



MIRANDA HOUSE

ENVIRONMENT AUDIT REPORT

2024-2025

Prepared By :
EHS ALLIANCE



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AUDIT CERTIFICATE



CERTIFICATE

P R E S E N T E D T O

MIRANDA HOUSE

UNIVERSITY OF DELHI

GC Narang Road, New Delhi, Delhi 110007

Has been assessed by EHS Alliance for the comprehensive study of environmental impacts
on institutional working framework to fulfill the requirement of

ENVIRONMENT AUDIT

ACADEMIC YEAR 2024-25

The environment legal compliances and initiatives carried out by the institution have been
verified on the report submitted and were found to be satisfactory.

The efforts taken by management and faculty towards environment and sustainability are
highly appreciated and noteworthy.



09.09.2025
DATE OF AUDIT

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ACKNOWLEDGEMENT

EHS Alliance Services extends its sincere gratitude to the **Miranda House** for entrusting us with the important task of conducting the **Environmental Audit**. We deeply appreciate the cooperation and support extended by all members involved, which was instrumental in the successful completion of this assessment.

We would like to express our heartfelt thanks to **Prof. Bijayalaxmi Nanda**, Principal, MH, for providing us the opportunity to evaluate the college's environmental performance and sustainability initiatives.

Our special thanks go to **Prof. Namrata Singh**, Audit Coordinator, for her continuous support, valuable insights, and coordination throughout the course of the project. Her commitment played a crucial role in the successful execution of the audit.

We are also grateful to the following individuals for their active participation, assistance in data collection, and support during fieldwork:

Prof. Nisha Vashistha *Coordinator, UBA*

Prof. Rekha Kumari *Convenor, MH Vatavaran*

Dr. E Geetanjali *Convenor, Garden Committee*

Dr Deepak Yadav *Member, IQAC*

Their valuable contributions and commitment were vital to the smooth execution of the audit.





DISCLAIMER

This report has been prepared by the **EHS Alliance Audit Team** for **Miranda House, University of Delhi** based on the data and information provided by designated representatives of the college. The findings and recommendations presented herein reflect the professional judgment and expertise of the audit team, combined with the input received.

While every reasonable effort has been made to ensure the accuracy and reliability of the information, the content has been compiled in good faith. The conclusions and assessments are based on best estimates and current understanding; however, no express or implied warranty, representation, or undertaking is made regarding the completeness, accuracy, or applicability of the contents. The audit team assumes no responsibility for any direct, indirect, or consequential loss or damage resulting from the use of the information, statements, or projections included in this report.

Should this report be shared outside the organisation, **it must be distributed in full, without alteration**, to preserve context and accuracy.

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All confidential information is accessed strictly on a **need-to-know basis**, and all parties involved are committed to upholding the highest standards of data privacy and professional integrity.

A handwritten signature in blue ink, appearing to read 'Hag'.

Signature

LEAD AUDITOR



CONCEPT AND CONTEXT

In India, the concept of **environmental auditing** was first introduced under the **Environment (Protection) Act, 1986**, as notified by the **Ministry of Environment and Forests** on 13th March 1992. According to this legislation, any individual or entity operating an industry or undertaking a process or activity must obtain legal consent and is required to submit an **environmental statement or report** on a regular basis.

In recent years, the importance of environmental responsibility in the education sector has also been emphasized. The **National Assessment and Accreditation Council (NAAC), New Delhi**, has made it **mandatory from the academic year 2019–20 onwards** for all **Higher Educational Institutions (HEIs)** to submit an annual **Green, Environment, and Energy Audit Report**. This initiative is not only regulatory but also aligns with the broader objectives of **Corporate Social Responsibility (CSR)**, encouraging institutions to contribute proactively toward sustainable development.

In compliance with NAAC directives and to uphold its environmental responsibilities, the management of **Miranda House** resolved to conduct a comprehensive **external environmental audit** through a qualified professional agency.

The term "**Environmental Audit**" can vary in meaning depending on the context. It is often used interchangeably with terms like **assessment, survey, or review**. While some organizations focus solely on environmental aspects, others broaden the scope to include **health, safety, and environmental (HSE) considerations**. Despite the absence of a universally accepted definition, many institutions follow the guiding principles set forth 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 organization, management and equipment are performing with the aim of safeguarding the environment and natural resources in its operations/projects."

This audit primarily focuses on evaluating **compliance with environmental regulations**, particularly those laid out by the **Ministry of Environment, Forest and Climate Change (MoEFCC)** and the respective **State Pollution Control Boards (SPCBs)**. It assesses the institution's adherence to legal norms, effectiveness of implementation, and explores areas for improvement in environmental practices.

The subsequent sections of this report will elaborate on the **concept, structure, methodology, tools of analysis, and objectives** used in the environmental audit process.



INTRODUCTION

A Step Toward Sustainable Development

Nature is an invaluable gift to all living beings. However, disturbances in natural systems have led to a rise in environmental challenges, largely driven by rapid urbanization and industrialization. Unplanned and excessive exploitation of natural resources is placing immense strain on the planet, contributing to rising global temperatures and environmental degradation.

To ensure the well-being of future generations, it is crucial to adopt a **sustainable approach to resource utilization**. Globally, **sustainable development** is emerging as a key strategy to safeguard the environment. Wise and judicious use of resources not only preserves their value but also ensures their availability for the future.

