



Prasanta Chandra Mahalaonobis
Mahavidyalaya
under
West Bengal State University

Policy on Environment and Energy
(2018-2023)

Introduction: Prasanta Chandra Mahalanobis Mahavidyalaya, a distinguished institution committed to academic excellence and societal welfare, is acutely aware of the urgent need for sustainable environmental stewardship and responsible energy management. As a NAAC-accredited Government-aided degree college under the auspices of West Bengal State University, we are fully committed to fostering a culture of environmental consciousness and energy efficiency within our campus community and beyond. This Policy on Environment and Energy (2018-2023) is a testament to our unwavering dedication to environmental preservation, resource conservation, and promoting renewable energy sources. Guided by sustainability, equity, and innovation principles, this policy seamlessly integrates environmental considerations and energy efficiency practices into all aspects of our academic, administrative, and operational functions.

The College's location is nearly two kilometres from Sinthee More, Baranagar. Barangar Road Railway Station (Dunlop Bridge) is less than a kilometre away. Accessible by road and rail, the college, located beside the beautiful Bonhooghly Lake, is a natural choice for students from the Baranagar-Kamarhati locality and some parts of the Howrah and Hooghly districts. Prasanta Chandra Mahalanobis Mahavidyalaya is situated at 111/3, B.T.Road, Bonhooghly, Kolkata- 700 108, in an eco-friendly campus with a small, beautiful lake and encompassed by a wide variety of trees & plants offering a vibrant green and unpolluted environment.



Figure: Satellite Image of Prasanta Chandra Mahalanobis Mahavidyalaya

Infrastructure: Spread over a total area of 1 acre, with a constructed area of 2,448 sq. mtrs, our college is a three-story building with two wings. It houses furnished classrooms, Administrative buildings, laboratories, a Computer laboratory, a digital classroom, a well-equipped library, an office, a multi-gym, a Women's hostel, a canteen, a students' union room, and separate standard rooms for boys and girls. Our medium-sized

playground is a hub of student activities. On the eastern side of the building, a cycle stand is provided for the convenience of students and staff. Despite the standard rooms being inadequate for the increasing roll strength, we have made provisions for table tennis, carom, and chess. These facilities are student-friendly and designed with energy efficiency in mind.

Types	Numbers
Total Built-up Area	1 acre
Number of Buildings	02
No of Departments	16
Classrooms	21
Laboratories (dry)	03
Laboratories (wet)	02
Seminar Halls	01
Virtual Class Room	01
Women Hostel	01
Canteen	01
Boys Common room	01
Girls Common Romm	01
Gymnasium	01

Context: Prasanta Chandra Mahalanobis Mahavidyalaya is not just a place of learning but a stronghold of unwavering environmental responsibility. We are deeply committed to upholding the highest environmental standards in all activities, from teaching to research and community involvement. Our dedication to ecological consciousness has earned us a reputation as a responsible institution. The lush green vegetation, diverse fauna, and well-maintained herbal and plant gardens on our campus are a testament to our unwavering commitment to maintaining high environmental standards.

Purpose: The College's environmental and energy policies are not just a vision but a resounding call to action. They are designed to provide an overview of our collective vision to minimise the environmental impacts of our activities and operations and to ensure the sustainable management of available resources. The policy statement underscores how we, as a community, will actively pursue environmental best practices and inspire the sustainable use of resources at the community level within and outside the college premises. It outlines the concepts and delineates priority areas and methods for our environmental plans' implementation, management, and evaluation. Its goal is to reduce energy and raw materials consumption, which could take sustainability measures at the college level. This policy is not just a communication of the college administration's goals and objectives but a call for us to create a better environment for future generations.

Scope: The policy document will aid in integrating efficiency and environmental consciousness into daily activities, allowing us to understand better our duties and dedication to natural resource conservation and utilisation. Our college has tried to address

the issue of sustainability as a part of curricular and extra-curricular activities. We welcome suggestions and promote exchanging ideas to make a more risk-averse, resilient and sustainable society. We sincerely hope that Prasanta Chandra Mahalanobis Mahavidyalaya will develop new frameworks to understand the sustainable development paradigm. We're excited to learn about new approaches to help implement the sustainability drive. The College will continue to be an attractive institution for study, research, sponsorship, and collaboration with the government due to the legislation and execution of this innovative policy, which will serve as a model for other institutions.

Prasanta Chandra Mahalanobis Mahavidyalaya is passionate about the environment and has implemented various sustainable environmental initiatives on its campus. Various committees have been constituted to carry out and oversee these tasks. Our college has also duly constituted important committees to assess, manage and implement college policing in line with sustainable practices. For example, we have an active eco-club and other committees actively working at the institutional level. On an annual basis, we also undertake a mandatory "Green audit", as mentioned in criteria-7 of NAAC. Following are the initiatives taken at the institutional levels to promote awareness among students of all disciplines about the problems of climate change through academic and non-academic outreach activities. We involve different college stakeholders in our activities for a broader outreach.

