

Gokhale Education Society's

Sir Dr. M.S. Gosavi College of Pharmaceutical Education & Research, Nashik.



Prin. T. A. Kulkarni Vidynagar, Nashik - 422005. (M.S.), India

Affilated to SPPU, Pune & MSBTE, Mumbai • Approved by PCI, New Delhi and DTE, Mumbai • Recognized by Govt. of Maharashtra

An ISO 9001:2015 Certified Institute

Key Indicator 7.1 Institutional Values and Social Responsibilities

Metric No. 7.1.3

Quality audits on environment and energy regularly undertaken by the Institution.

1. Green audit / Environment audit



GES's Sir Dr. M. S. Gosavi College of Pharmaceutical Education and Research, Prin. T. A. Kulkarni Vidyanagar, College Road, Nashik-422005, Nr., INDIA



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I. Green Audit Certificate



GV/GA/05-23/ 165

Green Fudit Certificate (As per Green Building Parameters)

The study is conducted as per Indian and International Green Building Standards initiated in the capacity of an Accredited & Certified Green Building Professional

It is awarded for 2021-2022 and 2022-2023 to the Esteemed Institution

(Analysed for 2 years and extended validity for 1 year, thus total 3 years)

Gokhale Education Society's

Sir Dr. M. S. Gosavi College of Pharmaceutical Education and Research

Prin. T. A. Kulkarni Vidyanagar, College Road, Nashik Pin. 422 005, Maharashtra, India (Site visit held on 26 April 2023)

As part of the Institution's initiatives for a Healthy & Sustainable Institute the audit was conducted.

We appreciate the immense efforts taken by Staff and students towards the Efficient Management of Premise.

Issued on Thursday, 04 May 2023 and valid till 30 April 2024

Ar. Nahida Abdulla Shaikh

"Elite 100 Green Architects of India" Econaur, 2022

Certified Green Building Professional (Registration. No. 22/718)

Project Head and Green Building Professional-Consultant

Sustainable Academe I Sustainability Department of Greenvio Solutions, Naigaon
An environment Design and Consultancy developing Healthy and Sustainable Environ

Email: sustainableacademe@gmail.com I greenviosolutions@gma



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II. Green Audit Report



GES's Sir Dr. M. S. Gosavi College of Pharmaceutical Education and Research, Prin. T. A. Kulkarni Vidyanagar, College Road, Nashik-422005, MS, INDIA

W PERIOD (TWO YEARS) 2021 - 2022 & 2022 Sustainability study **AUDIT REPORT** Studied for Gokhale Education Society's Sir Dr. M. S. Gosavi College of **Pharmaceutical Education and Research** Prin. T. A. Kulkarni Vidyanagar, College Road, Nashik Pin. 422 005, Maharashtra, India Studied in the capacity of **Accredited and Certified** Green Building Professional Studied by Website: https://thegreenviosofutions.co.in/ , Email: greenviosolutions@gmail.com Valid till April 2024

Disclaimer

The Audit Team has prepared this report for the **Gokhale Education Society's Sir Dr. M. S. Gosavi College of Pharmaceutical Education and Research** located *Prin. T. A. Kulkarni Vidyanagar, College Road, Nashik Pin. 422 005, Maharashtra, India* based on input data submitted by the College 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 Hon'ble Management and College. 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.

The audit is a thorough study based on the inspection and investigation of data collected over a period of time and should not be used for any legal action. This is the property of Greenvio Solutions and should not be copied or regenerated in any form.

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.

Greenvio Solutions

Developing Healthy and Sustainable Environments

We are an Environmental and Architectural Design Consultancy firm

Sustainable Academe is our department for conducting Audits

Palghar District, Maharashtra- 401208

Sustainableacademe@gmail.com



Acknowledgement

The Audit Assessment Team thanks the **Gokhale Education Society's Sir Dr. M. S. Gosavi College of Pharmaceutical Education and Research, Maharashtra, India**for assigning this important work of Green Audit. We appreciate the cooperation extended to our team during the entire process.

Our special thanks are due to **Prin. S. B. Pandit,** President & Chairman; **Dr. R. J. Gujarathi,** Vice Chairman; **Sir Dr. M. S. Gosavi,** Secretary & Director General; **Dr. Mrs. Deepti Deshpande,** Director (HR); **Mr. P. M. Deshpande,** Director (Project); **Mr. S. M. Gosavi,** Director (E&M); Zonal Secretaries - **Prin. P. A. Raut** (Palghar Zone); **Dr. Mrs. S. V. Sant** (Mumbai Zone); **Dr. R. M. Kulkarni** (Nashik Zone) and everyone from the Management.

Our heartfelt thanks to Chairpersons of the entire process **Dr. Sunil V. Amrutkar,** Principal & Professor, M.Pharm. Ph. D. (Pharmaceutical Chemistry) for the valuable inputs.

We are also thankful to **College's Task force the faculty members** who have collected data required - **Dr. Prashant L. Pingale**, Vice Principal & IQAC Coordinator, M.Pharm. Ph.D. (Associate Professor, Department of Pharmaceutics); **Dr. Dattatraya M. Shinkar**, NAAC coordinator, M. Pharm., Ph.D., (Associate Professor, Department of Pharmaceutics); **Mr. Vishal B. Jadhav**, M. Pharm. (Assistant Professor, HOD, Department of Pharmacology) and **Ms. Deepali D. Bhandari**, M. Pharm. (Assistant Professor, Department of Pharmaceutical Chemistry).

We highly appreciate the assistance of Mrs. Savita R. Walimbe, Assistant Registrar; Mr. Dhiraj Rajgire, Lab Technician; Mrs. Swati S. Mahajan, Store keeper and the entire Teaching, Non-teaching and Admin staff for their support while collecting the data.

Sustainable Academe

Brand of Greenvio Solutions, Palghar District, Maharashtra- 401208



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Evidence documents for Site visit of external audit team

Audit team headed by external expert - Ar, Nahida Abdulla Accredited & Certified Green Building Professional, ISO IA (IMS) Audit objective: Green Building up gradation of the premises

Energy audit DEnvironment audit

Institute: GESS SIR Or MS GOSAVI COllege Date: 26 APRIL 2023

of Pharmaceircal Education & Research, Masik 422005

Document objective: Inferences of the Site visit

Observations (Positive aspects)	Suggestions (Improvement aspects)
Gr	een Audit
- Excellent fixe management - Rain water hauseting	be undertaken tor - upgrade water management
Enc	ergy Audit
-Solar system installed	- Check the Eystem by consulting wendor 29 MSEB - Check smart campus aspect
Enviro	onment Audit
- Phaemarognosy garden.	- Incuase signages - Incuase avacuerens. By reflectance of activities through boards.

