

GREEN AUDIT

STUDY PERIOD (TWO YEARS) 2020 – 2021 & 2021 – 2022

Sustainability study
AUDIT REPORT

Studied for
Shiksha Mandal, Wardha's
**G. S. College of Commerce & Economics,
Nagpur (Autonomous)**
Civil Lines, Law College Square, Amaravati Road,
Nagpur – 440 010, Maharashtra, India

Studied in the capacity of
Accredited Green Building Professional
with the Indian Green Building Council



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

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Issued on **21 February 2023** and Valid till **February 2024**

Background reference image Sasin Tipchai on unsplash

Inferences of the Site visit

Audit conducted by : Nahida Shaikh, IGBC AP, GEM CP, Architect

Accredited and Certified Green Building Professional

ASSOCHAM GEM Certified Professional Registration number 22/718

Link for the Verification website https://www.green-assochem.com/manage_gem_cp.php?page=12

Institute: G.S. College of Commerce & Economics, Nagpur Date: 10/01/2023
 Audits covered: Green Energy & Environment Audit Day: Tuesday

Observations (position)	Inferences
<ul style="list-style-type: none"> - Tree Transplantation & adoption, maintenance - Green Building, water & waste management - 100% LEED - protected plants - Immense bamboo planted 	<ul style="list-style-type: none"> - Increase awareness - Improve compound wall design - Increase documentation

Evidence of the site visit



College Name: G.S. college of Comm & Eco, Nagpur
 Signature: Sekathaley
 Name: Dr. S.S. Kathaley
 Designation: offg. Principal
 Date: 10/01/2023
Offg. Principal
G.S. College of Commerce & Economics, Nagpur.

Signature of Ar. Nahida Shaikh,
 ASSOCHAM GEM CP 22/718

Nahida Shaikh
 10/01/23

For Greenvio Solutions
 Signature: [Signature]
 Name: Mrs F. A. Shaikh
 Designation: Manager
 Date: 10/01/2023



Disclaimer

The Audit Team has prepared this report for the **Shiksha Mandal, Wardha's G. S. College of Commerce & Economics, Nagpur (Autonomous)** located at Civil Lines, Law College Square, Amaravati Road, Nagpur – 440 010, 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

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Acknowledgement

The Audit Assessment Team thanks the **Shiksha Mandal, Wardha's G. S. College of Commerce & Economics, Nagpur (Autonomous), 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 **Hon'ble Mr. Shekhar Bajaj**, President/Trustee; **Hon'ble Mr. Sanjay Bhargava**, Chairperson/Trustee and everyone from the Management.

Our heartfelt thanks to Chairperson of the entire process **Dr. Mrs. S. S. Kathaley**, Officiating Principal for the valuable inputs.

We are also thankful to **College's Task force the faculty members** who have collected data required **Dr. R. T. Sahu**, IQAC Coordinator & Chairman, Board of Studies in Commerce; [Prof. A. S. Jain, Secretary, Academic Council \(Special mention for the excellent coordination\)](#); **Dr. D. V. Chavan**, Chairman, Board of Studies in Languages; **Dr. V. N. Thangan**, Chairman, Board of Studies in Accountancy; **Dr. S. D. Morey**, Chairman, Board of Studies in Economics; **Dr. S. S. Gadekar**, Chairman, Board of Studies in Business Management; **Prof. P. J. Yadao**, Chairman, Board of Studies in Information Technology; **Dr. Y. H. Kedar**, Convener, GS-Eco Club; **Prof. Nitin K. Kapgate**, Expert, Environmental Studies.

We highly appreciate the assistance of **Ms. Jayashri Ilamkar**, Head Clerk; **Mr. Rahul Khanorkar**, Non-teaching Staff; **Ms. Vandana Joseph**, Non-teaching Staff 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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1. Introduction

1.1 About the Institution

G. S. College of Commerce and Economics, Nagpur was established to fulfil the requirement of Commerce education in the region during the pre-Independence period. **It is the first Commerce College in the city of Nagpur and only the second in Nagpur University.** It has carved a niche for itself as premier Commerce College in the country and is known for its high academic standards, qualitative growth and ethical practices. **The college today stands tall as the first Autonomous Commerce College in the RTM Nagpur University.**

It was **essentially conceived as a specialized Commerce College** and today it is justifying its genesis through the successful implementation of both under-graduate and post-graduate courses, Junior College, multiple complementary certificate courses. Efforts by a team of well-qualified teachers and researchers, and the right combination of curricular, co- curricular and extra-curricular activities have ensured that **the students emerge as not only competent professionals but also good citizens.**

1.2 Mission Statement of the Institution

- *To impart theoretical as well as professional instruction in different fields of commerce education.*
- *To provide all possible facilities to build up personality and character of students.*
- *To inculcate among students love for our country, national unity and habit of social service.*
- *To make students conversant with current knowledge in the field of commerce and industry, and to create awareness about global scenario in the field trade, commerce and industry.*
- *To develop among students the capacity to be efficient managers, responsible businessmen and administrators.*

1.3 Assessment of the Institute

1.3.1 Affiliations

The Institute is affiliated to **Rashtrasant Tukadoji Maharaj Nagpur University (R.T.M.U.N.)**, formerly Nagpur University, is a public state university located in Nagpur, Maharashtra. It is one of India's oldest universities, as well as the second oldest in Maharashtra.