One of the most effective methods to monitor and protect our natural resources is through **environmental auditing**. Originating in the early 1970s, environmental audits were introduced in response to legal mandates requiring compliance with environmental regulations. These audits typically involve **on-site inspections, sample collection, data analysis**, and comprehensive reporting to regulatory authorities.

While industries and corporations have increasingly adopted environmental audits as a tool for sustainability, **academic institutions** also play a vital role. By implementing sustainable practices and conducting internal audits, they can significantly contribute to the conservation of resources within their campuses.

This **Environmental Audit Report** aims to inspire awareness and action by encouraging individuals and institutions to reflect on their environmental impact, recognize the importance of conservation, and commit to reducing resource consumption. By setting an example through **eco-friendly initiatives**, we can collectively work towards the broader goal of **sustainable development**.

Effective implementation of environmental audits can significantly minimize environmental risks at a **reasonable cost**, ultimately helping to build a greener, healthier, and more responsible society.

OVERVIEW OF THE COLLEGE

Miranda House, college for women, located in the University of Delhi campus, is a premier women's institution. It was established in 1948 by the then Vice Chancellor, Sir Maurice Gwyer. Lady Edwina Mountbatten laid its foundation stone on March 7 in the same year. Originally designed by renowned architect Walter George, Miranda House is built in warm red brick with cool and spacious corridors. The College shares an architectural affinity with other colonial educational institutions of the country. In the past six decades, as the College has grown, several other buildings have been added in consonance with its original design. Special efforts are being made to preserve the heritage of its pristine architectural glory.



Miranda House offers liberal education in social sciences, humanities and basic sciences to more than 5000 students. The faculty, renowned for its meritorious basis profile and versatile talent, is dedicated to the cause of liberal education. In Miranda, the students develop a sense of social responsibility, intellectual rigour, and practical knowledge. They learn communication, analytical and problem-solving skills, and a demonstrated ability to apply their education to the complex and diverse world. The College has always maintained high academic standards.

More significantly, it has provided students an enabling and creative environment to freely develop and express views that help them respond to changes in society. Being on the University campus, its proximity to other colleges facilitates the participation of Miranda students in several inter-college events, both academic and cultural. The college hostel has one of the most beautiful residential buildings on the University campus. The institution's philosophy is guided by a pedagogy that encourages the students to explore new domains, to critically examine the world around them and to question stereotypes.



The Legacy... traditions and institutional values

MH has a rich legacy. Established at dawn of independence it provided a unique opportunity to young women for quality higher education. They set for themselves high goals and ideals. They worked for a new society in which women would enjoy equal opportunity with men in professional and public fields. In this, they were abetted by the founding faculty who were independent minded, and belonged to the select group of highly educated women in independent India with a deep concern for quality of education they imparted. They were also charged with a spirit of adventure, steeped in idealism, and committed to women empowerment and the task of building a nation. Proud of their mission as early pioneers, they worked with single-minded devotion in setting the Miranda traditions. These attributes of total dedication have contributed in a large measure to the position of distinction occupied by the college. Over more than seven decades of its existence, the college has grown from strength to strength, continuing to provide an atmosphere of high academic excellence and rich cultural activities to its students. The college has established a niche for itself amongst the globally recognized premiere institutions of higher learning.

Being a college established and maintained by the University of Delhi, Miranda House has a special place among the women's colleges of the University of Delhi. Its location in the heart of the University Campus, and its close interaction with the various Departments of the University and other campus colleges gives it a unique advantage. Although a women's college, it is not a cloister. It welcomes interaction with other colleges and educational organizations across the country, actively engaging both men and women in all its extramural activities, competing with the best on equal terms.

The extremely distinguished list of alumnae imparts a sense of confidence and immense pride in students. They view themselves as torchbearers of great traditions. All this propels them to often explore uncharted territory, think unfettered, and bend traditions in a bid to create a better world, especially for women.



MISSION & VISION

The stated mission of the college is to provide

- a stimulating active learning environment attracting young women with exceptional desire to make a difference to the world
- highest quality liberal arts and basic science education through distinctive academic programmes that instill rigour in the pursuit of knowledge
- culturally sensitive inclusive environment upholding core values of respect for diversity
- enriching co-curricular activities linking education to the world of work and communities
- dedicated and responsive faculty of scholars to assist each student fulfill aspirations and reach milestones
- competencies for new domains of knowledge and the future of work in a globally connected world
- early mentoring for leadership instilling capacity to explore new ideas, take intellectual risk, and usher paradigm change



VISION

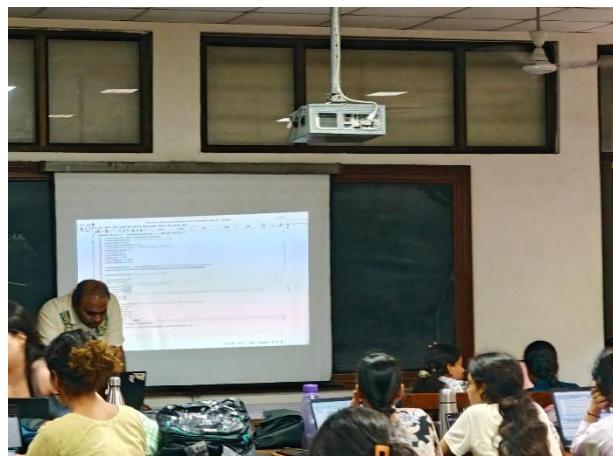
The Upanishadic maxim in the college logo “Swadhyayann pramaditavyam” enshrines Miranda House’s understanding of what education must accomplish and steers students towards introspection and self-learning. Miranda House envisions a world where women have their rightful place and are given due recognition as leaders to reach top positions in all sectors of human endeavour. To give shape to this vision, Miranda House continually reaffirms and embraces its responsibility to build on its historic legacy of leadership in the education of women. It remains strongly committed to addressing issues of gender in all their complexity and preparing young women to: lead professionally successful lives enriched by the love of learning build personally fulfilling lives radiating integrity and strength of character sustain purposeful engagement with the



