



P.G.D.A.V. College

University of Delhi

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Supporting document

for

Self Study Report, 2018-23

Criterion 7.1.3

Green Audit Report

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Green Audit Report 2020-21

P.G.D.A.V College (Morning)
(University of Delhi)
Lajpat Nagar, New Delhi - 110065

Findings of the Audit:

1. College students are strongly encouraged to take proper care of the plants that are planted during the plantation drives that are organized on the campus.
2. The concept of using different colored trash containers for different kinds of waste is promoted, and trainings on composting and waste segregation are anticipated.
3. A well-kept nursery, green sports pitch, medicinal garden and turf are all part of the college's grounds maintenance. People can view a wide variety of birds flying over the place.
4. Paperless operations are maintained by the College wherever feasible. Less paper is being utilized as a result of e-mails, various online portals, websites, and mobile apps.
5. The college has tested the drinking water for quality and has installed water-saving devices in the gardens to further reduce water usage.
6. There is an abundance of natural light throughout the college buildings. The main building is surrounded by lush nature on all sides and offers an atmosphere of less pollution.
7. To bring environmental issues to the forefront of students' minds, the college regularly organize events like cleanliness drives, green missions, workshops, seminars, waste to wealth events, poster competitions and Nukkad Natak.

8. The college's recycling Centre transforms dry leaves into manure, and there's also a solid waste management section to manage and segregate the solid wastes.
9. In an effort to familiarize the students with the local fauna and flora, the institution hosted discussions on biodiversity. Furthermore, the cultural traditions that will assist the students in developing a deep connection to nature are brought to their attention.
10. Students are highly discouraged from bringing plastic bags or using plastic objects on campus.
11. The classrooms have excellent ventilation, providing students with a suffocation-free atmosphere.

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Green Audit Report 2021-22

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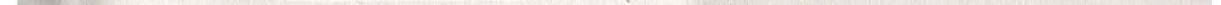
Findings of the Audit:

1. The buildings on the college campus have sufficient amounts of natural light and ventilation. The campus features a pollution-free environment and is encircled by verdant vegetation in all directions.
2. Students at the college are encouraged to take care of the plants that are planted during plantation drives that are held on the campus.
3. Trainings on waste segregation and composting are organized, and the idea of colour based dustbins for different types of trash is encouraged.
4. Events such as cleanliness drives, clean and green mission, seminars, workshops, waste to wealth events, Nukkad Natak and Poster Competitions are held on a regular basis in order to raise students' awareness of environmental issues.
5. The College operates in a paperless setting wherever possible. E-mails, a variety of online portals, websites, and mobile applications are all helping to reduce the amount of paper that is used.
6. Discussions on biodiversity were held in the college's facilities in order to acquaint the students with the flora and animals of the area. In addition, the students are made aware of the cultural practices that will help them sense a profound connection with the natural world.
7. The college maintains a medicinal garden, a nursery, turf and a green sports field that is in good condition. There are many kinds of birds can be seen flying around the premises.

8. The college does not permit the usage of any type of plastic. In addition, individuals are strongly discouraged from making use of plastic bags and plastic cutlery while on campus.
9. The college is equipped with operational sections of a rainwater collection system in order to conserve groundwater.
10. The college has a solid waste management unit as well as a recycling facility to make manure from dry leaves.
11. LED bulbs provide ample illumination throughout the college and save electricity.
12. The college has also conducted water quality tests of the drinking water and also use sprinklers in the gardens for the water conservation.

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P.G.D.A.V College

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Green Audit Report 2022-23

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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.

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OVERVIEW OF COLLEGE

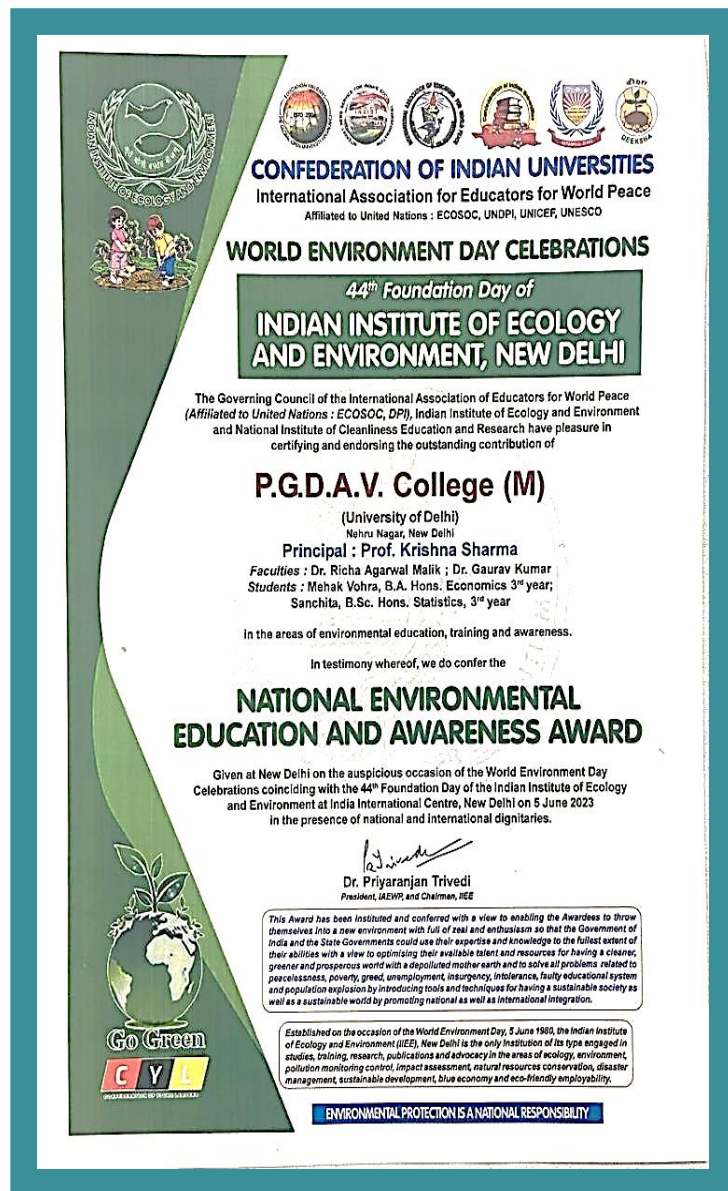
Pannalal Girdharlal Dayanand Anglo-Vedic (PGDAV) College is a constituent college of the University of Delhi, India's premier central university. The college follows Swami Dayanand Saraswati's ideals, who believed in educational ethics and transforming power to individuals and nations. The PGDAV college 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*".



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 QUALITY 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.



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