1.3.2 Accreditation

The following are details awarded by the National Assessment & Accreditation Council.

Cycle	First	Second	Third
CGPA	-	2.87	3.03
Grade	B+	B	A
Year	2003	2009	2018

Table 1: NAAC Accreditation details of the Institute

The College is due to enter its Fourth cycle of NAAC.

1.3.3 Certification

The College has received the following Certifications

- NIRF – Participated in the National Institutional Ranking Framework.
- AISHE – The All India Survey of Higher Education code is C-18681.
- Academic Audit – The College has undertaken the Academic Audit every year.
- Autonomous Status – The College has received the autonomous status in 2018.

1.4 Achievements of the Institute

The Institute has a tremendous track record of excellence in Built form and educational services provided, below are some of the achievements of the prestigious Institute.

- Ideal Management Award, The Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
- Best NSS Unit Award, The Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
- Best NSS Programme Officer, The Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

2. Institution overview

2.1 Populace analysis for Academic year 2021 - 2022

2.1.1 Students data

The student data (shared by the College) shows there were a total of **794 male and 466 female** thus a total of **1,260 students** on the premises.

2.1.2 Staff data

Type	Male	Female	Total
Teaching staff	13	10	23
Non-Teaching staff	6	16	22
Total Staff Members	19	26	45

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

The staff data shows the premises had a total of **45** Staff Members.

2.2 Populace analysis for Academic year 2020 - 2021

2.2.1 Students data

The student data (shared by the College) shows there were a total of **423 male and 818 female** thus a total of **1,241 students** on the premises.

2.2.2 Staff data

Type	Male	Female	Total
Teaching staff	15	10	25
Non-Teaching staff	6	16	22
Total Staff Members	21	26	47

Table 3: Staff data of the Institution for 2020 - 2021

The staff data shows the premises had a total of **47** Staff Members.

2.3 Total College Area & College Building Spread Area

The **total site area is 7 acres & total Built-up area of College is 1,75,095 sq. ft. for around 1,305 populace footfalls.**

2.4 College Infrastructure

2.4.1 Establishment

The College was established in 1945.

2.4.2 Spatial Organisation

The College is **designed into a cluster of multiple blocks.** These blocks are **architecturally planned to invite the natural light** and reduce the dependence on artificial ventilation for thermal comfort of the users. The **spatial organization is balanced with the hardscape and softscape** in and around the well-spaced blocks thus **providing a calm and peaceful arena for an Educational Institute.**

2.4.3 Operation and maintenance of the premises

The data collection session was held with the staff regarding the operation and working hours. The schedule is mentions that the College is working Monday to Saturday with timings being 08:20 hours to 17:00 hours.

3. Green Building research process

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 for the following:

- ➔ Energy Audit
- ➔ Green Audit
- ➔ Environmental Audit

3.3 Strategy adopted for Green Building Study Audit

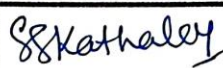





The strategies included data collection from the admin department, actual inventory, investigation to check the operation and maintenance, analysis of the data collection, and preparation of the Report.

3.4 Activities undertaken for the Green Building Study Audit

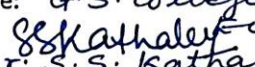
- ➔ Allotment and Initiation by the Institute
- ➔ Survey of students and staff completed
- ➔ Site visit at the Institute
- ➔ Submission of the Certificate


Induction Meeting

Institute: G.S. College of Commerce & Economics, Nagpur Date: 10/01/2023
Audits covered: Green Energy & Environment Audit Day: Tuesday

S. No	Name	Designation	Signature
1.	Dr. S.S. Kathaley	Offg. Principal	
(Exceed)	2. Mrs. Farida Shaikh	Manager	
(Exceed)	3. As. Nahida Abdulla	IGBL, GEMCP	
4.	Dr. Ranjana Sahu	IQAC co-ordinator.	
5.	Prof. Akash Jain	Crt. 7 Incharge	
6.	Shri Nitin Kapgate	Envt. studies (Sub. Expert)	
7.	Dr. P.M. Paradkar	Campus Beautification Committee convenor	



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Name: Dr. S.S. Kathaley
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For Greenvio Solutions
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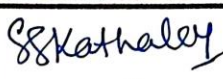







Offg. Principal.
G.S. College of Commerce
& Economics, Nagpur.

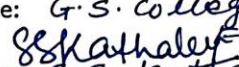



Induction Meeting

Institute: G.S. College of Commerce & Economics, Nagpur Date: 10/01/2023
Audits covered: Green, Energy & Environment Audit Day: Tuesday

S. No	Name	Designation	Signature
1.	Dr. S.S. Kathaley	Offg. Principal	
(External) 2.	Mrs. Farida Shaikh	Manager	
(External) 3.	As. Nalida Abdulla	IGBL, GEMCP	
4.	Dr. Ranjana Sahu	IQAC co-ordinator.	
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Offg. Principal.
G.S. College of Commerce
& Economics, Nagpur.



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 in the premises.