world with an open mind and balanced perspective develop an understanding of their duty to nation and nation-building meet with confidence the challenges they will encounter in their lives flourish in a different cultural milieu in an increasingly interconnected world uphold the core institutional values of respect for diversity, inclusiveness, and humanism to emerge as leaders charged with new ideas and the capacity to make a difference.

FACILITIES IN THE CAMPUS

Amenities at Miranda provide far more than academic and administrative facilities on campus. It is dedicated to provide students with an exceptional infrastructure for learning as well as facilities for simplifying the procurement of fundamental skills. To accomplish the goal, Miranda House offers the following:





LIBRARY: The Miranda House Library was established on 7th March 1948 and the first book was accessioned on 22nd July 1948. The foundation stone of the present building was laid by Smt. Indira Gandhi, then Prime Minister of India on 7th March 1973. The Miranda House Library preserves and provides access to a rich and enduring source of knowledge to inform, inspire and engage its users in their intellectual and creative endeavors by the well-known motto "Right Document to the Right Reader". The foundational ideal is enshrined in the upanishadic motto of the college itself, 'Vidya hi paramam Jyoti' - Knowledge is Eternal Light at the Right Time". It takes pride in fulfilling this inherent mission to the hilt. MH has common Digital Resource Centres with a cluster of 80 computers on LAN.

GUEST HOUSE: Fully furnished air-conditioned Guest Rooms are available for parents and other guest's payment basis. Capacity 4 rooms with double occupancy.

CAFETERIAS: MILLET, PAM CAFÉ, NESCAFE: (The student activity area has two very popular food kiosks, the Nescafe Kiosk and the Pizza, Millet, and More (PAM). Additionally there is a Quick Bite Kiosk at the main college gate close to science departments. The canteen contractor also runs a Night Dhaba for benefit of hostel students from 9 pm to 11 pm. The hostel students have self-organized themselves to run a tuck shop for residents, with shared responsibility.)

SMART CLASSROOMS: The total of 110 formal lecture spaces provide comfortable seating for students in regular classes with the potential for easily accommodating another 10% at any time. Nearly all lecture venues have neatly arranged custom designed, comfortable desks and benches with shelves for bags; teacher table and chair. Green Ceramic Board for use with dust-free chalk or White Board for use with marker pens. Roof mounted Projector, and a pull-down white display screen for multimedia projection. Custom-designed Lecterns facility to link laptop to multimedia projector. Extra power outlets on front wall for flexible usage of the room. Air-conditioning was considered essential. Imparting knowledge based on traditional values, yet with modern and global significance in an evolving academic world

AUDITORIUM: Miranda House has an Auditorium with seating capacity of 450 in the Main Hall. As one of the oldest constructions in the college, it is part of the college building that was designed by Walter George. The architecture is unique. The Miranda House Auditorium and its stage bring alive nostalgic memories and are of historic importance.

MINI-AUDITORIUM: There are 170 seats in Miranda House's mini auditorium, which is arranged in steps so that everyone can see each other. The theatre has large windows that provide a lovely view of the surrounding greenery. It is utilized to hold training programs, seminars, conferences, workshops, lectures, and certificate courses.

SEMINAR HALL: The Seminar Hall has a seating capacity of 125. It has a high-quality sound system, wall mounted speakers, conference table mikes, roving mikes, lapel microphone, provision for recording; Roof-mounted high luminosity projection system. MH hosts several cultural events in its outdoor spaces like the open-air theatre, 2 arcades, cafeteria lawns, front lawns, sports ground, hostel lawns, etc. The bank foyer is periodically used for exhibitions and help desks for events. The Heritage Hall and the Student Activity Center are exquisite learning studios used extensively for organizing indoor music concerts, dance, theatre, workshops, exhibitions of photographs, paintings, art installations, prestigious public lectures, and panel discussions. They are innovatively used for baithak style gatherings.



AUDIT PARTICIPANTS

On behalf of the college

| Name | Designation |
|----------------------------|----------------------------|
| Prof. Bijayalaxmi Nanda | Principal |
| Prof. Namrata Singh | Coordinator, IQAC |
| Prof. Nisha Vashistha | Coordinator, UBA |
| Prof. Rekha Kumari | Convenor, MH Vatavaran |
| Dr. E Geetanjali | Convenor, Garden Committee |
| Dr. Deepak Yadav | Member, IQAC |
| Mr. Ravi | Member, IQAC |
| Dr. Ambuja Bhushan Jaiswal | Member, IQAC |
| Mr. Deshraj | Garden Supervisor |
| Mr. Veer Singh | AO, Admin |
| Mr. Sudhir Aggarwal | AO, Admin |
| Mr. Joyti Prakash | Section Officer, Admin. |
| Mr. Shiv Kumar | Site Engineer |

On behalf of EHS Alliance Services

| Name | Position | Qualifications |
|-------------------|--------------|--|
| Dr. Uday Pratap | Lead Auditor | Ph.D., PDIS, QCI – WASH, Lead Auditor ISO 14001:2015 |
| Ms. Pooja Kaushik | Co-Auditor | M.Sc., Field Expert, QCI – WASH, PGCCC |

EXECUTIVE SUMMARY

An environmental audit provides a snapshot of an institution's current performance in complying with relevant environmental laws, regulations, and best practices. While it serves as a valuable baseline assessment, its long-term effectiveness depends on the presence of systems that ensure continuous monitoring and improvement of environmental compliance.

