P.G.D.A.V. College

University of Delhi

Nehru Nagar, Ring Road, New Delhi – 110065

Website: http://pgdavcollege.in

Email: pgdavcollege.edu@gmail.com

Supporting document

for

Annual Quality Assurance Report, 2022-23

Criteria 7.1.6

Environment Audit

P.G.D.A.V College
(Morning)
(University of Delhi)

Green Audit Report 2022-23

Dr. Mukesh K Mahato
Assistant Professor
Department of Environmental Studies
Lakshmibai College
(University of Delhi)
Ashok Vihar, Delhi - 110052

Dr. Shwetank S Pandey
Assistant Professor
Department of Environmental Studies
Lakshmibai College
(University of Delhi)
shwetank89@gmail.com
EMS Lead Auditor ENR-00249866
IRCA A17903

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ACKNOWLEDGEMENT

The Auditing Team acknowledges the trust placed in them by the administration of P.G.D.A.V College (Morning) by assigning them the task of conducting the Green Audit. We value the teams' willingness to cooperate in order to successfully complete the assessment. For the chance to assess the campus's environmental efficiency, we would like to extend our deepest gratitude to Prof. Krishna Sharma, Principal of P.G.D.A.V. College. Without the help and direction of Dr. Gaurav Kumar, Dr. Richa Agarwal Malik, Dr. Pardeep Singh, Dr. Gurcharan Sachdeva and Dr. Mangal Deo, we would not have been able to bring this initiative to fruition. We also appreciate the contributions of the other members of the organization who helped with gathering information and on-site visits.

DISCLAIMER

The report is written for PGDAV (Morning) College using information provided by College representatives and the team's best judgement. All reasonable care has been taken in the creation of this report, and the information contained herein has been compiled in good faith. 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. All conclusions are arrived at based on best estimates. All pages must be included if you want to give out hard copies of this report to people outside of your organization. Except for information that is already in the public domain or as required by law or appropriate accreditation organizations, the auditors shall maintain confidentiality for any information relating to the organization and shall not reveal any such information to any third party.

Dr. Mukesh K Mahato
Assistant Professor
Department of Environmental Studies
Lakshmibai College
(University of Delhi)
Ashok Vihar, Delhi - 110052

Dr. Shwetank Shashi Pandey
Assistant Professor
Department of Environmental Studies
Lakshmibai College
(University of Delhi)
Ashok Vihar, Delhi - 110052

OVERVIEW OF COLLEGE

Pannalal Girdharlal Dayanand Anglo-Vedic (PGDAV) College is a constituent college of the University of Delhi, India's premier central university. The college follows Swami Dayanand Saraswati's ideals, who believed in educational ethics and transforming power to individuals and nations. The PGDAV college is located at Nehru Nagar, near Lajpat Nagar on the Ring Road, a prestigious Delhi location. It's accessible via bus and Metro. The college offers a wide range of undergraduate and postgraduate programs in various disciplines, including arts, commerce, science, computer applications, and more. Its strong teachers, dedicated administrative personnel, and cutting-edge facilities make it stand out. They dedicated to provide quality education and encourage academic excellence. The idea that education connects tradition and innovation drives them to develop young minds. The college campus is equipped with modern infrastructure and facilities to support academic and extracurricular activities. This includes well-equipped classrooms, a library, laboratories, auditoriums, and computer labs. The college has a medical facility with the doctor for first aid. The medical area features a girl's restroom vending machine. The college's fitness centre and Human Performance Lab offer weight training, aerobics, power yoga, basketball, table tennis, and a lush cricket area to employees and students. The college has RO water. Air Quality Monitoring System is installed in the college. One of the largest canteens in the University of Delhi serves fresh, hygienic meals at reasonable prices. The college is also accessible to visually and physically handicapped students. Tactile walkways, QR codes, ramps and lifts are at the college along with the library having software and brail books to help visually challenged students.

