



# GREEN AUDIT REPORT



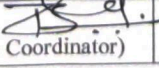

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The New Education Institute Nasik's  
**Late Sau. Ratnaprabha Prabhakar  
Vaishampayan**  
Arts, Commerce and Science Night College, Nasik.



Prepared by

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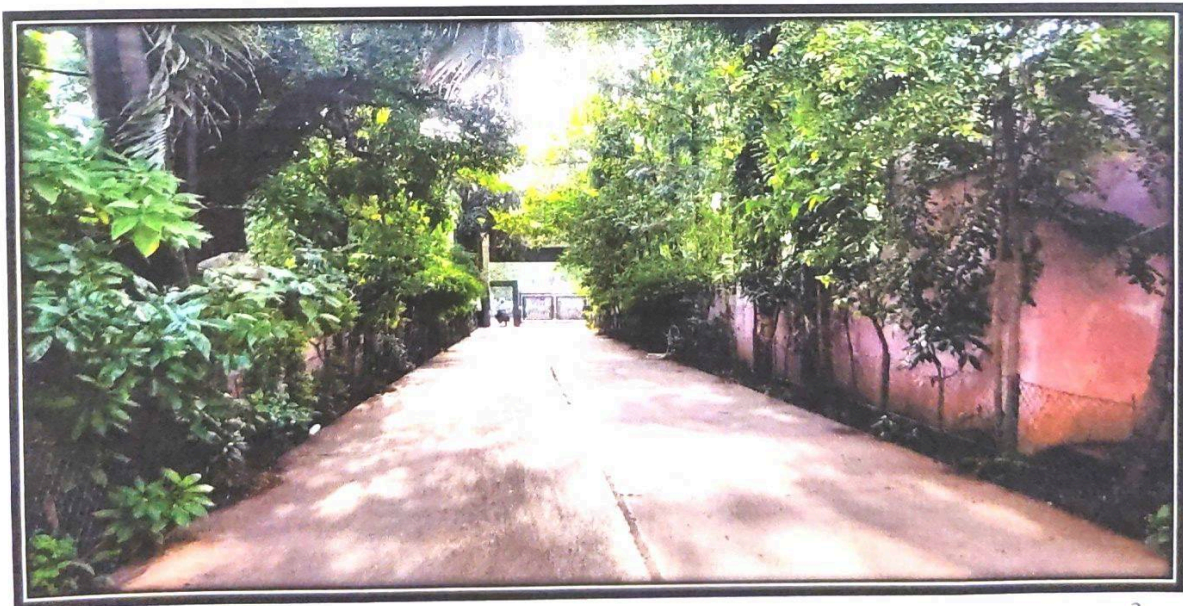
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## College Entry



### Executive Summary

The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crises. Eco campus is a concept rooted to all over the world to make them sustainable because of their mass resource utilization and waste discharge in to the environment. On this background it becomes essential to adopt the system of the Green Campus for the institute which will lead for sustainable development.

The New Education Institute Nashik's Late Sau. Ratnaprabha Prabhakar Vaishampayan Arts, Commerce and science Night College ,Nashik. 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 learning, the college has initiated 'The Green Campus' program two years back that actively promote the various projects for the environment protection and sustainability.

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The methodology includes: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons, data analysis, measurements and recommendations. It works on the several facets of 'Green Campus' including Water Conservation, Tree Plantation, Waste Management, Paperless Work, Alternative Energy and Mapping of Biodiversity. With this in mind, the specific objectives of the audit are to evaluate the 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 student's health and learning college operational costs and the environment. The criteria, methods and recommendations used in the audit are based on the identified risks.

