

Dayanand Girls' PG College Kanpur

Green Audit Report



2021-22 & 2022-23

Prepared by

Society for Academic facilitation and Extension (Regd.)

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Acknowledgement

We extend our sincere appreciation and gratitude to the esteemed members of the Managing Committee of Dayanand Girls' PG College, Kanpur, for their invaluable contributions and unwavering support in the completion of the Green Audit report. The dedication and collaborative efforts of the following individuals have been instrumental in the successful execution of this project:

Managing Committee:

1. Shri. Manvendra Swarup	Chairman
2. Smt. Kumkum Swarup	Vice-Chairman
3. Shri. Gauravendra Swarup	Secretary
4. Shri. Ranjit Singh	Joint-Secretary
5. Smt. Ananta Swarup	Member
6. Dr. Virendra Kumar Srivastava	Member
7. Dr. Geeta Mathur	Member
8. Smt. Madhu Srivastava	Member
9. Dr. Meeta Jamal	Member
10. Dr. Prem Narayan Nigam	Member
11. Dr. Ashwani Kumar Asthana	Member
12. Prof. Archana Verma	Principal

College Officials:

1. Prof. Archana Varma (Principal)	Chairperson
2. Prof. Vandana Nigam	Coordinator
3. Dr. Nivedita Tandon	Teacher Member
4. Prof. Sugandha Tiwari	Teacher Member
5. Prof. Alka Srivastava	Teacher Member
6. Prof. Suman Singh	Teacher Member
7. Dr. Archana Dixit	Teacher Member
8. Dr. Eshita Pandey	Teacher Member
9. Mrs. Sanchita Laxmi	Teacher Member
10. Mr. Krishnendra Kumar	Acting Office Superintendent

We are grateful for the cooperation and assistance provided by the entire college community, whose commitment to sustainability and environmental stewardship has greatly contributed to the success of this audit.

Sincerely,

SAFE (Society for Academic Facilitation and Extension)



About the Institution

Introduction

Established in 1959, Dayanand Girls' PG College in Uttar Pradesh holds the distinction of being the first post-graduate college for women in Kanpur, affiliated with C.S.J.M. University, Kanpur. Under the mentorship of the late Dr. Nagendra Swarup Ji, the institution has set a significant educational benchmark. Dayanand Girls' PG College offers a comprehensive range of programs, including 13 undergraduate and 12 postgraduate courses, all available in full-time mode. These courses are designed to equip students with essential skills and knowledge in their chosen fields. Students can pursue various degrees such as M.Sc., M.A., B.A., B.Ed., and B.Sc. in streams like Science, Humanities & Social Sciences, and Teaching & Education.

The college brings together students from diverse cultural and religious backgrounds, providing a rich and varied academic and vocational experience. It aims to develop each student into a strong, integrated woman, inspiring them to be responsible, committed to serving others and society, and to receive a holistic education.

Over time, Dayanand Girls' PG College has offered students the opportunity to gain expertise and proficiency through its trained and experienced faculty. The college also boasts excellent facilities and infrastructure, including a cafeteria, labs, library, and sports complex

Statements of the Institution

- **Vision:** The College has envisioned “Dayanand Girls PG College is the first Post - Graduate College for women in Kanpur, University affiliated to the Chhatrapati Shahu Ji Maharaj University, Kanpur. We bring together students from different cultural and religious backgrounds and offers rich and varied academic and vocational programmes”.
- **Mission:** The College has a mission “The institution strives to develop each student into a strong, responsible citizen, committed to the service of others and society and at the same time receive a holistic education.
- **Motto:** “*Asto Ma Sadgamaya Tamso Ma Jyotirgamaye*”
- **Objective:** “The college has been a paragon and a source of inspiration in the field of arts and science. It has maintained its conspicuous presence in academia and has always been steadfast in its mission to promote in the various fields of learning. Moreover, free pursuit of knowledge is encouraged here, within an environment that is respectful and congenial to all members”.
- **Aim of the College:** A Dayanand Girls' PG College student should develop a broad knowledge base in her discipline, critical thinking, independent decision making and creative problem solving, the ability to work individually and collaboratively, An understanding of spiritual and ethical values including an awareness of the Vedic perspective, The ability to be sensitive to the cultural and environmental issues contributing to their sustenance.



The Natural Environs of Dayanand Girls' PG College, Kanpur

Dayanand Girls' PG College in Kanpur is situated in a setting that harmoniously blends urban convenience with a touch of natural tranquility. Located in one of Uttar Pradesh's prominent industrial and educational hubs, the college campus serves as a serene oasis amidst the bustling cityscape of Kanpur. The campus itself is adorned with lush greenery, featuring well-maintained gardens and tree-lined pathways that provide a refreshing environment for both students and faculty. These green spaces are not only aesthetically pleasing but also offer a peaceful retreat from the rigorous academic activities, promoting mental well-being and focus.

In addition to the manicured lawns and flower beds, the campus is home to several age-old trees, which stand as silent witnesses to the institution's long history and tradition. These trees not only add to the scenic beauty but also provide ample shade, making the outdoor spaces more comfortable for various activities and gatherings.

The college's location also offers easy access to the city's numerous parks and recreational areas, allowing students to explore and enjoy nature beyond the campus boundaries. The proximity to the Ganges River further enriches the natural setting, with the riverbanks providing a picturesque locale for reflection and relaxation. Moreover, the institution's commitment to sustainability and environmental awareness is evident in its initiatives to maintain a green campus. Efforts such as rainwater harvesting, waste recycling programs, and energy-efficient practices highlight the college's dedication to preserving its natural surroundings.

In summary, Dayanand Girls' PG College, Kanpur, is characterized by a harmonious blend of urban accessibility and natural beauty. The verdant campus, coupled with the institution's eco-friendly initiatives, creates an enriching environment conducive to learning, growth, and personal development.

Assessment of the College

- **Affiliation:** The College has all its courses approved and affiliated to **The Chhatrapati Shahu Ji Maharaj University, Kanpur.**

Certification-

- **AISHE:** The College has the AISHE Code C-12428
- **Recognition:** The College is recognized by University Grant Commission (UGC) under section 2(f) and 12 (b) of the UGC Act, 1956 vide by University Grants Commission, New Delhi