- **Nullah beautification** – *The College is located adjacent to a public sewer drain which was in a not so good condition, over the years constant efforts of the team have been channelized to upgrade the same by reclaiming the area and under taking water recycling project. The result has been such that there is no water merge and no odour/ health related issue faced by any of the stakeholder in the premises due to the well planned and executed beautification project.*
- **Bamboo zone** – *The College has a signified bamboo zone which started as an effort to plant bamboo and has now grown into a pleasing bamboo zone which not just helps in carbon neutralisation but also the site beautification.*
- **Retaining the existing trees** – *The Campus is one of the first ones to be built in the city of Nagpur and thus has many ancient trees; one such instance is about one of the trees in the backyard on the site. Upon receiving the RUSA Grant the RUSA Building was built but in order to save the tree the design of the building was oriented to avoid any harm to the tree and the planning was done to build the block surrounding the tree without uprooting the tree.*
- **Tree transplantation** – *The College has undertaken beyond environmental promotional activity through plantation conservation programme; certain trees were uprooted for a Government highway project the College not just initiated to get them transplanted but has also taken care to maintain it over the years.*

4.2 Community Development

The NSS Unit of the College is involved in multiple community development programs which include, **Blood Donation Camp, Food Kit Distribution Program to the neighbourhood community, Relief fund programs.**

4.3 Survey Results

An online survey was conducted to analyse the student and staff views about the Energy management practices adopted in College, following is the result received.

4.3.1 Participation

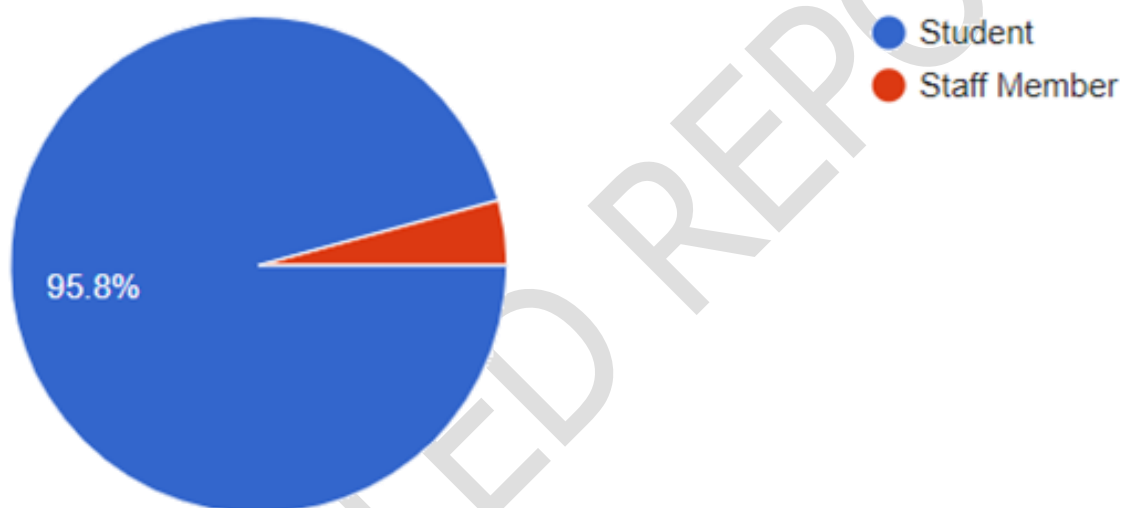


Figure 1: Participation analysis in the survey

A total of **213 responses** were received out of which 96% were students.

Note about the review-rating survey

The Participants were asked to review (Though an online mode) the practice on a scale of 1-5 with scale components as follows:

- ➔ Scale 1 – Poor
- ➔ Scale 2 – Satisfactory
- ➔ Scale 3 – Good
- ➔ Scale 4 – Very good
- ➔ Scale 5 – Excellent

The figures in each of the columns of graph depict the Number of participants responses in numerical (Percentage of the participant response) – For example 101 responses (44.5%)

