

Youth Education & welfare Society's National Senior College,

National Campus, Maulana Azad Road, Sarada Circle, Nashik-01
(MAHARASHTRA)
NAAC Re-accredited "B" Grade (CGPA 2.16)

Internal Quality Assurance Cell(IQAC)

Green Audit Report (2021-22)



Report By



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Preface

Data collection for the Green audit of the **Youth Education & welfare Society's National Senior College** was approved by the team for the period of June 21 to May 2022.

A Green audit survey was completed by the firm **SOLASTA Energy Solutions, Services & Maintenance** with the help of faculty members of the Physics, and Economics Department.

We appreciate the effort put in by YEWS management for creating awareness of green Audit and its role in environment saving amongst all of us. We appreciate Hon. Management of the college for encouraging us by providing this opportunity to do the green audit. Through this, we have cleared the vision of the Institution towards a Green campus and saving nature. We appreciate for various efforts taken by the college.



Main Building

Acknowledgement

We are very much thankful to **Principal Dr Mr S. B. Nahire Sir** for motivating us and giving us the opportunity for a green audit. We would like to express our thanks to the Head of all Department, respected staff, faculty members and students who have taken part in this audit survey etc. We tried our best to present this energy report as per the requirements of the college and our expertise work.



Annex Building

Summary

Green Audit Committee

Sr.No.	Names	Designation
1	Principal. Dr S.B. Nahire	Chairperson
2	Prof. M.P. Mule	IQAC Co-Ordinator
3	Mr Tousif Mirza	Energy Audit Co-Ordinator
4	Dr Reshma Khan	Member
5	Dr Seema Jagtap	Member
6	Mr Noor Mohammad Peer Mohammad	Member
7	Mr Akshay Bhalekar	Member

Chapter: 1

Introduction to Green Audit

Introduction:

The green audit is all about corporate responsibility. It uncovers the truth about statements made by governments and institutions about the effects of environmental pollution. A green audit aims to review the measures taken by the campus to combat pollution. Green audit is defined as “an official examination of the effects a campus has on the environment”. It is also widely known as Environmental Audit or Green Audit. Green Audit can be better understood as Compliance with Environmental Laws, Audit of Environment Cost and Environment Impact Assessment, and Carbon Credit. National Senior College believes that saving 'Mother Earth' is an integral part of education and believes that the carbon footprint left by the college is to be reduced by sustainable steps and an environment-friendly model of administration.

Objectives:

The Green Audit process focussed on a few points to be closely focussed on, which are as follows:

1. To provide a healthy environment on campus
2. To enhance awareness towards environmental guidelines and responsibilities.
3. To identify cost-saving methods through minimizing and effectively managing waste

Green Audit Process: Green Audit process at National Senior College was conducted in three phases:

- a) Pre-audit activity
- b) Audit
- c) Action Plans and Recommendations

Chapter: 2

About Institute

Sr. No.	Particulars	Details
1	Name of the Institute:	Youth Education & welfare Society's National Senior College, Nashik-422001
2	Address:	National Campus, Mulana Azad Road, Sarada Circle, Nashik-01
3	Affiliation:	Affiliated to Savitribai Phule, Pune University, Pune-07 College ID: PU/NS/AC/106/2007 ISO 9001:2015 Certified AISHE ID-C-41751
4	Year of Establishment:	Established: July 2007
5	NAAC Accreditation:	NAAC Accredited "B" Grade (CGPA 2.16)
6	Contact:	Phone: 0253 2594973 Email: nationalseniorcollege@gmail.com Website: www.yewsnational.org
7	Courses Offered:	XI th and XII th B. A./B.Com./B.Sc. BBA BSC computer science Arts- English, Hindi, Geography, Politics, Library, Physical Educator, Sports, Economics,

Chapter: 3

Objectives Of Study

The main aim objective of this green audit is to assess the environmental quality and the management strategies being implemented in National Senior College, Nashik.