Institution overview

- **Populace analysis for Academic year 2022-23**



❖ **Students' data**

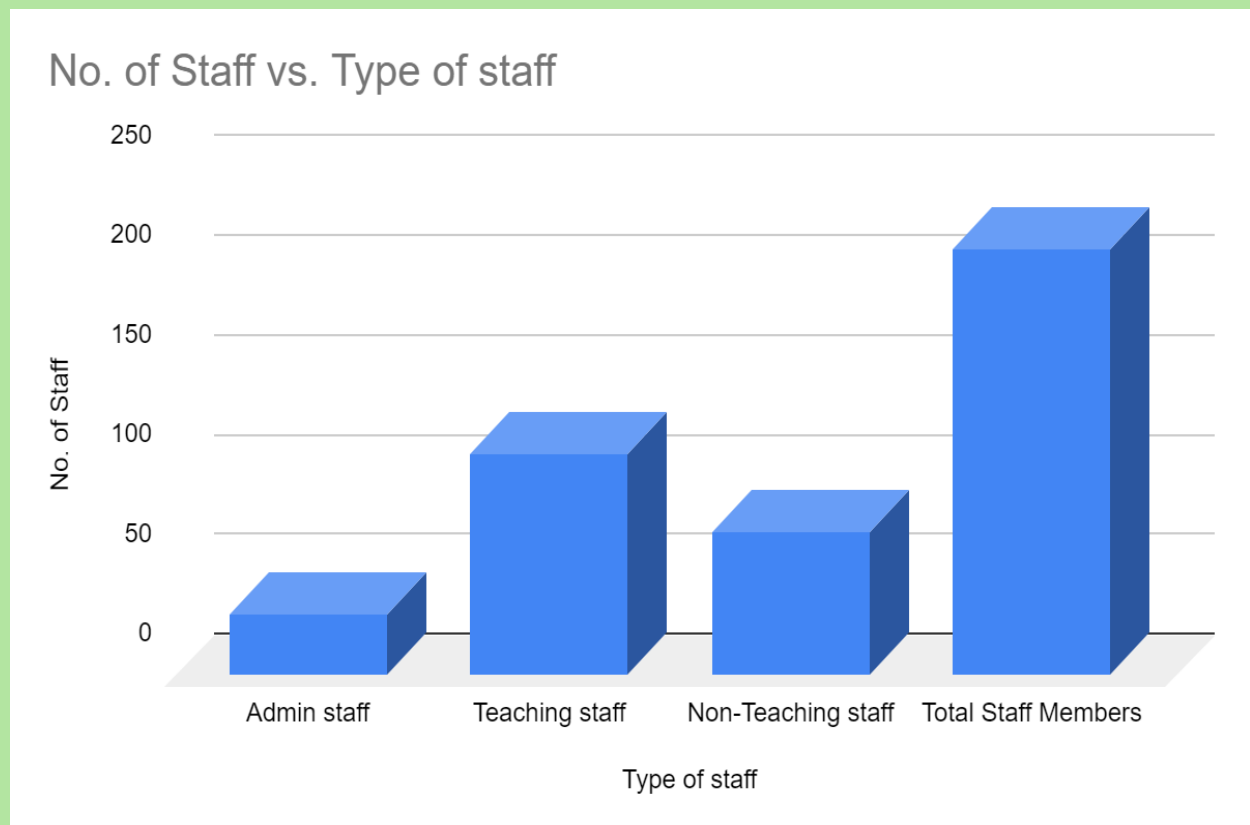
The data provided by the College indicates that there were a **total of 2973** students on the premises.

❖ **Staff data**

Type of Staff	No. of Staff
Admin staff	31
Teaching staff	111
Non-Teaching staff	72
Total Staff Members	214

Table 1: Staff data of the Institution for 2022-23

The staff data shows the premises had a total of **214** Staff Members.



➤ **Populace analysis for Academic year 2021-22**

❖ **Students' data**

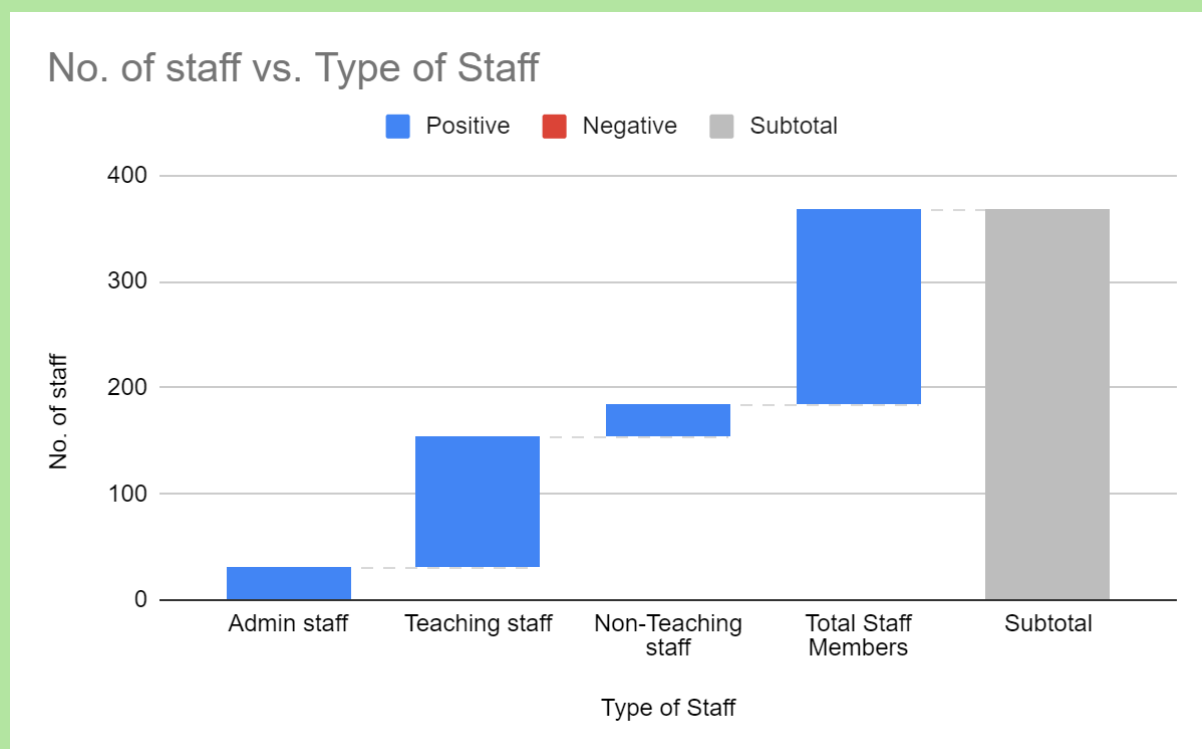
The data provided by the College indicates that there was a **total of 3371** students on the premises.

❖ **Staff data**

Type of Staff	No. of staff
Admin staff	31
Teaching staff	124
Non-Teaching staff	29
Total Staff Members	184

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

The staff data shows the premises had a total of **184** Staff Members.



College Infrastructure

Establishment: The College was established in 1959. The building is a Reinforced Cement Concrete (RCC) framework building. Overall, the Infrastructure of the Building is excellent in terms of the Architecture Design and Green Building Design. The Premises covers quite a few of the requirements for a Green Habitat. The infrastructure of a college refers to the physical facilities and resources that support the educational and administrative functions of the institution. It encompasses various elements such as buildings, classrooms, libraries, laboratories, administrative offices, recreational areas, and other facilities.