#### **1. Introduction**

Green Audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. The 'Green Audit' aims to analyze environmental practices within and outside the college campus, which will have an impact on the eco-friendly ambience. It was initiated with the motive of inspecting the work conducted within the organizations whose exercises can cause risk to the health of inhabitants and the environment. Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth by carrying out Green Audit .It is well known that educational institutions consume resources like water, electricity; Forest products and generates wastes like many industries. Establishment and operating of educational institute are not covered by any of the environmental laws in India. As a result, the importance of making the educational institute operate with self-consciousness in the utility of resources inside the campus is least understood. Eco campus is a concept implemented in many educational institutes across the globe to make them sustainable because of their mass consumption of resources and creation of waste. Waste minimization plans inside the educational institute

for solid and wastewater is now mandatory to maintain the cleanliness inside the campus. To find out the environmental performance of the educational institutions and to analyze the possible solutions for converting the educational campus as eco-campus the conduction of Green Auditing of institution is essential.

Green audit is assigned to the criterion 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India and it declares the institutions as Grade A, B or C according to the scores assigned during the accreditation.

### **1.1 About the College**

The Nasik Education Institute's Swargiya Ratnaprabha Prabhakar Vaishampayan Senior Night College is established w.e.f. 22nd July' 2009, affiliated with Savitribai Phule Pune University, Pune on non-grant basis. This Night College is established, with a grand view for educating the Student, engaged in Govt. & PVT Service Sectors, various professions & business sectors etc. We are also proud to express here that by taking education in this Night College, our students are occupying the higher posts in Govt. & Pvt. Sectors. Our Night College students also participating in various sports on national / inter-state level & achieving success.

The College offers 6-UG courses affiliated to the Savitribai Phule Pune University, Pune . For the effective operation alizarin of the curricula, a meticulous action plan is developed and deployed. Teaching plans are prepared and followed according to the time table. For the better teaching practices, teachers participate in workshops on Curriculum Restructuring, Training Programmes and Special Guidance on ICT based Teaching Technology. Eminent scholars are invited to enlighten the faculty as well as students. Career Oriented/ Placement Activity is conducted to orient students towards employment market. The College has established MOU's, Linkages and Collaborations with Industries, Research Bodies and other Universities for good academic prospectus.

#### **VISION**

To give excellent quality educations, soft, life skills & various abilities in this globalization field for working students.

#### **MISSION**

To Educate & Develop Academic Excellence & Personality Of Working Students.

### **2. Objectives of the Study**

The main objective of the green audit is to promote the Environment Management and Conservation in the College Campus. The purpose of the audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards. The main objectives of carrying out Green Audit are:

- To introduce and make students aware of real concerns 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 require high cost.

- To bring out a status report on environmental compliance.

### 3. Methodology

In order to perform green audit, the methodology included different tools observation and review of the documentation. The study covered the following areas to summarise the present status of environment management in the campus:

- Water management
- Energy conservation
- Waste management
- Green area management