4.3.2 Rate the Green awareness practices in College

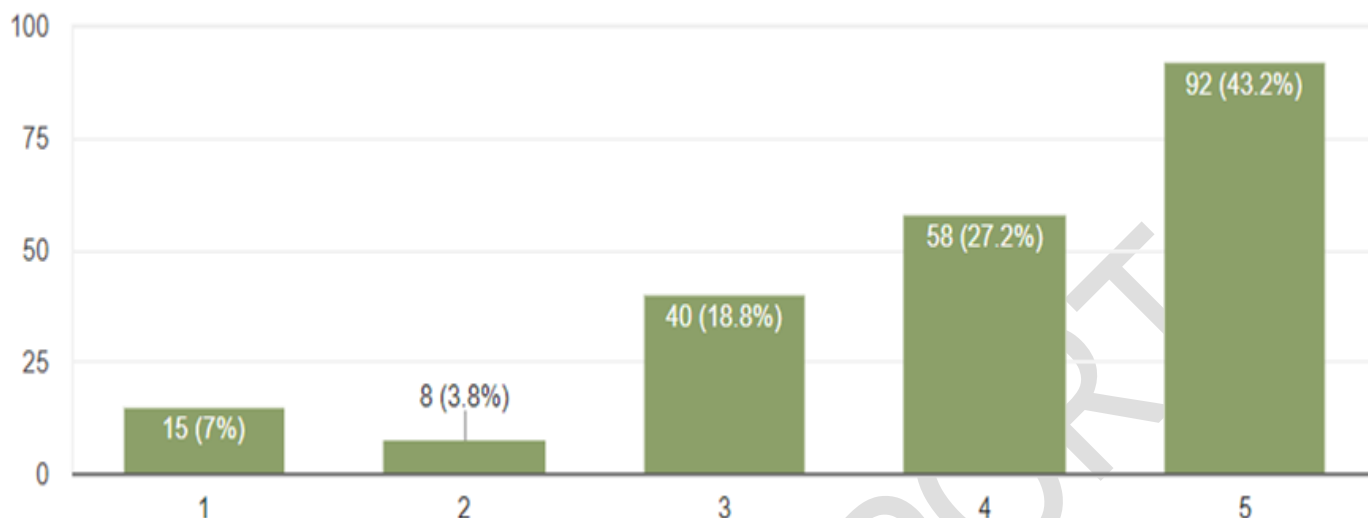


Figure 2: Green awareness practices in College

There were mixed responses received the highest was for **rating 5 (Excellent) at 43%** followed by **27% for rating 4 (Very good)**.

4.3.3 Does your College conduct environment awareness programs/ webinars/ plantations/ cleanliness or similar programs?

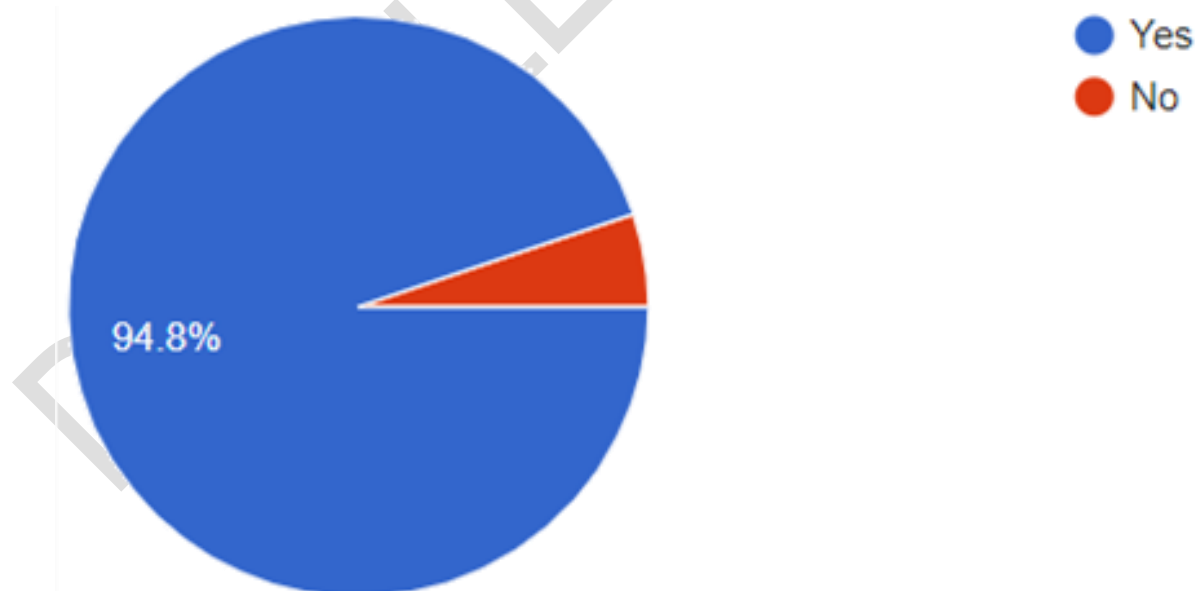


Figure 3: Confirmation of the environment awareness programs/ webinars/ plantations/ cleanliness or similar programs conducted by the College

The students, staff **95%** of responses confirmed that the activities are conducted this is excellent.

4.3.4 Do you participate in such events?

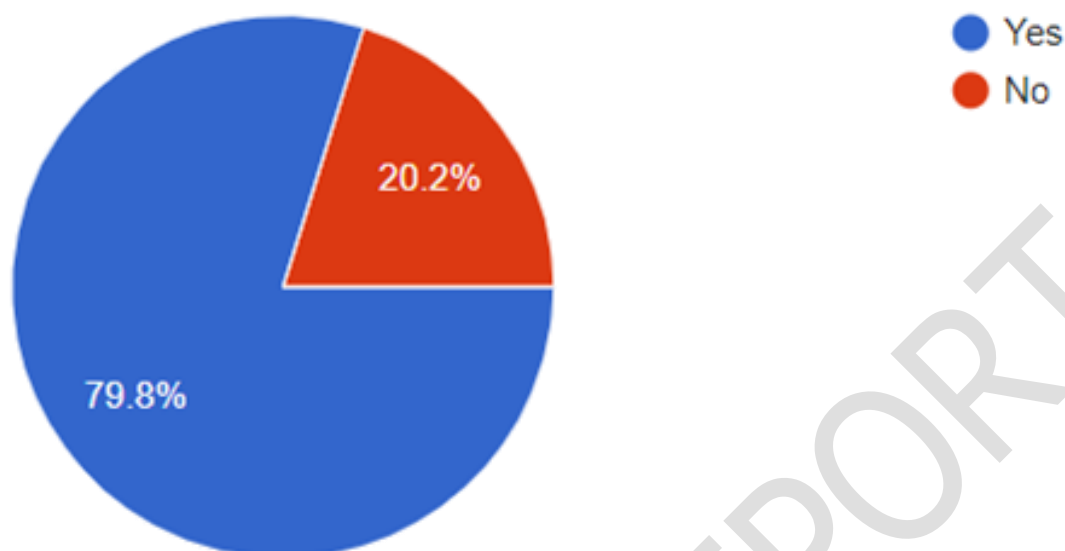


Figure 4: Participation in the environment awareness programs/ webinars/ plantations/ cleanliness or similar programs conducted by the College

