

CERTIFICATE

PRESENTED TO

JANKI DEVI MEMORIAL COLLEGE

Sir Ganga Ram Hospital Marg, Old Rajinder Nagar, Rajinder Nagar,
New Delhi, Delhi 110060

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

GREEN AUDIT

ACADEMIC YEAR 2022-23

The green initiatives carried out by the institution have been verified on the report submitted and was found to be satisfactory.

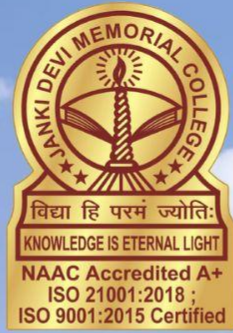
The efforts taken by the management and the faculty towards environment and sustainability are appreciated and noteworthy.



SIGNATURE



31.05.2023
DATE OF AUDIT



JANKI DEVI MEMORIAL COLLEGE

GREEN AUDIT REPORT

2022-2023

PREPARED BY
EHS ALLIANCE SERVICES



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ACKNOWLEDGEMENT

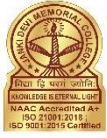
EHS Alliance Services would like to thank the management of Janki Devi Memorial College for assigning this important work of Green Audit. We appreciate the co-operation to the teams for completion of assessment.

We would like to specially thank **Professor Swati Pal** - *Principal, Janki Devi Memorial College* for giving us an opportunity to evaluate the environmental performance of the campus.

We would also like to thank **Dr Deepak Rawat** - *Audit Coordinator, Janki Devi Memorial College*, for his continuous support and guidance, without which the completion of the project would not have been possible. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

We are also thankful to

Ms Vandana Madan	Convener, AVANI- The Environment Club, JDMC
Dr Sana Rehman	Department of Environmental Studies, JDMC
Mr Ravinder Meena	Member, AVANI- The Environment Club, JDMC
Dr Kaushal Kishore	Administrative Officer, JDMC
Mr Surendra Kumar	Administrative Officer, JDMC
Mr Avinash	Assistant - Admin, JDMC
Mr Vijay Pratap	Junior Assistant - Admin, JDMC



DISCLAIMER

EHS Alliance Services Audit Team has prepared this report for Janki Devi Memorial College based on input data submitted by the representatives of institute complemented with the best judgment capacity of the expert team.

While all sensible care has been taken in its preparation, details contained in this report have been compiled in good faith based on information gathered.

It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

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Signature

LEAD AUDITOR

CONCEPT AND CONTEXT

The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory from the academic year 2019–20 onwards that all Higher Educational Institutions should submit an annual Green, Environment and Energy Audit Report. Green Audit is assigned to the Criteria 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India that declares the institutions as Grade A, Grade B or Grade C according to the scores assigned at the time of accreditation. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of global warming through Carbon Footprint reduction measures.

In view of the NAAC circular regarding Green auditing, the institution management decided to conduct an external environment assessment study by a competent external professional auditor. The green audit aims to examine environmental practices within and outside the college campus, which impact directly or indirectly on the atmosphere. Green audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of institution's environment. It was initiated with the intention of reviewing the efforts within the institutions whose exercises can cause risk to the health of inhabitants and the environment.

Through the green audit, a direction as how to improve the structure of environment and inclusion of several factors that can protect the environment can be commenced. This audit focuses on the Green Campus, Waste Management, Water Management, Air Pollution, Energy Management & Carbon Footprint etc. being implemented by the institution. The concepts, structure, objectives, methodology, tools of analysis, objectives of the audit as below:



INTRODUCTION

Now a days, the educational institutions are becoming more thoughtful towards the environmental aspects and as a result new and innovative concepts are being introduced to make them sustainable and eco-friendly. To preserve the environment within the institution, a number of viewpoints are applied by the several educational institutes to solve their environmental problems such as promotion of the saving the energy, waste recycle, water consumption reduction, water harvesting and many more...