Prasanta Chandra Mahalanobis Mahavidyalaya shall pursue the following objectives:

- Communicating with government agencies, municipal corporations, and affiliating colleges will enable collaboration with local environmental, energy efficiency, and sustainable development groups.
- Conduct audits to identify areas for improvement and make recommendations.
- Conduct internal energy audits regularly to find energy-saving options.
- Encourage people from all walks of life to be aware of the importance of energy conservation.
- Ensure the organisation's long-term viability and environmental protection.
- Establish an environment/green committee to oversee eco-friendly projects on campus and in the surrounding area.
- Establish relationships with businesses and conduct a comprehensive energy audit.
- Establish sustainable practices on campus and among stakeholders.
- Financial savings via reducing resource use
- Green campuses and support local sustainability efforts and
- Implement carbon-neutral policies.
- Improving/updating the institution's profile
- Instilling in young people an environmental ethic and value system
- Introduce innovative technologies to make efficient use of energy resources.
- It increased environmental promotional events on campus to raise awareness.
- Optimise your energy usage and costs.
- Practical experience which enriches the curriculum
- Promote environmental assessment initiatives.
- Promote sustainable development research and knowledge dissemination,
- Raise awareness about keeping the campus clean and green.

- Reduce, Reuse, and Recycle are the three R's.
- Reduction in resource consumption
- Take friendly initiatives (clean fuel, renewable resources etc.)
- Teach sustainable development to students from all disciplines.
- The College will attempt to train its personnel and develop knowledge of environmental issues and the environmental effects of its activities among academic staff, students, and other users.
- The college's respective committees will formally monitor the work on sustainability projects/initiatives, measure their progress, and report on their accomplishments.
- The Institution's Energy Audit/Management Cell manages regular monitoring and follow-up procedures to ensure effective department-level implementation.
- The university will continue to comply with environmental legislation and pursue several goals, including plantation, water management, energy conservation, solid waste management, air quality management, and carbon footprint reduction, to reduce its environmental impact.
- To make the Institute a role model in energy conservation, train teachers, non-teaching staff, students, and housekeeping staff.

Areas of the College's Environmental Policy

A. WATER MANAGEMENT:

- A continuous water conservation programme would be implemented to track use, prevent leakage, and remove excessive or unnecessary use.
- Conserve water by controlling the water holding capacity of the Cisterns of the lavatories.
- Installing rainwater harvesting systems in all campus buildings for water self-sufficiency (Policy taken in 2021-2022) at a minimum level.
- Use the least amount of water possible for its activities, and it will ensure that the water it uses is provided and disposed of in the purest possible condition.

B. SOLID WASTE MANAGEMENT: The college will make every effort to minimise waste production, including minimising the purchase of new materials, recycling and reusing current resources, and, if these options are not available, disposing of waste in a way that has the least negative environmental effect.

- Composting solid waste from canteens and kitchens of the Food and Nutrition Department was proposed in the 2021-2022 session and will soon be implemented.
- Develop a technology-centric educational and administrative strategy to reduce solid waste.
- Hazardous and E-waste must be handled, transported, and disposed of properly.
- Minimize the usage of plastic on campus.
- Minimizing the usage of packaged foods, as well as the habit of reusing and recycling non-biodegradable items

- Organizing solid waste management workshops for students.
- Supporting the digitisation of attendance and internal assessment records reduces paper consumption.
- The college will use hazardous chemicals and toxic, hygienic compounds as little as possible.
- Update the college library's e-books and e-journals collection to reduce the need for printed books.
- Waste containers/Dustbins are positioned where they are needed.
- The college has collaborated with Baranagar Municipality for solid waste management.
- The college has collaborated with the MSME for a campus cleaning programme of seven days.

C. E-WASTE MANAGEMENT: The college assures that its technological use and e-waste output do not negatively influence the environment. The college intends to work toward the following goals:

- More arrangements for the disposal of institutional e-waste.
- Working with e-waste recycling firms to recycle electronic waste. Already tied up with 'Huldeck'.
- Awareness among students about e-waste reduction and environmentally responsible e-waste disposal techniques.
- Encouraging e-waste management initiatives at the departmental and societal levels.

D. AIR QUALITY MANAGEMENT:

- Preserve a healthy amount of greenery to improve campus CO₂ sequestration.
- Proposal to create the National Ambient Air Quality Monitoring Station (NAMP).
- No vehicle day shall be held within a given month.
- Open spaces with grass and lawns are better for reducing dust.
- The College prohibits smoking and using other tobacco products according to the framework provided by the National Tobacco Control Programme (NTCP) 2007-2008. The college's anti-smoking committee guarantees that the anti-smoking policy is followed.
- The College will take action to lessen the harm that its traffic causes to the environment. All teachers, staff, and students are encouraged to walk, bicycle, or use public transport to get to and from the college and between its campuses and off campus. The use of private automobiles intended for single occupancy will be discouraged.