The students, staff **almost 80%** of the responses confirmed their participation, **this is an excellent response.**

4.4 Eco-friendly initiatives undertaken

The Institution has undertaken the following initiatives through **excellent efforts** towards save environment measures.

4.4.1 Physical events

- Tree Plantation in College Campus
- Swachhta Abhiyaan in College Premises
- Awareness Rally by NSS & NCC Unit

4.4.2 Virtual events

- Celebration of World Environment Day
- Program on "Environment Protection and Conservation
- Swachh Bharat Abhiyaan
- Awareness Programme on "Ban on Use of Single use Plastic"

4.5 Suggestions related to section 'Green practices 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.

- ➔ **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.
- ➔ **Tree adoption scheme in the premises** - The Institute can adopt the One Faculty – One tree adoption scheme; this can be practiced on occasions such as toppers meet, guest sapling plantations, specific zoning of the tree adoption area. this can be very beneficial, especially during the summer season.
- ➔ **No vehicle day** - Once in a while, a No vehicle day can be adopted by students and staff to promote the use of eco-friendly vehicles on the premise.
- ➔ **Signages on the plants mentioning scientific names** - The practice of having the names of each plant and tree will provide awareness among the staff and students.
- ➔ **Increase the green awareness practice** – This should be in terms of the physical and virtual events which will be beneficial for all stakeholders in the shared premises. (Basically the frequency of the lectures should be increased)
- ➔ **Increase the organic farming practices** - The premises can have an organic farming facility in terms of farms, kitchen, terrace gardens the produce can be directly utilised in the premises.

5. Waste Audit

Waste is an inevitable part of our lives. Over the years as the awareness about waste management techniques has given a rise to rethink how the waste can be avoided from 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, waste management strategies that are and implemented in addition to the newer ways the can be adopted aiming to make the premise clean and sustainable.

Here sustainable refers to a broader aspect to analyse whether the current techniques are having positive or negative effect on the stakeholders of the premises.

5.1 Waste produced and managed

- ➔ **Solid waste** – The solid waste from the 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.*
- ➔ **Liquid waste** – The black 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** – *We suggest practicing a dedicated Plastic collection drive and utilising the same for a best out of waste installation.*
- ➔ **Plastic waste** – The current practices involve sensitization programs and awareness drives, however *we suggest practicing a dedicated Plastic collection drive and utilising the same for a best out of waste installation.*
- ➔ **Organic waste** – There is availability of a compost pit which is under process for further up gradation.
- ➔ **Bio-waste** – *The sanitary vending machine was out of order, but we have been informed that new machines are under process.*

5.2 Waste management

There are Small-sized, medium-sized and large-sized dustbins made of plastic material available at present in a total of 112 nos. in the interiors and 34 nos. in the exteriors.

5.3 Survey Results

Note about the review-rating survey

The Participants were asked to review (Though an online mode) the practice on a scale of 1-5 with scale components as follows:

- ➔ Scale 1 – Poor
- ➔ Scale 2 – Satisfactory
- ➔ Scale 3 – Good
- ➔ Scale 4 – Very good
- ➔ Scale 5 – Excellent

The figures in each of the columns of graph depict the Number of participants responses in numerical (Percentage of the participant response) – For example 101 responses (44.5%)

Rating for the views regarding the Waste management practices adopted in College, following is the result received.

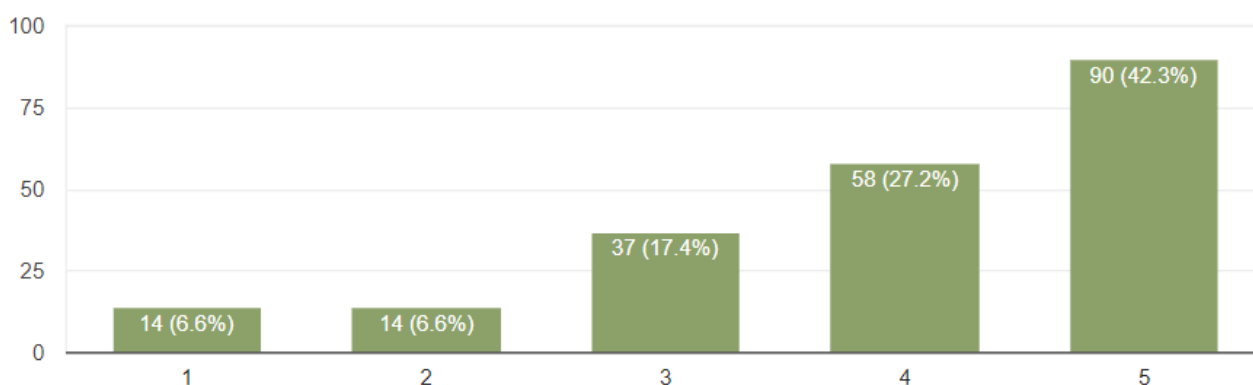


Figure 5: Waste management practices in College

There were mixed responses received the highest was for **rating 5 (Excellent) at 42%** followed by **27% for rating 4 (Very good)**.

