GREEN AUDIT

STUDY PERIOD (TWO YEARS) 2021 – 2022 & 2022 - 2023

Sustainability study

AUDIT REPORT

Studied for

Ashoka Education Foundation's

Ashoka Center for Business and Computer Studies

Nandanvan Estate, Near Chandi Village,
Anandwalli, Gangapur Road, Nashik-422003, Maharashtra, India

Studied in the capacity of

Accredited and Certified GBP

Studied by

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Background reference image Sasin Tipchai on unsplash

Disclaimer

The Audit Team has prepared this report for the **Ashoka Education Foundation's Ashoka Center for Business and Computer Studies** located at *Nandanvan Estate, Near Chandi Village, Anandwalli, Gangapur Road, Nashik-422003, Maharashtra, India* based on input data submitted by the Institute analysed by the team to the best of their abilities.

The details have been consolidated and thoroughly studied as per the various guidelines for Green Buildings available in National and International Standards; the report has been generated based on comparative analysis of the existing facilities and the prerequisites formulated by various standards. The inputs derived are a result of the inspection and research. These will further enhance and develop a Healthy and Sustainable Institution.

These can be implemented phase wise or as a whole depending on the decision taken by the internal team. The warranty or undertaking, expressed 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.

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The Report is prepared by the Team of Greenvio Solutions under their brand and department – Sustainable Academe as Consultancy firm with the Project Head - Ar. Nahida Shaikh who is as an Accredited and Certified Green Building Professional-Architect. Green Building consultancy is her forte and she is one of the most sought after names when it comes to providing excellent quality services within the stipulated time frame.

The Study is conducted in capacity of Accredited & Certified Green Building Professional with extensive experience.

Ar. Nahida Abdulla

Greenvio Solutions

Developing Healthy and Sustainable Environments

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Acknowledgement

The Audit Assessment Team extends its appreciation to the **Ashoka Education Foundation's Ashoka Center for Business and Computer Studies, Maharashtra** for assigning this important work of Green Audit. We appreciate the cooperation extended to our team during the entire process.

Our special thanks are extended are due to everyone from the Management.

Our heartfelt thanks are extended to the Chairperson of the entire process **Dr. P. A. Ghosh** (Principal) for the valuable inputs.

We are also thankful to Institute's Task force who have played a major role in data collection.

- Teaching staff members – ***Mrs. Komal Suyog Kadam***
- Non-teaching staff members – ***Mr. Atul Gangurde***
- Admin staff members – ***Mr. Kiran Bhamre***

Sustainable Academe
Brand of Greenvio Solutions, Palghar District, Maharashtra- 401208

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1. Introduction

1.1 About the Institution

Established in June 2009 by Ashoka Education Foundation with various courses of Higher Education. Nation's sustainable and inclusive economic growth depends upon its capacity to generate and advance the information technology knowledge.

The higher education system in the country has an important role to play in this area. Ashoka Center for Business and Computer Studies has come forward to share this responsibility by providing qualified Professionals to the existing industries.

ACBCS offers high-quality programs in different areas Computer Science, Computer Applications and Business Administration.

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1.2 Statements of the Institution

1.2.1 Vision

The Institute proposes *"To embed need based knowledge through holistic approach to create responsible future generation with deep rooted ethos of Indian culture and tradition."*

1.2.2 Mission

The Institute adheres and focuses *"To make the students thinker for self-exploration with technical and skill specific knowledge to create young professionals."*

1.3 Assessment of the Institute

1.3.1 Affiliations

The College has all its courses approved and affiliated to the **Savitribai Phule Pune University,** formerly the University of Poona, is a collegiate public state university located in the city of Pune, India.

1.3.2 Recognitions

The College has been recognized under section *2 (f) of the UGC Act, 1956* by University Grants Commission, New Delhi.

1.3.3 Certification

The institute has received the following Certifications

- AISHE – The code is C-42104
- ISO 9001:2015 Certification

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2. Overview

2.1 Summarised Populace analysis for 2022-2023

2.1.1 Students data

The data (shared by the Institute) shows there were **860 students.**

2.1.2 Staff data

S. No.	Type	Male	Female	Total
1	Admin staff	07	02	**09**
2	Teaching staff	28	09	**37**
3	Non-Teaching staff	05	12	**17**
Total Staff Members		**40**	**23**	**63**

Table 1: Staff data of the Institution for 2022-2023

The staff data shows the Institute premises had **63 Staff Members.**

2.2 Summarised Populace analysis for 2021-2022

2.2.1 Students data

The data (shared by the Institute) shows there were **766 students.**

2.2.2 Staff data

S. No.	Type	Male	Female	Total
1	Admin staff	05	02	**07**
2	Teaching staff	28	07	**35**
3	Non-Teaching staff	03	12	**15**
Total Staff Members		**36**	**21**	**57**

Table 2: Staff data of the Institution for 2021-2022

The staff data shows the Institute premises had **57 Staff Members.**

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3. Research

3.1 Site Area

The **site area is 1.44 acres with a built-up area of 27,876 sq. ft.**

3.2 About the Green Building Study Audit

It is a systematic study of the aspects which make the Institution sustainable and healthy premises for its inhabitants.