Spatial Organisation: The overall ambience of the College is warm and inviting. The classrooms and other spaces benefit from ample natural ventilation through clear glass windows that allow fresh air to flow in. The building's architecture is well-designed, featuring a color palette that not only makes the structure stand out but also gives it an institutional feel. This design harmonizes with the local architecture and the natural landscape, which includes large trees surrounding the area. The emphasis on design creates a calm environment, seamlessly blending the built form with the serene surroundings. The floor-to-ceiling height exceeds 11 feet. While there are no lifts in the premises, amenities include CCTV, fire extinguishers, a library, and a first aid box.

SAFE Study Audit

➤ About the SAFE Study Audit

It is a systematic study of the factors that make the institution a sustainable and healthy environment for its inhabitants.

➤ Analysis for the SAFE Study Audit

The procedure included detailed verification for the following:

Energy Audit

- Analysis of the Lights, Fans, AC, Equipment
- Renewable energy
- Scope for reducing the current energy bills if any
- Improvement in the thermal comfort of the premises

Green Audit

- Green initiatives
- Hygiene audit
- Water Audit - Analysis of the current water consumption of premises; Scope to include Rain water harvesting and Waste water treatment in premises



- Waste Audit - Current waste produced, its segregation and usage; Strategies to be adopted for waste management and awareness

Environmental Audit

- Analysis of the current landscape + hardscape of campus
- Analysis of the flora and fauna of campus
- Strategies adopted at present to enhance vegetation
- Measures that can be adopted for ecological improvement of the premises.

➤ **Strategy Adopted for SAFE Study Audit**

The strategy included data collection from the administrative department, actual inventory inspection, investigation of operation and maintenance procedures, analysis of the collected data, and preparation of the report.

Timeline of the Activities for Green Building Study Audit

- 10 May 2024 – Allotment and Initiation by the College
- 10 May 2024 – Induction meeting
- 14 May 2024 – Survey of the Student and staff submitted.
- 04-05 June 2024 - Site visit at the Institute
- 06 June 2024 – Submission of the report

Green Audit of Dayanand Girls' PG College, Kanpur

In the face of escalating global warming and climate change, it is crucial for educational institutions to adopt sustainable practices. By instilling eco-conscious values in the younger generation, we lay the groundwork for a more sustainable future. Dayanand Girls' PG College, Kanpur, exemplifies this commitment through its comprehensive green practices. During our site investigation and data verification, we observed several key initiatives common across the campus:

1. Green Practices

- **Water Waste Treatment:** The college employs a water waste treatment system that releases treated water into the fields, aiding in the replenishment of underground water levels.

2. Waste Management

- **Waste Disposal:** Every laboratory, classroom, and corridor is equipped with dustbins, ensuring proper waste disposal. Plastic bags are strictly banned across the campus, including the canteen, to minimize plastic waste.

3. Social Awareness



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- **Awareness Drives:** The college actively engages in awareness campaigns on various social issues, focusing on rural upliftment and regeneration. These drives extend beyond the campus to surrounding villages, fostering a community-oriented approach to social responsibility.

4. Cleanliness Campaign

- **Swachh Bharat Abhiyan:** The college participates in the Swachh Bharat Abhiyan both on and off the premises, promoting cleanliness and hygiene among students and staff.

5. Fresh Environment

- **Eco-Friendly Ambiance:** The campus boasts an eco-friendly atmosphere with fresh air and a soothing environment, crucial for maintaining physical and mental balance. This inviting space encourages both indoor and outdoor learning, essential for a holistic educational experience.

6. Silent and Peaceful Atmosphere

- **Residential Location:** Situated amidst well-designed residential areas, the college benefits from reduced pollution levels, providing a healthy and serene ambiance conducive to learning.

7. Universal Design

- **Accessibility:** The college premises are equipped with ramps and rails, ensuring accessibility for specially-abled individuals, fostering an inclusive environment.

8. Teamwork

- **Cooperative Staff:** A standout feature of the college is its highly coordinated and cooperative staff. Just as a strong foundation is vital for a building's future, the dedicated staff members are integral to the institution's success and growth.

9. Botanical Signage

- **Plant Signages:** The practice of labeling plants and trees with their scientific names is diligently followed, enhancing botanical knowledge and appreciation among students and staff.

Dayanand Girls' PG College, Kanpur, sets a commendable example of how educational institutions can integrate green practices into their operations, fostering an environment of sustainability and social responsibility. These efforts not only contribute to the well-being of the campus community but also serve as a model for other institutions to emulate.

Community Development and Eco-friendly Initiatives at Dayanand Girls' PG College, Kanpur

Community Development

Dayanand Girls' PG College, Kanpur, is deeply committed to community development through a variety of impactful programs. These initiatives include:



- **Tree Plantation:** Promoting environmental sustainability through extensive tree planting efforts.
- **Life Learning and Employability Skills Programs:** Equipping youth with essential life skills and enhancing their employability prospects.
- **Blood Donation Camps:** Facilitating voluntary blood donation to support local healthcare needs.
- **Food Kit Distribution Programs:** Providing essential food supplies to the surrounding community.
- **Relief Fund Programs:** Offering financial support and resources during times of crisis.

These programs reflect the college's dedication to social welfare and community upliftment. We commend the institution for its thoughtful planning and execution of these initiatives.

Eco-friendly Initiatives

Dayanand Girls' PG College has undertaken several commendable eco-friendly initiatives aimed at environmental conservation and sustainability:

Environmental Sustainability and Green Initiatives

Dayanand Girls' PG College is deeply committed to enhancing environmental sustainability through its ongoing plantation drives. These drives are integral to the college's efforts to create a greener, more sustainable campus and community. Key activities include:

- **Campus Greening:** The college campus is the primary focus for these drives. Students and staff plant a variety of trees and plants, contributing to the biodiversity of the campus and creating a more pleasant and healthy environment for all.
- **Community Participation:** The college extends its plantation activities beyond the campus, involving the local community and nearby schools. This helps to raise awareness about the importance of trees and encourages wider community engagement in environmental conservation.

Disaster Management

Preparedness and Resilience Building

Dayanand Girls' PG College recognizes the importance of disaster preparedness and has implemented comprehensive disaster management programs to ensure the safety and resilience of its students, staff, and the broader community.

Cleanliness Drive

Dayanand Girls' PG College regularly organizes cleanliness drives as part of its commitment to maintaining a clean and healthy environment. These drives involve students, faculty, and staff coming together to clean the campus and surrounding areas. The National Cadet Corps (NCC) cadets, along with the Associate NCC Officer (ANO) and Army personnel, have led significant cleanliness efforts in various parts of Kanpur, including the Pared area. These initiatives not only promote hygiene but also instill a sense of responsibility and community service among participants.



Online Yoga Classes

Recognizing the importance of mental and physical well-being, Dayanand Girls' PG College has introduced online yoga classes. These sessions are designed to help students and staff maintain their health, reduce stress, and improve concentration, especially during times when in-person gatherings are not possible. The yoga classes, conducted by experienced instructors, cater to all levels and encourage a holistic approach to health.

Har Ghar Tiranga Drive

In celebration of India's independence and to foster a sense of patriotism, the college participates in the "Har Ghar Tiranga" drive. This initiative encourages students, faculty, and staff to hoist the national flag at their homes. The drive aims to deepen the connection of every Indian with the national flag and promote the spirit of nationalism. Various programs and workshops are held to educate participants about the significance of the Tiranga (national flag) and the values it represents.