5.4 Suggestions related to section '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.

- ➔ **Incinerators** - The Incinerators should be installed in Girl's toilets for disposal of sanitary napkins
- ➔ **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.
- ➔ **Include better plastic/ E-waste management measures** - The Institute can celebrate one day of every month as a 'Plastic/ E-waste awareness day' The stakeholders (Students and staff members) can be asked to bring plastic/ E-waste which can be further given to an NGO for recycling or better purpose.
- ➔ **Organic compost pit maintenance methodology** - The Institute can recheck the current methodology as it can yield better results in terms o quantity if it is well maintained with the following strategies:
 - The sanitary pad incineration dust can be sent to the compost pit
 - There should be a balance of brown and green waste material
 - Shred the materials before adding them to pit
 - Add twigs
 - Stir occasionally
 - Add water in less quantity to avoid the smell
 - Keep ample air circulation to avoid the smell
 - Regular monitoring and maintenance.

6. Water Audit

Water is one of the basic needs. Pure drinking water is a resource which needs to be preserved efficiently. Water audit helps to identify the sources of water consumption, the water requirement by the premises met by these sources. The points and effective usage of 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 Sources of Primary water supply

The primary water supply refers to the drinking water. The main source of water is the Local Municipality. The water received is stored in water tanks at various locations. These are periodically cleaned and well maintained for hygiene purpose. **At present there are 10 water tanks and 3 sumps which suffices for entire premises.**

6.1.2 Sources of Secondary water supply

The secondary source of water is the source of water supply available through wells which is used for wash basin, kitchens, and toilet purposes. **At present there is 1 well and 2 bore wells available on site.**

6.1.3 Sources of Tertiary water supply

The tertiary source of water is the additional source of water harvesting. **At present there is natural rain water harvesting practiced to increase recharge of groundwater by capturing, by rainwater harvesting from rooftop run-offs; collected water from rooftop was discharge in well.**

6.2 Water requirement

The main areas of water requirement and type of usage is as follows

- **Drinking water** – Consumption of around 850-950 litres of water through Aquaguard like system available in the premise, the taps and water cooler.
- **Toilet blocks**– General usage by occupants in toilets, urinals, bathrooms, wash

basins using approx. 400-600 litres of water daily.

- **Cleaning of the premises** – The entire Institution is very well maintained with respect to hygiene and cleaning is one of the major uses of water requirement. The toilet areas are cleaned twice on a daily basis.
- **Garden and surrounding open space** – Cleaning, watering the plants requires approximately 500 litres of water.

6.3 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 – 94 Nos.
- Toilets – 49 Nos.
- Wash basins – 31 Nos.
- Taps (Indoors) – 66 Nos.
- Taps (Outdoors) – 38 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.

6.4 Site investigation about water management.

The College has an excellent management system which is very appreciable. We have observed the following points.

- There is **no water leakage in the entire premise**; the pipes are well maintained with adequate hygiene.
- **The premise has an efficient water management in terms of operations and maintenance.** The toilets are kept very tidy and are cleaned every day.
- The **waste water does not mix with ground water and gets directed to storm water drains.** There are sufficient numbers of taps in the premise.

6.5 Survey Results

Note about the review-rating survey

The Participants were asked to review (Though an online mode) the practice on a scale of 1-5 with scale components as follows:

- ➔ Scale 1 – Poor
- ➔ Scale 2 – Satisfactory
- ➔ Scale 3 – Good
- ➔ Scale 4 – Very good
- ➔ Scale 5 – Excellent

The figures in each of the columns of graph depict the Number of participants responses in numerical (Percentage of the participant response) – For example 101 responses (44.5%)

Rating for the views regarding the Water management practices adopted in College, following is the result received.