Signature & round seal

Name: Bl. Sunit V. A

Designation: Psincipal

For the said Institute

Designation: Project Coordinator

For The Greenvio Solutions

Greenvin



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Evidence documents for Site visit of external audit team

Audit team headed by external expert - Ar. Nahida Abdulla Accredited & Certified Green Building Professional, ISO IA (IMS) Audit objective: Green Building up gradation of the premises

Energy audit DEnvironment audit

Phomogenial Education & Research, Marie 422005, INDIA

Document objective: Proof of the Site visit



Meeting with the core team





Investigation of the systems

Signature & round seal

Name: BS S. V Ann Designation: Psincipal

For the said Institute

Designation: Project Coordinator

For The Greenvio Solutions

Website: thegreenviosolutions.co.in Email: greenviosolutions@gmail.com



1. Introduction

1.1 About the Society

The Gokhale Education Society was founded on 19th February 1918, on the third death anniversary of Namdar Gopal Krushna Gokhale, by his illustrious disciple late Principal T. A. Kulkarni, who was a great social worker.

Society has completed 100 years of useful existence and has today more than 140 units spread over three zones Mumbai, Nashik, Thane-Palghar catering 1.25 lakhs pupils as is one of the oldest and pioneering educational institution established with the main objectives of developing quality citizens through education and training and to raise the dignity of teaching profession.

The society has all along emphasized the holistic approach and total personality development of pupils, through educational programmes undertaken on the basis of service and dynamic leadership. The society is a veritable banyan tree. A number of branches of the Society have like its descending shoots taken roots in the ground and strengthened it.

The Gokhale education society is committed to the cause of student empowerment through access to education at all levels particularly higher education, to have world class citizenship through relevant courses under formal and informal streams.

Further the society is committed to raise the dignity of the teaching profession and establish a culture of caring and excellence by providing a wide range of professional and vocational courses for poor and downtrodden as also for the adivasis and backwards to meet the changing socio-economic needs with human values and social responsibility.

To achieve excellence with total quality in all activities of lifelong learning is the main motive of Gokhale Education Society.



1.2 About the Institution

The College has a lush green surrounding which provides favorable environment for student to grow not only as a good Pharmacist but as a world class citizen too. It has state of the art infrastructure with fully equipped and updated library computer center.

Facilities such as fully equipped and well-furnished laboratories, class rooms, audio-visual aids, seminar Hall and facilities like tutorial rooms, common rooms, Play field, gymkhana and Hostel. College has experienced and qualified staff with academic excellence. It has received a lot of awards and accolades for its functioning; some of these are documented below:

- "BEST INSTITUTE AWARD" by Gokhale Education Society in Academic Year 2020-21.
- Annual Magazine "SPECTRUM" received "BEST MAGZINE AWARD (Second Prize)" by Savitribai Phule Pune University, Pune in 2019-20
- □ "BEST INSTITUTE AWARD" by Gokhale Education Society in Centenary Year.
- ⇒ Annual Magazine "SPECTRUM" consecutively (A. Y. 2013,2014,2015) received "BEST MAGZINE AWARD" by Savitribai Phule Pune University, Pune
- S. V. Amrutkar received "BEST TEACHER AWARD" by Approvabhau Hire Mitra Mandal, Nashik
- Anupama S. Paranjpe Librarian received 'BEST EMPLOYEE/TEACHER AWARD' by GES in on Centenary Year, 2017.
- Savita R. Walimbe received "**BEST EMPLOYEE AWARD**" from Gokhale Education Society's Centenary Year Celebrations, 2018.
- P. L. Pingale & Prof R. Y. Ghegade felicitated by Indo-Nepal Samarastha
 Foundation in Association with Gokhale Education Society, 2017.
- Prashant L. Pingale received 1st prize and Dr. Rupali A. Patil received 3rd prize Oral Presentation at an International conference Innopharm3 at Panjim, Goa. 2018



1.3 Statements of the Institution

1.3.1 Vision

The College proposes <u>"To excel in pharmaceutical education and technology."</u>

1.3.2 Mission

The College adheres and focuses <u>"To provide high quality pharmacy education and training to explore the students to be a responsible professional pharmacist."</u>

1.3.3 Objective

It is the objective of the College

- To produce Pharmacy graduates with strong fundamental concepts and high technical competence in pharmaceutical sciences and technology through skill development programs and add-on courses time to time during their graduation.
- To educate students with a strong and well defined concept in the various fields of pharmaceutical sciences including Pharmaceutics, Pharmaceutical chemistry, Pharmacognosy, Pharmacology and Pharmacy Practice according to the requirement of pharmaceutical industries, community and hospital pharmacy.
- To develop a sense of teamwork and raising students' knowledge of the value of an interdisciplinary approach to increasing their ability to solve challenging issues in the field of pharmaceutical sciences.
- To inspire students to engage in lifelong learning in order to have a highly productive career and to relate the concepts of Pharmaceutical Sciences towards serving the cause of the society.
- ⇒ To establish linkages with senior academicians and industrial resource personnel to make our students more familiar with theoretical concepts and practical ideas through innovative teaching-learning methods.
- To promote / train our faculty and non-teaching staff to upgrade their



knowledge and skills to impart quality education and related services to our students. Faculties may be promoted to participate in training programme/seminar/workshop/ conference/faculty development program organized on state / national / international level.

To develop self-reliant learning habits among students (Assignments/ Seminars / Paper Presentation and instrument / equipment demonstrations during regular academic schedule may be given by the students)."

1.4 Assessment of the Institute

1.4.1 Affiliations

The B. Pharm Course is affiliated to **Savitribai Phule Pune University**, **Pune** with 100 intakes and D. Pharm Course to **Maharashtra State Board of Technical Education** (**MSBTE**), **Mumbai** with intake capacity of 60 seats.

1.4.2 Certification

- ⇒ The College submits its academic records every year to the All India Survey of
 Higher Education (AISHE) Govt. of India through its registered allocated code
 which is C- 42134.
- ⇒ The College is an ISO 9001:2015 Certified Institute

1.4.3 Approvals

The technical courses provided by the College have taken required approvals as follows:

- Approved by All India Council for Technical Education (AICTE), New Delhi.
- Approved by Pharmacy council of India (PCI), New Delhi.
- Approved by the Directorate of Technical Education (DTE), Government of Maharashtra.

1.4.4 Accreditation

The Four Year B. Pharm degree program is accredited by National Board of Accreditation (NBA), Govt. of India.



2. Overview

2.1 Summarised Populace analysis for 2022-2023

2.1.1 Students data

The data (shared by the Institute) shows there were a total of **281 male and 366** female students.

2.1.2 Staff data

S. No.	Туре	Male	Female	Total
1	Admin staff	01	03	04
2	Teaching staff	10	17	27
3	Non-Teaching staff	08	09	17
Total S	taff Members	19	29	48
Iotal S	taπ members	19	29	4

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

The staff data shows the College premises had a total of 48 Staff Members.