Muskurayega India Drive

The "Muskurayega India" (India will smile) drive is an initiative aimed at spreading positivity and hope during challenging times. Dayanand Girls' PG College engages in this drive by organizing activities such as online motivational talks, cultural programs, and creative contests. These activities are designed to uplift the spirits of the college community, encouraging resilience and optimism.

Swachhta Pakhwara

As part of the nationwide Swachhta Pakhwara (Cleanliness Fortnight), Dayanand Girls' PG College conducts a series of activities focused on cleanliness and hygiene. This includes not only cleaning the campus and its surroundings but also organizing awareness campaigns on the importance of cleanliness. Workshops and seminars are held to educate students about sustainable practices, waste management, and the health benefits of maintaining a clean environment.

Fit India Run Activity

Promoting physical fitness and a healthy lifestyle, the Fit India Run activity is a major event at Dayanand Girls' PG College. Students, faculty, and staff participate in the run, which emphasizes the importance of regular physical activity. The event is part of the broader Fit India Movement, aiming to encourage everyone to adopt healthier habits. The college also integrates fitness challenges and educational sessions on nutrition and wellness into this activity.

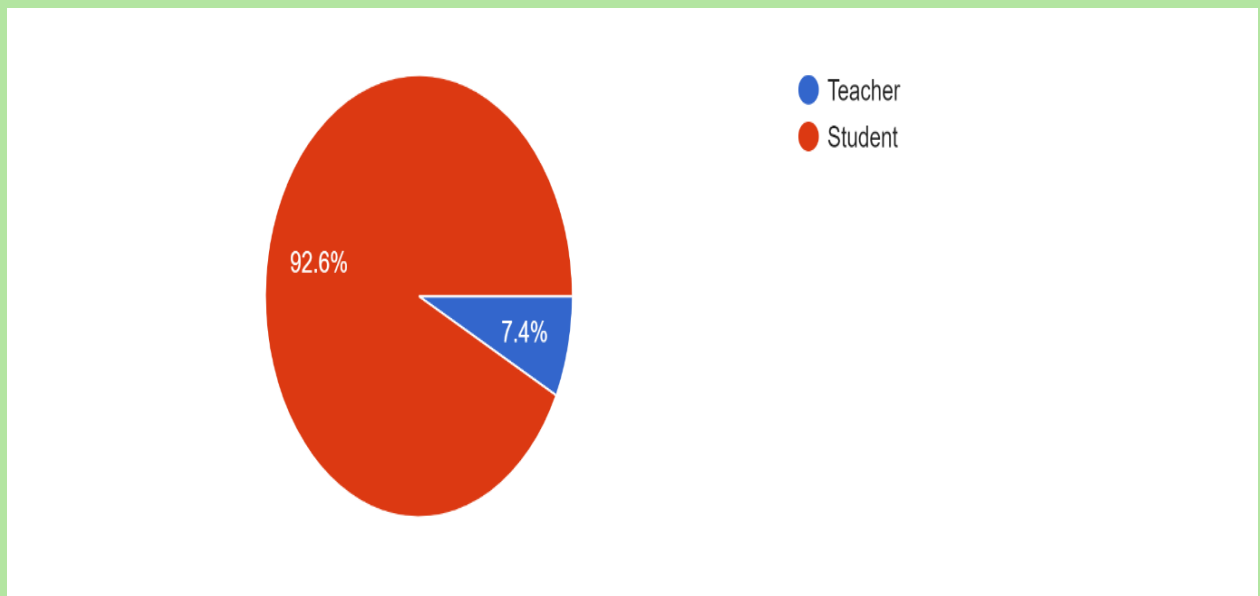
Through these diverse initiatives, Dayanand Girls' PG College, Kanpur, demonstrates its commitment to fostering a healthy, clean, and patriotic environment for its community. These activities not only enhance the well-being of the participants but also contribute positively to the broader society.



Survey Results:

(A) Total Response: 1310

92.6% Students and 7.4% Teachers

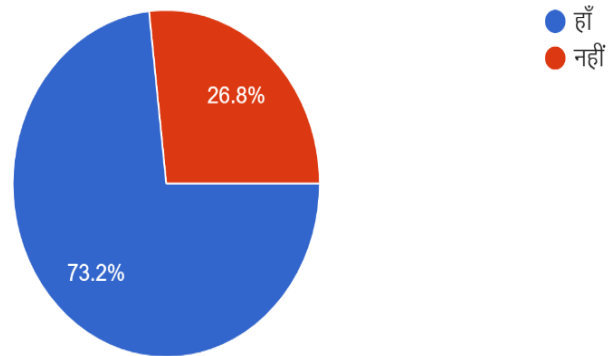


(B)



क्या आपने कॉलेज में पेड़ लगाने और पर्यावरण संरक्षण के लिए किसी अन्य कार्यक्रम में भाग लिया है? Have you participated in any other programs for tree planting and environment conservation in college?

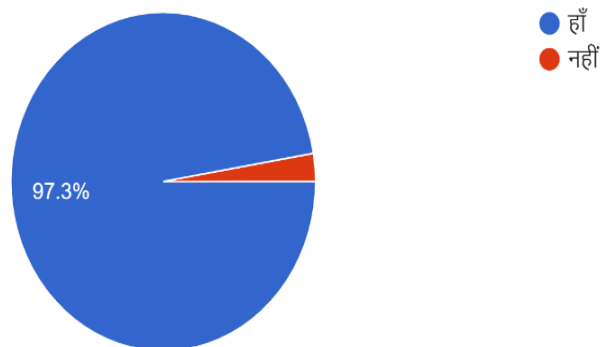
1,310 responses



(C)

क्या आपको प्लास्टिक की उपयोगिता और उसके पर्यावरण पर प्रभाव के बारे में जानकारी है? Do you know about the usefulness of plastic and its impact on the environment?

1,310 responses

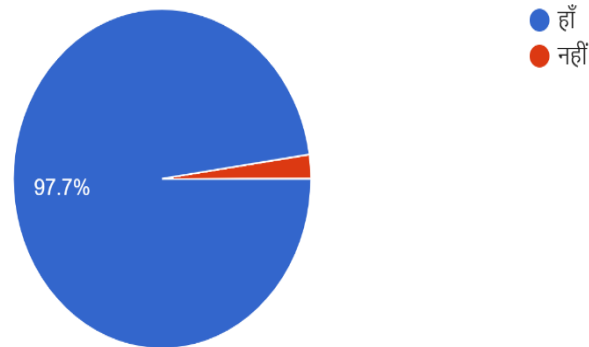


(D)



क्या आपको लगता है कि कॉलेज में प्लास्टिक का प्रयोग कम होना चाहिए? Do you think the use of plastic should be reduced in college?

