



KURIAKOSE ELIAS COLLEGE MANNANAM

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ENVIRONMENTAL POLICY AND GREEN PROTOCOL



ENVIRONMENTAL POLICY

1. Preamble

Kuriakose Elias College, Mannanam, a leading higher education institution in Kerala, recognizes its responsibility towards environmental issues and the well-being of society. The College acknowledges the crucial role of education, research, policy formation, and information exchange in sustaining environmental campaigns and activities. The current Environmental policy reflects the College's dedication and stewardship toward environmental protection and sustainability.

The College is committed to adopting a sustainable approach to achieve environmental stability and reduce its ecological footprint. A responsible environmental management culture has been established on campus, with a strong focus on resource and waste management supported by robust green initiatives. These efforts align with the government's existing environmental laws and regulations to promote a pollution-free environment.

The policy establishes significant objectives, specific targets, and action plans to achieve environmental sustainability. It draws upon various regulations, including the Municipal Solid Wastes (Management and Handling) Rules, 1999, the Water Act, Environmental Protection Act, and National Environmental Policy of 2006. This environmental policy highlights the College's commitment to water management, waste management, biodiversity conservation, energy efficiency, carbon management, and its dedication to green initiatives.

2. Policy Statement

The College acknowledges the vital role of a strong environmental framework as an integral part of academic excellence and the overall well-being of the institution. To achieve this excellence, developing, implementing, and maintaining a policy statement that serves as the foundation for an Environmental Management System aimed at achieving sustainability is essential.



Energy Policy:

1. Establish an Energy Management Cell with representation from all departments to effectively implement an energy management program and ensure adherence to procedures for baseline assessment, goal setting, monitoring, and the adoption of conservation methods towards achieving a zero-carbon campus.
2. Promote energy efficiency by tracking and analyzing energy usage, utilizing energy-efficient infrastructure, adopting a sustainable approach to equipment replacement, encouraging the use of energy-efficient appliances and lighting, and implementing energy-saving measures such as BLDC ceiling fans and TFT computer monitors.
3. Implementation of energy waste elimination methods by occupancy sensors, optimal temperature settings, timely repair or replacement of old instruments, maximizing the use of natural daylight and ventilation, timer switches for streetlights and classrooms, promotion of good housekeeping practices, and regular maintenance and replacement of lights with LEDs to save energy.
4. Substitute conventional energy sources with sustainable alternatives by maximizing natural light utilization, implementing solar water heaters, increasing the use of grid interactive solar PV systems, installing additional biogas plants, promoting the use of electric vehicles, and encouraging bicycle usage within the campus.
5. Optimizing energy costs through effective management of reactive power, taking advantage of time-of-day (TOD) tariff benefits by operating flexible loads during off-peak periods, and implementing dual trigger RTPFC panels to optimize DG fuel consumption.
6. Promoting energy management and sustainability through awareness programs, workshops on solar PV systems, energy training, student projects, 'No Vehicle Day' events, energy conservation programs, and encouraging faculty Energy Audit certification



Water Policy:

1. Implementing regular desilting and maintenance of natural water sources such as wells and ponds on campus to increase water storage capacity and promote groundwater recharge, and utilizing roof rainwater from nearby buildings to replenish the groundwater through recharging of wells wherever possible.
2. Extreme care has to be taken to reduce the wastage of water in the campus for instance, avoid prolonged over-flowing while pumping water to the overhead tanks; repair and proper maintenance of leaking faucets and plumbing.
3. Implementing roof rainwater harvesting structures of appropriate capacities in science department that can be connected to the laboratories, specifically the water distillation units, to conserve and utilize the significant quantity of coolant water discharged from these units, thereby minimizing wastage daily. It can also be diverted to rainwater collection tanks or near by ponds to save water.
4. Periodic maintenance and cleaning of the water channels, pipes, faucets and water tanks is very essential.
5. Instillation of an effluent treatment plant for waste water purification and reuse.

Waste policy

1. Implementing a comprehensive waste segregation system throughout the campus, promoting the separation and segregation of recyclable materials such as paper, plastic, glass, and metal. Establish recycling points and educate the college community on proper segregation practices.
2. Placement of colour coded waste collection bins in each department and division of the administrative section for source segregation of solid waste
3. Encouraging the utilization of appropriate techniques to process the waste for material recovery, energy generation, or manure production.
 - i. Biogas plants, composting, and vermicomposting yards are established in suitable locations on campus.
 - ii. The bio-manure derived from these yards will be exclusively utilized within the college premises for horticultural purposes.



