computing facilities and office computers to keep up with the latest technology, the old computers have to go somewhere. So do old printers, phones, copy machines and other electronics that receive upgrades over the years.
4. **Maintenance Waste** - In the maintenance department, spent on paints, solvents, adhesives and lubricants all form potentially hazardous waste. Because they are difficult to recycle, spent on incandescent light bulbs usually become landfill waste. Spent on fluorescent light bulbs, which contain small amounts of mercury, typically require special handling because of the environmental and health risks they pose.
5. **Furniture** - Furniture waste of the campus has a couple of different sources. The campus itself may also get rid of old furniture as it modernizes its classrooms, cafeterias, computer labs and study spaces. Annually sold to a junk dealer.
6. **Books/Magazines/Newspapers** - Books accounted for solid waste generation and college often generate tons of textbook waste. As courses upgrade to new editions, they may end up throwing their newly obsolete textbooks into the garbage if donation programs cannot use them. Students, too, may find it more convenient merely to throw away their books at the end of the year rather than donating or reselling them.
7. **Municipal Solid Waste** - The College is managing solid waste by agreement with Gurugram based state waste management facility, in-house composting system (vermicomposting) and conventional composting.
8. **Horticulture Waste** - College campus has lavish greenery and grounds that results from significant horticulture waste which is managed by an in-house composting system.

Energy Conservation

List ten ways that you use energy in your institute. (Electricity, LPG, firewood, others). Using this list, try to think of ways that you could use less energy every day.	Electricity used in classrooms, labs, library, canteen, washrooms, staff rooms, and office.
Are there any energy-saving methods employed in your institute? If yes, please specify. If no, suggest some	Yes, a Renewable source of energy through a solar plant (75 KW) is about to be operational.
How many CFL/LED bulbs have your institute installed?	100 % of Total Conventional bulbs are replaced by LED/CFL Lights. Management is in process of changing tube lights to LED lights.
Do you run "switch off" drills at the institute?	Yes
Are your computers and other equipment's put on power-saving mode?	Yes, In Practice
Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby modes most of the time? If yes, how many hours?	Yes, approx. 6 hours

Energy Share	kWh	Percentage
Electric Grid kWh	250835.02.00	100%
Solar PV-kWh*	0	0.00%
HSD-Eq.kWh**	0	0.00%
LPG Eq. kWh***	0	0.00%
Total -kWh	250835.02	100%

* Solar power plant was not operational for year 2020-21 because of building expansion that 75 KW plant generates approximately 40% electricity of total requirements.

** Diesel consumption is managed by evening college.

*** LPG consumption was zero as labs and canteen was not operational because of ongoing pandemic.

Details of Solar Power Plant

Energy Savings potential -Annual -Solar PV-Installed system			
S. No	Description	Quantity	Unit
1	Capacity of installed system	75	kWh
2	Annual target of generation	2,50,000	kWh
3	Actual generation (<i>Not operational because of building expansion</i>)	NA	kWh
4	Loss of Generation	2,50,000	kWh
5	Tariff of Electricity INR	8.5	Per/unit
6	Projected Annual savings in Energy	20,00,000	INR
7	Investment	Nil	
	Pay Back	Instant	

Water and Wastewater Management

List uses of water in your institute	Basic use of water in campus: Drinking – 83.7 KL/month Gardening – 126 KL/month Kitchen and Toilets – 660.6 KL/month Others – 251.1 KL/month Hostel – NA Total 1121.2 KL/month
How does your institute store water? Are there any water-saving techniques followed in your institute?	01 overhead water tank installed for storage of water with capacity – 50,000 Litres. And 7x2000 = 14,000 litres and 4x500 = 2,000 litres. Total 66,000 Litres in storage tanks. Close supervision of the water supply system. .
Locate the point of entry of water and the point of exit of wastewater in your institute. Entry and Exit-	Entry - Water comes from Delhi Jal Board supply and bore wells in the campus. Exit - From the kitchen, canteen facilities, laboratories, and urinals through covered drainage into the STP (75 KLD).
Write down ways that could reduce the amount of water used in your institute	Basic ways: <ul style="list-style-type: none"> • Close the taps after usage • Maintenance and monitoring of valves in supply system to avoid overflow, leakage and spillage • Water Conservation awareness for new students
Does your institute harvest rainwater?	Yes available
Is there any water recycling System?	Yes by STP treatment to gardening use

