

# ENVIRONMENT 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 with IGBC and Certified with ASSOCHAM GEM**  
Registered Architect & Green Building Professional



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

### 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](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"> <li>- Tree Transplantation &amp; adoption, maintenance</li> <li>- Green Building, water &amp; waste management</li> <li>- 100% LEED</li> <li>- protected plants</li> <li>- Immense bamboo planted</li> </ul>	<ul style="list-style-type: none"> <li>- Increase awareness</li> <li>- Improve compound wall design</li> <li>- Increase documentation</li> </ul>

#### Evidence of the site visit



College Name: G.S. college of Comm & Eco, Nagpur  
 Signature: S.S. Kathale  
 Name: Dr. S.S. Kathale  
 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 Environment 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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DETAILED REPORT

# 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
<b>CGPA</b>	-	2.87	3.03
<b>Grade</b>	B+	B	A
<b>Year</b>	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
<b>Total Staff Members</b>	<b>19</b>	<b>26</b>	<b>45</b>

*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
<b>Total Staff Members</b>	<b>21</b>	<b>26</b>	<b>47</b>

*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

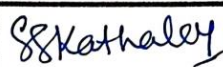





The strategies included data collection from the admin department, actual inventory, investigation to check the operation and maintenance, analysis of the data collection, and preparation of the Report.

### 3.4 Activities undertaken for the Green Building Study Audit

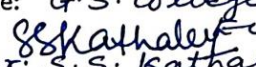
- ➔ Allotment and Initiation by the Institute
- ➔ Survey of students and staff completed
- ➔ Site visit at the Institute
- ➔ Submission of the Certificate


### 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	



College Name: G.S. College of Comm. & Economics, Nagpur.  
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Name: Dr. S.S. Kathaley  
Designation: offg. Principal  
Date: 10/01/2023.

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

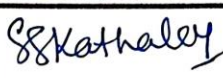







Offg. Principal.  
G.S. College of Commerce  
& Economics, Nagpur.

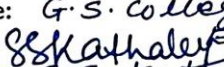



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S. No	Name	Designation	Signature
1.	Dr. S.S. Kathaley	Offg. Principal	
(External) 2.	Mrs. Farida Shaikh	Manager	
(External) 3.	Ax. Nalida Abdulla	IGBL, GEMCP	
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Offg. Principal.  
G.S. College of Commerce  
& Economics, Nagpur.



## 4. Site Study

The following listed are some of the positive site elements which are beneficial to the College in terms of tangible and intangible benefits. **However, only the specific areas which require improvement have been documented below.**

S. No.	Building/ Space	Positive points	Improvement points
1.	Outdoor areas	<ul style="list-style-type: none"> <li>➤ Wheelchair provisions</li> <li>➤ Seating around the trees</li> <li>➤ Ramps with signboards</li> <li>➤ Heritage building</li> </ul>	<ul style="list-style-type: none"> <li>➤ Scientific name plates on some of plantations</li> </ul>
2.	Bajaj Bhawan	<ul style="list-style-type: none"> <li>➤ Street lights</li> <li>➤ Green building</li> <li>➤ Eco-friendly</li> </ul>	<ul style="list-style-type: none"> <li>➤ Apply for Green Building Certification for this building</li> </ul>
3.	Open areas around the blocks	<ul style="list-style-type: none"> <li>➤ Transplanted trees</li> <li>➤ Water management</li> <li>➤ Compost pit</li> <li>➤ Reclamation of the nallah areas</li> </ul>	<ul style="list-style-type: none"> <li>➤ Information banners can be put up for stakeholder sensitization</li> <li>➤ Beautify the compound walls with environment messages</li> </ul>
4.	Gymnasium building	<ul style="list-style-type: none"> <li>➤ Wide and well-designed space w.r.t site planning.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Waterproofing required for the backside of the building</li> <li>➤ The backside of the building can be painted with certain awareness messages as it is a huge façade which is blank and dull at the moment.</li> </ul>
5.	Area near the compost pit	Not applicable	<ul style="list-style-type: none"> <li>➤ Proper demarcation of the area should be undertaken. Though we were informed it is under</li> </ul>

