Policy on Integrated Waste Management and Sustainable Waste Disposal

1. DOCUMENT METADATA

Title	Policy on Integrated Waste Management and Sustainable Waste Disposal	Document ID	SRMAP-SDG-2024-PLCY-007
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2. POLICY FRAMEWORK

2.1. Purpose & Objectives

To establish a comprehensive institutional framework for the systematic management of all waste streams generated within the University campus. This policy aims to:

- Promote sustainable waste reduction practices and ensure segregation at source.
- Enable safe handling, maximize recycling/resource recovery, and ensure compliance with environmental regulations.
- Support the University's commitments toward environmental stewardship and Sustainable Development Goals (SDGs). This includes SDG 12 (Responsible Consumption and Production) and the related goals SDG 3, 6, 11, 13, 14 and 15.
- Measure the waste generated, recycled, composted and sent to landfill across the whole University, and progressively increase the proportion of waste recycled.
- Minimize the use of plastics and disposable items and ensure the appropriate disposal of hazardous waste.
- Ensure that these requirements also apply to outsourced services and outsourced suppliers, and report waste performance publicly in the University's Sustainability Report.

2.2. Scope of Application

This policy shall apply to all academic schools, departments, research laboratories, hostels, canteens, food courts, administrative offices, health centres, residential facilities, campus utilities, horticulture units, workshops, outsourced agencies, and any other units functioning within the University premises. It shall be applicable to all students, faculty, staff members, support personnel, contractors, vendors, and visitors.

This policy applies equally to outsourced services (such as housekeeping, catering and mess, security, transport, horticulture and civil works) and to outsourced suppliers of goods, packaging and equipment, and shall form part of their contractual terms.

2.3. Definitions & Glossary

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- Food Waste: Biodegradable organic waste from hostels, canteens, mess facilities, food courts, and campus events, including cooked and uncooked food residues, vegetable and fruit waste, and used cooking oil.
- Solid Waste: General non-hazardous waste such as paper, plastics, cardboard, packaging materials, glass, metals, housekeeping waste, and horticulture or plant waste.
- Biomedical Waste: Waste from laboratories and healthcare facilities, research units, and biological experiments, including infectious waste, sharps, contaminated plastics, and laboratory glassware.
- E-waste: Discarded electrical and electronic equipment including computers, printers, monitors, batteries, cartridges, fluorescent lamps, cables, and associated accessories.
- Hazardous Waste: Chemical, biological, laboratory, and contaminated waste materials that require special handling and disposal due to their potential risk to human health or the environment.
- Construction and Demolition (C&D) Waste: Waste generated from construction, renovation, repair, alteration, excavation, and demolition activities, including concrete, bricks, cement debris, tiles, metal scraps, wood, glass, plaster, pipes, electrical fittings, and other inert materials.
- Authorized Vendor: Any agency, recycler, or disposal service provider duly licensed and approved by the competent regulatory authority for handling the respective category of waste.
- Recycled Waste: Waste that is processed, by the University or by an authorized recycler, into a usable material or product, including composted and vermicomposted waste, and is not sent to landfill or incineration.
- Waste Sent to Landfill: Waste that is dumped or disposed of at a landfill or municipal dumping site without recycling or recovery, measured by weight.
- Waste Diversion Rate: The percentage of total waste generated that is recycled, composted, reused or otherwise recovered instead of being sent to landfill.
- Disposable Items: Items designed to be used once or for a short time and then discarded, such as cups, plates, cutlery, tissues, packaging, banners and promotional material, whether they are made of plastic.
- Outsourced Services and Suppliers: Contractors and agencies that provide services on campus (such as housekeeping, catering, security, transport and construction) and vendors that supply goods, packaging or equipment to the University.

2.4. Policy Statements

1. The University is committed to maintaining a clean, healthy, safe, and environmentally responsible campus through an integrated waste management system covering all categories of waste generated within the campus.