The specific objectives are:

1. To monitor the energy consumption pattern of the college
2. To quantify the liquid and solid waste generation and management plans on the campus.
3. To assess the carbon footprint of the college
4. To assess whether the measures implemented by National Senior College have Helped to reduce the Carbon Footprint.
5. To impart environment management plans to the college
6. Providing a database for corrective actions and plans.
7. To assess whether extracurricular activities of the Institution support the collection, recovery, reuse and recycling of solid wastes.
8. To identify the gap areas and suggest recommendations to improve the Green Campus status of the National Senior College

Few College Campus Photos:



Womens Day



National Science Day



Tree Plantation



Indoor Green Campus



Principal Office



Covid Vaccine Camp



Constitution day Celebration



IQAC Office

Chapter: 4

Target Areas of Green Auditing

Target Areas Of Green audit forms part of a resource management process. Although they are individual events, the real value of green audits is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. Eco-campus concept mainly focuses on the efficient use of energy and water; minimising waste generation or pollution and also economic efficiency. All these indicators are assessed in the process of "Green Auditing of this educational institute".

I) Auditing for Water Management Water is a natural resource; all living organisms depend on water. While freely available in many natural environments, in human settlements potable (drinkable) water is less readily available. Groundwater depletion and water contamination are taking place at an alarming rate. Hence it is essential to examine the quality and usage of water in the college. Water auditing is conducted for the evaluation of facilities of raw water intake and determining the facilities for water treatment and reuse. The concerned auditor investigates the relevant method that can be adopted and implemented to balance the demand and supply of water.

II) Auditing for Energy Management Energy conservation is an important aspect of campus sustainability which is also linked with the carbon footprint of the campus. Energy auditing deals with the conservation and methods to reduce consumption related to environmental degradation. It is therefore essential that any environmentally responsible institution examine its energy use practices.

III) Auditing for Waste Management Human activities create waste, and it is the way these wastes are handled, stored, collected and disposed of, which can pose risks to the environment and public health. Pollution from waste is aesthetically unpleasing and results in large amounts of litter in our communities which can cause health problems.

Solid waste can be divided into three categories:

1) bio-degradable:

Bio-degradable wastes include food waste, canteen waste, waste from toilets etc.

2) non-biodegradable:

Non-biodegradable wastes include what is usually thrown away in homes and schools such as plastic, tin and glass bottles etc.

3) hazardous waste:

Hazardous waste is waste that is likely to be a threat to health or the environment like cleaning chemicals, acids and petrol.

Summary:

Unscientific management of these wastes such as dumping in pits or burning them may cause harmful discharge of contaminants into soil and water supplies, and produce greenhouse gases contributing to global climate change respectively.

Bio-degradable waste can be effectively utilized for energy generation purposes through anaerobic digestion or can be converted to fertilizer by composting technology.

Non-biodegradable waste can be utilized through recycling and reuse. Thus the minimization of solid waste is essential to a sustainable college.

Auditing for Green Campus Management Trees plays an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. In one year, a single mature tree will absorb up to 48 pounds of carbon dioxide from the atmosphere, and release it as oxygen. The amount of oxygen released by the trees on the campus is good for the people on the campus.

Chapter: 5

Methodology, Observation & recommendation

METHODOLOGY ADOPTED to conduct the Green Audit of the Institution had the following components Onsite Visit was conducted by the Green Audit Team.

The key focus of the visit was on assessing the status of the green cover of the Institution, their waste management practices and energy conservation strategies etc. The sample collection, preservation, and analysis were done scientifically as prescribed by the standard procedures. Focus Group Discussions were held with the staff members and the management focusing on various aspects of Green Audit. The discussion was focused on identifying the attitudes and awareness towards environmental issues at the institutional and local levels. Energy, waste management and Carbon footprint analysis Survey With the help of teachers and students, the audit team has assessed the energy consumption pattern, renewable energy possibilities, solar energy initiatives, green energy, waste generation, disposal and treatment facilities of the college. The monitoring was conducted with a questionnaire, observation, and discussion with respected faculty survey method

A. Energy Audit:

1. It is found that FTL, Bulbs, and CFLs are installed and replaced with LEDS
2. light or electric gadgets left ON when not needed which is wasting energy and money, causing pollution that is unnecessary, we can surely avoid this.
3. Stand-by power can use up to 8% of a household's total electricity.

