# SGT UNIVERSITY

# ENVIRONMENT AUDIT REPORT

2023-2024

Prepared by EHS ALLIANCE

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## **Certificate**



## **Acknowledgement**

EHS Alliance Services extends its heartfelt gratitude to the management of SGT University for entrusting us with the crucial task of conducting the Environment Audit. We deeply appreciate the cooperation provided by all teams involved, which facilitated the successful completion of the assessment.

Firstly, we would like to express our sincere thanks to **Prof. S.P. Aggarwal, Pro-Vice Chancellor** (**SGT University**), for giving us the opportunity to evaluate the environmental performance of the campus.

Our appreciation also goes to *Prof. (Dr.) Joginder Yadav, Registrar, SGT University,* for his unwavering support and guidance, without which the project could not have been completed.

Additionally, we are grateful to the other staff members who actively participated in data collection and field measurements. We also extend our thanks to

Dr. Archana Chaudhary Chairperson, Environment Committee

Mr. Gaurav Chaudhary Admin Officer

Dr. Shikha Sharma Secretary, Environment Committee

for their valuable contributions and assistance throughout the process.



**Disclaimer** 

The EHS Alliance Services Audit Team has prepared this report for SGT University based on the input

data provided by the University's representatives, supplemented by the expert team's best

judgment.

While reasonable care has been taken in preparing this report, the details contained herein have

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**Signature** 

**LEAD AUDITOR** 

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## **Concept & Context**

In India, the concept of environmental auditing was first introduced under the Environment Protection Act, 1986, by the Ministry of Environment and Forests on March 13, 1992. This act mandates that anyone owning an industry or performing operations must obtain legal consent and submit an environmental report or statement.

The National Assessment and Accreditation Council (NAAC), New Delhi, has made it mandatory for all Higher Educational Institutions to submit an annual Green, Environment, and Energy Audit Report starting from the academic year 2019–20. This requirement forms part of the institutions' Corporate Social Responsibility to contribute to a sustainable environment.

In line with NAAC's guidelines, the University management decided to conduct an external environmental assessment by a qualified professional auditor.

The term "Environmental Audit" can vary in meaning; it may include assessments, surveys, and reviews related to environmental matters. Some organizations consider it to encompass health, safety, and environmental issues. While there is no universal definition, many leading organizations follow the basic philosophy outlined by the International Chamber of Commerce (ICC) in its 1989 publication on Environmental Auditing.

According to the ICC, Environmental Auditing is defined as:

"A management tool comprising a systematic, documented, periodic, and objective evaluation of how well environmental management and equipment are performing, with the intention of safeguarding the environment and natural resources in its operations/projects."

This audit focuses on legal compliance with environmental regulations and the implementation of rules set by the Ministry of Environment, Forests and Climate Change (MoEFCC) or state pollution control boards. The audit's concepts, structure, objectives, methodology, tools of analysis, and goals are discussed in detail below.

## Introduction

Nature is a precious gift essential for all life forms. Disturbances caused by urbanization and industrialization are increasing environmental problems, leading to rising temperatures and significant pressure on our planet. It is crucial to plan resource consumption sustainably to conserve natural resources for future generations.

Sustainable development is gaining global recognition as a means to save the earth. Judicious use of resources can preserve our planet's precious resources. Measuring environmental components is an effective step in conserving and protecting natural resources.

Environmental auditing began in the early 1970s, driven by civil lawsuits for non-compliance with environmental regulations. It involves on-site visits, sample collection, analyses, and reporting results to competent authorities.

Industries and the corporate world are increasingly adopting auditing to save natural resources. Academic institutions can also play a role in resource preservation and conservation within their premises.

This "Environmental Audit" report aims to encourage everyone to consider resource preservation, understand its importance, adopt measures to minimize resource use, and set an example for others by following eco-friendly practices. Effective environmental auditing can help minimize environmental risks at a low cost.

## **Overview Of University**

SGT (Shree Guru Gobind Singh Tricentenary) University, Gurugram, spans over 70 acres of lush green campus, enveloped in serene beauty and a tranquil environment. Situated at Chandu-Bhudera on the outskirts of Gurgaon, it is less than five kilometers from the Delhi border at Daurala, offering convenient access from Indira Gandhi International Airport.