			<p>process.</p> <ul style="list-style-type: none"> <li>➔ There should be additional provision for gloves, equipment for the maintenance staff who will be working towards it.</li> </ul>
6.	Area around and adjacent to the nallah	<ul style="list-style-type: none"> <li>➔ Reclamation and good maintenance to such an extent that there is no odour or hygiene issue faced.</li> </ul>	<ul style="list-style-type: none"> <li>➔ Place a signboard informing the steps undertaken for reclamation for stakeholder sensitization.</li> <li>➔ Form certain zones such as bamboo, water etc.</li> </ul>
7.	RUSA Building and surrounding spaces	<ul style="list-style-type: none"> <li>➔ Maintained by NCC</li> <li>➔ Building designed and architecturally planned to avoid cutting the existing trees on site.</li> <li>➔ Dedicated area for tree adoption practice</li> <li>➔ Recycled materials used to develop break-out cum outdoor learning zone</li> </ul>	<ul style="list-style-type: none"> <li>➔ Demark safety zone around the feeder pillar</li> <li>➔ Make information boards about the positive steps undertaken for stakeholder sensitization</li> </ul>
8.	Heritage building	<ul style="list-style-type: none"> <li>➔ Backyard area maintained by NSS</li> </ul>	<ul style="list-style-type: none"> <li>➔ Odour issues around the toilet</li> </ul>

**Table 4: Site specific features documentation**

## 4.2 General positive points

The following points are based on the general observations of discussions:

- ➔ **User-friendly movability on-premises** - There are provisions of a Kerb Ramp near the entrance of the every block, also a low height handrail for ease of access.
- ➔ **Bird house/ Feeders** – At the main entrance of the premises there is availability of a fountain and bird feeder with provisions for drinking water and some grains for birds as they visit the site much frequently.
- ➔ **Scientific name plates and QR codes** – The team has undertaken the activity to have name plates with QR codes on every plant of the premises.
- ➔ **Provisions for hearing and speech impaired – Sensor based fire system** – There are provisions for smoke detectors, sensor based facilities and signages, floor layouts for emergency situations such as fire.
- ➔ **Avoid burning waste** - The waste produced on the premises is not be burned as it is dangerous to the health of students and staff.
- ➔ **Plant more carbon dioxide absorbing plants** – There are dedicated bamboo plantation and zones for Carbon neutralisation.

## 5. Ecological (Environmental) Audit

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.

As part of our study we could state that the Institution has developed eco-friendly practices and sustainable solutions which are well reflected in the rich biodiversity of the Premises. Being situated near the city the appreciation space towards the main entrance provides a welcoming approach to the College.

### 5.1 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.**

### 5.2 Flora and fauna audit

#### 5.2.1 Flora Audit

A flora survey was carried out to identify the total numbers of plants and trees. The landscape area has a variety of plantations constituting hundreds of surveyed trees in premises documented as follows.

S. No.	Plant name	Type	Nos.	Planted by
1	Neem	Tree	9	Staff/Students/Grown naturally
2	Peepal	Tree	2	Staff/Students
3	Baniyan	Tree	3	Staff/Students
4	Kigellia	Tree	8	Planted/Grown naturally



<b>5</b>	Chafa	Tree	9	Staff/Students
<b>6</b>	Amaltas	Tree	7	Staff/Students
<b>7</b>	Casia Sp.	Tree	23	Grown Naturally
<b>8</b>	Gulhomar	Tree	15	Staff/Students/Grown naturally
<b>9</b>	Sisam	Tree	4	Grown Naturally
<b>10</b>	Nilgiri	Tree	2	Staff/Students
<b>11</b>	Ficus	Tree	8	Staff/Students
<b>12</b>	Arjun	Tree	2	Grown Naturally
<b>13</b>	Mango	Tree	6	Staff/Students
<b>14</b>	Jamun	Tree	2	Staff/Students
<b>15</b>	Kadamb	Tree	1	Staff/Students
<b>16</b>	Sitafal	Shrub	5	Staff/Students
<b>17</b>	Lemon	Shrub	3	Staff/Students
<b>18</b>	Royal Palm	Tree	12	Staff/Students
<b>19</b>	Bel	Tree	2	Staff/Students
<b>20</b>	Hibiscus	Shrub	20	Staff/Students
<b>21</b>	Bamboo	-	15 Groups	Staff/Students
<b>22</b>	Ashok	Tree	17	Staff/Students
<b>23</b>	Saptarni	Tree	2	Staff/Students
<b>24</b>	Jarud (State Tree)	Tree	3	Staff/Students
<b>25</b>	Areca Palm	Shrub	19	Staff/Students
<b>26</b>	Rose	Shrub	15	Staff/Students
<b>27</b>	Carypha Palm	Tree	7	Staff/Students
<b>28</b>	Ixora	Shrub	10	Staff/Students
<b>29</b>	Jasmine	Shrub	25	Staff/Students