BIODIVERSITY

More than 70% of the campus is covered with greenery, and about 100 plant species contribute to the college abundant plant life. Two grass lawns and a cricket ground are on campus. During the last academic year (2021-22), the college developed the two herbal gardens, Dhanvantri Udyan and Ayush Vatika. The college also planted a vegetable and fruit garden this year. The total land has about 125 trees. The college planted almost 450 new plants in 2021-22. *Azadiracta indica, Cassia fistula, Ficus bengalensis, Ficus racemosa, Bombyx cieba, Milletia pinnata, Butea monosperma, Dalbergia sissoo, Ficus virens, Ficus religious, Polyalthia, Bauhinia variegata, Eucalyptus* and *Alstonia* are the main trees. Fruit tree include Guava, Lemon, Jamun, Amla, Mulberry, and Banana. The essential herbs and medicinal plants include Ashwagandha, Holy Basil, Shatavari, Hibiscus, Kala Bansa, Aloevera, Lemon Grass, Damabel, Pamarosa, Elaichi, Ajwainpatta and Meethi Neem. Other horticulture species such as Snakeplants Palms, Hedging Shrubs, Bougainvillea, Creeping Plants, Climbing Plants, Money Plants, Ornamental Ficus and Syngonium species are also grown. The college is also home for the Squirrels and some commonly found birds are Tailor Bird, Common Myna, Asian Koel, Roufus Treepie, Jungle Babbler, Yellow-footed Green Pigeon, Rosy starling, Common Starling, Coppersmith Barbet, Grey-headed Barbet, Grey Hornbill, Indian House Sparrow, Rose Ring Parakeet, Indian Pied Robin, Sunbird, Oriental White Eye and Common Chip chap. Presently four gardeners are working to maintain the green cover and biodiversity. The college has bagged the *"National Environmental Education and Awareness Award"* from the Indian Institute of Ecology and Environment.

WASTE MANAGEMENT

The PGDAV College takes the necessary steps to manage its solid refuse. The college has installed green bins for biodegradable refuse and blue bins for non-biodegradable waste. The waste is separated at the point of origin. Two vermicomposting beds and a compost pit have been built at the college. In composting pits and vermicomposting beds, kitchen refuse, leaf debris, and grass clippings are disposed of. Every month, approximately 700 kilograms of leaf refuse is managed and converted into manure using these composting beds and pits. Campus-generated paper refuse is collected and recycled by a recycling organization. Through the Green-o-tech recycling agency, 3,150 kg of paper waste was recycled in 2019 and 2,942 kg of paper waste was recycled in 2022. The agency also provided the college with a green certification and saplings for plantations. E-waste is collected and sent to an authorized recycling agency by the team *Satark* of the college. In 2022, the team collected and recycled 540 kilograms of e-waste. ENACTUS-PGDAV conducts periodic wastepaper and plastic collection campaigns and recycles the materials through SDMC and other non-government organizations. Since 2017, the college community has recycled over 800 kilograms of paper and 200 kilograms of plastic refuse. The remaining refuse is disposed of as municipal solid waste, with dry and wet waste separated. Exemplary, most of the stakeholders are aware and engaged in implementation of 5R principles. In 2022, the college has received *"Certificate of Recognition"* from the Department of Higher Education, GOI for the best work done in the field of waste management. The Municipal Corporation of Delhi declared the institute a "*Zero Waste Institution*".

MUNICIPAL CORPORATION OF DELHI

Declares

PGDAV College (M), University of Delhi

as

ZERO WASTE INSTITUTION

for their efforts of Wet and Dry Waste Segregation, On-Site Composting and proper implementation of SUP (Single Use Plastic) Ban within the campus