At Miranda House, our approach to building a green campus goes beyond compliance—we aim to **instil sustainable values in students**, empowering them to carry these principles forward into their personal and professional lives. This holistic approach helps embed environmental and sustainability consciousness across institutions and organizations nationwide.

A **Green Campus** integrates environmentally responsible practices with academic engagement to foster a culture of sustainability. It provides institutions an opportunity to lead by example, redefine



their environmental ethos, and contribute innovative solutions to the social, environmental, and economic challenges of our time.

This report marks the **fifth environmental audit** of the college—an affirmation of its ongoing commitment to environmental protection and awareness, both locally and globally. The audit was conducted using a structured questionnaire, with criteria including:

- Environmental awareness and literacy
- Waste minimization and management
- Biodiversity conservation
- Water conservation
- Energy conservation
- Compliance with environmental legislation

This report presents **key observations**, as well as **recommendations** to strengthen environmental performance and consciousness across campus operations.

WASTE MANAGEMENT

TYPE OF WASTE ON COLLEGE CAMPUS

To develop an effective waste management strategy, it is essential to first understand the types of waste generated within the college campus. Below is an overview of the various categories of waste commonly produced in an academic environment, along with the existing and recommended management practices at **Miranda House**:

1. Food Waste

The college campus, particularly the canteen and hostel mess, generates approximately **10 kg of food waste daily**. This typically results from over-purchasing supplies or students discarding uneaten food. The institution is actively working to minimize food waste through awareness campaigns and better inventory planning.

2. Recyclable Materials: Paper, Cardboard, Plastic, Glass & Cans

Despite the digital era, a large amount of **recyclable waste** is generated from handwritten notes, printed materials, and packaging. The college uses **a paper recycling unit** to process this waste efficiently and encourages recycling across all departments.

3. Clothing and Housewares

Students often discard usable clothes and dorm items at the end of academic sessions. To address this, the college—through **NSS, UBA, and MH-VATAVARAN**—organizes **regular clothing donation**



drives in collaboration with NGOs such as **WWF-India**, promoting a culture of reuse and social responsibility.

4. E-Waste

Obsolete electronics like computers, printers, phones, and other devices from staff and students contribute to **e-waste**. The college has formal **tie-ups with authorized recycling agencies** and has designated storage for safe handling and periodic disposal through auction processes.

5. Chemical Waste

Generated mainly in **science laboratories and cleaning services**, chemical waste is handled with strict adherence to the **Manufacture, Storage, and Import of Hazardous Chemicals Rules, 1989**. The Chemistry Department actively implements **waste minimization techniques** in all experiments.

6. Maintenance Waste

Waste from the maintenance department includes **paints, solvents, adhesives, lubricants**, and spent bulbs. Fluorescent lamps, which contain **mercury**, require **specialized handling and disposal**, while regular incandescent bulbs often become landfill waste.

7. Biological Waste

Biological waste typically requires disposal under the **Bio-Medical Waste Management Rules, 2016**. However, **Miranda House does not generate biological waste** as part of its regular operations.

8. Furniture Waste

Old and damaged furniture is periodically replaced during upgrades in classrooms, labs, and other facilities. These items are **annually sold to authorized scrap dealers**.

9. Books, Magazines & Newspapers

Outdated or unused books often contribute to solid waste. At MH, students are encouraged to **donate textbooks and notes** to juniors. Departments also organize **book donation drives** in collaboration with NGOs, and unsalvageable books are auctioned to resellers.

10. Construction and Demolition (C&D) Waste

Renovation and construction work generate **C&D waste**, which is responsibly **disposed of at authorized CPCB/SPCB dumping sites** or used for **backfilling** where appropriate.

11. Solid Waste

The college has implemented **solid waste segregation** practices and ensures daily disposal through the **municipal corporation**. Compostable materials are processed through **in-house composting units**.

12. Horticulture Waste

With vast green areas and landscaping, the campus produces a substantial amount of **horticultural waste**. This is efficiently managed through an **on-campus composting system**, contributing to soil enrichment and zero-waste gardening practices.



ENERGY CONSERVATION

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.

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

How many CFL/LED bulbs has your institute installed?

A. Electricity

- To meet the daily needs of conducting classes, operating labs, library, offices, staff room, canteen, hostel, etc.

B. LPG

- Cafeteria and hostel mess

C. Petrol & Diesel

- There is no college owned vehicle
- Diesel in DG set

Ways to use less energy

- Replacing the conventional bulbs to LEDs
- Using energy efficient appliances
- Solar PV installed on building roofs
- Solar lights are also used
- Use of natural light when possible
- Use large appliances together to reduce energy use.
- Cleaning of Filters on regular basis and replace them whenever needed.
- Sealing cracks and gaps and leaks and adding insulation which leads to saving energy up to 10% on heating and cooling.
- Insulate the room spaces
- Turn off the switch on the socket after use.