1,310 responses



Waste Audit

Waste Audit at Dayanand Girls' PG College, Kanpur

Waste management is a critical aspect of maintaining a clean and sustainable environment within Dayanand Girls' PG College, Kanpur. The college recognizes the importance of responsible waste handling and has undertaken a comprehensive waste audit to assess its current practices and identify opportunities for improvement.

Overview

Waste is an inevitable byproduct of daily activities, but through effective management techniques, its impact on the environment can be minimized. The waste audit aims to evaluate various aspects of waste management within the college premises, including the types of waste generated, collection locations, disposal methods, and potential opportunities for recycling and treatment.

Waste Produced

Types and Disposal of Waste in Premises

The college categorizes waste into different types, each requiring specific handling and disposal methods. These include:

1. Solid Waste:

- *Source and Quantity:* Biodegradable waste primarily originates from toilets, and its quantity is managed through a sewage treatment plant.



- *Current Disposal Method:* Biodegradable waste is treated through the sewage treatment plant.
- *Treatment/Recycling Potential:* Yes, the biodegradable waste can be further treated or recycled. One proposed method is the installation of a small biogas plant in an open space, which can efficiently process biodegradable waste and produce renewable energy.

Collection and Segregation of Solid Waste

1. Initial Collection Points:

- **Dustbins and Waste Bins:** Throughout the campus, dustbins are strategically placed in classrooms, laboratories, corridors, common areas, and the canteen. These bins are designated for different types of waste, including organic waste, recyclable materials, and general refuse, ensuring that waste is segregated at the source.
- **Daily Monitoring:** The college has a dedicated housekeeping team responsible for monitoring and emptying these bins regularly to prevent overflow and maintain cleanliness.

2. Centralized Waste Collection:

- **Collection Stations:** Waste from individual bins is transported to larger, centralized collection stations located at various points on the campus. These stations are designed to hold larger volumes of waste temporarily.
- **Segregation and Sorting:** At these collection points, the waste is further sorted to ensure proper segregation. Organic waste, recyclables (such as paper, plastic, and metal), and non-recyclable waste are separated to streamline the disposal process.

Coordination with Kanpur Nagar Nigam

3. Regular Pickup Schedule:

- **Scheduled Pickups:** The college coordinates with Kanpur Nagar Nigam to arrange regular pickups of the segregated waste. The municipal corporation has designated days and times for waste collection from the college premises.
- **Transport Vehicles:** Kanpur Nagar Nigam dispatches specialized waste collection vehicles to the college. These vehicles are equipped to handle different types of waste, ensuring that organic, recyclable, and non-recyclable materials are transported appropriately.

4. Municipal Waste Management Facilities:

- **Processing and Disposal:** Once collected, the waste is transported to municipal waste management facilities. Here, organic waste is often composted,



recyclable materials are processed and sent to recycling units, and non-recyclable waste is disposed of in accordance with environmental regulations.

- **Environmental Compliance:** The entire process complies with local environmental standards and regulations, ensuring that the college's waste disposal methods are sustainable and eco-friendly.

Environmental Education and Awareness

5. Awareness Campaigns:

- **Student and Staff Involvement:** The college regularly conducts awareness campaigns and workshops to educate students and staff about the importance of proper waste segregation and disposal. These campaigns emphasize the environmental impact of waste and the role of individuals in maintaining a clean and sustainable campus.
- **Eco-friendly Practices:** Initiatives such as reducing single-use plastics, promoting reusable materials, and encouraging composting of organic waste are part of the college's ongoing efforts to foster eco-friendly practices.

6. Monitoring and Improvement:

- **Feedback and Improvement:** The college regularly reviews its waste management practices, seeking feedback from the campus community to identify areas for improvement. This proactive approach ensures that the waste disposal system remains efficient and effective.

Through this structured method of solid waste disposal, Dayanand Girls' PG College, Kanpur, not only maintains a clean and healthy campus environment but also contributes to broader environmental sustainability efforts. The collaboration with Kanpur Nagar Nigam ensures that waste is managed responsibly, highlighting the college's commitment to environmental stewardship and community welfare.

Disposal of Paper Waste:

The disposal of paper waste within the premises of Dayanand Girls' PG College, Kanpur, is meticulously managed through a strategic partnership with EPR Recyclers, facilitated by a Memorandum of Understanding (MoU). This collaboration represents a proactive approach towards environmental sustainability and responsible waste management.

Under this MoU, a structured system is established to handle paper waste generated within the college premises effectively. The process begins with the collection of paper waste from various sources across the campus, including classrooms, offices, and administrative areas. Dedicated collection bins are strategically placed throughout the premises to encourage proper disposal by students, faculty, and staff. Once collected, the paper waste is carefully sorted to remove any contaminants such as plastic or non-recyclable materials. This sorting process ensures that only clean and recyclable paper is forwarded for further processing, maintaining the quality and integrity of the recycling stream.

The sorted paper waste is then transferred to designated collection points within the college, where it awaits pickup by EPR Recyclers. Regular schedules are established for the collection



and transportation of the paper waste, minimizing storage and logistical challenges within the college premises. Upon pickup, EPR Recyclers transport the paper waste to their recycling facility, where it undergoes advanced recycling processes. These processes involve shredding, pulping, and refining the paper waste into reusable pulp, which serves as the raw material for manufacturing new paper products.

Through this methodical approach to paper waste disposal, Dayanand Girls' PG College not only reduces its environmental footprint but also contributes to the circular economy by promoting the recycling and reuse of valuable resources. This partnership with EPR Recyclers exemplifies the college's commitment to sustainable practices and sets a positive example for responsible waste management within the educational community and beyond.

Disposal of Liquid Waste at Dayanand Girls' PG College, Kanpur

Liquid waste management at Dayanand Girls' PG College involves careful handling and responsible disposal practices to ensure environmental sustainability and safety. The method of disposal for liquid waste is as follows:

After experiments, discharged chemicals are collected in sealed plastic containers. These containers are then transported to chemical disposal pits located behind the Chemistry lab.

Source and Quantity of Liquid Waste:

- Liquid waste originates from various sources within the college premises, including offices, departments, and the canteen.
- Approximately 45 litres of liquid waste are generated per day on average.

Treatment/Recycling of Liquid Waste:

- Yes, the college treats and recycles liquid waste to minimize environmental impact and promote sustainability.

Organic waste disposal at Dayanand Girls' PG College, Kanpur, follows an environmentally sustainable approach through the implementation of a vermicomposting pit. This method efficiently manages organic waste generated within the premises while promoting eco-friendly practices.

The college's vermicomposting pit serves as a dedicated facility for the collection and processing of organic waste. This waste primarily originates from two main sources:

1. **College Garden:** The lush greenery of the college garden contributes organic waste materials such as fallen leaves, trimmings, and other plant matter. On average, approximately 10 kilograms of organic waste per day is generated from the garden.
2. **Canteen:** Additionally, organic waste is generated from the college canteen, consisting of food scraps, vegetable peels, and other biodegradable materials. Similar to the garden waste, the canteen produces approximately 10 kilograms of organic waste per day.