E. REDUCE CARBON FOOTPRINTS: Encourage the implementation of many carbon-reduction measures.

- "No Vehicle Day" on campus.
- A rise in the quantity of vegetation on campus.
- Green computing to reduce the need for paper.
- Green, energy-efficient building designs that keep an eye on the outside light

and temperature.

- Making use of energy-saving appliances and lighting.
- Putting into practice the Reduce, Reuse, and Recycle (R) strategy to eliminate waste.

F. ACQUISITION OF SUSTAINABLE RESOURCES: The institution understands that making resource purchase decisions is one of the most important ways to demonstrate its commitment to environmental stewardship. The college will seek to get the most bang for its buck by balancing immediate and long-term costs, maintenance, life cycle, and environmental costs when acquiring goods and services. The college's purchasing policy should be firm, requiring it to seek items and services that cause the least negligible environmental impact in its manufacturing, distribution, packaging, usage, reuse, recycling, and disposal. It should also avoid the use of potentially dangerous substances and encourage suppliers to commit to improving environmental performance.

G. ENVIRONMENT MANAGEMENT SYSTEM: The college must establish an environmental management system (EMS), such as ISO 14000, adopt standardised environmental management practices, document their actual use, and obtain credible third-party verification. The college should promote EMS adoption by prioritising ISO 14000 goods and services in procurement, except items reserved for the small-scale sector at any time.

H. ENVIRONMENTAL AUDIT: The college is dedicated to fulfilling the requirements of environmental audits and will do everything within its power to offer staff and student-beneficial training. The institution conducted an environmental audit in the 2022-2023 session by a Panel of Professors and environmental-related personnel proposed by the college's governing body.

I. ENVIRONMENTAL EDUCATION, TRAINING AND AWARENESS: Outreach and education are significant so that all campus community members understand and can help execute the policy's goals. This is why the college supports and encourages awareness campaigns, seminars, workshops, conferences, and other interactive sessions to ensure that the Green Campus, Energy, and Environment policies are implemented effectively.

a) Environment-centric Student Societies and Department Activities: The college encourages all departments and specific student societies, NSS, and others to hold events, competitions, and training sessions that will result in beneficial environmental changes at the grassroots level. The institution works with departments and student clubs to help students become active environmental protectors and conservationists.

b) Green Society: Institutional shifts toward sustainability and environmentally friendly behaviour have percolated among students, increasing Green Society membership. Making the society mandatory will give it a larger platform to communicate the institution's environmental principles and raise awareness. Because obligatory societies need a certain number of hours of effort and dedication, the green initiatives and practices that are part of this strategy will be able to expand rapidly.

- c) **Conduct a Green Audit:** The institution intends to undertake a Green Audit of our college campus regularly to analyse our strengths and weaknesses and advance our long-term sustainability goals. A green audit can help determine how and where you're wasting the most energy, water, or resources. The college can then think about how to make improvements and save money. I can tell you what kind of garbage you have and how much of it you have. Waste minimisation initiatives or recycling projects can be implemented. It will promote environmental principles and ethics while also raising health awareness. It helps students comprehend the implications of environmentally friendly behaviours on campus. Green auditing will help you save money by reducing your resource usage. The college must assess its contributions to a long-term future.
- d) **Clean Campus and Plastic-free campus:** Since its founding, the College has complied with most of its responsibilities regarding solid waste management. In light of the Indian government's decision to ban all single-use plastics due to the harmful effects of plastic use and pollution, the college administration rigorously prohibits single-use plastics on its property to make it a "Plastic Free Campus." NGOs like 'ICCHE URAN' take the initiative to make the campus plastic-free. Also, the college's NSS often took the 'Plastic Free Campus Programme'.
- e) **Landscaping Initiatives:** A college's campus environment, like its buildings, can be considered a tangible manifestation of its values. It is an essential aspect of a campus's life, providing opportunities for study, recreation, outdoor activities, relaxation, and aesthetic enjoyment. This institution tries to make the campus a **Green Campus**.
Landscapes also help recharge groundwater, control runoff, and purify and cool the air on campus. The landscape is a visual symbol of the school community's dedication to environmental stewardship. Landscape programmes are a fantastic approach to raising environmental awareness because campus landscapes are visible and accessible. There are over 25 plant species and many acres of grass on campus. The landscape of trees and plants provides a clean, calm ambience to visitors, students, and staff and is relaxing.
The college's extensive green cover also supports a diverse range of animals, uncommon birds, and a well-maintained butterfly park. By organising regular tree plantation drives and encouraging student groups to host tree planting events, the college pledges to enrich this healthy ecosystem and maintain the institution's symbiotic relationship with nature.
- f) **Green Initiatives: Sobujer Shondhaney:** Promoting a Clean and Green Environment: This program is aligned with the UN Sustainable Development Goal No 13–Taking urgent action to combat climate change and its impacts. This is designed to promote environmental awareness. The main focus of this programme is to preserve the ecological biodiversity of the Bonhooghly lake area. Tree Plantation Drives, Plantation of Medicinal Plants and Herbs, Maintaining a Green Zone, Cleanliness of the Campus and Its Immediate