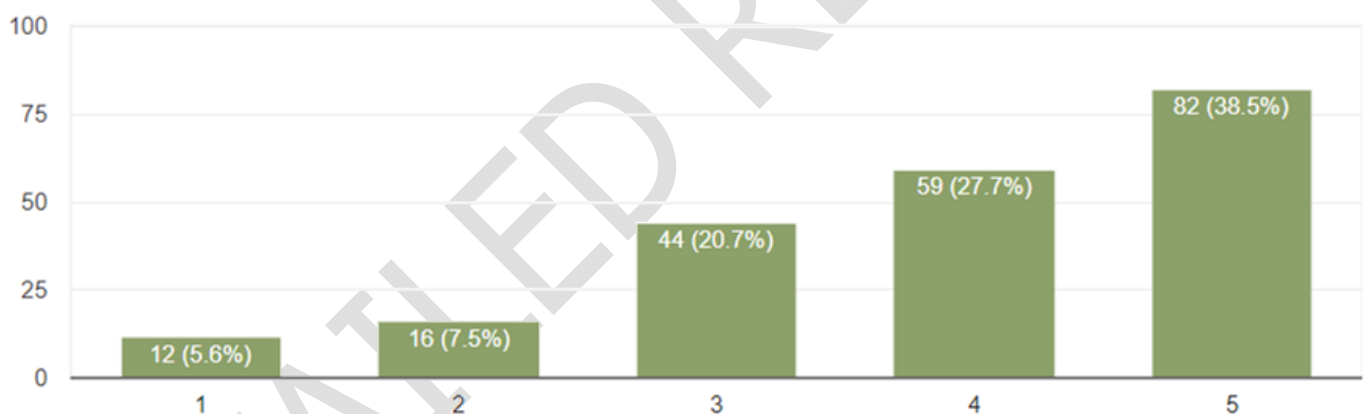


Figure 6: Water management practices in College

There were mixed responses received the highest was for **rating 5 (Excellent) at 39%** followed by **28% for rating 4 (Very good)**.

6.6 Suggestions related to section Water 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.

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.

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 in the premises.

7.2 Smoke Exposure

The Institution is a tobacco and smoke free premises which helps in adapting to a Healthy Institution

7.3 Hygiene

As per the Site visit the following analysis **has a positive impact on premises.**

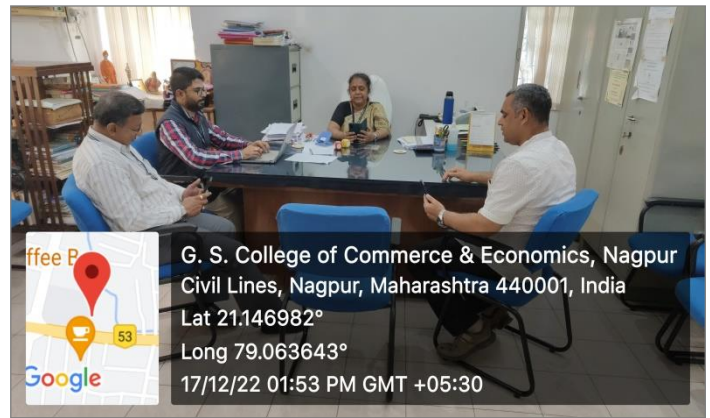
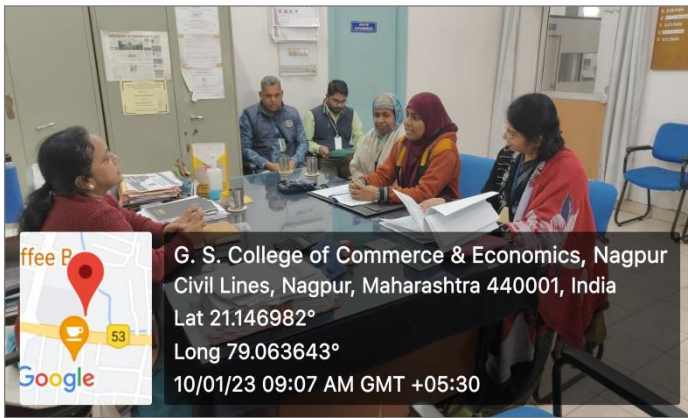
- For overall hygiene of the students and staff there are facilities such as Washroom facility on hand wash.
- The staffs keep a regular check about the operation and maintenance of the equipments each floor.
- Water management initiative with appropriate hygiene is undertaken.
- The areas of water tanks in site on ground floor are clean
- The hygiene around Aquaguard was clean.
- The hygiene of toilet areas had smelling issues.

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

- ➔ **Toilet hygiene** – There should be facilities such as potpourri, camphor tablets in the toilet to avoid smell and health related issues.
- ➔ **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'
- ➔ **Courtyards and duct areas** – These are located in the internal and setback should have vertical gardens for beautification.

On-site investigation and physical verification Audit Team during the visit on Tuesday, 10 January 2023



Discussion with the Core Team (On the day of visit) and review meeting (Held before the visit)



On-site review with the team for [ramp accessibility](#), [seating facilities around the trees](#)