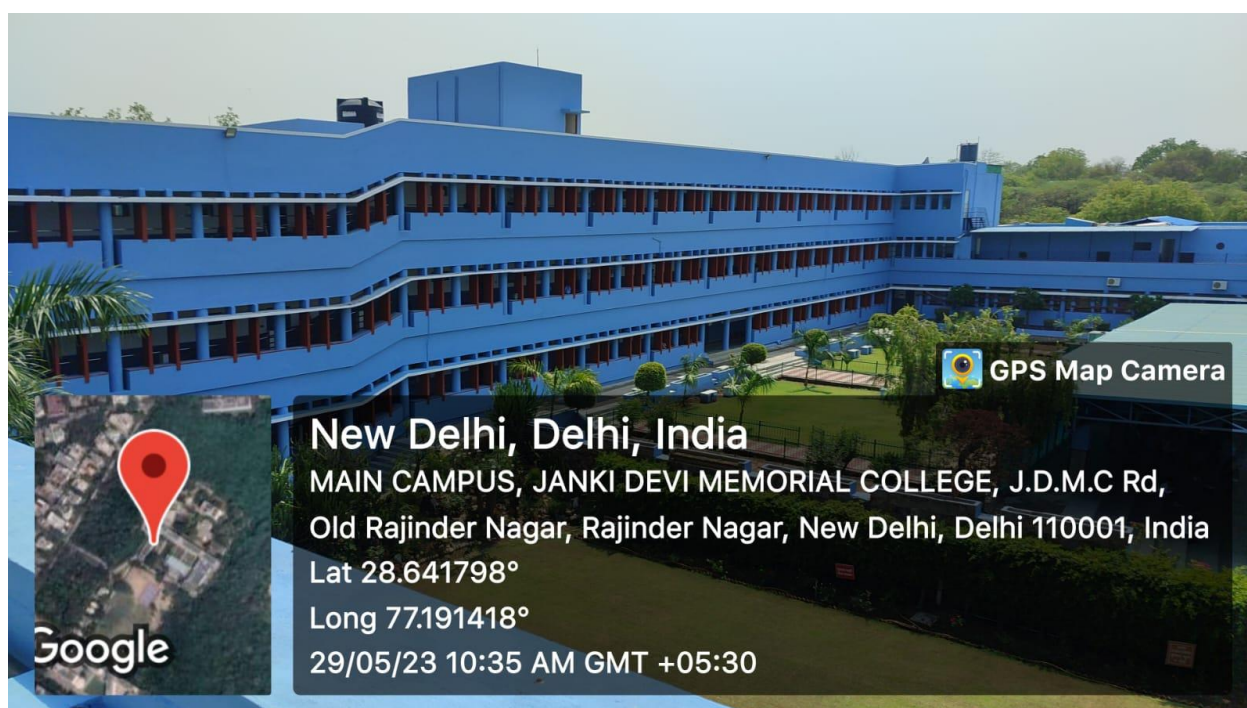
The activities carried out by the institution can also create adverse environmental impacts. Green audit is defined as an official inspection of the effects a college has on the environment. Green Audit is conducted to evaluate the actual scenario at the institution campus. Green audit can be a useful tool for a university /college to determine how and where they are using the most of the energy or water or resources; the institution can then decide how to implement changes and make savings. It can also be used to determine the nature and volume of waste, which can be used for a recycling project or to improve waste minimization plan.

Green auditing and the application of mitigation measures is a win-win situation for all the institutions, the learners and the mother earth. It can also result in health awareness and can promote the environmental awareness, values and beliefs. It provides a better understanding to staff and students about the Green impact on institution. Green auditing also upholds financial savings through reduction of resource usage. It gives an opportunity to the students and teachers for the development of ownership of the personal and social responsibility. The audit process involves primary data collection, site walk through with the team of university /college including the assessment of policies, activities, documents and records.



OVERVIEW OF THE COLLEGE

Janki Devi Memorial College, a premier women's college of University of Delhi was founded in 1959 by the famous Gandhian Shri Brij Krishan Chandiwala in memory of his mother Smt. Janki Devi. JDMC aims to provide quality education to young women and empower them to become economically self-reliant, have the confidence to face the vicissitudes of a challenging society, contribute meaningfully to the society at large and acquire the capability to think, lead and change the world.



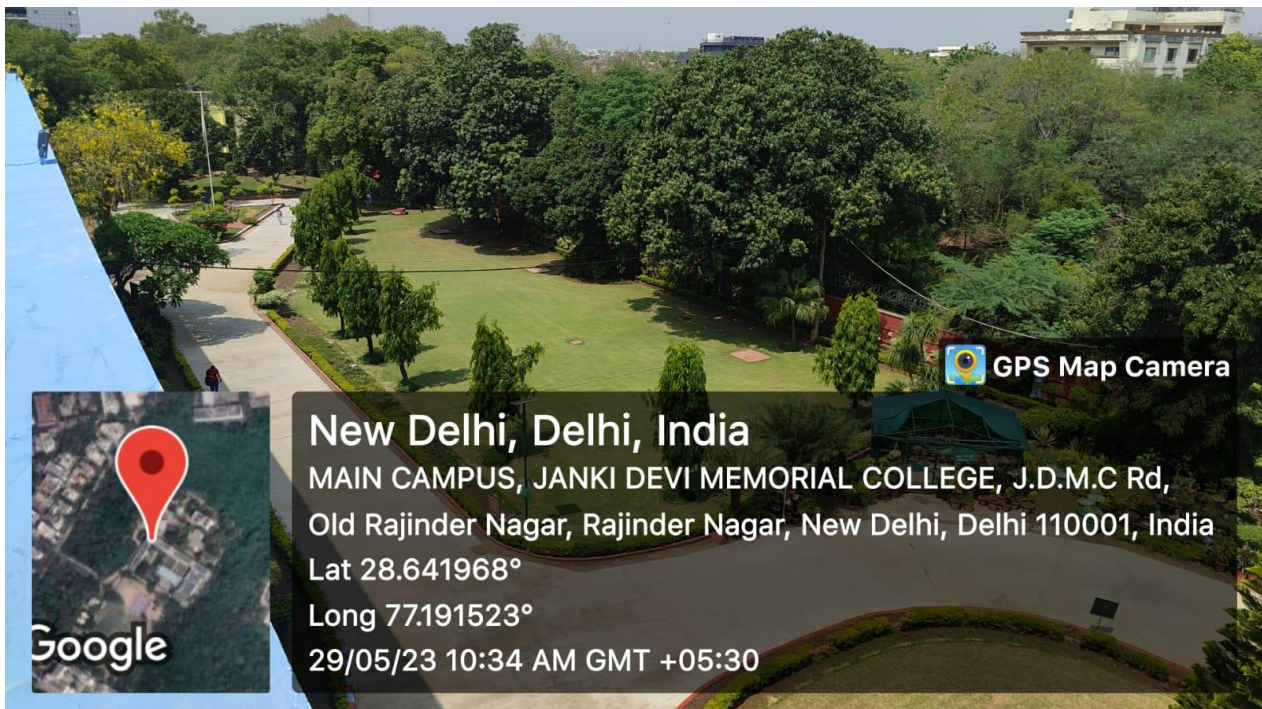
Situated in New Delhi Ridge in idyllic surroundings with its lush green lawns and imposing building, the college offers twelve under-graduate courses in Liberal Arts, Social Sciences, Mathematics and Commerce and eight post graduate courses. JDMC is the Centre for Non-Collegiate Women's Education Board (NCWEB) as well as School of Open Learning (SOL), University of Delhi. The college runs several Add-on courses/Certificate courses for students to enhance their skills. JDMC has MOUs with national and international agencies to provide the much-needed real world exposure to its students. It has more than thirty Societies/Clubs/Cells to give its students sufficient platforms to excel in various domains. The college has an extremely dedicated, committed and motivated faculty and staff.