### 4. Observations and Recommendations

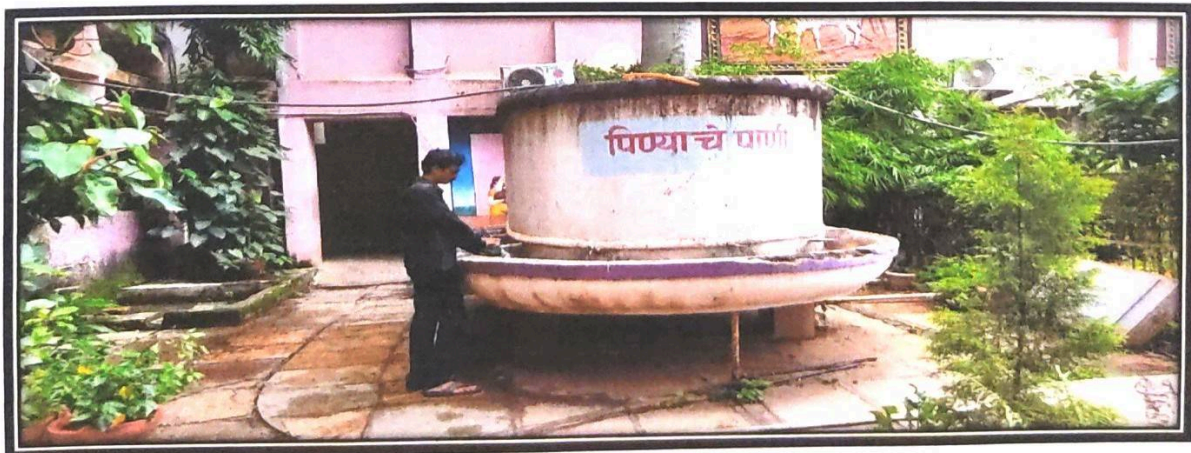
#### 4.1. Water Use

This indicator addresses water consumption, water sources, irrigation, water appliances and Water use in Girls & Boys washroom And use for Gardening And Drinking Water. A water audit is an on-site survey and assessment to determine the water use and hence improving the efficiency of its use.

##### a) Observations

The study observed that, Water supply for toilets, laboratories and gardening purpose will be available from underground bore. For drinking water college has Water Tank. During the survey, no loss of water is observed, neither by any leakages nor by over flow of water from overhead tanks. The data collected from all the departments is examined and verified. The waste water generated from Laboratory was stored and treated before disposal. Whereas domestic waste was dump for soak pit purpose.

##### Water System:



## 4.2. Energy Use and Conservation

This indicator addresses energy consumption, energy sources, energy monitoring, Solar lighting, appliance, natural gas and vehicles. Energy use is clearly an important aspect of campus sustainability and thus requires no explanation for its inclusion in the assessment.

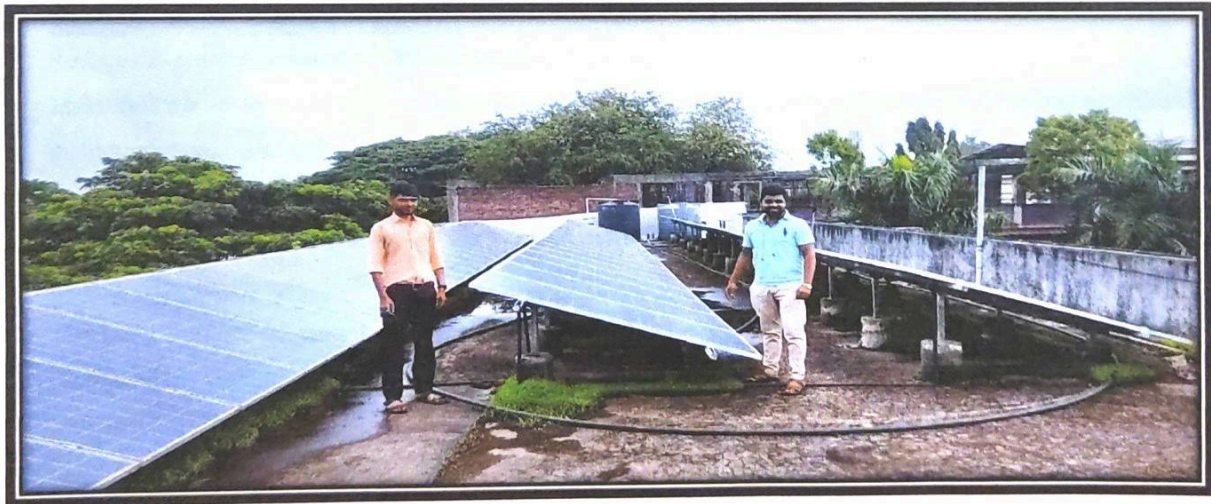
### a) Observations

Energy source utilized by all the departments and common facility center is electricity only. Total energy consumption is determined as 15 kWh/month by major energy consuming equipment. College has provided class rooms with proper light and ventilation provision for energy conservation.

Collage has used of Light Emitting Diode (LED) and Compact Fluorescent Lights (CFL) bulbs which have revolutionized energy-efficient lighting. Approximately 16 LED tube light, 6 LED, 5 Halogen was counted during survey. Equipment like Computers is used with power saving mode. The electricity was shut down after occupancy time as one of the practices for energy conservation.

