

# GREEN AUDIT

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

Sustainability study  
**AUDIT REPORT**

Studied for  
Sindhi Seva Samiti's  
**Sindhi Institute of Management**  
No. 33/2B, Kempapura,  
Hebbal Bangalore – 560024, Karnataka, India

Studied in the capacity of  
Accredited and Certified  
Green Building Professional



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Valid till **August 2024**

Background reference image Sasin Tipchai on unsplash



# Disclaimer

The Audit Team has prepared this report for the **Sindhi Seva Samiti's Sindhi Institute of Management** located at No. 33/2B, Kempapura, Hebbal Bangalore – 560024, Karnataka, India based on input data submitted by the Institute analysed by the team to the best of their abilities.

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

These can be implemented phase wise or as a whole depending on the decision taken by the 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.

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

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

## Greenvio Solutions

*Developing Healthy and Sustainable Environments*

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# Acknowledgement

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Our special thanks are extended are due **to everyone from the Governing body.**

Our heartfelt thanks are extended to the Chairperson of the entire process **CMA. Prof D Gopinath**, (Director/Principal) for the valuable inputs.

We are also thankful to College's Task force the faculty members who have played a major role in data collection – **Ms. Badrunnisa Shaikh** (Institute Coordinator) (*Special mention for the excellent coordination*); **Mr. Srinivas** (Estate Manager) and **Mr. Parameshappa** (Admin staff)

We highly appreciate the assistance of 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 History

**Sindhi Institute of Management started in 2014 is a leading provider of globally recognized, Industry relevant Masters of Business Administration program.**

It works closely with corporate partners to ensure its programs are specifically tailored to reflect global market trends, and to offer complete flexibility for the students as they work towards success in a way that is suited to their career ambitions, and compatible with their personal commitments.

## 1.2 About the Institute

Sindhi Institute of Management initially was affiliated to the University of Mysore from 2014. It provided MBA Programme which is approved by UGC. The programme was excellent with students securing 100 percent results with an amazing lot of students having been placed in top companies of India.

The year 2018 was a landmark year for Sindhi Institute of Management. The year 2018 Sindhi Institute of Management got itself approved by the AICTE to offer MBA programmes and was affiliated to the Bengaluru Central University.

**The focus now is on getting the best of facilities with continuous Industry Institute Interaction so that the students get the best of both the worlds that is Academic and Industry.**

## 1.3 About the statements of the Institute

### 1.3.1 Vision

The Institute proposes "To nurture creativity, talent and performance by providing high quality education in a state-of-the-art environment and mould aspiring youth into future leaders."

### 1.3.2 Mission

The Institute adheres and focuses towards

- ⇒ Inculcating high value through integrity.
- ⇒ Empowerment through knowledge.
- ⇒ Development through social conscience.
- ⇒ Community upliftment through employability.

### 1.3.3 Aim

The Institute has formulated the aim "Commitment to reach global standards and impart quality education integrated with values to students enabling them to excel in the fields of Management; To cater to the ever changing and challenging needs of the society and the industry and also make them responsible citizens of the country."

### 1.3.4 Objectives

The objective of the Institute is:

- ⇒ To develop spirit of inquiry, scientific temperament and pursuit of knowledge among students and faculty.
- ⇒ To impart quality education that would endow students with knowledge and skills that will endure them for life.
- ⇒ To create an environment in the institution that is conducive for achieving academic excellence.
- ⇒ To usher in total quality management.

- To impart value based education.
- To sensitize students on gender related issues and strive towards women's empowerment and gender equality.
- To strive towards development of healthy stake holders' relationships.
- To bring about transparency in organizational functioning through decentralized governance and participative management.
- To improve ethics and work culture in the institution.
- Sensitise students and create a sense of responsibility towards social, environmental issues and national development."

## 1.4 Assessment of the Institute

### 1.4.1 Affiliations

The Institute is affiliated to **Bengaluru City University**; a state university in Bengaluru (Bangalore), Karnataka, India.

### 1.4.2 Certification

The College has received the Certifications of the **All India Survey of Higher Education (AISHE) code C – 62530** provided by Govt. of India.

### 1.4.3 Approvals

The technical courses provided by the College are by the **All India Council for Technical Education (AICTE), New Delhi.**

## 2. Overview

### 2.1 Populace analysis for Batch 2022-2024

#### 2.1.1 Students data

The data (shared by the Institute) shows there were **41 male and 49 female students**.