SGT University was established by the Haryana Private Universities (Amendment) Act No. 8 of 2013 to provide educational opportunities to all segments of society under the umbrella of Dashmesh Educational Charitable Trust. The Trust was founded in 1999 with the noble mission of spreading the teachings of Shree Guru Gobind Singh Ji, the great philosopher and social reformer who believed that "the spread of learning is the best service to mankind." The foundation for the university's growth was laid in 2002 with the establishment of the SGT Dental College.

In an ever-evolving work environment, SGT University fosters a culture of continuous learning to develop future innovative leaders of international repute. These leaders are quick to learn and implement new skills, understand changing customer needs, and can revamp operations effectively with a significant return on investment.

SGT University's modern infrastructure and learner-centric pedagogy fully support its students. The university is focused on investing in "Nurturing Future Leaders" to produce resourceful and productive employees at all levels, from "Green Graduates" to "Tenured Senior Managers." The university is determined to instill domain-specific skills and soft skills in its emerging innovative leaders, making them future-ready. At SGT University, the focus is on developing skills and behaviors that align with a good cultural fit and the right academic background.

### **Facilities in campus**

#### Hostel:

SGT University provides separate hostels for girls and boys with round-the-clock security. Each hostel features separate dining rooms, recreation rooms, and study rooms.

## Transport Services:

The university operates 60 buses across NCR and neighboring areas, serving both students and staff. Bus facilities are also available for hostellers for city visits, with charges based on actual usage.

#### **Playgrounds:**

SGT University offers a variety of sports facilities, including playgrounds for basketball, volleyball, football, table tennis, cricket, and badminton, promoting the all-round development of students.

#### Canteen:

The spacious cafeteria provides a wide variety of snacks to students and staff at reasonable rates.

#### Labs:

The Department of Anatomy at SGT Medical College, Hospital, and Research Institute features a well-equipped museum, dissection hall, and research lab, with facilities for tissue processing, special staining, and research in genetics and embryology.

#### Gym:

SGT University offers wellequipped gyms in both the girls' and boys' hostels.

#### Seminar Hall:

The Seminar Hall is an ideal venue for seminars and lectures by medical professionals, offering students insights into various fields. These sessions provide first-hand info & opportunities for students to ask questions and clear their doubts.

#### Library:

The university's fully air-conditioned library, designed for comfort and natural lighting, can accommodate 450 users at a time. It offers modern facilities and resources, including CD-ROMs, online databases, books, journals, theses, WHO publications, and more.

## **Vision & Mission**

**Vision:** To nurture individual excellence through value-based, cross-cultural, integrated, and holistic education, adopting contemporary and advanced methods blended with ethical values, contributing to building a peaceful and sustainable global civilization.

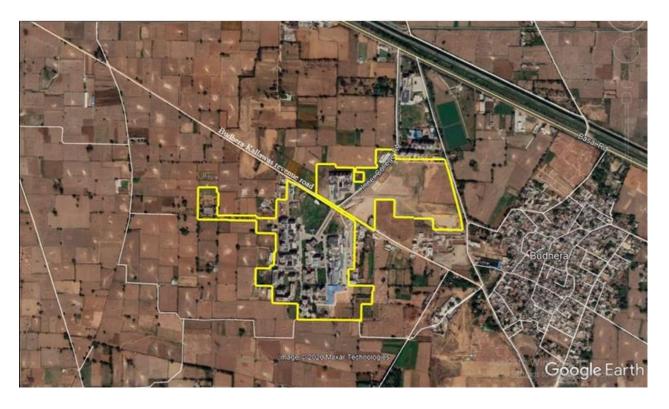
#### Mission:

- To impart higher education that meets global standards and the changing needs of society.
- To provide access to quality education and improve the quality of life at individual and community levels through innovations and ethical research.
- To engage with and promote the growth and welfare of the surrounding community through extension and outreach activities.
- To develop socially responsible citizens, fostering ethical values and compassion through community engagement and promotion activities.

- To create a competitive and coordinated environment where individuals develop skills and a lifelong learning attitude to excel in their endeavours.
- To develop Centers of Excellence to achieve cutting-edge technology in all fields.