4. Minimising single-use items such as plastic bottles, disposable cutlery, and packaging materials.
 - i. Encourage reusable alternatives and provide adequate facilities for refilling water bottles and food containers.
 - ii. Phasing out the use of plastics on campus, starting with a ban on the use of flex banners
 - iii. Consider installing purified water kiosks at multiple locations to reduce plastic bottle usage and promote tap water consumption.
5. Developing a systematic approach for safely handling, storing, and disposing of hazardous waste (e-waste and biomedical waste) generated within the college premises, in compliance with relevant regulations. Implement training programs to educate staff and students on proper handling practices.
 - i. *E-Waste management* : Properly collected, stored, and periodically given to concerned scrap dealers. Technology upgradation is prioritized through the buyback option instead of purchasing new machines
 - ii. *Laboratory waste / Hazardous waste management*: Liquid chemical wastes and reagents will be collected with minimal segregation into separate containers, and these will be responsibly handed over to recyclers or authorized agencies specialized in disposing such wastes.
6. Conduction of awareness campaigns, workshops, and training sessions to educate the college community about waste management best practices, emphasizing the importance of waste reduction, recycling, and responsible disposal.
7. Fostering collaborations with local authorities, waste management agencies, and relevant stakeholders to enhance waste management initiatives, including community participation clean up drives and waste reduction programs.

Biodiversity policy

1. Conserving the natural vegetation and improving the tree cover on campus to preserve floral and faunal diversity. Efforts will be made to protect and enhance the ecological balance by promoting the conservation of native plants and the habitats they provide.



2. Recognizing the valuable role of nature clubs in documenting and monitoring the campus biodiversity, active encouragement and involvement are emphasized to foster a sense of responsibility toward conserving local fauna.
3. Ensuring the active involvement of the nature club in documenting and monitoring the biodiversity on campus, instilling a sense of responsibility and cultivating a collective effort to preserve the campus's natural ecosystem.
4. Ensuring the periodic monitoring of the conserved biodiversity patches(Gardens, organic farm yards, and associated areas) of the College by concerned groups or personnel.
5. Promotion of flower garden, medicinal plant garden, horticulture farm and canopy cover

Carbon Management:

1. Setting clear targets for reducing carbon emissions and implementing a robust monitoring and reporting system to track and communicate the progress towards achieving these targets.
2. Formation of a dedicated task force responsible for assessing the emission scenarios of the campus using a standardized methodology. This task force will be responsible for conducting comprehensive evaluations to determine the current and future emissions levels, enabling informed decision-making and effective implementation of emission reduction strategies.
3. Encourage public transportation, carpooling, and cycling among the college community to reduce carbon emissions from transportation.
4. Parking of two-wheelers and four wheelers preferably outside the campus.
5. Reducing the carbon footprint by prioritizing renewable energy sources and minimizing reliance on non-renewable energy.
6. Encouraging measures to reduce the carbon footprint towards attaining a carbon neutral campus.

General Administration setup envisaged

An effective administrative structure is essential to ensure the successful implementation of the policy. The responsibilities and institutional provisions outlined in the policy are



allocated to individuals at different administrative levels within the college, establishing clear lines of authority and accountability for its execution.

To implement an environmental policy in a college, the following administrative structure can be considered:

1. Senior Management/Administration:

- Principal/President: Provides overall guidance and support for the policy implementation.
- Vice Principal/Vice President: Assists in policy development and oversees its implementation.
- Environmental Committee: Comprises key personnel responsible for policy formulation, implementation, and monitoring.

2. Environmental Coordinator/Manager:

Appointed staff member responsible for coordinating and overseeing environmental initiatives. Works closely with different departments and stakeholders to ensure policy compliance and progress.

3. Departmental Representatives:

- Faculty Representatives: Act as liaisons between faculty members and the Environmental Coordinator/Manager, promoting environmental awareness and compliance within their respective departments.
- Student Representatives: Engage with student organizations and clubs to foster environmental initiatives and raise awareness.

4. Operations and Facilities Management:

- Facilities Manager: Ensures efficient implementation of environmental practices in campus operations, including waste management, energy efficiency, and sustainable infrastructure development.
- Maintenance Staff: Implements day-to-day environmental initiatives, such as waste segregation, recycling, and energy conservation.