This organic waste is systematically collected and deposited into the vermicomposting pit located within the college premises. Vermicomposting involves the use of specialized worms



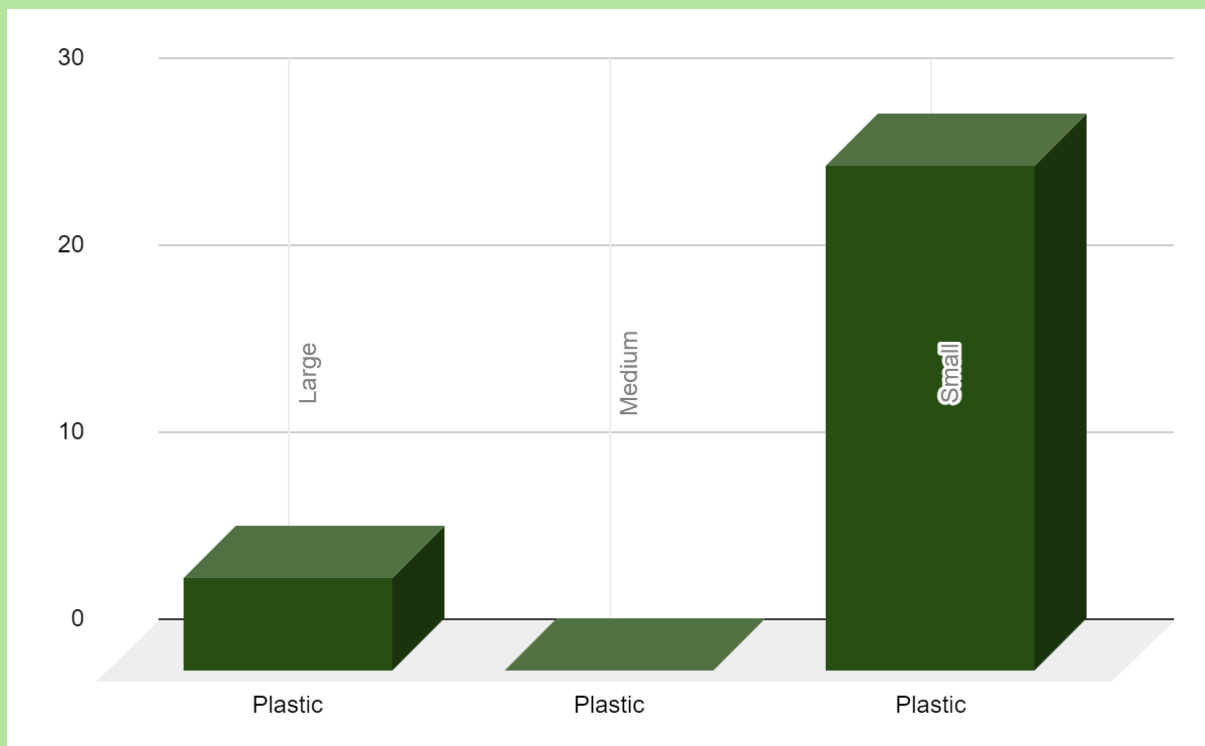
to decompose organic matter, transforming it into nutrient-rich compost. The process is highly efficient and environmentally friendly, as it minimizes waste sent to landfills while producing valuable compost for use in gardening and landscaping projects.

Dayanand Girls' PG College takes proactive steps to treat and recycle organic waste through vermicomposting, demonstrating its commitment to sustainability and responsible waste management practices. By harnessing the natural process of composting, the college not only reduces its environmental impact but also contributes to the creation of a greener and healthier campus environment.

Summary of the types of waste produced in the premises.

Type of Waste	Quantity	Period	Recycled or not
E-waste	20 Kg	Annually	Sold
Paper waste	05 Kg	Daily	NO
Liquid Waste	45 Litres	Daily	Yes
Organic Waste	10 Kg	Daily	Yes

Bins Details in the Campus



Analysis of the Waste Bin inside the Premises



The above graph provides an analysis of the distribution of plastic dustbins based on their size within a specific environment. Here's a breakdown of the data:

1. **Type of Dustbin:** The table categorizes dustbins based on their material, focusing specifically on plastic.
2. **Size of Dustbin:** The size of each dustbin is classified as large, medium, or small, indicating their capacity and intended use.
3. **Number of Dustbins:** This column quantifies the number of dustbins of each size category present in the environment.

Analysis:

- **Plastic Dustbins:** The data exclusively pertains to plastic dustbins, suggesting a preference or mandate for this material, possibly due to its durability, cost-effectiveness, or ease of maintenance.
- **Size Distribution:** Among the plastic dustbins, the majority (27) are small-sized bins, indicating a focus on providing numerous smaller receptacles rather than a few larger ones. This distribution suggests an emphasis on localized waste disposal and accessibility, potentially catering to high-traffic areas or specific waste generation points.
- **Absence of Medium-Sized Bins:** Interestingly, there are no medium-sized plastic dustbins indicated in the table. This absence could imply a deliberate choice based on space constraints, budget considerations, or a strategic decision to prioritize either small or large bins based on usage patterns or waste generation rates.
- **Large Bins:** Five large plastic dustbins are present, suggesting allocation for areas with higher waste volumes or for specific types of waste that necessitate larger containers. These bins may be strategically placed in centralized locations or areas with heavy foot traffic to accommodate a larger volume of waste.

The data from the table provides insights into the distribution and allocation of plastic dustbins based on size within the environment. The emphasis on smaller bins and the absence of medium-sized ones indicates a nuanced approach to waste management, potentially tailored to the specific needs and dynamics of the environment in question.

Waste Handling at Dayanand Girls' PG College, Kanpur

Quantification and Segregation: In accordance with a comprehensive waste survey conducted, various types of waste have been identified within the premises of Dayanand Girls' PG College, Kanpur. These include solid waste, liquid waste, hazardous waste, dry leaves, e-waste, canteen waste, and unused equipment waste. To ensure efficient waste management, the college has implemented a rigorous segregation process where different types of waste are separated at the source. This segregation enables better handling and disposal practices.

Collection and Disposal: The segregated waste is collected on a weekly basis to prevent accumulation and maintain cleanliness across the campus. Notably, the waste is not handed over to the local municipality van for disposal, indicating a self-sufficient waste management system within the college. However, it has been observed that there exists a dumping pit in the



garden area, which poses a concern as it may lead to environmental hazards and is not in line with sustainable waste management practices.

Waste Management Practices: Dayanand Girls' PG College emphasizes sustainable waste management practices to minimize environmental impact and ensure the well-being of the campus community. The college actively promotes the reuse of paper to reduce paper waste generation. Additionally, stringent measures are in place to uphold hygiene standards, with no reported instances of Odor or health-related issues stemming from waste accumulation. Adequate numbers of waste bins are strategically placed throughout the building, facilitating convenient waste disposal for students and staff.

Environmental Impact Mitigation: Efforts are made to prevent pollution of ground and surface water by waste materials, with no instances of reported contamination. Furthermore, the college is proactive in addressing potential air pollution concerns arising from waste disposal activities. Notably, waste from toilets is channelled through underground covered channels (safety tanks) to the main drains, thereby minimizing the risk of environmental incidents and ensuring proper sanitation practices.