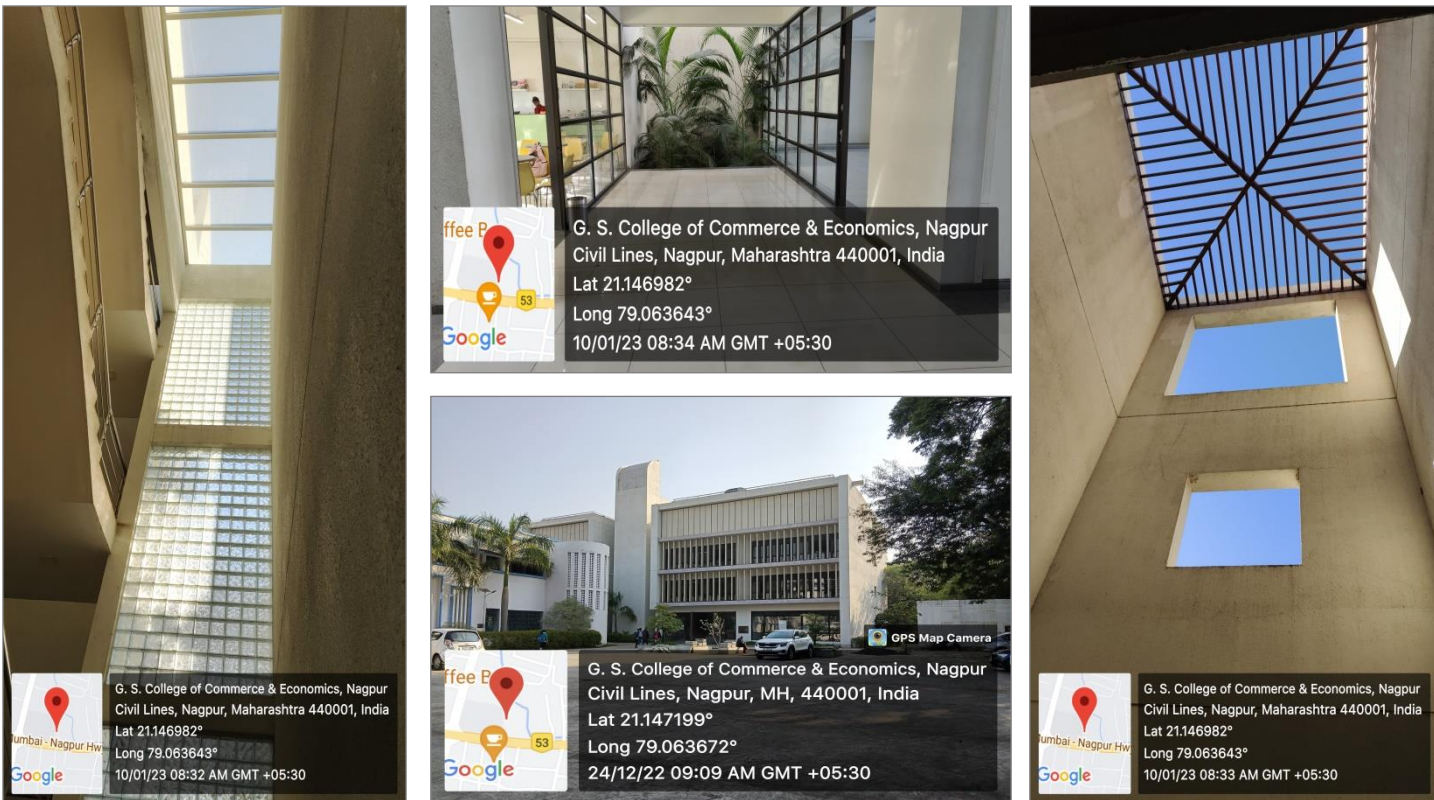


On-site review with the team for [site management](#), [tree transplantation](#) and [tree conservation evidences](#)



Group photo with the team

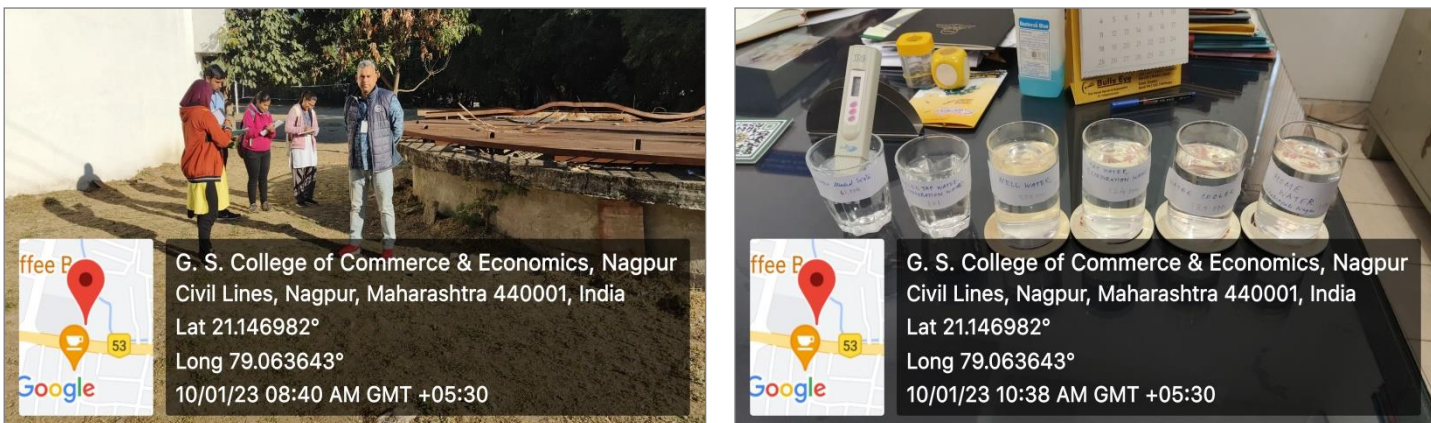
On-site investigation and physical verification Audit Team during the visit on Tuesday, 10 January 2023



On-site review with the team for 'Green Building – Bajaj Bhawan' in the premises
The features include energy management, rotatable window louvers, courtyard, breakout spaces and light wells



On-site review with the team for fire and life safety systems



On-site review with the team for waste and water management (and testing of the samples)

8. References

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 centre for Accessible Environments) – an initiative supported by Shakti Sustainable Energy Foundation.