The college offers facilities and infrastructure to create a holistic atmosphere for the pursuit of academic and extracurricular activities. JDMC has recently completed its 60-year journey in pursuit of excellence. The college has provided a nurturing environment to students from all



parts of India. It has the distinction of having a disabled-friendly infrastructure along with a strong assistance system in place for the students and faculty with visual disability.

The JDMC-IQAC works in its mandated direction of internalizing and institutionalizing the quality enhancement initiatives. These initiatives encompass various stakeholders, namely students (with the aim of their integrated development), teaching staff and non-teaching staff (enhancing their capabilities and empowering them) and students' parents and Alumnae (strengthening mutually beneficial relationships).



CAMPUS

The college has an impressive building with lush green lawns, an eco-friendly campus with solar lighting and a rain-water harvesting system. The classrooms are clean, comfortable and well ventilated; the premises contain a common room and a medical room with a sanitary napkin vending machine, an open air auditorium; a bank, a multi-cuisine and attractive cafeteria, computer laboratories; an audio-visual room; a photocopying centre as well as a Mother Dairy booth.



Library: JDMC library is a repository of over 1 lakh books and over 100 journals, both academic and general. It is among the first fully automated libraries in Delhi University and provides photocopying and free internet access facilities.



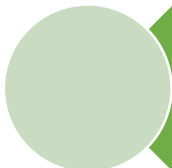
Labs: JDMC has 4 computer labs, 2 Research Rooms, and an A/V room. With 200+ systems and ICT facilities, these rooms provide a state-of-the-art teaching/learning environment to the students and faculty.



Canteen: The college has a spacious cafeteria that offers a wide variety of snacks to students and staff at reasonable rates.



Garden: The college Gardens are a source of pride for JDMC. The gardens have won many awards in different categories in the university flower show.



Smart Classroom: The college has 3-5 smart Classrooms which are ICT enabled with interactive smart boards to facilitate the teaching-learning process.



Seminar room: The Seminar Room has a seating capacity of more than 200 with a state-of-the-art audio-visual system which is updated on a regular basis. The Seminar Room functions as a multi-purpose space used to hold conferences, seminars, workshops, meetings etc.



JDMC, a premier women's college of University of Delhi, endeavours to promote enduring knowledge which is global in its perspective and yet local in its relevance. Students are challenged & inspired to pursue excellence in liberal and performing arts, humanities, commerce and sports, in an environment which is vibrant & constantly evolving. Founded with a vision to empower women, JDMC continues to strive to help its students to develop a capacity to think, lead and change the world.

MISSION STATEMENT AND CORE VALUES

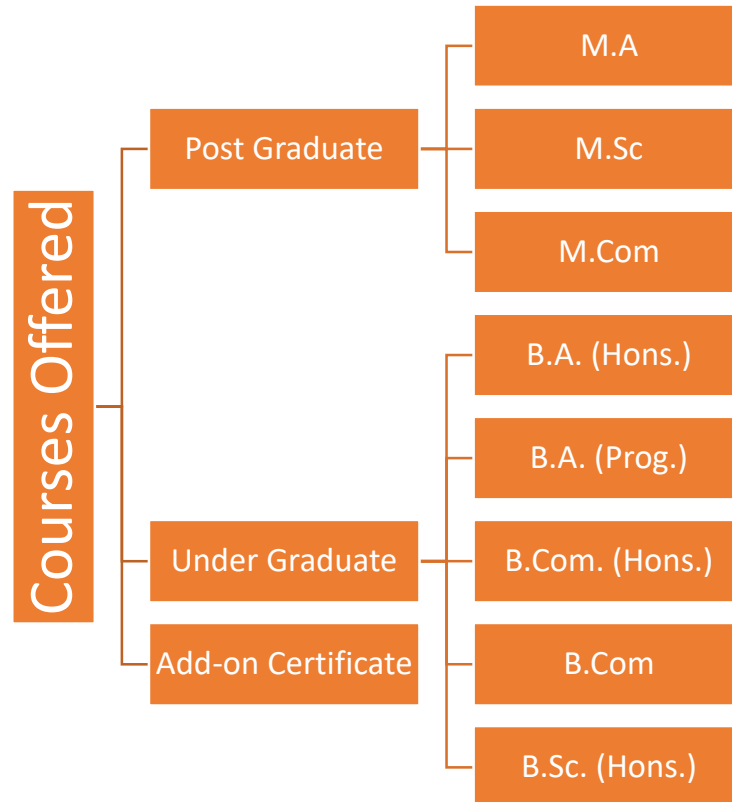
The egalitarian approach of the institution promotes the inclusion of all sections of the society. The institution is equally inclusive of all its constituencies, with their respective duties, responsibilities and achievements. The students and staff, belonging to diverse classes, castes, ethnic and religious groups cooperate in a democratic environment to take the college to newer heights of excellence. The institution besides providing education, also serves as a platform for cultural expression and excellence, constantly reminding students of the primary importance of cultural diversity, national integration and tolerance, along with the need to be in harmony with the environment