2.2 Summarised Populace analysis for 2021-2022

2.2.1 Students data

The data (shared by the Institute) shows there were a total of **261 male and 374** female students.

2.2.2 Staff data

S. No.	Туре	Male	Female	Total
1	Admin staff	01	03	04
2	Teaching staff	10	17	27
3	Non-Teaching staff	08	09	17
Total S	taff Members	40	19	48

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

The staff data shows the College premises had a total of **48 Staff Members.**



2.2 Total College Area & College Building Spread Area

The total site area is 0.86 acres and the total Built-up area of the Institute is 38,857.72 sq. ft. for an approximately 695 footfalls.

2.3 Institute Infrastructure

2.3.1 Establishment

The Institute was established in 2012.

2.3.2 Spatial Organisation

There are provisions for staircase for accessibility on the premises, whereas there are amenities such as CCTV, a first aid room, etc. The Institute is located prettyclose to nature and hence has a very fresh environment which is absolutely pollution free and healthy. The Building is a Reinforced Cement Concrete (RCC) framework building.

2.4 Operation and Maintenance of the premises

The interview session was held with the staff regarding the operation and working hours. The Institution is open from Monday to Saturday from 10:00 hours to 17:00 hours.



3. Research

3.1 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.

3.2 Analysis of the Green Building Study Audit

The procedure included detailed verification as follows:

- Investigation
- Technical discussion with team
- Observations
- Inferences

3.3 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.

3.4 Activities undertaken for the Green Building Study Audit

- Discussion with the Institute
- Allotment and Initiation by the Institute
- Data collection
- Submission of the files



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Evidence documents for Site visit of external audit team

Audit team headed by external expert - Ar. Nahida Abdulla Accredited & Certified Green Building Professional, ISO IA (IMS) Audit objective: Green Building up gradation of the premises

Audits covered: Green audit

DEnergy audit DEnvironment audit

Pharmacechay Education & Research Marie 422005, Thomas

Document objective: Induction Meeting attendance sheet

-	Name	Committee	Designation	Signature
1.	Mrs. F. A. Shaikh	External	Project Coordinator	1
2.	Ar. Nahida Abdulla	External	Project Head	della
3	pr. Sunil V. Amnetkar	Internal	Principal	Post =
4	Dr. Prashant L. Pingali	Internal	IDAC co-ordinator	20
Ι.	or. Dattatraya M.Shink	v Internal	MAAC co-coolined -	tame.
6	m. vishal D-Jadhav	In termal	ACST. Professor	Sharold
7.	Mr Rapsaheb T. She	gade Intom	Jassa - Professor	(35)
8.	Mr. Sahebrao S. Borast	te Interna	Asst. Professa	horal
9	Mrs. Amupama s. Paras			Story
10.	Ms smitg P shelle	Internal	Asst. professor	Sexo
11-	ms. Savita R. Walin	the Irrema	Assa Registrar	Speakel,
12	Dr. Premad N. Karka	de Irlama	y. Profession	0
13	Mr. sandip R. Purka	In Intem	Asst paters	JE Pou
14.	Mr Shashirane Jawan	Interna	1 clark	En Dhen as
15.	Mrs Despeli O Bhands	sege of Pharm	not Asst professor	an interior



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Evidence documents for Site visit of external audit team

Audit team headed by external expert - Ar. Nahida Abdulla Accredited & Certified Green Building Professional, ISO IA (IMS) Audit objective: Green Building up gradation of the premises

Energy audit Environment audit

Institute: GES'S SIL Pr M. S GOSAVI COILEGE & Date: 26 APRIL 202 Pharmaceckical Education & Research, Massik - 422005. ITIDIA

Date: 26 APRIL 2023

Document objective: Exit Meeting attendance sheet

S. No.	Name	Committee	Designation	Signature
1.	Mrs. F. A. Shaikh	External	Project Coordinator	t.
2.	Ar. Nahida Abdulla	External	Project Head	- lateral
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 11 - 11 - 11 - 11 - 11	Dr. Sunil V. Amnutar Dr. Proshand L. Pingala Dr. Pramod H. Katrade Dr. Dattatraya M. Skint Mr. Vishal B. Jadhav Mrs. Anupama S Parans Th. Paosaheb Y. Ghos Mr. Schebrao S. Bores Mr. Smith P. Shelke	Internal Internal Internal Internal Pe Internal pulle Internal Internal Internal	Librarian Librarian LASST-Professor ASST-Professor ASST-Professor	Sarah Sanon
2.	Mrs. Sarita R. Walin Mrs. Dapali D. Bhane Mrs. Dapali D. Bhane Mr. Sharlikant Jane	be Inteme	ASST. Protessa	Stwart Shall

Name: 03. S. V. Amnuta

Designation: Psincipal

For the said Institute

Designation: Project Coordinator For The Greenvio Solutions

Website: thegreenviosolutions.co.in Email: greenviosolutions@gmail.com



4. 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.

4.1 Green practices

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

- Social awareness The College has taken up awareness drives on various social issues for rural upliftment and regeneration in the College and surrounding villages.
- Fresh environment The College provides an eco-friendly ambience with fresh air and soothing environment which helps to maintain a physical and mental balance. This kind of a space it a must for an educational specially technical institute which is inviting and gives the stakeholders an opportunity to explore indoor and outdoor learning to a great extent.
- Team work The best quality of the College which sets it apart is its coordinating, cooperative staff members; for a building the foundation plays the most important role for its future similarly for an educational institute its staff members do.

4.2 Section-wise recommendations related to 'Green practices'

The following suggestions are to be considered as a <u>first priority</u> for implementation. These **should be executed within the next 1.5 to 2.5 years from the date of the Report submission.** The Institute can execute a plan after discussion with Project Head.

Plant as a gift - As a kind gesture, the guests visiting the premise can be asked to plant a small plant on the premise itself and they can be even given plants/bouquets from the flowers of the plants on the premise as a gift.



5. 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.

5.1 Waste produced

- Solid waste The solid waste from the toilets is let into the storm water drains.
 <u>We suggest undertaking a biogas plant in the premises as there is availability of land and resources.</u>
- Liquid waste The blank and grey water from the wash basin and kitchens, toilets is let into the storm water drains. We suggest undertaking a septic tank plant in the premises as there is availability of land and resources.
- **E-waste management** − <u>We suggest practicing a dedicated E-waste collection</u> drive and utilising the same for a best out of waste installation.
- → Plastic waste The current practices involve sensitization programs and awareness drives, however <u>we suggest practicing a dedicated Plastic collection</u> <u>drive and utilising the same for a best out of waste installation.</u>
- **⇒ Bio-waste** <u>The sanitary vending machine are in working conditions and these</u> are used as substitutes for bio-waste management.

5.2 Bins summary

There are 9 dustbins inside the premises; these are available in the form of plastic bins.



