

ALL SAINTS' COLLEGE

THIRUVANANTHAPURAM-695007

Re-accredited with 'A' Grade by NAAC



POLICY DOCUMENT ON WASTE MANAGEMENT



All Saints' College
T r i v a n d r u m

CONTENTS:

1. Introduction
2. Policy Statement
3. Policy Objectives
4. Organization and Management
5. Action Plan
6. Glossary

1. Introduction

All Saints' College is the flagship educational institution of the Congregation of the Carmelite Religious (CCR) and was founded in 1964 with the vision of reaching out to young women in all sections of society with special focus on the marginalized. It was established with the intention of effecting intellectual growth, social transformation, and women empowerment and in doing so, to build up the individual, society and the nation. The core values of the institution – Ethics and Dignity, Integrity, Diversity, Accountability, Participative and Progressive – are upheld through the practice of sustainable systems of functioning. The College has formulated a Green Policy to ensure a green campus. The College has organized a number of activities within the campus and outside as part of the urge to conserve and preserve nature. Biogas plants set up for the various kitchens on the campus, and the various gardens have helped green the campus. There has been a concerted effort at reducing reliance on hydrocarbon-based energy sources. The energy requirements of the college are being met largely through the use of solar power and over the years, the college has increased the presence of solar energy units on campus. Energy, environment and green audits are carried out every year and the institution has managed to reduce its carbon footprint to negligible levels and increase the green cover of the college. There are avenues for groundwater recharge and for rainwater harvesting.

The College has a duty to ensure that all the campus wastes are disposed of responsibly by using proper waste segregation mechanism at the source and if possible, converting it into value added environment friendly product. Furthermore, the Solid & Chemical hazardous waste should be disposed or managed by government approved and registered waste contractors. The purpose of the policy is to facilitate implementation of the action plan brought out in “National Environment Policy 2006” on management aspects of hazardous waste including their minimization, environmentally sound management and active promotion of transfer and use of cleaner technologies. Comprehending the need for clean energy sources, the college has installed bio gas and Gobar gas plants to act as alternate sources of energy.

The College has also formulated and created a formal environment task force composed of faculty, staff, and students to address environmental concerns at hand. The task force advocates for environmental stewardship to play a greater role in College affairs. In the light of this, students have conceptualized & developed lifestyle products using paper waste, plastic waste, e-waste etc. generated at the college level. Annually green audit is also conducted for the systematic identification, recording, analysis and reporting of the components of environmental diversity in the Campus.

2. Policy Statement

The College will adopt the principles of the ‘best practicable environmental option’ in the delivery of its waste management services. The College will apply a ‘waste hierarchical approach’, to reduce, reuse, recycle and recover waste products in preference to the disposal of waste to landfill. The College recognizes the importance of meeting these legal requirements and to manage its waste responsibly, reduce the volume of waste sent to landfill and maximize reuse and recycling where possible. The College requires all the teaching and non-teaching staff, students, guests and anyone else making use of the premises to comply with this Policy and associated “College Environmental Guidance” to ensure compliance with all waste legislations. Any solid waste generated in the campus shall be managed and handled in accordance with the compliance criteria and the procedure laid down by Municipal Corporation. There is a legal requirement for all who produce, keep or dispose hazardous/chemical waste of any type to comply with the various regulations under national and international environmental protection legislation.

3. Policy Objectives

The objectives of this policy are:

- To ensure that waste management is performed in accordance with all waste legislative requirements, including the duty of care, and to plan for future legislative changes and to mitigate their effects.
- To minimize waste generation at source, facilitate repair, reuse and recycling over the disposal of wastes in a cost effective manner.
- To provide clearly defined roles and responsibilities to identify and co-ordinate each activity of the waste management.

- To promote environmental awareness to increase and encourage waste minimization, reuse and recycling.
- To invest into the expansion of recycling opportunities on the College campus and transform waste into value added products.
- To ensure the safe handling and storage of wastes on College campus.
- To provide appropriate training for teacher, resident, staff, students and other stakeholders on waste management issues.
- To promote holistic approach of waste management in the campus.