Janki Devi Memorial College is committed to the following core values:

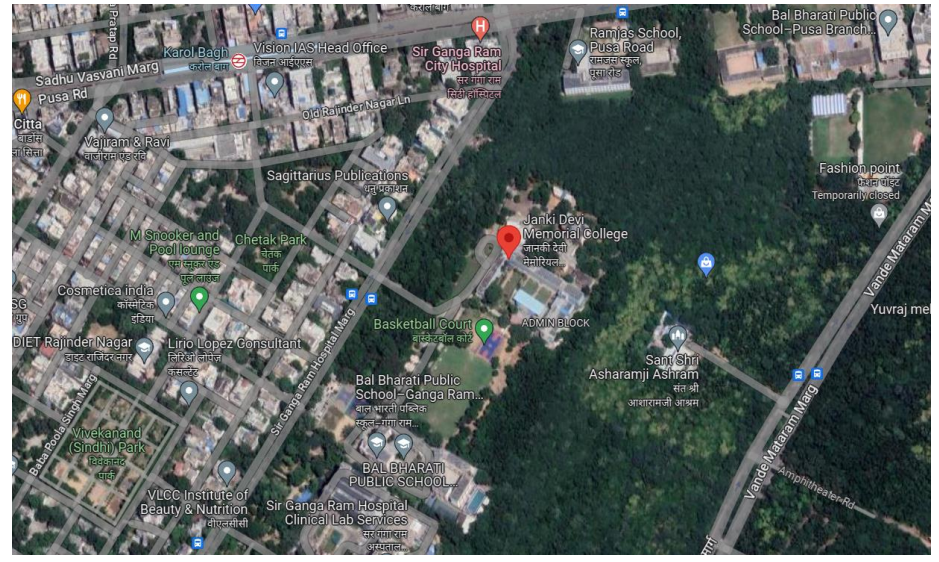
- The foundational ideal is enshrined in the upanishadic motto of the college itself, 'Vidyahi paramam Jyoti'- Knowledge is Eternal Light
- Gandhian philosophy of responsible citizenship and empowerment of women through education
- Imparting knowledge based on traditional values, yet with modern and global significance in an evolving academic world
- Education, in combination with technological skills, empowers the students both academically and economically, and proactively contributes to their brighter future

Therefore, the college creates a motivational environment to provide holistic education and personality development of the students, resulting in a synthesis of their career growth and ethical and responsible citizenship

JDMC is providing education to undergraduates and graduates in following department.



Geo Location
 Geo Coordinates from Google maps:
 28.6418145, 77.190725





AUDIT PARTICIPANTS

On behalf of Janki Devi Memorial College

Name	Designation
Professor Swati Pal	<i>Principal, JDMC</i>
Ms Vandana Madan	<i>Convener, AVANI- The Environment Club, JDMC</i>
Dr Deepak Rawat	<i>Department of Environmental Studies, JDMC</i>
Dr Sana Rehman	<i>Department of Environmental Studies, JDMC</i>
Mr Ravinder Meena	<i>Member, AVANI- The Environment Club, JDMC</i>
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Mr Avinash	<i>Assistant - Admin, JDMC</i>
Mr Vijay Pratap	<i>Junior Assistant - Admin, JDMC</i>

On behalf of EHS Alliance Services

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

EXECUTIVE SUMMARY

Green auditing is an essential step to identify and determine whether the institutional practices are sustainable and ecological. Traditionally, we were upright and efficient users of natural resources. But over the period of time, excessive usage of resources like water, electricity, petrol, etc. have become habitual for everyone especially, in urban and semi-urban areas. It is actually the right time to check if we (our process) are consuming more than required resources? Whether we are using resources sensibly?

Green audit standardizes all such practices and provides an efficient way to use natural resources. In the time of climate change and resource exhaustion it is necessary to re-check the processes and convert them into green and sustainable. Green audit provides an approach for the same. It also increases overall awareness among the folks working in institution towards the eco-friendly environment.

This is the second attempt to conduct green audit of this campus for fulfilment of NAAC criteria. This audit was mainly focused on greening indicators like consumption of energy in terms of electricity and fossil fuel, quality of soil, water usage, vegetation, waste management practices and carbon foot print of the campus. Initially a questionnaire was shared to know about the existing resources of the campus and resource consumption pattern of the students and staff in the campus.