Presently, SGT University offers over 160 courses, including undergraduate, postgraduate, and PhD programs, across 18 faculties:

Faculty of Mass Communication & Media Technology	Faculty of Indian Medical System
Faculty of Hotel & Tourism Management	Faculty of Naturopathy and Yogic Sciences
Faculty of Fashion & Design	Faculty of Allied Health Sciences
Faculty of Commerce & Management	Faculty of Behavioural Sciences
Faculty of Engineering & Technology	Faculty of Dental Sciences
Faculty of Agricultural Sciences	Faculty of Nursing
Faculty of Education	Faculty of Medicine & Health Sciences
Faculty of Law	Faculty of Physiotherapy
Faculty of Science	Faculty of Pharmacy



Geo Coordinates from Google map: 28.4823843,76.8985063

## **Audit Participants**

#### On behalf of University

Name	Designation
Prof. S.P. Aggarwal	Pro Vice-Chancellor (Admin)
Dr. Joginder Yadav	Registrar
Prof. Nishith Kumar Mishra	Director IQAC
Dr. Archana Chaudhary,	Associate Professor, FOSC
Mr. Gaurav Chaudhary,	Admin. Officer
Dr. Mohit Sharma,	Hospital Quality Assurance Cell (HQAC)
Dr. Bhoopesh Kumar Sharma	Associate Professor, FOSC
Ms. Rachna	Assistant Professor, FON
Mr. Mohit Deswal	Assistant Professor, FAHS
Mr. Sarvjit Singh Jaswal	GM Administration
Mr. Umesh Kothari	Administrator
Mr. Anurag Khajuria	Registrar Office
Dr. Shikha Sharma	Assistant Professor, FDSC
Mr. Sripal Singh	Member, Environment Committee
Mr. Vijay Ghai	Assistant Manager Admin

#### On behalf of EHS Alliance Services

Name	Position	Qualifications
Dr. Uday Pratap	Co-Auditor	Ph.D., EMS: Lead Auditor ISO14001:2015, QCI–WASH
Mr. Puneet Kaushik	Co-Auditor	M.Sc. M. Tech (Environment Science & Engineering), Energy Auditor, Post Diploma in Industrial Safety Management
Mr. Arun Prabath	Co-Auditor	Environment Expert

## **Executive Summary**

The environmental audit provides a snapshot of the campus's performance in adhering to environmental laws and regulations. Although valuable as a benchmark, the audit can quickly become outdated without ongoing monitoring mechanisms. Our goal is to promote a Green Campus that fosters sustainable values among students, ensuring they carry these principles into their future endeavors. This approach aims to integrate sustainability and environmental practices across institutions and organizations nationwide.

A Green Campus blends environmentally friendly practices with education to foster sustainability. It offers institutions the opportunity to redefine their environmental culture and develop innovative solutions to meet the environmental, social, and economic needs of humanity.

This is the sixth environmental audit for the University, focusing on its contributions to environmental protection and awareness at both local and global levels. The audit criteria include environmental awareness, waste minimization and management, biodiversity conservation, water and energy conservation, and compliance with environmental legislation. A questionnaire was used during the audit, and this report presents observations and recommendations for enhancing environmental consciousness.

## **Waste Management**

## **Types of Waste on the University Campus**

Effective waste management begins with understanding the types of waste produced. The following are common waste types generated on the institutional campus:

- 1. **Food Waste:** The campus generates food waste, with the average mess and canteen producing approximately 40 kg of food waste daily. Food waste often results from overpurchasing and excess food on trays. Immediate attention is needed to minimize food waste.
- 2. **Recyclable Materials:** The campus produces significant quantities of recyclable materials such as paper, cardboard, plastic, glass, and cans. Despite the digital age, many still use paper for notes, and recyclable containers are common for snacks and shipments. These recyclables are sold or auctioned to scrap vendors periodically.

- Student Clothes and Housewares: Many students dispose of clothes and dorm furnishings
  at the end of the year rather than donating or recycling them. The University's environmental
  committee has organized donation drives, collecting over 10 cartons of clothes for those in
  need.
- 4. **E-Waste**: Electronic waste from outdated computers, printers, phones, and other devices is a major component of campus waste. The University partners with authorized external agencies for proper e-waste disposal.
- 5. **Chemical Waste:** Laboratories and cleaning services generate chemical waste, including hazardous substances that require specific disposal processes according to state regulations.
- 6. **Maintenance Waste**: The maintenance department deals with spent paints, solvents, adhesives, lubricants, and light bulbs. Many of these materials are difficult to recycle and may require special handling.
- 7. **Biological Waste**: Waste from laboratories and medical centers, including tissue samples and contaminated materials, must be handled and disposed of according to BMW Rules, 2016.
- 8. **Furniture**: Old or outdated furniture from classrooms, cafeterias, and labs is sold to junk dealers annually.
- 9. **Books/Magazines/Newspapers**: Obsolete textbooks and reading materials contribute to solid waste. The University either donates these items to junior students or auctions them to resellers.
- 10. **Construction and Demolition (C&D) Waste:** Building expansions and renovations generate C&D waste, which should be used for backfilling or disposed of at authorized sites by CPCB/SPCB.
- 11. **Solid Waste**: Solid waste is managed by providing it to the Municipal Corporation of Gurugram.
- 12. **Horticulture Waste:** The campus's extensive greenery results in significant horticultural waste, which is managed through an in-house composting system.