5.3 Section-wise recommendation related to 'waste audit'

The following suggestions are to be considered as a *first priority* for implementation. These **should be executed within the next 1.5 to 2.5 years from the date of the Report submission.** The Institute can execute a plan after discussion with Project Head.

- → Twin Dual Litter Dustbin 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.
- Signages Messages about avoiding wastage should be placed at appropriate locations.
- → Dustbins at every 100m There should be a dustbin at every 50-100 in the open spaces
- Material of the dustbin The current plastic dustbins should be replaced with ecofriendly material.



6. 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 points and effective usage without any wastage. Understanding the techniques which are best suited to the site to increase water conservation in terms of awareness and practice.

6.1 Water availability and consumption

6.1.1 Source of Primary water supply

The College requires water from the Local Municipality for drinking water purposes, the details of the same are documented below:

Particulars	Quantity	Capacity	Location
Plastic water tanks	02	1000 liter	Building
Constructed tank	01	5000 liter	terrace
	Plastic water tanks	Plastic water tanks 02	Plastic water tanks 02 1000 liter

Table 3: Details of the water tanks in the premises

6.1.2 Source of Secondary water supply

The College uses the secondary sources of water supply for general usages such as watering plants, kitchen, toilets, and wash basins connected to the labs and other spaces.

At present, there is 1 bore well and 1 well available in the premises as secondary sources of water supply.

6.1.3 Source of Tertiary water supply

The tertiary source of water is the additional source of water harvesting. <u>There is a 12</u> Feet (L) \times 6 Ft (W) \times 6 Ft (D) tank with a capacity of 5,000 liters available in the premises.

6.1.4 Source of Reusing waste water

The initiative is not under practice at present completely only the chemicals are neutralized before letting it down in the drains. We have suggested to under practices of green chemistry as per discussion to treat the waste water from the laboratories and reused the same after filtering for watering the plants and the trees in the premises.



6.2 Areas of water usage

Based on the inventory done and data shared by the staff it was found that the premise has the following facilities:

- Urinals 15 nos.
- Toilets 10 nos.
- Washbasins 11 nos.
- Taps (Indoors) 13 nos.
- Taps (Outdoors) 12 nos.

As per the data shared by the College and on-site observation, it was noted that there is no water wastage of water in the form of Cleanliness of toilets.

6.3 Recommendations for a Sustainable Habitat

The following suggestions are to be considered as a <u>first priority</u> for implementation. These **should be executed within the next 1.5 to 2.5 years from the date of the Report submission.** The Institute can execute a plan after discussion with Project Head.

- Rain water bunds There should be landscape beautification project undertaken to appropriate channelize the rain water through bunds and similar facilities.
- Waterless urinals There can be the provision of waterless urinals as a Green Building initiative in the premise, either the existing ones can be replaced with such a facility or new toilets can be constructed in this manner.
- Signages Messages about avoiding water wastage should be placed at appropriate locations.



7. 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.

7.1 Facilities available

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

7.2 Smoke Exposure

The Institution is a smoke free premise which helps in adapting to a Healthy Institution

7.3 Hygiene

- There was certain odour issue faced during the investigation.
- The areas of water tanks in site on ground floor are clean

7.4 Section-wise recommendation related to 'Health and hygiene audit'

The following suggestions are to be considered as a <u>first priority</u> for implementation. These **should be executed within the next 1.5 to 2.5 years from the date of the Report submission.** The Institute can execute a plan after discussion with Project Head.

- Courtyards and duct areas These are located in the internal and setback should have vertical gardens for beautification.
- → Health related provisions There should be provisions for a dedicated health centre and 24x7 available ambulance services inside the premises.
- → Avoid burning waste The waste produced on the premises should not be burned as it is dangerous to the health of students and staff



- ⇒ **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'
- Toilet hygiene There should be facilities such as potpourri, camphor tablets in the toilet to avoid smell and health related issues.



On-site investigation and physical verification

Audit Team during the visit and other photos collected during data documentation







Meeting with the core team, group photo with the team and tree plantation







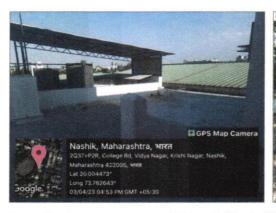
Investigative parameters – Ecological Management – Wheelchair, Ramp and Plantations







Investigative parameters - Energy Management - Solar panels and electrical appliances







Investigative parameters – Water & Waste Management – Water tanks, rain water harvesting pits & vending machine

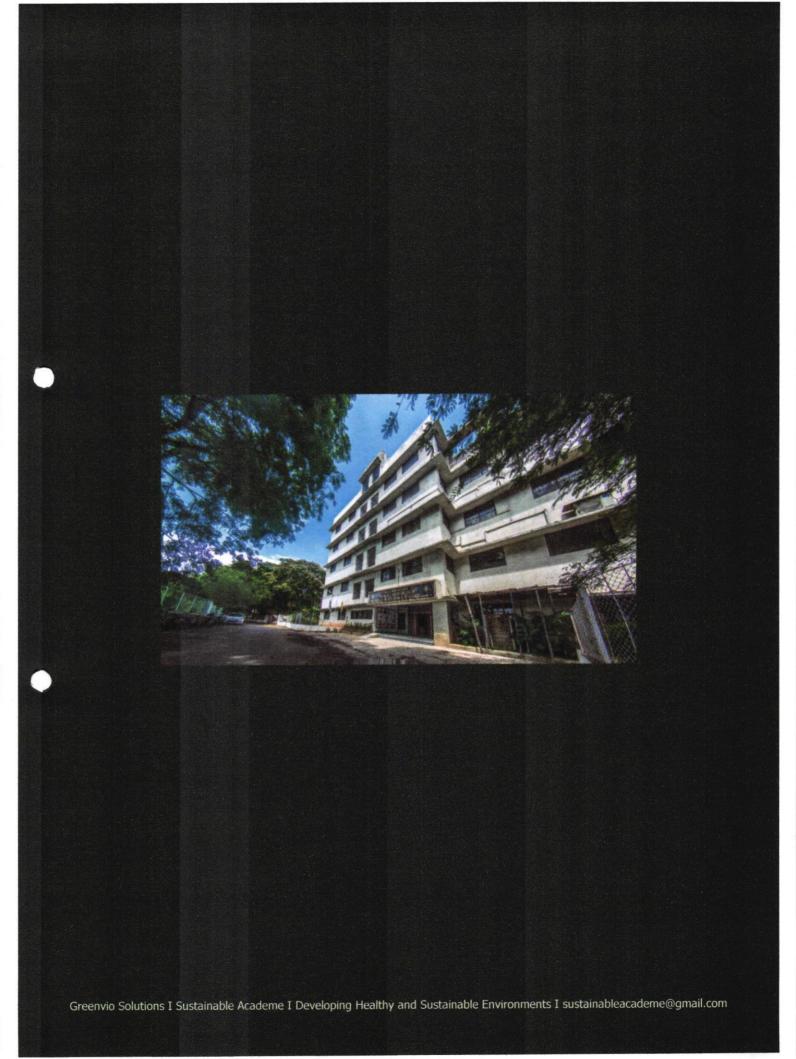


8. Compilation

The study is based on the data collected, analysed, 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 analyse 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-motorized vehicle and Public Transport Infrastructure Report guidelines by Samarthyam (National center for Accessible Environments) an initiative supported by Shakti Sustainable Energy Foundation and www.umassd.edu
- The city of Cheyenne, Streetscape/ Urban Design elements Wyoming Planning Association, Gillette, Wyoming, United States
- Images on site by Coordinators of the both teams
- Icon images used by https://www.vecteezy.com/free-vector/security-camera-icon and https://www.vecteezy.com/free-vector/electric-car-icon