Water Audit

Water is a fundamental resource essential for the daily functioning of Dayanand Girls' PG College, Kanpur. Ensuring the provision of clean, uncontaminated drinking water is paramount. A water audit identifies the sources and usage of water on campus, evaluates water requirements, and emphasizes the importance of efficient use and conservation practices.

Water Availability and Consumption

Primary Water Supply Sources: In addition to municipal water, the college utilizes bore wells on-site as primary water sources and the storage of water is in the water tanks. The bore wells are equipped with submersible pumps that provide daily water supply based on the institution's needs.

Water Requirements:

Drinking Water: The college consumes approximately 850-950 liters of drinking water daily. This water is supplied through an Aquaguard-like filtration system, various taps, and water coolers distributed across the campus.

Toilet Blocks: Water usage for toilet facilities, including toilets, urinals, and washbasins, is estimated to be between 400-600 liters per day.

Cleaning: Maintaining hygiene and cleanliness is a significant use of water on campus. Toilet areas are cleaned twice daily, contributing to the overall water consumption.

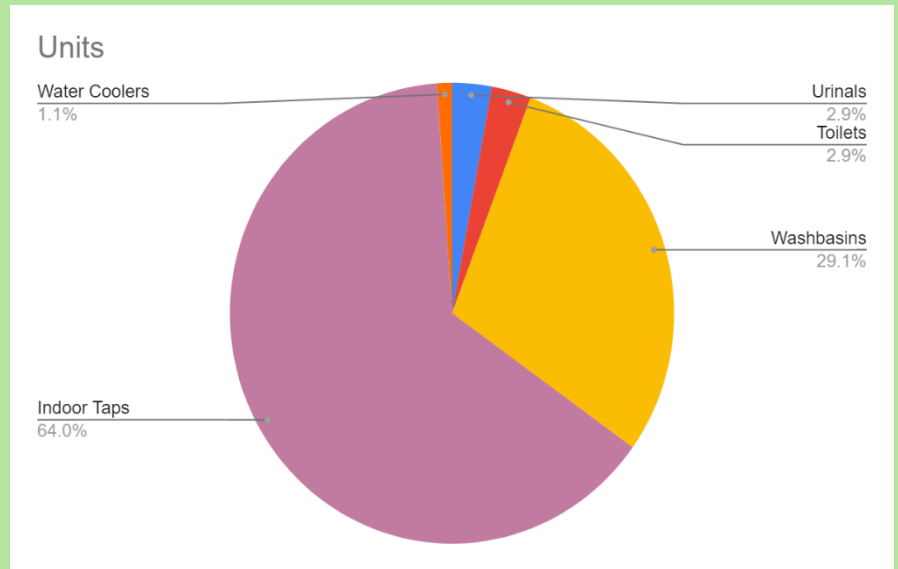


Gardens and Open Spaces: Watering the gardens and maintaining surrounding open spaces require a substantial amount of water. The college employs a sprinkler system to efficiently water the plants and trees, ensuring that these areas are regularly maintained.

Areas of Water Usage:

Based on an inventory conducted and data provided by the staff, the following facilities are present on the campus:

- **Urinals:** 8 units
- **Toilets:** 8 units
- **Washbasins:** 81 units
- **Indoor Taps:** 178 units
- **Water Coolers:** 3 units



Dayanand Girls' PG College, Kanpur, demonstrates a structured approach to water management through the identification of primary and secondary water sources, assessment of water requirements, and implementation of conservation practices. By conducting a comprehensive water audit, the college can ensure the efficient use of water, promote conservation, and maintain a sustainable habitat.

Site Investigation of Water Management

Dayanand Girls' PG College, Kanpur, boasts an exemplary water management system that merits commendation. Our site investigation has revealed the following key observations:

- **Leakage Prevention:** There is no evidence of water leakage across the premises. The piping infrastructure is well-maintained, ensuring high standards of hygiene and operational efficiency.
- **Operational Efficiency:** The water management system operates with exceptional efficiency. Maintenance protocols are robust, with daily cleaning routines ensuring that toilets and washrooms are impeccably tidy.
- **Wastewater Management:** The system effectively prevents wastewater from contaminating groundwater. Wastewater is systematically directed to stormwater drains, mitigating any potential environmental impact.
- **Adequate Facilities:** The premises are equipped with a sufficient number of taps, ensuring convenient access to water for all users.

Recommendations for a Sustainable Habitat



Given the already impressive water management practices in place, we propose the following recommendation to further enhance sustainability:

- **Waterless Urinals:** As a green building initiative, the college could consider installing waterless urinals. This could involve either replacing existing urinals with waterless models or incorporating this technology into newly constructed restrooms. Waterless urinals would significantly reduce water consumption and contribute to the college's sustainability goals.

By implementing this recommendation, Dayanand Girls' PG College can further solidify its commitment to environmental stewardship and continue to set a high standard in sustainable campus management.

Health and Hygiene Audit

Maintaining high standards of health and hygiene is critical for any institution, particularly in educational settings where the well-being of young minds is a priority. Dayanand Girls' PG College, Kanpur, is committed to ensuring a clean, safe, and healthy environment for its students and staff. This audit examines the current facilities and practices in place to uphold these standards.

Facilities Available

The college provides a range of essential hygiene and sanitation facilities, including:

- **Washrooms:** Each building is equipped with washroom facilities to cater to the needs of students and staff.
- **Hand Wash Stations:** Hand washing facilities are available throughout the premises to promote good hygiene practices.
- **Drinking Water:** Water coolers and taps are strategically placed to ensure easy access to clean drinking water.
- **Dustbins:** A sufficient number of dustbins are placed around the campus to encourage proper waste disposal.

Smoke Exposure

Based on a recent site visit, the following observations highlight the college's commitment to minimizing smoke exposure:

- **No Smoking Policy:** The college has prominently displayed "No Smoking" signs to raise awareness and enforce a smoke-free environment.
- **Canteen Operations:** The canteen uses gas cylinders for cooking, eliminating the use of firewood and the associated health risks from smoke inhalation.
- **Waste Management:** There is no burning of waste on campus, which prevents air pollution.
- **Smoke- and Tobacco-Free Campus:** The entire campus is designated as a smoke- and tobacco-free zone, promoting a healthier environment.



- **Parking and Dust:** While there is parking available on campus, any dust issues are mitigated by the abundant greenery, contributing to air quality management.