## **Environment Audit Analysis**

## 1.1Energy Conservation

The architectural design of our building allows for ample natural light and good ventilation, promoting energy efficiency. The University utilizes both electricity and LPG cylinders, and has implemented several measures to reduce energy consumption:

#### **Electricity Savings:**

List ten ways that you use energy in your institute. (Electricity, LPG, firewood, others). Using this list, try to think of ways that you could use less energy every day.

- Use of LED and CFL lights for illumination.
- Installation of a 910 KW solar power plant on campus.
- Solar-powered street lights.
- Solar water heaters in kitchens and hostels.
- Use of pressure cookers in cooking to save energy.
- Notices with messages like "Switch off lights" near switchboards.
- Automatic on-off sensor-based solar lights.
- Minimize the use of air conditioners in summers and room heaters in winters.
- Encouragement to switch off laptops and computers when not in use.

#### Renewable Energy:

- A 910 KW solar panel system is operational.
- Solar heaters installed for hostels and the mess.

#### **Energy Conservation Practices:**

Are there any energysaving methods employed in your institute? If yes, please specify. If no, suggest some

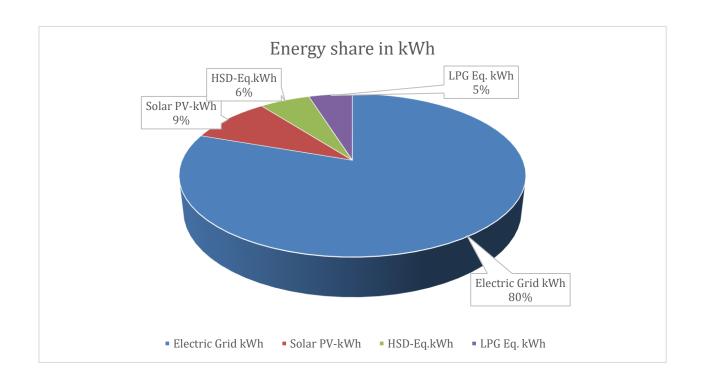
- Replacement of all conventional bulbs and tube lights with 20W LED lights.
- Notices to switch off lights and fans when not in use.
- Organizing various energy conservation awareness programs for students and staff.
- Ensuring computers and ACs are set to power-saving mode.
- Procurement of energy-saving equipment.
- Encouragement to switch off bulbs/LEDs in well-lighted rooms during sunny afternoons.

How many CFL/LED bulbs have your institute installed?

SGT University has replaced all conventional bulbs and tube lights with 20W LED Lights.

Do you run "switch off" drills at the institute?	Yes
Are your computers and other equipment put in power-saving mode?	Yes, SGT University put the equipment on power-saving mode
Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby modes most of the time? If yes, how many hours?	Yes, approx. 6 hours

Energy Share	kWh	Percentage
Electric Grid kWh	7659990.00	80.35%
Solar PV-kWh	874409.00	9.17%
HSD-Eq.kWh	535352.44	5.62%
LPG Eq. kWh	464009.46	4.87%
Total -kWh	9533760.90	100%



## **1.2 Water & Waste Water Management**

List uses of water in your institute	Basic use of water in campus:  Drinking – 317.83 KL/month Gardening – 251.95 Kl/month* Kitchen and Toilets – 1152.04 KL/month Hostel – 4320.00 KL/Month Others – 381.49 KL/month Total = 6423.30 KL/Month  * SGT University uses fresh water apart from 4787 KL treated water
How does your institute store water? Are there any water saving techniques followed in your institute?	SGT University relies on tanker for water supply as a primary source and 3 bore wells as a secondary source. 4 Overhead Water Tanks and 03 Underground Water tanks installed for storage of water.  SGT University ensures regular maintenance of water tanks and checking of water quality standards on the campus. The water tanks and water coolers are checked every 3 months, and RO systems are regularly changed.  Saving Techniques  Avoid overflow of water-controlled valves are provided in water supply system.  Close supervision for water supply system.  Push taps are installed  Water Conservation awareness for new students  Sprinklers usage for gardening and grass cover
Locate the point of entry of water and point of exit of waste water in your institute.	<ul> <li>Entry – SGT University uses tankers for water and have bore wells as a secondary source</li> <li>Exit – From Canteen, Toilets, bathrooms and Hostels through covered drainage which is connected to sewage treatment plant.</li> </ul>
Write down ways that could reduce the amount of water used in your institute	<ul> <li>The University ensures that the faucets in the washrooms and water filtration units are checked regularly and do not have any leakages.</li> <li>The University checks the water flow in the taps.</li> <li>The University has initiated the installation of auto-push taps to reduce water wastage.</li> <li>The campus has 60+ double-level flush systems in the academic blocks to further reduce water usage.</li> </ul>