III. Environment Audit Certificate



GES's Sir Dr. M. S. Gosavi College of Pharmaceutical Education and Research, Prin. T. A. Kulkarni Vidyanagar, College Road, Nashik-422005, MS, INDIA

GV/ENVT/05-23/166

Environment Fudit Certificate (Is per Green Building Parameters)

The study is conducted as per Indian and International Green Building Standards initiated in the capacity of an Accredited & Certified Green Building Professional

It is awarded for 2021-2022 and 2022-2023 to the Esteemed Institution

(Analysed for 2 years and extended validity for 1 year, thus total 3 years)

Gokhale Education Society's

Sir Dr. M. S. Gosavi College of Pharmaceutical Education and Research

Prin. T. A. Kulkarni Vidyanagar, College Road, Nashik Pin. 422 005, Maharashtra, India (Site visit held on 26 April 2023)

As part of the Institution's initiatives for a Healthy & Sustainable Institute the audit was conducted.

We appreciate the immense efforts taken by Staff and students towards the Environment Protection and Conservation.

Issued on Thursday, 04 May 2023 and valid till 30 April 2024

Ar. Nahida Abdulla Shaikh

"Elite 100 Green Architects of India" Econaur, 2022

Certified Green Building Professional (Registration. No. 22/718)

Project Head and Green Building Professional-Consultant

Sustainable Academe I Sustainability Department of Greenvio Solutions, Naigaon
An environment Design and Consultancy developing Healthy and Sustainable Environment
Email: sustainableacademe@gmail.com I greenviosolutions@gmail.com



Website: https://thegreenviosolutions.co.in/

IV. Environment Audit Report



STUDY PERIOD (TWO YEARS) 2021

Sustainability study

AUDIT REPORT

Studied for

Gokhale Education Society's

Sir Dr. M. S. Gosavi College of Pharmaceutical Education and Research

> Prin. T. A. Kulkarni Vidyanagar, College Road, Nashik Pin. 422 005, Maharashtra, India

> > Studied in the capacity of

Accredited and Certified

Green Building Professional



Website: https://thegreenviosolutions.co.in/

Email: greenviosolutions@gmail.com

Valid till April 2024

Background reference image Nic Y C Gua on unsplas

Disclaimer

The Audit Team has prepared this report for the **Gokhale Education Society's Sir Dr. M. S. Gosavi College of Pharmaceutical Education and Research** located *Prin. T. A. Kulkarni Vidyanagar, College Road, Nashik Pin. 422 005, Maharashtra, India* based on input data submitted by the College 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 Hon'ble Management and College. 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.

The audit is a thorough study based on the inspection and investigation of data collected over a period of time and should not be used for any legal action. This is the property of Greenvio Solutions and should not be copied or regenerated in any form.

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.

Greenvio Solutions

Developing Healthy and Sustainable Environments

We are an Environmental and Architectural Design Consultancy firm

<u>Sustainable Academe</u> is our department for conducting Audits

Palghar District, Maharashtra- 401208

<u>sustainableacademe@qmail.com</u>



Acknowledgement

The Audit Assessment Team thanks the **Gokhale Education Society's Sir Dr. M. S. Gosavi College of Pharmaceutical Education and Research, Maharashtra, India**for assigning this important work of Environment Audit. We appreciate the cooperation extended to our team during the entire process.

Our special thanks are due to **Prin. S. B. Pandit,** President & Chairman; **Dr. R. J. Gujarathi,** Vice Chairman; **Sir Dr. M. S. Gosavi,** Secretary & Director General; **Dr. Mrs. Deepti Deshpande,** Director (HR); **Mr. P. M. Deshpande,** Director (Project); **Mr. S. M. Gosavi,** Director (E&M); Zonal Secretaries - **Prin. P. A. Raut** (Palghar Zone); **Dr. Mrs. S. V. Sant** (Mumbai Zone); **Dr. R. M. Kulkarni** (Nashik Zone) and everyone from the Management.

Our heartfelt thanks to Chairpersons of the entire process **Dr. Sunil V. Amrutkar,** Principal & Professor, M.Pharm. Ph. D. (Pharmaceutical Chemistry) for the valuable inputs.

We are also thankful to **College's Task force the faculty members** who have collected data required - **Dr. Prashant L. Pingale**, Vice Principal & IQAC Coordinator, M.Pharm. Ph.D. (Associate Professor, Department of Pharmaceutics); **Dr. Dattatraya M. Shinkar**, NAAC coordinator, M. Pharm., Ph.D., (Associate Professor, Department of Pharmaceutics); **Mr. Vishal B. Jadhav**, M. Pharm. (Assistant Professor, HOD, Department of Pharmacology) and **Ms. Deepali D. Bhandari**, M. Pharm. (Assistant Professor, Department of Pharmaceutical Chemistry).

We highly appreciate the assistance of Mrs. Savita R. Walimbe, Assistant Registrar; Mr. Dhiraj Rajgire, Lab Technician; Mrs. Swati S. Mahajan, Store keeper and the entire Teaching, Non-teaching and Admin staff for their support while collecting the data.

Sustainable Academe

Brand of Greenvio Solutions, Palghar District, Maharashtra- 401208



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Evidence documents for Site visit of external audit team

Audit team headed by external expert - Ar. Nahida Abdulla Accredited & Certified Green Building Professional, ISO IA (IMS) Audit objective: Green Building up gradation of the premises

Audits covered: Green audit

D'Energy audit D'Environment audit

Institute: GESS SIV or MS GOSAVI college Date: 26 APRIL 2023 of Pharmaceircal Education & Research, Masik 422005

Document objective: Inferences of the Site visit

Observations (Positive aspects) Suggestions (Improvement aspects) **Green Audit** - Excellent fixe management - waste management should he undertaken tox - Rain water hauseting. - upgrade water management **Energy Audit** - Check the system by - Solar system installed

conculting uendor 29 MSEB - Check smart campus aspect **Environment Audit**

- phaemawquosy gaeden

- Incuase signages - Inclease acoassens By reflectance of activities through boards