GREEN AUDIT - ANALYSIS

1.1 GENERAL INFORMATION

1. Does any Green Audit conducted earlier?

Yes, this is second external audit carried out by the Janki Devi Memorial College.

2. What is the total strength (people count) of the Institute?

Students

Male: 0 Female: 3654 Total: 3654

Teachers (including guest faculty)

Male: 35 Female: 115 Total: 150

Non-Teaching Staff

Male: 58 Female: 28 Total: 86

Total Strength

Male: 93 Female: 3797 Total: 3890

3. What is the total number of working days of your campus in a year?

The college operates for 180 days

4. Where is the campus located?

The campus is located at Sir Ganga Ram Hospital Marg, Old Rajinder Nagar, Rajinder Nagar, New Delhi 110060

5. Which of the following are available in your institute?

Garden area	Available
Playground	Available
Kitchen	Available
Toilets	Available
Garbage Or Waste Store Yard	Available
Laboratory	Available
Canteen	Available
Hostel Facility	Available.
Guest House	Available

6. Which of the following are found near your institute?

<i>Municipal dump yard</i>	<i>Not in vicinity of institute</i>
<i>Garbage heap</i>	<i>No Garbage heaps</i>
<i>Public convenience</i>	<i>Public convenience is available</i>
<i>Sewer line</i>	<i>Approximately 1.5 KM sewer line within campus</i>
<i>Stagnant water</i>	<i>No stagnant water</i>
<i>Open drainage</i>	<i>No</i>
<i>Industry – (Mention the type)</i>	<i>No</i>
<i>Bus / Railway station</i>	<i>Karol Bagh Metro station (100 meters), Karol Bagh Bus stop (100 meters)</i>
<i>Market / Shopping complex</i>	<i>Available</i>

1.2 WASTE MINIMIZATION AND RECYCLING

1. Does your institute generate any waste? If so, what are they?

Yes, Solid waste, Canteen waste, paper, plastic, horticulture, electronic waste, etc. The college takes measures to manage the solid waste on the campus by the method of segregation at the source, composting of biodegradable waste, recycling of electronic waste, and restricting the use of plastics.

The campus has color coded waste bins for bio-degradable (green) and non-biodegradable (blue) wastes for segregation. The biodegradable waste is converted into compost using the composting facility in the college. The compost is used in the college nursery and college garden.

2. What is the approximate amount of waste generated per day? (in Kg approx.)

*Biodegradable waste - 20 Kg
Non-biodegradable waste -10 Kg
Hazardous Waste - <1 Kg
Others < 1*

3. How is the waste managed in the institute? By Composting, Recycling, Reusing, Others (specify)

- *Composting is done for horticulture waste management.*
- *College is in collaboration with ScrapUncle to recycle paper waste.*
- *College also has a MoU with RLG Systems India Pvt Ltd, they collect e-waste (computers, mobile, printers, servers, printers) and send it for recycling.*
- *AVANI, the environment Club of the college also collaborates with NGOs like Goonj upcycling of waste.*



- *Bi-annual one week collection drive is organized by campus. On an average, 10 kg/day collection was recorded in 2022.*
- *College avoid use of single use plastic on the campus*

4. Do you use recycled paper in institute?

Two separate boxes of green and blue color for waste segregation in corridors, staffroom, office. The college has also placed separate boxes for paper recycling.

The college recycles paper and has used recycled paper in exchange for waste paper. AVANI has also organized handmade paper making workshop to reuse waste paper.

5. How would you spread the message of recycling to others in the community?

College conducts regular awareness campaigns, workshops, and seminars to educate students, faculty, and staff about the importance of recycling and its positive impact on the environment. These initiatives include

- *Seminars and add-on courses for students and faculty*
- *Part of Environment education*
- *MoUs with NGOs*
- *Reuse waste paper for poster makings*

6. Can you achieve zero garbage in your institute? If yes, how?

JDMC is in the process of achieving zero garbage.

- *The college does not encourage use of single use plastic.*
- *College converts the biodegradable garden and kitchen waste into compost.*
- *The dry waste is reduced by using digital medium to circulate messages rather than printed paper.*
- *The college practices the RRR principle.*
- *The college collaborates with paper recycling services to recycle its paper.*

1.3 GREENING THE CAMPUS

1. Is there a garden in your institute?

Yes, about 273672.42 SQFT areas are developed as Gardens.

2. Do students spend time in the garden?

Student spend three - four hours in garden during winter season.



3. Total number of Plants in Campus?

<i>Plant type with approx. count</i>	
<i>Full grown Trees</i>	<i>85</i>
<i>Small Trees</i>	<i>170</i>
<i>Hedge Plants</i>	<i>21823</i>
<i>Grass Cover</i>	<i>273672.42 Sq ft</i>

4. Is the College campus having any Horticulture Department? (If yes, give details)

College employs a team of ten gardeners who work diligently around the clock to maintain the campus grounds.

5. How many Tree Plantation Drives organized by campus per annum?

6 Plantation drives carried out. Total 35 trees and hedge plants planted in this Financial Year with more than 80% survival rate.

6. Is there any Plant Distribution Program for Students and Community?

The college has a practice where all guests to the college are given a planter as a gift rather than a bouquet of flowers. College also has a kitchen garden where students grow vegetables and sell to faculty members and hostel canteen.