3.3 Analysis of the Green Building Study Audit

The procedure included detailed verification as follows:

- Investigation
- Technical
- Observations
- Inferences

3.4 Strategy adopted for Green Building Study Audit

The strategies included data collection from the admin department, actual inventory, investigation to check the operation and maintenance, analysis of the data collection, and preparation of the Report.

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4. Investigation

Plate 1: Discussion with the team

Plate 2: Investigation of the fire & life safety practices and internal spaces of campus

Plate 3: Discussion with the internal team

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5. Documentation

5.1 Green Practices Audit

The increasing global warming and climate change have made us realise that apart from the enormous strategies the individual small efforts need to be taken by individuals and Educational Institutes as the younger generations are the future of the world and once they are taught about these practices only then can we assume a better future.

5.1.1 Green practices

We observed the following points during the Site investigation and data verification of the premises; these are common for all the Buildings in the premises.

- ***Plants as a gift - As a kind gesture, the guests visiting the premise are asked to plant a small sapling on the premise itself, this is a special feature adopted by the Institute.***
- **Waste management** - *All the laboratories, classrooms, and cabin corridors are having dust bins. Laboratories are having dustbins wastage; Plastic bags are strictly banned on the Institute premises and canteen.*
- **Social awareness** - *The Institute has taken up awareness drives on various social issues for rural upliftment and regeneration in the Institute and surrounding villages.*
- **Silent and peaceful atmosphere –** *The Institute is located amidst residential areas which are well designed thus these help to maintain the pollution under control and provide a healthy ambience.*
- **Eco club –***The Institute has an active Eco Club which is one of its kind program, through this the club undertakes a lot of initiatives.*

5.1.2 Community development

The details of ***extension initiatives*** under various heads in Institute are documented below:

S. No.	Type	Since	Coordinator name
1	National Service Scheme (NSS)	2019	Mr.Lokesh Surana
2	Earn while you learn scheme	2019	Mrs.Khushbu Pawar
3	Employability Skills centre	2019	Mrs.Komal Kadam

Table 3: Details of the extension initiatives by the Institute

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The details of the ***environmental activities*** by the Institute documented below:

S. No.	Initiative	Particulars	Type	Date
Academic year 1				
1	World Environment Day	This activity helped in creating environmental awareness among the students.	Virtual	05.06.2021
2	Webinar on "Conservation of Natural Resource"	World Nature Conservation Day	Virtual	28-07-2021
3	World Consumer Rights Day	The activity of poster making emphasizes "Consumers role in tackling plastic pollution."	Physically	15-03-2022
4	World No Tobacco Day (WNTD)	This yearly celebration informs the public on the dangers of using tobacco, the business practices of tobacco companies, what the (WHO) is doing to fight against the use of tobacco, and what people around the world can do to claim their right to health and healthy living and to protect future generations.	Virtual	25-07-2021
5	Fit India & Rally	For awareness about fit India moment Online Session were conducted	Physically /Virtual	13-08-2021
Academic year 2				
6	Seminar on Importance of renewable energy	Socializing: meeting other new students, senior students, students union, Lectures by Eminent People;	Physically	20-11-2022
7	Swachha Bharat Abhiyan	To enhance cleanliness awareness among the students.	Physically	01-10-2022
8	Tree Plantation drive	To initiate an environment cautious attitude among students	Physically	13-11-2022
9	Expert session Under NSS Words AIDS Day	To create various gender awareness and STD prevention by expert	Physically	01-12-2022
10	Menstrual Hygiene	NSS unit in association with Aashray	Physically	15-08-2023

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	awareness with free sanitary pad distribution	foundation (IAS Srusti Deshmukh) conducted menstrual hygiene awareness and free sanitary pad distribution		
11	Outreach cleanliness activities	aims to clean up the streets, roads and infrastructure of India's cities, towns, and rural areas.	Physically	15/9/2022 to 2/10/2022

Table 4: Environmental initiatives undertaken by the Institute

The study suggests continuing the above practices.