•	University has implemented several unique and unconventional
	approaches to sustainability that have yielded positive results.
	One example is implementing a campus-wide water conservation
	program with RO-reject water recycling and drought-resistant
	landscaping.

- Habitat restoration projects like the biodiversity trail are undertaken to preserve and enhance local biodiversity, creating green spaces that support native wildlife.
- The RO waste water is used in the toilets.
- The University has initiated growing plants native to the semi-arid regions, requiring less water to survive.

Does your institute harvest rainwater?

Yes, SGT University has 12 traditional rainwater harvesting units and additional 14 units with modular filters

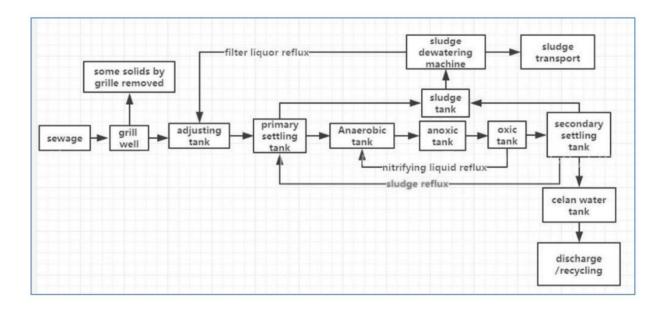
Is there any water recycling System?

Yes university has STP and ETP for waste water treatment.

- University has 2 STP of capacity 275 KLD
- 2 ETP units of capacity of 40 KLD and 10 KLD respectively

#### Zero Liquid Discharge (ZLD) and Rainwater Harvesting

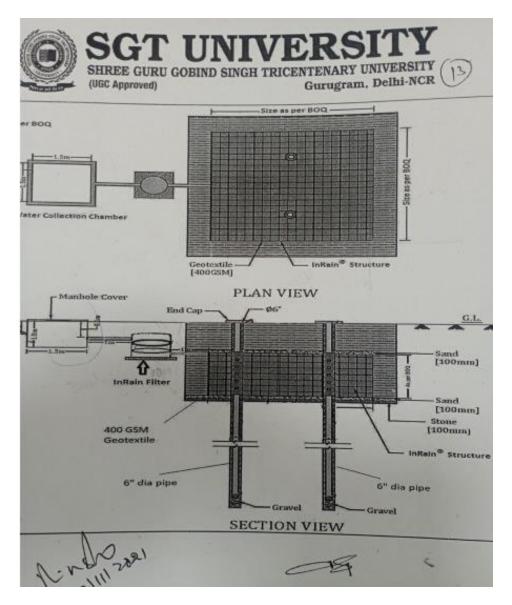
Zero Liquid Discharge (ZLD) is a strategic wastewater management system designed to ensure that no industrial wastewater is released into the environment. This is accomplished by treating wastewater, recycling it, and recovering and reusing it for various purposes such as flushing, gardening, DG cooling, and housekeeping.



SGT University has implemented a ZLD system with a 275 KLD Sewage Treatment Plant (STP) and Effluent Treatment Plants (ETP) of 10 KLD and 40 KLD capacity, in compliance with the Environment Clearance from the State Pollution Control Board dated 19.03.2021.

Rainwater Harvesting (RWH) involves collecting and storing rainwater rather than allowing it to run off. This water is collected from roof surfaces and redirected to a tank, cistern, deep pit (well, shaft, or borehole), aquifer, or reservoir with percolation to replenish the groundwater. SGT University has installed a total of 25 RWH units on the campus to support this initiative.

The flow diagram of the STP is provided below.