Danish Ashraf, IAS

Deputy Commissioner, Central Zone

Municipal Corporation of Delhi

सत्यमेव जयते
Ministry of Education
Government of India

Azadi Ka Amrit Mahotsav

Where there is Rural Wellbeing there is Universal Prosperity

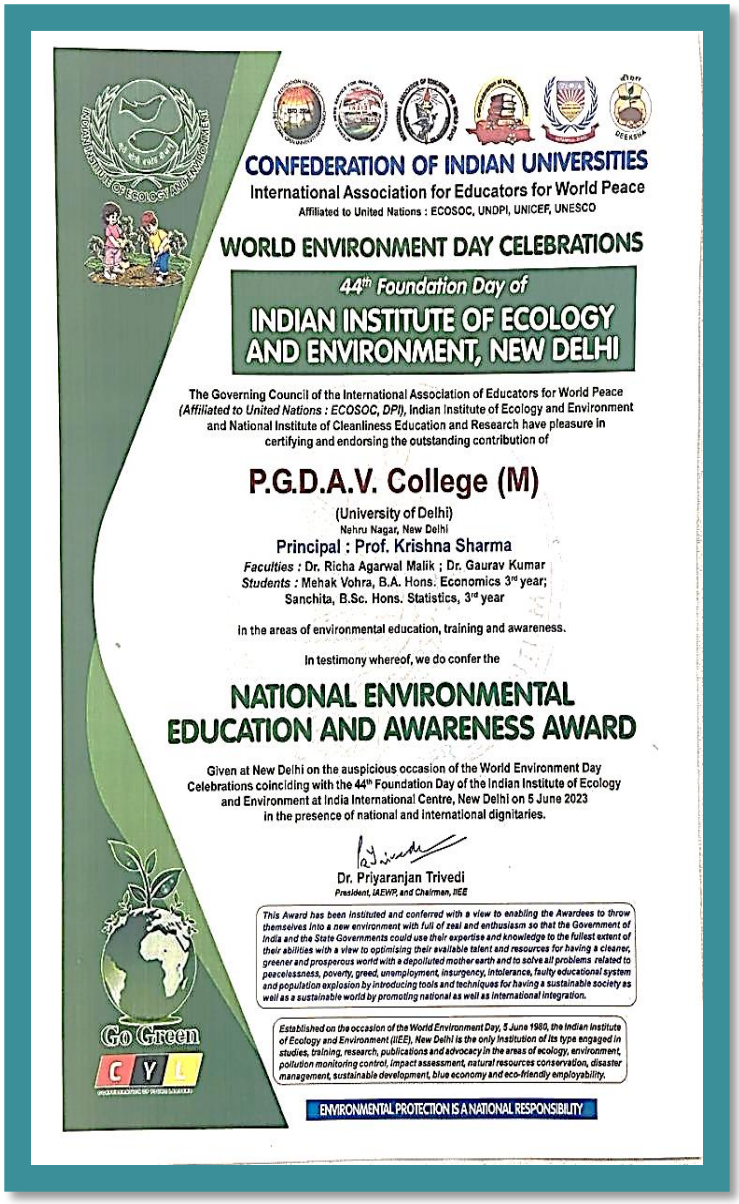
Mahatma Gandhi National Council of Rural Education, Department of Higher Education
Ministry of Education Government of India

Certificate of Recognition

This is to recognize *PGDAV College, New Delhi* as the Sustainable Campus. The Institution has done the best work for making the campus sustainable in *the areas of Sanitation, Hygiene, Waste Management, Water Management, Energy Management, and Greenery Management*. This program is organized by Mahatma Gandhi National Council of Rural Education, Department of Higher Education Ministry of Education Government of India.

Dr W G Prasanna Kumar
Chairman
MGNCRE, Ministry of Education
Government of India

Date of issue: 02.04.2022
Certificate no: MGNCRE/MHRD/GOI/179



CONFEDERATION OF INDIAN UNIVERSITIES

International Association for Educators for World Peace

Affiliated to United Nations : ECOSOC, UNDPI, UNICEF, UNESCO

WORLD ENVIRONMENT DAY CELEBRATIONS

44th Foundation Day of

INDIAN INSTITUTE OF ECOLOGY AND ENVIRONMENT, NEW DELHI

The Governing Council of the International Association of Educators for World Peace *(Affiliated to United Nations : ECOSOC, DPI)*, Indian Institute of Ecology and Environment and National Institute of Cleanliness Education and Research have pleasure in certifying and endorsing the outstanding contribution of

P.G.D.A.V. College (M)

(University of Delhi)
Nehru Nagar, New Delhi

Principal : Prof. Krishna Sharma

Faculties : Dr. Richa Agarwal Malik ; Dr. Gaurav Kumar
Students : Mehak Vohra, B.A. Hons. Economics 3rd year; Sanchita, B.Sc. Hons. Statistics, 3rd year

In the areas of environmental education, training and awareness.

In testimony whereof, we do confer the

NATIONAL ENVIRONMENTAL EDUCATION AND AWARENESS AWARD

Given at New Delhi on the auspicious occasion of the World Environment Day Celebrations coinciding with the 44th Foundation Day of the Indian Institute of Ecology and Environment at India International Centre, New Delhi on 5 June 2023 in the presence of national and international dignitaries.

Dr. Priyaranjan Trivedi
President, IAEWP, and Chairman, IIEE

This Award has been instituted and conferred with a view to enabling the Awardees to throw themselves into a new environment with full of zeal and enthusiasm so that the Government of India and the State Governments could use their expertise and knowledge to the fullest extent of their abilities with a view to optimising their available talent and resources for having a cleaner, greener and prosperous world with a depolluted mother earth and to solve all problems related to peacelessness, poverty, greed, unemployment, insurgency, intolerance, faulty educational system and population explosion by introducing tools and techniques for having a sustainable society as well as a sustainable world by promoting national as well as international integration.

