

STANDARD OPERATING PROCEDURE FOR ENVIRONMENT MANAGEMENT SYSTEM

KOTTAKKAL FAROOK ARTS AND SCIENCE COLLEGE

STANDARD OPERATING PROCEDURE FOR ENVIRONMENT MANAGEMENT SYSTEM

1. Purpose

To improve the environmental performance of the institution, the Environmental Management System (EMS) manages the organization's environmental programs comprehensively, systematically, and documented. This includes planning, resource development, implementing, and maintaining policies for environmental protection.

2. Scope

This SOP lays down guidelines for handling the generated waste, including planning, sensitizing stakeholders for active participation, waste segregation as per norms, and treatment in accordance with the principle of 'Refuse, Reuse, Recycle, Recover and Regenerate' (RRRR) to achieve an eco-friendly and eco-sensitive campus.

3. Responsibilities

- All Teaching and Non-Teaching Staff Members
- > Heads of Respective Departments (HoDs)
- > Amenity staff
- > Cleaning staff

4. Procedure

| S. | | | Target |
|-----|------------------------|------------------|----------------|
| No. | Activities | Responsibility | Dates/Days |
| | Develop and maintain | | |
| | green campus areas, | | Ongoing, with |
| | including gardens and | | quarterly |
| 1 | trees | All HoDs | reviews |
| | Collect and segregate | | |
| | generated waste | Designated staff | Daily, with |
| 2 | (electronic, chemical, | under HoDs | weekly reviews |

| S. | | | Target |
|-----|-------------------------|------------------|------------------|
| No. | Activities | Responsibility | Dates/Days |
| | biomedical, paper, | | |
| | and plant waste) | | |
| | Handle dry waste by | | |
| | segregating metals, | | |
| | bottles, plastic, etc., | | |
| | and sending for | | |
| | recycling or | Designated staff | Daily, with |
| 3 | incineration | under HoDs | weekly reviews |
| | Process wet waste for | | |
| | bio-gas production or | Designated staff | Daily, with |
| 4 | composting | under HoDs | weekly reviews |
| | Collect and audit | | |
| | electronic waste (e- | | |
| | waste) prior to | Designated staff | |
| 5 | disposal | under HoDs | Quarterly audits |
| | Promote e- | | |
| | governance to | IT Department | |
| 6 | minimize paper use | and all staff | Ongoing |
| | Develop a Bicycle | | |
| | and Pedestrian Master | | |
| | Plan for a pedestrian- | Campus | |
| 7 | friendly campus | Authorities | Annually |
| | Improve energy and | | |
| | water efficiency | | |
| | through proper | | |
| | operation and | Facilities | Ongoing, with |
| 8 | maintenance | Management | annual reviews |

| S. No. | Activities | Responsibility | Target Dates/Days |
|-----------|---|----------------------------|-------------------------------------|
| 9 | Implement eco- friendly practices in dining facilities | Dining Services | Ongoing, with quarterly reviews |
| 10 | Generate awareness and involve stakeholders in eco- friendly practices | Environmental Committee | Ongoing |
| 11 | Engage in socially beneficial eco-friendly activities | All Stakeholders | Annually, with proper documentation |

5. Detailed Procedures

1. Green Campus:

- Maintain and develop gardens/trees to control carbon emissions.
- Regular watering, pruning, and cleaning of green areas.
- Conversion of garden refuse to compost for use as manure.
- Plant seasonal flowers and trees.

2. Collection and Segregation of Generated Waste:

- Segregate waste at source (laboratories, households, kitchens, dining halls, and canteens).
- Use designated bins: green for wet waste, blue for recyclable waste, and red for hazardous waste.
- Avoid the use of plastic and promote alternatives like cloth bags and reusable containers.

3. Handling Dry Waste:

• Segregate dry waste into metals, bottles, plastic, etc.

- Send segregated dry waste to recycling units or sell to authorized agencies.
- Residue from dry waste to be incinerated in an eco-friendly manner or used for energy generation.

4. Handling Wet Waste:

- Process wet waste from kitchens using aerobic or anaerobic methods.
- Convert wet waste into bio-gas or compost.
- Ensure effective segregation and collection of wet waste at the source.

5. Handling of Electronic Waste (E-Waste):

- Set up a Material Recovery Facility (MRF) for temporary storage and segregation of non-compostable waste.
- Implement Extended Producer Responsibility (EPR) for manufacturers to take back end-of-life products.
- Dispose of e-waste through authorized vendors specializing in hazardous waste disposal.

6. E-Governance:

- Minimize paper use by promoting electronic communication systems such as emails.
- Educate staff and students on the benefits of e-governance.

7. Bicycle and Pedestrian Master Plan:

- Create a plan to encourage walking and biking on campus.
- Develop pedestrian-friendly infrastructure.

8. Energy and Water Efficiency:

- Implement energy-saving practices such as turning off lights and equipment when not in use.
- Use water-efficient systems and renewable energy sources.
- Regularly train staff on eco-friendly housekeeping practices.

9. Dining Facilities:

- Reduce waste generation and promote recycling and composting.
- Encourage the use of reusable items in dining areas.
- Implement programs to minimize food waste during preparation and consumption.

10. Awareness Generation and Stakeholder Involvement:

- Conduct regular awareness campaigns using posters, pamphlets, and group meetings.
- Display signboards prompting eco-friendly actions.
- Maintain continuous stakeholder involvement through regular activities.

11. Giving Back to Society:

- Engage in eco-friendly activities such as cleanliness drives, tree plantation, creating water resources, and adopting a village.
- Document and maintain records of these activities annually.

6. Documentation and Records

 Maintain all environmental management documents, records, and reports securely and ensure they are accessible for audits and reviews.

7. Review and Compliance

- The Principal and Environmental Committee will review this SOP annually.
- Updates or changes to the procedure will be communicated to all relevant staff members.

8. Approval

This SOP is approved by the Principal and the Environmental Committee and is effective from [Date].

| Principal's Signature: | | | | |
|--|--|--|--|--|
| Date: | | | | |
| Environmental Committee Chair's Signature: | | | | |
| Date: | | | | |

9. Distribution

This SOP will be distributed to all staff members, HoDs, and relevant administrative staff. Copies will be available in the college's digital repository and on the intranet.