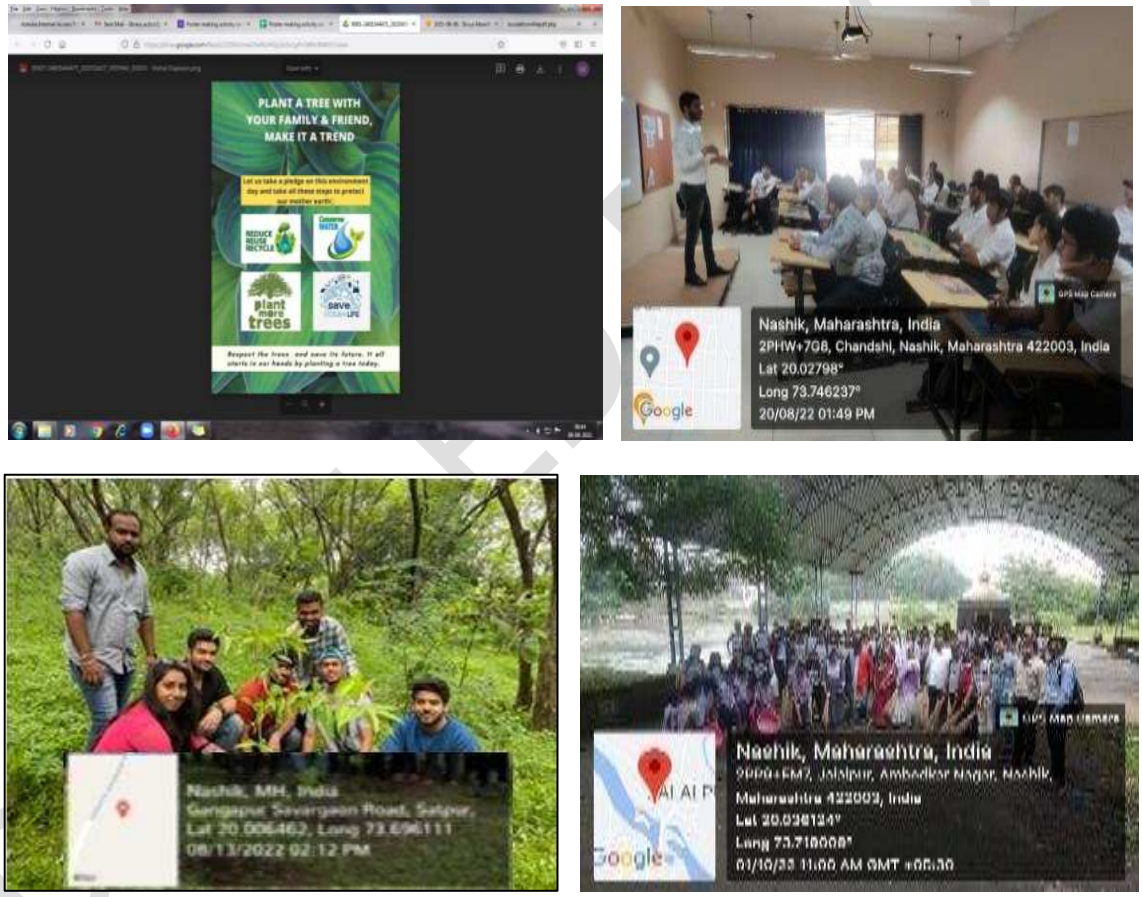

Plate 4: Environmental initiatives undertaken by the team

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5.2 Waste Audit

Waste is an inevitable part of our lives. Over the years the awareness about waste management techniques has given a rise to rethink how the waste can be avoided being sent to the landfills.

The audit provides an approximation of the types of waste generated, location of waste collections, disposal techniques used, waste segregation methodologies adopted, and waste management strategies that are implemented in addition to the newer ways that can be adopted aiming to make the premise clean and sustainable.

5.2.1 Waste produced

S. No.	Type	Current practice	Proposed practice
1	Solid waste (Toilets)	Separately collected and handed over to NMC	***Introduce a biogas plant that if functional and utilised***
2	Organic waste (Regular)	Handed over to Nashik municipal corporation along with general waste	***Introduce bio-composters***
3	Liquid waste (Toilets, wash basins)	Collected via inception chamber and connected to sewerage system	Continue with the practice because the City Municipal Corporation further recycles it
4	Chemical waste from laboratories	Not generated as per academics	Not applicable
5	Toxic waste from laboratories		Not applicable
6	E-waste	Handed over to "Techeco Waste Management LLP" and students use e-waste for making models.	Continue with the practice
7	Plastic waste	Handed over to Nashik municipal corporation along with general waste	***Tie-up with Bisleri's Bottles for change, undertake eco-walls project and other practices***
8	Bio-waste (Sanitary)		***Undertake Sani-bins in premises***

Table 5: Waste management system by the Institute

Currently, there are 78 dustbins inside and 9 bins in the outdoor areas.