Name: Bt. Sunit V. A Designation: Psincipal

For the said Institute

Designation: Project Coordinator For The Greenvio Solutions

Vebsite: thegreenviosolutions.co.in Email: gre

Evidence documents for Site visit of external audit team

Audit team headed by external expert - Ar. Nahida Abdulla Accredited & Certified Green Building Professional, ISO IA (IMS) Audit objective: Green Building up gradation of the premises

Audits covered: Green audit

Energy audit DEnvironment audit

Phomogenal Eduration & Reseach, Marix - 422005, INDIA

Document objective: Proof of the Site visit



Meeting with the core team





Investigation of the systems

Signature & round seal

Name: BS S. V. Ann Designation: Psincipal

For the said Institute

frs. F. A. Shaikh

Designation: Project Coordinator

For The Greenvio Solutions

Websiter thegreenviosalubans.co.in Email: greenviosalutions@gmail.com

Greenvin

1. Introduction

1.1 About the Society

The Gokhale Education Society was founded on 19th February 1918, on the third death anniversary of Namdar Gopal Krushna Gokhale, by his illustrious disciple late Principal T. A. Kulkarni, who was a great social worker.

Society has completed 100 years of useful existence and has today more than 140 units spread over three zones Mumbai, Nashik, Thane-Palghar catering 1.25 lakhs pupils as is one of the oldest and pioneering educational institution established with the main objectives of developing quality citizens through education and training and to raise the dignity of teaching profession.

The society has all along emphasized the holistic approach and total personality development of pupils, through educational programmes undertaken on the basis of service and dynamic leadership. The society is a veritable banyan tree. A number of branches of the Society have like its descending shoots taken roots in the ground and strengthened it.

The Gokhale education society is committed to the cause of student empowerment through access to education at all levels particularly higher education, to have world class citizenship through relevant courses under formal and informal streams.

Further the society is committed to raise the dignity of the teaching profession and establish a culture of caring and excellence by providing a wide range of professional and vocational courses for poor and downtrodden as also for the adivasis and backwards to meet the changing socio-economic needs with human values and social responsibility.

To achieve excellence with total quality in all activities of lifelong learning is the main motive of Gokhale Education Society.



1.2 About the Institution

The College has a lush green surrounding which provides favorable environment for student to grow not only as a good Pharmacist but as a world class citizen too. It has state of the art infrastructure with fully equipped and updated library computer center.

Facilities such as fully equipped and well-furnished laboratories, class rooms, audio-visual aids, seminar Hall and facilities like tutorial rooms, common rooms, Play field, gymkhana and Hostel. College has experienced and qualified staff with academic excellence. It has received a lot of awards and accolades for its functioning; some of these are documented below:

- ⇒ "BEST INSTITUTE AWARD" by Gokhale Education Society in Academic Year 2020-21.
- ⇒ Annual Magazine "SPECTRUM" received "BEST MAGZINE AWARD (Second Prize)" by Savitribai Phule Pune University, Pune in 2019-20
- ⇒ "BEST INSTITUTE AWARD" by Gokhale Education Society in Centenary Year.
- ⇒ Annual Magazine "SPECTRUM" consecutively (A. Y. 2013,2014,2015) received "BEST MAGZINE AWARD" by Savitribai Phule Pune University, Pune
- S. V. Amrutkar received "BEST TEACHER AWARD" by Approvabhau Hire Mitra Mandal, Nashik
- Anupama S. Paranjpe Librarian received 'BEST EMPLOYEE/TEACHER AWARD' by GES in on Centenary Year, 2017.
- Savita R. Walimbe received "**BEST EMPLOYEE AWARD**" from Gokhale Education Society's Centenary Year Celebrations, 2018.
- ⇒ P. L. Pingale & Prof R. Y. Ghegade felicitated by Indo-Nepal Samarastha Foundation in Association with Gokhale Education Society, 2017.
- Prashant L. Pingale received 1st prize and Dr. Rupali A. Patil received 3rd prize Oral Presentation at an International conference Innopharm3 at Panjim, Goa. 2018



1.3 Statements of the Institution

1.3.1 Vision

The College proposes <u>"To excel in pharmaceutical education and technology."</u>

1.3.2 Mission

The College adheres and focuses <u>"To provide high quality pharmacy education and training to explore the students to be a responsible professional pharmacist."</u>

1.3.3 Objective

It is the objective of the College

- To produce Pharmacy graduates with strong fundamental concepts and high technical competence in pharmaceutical sciences and technology through skill development programs and add-on courses time to time during their graduation.
- To educate students with a strong and well defined concept in the various fields of pharmaceutical sciences including Pharmaceutics, Pharmaceutical chemistry, Pharmacognosy, Pharmacology and Pharmacy Practice according to the requirement of pharmaceutical industries, community and hospital pharmacy.
- To develop a sense of teamwork and raising students' knowledge of the value of an interdisciplinary approach to increasing their ability to solve challenging issues in the field of pharmaceutical sciences.
- To inspire students to engage in lifelong learning in order to have a highly productive career and to relate the concepts of Pharmaceutical Sciences towards serving the cause of the society.
- To establish linkages with senior academicians and industrial resource personnel to make our students more familiar with theoretical concepts and practical ideas through innovative teaching-learning methods.
- ⇒ To promote / train our faculty and non-teaching staff to upgrade their



knowledge and skills to impart quality education and related services to our students. Faculties may be promoted to participate in training programme/seminar/workshop/ conference/faculty development program organized on state / national / international level.

⇒ To develop self-reliant learning habits among students (Assignments/ Seminars / Paper Presentation and instrument / equipment demonstrations during regular academic schedule may be given by the students)."

1.4 Assessment of the Institute

1.4.1 Affiliations

The B. Pharm Course is affiliated to **Savitribai Phule Pune University**, **Pune** with 100 intakes and D. Pharm Course to **Maharashtra State Board of Technical Education** (**MSBTE**), **Mumbai** with intake capacity of 60 seats.

1.4.2 Certification

- ⇒ The College submits its academic records every year to the All India Survey of Higher Education (AISHE) Govt. of India through its registered allocated code which is C- 42134.
- ⇒ The College is an ISO 9001:2015 Certified Institute

1.4.3 Approvals

The technical courses provided by the College have taken required approvals as follows:

- Approved by All India Council for Technical Education (AICTE), New Delhi.
- Approved by Pharmacy council of India (PCI), New Delhi.
- Approved by the Directorate of Technical Education (DTE), Government of Maharashtra.

1.4.4 Accreditation

The Four Year B. Pharm degree program is accredited by National Board of Accreditation (NBA), Govt. of India.



2. Overview

2.1 Summarised Populace analysis for 2022-2023

2.1.1 Students data

The data (shared by the Institute) shows there were a total of **281 male and 366** female students.