Don't forget to power down these things when not in use:

- | | |
|-------------------------------------|--|
| 1. Lights | 7. TV |
| 2. Projectors | 8. PA Systems |
| | 9. Pantry /Canteen gadgets such as blenders, |
| 3. Exhaust and ceiling or table fan | |
| 4. Printers and scanners | |
| 5. Battery and phone chargers | |
| 6. Computers | |

College initiated appreciable activities for Energy Saving Awareness like the use of LED and replacing old light sources with new LED.

B. Waste Management:

Initiatives are taken by the National Senior college for Waste Management:

- 1) Glass waste is generated from the laboratory mainly in the form of bottles; Many times bottles are reused for storing other chemicals.
- 2) The e-waste generated at National senior college is sent for Recycling and reuse. Hazardous waste generated in a solid and liquid state during experiments in the laboratory is disposed of properly.
- 3) The college has Planned single-use of plastic for any administrative As well as other purposes.

Biodegradable waste is a major solid waste generated on campus which must be further treated by vermicompost technology.

C. Water Management:

- 1) Recycle water, particularly for uses with less-critical quality requirements.
- 2) Recycle water, especially if sewer costs are based on water consumption.
- 3) Fix water leaks.
- 4) Check water overflow pipes for proper operating level.
- 5) Provide proper tools for washing down -- especially self-closing nozzles. Eliminate continuous overflow at water tanks.
- 6) Promptly repair leaking toilets and faucets.
- 7) Use self-closing type faucets in restrooms.

* The College has rain water harvesting facility on campus having a capacity of 5800 lit. And the water from the tank is used for gardening and washing purpose. Water consumption is saved by this facility.

* The College has a Reverse Osmosis (RO) process for drinking water on campus having a capacity of 1000 litres/hr. and the rejected water from this Reverse Osmosis is used for toilet or washroom purposes. Also, College installed water coolers on campus for students drinking water purposes.

Chapter: 6

Carbon Di-Oxide Emission

Auditing for Carbon Footprint Burning of fossil fuels (such as petrol) has an impact on the environment through the emission of greenhouse gases into the atmosphere. The most common greenhouse gases are carbon dioxide, water vapour, methane, nitrous oxide and ozone. Of all the greenhouse gases, carbon dioxide is the most prominent greenhouse gas, comprising 402 ppm of the Earth's atmosphere.

The release of carbon dioxide gas into the Earth's atmosphere through human activities is commonly known as carbon emissions. Vehicular emission is the main source of carbon emission on the campus

Carbon Di-Oxide Emission Initiative & Recommendation:

- * College initiated appreciable activities for Energy Saving Awareness like the use of LED and replacing old light sources with new LED.
- * College initiated general awareness among students, staff, and faculty by displaying slogans, flex, and a banner on campus.
- * Classrooms well designed to use natural ventilation and sunlight, hence saving energy
- * Need to Create other energy efficiency / renewable energy awareness among the college campus i.e. solar, wind, and Biogas energy.
- * College should also initiate arranging seminars, lectures, and paper presentation competitions among students and staff for general awareness.
- * College using an indoor tree for beautification and carbon dioxide emission
- * College should Use more Solar Street Light, Solar High masts, Solar Garden Light
- * Check Feasibility For rooftop On-grid Solar system



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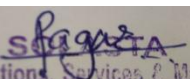
WORK COMPLETION REPORT

- Name of Work Project : Green Audit of Youth Education & Welfare Society's National Senior College, Sarda circle, Nashik-422001
- Work Order Number : AY 2021-22
- Work Period : From 20/06/2022 To 30/06/2022

This is to Certify that SOLASTA Energy Solutions, Services & Maintenance has successfully completed Green audit at Youth Education & Welfare Society's National Senior College, Sarda circle, Nashik-422001. The work of Green audit is completed on 30/06/2020 for year 2021-22.

Thanking you and assuring you for our best service always.

FOR SOLASTA,


Energy Solutions, Services & Maintenance
Mr. Pushendra P. Pagar
Proprietor

Date: 30/06/2022

Place: Nashik