MH has adopted several energy-saving techniques

- Renewable source of energy through 150 kWp solar panel is operational on campus and college is purchasing solar energy from 1000 kWp solar park
- LED lights have been installed on campus
- To switch off fans and lights when not in use
- To switch off bulbs/LEDs in the well-lighted rooms during sunny afternoons
- To organize various energy conservation awareness programs for students and staff
- To keep the computers and ACs on power saving mode.
- To buy energy-saving equipment
- To install green mats on corridors to reduce sunlight exposure

MH has replaced most of the conventional bulbs and tube lights with LED Lights. The college has a total of 1341 LED lights installed.



Do you run “switch off” drills at the institute?

Yes

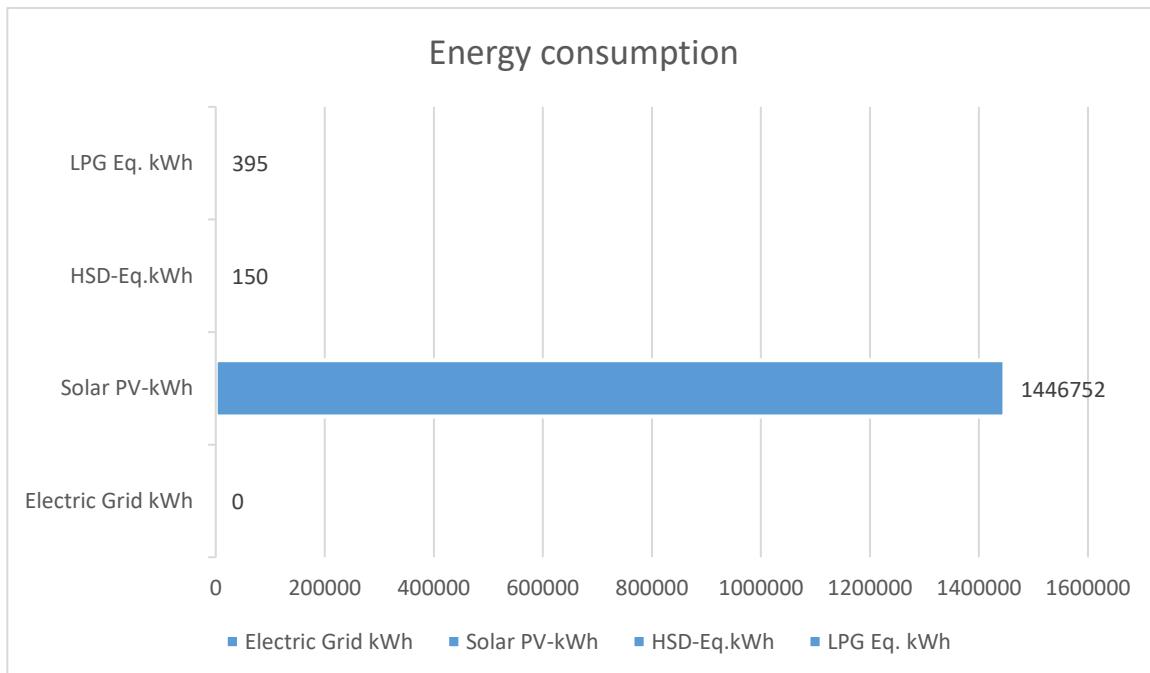
Are your computers and other equipment put in power-saving mode?

Yes approximately 5-6 hours

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. 5-6 hours

| | kWh | Percentage |
|-------------------|-------------------|-------------------|
| Electric Grid kWh | 0.00 | 0.00% |
| Solar PV-kWh | 1446751.92 | 99.96% |
| HSD-Eq. kWh | 150.00 | 0.01% |
| LPG Eq. kWh | 395.41 | 0.03% |
| Total -kWh | 1447297.33 | 100% |



WATER & WASTEWATER MANAGEMENT

Basic use of water in campus:

Drinking – 144.65 KL/month

Gardening – 186.24 KL/month

Kitchen and Toilets – 1127.02 KL/month

Others – 66.78 KL/month

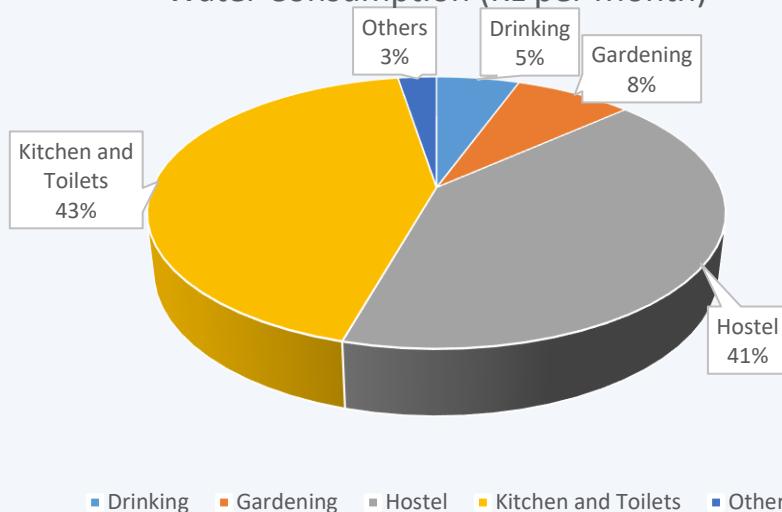
Hostel – 972.00 KL/Month

Total = **2496.68 KL/Month**

Note: Please note that all calculations have been made on the basis of NBC 2016 norms as college has no water usage records.