Hygiene

The site visit and subsequent analysis revealed several positive impacts regarding hygiene practices on the premises:

- **Toilet Facilities:** Washrooms on the ground floor and other areas are well-maintained, with regular cleaning schedules twice daily, ensuring overall cleanliness.
- **Maintenance Staff:** Despite a small maintenance team, the staff diligently maintains the entire campus to high standards.
- **Equipment Maintenance:** Regular checks and maintenance of equipment on each floor ensure operational efficiency and hygiene.
- **Water Management:** Effective water management practices are in place, with clean water tanks and no mosquito breeding sites.
- **Pest Control:** Annual pest control programs are conducted under a professional contract, ensuring effective sanitation.
- **Food Hygiene:** The canteen and food preparation areas are cleaned regularly to prevent water stagnation and accumulation of food waste.
- **Swachh Bharat Abhiyan:** The college participates in the Swachh Bharat Abhiyan, conducting tree plantation and cleanliness drives to support the government's initiative.
- **Storage Facilities:** Storage areas are well-maintained to ensure a clean and organized environment.

On-Site Investigation

During the on-site investigation and physical verification of Dayanand Girls' PG College, Kanpur, the following observations were made:

- **Daily Cleaning:** All facilities within the premises are cleaned on a daily basis, ensuring a high standard of cleanliness and hygiene.
- **Washroom Maintenance:** The maintenance staff are assigned specific responsibilities for maintaining washroom hygiene. They perform their duties commendably, ensuring the washrooms and overall premises remain in excellent hygienic condition.

Recommendations for a Sustainable Habitat

Based on the site verification for this audit, the college's efforts in maintaining the campus are highly commendable. However, to further enhance sustainability, the following recommendations are proposed:

- **Pest Control Programs:** Implement regular pest control programs through a reputable agency to ensure appropriate sanitation across all facilities.
- **Sanitary Facilities:** Install additional sanitary vending machines and incinerators at strategic locations to improve accessibility and waste management.



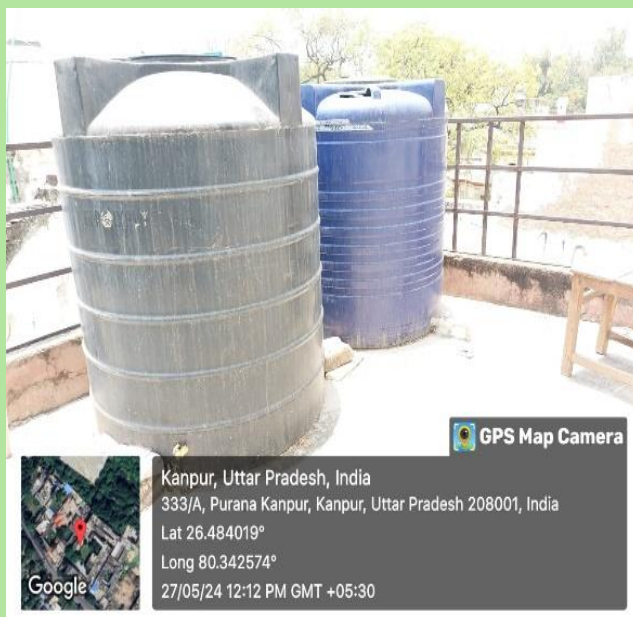
Site Visit Audit Inferences

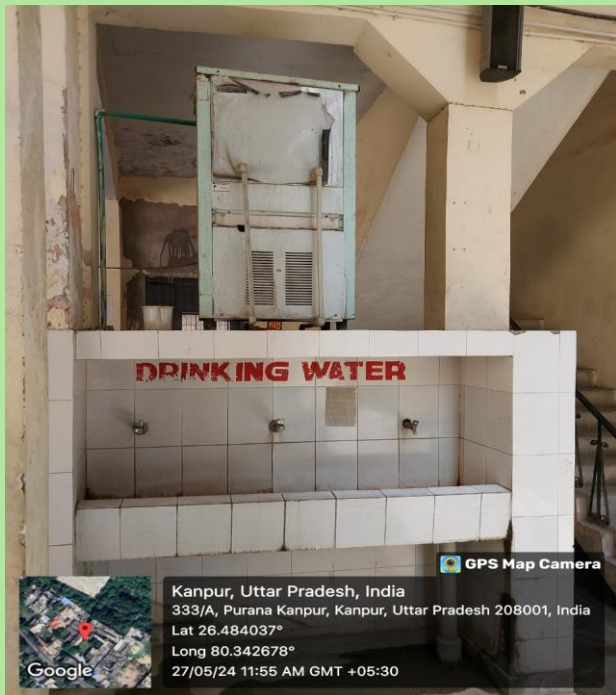
An offline audit was conducted, and the subsequent report is based on inputs provided for immediate action to improve sustainability practices. The key aspects identified are as follows:

- **Memorandum of Understanding (MoU):** It is recommended to sign an MoU focusing on the enhancement of Green Building aspects within the premises. This suggestion was made prior to the site visit.
- **Articles and Documentation:** The campus features multiple elements that enhance its natural beauty and environmental quality. It is suggested to publish monthly articles highlighting these features, as guided by the audit team.
- **Plastic Zone Determination:** Conduct a pilot project to identify and manage plastic waste zones within a 5 km radius of the campus. Collect waste plastic and develop products in collaboration with experts involved in the audit.
- **Net Zero Carbon Reduction Projects:** Launch a pilot project where each student is responsible for planting at least six trees. The detailed plan and scope will be outlined in coordination with experts and as per the MoU.
- **QR Code Name Plates:** The NSS and NCC teams should undertake a project to install QR code name plates on every plant on the premises. This initiative can be executed in collaboration with experts who conducted the audit.

By implementing these recommendations, Dayanand Girls' PG College, Kanpur, can significantly enhance its sustainability practices and continue to serve as a model for environmental responsibility in the educational sector.

Onsite Visit Photos





Kanpur, Uttar Pradesh, India
333/A, Purana Kanpur, Kanpur, Uttar Pradesh 208001, India
Lat 26.484037°
Long 80.342678°
27/05/24 11:55 AM GMT +05:30

GPS Map Camera

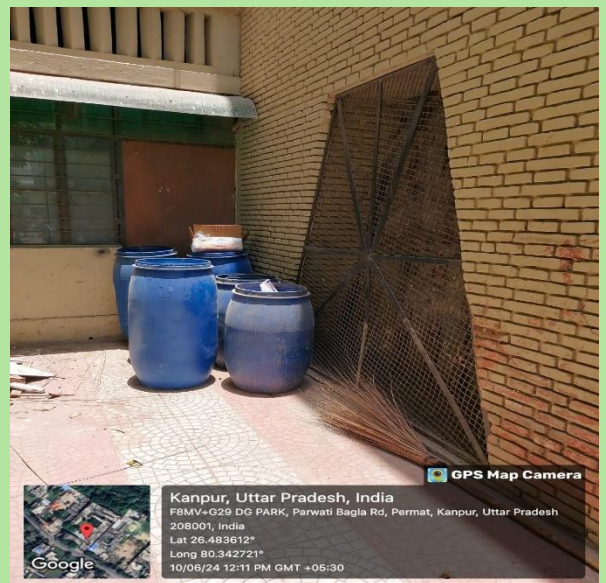


Kanpur, Uttar Pradesh, India
F8MV+822, Parwati Bagla Rd, Permat, Kanpur, Uttar Pradesh 208001, India
Lat 26.483373°
Long 80.342615°
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