#### 2.1.2 Staff data

S. No.	Type	Male	Female	Total
1	Admin staff	01	00	01
2	Teaching staff	05	07	12
3	Non-Teaching staff	04	00	04
<b>Total Staff Members</b>		<b>10</b>	<b>07</b>	<b>17</b>

*Table 1: Staff data of the Institution for Batch 2022-2024*

The staff data shows the Institute premises had a total of **17 Staff Members**.

### 2.2 Populace analysis for Batch 2021-2023

#### 2.2.1 Students data

The data (shared by the Institute) shows there were **46 male and 38 female students**.

#### 2.2.2 Staff data

S. No.	Type	Male	Female	Total
1	Admin staff	01	00	01
2	Teaching staff	05	07	12
3	Non-Teaching staff	04	00	04
<b>Total Staff Members</b>		<b>10</b>	<b>07</b>	<b>17</b>

*Table 2: Staff data of the Institution for Batch 2021-2023*

The staff data shows the Institute premises had a total of **17 Staff Members**.



## 2.3 Total Institute Area & Institute Building Spread Area

The **site area is 2.44 acres** and the **Built-up area is 17,152.608 sq. ft.** for an approximately **107 footfalls.**

## 2.4 Institute Infrastructure

### 2.4.1 Establishment

The Institute was established in **2018.**

### 2.4.2 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 pretty close 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.

## 2.5 Operation and Maintenance of the premises

The interview session and data collection session was held with the staff regarding the operation and working hours. The schedule shared by the team shows that the Institute is working Monday to Saturday beginning at 08:00 hours up to 18:00 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

## 4. Observation

### 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.

#### 4.1 Participation



*Figure 1: Participation analysis in the survey*

A total of **13 responses** were received out of which 100% were staff members.

Note: The Participants were asked to review 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%)

#### 4.2 About the Green awareness practices adopted by Institute

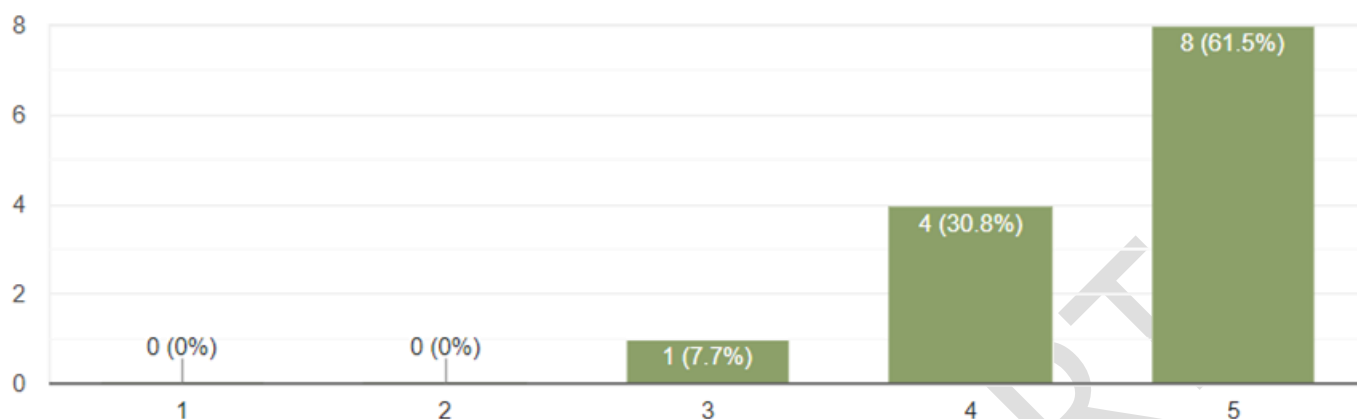


Figure 2: Green awareness practices in the Institute

**Observation:** The students and staff almost 62% of the respondents found practices to be Excellent (Rating of 5); whereas almost 31% of the respondents found practices to be Very Good (Rating of 4); and 8% of the respondents found practices to be Good (Rating of 3).

**Inference:** Though the majority responses are for 'Excellent – Rating 5' is more than 50% the section 'DOES NOT' requires any improvement.