List uses of water in your institute

Water Consumption (KL per Month)



How does your institute store water? Are there any water saving techniques followed in your institute?

College stores water in overhead and underground tanks. Storage capacity along with quantity is mentioned below.

| Type of Storage | Tank Capacity (Ltr) | Count of Tanks | Total Capacity (Ltr) |
|-------------------|---------------------|----------------|----------------------|
| Overhead Tank | 500 | 75 | 37500 |
| Overhead Tank | 1000 | 19 | 19000 |
| Overhead Tank | 2000 | 3 | 6000 |
| Overhead Tank | 3000 | 1 | 3000 |
| Underground Tank | 5000 | 3 | 15000 |
| Underground Tank | 34000 | 3 | 102000 |
| Under Ground Tank | 10000 | 1 | 10000 |

Saving Techniques

- MH ensures regular water tank maintenance and checks water quality standards on campus.



- *The water tanks and water coolers are checked every three months, and RO systems are regularly changed.*

Locate the point of entry of water and point of exit of wastewater in your institute. (Entry and Exit)

Entry - *The primary source of water is the Delhi Jal Board (MCD). MH also has borewells which are used as secondary sources in case of there is no water supply from DJB.*

Exit - *From Canteen, Toilets, Hostel, Bathrooms and Labs through covered drainage which is connected to municipal sewage*

Write down ways that could reduce the amount of water used in your institute

- *The college ensures that the faucets in the washrooms and water filtration units are checked regularly and do not have any leakages.*
- *The college checks the water flow in the taps.*
- *The college has initiated the installation of auto-push taps to reduce water wastage.*
- *Miranda House 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 which uses plants, materials, and water-saving techniques to thrive with minimal water.*
- *The college-planted adusa, scientifically known as Justicia adhatoda, is a versatile and medicinal plant often used in traditional remedies and its minimal water resilience makes it as excellent choice for water conservation. Also, the college planted Sisymbrium, Chamrod, and Vajradanti, which require less water. Habitat restoration projects like the biodiversity trail are undertaken to preserve and enhance local biodiversity, creating green spaces that support native wildlife and also facilitate as good water conservers.*
- *The RO reject water is used in the toilets cleaning, floor cleaning, and in construction of buildings.*
- *The college has initiated growing plants native to the semi-arid regions, requiring less water to survive. These initiatives have significantly reduced water usage on campus while promoting sustainable water management practices.*

Does your institute harvest rainwater?

College is collecting rain water in a large underground storage tank with capacity of 2 lacs litres. The stored water in this tank is used for gardening purposes

Is there any water recycling System?

Yes. The college has a small-scale hydroponics unit where grey water from the hostel mess is used for growing plants.



AIR QUALITY MANAGEMENT

| | |
|--|--|
| Are the Rooms in Campus Well Ventilated? | <i>Yes, as per National Building Code, guidelines</i> |
| Window Floor ratio of the Rooms? | <i>Very Good, ample daylight utilization because of big windows.</i> |
| What is the ownership of the vehicles used by your campus? | <i>There are no college owned vehicles.</i> |
| Provide details of Institute-owned vehicles? | <i>NA</i> |
| PUC done? | <i>NA</i> |
| Specify the type of fuel used by your campus's vehicles | <i>NA</i> |
| Air Quality Monitoring Program (If, Any) | <p><i>Miranda House has an Automatic Weather Station installed on its campus. The system collects and records daily weather data of the following five parameters:</i></p> <ul style="list-style-type: none"><i>1. Temperature,</i><i>2. Precipitation,</i><i>3. Humidity,</i><i>4. Wind Speed and</i><i>5. Wind Vector.</i> <p><i>The Weather Station comes with a capability to expand and integrate optional Sensors like Atmospheric Pressure, Solar Radiation, PM10, PM2.5, Carbon Dioxide, Sulpher Dioxide and other atmospheric components. It a built-in battery (for 30 minutes in case of power cut or disruption in gridded power supply) and weather-proof enclosure to ensure the integrity of the systems in inclement weather conditions.</i></p> |



ENVIRONMENT LEGISLATIVE COMPLIANCE

Are you aware of any environmental Laws Pertaining to different aspects of environmental management?

Yes, to promote environment management on the campus, the MH follows these laws:

- 1) Protection of trees on campus (Delhi Preservation of Tree Act, 1994, National Green Tribunal Act, 2010)
- 2) De-concretisation of trees (National Green Tribunal Act, 2010)
- 3) Segregation and recycling of Waste (Solid Waste Management Rules 2016)
- 4) Reduce Noise on campus (Noise Pollution (regulation and control) Rule, 2000)
- 5) Reduce the single use of plastic, and recycling of plastic (Plastic Waste Management Rules, 2016)
- 6) Recycling of electronic waste (e-waste Management and Handling Rules 2011)

The college has several environmental Policies
Environment Policy
Plastic Free Campus
Energy usage Policy

Name of the Environment Department: Department of Environmental Studies

Name of Environmental Club: MH-Vatavaran

Name of Garden Committee: Vatika

Does your institute have any rules to protect the environment? List possible rules you could include.

Yes, MH-Vatavaran and the Department of Environmental Studies of MH are conscious of environmental protection and take proper measures in terms of awareness campaigns, activities, webinars, seminars, etc.

They follow the ban on single-use plastic.