2.1.2 Staff data

	01	03	04
aff	10	17	27
ng staff	08	09	17
5	19	29	48
	aff ng staff	aff 10 ng staff 08	aff 10 17 ng staff 08 09

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

The staff data shows the College premises had a total of **48 Staff Members.**

2.2 Summarised Populace analysis for 2021-2022

2.2.1 Students data

The data (shared by the Institute) shows there were a total of **261 male and 374** female students.

2.2.2 Staff data

Туре	Male	Female	Total
Admin staff	01	03	04
Teaching staff	10	17	27
Non-Teaching staff	08	09	17
taff Members	40	19	48
	Admin staff Teaching staff	Admin staff 01 Teaching staff 10 Non-Teaching staff 08	Admin staff 01 03 Teaching staff 10 17 Non-Teaching staff 08 09

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

The staff data shows the College premises had a total of **48 Staff Members.**



2.2 Total College Area & College Building Spread Area

The total site area is 0.86 acres and the total Built-up area of the Institute is 38,857.72 sq. ft. for an approximately 695 footfalls.

2.3 Institute Infrastructure

2.3.1 Establishment

The Institute was established in 2012.

2.3.2 Spatial Organisation

There are provisions for staircase for accessibility on the premises, whereas there are amenities such as CCTV, a first aid room, etc. The Institute is located prettyclose to nature and hence has a very fresh environment which is absolutely pollution free and healthy. The Building is a Reinforced Cement Concrete (RCC) framework building.

2.4 Operation and Maintenance of the premises

The interview session was held with the staff regarding the operation and working hours. The Institution is open from Monday to Saturday from 10:00 hours to 17:00 hours.



3. Research

3.1 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.

3.2 Analysis of the Green Building Study Audit

The procedure included detailed verification as follows:

- Investigation
- Technical discussion with team
- Observations
- Inferences

3.3 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.

3.4 Activities undertaken for the Green Building Study Audit

- Discussion with the Institute
- Allotment and Initiation by the Institute
- Data collection
- Submission of the files



Evidence documents for Site visit of external audit team

Audit team headed by external expert - Ar. Nahida Abdulla Accredited & Certified Green Building Professional, ISO IA (IMS) Audit objective: Green Building up gradation of the premises

Audits covered: Green audit

DEnergy audit DEnvironment audit

Pharmacechay Education & Research. Makil 422005, Third

Document objective: Induction Meeting attendance sheet

S. No.	Name	Committee	Designation	Signature
1.	Mrs. F. A. Shaikh	External	Project Coordinator	1
2.	Ar. Nahida Abdulla	External	Project Head	di
3.	Dr. Sunil V Amnutka	* internal	Principal	Coste.
4	Dr. Proshant L. Pinga	le Internal	IDAC co-ordinalar	21
7	or. Dattatraya M.Shin			1
G	mr. vishal B. Jadhau	Internal	ACST. Professor	Bravell
7.	Mr Raosaheb T Ghe	gode Irrom	JAIST Professor	(35)
8.	Mr. Sahelorao S. Borai	ite Interna	Asst. Professa	hour
9	Mrs. Anupama s. Pan			Brown
10.	Ms smitg P shell	e Internal	Asst. Professor	Seri
11.	Mr. Savita R. Wali	mbe Interna	Assa . Registrar	Shoall,
12	- Premad v. rank	do Intem.	4 professa	Aug (en es?
13	mr. sandip R. Purk	av Intem	Asst butisa	JE Pour
14.	Mr. Shashirane Jawa	e Interna	1 clark	10
	Signature & round seal	NASHIK-5	THE PROPERTY OF	bund seal

Designation: psinipal

For the said Institute

Designation: Project Coordinator For The Greenvio Solutions

Website: thegreenviosolutions.co.in Email: greenviosolutions/homail --



Evidence documents for Site visit of external audit team

Audit team headed by external expert - Ar. Nahida Abdulla Accredited & Certified Green Building Professional, ISO IA (IMS) Audit objective: Green Building up gradation of the premises

Audits covered: Green audit

D Energy audit D Environment audit

Institute: GESS SIN OF M.S GOSAVICOHEGE & Date: 26 APRIL 2023
Pharmacellical Education & Rosearch, Nasik - 422005, ITIDIA

Document objective: Exit Meeting attendance sheet

S. No.	Name	Committee	Designation	Signature
1.	Mrs. F. A. Shaikh	External	Project Coordinator	ck,
2.	Ar. Nahida Abdulla	External	Project Head	- alindar
3.4.5.6.7.8	Dr. Suni) V. Amnuto Dr. Proshand L. Pinga Dr. Pramod N. Katkad Dr. Dattatraya M. Shi Mr. Vishal B. Jadha Mrs. Anupama S. Para Th. Paosaheb V. 91 Mr. Sohebrao S. Born	de Internal le Internal hterInternal v Internal httpe Internal vegade Interna	Principal IDAC Coordinals profession HASSI-Profession Ubravian IASSI-profession	Some Some
1 2. 13. 14	Mrs. Savita R. wal	Mar Internal imbe Interna- adan Interna-	Asst-Professor	Strain Stwall

Signature & round seal

Name: 83. S. V Ammy

Designation: Psincipal For the said Institute

Designation: Project Coordinator For The Greenvio Solutions

Website: thegreenviosolutions.co.in Email: greenviosolutions@gmail.com

4. Observations

Environment is an essential part for human survival. We co-exist with the environment and it cannot be termed as a separate entity. The Ecological audit helps to understand the flora, fauna that exists and steps that can be taken to improve the same.

To denote if there are problems related to sound in and around the surrounding. In terms of the carbon footprint it helps in keeping a tab on the eco-friendly habits incorporated by the inhabitants of the premises. Health today is the topmost priority, a general understanding of the initiatives undertaken along with sufficient hygiene practices adopted. Universal design is applicable to all built and unbuilt spaces.

4.1 Open Spaces

There is an open space in the premises used by students at present for sports and cultural gatherings. There are provisions for natural plantations which have enhanced the beauty of the space.

4.2 Flora audit

4.2.1 Flora audit

The College campus is located in a shared campus with multiple Institutes sharing the same building. However, the College being a Pharmacy Institute has a dedicated subject related to Medicinal Plants known as 'Pharmacognosy' and hence the Team has done an excellent job by utilising an outdoor partially open terrace area as a pharmacognosy garden.

- In this area not only are the medicinal plants placed all over.
- It serves as a dual purpose for study and break-out zone.
- All the plants are documented with name tags which include local names and scientific names.
- The area is kept clean and name board is placed at the entrance.