<b>30</b>	Jackfruit	Tree	2	Staff/Students
<b>31</b>	Sadafuli	Shrub	30	Staff/Students
<b>32</b>	Bogunvilla	Creeper	30	Staff/Students
<b>33</b>	Tamarind	Tree	1	Staff/Students
<b>34</b>	Chichbilai	Tree	3	Grown Naturally
<b>35</b>	Raatraani	Shrub	3	Staff/Students
<b>36</b>	Lemon Grass	Herb	2	Staff/Students
<b>37</b>	Croton Sp.	Shrub	10	Staff/Students
<b>38</b>	Lotus	Aquatic	2	Staff/Students
<b>39</b>	Coconut	Tree	2	Staff/Students
<b>40</b>	Karanj	Tree	4	Staff/Students
<b>41</b>	Bahunia	Tree	2	Staff/Students
<b>42</b>	Kadipatta	Tree	2	Staff/Students
<b>43</b>	Babool	Tree	2	Staff/Students
<b>44</b>	Ornamental Plants	Herb/Shrub	Many	Staff/Students
<b>46</b>	Kaner	Shrub	6	Staff/Students
<b>47</b>	Thuja	Shrub	2	Staff/Students

*Table 5: Details of the Flora in the premises*

At present there are more than 340 numbers of plantations comprising of plants, trees, shrubs. Timely maintenance with sufficient care has resulted in positive benefits for the surroundings.

### **5.2.2 Fauna Audit**

The details of the fauna in the premises include some species of birds like parrot, drongo, grey hornbills, cuckoos, brown doves, butterflies etc.

## 5.3 Noise Audit

### 5.3.1 Macro level

On a macro level the College being an educational institute falls under silent zone and thus **there is no negative effect related to noise felt by the students / staff in the premises.**

### 5.3.2 Micro level

The College has ample vegetation trees. These act as a noise barriers. There are no particular equipments which cause any noise effect. **Overall the noise levels inside the premises are low that is a good approach.**

## 5.4 Carbon Footprint Audit

### 5.4.1 Eco-friendly Commuting Practices

Based on data collection and discussion with staff the following points were noted:

- Owing to close proximity to public transport the accesses is feasible and walk able.
- There are sufficient roads and appropriate traffic management inside the premises.
- There are dedicated areas for parking near the entrance.

### 5.4.2 Heat Island Reduction

**The Institution is geographically located in an urban area with appropriate climatic and architectural design parameters in place; the Institute does not face any 'Urban heat island effect'**

### 5.4.3 Outdoor Light Pollution Study

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

## 5.5 Universally accessible premises

*As per World Report on Disability, 2011 there are 180 million approx. Persons with Disabilities make it 15% of the total population of India.* The following facilities are available for the specially-abled as part of universally accessible premises initiatives.

- **Ramps at the entrance area.**
- **Handrails along the staircase and Low height risers in the staircases.**
- **Availability of wheelchair.**

The design of the premises is appropriate for access with passages and corridors being wide enough in size and naturally ventilated and is safe from the fire safety aspect.

## **5.6 Fire Safety**

Our observation states that the current measures are adequate however; an additional fire extinguisher in every space that has an air-conditioner will be beneficial.

DETAILED REPORT

## 5.7 Section-wise suggestions related to premises

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.

### 5.7.1 Site beautification

- ➔ **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.
- ➔ **Garden development** - The existing open space should be designed as an Architectural landscape.
  - Scientific name plates and QR codes – The team should undertake a project to have name plates with QR codes on every plant of the premises.
  - The roofs of the buildings should be turned into Green roofs (By introducing terrace or vertical gardens) or Cool roofs (By painting the same with Cooltop material for solar reflectivity).

### 5.7.2 Universally accessible premises

- ➔ **Universal Toilet** - There should be a minimum of 1 toilet in every block for the specially-abled people as per guidelines prescribed by the National Building Code 2016.
- ➔ **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.
- ➔ **Provisions for visually impaired - Audio Visual Section** – There should be dedicated section for ther visually impaired students to listen to the audio books; Abrar the audio book reader should be available.