#### 4.3 About the Water management practices adopted by Institute

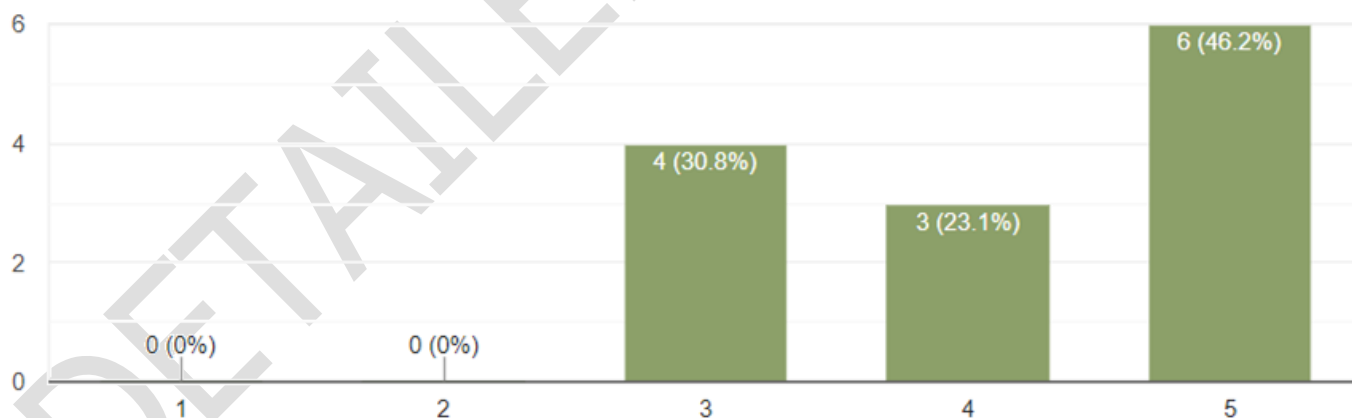


Figure 3: Water management practices in the Institute

**Observation:** The students and staff almost 46% of the respondents found practices to be Excellent (Rating of 5); whereas almost 23% of the respondents found practices to be Very Good (Rating of 4); and 31% of the respondents found practices to be Good (Rating of 3).

**Inference:** Though the majority responses are for 'Excellent – Rating 5' is less than 50% the section requires certain improvement.

#### 4.4 About the Waste management practices adopted by Institute

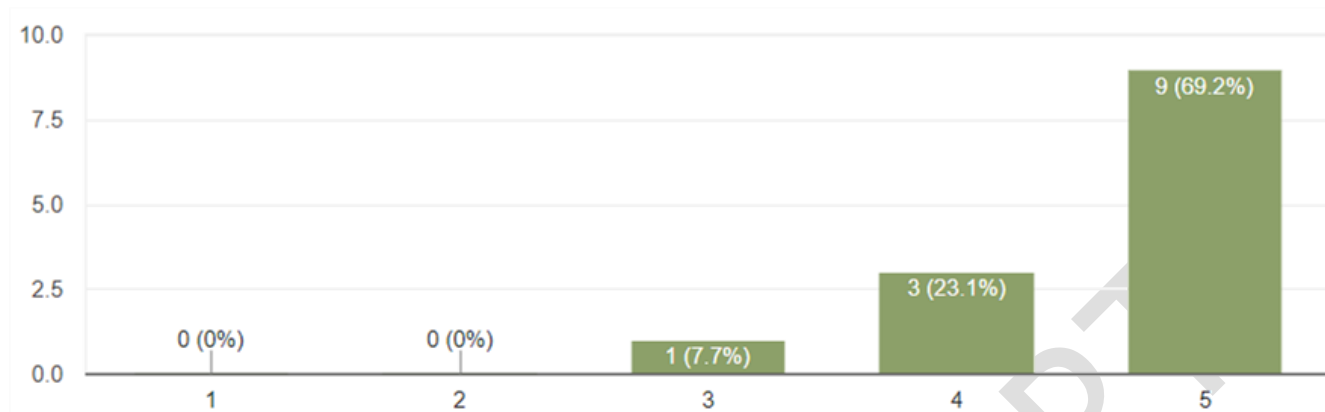


Figure 4: Waste management practices in the Institute

**Observation:** The students and staff almost 69% of the respondents found practices to be Excellent (Rating of 5); whereas almost 23% of the respondents found practices to be Very Good (Rating of 4); and 8% of the respondents found practices to be Good (Rating of 3).

**Inference:** Though the majority responses are for 'Excellent – Rating 5' is more than 50% the section 'DOES NOT' requires any improvement.