8. Is there any Plant Ownership Program?

JDMC had a designated Kitchen Garden where college students grow and sell vegetables. The college has entered into a MoU with Edible Routes (NGO) to create a biodiversity trail to grow native plant species.

1.4 WATER AND WASTEWATER MANAGEMENT

1. List uses of water in your institute

Basic use of water in campus:

Drinking – 112.22 KL/month

Gardening – 1830.60 Kl/month

Kitchen and Toilets – 738.71 KL/month

Others – 312.63 KL/month

Hostel – 283.50 KL/Month

Total = 3277.66 KL/Month

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

JDM college relies on municipal water as a primary source for academic blocks and teachers' houses and 3 bore wells as a secondary source. The campus has one main tank filled 2 times a day from the municipal supply, which then distributes water to 15 small overhead tanks in the academic block. The average time required to fill the tanks is 45-60 mins.

JDMC ensures regular maintenance of water tanks and checking of water quality standards on the campus. The water tanks and water coolers are checked every 3 months, and RO systems are regularly changed.

Main tank can store upto 20,000 litres and 15 overhead tanks of 500-1000 litres capacity.

Saving Techniques

- *Avoid overflow of water-controlled valves are provided in water supply system.*
- *Close supervision for water supply system.*
- *Push taps are installed*
- *Water Conservation awareness for new students*
- *Sprinklers usage for gardening and grass cover*

3. Locate the point of entry of water and point of exit of waste water in your institute.

Entry - *Primary source of water is Delhi Jal Board (MCD), and also from 3 bore wells as a secondary source.*

Exit- *From Canteen, Hostels, Toilets, Bathrooms and Labs through covered drainage which is connected to Sewer drainage*

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

Basic ways:

- *The college ensures that the faucets in the washrooms and water filtration units are checked regularly and do not have any leakages.*
- *College has initiated the installation of auto push taps to reduce water wastage.*
- *The campus has 48 double-level and 58 single-level systems flush in the academic blocks (36 single and 8 double), hostels (38 double), and teachers' houses (22 single and 2 double).*
- *Periodic Water Conservation awareness for new students*
- *College has initiated Use of sprinklers for gardening*



1.5 ANIMAL WELFARE

1. List the animals (wild and domestic) found on the campus (dogs, cats, squirrels, birds, insects, etc.)

Dogs, 3 cats, 100+ Squirrels, 30+ species of Birds, 25+ species of Butterflies are found on campus. No stray dog is visible in the vicinity of the college. A variety of bird's species and other flora and fauna are available, so institute is putting efforts for biodiversity conservation and documentation.

2. Does your institute have a Biodiversity Program or a KARUNA CLUB?

Yes, Janki Devi Memorial College's environment club - Avani actively organizes awareness through various campaigns and activities including seminars, poster competition, etc.

1.6 CARBON FOOTPRINT - EMISSION & ABSORPTION

1. Electricity used per year - CO2 emission from Electricity

(electricity used per year in kWh/1000) x 0.84
468176 kWh/1000 x 0.84

= 468176/1000x0.84
= 393.27 tons

2. LPG/PNG used per year - CO2 emission from LPG/PNG

(LPG/PNG used per year in KG) x 2.99
87194.17 x 2.99
=87194.17 x 2.99
= 511.24 tons

3. Diesel used per year CO2 emission from HDS (Diesel)

(Diesel used per year in litres) x 2.68
=235 x 2.68
= 235 x 2.68
=2.16 tons

4. Transportation per year (car) CO2 emission from transportation (Bus and Car)

JDMC has two cars which run on petrol and CNG.
*= (0*1*2*180/100)*0.01 + 2*2*2*180/100*0.02*
= 0.58 tons

Total CO2 emission per year cumulative by electricity usage + bus and car is 907.24 tons



CARBON ABSORPTION BY FLORA IN THE INSTITUTION

There are 85 full grown trees and 170 semi grown trees of different species, and grass cover of 273672.42 sq ft.

Carbon absorption capacity of one full grown tree 22 kg Co₂ Therefore Carbon absorption capacity of 85 full-grown trees $85 \times 22 \text{ kg Co}_2 = 1.87 \text{ tons of Co}_2$.

The carbon absorption capacity of 170 semi-grown trees is approx. 35% of that of full-grown trees. Hence the carbon absorption $170 \times 6.8 \text{ kg of Co}_2 = 1.16 \text{ tons of Co}_2$

There are approximately Hedge Plants 21823 of various species being raised in the gardens and grown in the areas where no buildings are built Carbon absorption of bush plants varies widely with their species. Certain bushes absorb very high level of Co₂ where as some others absorb very low level of Co₂. In the absence of a detailed scientific study, 200g of Co₂, absorption is taken per bush (in consultation with Environmental Science specialists). Based on this, total carbon absorption of bushes is $21823 \times 200 \text{ g} = 4.36 \text{ tons of Co}_2$

The lawns on the campus have buffalo grass, Mexican grass and indigenous grass species and cover a total area of 273672.42 sq. ft. Carbon absorption capacity of a 10 sq. ft. area of lawn is 1 g per day Therefore, carbon absorption by lawn area $273672.42 \times 365 \times 0.1 \text{ g Co}_2 = 9.9 \text{ tons Co}_2$ per year.

Grand total of carbon absorption capacity of the campus is 17.38 tons.