### 5.7.3 Life safety

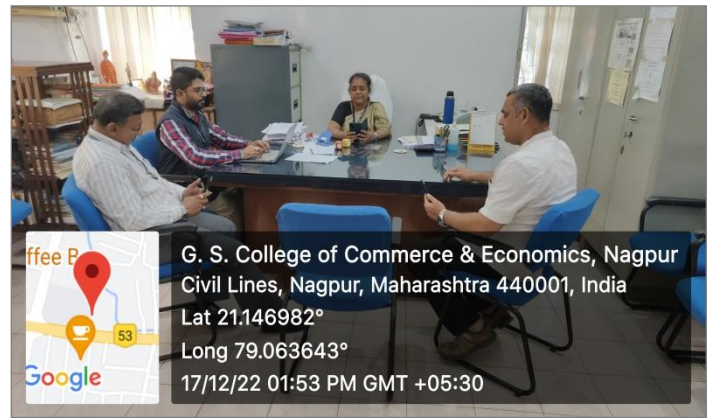
- ➔ **Awareness** - Fire layouts in immediate spaces outside the lift, on the staircase landing, signages mentioning 'Do not use lift in case of fire' additionally fire exit signages, boards should be put up at all possible locations.
- ➔ **Sensitization programs** - Regular seminars/ webinars by experts such as Architects, Govt. Fire department on subjects related to fire and life safety should be organized and the outputs should be adopted and documented.

### 5.7.4 Pollution Control

- ➔ **Specific area designated for E-vehicles** – There should be designated area dedicated to E-vehicles parking and charging and this zone should be demarcated as 'Eco-Zone'
- ➔ **Promote the use of Eco-friendly vehicles** - There can be student and staff sensitization program on eco-friendly and battery-operated vehicles/ low emission vehicles for daily use.
- ➔ **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.

# On-site investigation and physical verification

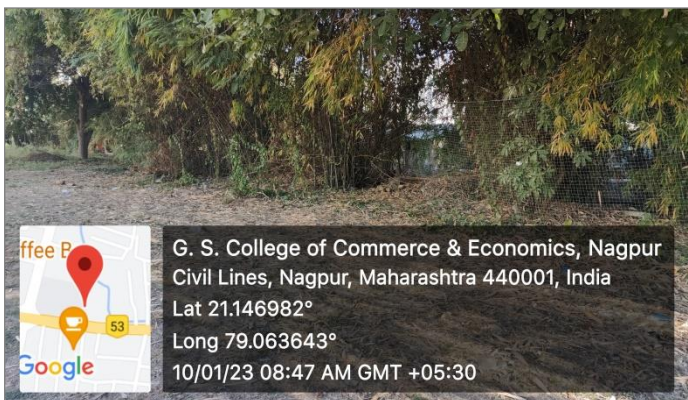
## Audit Team during the visit on Tuesday, 10 January 2023