#### 4.5 About the Hygiene practices adopted by Institute

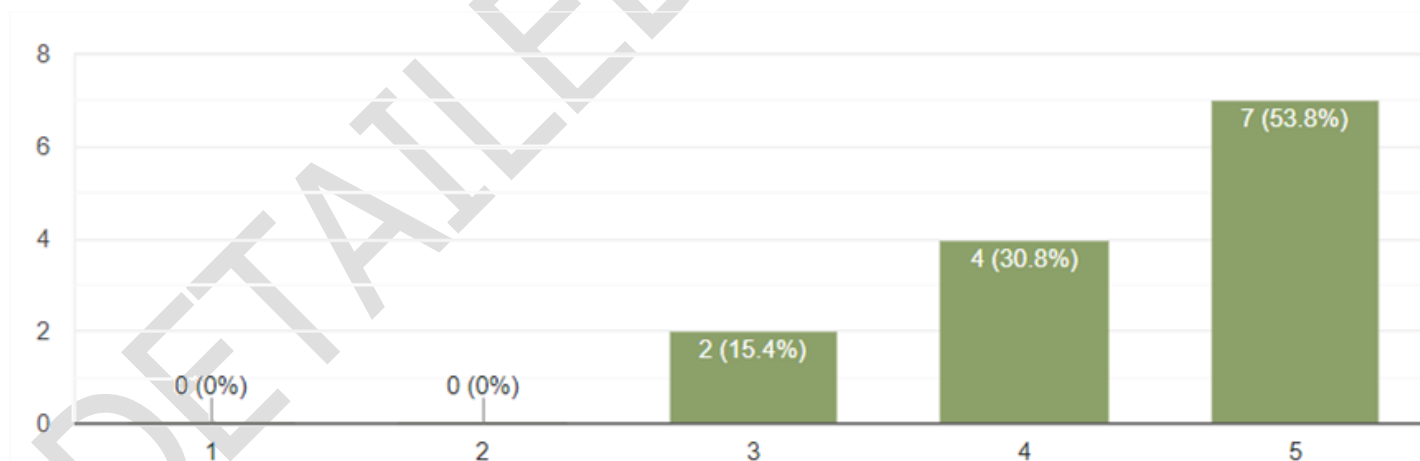


Figure 5: Hygiene practices in the Institute

**Observation:** The students and staff almost 54% of the respondents found practices to be Excellent (Rating of 5); whereas almost 31% of the respondents found practices to be Very Good (Rating of 4); and 15% of the respondents found practices to be Good (Rating of 3).

**Inference:** Though the majority responses are for 'Excellent – Rating 5' is more than 50% the section 'DOES NOT' requires any improvement.



## 5. Documentation

### 5.1 Green Practices Audit

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

#### 5.1.1 Green practices

We observed the following points during the process.

- **Fresh environment** – *The Institute 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 Institute 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.*

#### 5.1.2 Community development

The Institute conducts environmental initiatives documented as follows:

S. No.	Initiative	Particulars and details
1	Environmental day	Importance of reduction of greenhouse gases
2	Environmental day	Sustainability and management

*Table 3: Details of the events undertaken by the Institute*

## 5.2 Waste Audit

Waste is an inevitable part of our lives. The audit provides an approximation of the types of waste generated, location of waste collections, disposal techniques used, waste segregation methodologies adopted.

The waste management strategies are studied and ways that can be adopted aiming to make the premise clean and sustainable are proposed.

### 5.2.1 Waste produced

S. No.	Type of waste	Source	Current Disposal	Can be retreated?	Methodology
1	Solid waste	Toilets–Biodegradable waste	Soak pit connected for solid-liquid waste management	Yes	TREATED – Biogas plant can be initiated
2	Liquid waste	Toilets, washbasins		Yes	TREATED - Sewage treatment plant can be initiated
3	Paper waste	Newspaper and other paper	Given to vendor	Yes	TREATED – A recycling plant can be initiated
4	E-waste	Computers - Non-biodegradable waste		Yes	TREATED – Tie-up with firms such as Ecoreco, thereco Additionally, tie up with local government to initiate installations
5	Plastic waste	Bottles, wrappers		Yes	TREATED – Tie-up with Bisleri’s Bottles for change program or firm that is into clean fuels.
6	Dry waste in form of leaves	Open space & plantations, papers - Non biodegradable waste	No specific practice has been undertaken	Yes	TREATED – Compositing in a temporary setup can be undertaken
7	Organic regular waste	Dust, dirt dust waste from indoor spaces			
8	Bio-waste	Sanitary waste	Vending machine is available	Yes	Tie-up with local government for dedicated bio-waste handover

*Table 4: Details of the waste management practices adopted by the team*

## 5.3 Water Audit

Water is one of the basic needs. Pure drinking water is a resource that needs to be preserved efficiently. A water audit helps to identify the sources of water consumption, and the water requirement by the premises is met by these sources. The effective usage of water without any wastage should be a mandatory practice. Understanding the techniques as per site context to increase water conservation in terms of awareness and practice can be identified and executed as part of this exercise.