The plants in the premises are documented through a survey by the internal team and refined further as follows:



S. No.	Plant name	Туре	Nos.	Planted by	
1	Adulasa (Adhatoda vasica)	Shrub	2	Students and NSS volunteers	
2	Aloe, Korphad (Aloe vera)	Herb	2	Students and NSS volunteers	
3	Pippali (Piper longum)	Herb	1	Students and NSS volunteers	
4	Chewing leaf, Tambulpatra (Piper betle)	Herb	1	Staff, Students and NSS volunteers	
5	Shatavari (Asparagus recemosus)	Herb	1	Staff	
7	Sarpagandha (Rawoulfia serpentina)	Shrub	2	Students and NSS volunteers	
8	Tentu (Oroxylum indicum)	Tree	1	Students and NSS volunteers	
9	Shendri (Bixa orellana)	Shrub	1	Staff, Students and NSS volunteers	
10	Nirgundi (Vitex negundo)	Tree	1	NSS volunteers	
11	Gunj (Abrus precatorious)	Tree	1	NSS volunteers	
12	Bibba (Semecarpus anacardium)	Tree	1	NSS volunteers	
13	Ashok (Saraca indica)	Tree	1	NSS volunteers	
14	Arjuna (Terminalia arjuna)	Tree	1	NSS volunteers	
15	Tulas (Ocimum sanctum)	Herb	2	NSS volunteers	
16	Hirda Treminalia chebula	Tree	1	Staff, Students and NSS volunteers	
17	Behada -Terminalia belerica	Tree	1	NSS volunteers	
18	Awala -Emblica officinalis	Tree	2	NSS volunteers	
19	Parijatak -Nyctanthes abortristis	Shrub	1	NSS volunteers	
20	Hadjod -Cissus quadrangularis	Herb	1	NSS volunteers	
21	Jambhul -Eugenia jambolana	Tree	1	NSS volunteers	
22	Nilgiri -Eucalyptus globulus	Tree	1	NSS volunteers	
23	Ashwagandha -Withania somnifera	Shrub	2	NSS volunteers	



24	Gudwel -Tinospora cardifolia	Herb	1	NSS volunteers
25	Dhatura -Datura metel	Shrub	1	NSS volunteers
26	Bael -Aegle marmelos	Tree	1	NSS volunteers
27	Putranjiva -Putranjiva roxburghii	Tree	1	Staff, Students and NSS volunteers
28	Sadafuli -Vinca roseaus	Herb	5	Staff, Students and NSS volunteers
29	Badam -Prunus dulcis	Tree	8	Staff, Students and NSS volunteers
30	Umber -Ficus racemosa	Tree	3	Staff, Students and NSS volunteers
31	Kanher- Nerium oleander	Shrub	3	Staff, Students and NSS volunteers
32	Rose (Rosa)	Shrub	5	Staff, Students and NSS volunteers
33	Hibiscus Rosa Sinensis	Shrub	3	Staff, Students and NSS volunteers
34	Kunda-Jasminum multiflorum	Herb	7	Staff, Students and NSS volunteers

Table 3: Details of the Flora in the premises

At present, there are 66 nos. plantations on the premises. The overall ambience of premises has lots of plants.

4.3 Noise Audit

On a macro level the College is surrounded by huge farms and minimal residential blocks thus there is a peaceful and noise free arena observed inside the premises.

4.4 Carbon Footprint Audit

4.4.1 Eco-friendly Commuting Practices

- The site is located in an urban locality.
- Overall, the carbon footprint is well under control.
- Students and staff members commute using public transport.



- The are no major fossil fuels used inside the premises.
- No kind of garbage burning activity is undertaken.

4.4.2 Heat Island Reduction

The external temperature is well under control owing to shaded walkways and huge nos. of plantations all over the premises.

4.4.3 Outdoor Light Pollution Study

The College compound lights are not upward looking thus, these do not cause light pollution.

4.5 Universally accessible premises

As per World Report on Disability, 2011 there are 180 million approx. Persons with Disabilities that makes it 15% of total population of India.

The following facilities are available on the premises for the specially-abled as part of universally accessible premises initiatives.

- Low height risers in the staircases
- Non-slippery floor surfaces

The design of the premises is highly appropriate for access with passages and corridors being wide enough in size and naturally ventilated.

4.6 Fire Safety

Fire and life safety are an important consideration of the National Building Code 2016. This aspect is touched upon as part of this study in the capacity of an Architect registered with the Council of Architecture. As part of the research, fire safety audit was considered from the 'Building systems' perspective.

All provisions such as extinguishers, sand buckets, dedicated fore zone safety and exit signages have been undertaken.



5. Inferences

5.1 Section-wise suggestions related to premises

The following suggestions are to be considered as a <u>first priority</u> for implementation. These **should be executed within the next 1.5 to 2.5 years from the date of the Report submission.** The Institute can execute a plan after discussion with Project Head.

5.1.1 Site beautification

- ➡ Bird house/ Feeders At appropriate locations there can be provisions for drinking water and some grains for birds as they visit the site much frequently.
- Child area There can be one provision where if student's or staff relative who are toddlers or senior citizens can rest and this area could have facilities accordingly.
- ➤ Nutrition pits Certain pits can be demarcated as 'Nutrition pits' where the organic food from the kitchen and Canteen fruit peels and fruits or vegetables can be degraded for making nutrition-rich soil.

5.1.2 Universally accessible premises

- Provisions for visually impaired Signages In addition to the signages being in regular language there should be additional signages in braille language for the specially-abled students.
- → Provisions for visually impaired Tactile flooring The indoor and outdoor of the premises should have dedicated tactile flooring for the visually impaired.

5.1.3 Life safety

NO recommendations suggested for this section.



5.1.4 Pollution Control

- Internal circulation (applicable only to large campuses) There could be an evehicle for public transportation that can be used by the stakeholders for internal circulation.
- ➡ Battery charging points for Eco-friendly vehicles There can be provision for battery charge points, this would inspire students to change their mode of transportation and adopt sustainable practices.
- ⇒ Bicycles as a gift As an appreciation gesture maybe the student's toppers/ staff best performers can be awarded a bicycle occasionally.
- → Paperless technologies for offices The Institute can go technology-friendly and go paperless in the functioning of the Premise to a certain extent maybe not fully.
- Avoid paper wastage through books The Institute can collect all old semester notebooks; these can either be converted to reusable paper on the premises through a workshop or using a shredder machine or handed over to a vendor for making fresh paper. Additionally, the Students can be motivated to undertake similar practices on an individual note.



On-site investigation and physical verification

Audit Team during the visit and other photos collected during data documentation







Meeting with the core team, group photo with the team and tree plantation



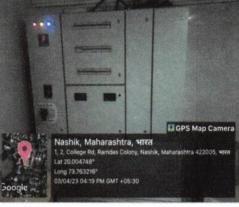




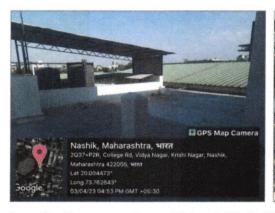
Investigative parameters - Ecological Management - Wheelchair, Ramp and Plantations







Investigative parameters – Energy Management – Solar panels and electrical appliances







Investigative parameters - Water & Waste Management - Water tanks, rain water harvesting pits & vending machine



6. References

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.