Surroundings, Waste Management; Solar Energy Use; Rain Water Harvesting are some of the activities organized under the aegis of this programme. Some of the activities under this program are:

- J. Tree Plantation Drive: The department of Geography and Internal Quality Assurance Cell of Prasanta Chandra Mahalanobis Mahavidyalaya jointly organized a tree plantation programme surrounding the college campus area to celebrate World Environment Day.
- K. An Awareness Programme to Save the Bonhooghly Lake Ecosystem was organized by the students of the Department of Geography.
- L. **ENERGY CONSERVATION:**
 - Wherever possible, reduce the amount of electricity consumed.
 - Energy-efficient light bulbs are gradually being replaced.
 - Use of renewable energy to power the grid.
 - Hostels and guest houses can use solar water heating systems.
 - Participating in a “No Vehicle Day” on campus.
 - Energy conservation by encouraging the use of natural light.

Renewable Sources of Energy: Electricity consumption, backup power source, environmental sustainability- Solar energy is now used in almost every sector, such as home and industry. Recently, a well-built solar panel project for educational institutions has gained popularity. The Institute, Prasanta Chandra Mahalanobis Mahavidyalaya, successfully installed Grid Connected Rooftop Solar PV with the help of the West Bengal and the government of India funded a project to reduce dependency on fossil fuel-produced electricity, which has a profound impact on institutional financial and environmental matters. Such practices have positively enhanced the institutional overall quality and upgraded the knowledge of faculty members and students regarding renewable energy and environmental sustainability. Prasanta Chandra Mahalanobis Mahavidyalaya, Bonhooghly- 700108, has installed a connected Rooftop Solar PV Power Plant with a PV array Capacity of 10 kWp by M/s Larsen & Toubro Limited on specifications BIS/MNRE with the help of Govt. West Bengal and Govt of India Funded.

Energy Saving and Energy Efficient Equipment: We pledge to install environmentally efficient electrical appliances that save energy and reduce trash. The college believes in adopting environmentally friendly energy sources such as LED lighting.

ACTION PLAN

Environment:

1. Remembering significant days, such as Earth Day, Environment Day, and Ozone Day.

2. Launch a campaign to raise awareness of pollution and implement preventative measures.
3. Perform regular environmental and green audits and take corrective measures when necessary.
4. Ensure that campus clean-up initiatives, like proper trash disposal, stakeholder e-waste campaigns, rainwater harvesting, and water-wise monitoring, are routinely updated and monitored.
5. Initiatives that support, among other things, recycling, reuse, repair, and refurbishing.
6. Conduct a departmental or college-level invited conversation on various policy updates and environmental studies—creating or reviving an energy management cell (instead of an energy audit cell).
7. Examine the renewable and green energy projects every six months and audit their service record.

ENERGY

1. Clearly defined protocols should be established by the Energy Management Cell.
2. Consider constructing a Grid Interactive Solar PV System on campus to increase the utilisation of renewable energy.
3. Demand is maximised by appropriate reactive power management.
4. Make the most of natural light for indoor illumination and ventilation.
5. Monitor and evaluate your energy performance. Establish short—and long-term objectives and conservation strategies to reach and surpass the zero-carbon campus goals.
6. Preserving a sustainable strategy by prolonging the life of current equipment and, as needed, swapping it out for more effective models. Before proceeding to the Replace & Recycle stage, reduce e-waste as much as possible through good maintenance.
7. Regularly track and evaluate how resources are used and how much waste is produced.
8. Routine maintenance and LED replacement of extra lights and lighting fixtures.
9. To increase their understanding of energy usage and costs, encourage students to work on projects pertaining to energy management, energy optimisation strategies, and renewable energy harvesting.
10. To save energy, employ occupancy sensors in classrooms, hallways, administrative offices, toilets, and sensor-based switches for streetlights and corridor lighting.
11. Train employees and students in energy auditing and energy management.
12. Use of star-rated, energy-efficient equipment.
13. Water coolers and air conditioners have their ideal temperature settings adjusted.
14. Work with industry partners to provide project-based learning approaches for energy management and conservation courses.