### 5.3.1 Water availability and consumption

#### 5.3.1.1 Source of Primary water supply

The Institute uses drinking water for daily consumption, the facilities are documented below:

Type	Capacity (litres)
Underground	N.A.
Overhead	5,000
Fire tank	10,000
RO Plant	160

*Table 5: Details of the water tanks in the premises*

#### 5.3.1.2 Source of Secondary water supply

The Institute 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 one bore wells used as secondary sources.**

#### 5.1.3.3 Source of Tertiary water supply

The tertiary source of water is the additional source of water harvesting. *There are four dedicated pits (tanks) available in the premises.*

#### 5.1.3.4 Source of Reusing waste water

The initiative is not under practice / applicable since the Institute is a management premises.

### 5.3.2 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:

S. No.	Particulars
1	General toilet for students
2	Special Toilet for handicaps 1.5m x 2.5m
3	Urinals
5	Taps in the premises

*Table 6: Details of the water usages in the premises*

## 5.4 Health and Hygiene Audit

The hygiene is a part and parcel of our daily life. It is extremely essential to keep the surroundings clean in the same manner as we would want our houses to be.

Educational Institutes have a bigger role to play in order to affect the young minds in the positive manner through better hygienic practices.

### 5.4.1 Facilities available

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

### 5.4.2 Hygiene aspects

There was no major hygiene issue observed anywhere in the premises.

## 6. Suggestions

### 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.

#### 6.1 Green practices Audit

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

#### 6.2 Waste Audit

- ➔ **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 50-100m in open spaces
- ➔ **Material of dustbin** - The plastic dustbins should be replaced with eco-friendly material.
- ➔ **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.
- ➔ **Plastic management for localities** – The can be frequent cloth/ paper bags distribution in local schools, slums, Institutes, medical, police stations.



- ➔ **Documentation** – Improve and increase the documentation and visibility/ reflectance of the environment related events on the website, social media handles
- ➔ **Cutlery in the Canteen** – The regular plastic and steel plates, spoons used in Canteen can be replaced with eco-friendly and organic leaves, paper straw, disposable plates, edible spoons and tables made out of sugarcane waste or bamboo. This will be first of its kind initiative to be adopted and practiced thus also inculcating the healthy practices in students.
- ➔ Tie up with **Bisleri International regarding their 'Bottles for change program'** also with **'Thereco'** for their waste management.
- ➔ Invite companies such as **'Thaely'** and **'Recharkha'** to undertake skill development workshops.
- ➔ Write to NGOs such as *Adar Poonawala Foundation* for twin litter dustbins and beautification projects.

### 6.3 Water Audit

- ➔ **Wastewater from toilets** - This should be collected and a wastewater treatment plant can be installed in the open space wherein this water can be treated and reused for gardening and toilet flushing.
- ➔ **Signages** - Messages about avoiding water wastage should be placed at appropriate locations.
- ➔ **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.
- ➔ **Rain water bunds** – There should be landscape beautification project undertaken to appropriate channelize the rain water through bunds and similar facilities.

#### 6.4 Health and Hygiene Audit

- **Signboards** – The Institute should have multiple signboards about 'No smoking' and 'Healthy premises' at every nook and corner of the Institute.
- **Compound wall** – The compound wall should have awareness messages about 'No Smoking' and 'No Tobacco'
- **Toilet hygiene** – There should be facilities such as potpourri, camphor tablets in the toilet to avoid smell and health related issues.

DETAILED REPORT



Investigative parameters – Energy Management – Solar street light and sources of energy consumption



Investigative parameters – Ecological Management – Diesel Generator, earth pit areas for backup measures



Investigative parameters – Fire and life safety measures



Investigative parameters – Ecological cover in the premises



## 7. 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](http://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>