### Solar System Details:-

Total Solar Panel:64, Power generated per panel : 320W. Total Power generation by 64 Panel :15KW, Energy generation in terms of Units : 1KW = 5Unit/day, So using 64-panel college can generate  $5 \times 15 \times 64 = 4800$  Unit/month.



### b) Recommendations

- Support renewable and carbon-neutral electricity options on any energy-purchasing consortium, with the aim of supplying all college properties with electricity that can be attributed to renewable and carbon-neutral sources.
- Appreciate that it is preferable to purchase electricity from a company that invests in new sources of renewable and carbon-neutral electricity.

- More improvement is required to improve their campus lighting, if possible they can convert to solar lights.
- Start Solar system.



- Reduce the absolute amount of Organic waste that is produced from college.
- Make full use of all recycling facilities provided by Nashik Municipal Corporation and private suppliers including glass, cans, white coloured and brown paper, plastic bottles, batteries, print cartridges, cardboard and furniture.
- Provide sufficient, accessible and well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated.
- The main purpose of vermin – composting is to reduce solid organic disposable waste in the college campus. After complete process of composting, it is used as manure in the garden and lawns.





#### 4.3 Green Area

This includes the plants, greenery and sustainability of the campus to ensure that the buildings conform to green standards. This also helps in ensuring that the Environmental Policy is enacted, enforced and reviewed using various environmental awareness programmes.


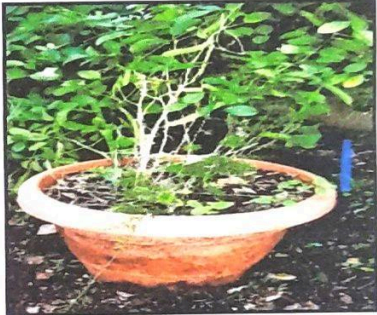

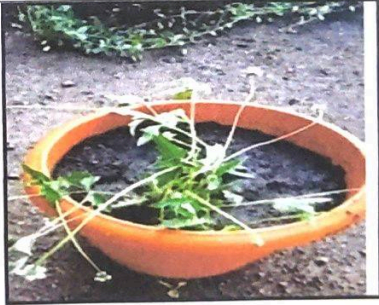
##### a) Observations

Various manmade activities have wide range of impacts on the surrounding ecosphere, both negative as well as positive. Over the years, The NEI's SRPV Night College has undertaken various activities like plantation and beautification of campus through various drives. The campus has good plantations and landscaping. It's a positive step to reduce its environmental impact. This section provides a detailed list of plant species observed within the campus.

The campus attempts to maintain eco-friendly atmosphere on the campus; the number and variety of plant species helps to maintain eco-friendly ambience. Further, to create eco-friendly awareness among the students college arranges special programs through which the students get clear idea and importance of trees in life.

free plantation programs are being organized during the month of July and August at college campus and surrounding villages through NSS. This program helps in encouraging eco-friendly environment which provides pure oxygen within the institute and awareness among villagers. The plantation program includes plantation of various type of indigenous species of medicinal as well as wild plant species. Under the biodiversity and ecological survey, pond is well maintained as an ecosystem in the premises. Rain water harvesting practices is well maintained in the campus. College has following medicinal plants

**Medicinal Plant Name**

	
<p><b>Ocimum sanctum</b></p>	<p><b>Asparagus</b></p>
	
<p><b>Lantana</b></p>	<p><b>Tridax</b></p>



**Aloevera**



**Withania**



**Curcuma domestica**



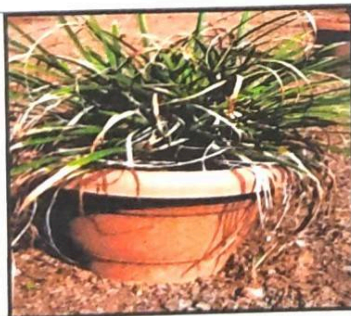
**Tinospora quadrifolia**



**Cymbopogon citratus**



**Terminalia**



**Cymbopogon martinii**



**Emblica officinalis**

### Water Loving Plants (Hydrophytes)

- Hydrilla
- Nymphaea (Lotus)