Established on the occasion of the World Environment Day, 5 June 1980, the Indian Institute of Ecology and Environment (IIEE), New Delhi is the only Institution of its type engaged in studies, training, research, publications and advocacy in the areas of ecology, environment, pollution monitoring control, impact assessment, natural resources conservation, disaster management, sustainable development, blue economy and eco-friendly employability.

ENVIRONMENTAL PROTECTION IS A NATIONAL RESPONSIBILITY

Go Green

C Y L

ENERGY MANAGEMENT

To achieve the highest possible level of academic success, the college makes extensive use of natural light. The college has replaced the old lighting with LED lighting and fixtures, which will lessen the negative effects on the environment that are related with the consumption of energy. Energy-efficient fans and air conditioners, as opposed to high-energy-consuming fans and air conditioners, have been installed at the college, which will lessen the negative effects on the environment that are related with energy use. The college has reduced the negative effects on the environment that are caused by energy consumption by switching to more energy-efficient electronic appliances and equipment (e.g Refrigerators) in place of high-energy-consuming appliances. The college engages in constant monitoring of energy uses throughout the year through sub metering and aspirate metering of each learning space, and open space in order to achieve judicious use of energy. This encourages the teaching learning community to save energy in their day-to-day activities. The College has also installed a Solar Power Plant that is capable of producing on-site Renewable Energy; nonetheless, it encourages the student community to save energy in order to minimize the environmental implications of consuming fossil fuels. The power distribution system at the college has been thoughtfully developed, and as a result, the power supervisor is able to monitor the power supply in accordance with the appropriate requirements of the users.

AIR QULAITY MANAGEMENT

The campus is completely smoke-free, and anti-smoking policies are carefully enforced, preventing students and staff from being exposed to tobacco smoke and reducing the health risks associated with passive smoking. Most regularly inhabited spaces at the college are daylit, and the average daylight factor is maintained. College's regularly utilized spaces, such as classrooms, laboratories, libraries, and indoor game facilities, are sufficiently ventilated, which aids in the removal of pollutants, bacteria, dampness, and unpleasant odors, so improving the health and well-being of students and faculty. All learning facilities on campus, including classrooms, are well constructed in accordance with statutory standards and norms that adhere to suitable occupant density, thereby increasing student productivity. Most of the campus learning spaces, including Classrooms, Laboratories, Libraries & Indoor Game Facilities, Toilets, and Hostels & Canteens, are designed in accordance with standard anthropometric dimension norms (the individual's body size, strength, skill, speed, and sensory abilities) to ensure student comfort. The college administration has a clear vision to utilize low-emission materials, particularly paints, to avoid negative health impacts on students and teachers. The college administration is committed to maintaining a dust-free environment to reduce the negative health effects on students and faculty. Exhaust Fans are installed in all the campus's toilets, urinals, canteens, and laboratories to maximize air movement and improve indoor air quality. Air purifying plants are used as air filters to remove harmful substances such as formaldehyde, benzene, trichloroethylene, carbon dioxide, and others.

WATER MANAGEMENT

The college has a comprehensive rainwater collecting system installed on campus, which raises the level of underground water and decreases the demand for fresh water. The college collects as much of the precipitation that falls on roofs and other surfaces as possible. The college's landscape, of which turf is a major part, minimizes maintenance costs while yet satisfying the practical and aesthetic needs of the campus's teaching and learning community. The high percentage of drought-resistant plant species in a turf's total vegetated area helps keep water usage low. The college's landscaping is water efficient, saving water through effective watering and mulching. Trees, shrubs, herbs, climbers, and grasses that can survive with less water are used throughout the campus's vegetated areas. Sprinkler irrigation is an efficient irrigation technology that the college use to maintain its landscaping plants. The root zone of plants is watered directly rather than the surrounding landscape. Sprinkle irrigation is designed to water plants only when they need it and at the right intensity for optimal growth. The institution uses standard water monitoring equipment, to keep track of how much water is used in each building on a daily, weekly and monthly basis. Real-time notice of water overflow, leakages, and leaking prevents waste and promotes water conservation. Each day, both the morning and evening classes share 36,000 liters of water. The college reuses this water for flushing toilets, washing dishes, and cleaning the showers and sinks. This prevents the use of about 1600 liters of water daily.