GREEN INITIATIVES BY CAMPUS

➤ Solid Waste Management

- The college has compost bins for managing bio degradable waste.
- There is ban on single use plastic and plastic crockery in the campus.
- College actively promotes RRR principle

➤ E-waste Management

- College has a separate storeroom for the safe storage of electronic waste. After a certain interval of time college disposes of the E-waste to concerned agencies through the auction process.

➤ Renewable Energy

- The college is in process to install solar PV (58.22 KW) on the rooftop of buildings.
- The College is using solar lights for street lights.
- Solar water heaters are installed in campus

➤ Air Pollution Reduction

- Personal Vehicles (Students) are not allowed in the campus



➤ **Plantation Drives**

- 6 Plantation drives carried out. Total 35 trees and hedge plants planted in this Financial Year with more than 80% survival rate.

➤ **Rainwater harvesting**

- DMC was the first college to install a rainwater harvesting system which has been rated as one of the best in Delhi by the Centre for Science and Environment and has won the Chief Ministers prize for Institutional Rain Water Harvesting.

➤ **Environment Committee Initiatives** – Janki Devi Memorial College has an environment club – Avani. Below are the highlights of their work on environment cautiousness. 50 Volunteers have been enrolled under this society, who actively participated in the various events throughout the year.

- Department of Environment studies in collaboration with AVANI offered an add on certificate course of Understanding allergies - Department of Environment Studies
- Facilitated the doctors of Sir Gangaram hospital to conduct an aerobiology walk to identify allergenic plants on campus
- The Principal of the JDMC, Prof. Swati Pal inaugurated the Hostel Kitchen Garden, Krishna's Kitchen set up by Avani, the Environment Club of the college on January 12, 2023 by being the first to purchase from its harvest. The harvest consisted of vegetables like tatsoi, bokchoy and red lettuce.
- On November 2, 2022 AVANI, the Environment Club, JDMC, University of Delhi conducted an E- waste training and collection Drive session in collaboration with **Clean to Green** - a not- for-profit organization with focus on creating better awareness among people regarding the environmental concerns that affect the world today, and initiating action to create a safer and cleaner environment.
- Students made bags using old and discarded clothes. AVANI's 'aao bag banao' is an annual event (organised on 19th & 20th Oct 2022) which encourages students to reuse and upcycle old material by making higher valued products like bags. The students were able to raise Rs 2220 by selling bags and other materials in the Diwali mela as a part of 'National Entrepreneurship Month.'
- Creators offered different articles like madhubani painting, handmade jewelry, bookmarks, Hair accessories, dress, spotify plaque, chocolates and decoration items for Diwali, Resin Products & cards under project - *Anupam*. The two day event helped the students raise Rs 24,427 by selling the items in the Diwali mela. Project Anupam helped to make a difference in the lives of the people associated with small businesses. The program empowered the students to establish a successful enterprise in a fully functional manner.
- The Swachh faculty members and student team have identified a barren area near the hostel which can be utilized to make a kitchen garden. The team has also



identified the barren land near the college ground which can be used to conduct plantation drives. The NSS, NCC students and the members of AVANI-the environment club conducted a plantation drive on June 4, 2022 to utilize the barren area.

- The students of AVANI and NCC participated in the E-waste training and collection drive organized by AVANI- the Environmental club, in collaboration with Reverse Logistic Group – Clean to Green Campaign on 2nd Nov 2022. The students learned about the importance of recycling e-waste and participated in the entrepreneurship service of collecting e-waste for recycling.
- The students of AVANI and NCC participated in the Swachhta Entrepreneurship Services to take responsibility to help the cleanliness workers on campus on 12th and 19th Nov 2022. The objective of the activity was to lend a helping hand to the cleanliness/ gardening workers.
- The college has won several awards for its clean and green practices, including the District Green Champion Award 2021-22.
- Avani, the Environment Club, JDMC in collaboration with the NGO, GOONJ organised a winter collection drive from January 23, 2023 to February 17, 2023 under the theme 'Odha Do Zindagi'.
- Avani, the Environment Club, JDMC organised an online 'Bio enzyme workshop' for its members on February 14, 2023.
- Avani, the Environment Club, JDMC, University of Delhi conducted an online 'Handmade Paper Workshop' on February 11, 2023
- Avani, the Environment Club in collaboration with IQAC of JDMC, University of Delhi organised an interactive session on 'HOW TO LIVE A ZERO WASTE LIFE' on February 8, 2023.
- Avani, the Environment Club of Janki Devi Memorial College organized 'Create from Waste' Inter- College Competition under the Annual Festival 'Symphony' on January 12, 2023.
- Avani, the Environment Club, Janki Devi Memorial College entered into collaboration with ScrapUncle on January 3, 2022 for picking up recyclable scrap items in the college. The scrap collected by ScrapUncle from the college included 515.2 kilograms of paper, 22.5 kilograms of cardboard, 2.5 kilograms of plastic waste and 1.5 kilograms of aluminum waste.
- Avani, the Environment club of JDMC celebrated the World Toilet Day on November 19, 2022 by inaugurating a new toilet unit and felicitating 14 sulabh workers who keep the college building clean.