Note: All calculations are done assuming regular college (before pandemic) as if we calculate for the current year, then no practical data is available.

Air Quality Management

Are the Rooms in Campus are Well Ventilated?	Yes, as per National Building Code, guidelines
Window Floor ratio of the Rooms	Very Good, ample daylight utilization
What is the ownership of the vehicles used by your campus?	A combination of campus-owned and personal-owned vehicles
Provide details of school-owned vehicles?	College doesn't own any vehicles like bus, car, van, etc.
Specify the type of fuel used by your campus's vehicles	Not Applicable
Air Quality Monitoring Program	No
Details of DG Sets in campus	Yes, 1 DG Sets with capacities of (125 KVA.)All have

acoustic enclosure canopy and stack height. The DG is being shared between morning and evening colleges.
--

Air Pollution Mitigation

The students are encouraged to use public transport. As per college environment policy, there is no vehicle movement allowed within the campus, except for goods and service movement periodically.

There is a designated space for parking of staff vehicles in the campus. Henceforth, air pollution due to vehicular movement is minimum. To reduce dust pollution, Paved roads and vegetation helps to a large extent. Also, Burning of waste within the campus is strictly banned.

Environmental Legislative Compliance

Are you aware of any environmental Laws pertaining to different aspects of environmental management?	Yes, faculty members and the administrative team is well aware of national environmental laws.
Does your institute have any rules to protect the environment? List possible rules you could include.	Yes, innovative initiatives are being taken by campus to reduce pollution and go green.
Does Environmental Ambient Air Quality Monitoring conducted by the Institute?	No.
Does Environmental Water and Wastewater Quality monitoring conducted by the Institute?	Not Yet.
Does stack monitoring of DG set conducted by the Institute?	Yes, by NABL approved Laboratory.
Is any warning notice, letter issued by state government bodies?	Not Any, Half Yearly Compliance report submitted to statutory bodies.
Does any Hazardous waste generated by the Institute?	Yes, e-waste, waste oil, plastic waste are managed by MOU with an approved external agency

Carbon Footprint - Emission & Absorption

Total Carbon Footprint (CO₂ emission per year, in metric tons)

1. Electricity used per year CO ₂ emission from electricity	(electricity used per year in kWh/1000) x 0.84 250835.02 WA x 0.84 =210701.42/1000x0.84 =210.07 tons
2. Transportation per year (Van) CO ₂ emission from transportation (Bus)	(Number of the bus in our campus x total number of days x approximate distance travelled by the vehicle in kilometres x 240 /100) x 0.01

	$=(0 \times 24 \times 8 \times 180 / 100) \times 0.01$ $=0.00 \text{ ton (There is no bus)}$
180 working days per year, 0.01 is the coefficient to calculate the emission in metric tons per 100	
3. Transportation per year (car) CO₂ emission from transportation (car)	(Number of cars entering College campus x 2 x approximate distance travelled by the vehicle inside the campus in kilometres x 180/100) x 0.02 $=(10 \times 1 \times 2 \times 180 / 100) \times 0.02$ $=0.072 \text{ ton}$
Total CO₂ emission per year cumulative by electricity usage + bus transportation + car transportation (210.07+0+.072) = 210.42 ton	

Carbon absorption by flora in the institution

There are 295 trees of different species, in the campus spread over 7.29 acres.