HEALTH MANAGEMENT

The college has partnered with a local external cleaning service provider to handle its Hygiene & Cleanliness work. This agency ensures that the Hygiene & Cleanliness standards in all the lavatories are met on a consistent basis, which lowers the risk of infections for both students and teachers, improving their health & well-being. The water quality of all potable water supply stations and taps on campus is continually monitored and maintained. In order to ensure that everyone has access to clean and risk-free drinking water at all times, water quality tests are conducted at regular intervals. The canteen serves up food that is both healthy and nourishing, and it is open to use by all of the teaching staff and students. This helps to keep the teaching and learning community in good working order. The college provides its students with a wide variety of possibilities to participate in athletics. The college has constructed all of its indoor and outdoor sporting facilities with the goal of achieving sporting greatness and enhancing students' physical development and mental well-being. The college has sporting facilities that are specifically designed for basketball, volleyball, shuttle badminton, and cricket; however, the facilities for the other sports are shared to reduce the college's overall impact on the environment. To lessen the negative effects on students' and faculty members' health, the college employs only organic fertilizers and pesticides. When cleaning its classrooms and residential areas, the college only employs cleaning supplies that are safe for the environment. To reduce health risks associated with chemical exposure, environmentally friendly cleaners are also utilised to clean public restrooms and drinking water stations.

COMMUNITY OUTREACH

College believes that reaching out to the community is important for the overall growth of both students and the people who live nearby. Having strong morals means supporting a bigger cause and working towards a bigger goal. A lot of groups look for help through an outreach programme because they are socially aware. In different Delhi slums, the following work was done by the college students and teachers:

1. "Project Korakagaz" originated by ENACTUS PGDAV. It teaches women from disadvantaged groups how to make spiral-bound notebooks out of recycled paper.
2. ENACTUS PGDAV works to give people more power by teaching them how to make bio-enzymes from citrus peels and incense sticks from flower waste through its Nistaaran and Sugandh projects. Moreover, they help them sell the finished goods.
3. Students gave masks to people who pick through trash and live in slums.
4. Students also perform Nukkad Natak to bring attention to social issues and the need for cleanliness. As a first step in this direction, a drive was also held to give sanitary pads to women in the slums and stress how important it is to keep hygienic.
5. A group of student volunteers motivates the slum residents for education . They also help the children in their learning.
6. Resource people from SDMC conducted the workshop on composting of the kitchen trash.

BEST PRACTISES

The college has outlawed the use of plastic cups, dishes, and other items that are only used once. Potted plants, rather than flower bouquets, are the preferred token of appreciation at the college. Drives to promote the three R, the elimination of single-use plastics, campus cleanliness, and tree planting have all been organized by the college. There have been national and international webinars sponsored by the college's eco-club and Department of Environmental Studies to mark days of environmental significance. This includes Earth Day, International Biodiversity Day, Wetland Day, World Wildlife Week, World Population Day, International Pollution Day, World Wildlife Week, World Environment Day, World Water Day, and International Bird's Day. Working-With-Nature (WWN) is a volunteer organization dedicated to restoring Sanjay Van in Delhi, and PGDAV College is the only college of Delhi University to actively participate in it. More than 450 college students helped plant trees at Sanjay Van, all of which are native Aravalli species. The college inspires its students to protect the planet for future generations by teaching them about the effects of environmental deterioration. A comprehensive discussion of a wide range of socio-ecological concerns, including methods of sustainable development, environmentally protective plantations, sanitation, trash disposal, environmental laws, global environmental politics, air and water pollution, water resources management frequently happens in the mandatory EVS classes. Nearby slum residents, especially women, are periodically updated on the government programmes that are to their benefit, raising their level of knowledge and understanding of their rights, entitlements, health and environment.

RECOMMENDATIONS

Following are the recommendations of the audit team:

- College should draft a green campus policy to ensure judicious use of environmental resources within the campus.
- More energy meters need to be put in so that we can keep track of how much energy each building, or department uses.
- College should follow green building rules for the upcoming college infrastructure expansions.
- Water Flow Meter should be installed at the college for monitoring of water consumption for daily, weekly and monthly water uses in various facilities.


P.G.D.A.V. COLLEGE (M)
धन्वंतरि उद्यान
DHANVANTARI UDHYAN


PENGUIN DAY
GEO CRUSADERS


KAIZEN


P.G.D.A.V. COLLEGE (M)
फलों का बगीचा
FRUIT GARDEN


GEO-CRUSADERS