#### 4.4. Environmental Monitoring :

Environmental Awareness Course (EVS): This is compulsory course introduced by SP Pune University, Pune for second year students for all faculty. Under this course students learn to be environmental friendly. They are made aware of

- 1) Renewable and Non-renewable energy sources
- 2) Energy conservation.

**4.4.1 Air Monitoring:** Air quality in the academic institute is very important for health of the students, faculty and staff of the institute. The air pollution sources in the college campus are wind storm, pollen grains, natural dust, vehicular emissions etc.

#### 4.4.2 Noise Environment :

The noise levels measurements were carried out using Noise level meter. The noise level survey was carried out at seven locations, at outside as well inside the study area. The Noise levels monitored in the college campus as well as in side the classroom and found the noise level within the permissible limit.

Sr.No	Location	Minimum Reading In dB	Maximum Reading In dB	Limits
1.	Near Main Gate	28.3	28.9	75
2.	Inside Library	27.2	27.7	75

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#### 4.4.3 Ventilation Study:

Ventilation study was carried out using Anemometer at four different classrooms and the result was satisfactory.

Sr.No	Location	Reading In m/s	Limits
1.	Inside Class room	0.9	>0.5
2.	Inside Library	1.2	>0.5

#### 4.4.4 Illumination Study:

The Illumination measurements were carried out using Luxmeter at five locations inside the study area and light intensity found adequate in monitored area.

Sr.No	Location	Reading In Lux	Limits
1.	Inside Class room	211	>100
2.	Inside Library	265	>100

##### a) Recommendations

- Periodically review the list of trees planted in the garden.
- Promote environmental awareness as a part of course work in various curricular areas, independent research projects and community service.
- Create awareness of environmental sustainability and take actions to ensure environmental sustainability.
- Establish a College Environmental Committee that will hold responsibility for the enactment, enforcement and review of the Environmental Policy. The Environmental Committee shall be the source of advice and guidance to staff and students on how to implement this Policy.

#### 5. Conclusions

Considering the fact that the institution is predominantly an undergraduate as well as post graduate college, there is significant environmental awareness both by faculties and students and initiatives taken by them are substantial. The installation of solar panels, paperless work system, composting and besides, environmental awareness course initiated by the administration shows how the campus is going to be a green. Few recommendations are added to curb the menace of waste management using eco friendly and scientific techniques. We took care of the trees in the garden during the covid-19 Period as a watchman from our college.

As part of green audit of campus, we carried out the environmental monitoring of campus where includes Illumination, Noise level, Ventilation and Indoor Air quality of the class room. It was observed that Illumination and Ventilation is adequate considering natural light and air velocity present. Noise level in the campus is well within the limit Canteen water was also analyzed and found to be potable.

### **5.1 Efforts for Carbon Neutrality**

College is having its own vehicles and regular maintenance has been carried out for these vehicles which are support to low down the Carbon Neutrality.

- Institute has separate parking zone for vehicles.
- Dead leaves of tree are decomposed and used as organic fertilizer.
- Organize Green Treasure Day and Pollution Free Day
- Planting a variety of trees has contributed to carbon neutrality on the campus.

This may lead to the prosperous future in context of Green Campus and thus sustainable environment and community development.

### **5.2 Worthy Notes:**

Participation in Institutional Social Responsibility (ISR) and Extension activities:

- Swachha Bharat Abhiyan
- Avoid Tobacco Campaign
- Tree Plantation Programme of Govt. of Maharashtra
- Environmental awareness programme
- Celebration of Ozone day, Geography day, etc. every year
- Organic Waste management
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


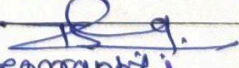
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