## 1.3 Bio Diversity

Promoting biodiversity at SGT University campus offers students valuable, hands-on educational opportunities to make positive environmental impacts. The following initiatives are undertaken to support biodiversity:

**Hanging Birdhouses and Planting Wildflower Gardens**: SGT management and students actively hang birdhouses and plant wildflower gardens both on campus and in adopted local villages. These activities help attract and support local wildlife.

**Recycling Programs**: Expanded recycling programs are run by the university's management and students to promote sustainable practices within the campus and surrounding communities.

Does Institute promote biodiversity?

**Wildlife Presence**: The campus is home to various bird species and squirrels. These animals, along with other flora and fauna found on campus, are not harmful to humans. The university makes dedicated efforts towards their conservation.

**Pet Policy and Stray Animals**: Only pets are allowed on the campus. Stray animals are not found inside the campus due to the secure fencing of the premises.

**Environmental Awareness Campaigns:** The Environment Committee organizes various awareness activities. These include street plays (nukkad natak) and poster competitions in the locality of Sultanpur National Park, Gurugram. Faculty members also contribute by writing articles on Basai Wetland's biodiversity conservation to raise awareness among the local community.

## 1.4 Air Quality Management

Are the Rooms in Campus Well Ventilated?	Yes, rooms are designed with good ventilation in mind. The doors and windows, in most of the rooms, are positioned opposite each other to promote cross-ventilation.
Window Floor ratio of the Rooms?	Very Good, ample daylight utilization because of big windows.
What is the ownership of the vehicles used by your campus?	SGT University has 66 buses and 13 cars, 8 vans, and 5 other vehicles

	Details of University owned vehicles	Buses	Cars	Vans	Other	Total
Provide details of	CNG	60	4	0	0	64
Institute-owned	Petrol	0	0	5	3	8
vehicles?	Diesel	6	9	3	2	20
	Total	66	13	8	5	92
	•	*Campus has 3 e-rikshaws, but the same is not mentioned in the above table because e Rikshaw doesn't require any fuel and are pollution free				
Is the PUC of the campus vehicles done?	Yes					
Specify the type of fuel used by your campus's vehicles	Diesel – 19 Petrol/CNG – 69 Electric – 4					
Air Quality Monitoring Program (If, Any)	Yes, half-yearly monitoring is done by the NABL-approved Laboratory					
	SGT University implements several measures to mitigate air pollution on campus:					
Tell Air pollution mitigation initiatives, if any?	<b>Promotion of Public Transport:</b> Students are encouraged to use public transportation, reducing the number of private vehicles on campus.					
	<b>Restricted Vehicle Movement</b> : No vehicle movement is allowed within the campus, except for periodic goods and service vehicles. This minimizes air pollution from vehicular emissions.					
	<b>Designated Parking</b> : Staff vehicles are parked in a designated space within the campus, further limiting vehicular movement and associated pollution.					
	<b>Dust Pollution Control</b> : Paved roads and extensive vegetation on campus significantly reduce dust pollution.					
	<b>Waste Management</b> : Burning of waste within the campus is strictly banned, preventing the release of harmful pollutants into the air.					

## **1.5 Environment Legislative Compliance**

	Yes, To promote environment management on the campus, SGT University follows these:
Are you aware of any environmental Laws About different aspects of environmental management?	<ul> <li>Protection of trees on campus (National Green Tribunal Act, 2010)</li> <li>De-concretization of trees (National Green Tribunal Act, 2010)</li> <li>Segregation and recycling of Waste (Solid Waste Management Rules 2016)</li> <li>Reduce Noise on campus (Noise pollution (regulation and control) rule, 2000)</li> <li>Reduce single use of plastic, and recycling of plastic (Plastic Waste Management Rules, 2016)</li> <li>Recycling of electronic waste (e-waste Management and Handling Rules 2011)</li> </ul>
Does your institute have any rules to protect the environment? List possible Rules you could include.	Yes, the environment committee is conscious of environment protection and takes proper measures in terms of awareness campaigns, activities, webinars, seminars, etc.
Does Environmental Ambient Air Quality Monitoring conducted by the Institute?	Yes, half yearly monitoring is done by the NABL approved Laboratory
Does Environmental Water and Wastewater Quality monitoring conducted by the Institute?	Yes, half yearly monitoring is done by the NABL approved Laboratory
Does stack monitoring of DG sets conducted by the Institute?	Yes, half yearly monitoring is done by the NABL approved Laboratory
Is any warning notice, letter issued by state government bodies?	No
Does any Hazardous waste generated by the Institute?	Yes, it is being disposed though the authorized external agency. (Biotic Waste limited)