4. Organization and Management

The responsibilities and organisational arrangements for this Waste Management Policy lie with a variety of personnel within the College.

Advisory Board

- a. Principal- Chairman
- b. Co-ordinator IQAC (Member Secretary)
- c. One Senior Professor
- d. Two outside expert (to be nominated by the Principal)

Functions of Advisory Board

- i). Coordinating the provision of a central waste and recycling contract service for use by all facilities on the campus.
- ii). Ensuring that all contractors are advised that they must comply with the Duty of Care; that they must comply with the College's Waste Management Policy.
- iii). Ensuring that all contractors appointed to carry out works are authorized.

The Advisory Board is responsible for:

- i). Provision of advice and guidance to the College on waste management.
- ii). Setting Environmental Performance Indicators for waste management.
- iii). Reporting annually to the College on progress against the 'Environmental Performance Indicators'.

iv). Monitoring and auditing the management systems for all wastes, to ensure safety and legal compliance.

v). Monitoring and auditing all waste contractors working for the College.

vi). Provision of appropriate training for all personnel who have responsibilities for waste management.

vii). Coordinating the gathering of, and supplying all relevant information to appropriate enforcement agencies, when information relating to waste management is requested.

viii). Investigation of any incidents or spillage relating to all type of hazardous and general waste management.

Support staff is responsible for:

i). Overseeing the day to day delivery of general waste and their recycling services.

ii). Monitoring the performance of the College contractor against the contact agreements.

iii). Liaising with other bodies to establish standard procedures for managing waste on the College campus.

iv). Operational monitoring of waste management systems across the campus.

v). Compiling waste transfer data and statistics notes for centrally managed waste and recycling collections.

Heads of Department are responsible for:

i). Non-hazardous Wastes Ensuring that no hazardous waste is disposed of through the general or waste recycling streams.

ii). Hazardous Wastes; Nominating a 'responsible person' within their department to coordinate waste disposal for any hazardous or laboratory wastes.

iii). Informing about the nominated 'responsible person' and updating if and when the 'responsible person' changes. The tenure of the person will be minimum two years.

Staff/Supervisor (contractual) will be responsible for:

i). Disposing of waste responsibly (at both office and campus), through the appropriate waste disposal system (segregation of waste), in accordance with College policy and procedures.

ii). Reporting any problems with waste collection schemes to the IQAC Co-ordinator of the College.

Students will be responsible for:

- i). Disposing of waste responsibly, through the appropriate waste disposal system, in accordance with College policy and procedures.
- ii). Reporting any problems related department/laboratory waste or waste collection procedure to the 'Head of Department'.

5. Action Plan

It will be mandatory on the part of the Head of the department/ Principle Investigator (Project)/ in-charge (Animal House) to report changes/additions in hazardous waste generation and steps taken to reduce generation of waste per unit of production. As per the Hazardous Waste regulations, College can store hazardous waste for a period not exceeding 90 days and shall maintain a record of sale, transfer, storage, recycling and reprocessing of such wastes. The waste could either be recycled/reused or disposed of in captive or common treatment, storage and disposed or incinerated. Inventories of 'end of life' consumer products such as e-waste are also required to be made.

Waste avoidance and waste minimization at source

In the hierarchy of waste management, waste avoidance and waste minimization have to be attempted first, for which dissemination of information on technological options should be a continuing exercise. Promote implementation of recovery of resources such as solvents, other reagents and by-products as well as re-generation of spent catalysts in a time frame manner.

Reuse, recovery and recycling of non-hazardous waste

College will explore options/ opportunities of reusing, recovery and recycling of nonhazardous waste in an environmentally sustainable manner. Paper waste is sold to recycle for making paper board and packing material which is environmentally benign.

Safe disposal of hazardous waste

For the waste which cannot be recycled/ reused, safe and environmentally sound disposal will be adopted depending upon waste category. Design and operation norms of disposal facilities should be strictly adhered to as per the guidelines. Common treatment plant for the departmental and kitchen wastes was established and the degradable and non-biodegradable are segregated and treated according to their physical nature by the corporation.