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

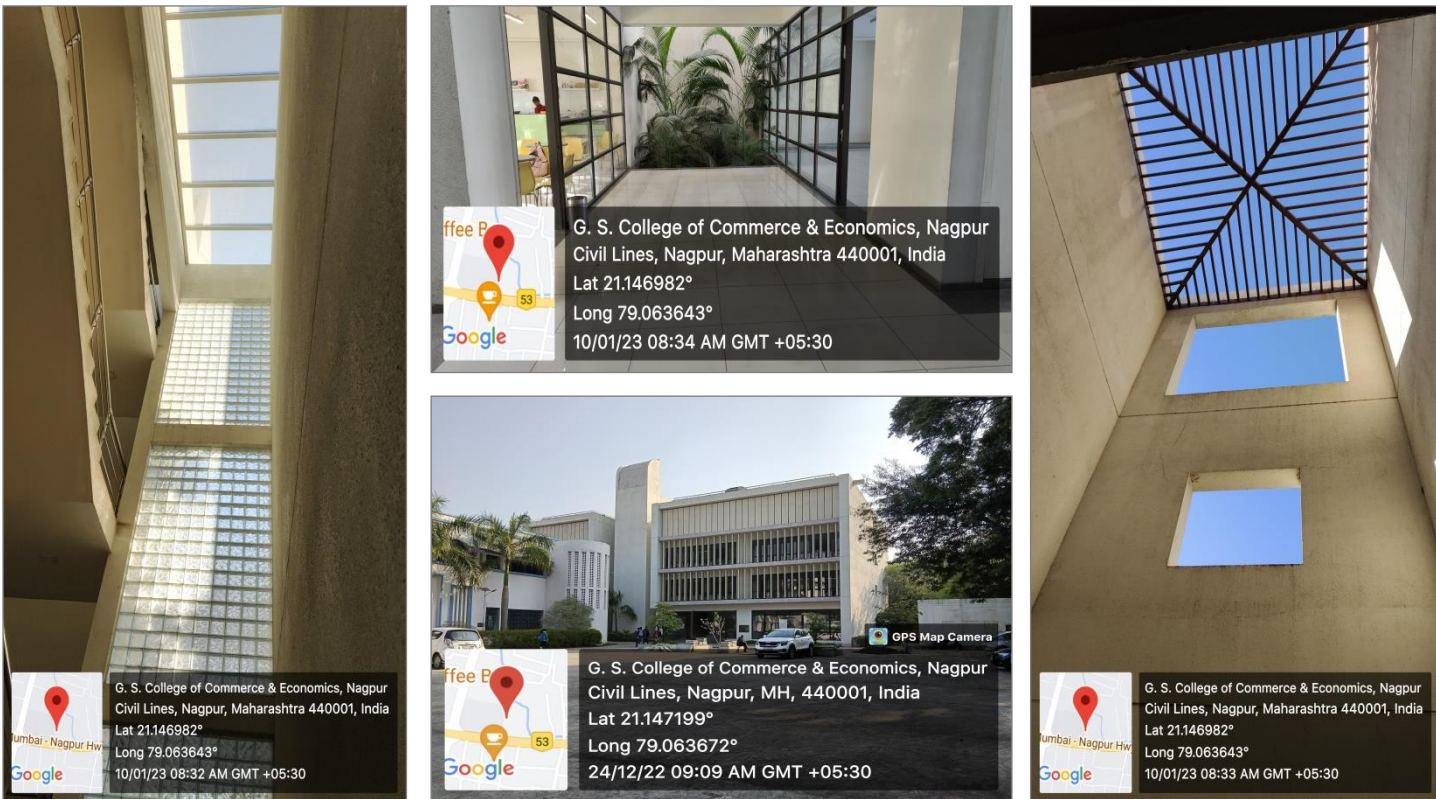


On-site review with the team for site management, tree transplantation and tree conservation evidences



Group photo with the team

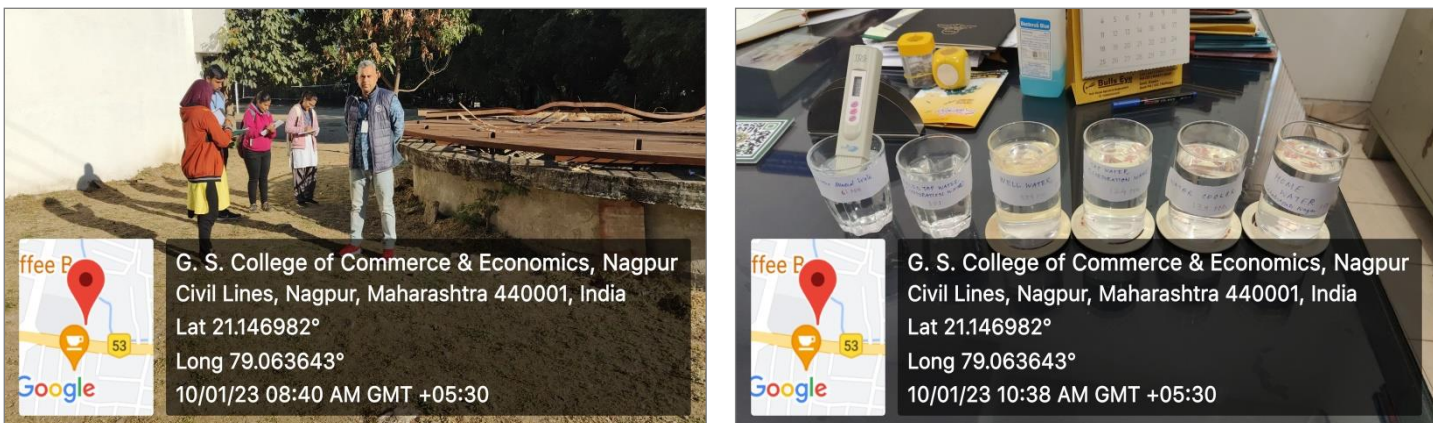
**On-site investigation and physical verification**  
**Audit Team during the visit on Tuesday, 10 January 2023**



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)



## 6. 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.