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5.3 Water Audit

Water is one of the basic needs. Pure drinking water is a resource that needs to be preserved efficiently. A water audit helps to identify the sources of water consumption, and the water requirement by the premises is met by these sources.

The effective usage of water without any wastage should be a mandatory practice. Understanding the techniques as per site context to increase water conservation in terms of awareness and practice can be identified and executed as part of this exercise.

5.3.1 Water availability and consumption

5.3.1.1 Source of Primary water supply

The Institute requires water from the Local Municipality for drinking water purposes. The documentation below related to water tanks in the premises.

S. No.	Type	Capacity (litres)	Nos.
1	Underground	1.5 Lakh	1
2	Overhead	15,000	2
5	RO water tanks	500	1

Table 6: Water tanks in the premises

The study suggests that the space requires of tanks can be documented with mention of size, capacity usage, Institute name, colour coding and last maintenance date mentioned on each facility.

5.3.1.2 Source of Secondary water supply

The Institute uses the following sources of water supply for secondary usages such as watering plants, kitchen, toilets, and wash basins and other spaces. There is one bore well in premises.

5.3.1.3 Source of Tertiary water supply

The tertiary source of water is the source of water harvesting. There are four pits developed on site along with ground water recharging for this practice.

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5.3.1.4 Source of Reusing waste water

This initiative is not practiced.

The study suggests that keeping the site context and constraints in mind the waste water treatment plant can be explored.

5.3.2 Areas of water usage

Based on the inventory done and data shared by the staff we found that the premise has the facilities such as:

- General toilets for male, female
- Taps for gardens and toilet facilities; Drinking water cooler
- Timely testing of the water quality

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5.4 Health and Hygiene Audit

The hygiene is a part and parcel of our daily life. It is extremely essential to keep the surroundings clean in the same manner as we would want our houses to be. Educational Institutes have a bigger role to play in order to affect the young minds in the positive manner through better hygienic practices.

5.4.1 Facilities available

The Institution has washroom facility, hand wash, drinking water and dustbin facilities.

5.4.2 Hygiene aspects

The team should undertake steps to upgrade the hygiene areas of the site as per the instructions and discussion. ***The study suggests the current practices are fine.***

6. Observations

6.1 Investigative suggestions

The following suggestions can be implemented ***in next 1.5 years*** from the date of the Report submission.

- **Water tanks in all areas**
  - Include the information about size, capacity and usage
  - Paint the tank in light blue colour
  - Add *signboards* about the usage such as 'Drinking' or 'Secondary'
  - Add *signboard and map* about the process/ system in practice

- **Library in the Campus**
  - Install book drop box system at the entrance of the library.
  - Upgrade smart scanning system for every book

- **Carpets**
  - Green carpets could be placed outside drinking water and toilet blocks.
  - This will add to hygiene areas and keep the water spillage under control.

- **Awareness displays**
  - E-waste management chart can be displayed in spaces that have computers such as offices and laboratories.
  - Going paperless, Print less etc. awareness boards could be displayed.

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7. Inferences

7.1 Section-wise suggestions

The following suggestions can be implemented ***in next 2.5 years*** from the date of the Report submission.

7.1.1 Green practices audit

- **Environmental awareness -** There can be various slogans in local and national language on the compound wall giving the message of saving the environment through the joint efforts of the students and staff thereby making the student socially and environmentally responsible citizens.

- **Undertake environment study of local areas** – This aspect is w.r.t. environmental parameters and submits the same to local municipality for further up gradations.

7.1.2 Waste Audit

- **Multi-colored waste management bins -** There should be more number of dual litter dustbins at various locations in areas such as Canteen, and open spaces. This would inculcate the awareness of waste segregation among students. Whereas a single type of dry waste dustbin should be available inside the teaching areas.