Carbon absorption capacity of one full-grown tree 22 kg CO₂ Therefore Carbon absorption capacity of 295 full-grown trees 295 x 22 kg CO₂, 6490 kg of CO₂ is 6.49 tons of CO₂.

The carbon absorption capacity of 397 semi-grown trees is 50% of that of full-grown trees. Hence the carbon absorption 397 x 6.8 kg of CO₂ 2699.6 kg of CO₂ 2.70 tons of CO₂

There are approximately Hedge Plants 331 of various species being raised in the gardens and grown in the areas where no buildings are built Carbon absorption of bush plants varies widely with their species. Certain bushes absorb a very high level of CO₂ whereas some others absorb a very low level of CO₂. In the absence of a detailed scientific study, 200g of CO₂, absorption is taken per bush (in consultation with Environmental Science specialists).

Based on this, the total carbon absorption of bushes is 331 x 200 g = 6620 g = 66.20 kg 0.07 tons of CO₂.

The lawns on the campus have buffalo grass, Mexican grass and indigenous grass species and cover a total area of- 168577.2 sq. ft.

The carbon absorption capacity of a 1 sq. ft. area of lawn is .1 g per day Therefore, carbon absorption by lawn area 99752.4 x 0.0365 kg CO₂ = 3640.96 kg CO₂ per day, Total carbon absorption per year is 3.64 tons of CO₂

The grand total of carbon absorption capacity of the campus is approx. **12.96 tons**

College is doing its best towards carbon neutrality.

BEST PRACTICES FOR GREEN INITIATIVES

All the lower hierarchy staff is well included in environmental awareness programmes and campaigns

- ✿ *Biodiversity Conservation* – Flora and fauna conservation programs and multiple environment awareness campaigns are organized by the College.
- ✿ *Tree Plantation Drives* – Tree Plantation Drives are organized regularly. Guests visiting the college on the Annual Day or other events are honoured by way of their contribution towards the Drive.
- ✿ *Ground Water Recharge* - 1 unit of Rain Water Harvesting System.
- ✿ *E-Waste Management* - Old computers and other e-waste are managed through CPCB authorized recyclers.
- ✿ *Solid Waste Management* – Waste segregation and management is carried out by third-party vendor and waste minimization practices (like avoiding / minimizing food waste, ban on plastic crockery, etc.) are adopted.
- ✿ *Water Conservation* - RO wastewater is used in gardening and STP plant in campus.

Recommendations

- ✿ Eco-friendly parameters should be included in the purchase of articles and goods for the campus.
- ✿ An increase in display of environment-conscious posters/paintings/slogans for spreading awareness amongst students is recommended.
- ✿ Green building guidelines should be followed for future expansion projects of the College.
- ✿ Provide sanitary waste disposal facility by following the CPCB guidelines for the management of sanitary waste - As per Solid Waste Management Rules, 2016. An incinerator machines should be installed at the campus for sanitary waste disposal.
- ✿ Electrical Safety Audit is highly recommended with Thermography.

- Water balancing Audit should be conducted

Conclusion

This audit involved extensive consultation with all the campus team, interactions with key personnel on a wide range of issues related to Environmental aspects. The Shyam Lal College, University of Delhi has an Environmental Committee for sustainable use of resources. Overall 60% of the college campus is for landscaping. The audit has identified several observations for making the campus premise more environmental friendly. The recommendations are also mentioned with observations for the college campus team to initiate actions. The audit team opines that the overall site is maintained well from an environmental perspective. The major observations that are important to initiate urgently are electrical safety audit and water balance audit.