## **1.6 General Information**

Does your institute have any rules to protect the environment? List possible rules you could include.	The institution is a Swachhta action plan institute. It follows the 5 parameters of Swachhta (i) Energy Management (ii) Water management (iii) Sanitation and Cleanliness (iv) Greenery Management (v) Waste management. The University received certificate due to the efforts made by the students, faculty members, and staff to promote and implement Swachhta on the campus.
Are students and faculties aware of environmental cleanliness ways? If Yes Explain	SGT University creates awareness through activities, Webinars, cleanliness drives in the community.
Does Important Days Like World Environment Day, Earth Day, and Ozone Day etc. eminent in Campus?	Yes, World Environment Day, Ozone Day, Earth Day, Earth Hour and more are celebrated on campus. Furthermore, SGT University organizes different activities such as a workshop on –Renewable Energy, a webinar on Geo-informatics for Environmental Conservation and Management and 'Water Conservation and Environmental Sustainability, activity on - The Best out of Waste, Various plantation drives of native plants, etc.
Does Institute participate in the National and Local Environmental Protection Movement?	Yes, SGT University is actively participating in environment protection movements like Swatch Bharat Abhiyan by students at the campus
Does Institute have any Recognition or certification for environment friendliness?	Yes. SGT University has received recognitions and certifications like a Certificate of I Guage, ISO 14001:2015, and letters from the village sarpanch for their awareness initiatives, cleanliness and plantation drives.
Does Institution conduct a green or environmental audit of its campus?	This is the sixth time; university has carried out external audit.
Has the institution been audited /accredited by any other agency such as NABL, NABET, TQPM, NAAC etc.?	Yes, University is accredited NAAC A+, NABH, NABL, IGBC

## **Green Initiatives By campus**

#### • Solid Waste Management

- University does composting for horticulture waste
- Reduce the use of paper by supporting the digitization of attendance and internal assessment records.
- Reduce the requirement of printed books by updating the e-books and e-journals collection of the University library.
- Take initiatives to spread awareness amongst students about food wastage and ways of minimizing it
- The habit of reusing and recycling non-biodegradable products
- Organizing workshops for students on solid waste management.
- There is a ban on single-use plastic and plastic crockery in the campus.
- Systematically engage with the 3Rs of environment friendliness (Reduce, Reuse and Recycle).

#### • Liquid Waste Management

- Maintain leakproof water fixtures.
- Minimize the use of water by constructing more Indian-style toilets instead of Western-style toilets.
- Continued employment of a caretaker to take immediate steps to stop any water leakage through taps, pipes, tanks, toilet flush etc.
- Reuse of wastewater generated by the Reverse Osmosis (RO) system in washrooms.

#### • E-waste Management

The University has a separate storeroom for the safe storage of electronic waste.
 Periodically, the University disposes of e-waste through an auction process to concerned agencies.

#### • Waste Water Management

- o The University has two Sewage Treatment Plants (STP) with a capacity of 275 KLD.
- There are two Effluent Treatment Plant (ETP) units with capacities of 40 KLD and 10 KLD respectively.

#### • Renewable Energy

- A solar power plant with a capacity of 910 KW is installed on the building roof, supplying approximately 20% of the campus's total power.
- Solar water heaters are installed on campus.
- o The University is using solar lights for street lights

#### Tree Plantation Drives

 Five plantation drives were conducted, with a total of 113,182 trees, ornamental plants, and hedge plants planted this financial year, achieving a survival rate of more than 80%.

#### • Air Pollution Reduction

 Personal vehicles belonging to students are not allowed on campus to reduce air pollution.

#### • Rainwater Harvesting

 SGT University has 12 traditional rainwater harvesting units and an additional 12 units with modular filters.

## Recommendations

- Adopt Green Building Guidelines: Future expansion projects of the University should comply with the Energy Conservation Building Code (ECBC).
- **Promote Recycling Education**: Conduct webinars and campaigns to increase recycling awareness and practices on campus.
- Collaborate with Community and NGOs: Work with community groups and non-governmental organizations to develop solutions to environmental issues.
- Maintain AC and DG Units: Implement a periodic maintenance schedule for air conditioning (AC) and diesel generator (DG) units to achieve optimized efficiency.
- Sanitary Waste Disposal: Provide facilities for sanitary waste disposal in accordance with the Central Pollution Control Board (CPCB) guidelines and Solid Waste Management Rules, 2016.
- Water Metering: Implement water metering records to facilitate water auditing and balancing.
- Reduce Carbon Emissions: Implement strategies to reduce power consumption, thereby decreasing carbon emissions.