They follow rules for the safe disposal of hazardous e-waste.

They follow the rule on the de-concretisation of trees.

Does Environmental Ambient Air Quality Monitoring conducted by the Institute?

The college does not monitor Air Quality on its own. However, the college uses the publicly available AQI index to monitor the air quality and sensitize students regarding the hazards of poor air. The college follows Delhi University notifications and participates in air pollution breaks.

Does Environmental Water and

No



| | |
|---|----|
| Wastewater Quality monitoring conducted by the Institute? | |
| Does stack monitoring of DG sets conducted by the Institute? | No |
| Is any warning notice, or letter issued by state government bodies? | No |
| Does any Hazardous waste generated by the Institute? | No |

GENERAL INFORMATION

| | |
|---|---|
| Does your institute have any rules to protect the environment? List possible rules you could include. | <p><i>The institution is a Swachhta action plan institute. MH has received Certification for recognition as a Social Entrepreneurship, Swachata and Rural Engagement Cell (SES REC) Institution.</i></p> <p><i>It follows the 5 parameters of Swachhta</i></p> <ul style="list-style-type: none">(i) Energy Management(ii) Water management(iii) Sanitation and Cleanliness(iv) Greenery Management(v) Waste management. <p><i>The college won the award due to the efforts made by the students, faculty members, and staff to promote and implement Swachhta on the campus. In addition, MH Vatavaran organise various events to impart knowledge on cleanliness.</i></p> |
| Are students and faculties aware of environmental cleanliness ways? If Yes Explain | <p>Yes. Miranda House creates awareness through ECO Club activities, Webinars, and cleanliness drives in the community.</p> |



Does Important Days Like World Environment Day, Earth Day, and Ozone Day etc. eminent in Campus?

To create sensitisation on environment and related issues among the student community and teaching and non-teaching staff, the College celebrates various events like the World Environment Day, Earth Day, Zero Emission Day, Wildlife Week, Swachhta Pakhwada, etc. Furthermore,

MH organises its week-long Environment fest, '30 day environmental challenges '

Does Institute participate in National and Local Environmental Protection Movement?

The college also organised various activities in the surrounding localities by societies NSS, NCC, and UBA of college that adopted the village like:

1. Burari CT (North Delhi)
2. Majra Badarpur Burari (North Delhi)
3. Jagatpur (North Delhi)
4. Dhirpur (North Delhi)
5. Anantpura (Alwar, Rajasthan)

Does Institute have any Recognition or certification for environment friendliness?

Miranda House and MH MH-Vatavaran has successfully got the following certificates

- MoU with Bisleri (Got plastic free award IEEE)
- MoU with Shiv Shakti Metals for e-waste
- ECO-SDG championship 2024
- First position state level award from National Edu trust of India
- 30 day challenge Award

Does the Institution conduct a green or environmental audit of its campus?

This is the fifth external audit carried out by the college.

Does any Hazardous waste generated by the Institute?

No



INITIATIVES CARRIED OUT BY COLLEGE

1. Renewable Energy Initiatives

- The college uses solar energy through Solar Photovoltaic (SPV) Street Lights, and a Grid Interactive Rooftop SPV plant.
- The college has installed solar PV (150 kWp) on the rooftop of building.
- 40 standalone SPV lights contribute towards electricity saving
- The College is using solar lights for street lights.
- The college has 7 solar water heaters.
- MH is purchasing solar energy from 1000 kWp solar park instead of grid electricity

2. Rainwater Harvesting

- College has large tank rainwater storage tank of capacity 2,00,000 litres for groundwater recharge.
- Grey-water from hostel kitchen is recycled using Hydroponics technique.

3. Liquid Waste Management

- Leakproof water fixtures are installed and maintained routinely to prevent wastage.
- Water-saving measures include the construction of Indian-style toilets, which consume significantly less water compared to Western-style systems.
- A dedicated staff member is assigned to promptly address any water leakage issues in taps, pipelines, tanks, or flushing systems.
- Wastewater generated from the campus RO (Reverse Osmosis) system is reused for gardening

4. Solid Waste Management

- The college effectively manages horticultural waste through composting, promoting environmentally responsible disposal practices.
- Paper consumption is reduced by digitizing attendance records and internal assessment processes.
- The library encourages the use of digital resources by continuously updating its collection of e-books and e-journals.
- Awareness campaigns are conducted to educate students on food wastage and strategies for minimizing it.
- Students are motivated to adopt the habit of reusing and recycling non-biodegradable materials.
- The institution regularly hosts workshops on solid waste management for student engagement and learning.
- The use of single-use plastics and plastic crockery is strictly prohibited on campus.
- Through various initiatives and awareness drives, the college actively promotes the principles of Reduce, Reuse, and Recycle (3Rs) as part of its sustainability commitment.



5. E-Waste Management

- The college has allocated a secure storage facility specifically for the accumulation of electronic waste.
- E-waste is periodically disposed of through a certified auction process in collaboration with authorized waste management agencies.

6. Air Pollution Control

- To minimize vehicular emissions, student-owned personal vehicles are not permitted within the campus premises.