- The Environment Club, Avani, Janki Devi Memorial College, University of Delhi, organised a National Webinar on the International Climate Action Day on October 27, 2022 in collaboration with Econscious, a social impact startup. As a part of the outreach and extension activity the students of team Avani made paper bags and presented to a faculty member of JDMC as per her requirement on September 28, 2022.
- An interactive workshop on Bathroom Hygiene and Use was held on September 14, 2022 as an initiative taken by Avani, the Environment Club, JDMC in collaboration with the Building and Maintenance Committee under the aegis of IQAC-JDMC to celebrate the Swachhta Pakhwada, 2022.
- On August 8, 2022, Avani the Environment club, JDMC organised a national webinar on Tiger Conservation as a part of extended celebrations of the World Tiger Day. The speaker for the Dr. Abhishek Harihar, who is an eminent conservation biologist

RECOMMENDATIONS

- Environmental parameters shall be included in purchase policy to achieve a cradle to grave approach for sustainability.
- Water Meter should be installed at every building of institute for monitoring of water consumption per capita.
- Bore well permission should be taken from authorised government department
- College should start drip irrigation to save water in campus
- Flow rate of taps should be checked, it should not be more than 2.5 litres/minute.
- Increase plantation drives in nearby villages, local bodies, NGO and Municipal Corporation in order to balance the carbon emission and absorption.
- Arrange training programmes on environmental management system and nature conservation for schools and local people.
- Involve lower hierarchy staff in environmental awareness programmes and campaigns.
- Messages should be displayed at various locations to Aware the People about Water and Energy Savings
- Green building guidelines for future expansion projects of the campus.



CONCLUSION

This audit involves considerable team discussions and meetings with key staff members on a variety of environmental-related topics. The eco club committee – Avani of Janki Devi Memorial College promotes conservation of resources.

Overall 60% of Janki Devi Memorial College is for landscaping. The college makes a significant effort to act in an environmentally responsible manner and takes into account the environmental effects of the majority of its activities. The recommendations in this report suggests some more ways in which the institution can work to improve its practices and develop into a more sustainable institution.

It's important to begin a few things, such as initiating drip irrigation and checking the water flow from the taps. Additionally, we strongly advise installing water metres at each building/block and water balancing report.

REFERENCE

- 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 – PHOTOGRAPHS OF ENVIRONMENT CONSCIOUSNESS



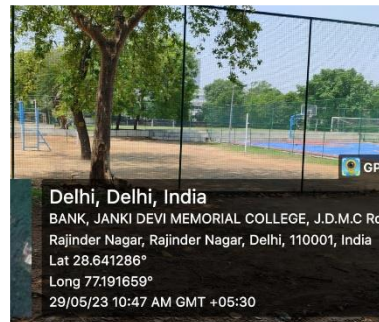
Well ventilated building structure



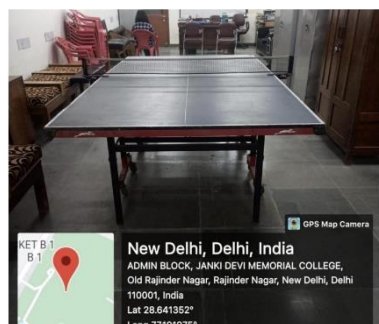
Well maintained college campus



Lush green campus



Sports ground



Indoor games facility



Library facility



Spacious & well equipped labs



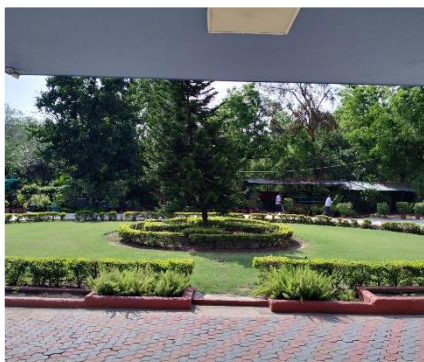
Classrooms as per NBC guidelines with more than 40% window ratio



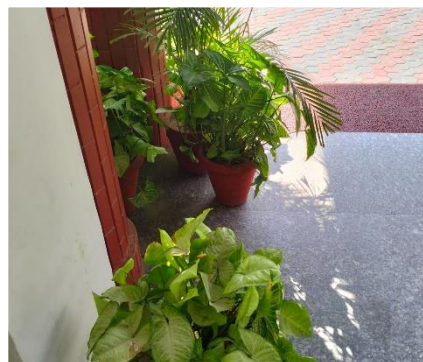
Paving stone installed in campus



Color coded dustbins



Ornamental plants in campus



Indoor plants in campus



Active participation by students in Plantation drive



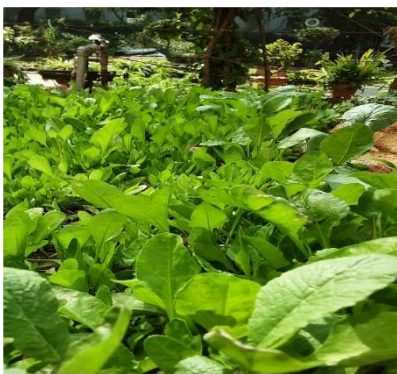
Plantation drive



AerobiologyWalk



Campus nursery



Herbal garden



Composting machine



Open well recharge



Rainwater harvesting



solar lights installed



Campus nursery



DG set



Energy saving message display



Environment awareness message display



Reuse drive under RRR campaign



Awareness posters



E-waste collection drive

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