## **Conclusion**

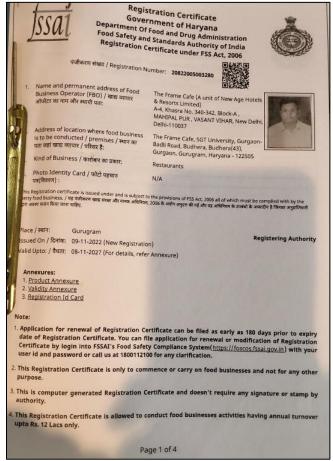
This audit involved extensive consultations with all campus teams and interactions with key personnel on a wide range of environmental issues. The University is devoted to promoting environmental management and conservation both on campus and within the community. The audit has identified several suggestions for making the campus premises more environmentally friendly. These recommendations are provided for the university campus team to initiate actions.

The audit team opines that the overall site is well-maintained from an environmental perspective. The recommendations in this report highlight numerous ways in which the university can improve its actions and become a more sustainable institution.

## **References:**

- The Environment [Protection] Act 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- The Petroleum Act: 1934 The Petroleum Rules: 2002
- The Central Motor Vehicle Act: 1988 (Amended 2011) and The Central Motor Vehicle
- Rules:1989 (Amended in 2005)
- Energy Conservation Act 2010.
- The Water [Prevention & Control Of Pollution] Act 1974 (Amended 1988) & the Water (Prevention & Control of Pollution) Rules – 1975
- The Air [Prevention & Control Of Pollution] Act 1981 (Amended 1987) The Air (Prevention & Control of Pollution) Rules 1982
- The Gas Cylinders Rules 2016 (Replaces the Gas Cylinder Rules 1981
- E-waste management rules 2016
- Electrical Act 2003 (Amended 2001) / Rules 1956 (Amended 2006)
- The Hazardous Waste (Management and Handling and Trans-boundary Movement) Rules, 2008 (Amended 2016)
- The Noise Pollution Regulation & Control rules, 2000 (Amended 2010)
- The Batteries (Management and Handling) rules, 2001 (Amended 2010)
- Relevant Indian Standard Code practices

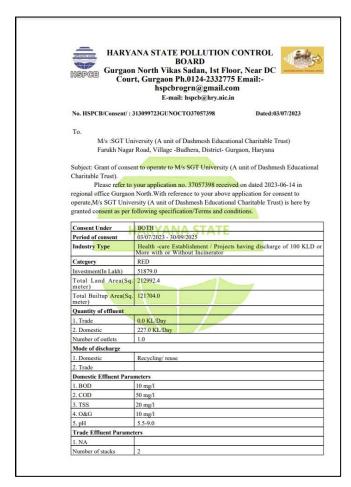
# **Annexure I – Environmental Recognition and Compliance**

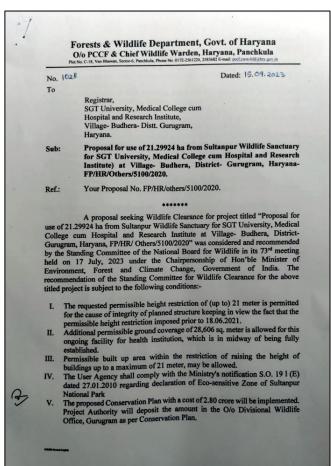




FSSAI Certificate

MOU with Gurgaon Waste Management System Ltd





**Consent Grant from HSPBC** 

Clearance letter From Forests & Wildlife Dept.

# **Annexure II - Photographs of Environment Consciousness**



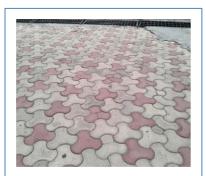
Well maintained campus



Well ventilated building



Lush green campus



**Paved Pathways** 



Color coded dustbins



Sprinklers for gardening



Ornamental plants in campus



Indoor plants in campus



**Smart Classrooms** 



Plastic reused as Dustbins



Push Taps to save water



Airpurifying indoor plants



Urinals to save water



Awareness message display



Rainwater harvesting pit



Washing machines in hostel for water conservation



Solar Lights installed



Solar PV installed on building roof



Waste segregation for disposal



Sensor based LED light to save electricity



Bird-Nest for biodiversity promotion



Pledge for environment



Awareness posters



Central Laundry at the campus



STP plant to treat wastewater



Desert cooler for small area



## END OF REPORT