References

- The Environment [Protection] Act – 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- The Petroleum Act: 1934 – The Petroleum Rules: 2002
- The Central Motor Vehicle Act: 1988 (Amended 2011) and The Central Motor Vehicle
- Rules:1989 (Amended in 2005)
- Energy Conservation Act 2010.
- The Water [Prevention & Control Of Pollution] Act – 1974 (Amended 1988) & the Water (Prevention & Control of Pollution) Rules – 1975
- The Air [Prevention & Control Of Pollution] Act – 1981 (Amended 1987) The Air (Prevention & Control of Pollution) Rules – 1982
- The Gas Cylinders Rules – 2016 (Replaces the Gas Cylinder Rules – 1981
- E-waste management rules 2016
- Electrical Act 2003 (Amended 2001) / Rules 1956 (Amended 2006)
- The Hazardous Waste (Management and Handling and Trans-boundary Movement) Rules, 2008 (Amended 2016)
- The Noise Pollution Regulation & Control rules, 2000 (Amended 2010)
- The Batteries (Management and Handling) rules, 2001 (Amended 2010)
- Relevant Indian Standard Code practices

Transparency of Environment Audit Report

Environment audit report is one of the useful means of demonstrating an organization's commitment to openness and transparency. If an Organisation believes it has nothing to hide from its stakeholders, then it should feel confident enough to make its environment audit reports freely available to those who request them. As a basic rule, environment audit reports should be made available to all stakeholders.

ANNEXURE

Initiatives photographs and certificates

Eco club team conducted awareness drive on **Disposal and usage of sanitary pads** by means of social media and by physically interacting with people especially in slum areas from (3-01-2021 to 9-01-2021). The main aim of the drive was centered on menstrual hygiene and proper disposal of sanitary napkins as this is the need of the hour. Volunteers also distributed sanitary pads to almost 800 women's who live in slum areas in different areas.



SANITARY NAPKINS DISTRIBUTION IN SOCIETY FOR HYGINE AND HEALTH



PLASTIC FREE CAMPUS DRIVE BY STUDENTS



SLC (University of Delhi)
Shyam Lal College
Eco-Club Centre

KITE FLYING AWARENESS DRIVE
 (14.01.2021 - 16.02.2021)
 Online & Offline Drive

SAY NO TO KILLER MANJA NOW!

AS YOU READ THIS, MORE BIRDS, CHILDREN AND ADULTS ARE BEING INJURED OR KILLED BY CHINESE MANJA

WHEN YOUR KITES START FLYING, THE FLYING START DYING!

SAY NO TO CHINA DOR

Dr. Pankaj Chaudhary (Convenor, Eco-Club) | Dr. Sunaina Zutshi (Coordinator, Eco-Club) | Prof. Rabi Narayan Kar (Principal, SLC)

Rajat Pandey (President, Eco-Club)



SLC (University of Delhi)
SHYAM LAL COLLEGE
Eco Club (The Last Leaf)
 in collaboration with
IQAC
 organize

POSTER MAKING COMPETITION
TOPIC : "Importance of Wetlands & Water"

Last Day of submission
8 PM , 21st April 2021

Hand drawn or coloured.
 No digital poster allowed.

Earth Day
 APRIL 22

- Submit posters in pdf format at Ecoclubsic@gmail.com
- A4 size submission allowed.
- Selected candidates have to present poster on EARTH DAY.
- Time limit to present is 2 minutes.

Registration link ; <https://forms.gle/mMpEV93iSCarKJzJA>

For more , contact ; **Rajat Pandey 7982522978** (President , Eco Club)

Mr. Pankaj Chaudhary (Convenor, Eco Club) | Dr. Kusha Tiwari (Coordinator, IQAC) | Prof. Rabi Narayan Kar (Principal, SLC)



SLC (Univesity of Delhi)
SHYAM LAL COLLEGE

Ecoclub (the_last_leaf)
 organizes

Eco-Holi Campaign
 (AWARENESS DRIVE ON HOLI FESTIVAL)
 (online mode)
 Date: 15.2.2021 - 15.3.2021

Team: Ecoclub

Eco Club Initiatives



Energy saving Posters and messages display at campus



Solar Panels on College buildings (Re-Installation)



Environment Awareness Paintings in Campus