Hazardous chemicals and radioactive waste management : Charcoal pit based waste management system is available to reduce the toxicity of chemical effluents from Chemistry and Environment Labs.

Note:

- a) Animal house/bio-medical waste management and disposal will be governed by Bio-Medical Waste (Management and Handling) Rules, 1998, MoEF, Gov. of India.

INITIATIVES OF ALL SAINTS' COLLEGE, THIRUVANANTHAPURAM

SOLID WASTE MANAGEMENT

Organic waste management is done effectively in the campus. Waste is segregated from the initial level by keeping separate bins. Different bins are kept for effective segregation of Bio-degradable wastes, Non – biodegradable wastes and e-wastes. The biodegradable wastes are then treated in vermicompost plants and Biogas plants. The compost and biogas thus produced is used for organic farming and used in the kitchens of College Generalate, Hostel and Canteen effectively.

LIQUID WASTE MANAGEMENT

For the sustainable and effective management of waste water generated from the college canteen and hostel, a recycling tank is constructed in which natural and eco-friendly methods of water purification such as Charcoal and Lime are used. Subsequent to this, the treated grey water is re-used for gardening and farming purposes inside the campus. The well maintained vegetable garden in the hostel and canteen premises, helps in producing pesticide-free, fresh vegetables which are used to meet the needs of the Mess facility in the Campus.

E WASTE MANAGEMENT

The College has an E-Waste Policy in place for the safe handling and disposal of E-waste generated within the Campus. An Annual Contract signed with the suppliers of the Computers and Peripherals company ensures that the Reverse Supply Chain system is seamlessly functioning for its safe disposal. Extended Producer Responsibility (EPR) is the responsibility of every producer of electrical and

electronic equipment (EEE) for channelisation of e-waste to an authorised dismantler / recycler to ensure environmentally sound management of electronic waste generated.

BIOMEDICAL WASTE MANAGEMENT Being a Women's only College, facilities have been arranged for handling safe and environment friendly disposal of sanitary napkins, which comes under the bio-medical waste category. A total of four Incinerators has been installed in the Campus for this purpose (Two in the Main Washroom Complex, One in the Commerce Block and One in the College Hostel).

WASTE RECYCLING SYSTEM

The college maintains an organic farm where tapioca, vegetables, plantain etc. are cultivated. In the organic farming initiative, bio-manures involving kitchen waste from both Hostel as well as Canteen is used successfully for increasing the yields. Precision farming method is adopted to understand new ways of farming. Wick irrigation which is highly water efficient is also practiced for grow bag cultivation of vegetables.

HAZARDOUS AND RADIOACTIVE WASTE MANAGEMENT

The College as such has zero waste generation w.r.t hazardous and radioactive category.

6. Glossary

Hazardous Waste

Waste that causes substantial or potential threats to public health or the environment e.g. Acids, Pesticides, Fluorescent Tubes, Alkaline Solutions, Chemicals, Batteries, Solvents, Computer Monitors, CD'S, Scanners, etc.

Recycling

It involves the diversion of waste away from landfill or incineration and the re-processing of those wastes either into the same product or a different one. This mainly includes non-hazardous wastes such as organic waste, wood, paper, glass, cardboard, plastic and scrap metal.

Responsible person

This is the person who oversees the wastes to be removed from the premises at which it was produced or is being held.

Waste

According to United Nations Statistics Division (JNSD), waste are "materials that are not prime products (that is, products produced for the market) for which the generator has no further use in terms of his/her own puposes of production, transformation or consumption, and of which he/she wants to dispose. Wastes may be generated during the extraction of raw materials, the processing of raw materials into intermediate and final products, the consumption of final products, and other human activities. Residuals recycled or reused at the place of generation are excluded."

Incidents are events that are distinguished from accidents in terms of being less severe.

Segregation is an activity where waste or materials are separated or are kept separate according to chemical and/or physical properties to facilitate waste handling and,/or processing.

Chemical waste is generated from the use of chemicals in laboratories for teaching and research

General waste includes paper, plastics, glass, liquids and organics.