3. Education and Outreach:

- Sustainability Office/Department: Develops educational programs, awareness campaigns, and training sessions on environmental issues for students centered outreach activities for the public.
- Environmental Clubs and Organizations: Actively involve students in environmental activities, promote sustainable practices, and contribute to policy implementation and extension.

4. Monitoring and Reporting:

- Environmental Compliance Officer: Monitors policy compliance, conducts regular audits, and ensures reporting of progress towards environmental goals.
- Data Management Team: Collects, analyzes, and reports environmental data to track the effectiveness of the policy implementation for improvement.

5. Stakeholder Engagement:

- Community Relations Officer: Coordinates with external stakeholders, such as local communities, government agencies, and environmental organizations, to foster collaborations and partnerships to support the policy.

This administrative structure provides a framework to ensure effective coordination, implementation, monitoring, and reporting of the environmental policy within the College, involving various individuals at different levels of responsibility.

By adhering to this environmental policy, KE College demonstrates its commitment to sustainability, environmental stewardship, and the promotion of green initiatives. The institution believes that integrating these principles into its operations can create a more environmentally conscious campus and contribute to a greener future and a model to others.



GREEN PROTOCOL

The College has implemented green initiatives that align with the standards set forth by the Haritha Kerala Mission. These initiatives cover various aspects related to sustainability.

1. Promote and advocate for the adoption of the 'respect, rethink, reduce, reuse, and recycle (5Rs)' principle within the campus community.
2. Cultivate a culture of responsibility among the campus community to prevent the wastage of resources.
3. Encourage a mindset that discourages the use-and-throw culture and excessive consumerism.
4. Support the use of reusable utensils for dining and beverages on campus, particularly during events and functions.
5. Facilitate the proper separation and management of waste into categories such as biodegradable, non-biodegradable, and hazardous materials.
6. Promote the responsible disposal of used sanitary napkins and other sanitary waste through scientific methods like incineration.
7. Advocate for the composting of biodegradable waste to create organic manure, following a "waste to wealth" approach.
8. Promote the conversion of organic waste into valuable resources like vermicompost manure or biogas.
9. Encourage recycling by segregating non-degradable materials, such as plastics, and sending them for recycling through "Haritha Karma Sena."
10. Discourage the use of non-degradable decoration items like plastic-covered bouquets, flex banners, and pharmacol during functions.
11. Advocate against the use of plastic or rexine-coated binding materials for projects and proposals.
12. Recommend alternatives like cloth banners, metal boards, and electronic displays instead of flex and other non-eco-friendly hoardings.
13. Promote the use of reusable items like ink pens and bags made from jute, cloth, or paper during workshops and seminars.
14. Advise on the proper storage, handling, and disposal of electronic waste in compliance with e-waste management regulations.



15. Instill a sense of personal responsibility regarding resource utilization, waste generation, and reducing one's carbon footprint.
16. Foster a sense of belonging, encourage minimalism, and promote eco- sustainability throughout the campus.
17. Encourage students to observe "clean-up drives" concerning environmentally relevant days.
18. Provide training programmes to the students on L.E.D. bulb making, paper bag making, etc. to make them self-reliant in an eco-friendly lifestyle.
19. Incorporate and regularly conduct environmental audits.
20. Enhance and expand existing green initiatives and best practices to achieve environmental sustainability.
21. Ensure the engagement of campus green teams to monitor and maintain environmental health.
22. Introduce programs and initiatives that cultivate environmental stewardship and awareness.
23. Promote community responsibility and engagement by fostering increased cooperation among students, staff, and the local community on environmental initiatives and extension programs.
24. Setting up functional rainwater harvesting systems to mitigate the water scarcity issue in summer and water recharge pits to ensure groundwater supply year- round.
25. Encourage students and staff to reduce the use of automobiles and follow energy-conserving modes of transport like cycling, walking, vehicle pooling, and more reliance on public transport systems.
26. Provide tree-lined pathways and landscaping on the college campus to ensure stress-relieving, relaxing strolls for the students and staff.
27. Conduct nature conservation programmes in the neighborhood communities through the extension activities of cells or clubs
28. Inspire students to develop environmental responsibility through nature camps and field trips.
29. Support the green initiatives of the Government of Kerala and the Union Government.