Reference suggestions 1: Twin litter dustbins in the premises

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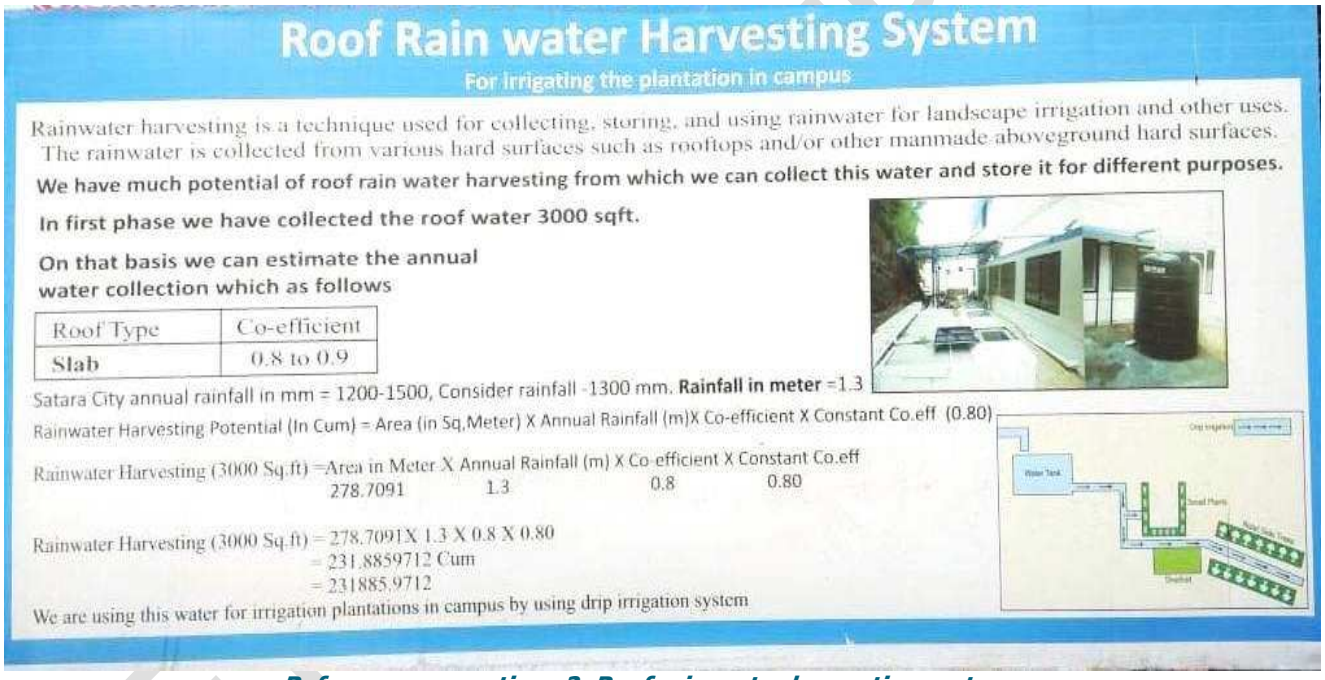
- Tie up with **Bisleri International regarding their 'Bottles for change program'** also with **'Thereco'** for their waste management.
- Invite companies such as **'Thaely'** and **'Recharkha'** to undertake skill development workshops.

7.1.3 Water Audit

- **Rain water bunds –** There should be landscape beautification project undertaken to appropriate channelize the rain water through bunds and similar facilities.
- **Manual about the functioning of the system –** There should be manual such as follows to increase sensitization about the facility and its operations.



Reference suggestions 2: Roof rain water harvesting system

7.1.4 Health and Hygiene Audit

- **Signboards** – The Institute should have multiple signboards about 'No smoking' and 'Healthy premises' at every nook and corner of the Institute.
- **Compound wall** – The compound wall should have awareness messages about 'No Smoking' and 'No Tobacco'

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8. Compilation

The study is based on the data collected, analyzed, rechecked, and confirmed through multiple modes. For the quality study, some standards/ notes have been referred to. These are listed and noted below. However, no direct references have been used anywhere. These are used as a base to analyze and study the data collected.

- Uniform Plumbing Code – India, 2008
- IGBC Green Existing Buildings – Operation & Maintenance (O&M) Rating system, Pilot version, Abridged Reference Guide, April 2013
- IGBC Green Landscape Rating system, March 2013
- BOMA Canada Waste Auditing Guide, Best Environmental Standards, BOMA BEST – Canada
- Used only for understanding Universal design - Universal accessibility Guidelines for Pedestrian, Non-motorizes vehicle and Public Transport Infrastructure – Report guidelines by Samarthyam (National centre for Accessible Environments) – an initiative supported by Shakti Sustainable Energy Foundation.

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