7. Environmental Club – MH-VATAVARAN Initiatives

- On 3rd July, the society, in collaboration with MH Vatika, organized a Plantation Drive
- International Plastic Bag Free Day was celebrated on 3rd July.
- World Nature Conservation Day was celebrated on 28th July
- International Tiger Day was celebrated on 29th July
- The Orientation Programme '24 was held on 29th August with the theme Go Green with MH Vatavarana, introducing first-year students to the EcoSouvenir Shop and eco-products stall.
- An eco-friendly rakhi-making workshop was also conducted.
- MH Vatavarana celebrated Vriksh Raksha Bandhan under the theme “Nurture Nature, Tie a Bond Beyond Rakhi!” in the month of Aug.
- A Cleanliness Drive was organized in collaboration with NSS and Unnat Bharat Abhiyan in the month of September
- A Plastic Waste Collection Drive was held to mark World Cleanup Day.
- The society also organized a Cloth Donation Drive as part of the District Eco-SDG Championship.
- On World Cleanup Day, a Nukkad Natak on Plastic and Garbage Disposal was staged, focusing on SDGs 3, 11, and 12
- Several outreach activities followed: a Diwali Workshop (making bookmarks and diaries), food distribution drive on Global Roti Day, and participation in the *Sustainability Conclave: Role of Youth in Realizing SDGs by 2030 on 22nd October
- A Cleanliness Drive was also organized with Aavya – the Animal Welfare Society
- Events like International E-Waste Day (14th October), Freshwater Dolphin Day (24th October), and International Climate Action Day (24th October) were celebrated on the campus
- To commemorate National Tree Week (23rd November – 1st December) and World Fisheries Day (21st November), awareness blogs were published.
- World Soil Day (5th December), International Cheetah Day and World Wildlife Conservation Day (4th December), and International Mountain Day (11th December), were celebrated by spreading awareness on biodiversity and conservation
- MH Vatavarana launched the sustainable initiative “Eco-Cans: From Waste to Wonder” from 6th to 13th February at MH Tech Park.
- MH Vatavarana also participated in the Longest Chain of Used Plastic Bags Contest under Panasonic's Harit Umang Program on National Science Day (28th February)
- The society also celebrated Digital Cleanup Day (15th March), World Sparrow Day (20th March), World Forestry Day (21st March), and World Water Day (22nd March), supported by



activities such as a Poster-Making Competition on “Water for Peace”, active Earth Hour 2025 observance, and participation in the NGT National Conference at Vigyan Bhawan

- MH Vatavaran was also proud to showcase two benches made from recycled plastic with Bisleri, marking a tangible outcome of its recycling initiatives.
- MH celebrated Earth Day by organizing EcoSouvenir stall at Tempest and a Poster-Making Competition, themed Our Power, Our Planet.
- World Environment Day celebrations were carried out on 5th June 2025
 - Madhuban 2025, an annual magazine was released that themed around land restoration, desertification, and drought resilience
 - An oath-taking ceremony was also conducted to reaffirm the society’s commitment to environmental stewardship
 - A seminar, quiz, reel competition, and plantation drive, all successfully executed with active faculty support and student participation.

RECOMMENDATIONS

- **Eco-friendly criteria** should be incorporated into the procurement process for all goods and materials used on campus to promote sustainable consumption.
- Periodic maintenance of **air conditioning systems (ACs)** and **diesel generators (DGs)** is recommended to improve operational efficiency and reduce energy consumption.
- **Environmental monitoring**, including **stack emissions from DG sets and water quality assessments**, should be conducted regularly in accordance with guidelines from the **State Pollution Control Board (SPCB)**.
- Efforts should be made to **reduce carbon emissions** by limiting the consumption of **LPG** and **diesel fuel** wherever feasible.
- Implementation of **water metering systems** is recommended to support **water auditing and balance tracking**, enabling more responsible water usage.
- If a **borewell** is in use or proposed, the appropriate **permissions must be obtained from the Central Ground Water Authority (CGWA)** in compliance with regulatory standards.



CONCLUSION

This environmental audit was carried out through in-depth consultations and collaborative discussions with the campus team, including key stakeholders responsible for sustainability and infrastructure. The audit process covered a broad spectrum of environmental considerations and site observations.

Notably, approximately **75% of the college campus** is dedicated to **landscaping and green cover**, reflecting the institution's commitment to environmental preservation. **Miranda House** has demonstrated a strong intent to foster environmental stewardship both within the campus and in the broader community.

While the current practices are commendable and indicate that the site is generally well-maintained from an environmental standpoint, the audit has highlighted several **opportunities for enhancement**. The recommendations provided herein offer practical and actionable steps that can further support the college in becoming a more **sustainable and eco-conscious institution**.

By implementing these suggestions, the college can strengthen its environmental initiatives and set a benchmark.

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



ANNEXURE II – PHOTOGRAPHS OF ENVIRONMENTAL INITIATIVES



Well Maintained Campus



Well Ventilated Building



Lush Green Campus



Paved Pathways



Color Coded Dustbins



Nursery



Ornamental Plants at Campus



Indoor Plants In Campus



Smart Classrooms



Ventilated
Classrooms



Hostel Mess



SDG Goals



Best Out Of
Electronics Waste



RO with Push Taps
for Drinking Water



Star Rated ACs



Best Practices



Class Room



Canteen



E-waste Collection Box



Computer Lab



Girl's Hostel



Awareness Posters On Wall



Tower AC To Save Electricity



Auditorium



Urinals For Water Conservation



Poster For Water Conservation



Play Ground



Solar Lights



GD Sets



Paper Recycle
Plant



QR Core For Treen
Information



Awareness Poster
Display



Herbal Garden



Hydroponic
System



Waste Segregation
Training



Conservation
Message

***** END OF THE REPORT *****