2. The University shall adopt scientific methods for waste minimization segregation, collection, storage, treatment, recycling, recovery, and final disposal.

3. The policy is guided by the principles of Refuse, Reduce, Reuse, Recycle, and Recover, with disposal being the final option only after all feasible recovery and recycling measures have been explored. The University shall promote responsible resource use and sustainable consumption practices to minimize waste generation at the source.

4. The University is further committed to promoting a single-use plastic–free campus and ensuring sustainable management of construction and demolition waste arising from infrastructure development, renovation, maintenance, and demolition activities.

5. Waste Categories: This policy shall govern the management of all major waste streams generated within the campus, including food waste, solid waste, biomedical waste, e-waste, hazardous waste, and construction and demolition waste. The University shall ensure that each waste category is handled in accordance with the prescribed legal, environmental, and safety requirements.

6. Ban on Single-Use Plastic: The University shall maintain a single-use plastic–free campus as part of its commitment to sustainable waste reduction and environmental protection.

7. The use, sale, distribution, storage, and disposal of single-use plastic items within the campus premises is strictly prohibited. This includes plastic carry bags, disposable cups, plates, bowls, cutlery, straws, stirrers, one-time-use water bottles, thermocol items, plastic banners, flex sheets, and packaging materials wherever sustainable alternatives are available.

8. All departments, hostels, canteens, food courts, cafeterias, offices, event organizers, vendors, and outsourced agencies shall use reusable, recyclable, biodegradable, or compostable alternatives such as paper, cloth, metal, glass, bamboo, areca leaf, and other eco-friendly materials. Procurement of single-use plastic items by any department shall not be permitted except where specifically required for laboratory, medical, safety, or statutory purposes.

9. Minimization of Plastics: The University shall progressively reduce overall plastic use, including plastics that are not single-use, through plastic-free procurement guidelines, refill and drinking-water stations in place of packaged water, reusable bags, containers and tableware, and recyclable or compostable alternatives to plastic packaging wherever feasible. Plastic waste that is generated shall be segregated, quantified and handed over only to authorized recyclers, in line with the Plastic Waste Management Rules, 2016 (as amended).

10. Minimization of Disposable Items: The University shall minimize the use of disposable items such as cups, plates, cutlery, tissues, packaging, promotional material and event decorations in canteens, hostels, offices, laboratories and events. Reusable items shall be the default, and paperless practices such as e-documents, digital notices and double-sided printing shall be promoted. Event approvals and purchase orders shall specify reusable alternatives.



11. Waste Segregation and Handling: All waste generated within the University campus shall be segregated at the point of generation into designated categories using clearly labelled and color-coded containers. Biodegradable waste shall be separated from recyclable and non-recyclable solid waste. Biomedical, e-waste, hazardous waste, and construction waste shall be stored separately in appropriate containers and shall not be mixed with general waste streams. In line with the Solid Waste Management Rules, 2026, waste shall be segregated at source into wet (biodegradable), dry (recyclable and non-recyclable), sanitary and special care waste streams.

12. Departments generating specialized waste such as laboratory chemicals, biomedical materials, electronic components, or construction debris shall ensure safe temporary storage and timely handover to the Directorate of Facility Management Office or authorized vendors.

13. Hazardous Waste Management: Hazardous waste, including laboratory chemicals, expired chemicals, used oil, batteries and contaminated materials, shall be identified, labelled and stored in leak-proof containers in designated areas with restricted access, and shall never be discharged into drains or mixed with general waste. Laboratories shall maintain an inventory of chemicals and hazardous waste. Hazardous waste shall be handed over only to vendors authorized by the Andhra Pradesh Pollution Control Board, against manifests and disposal certificates, in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Liquid laboratory and biomedical effluents shall be treated before discharge, as set out in the University's Water Pollution Prevention Policy.

14. Construction & Demolition Management: All construction, renovation, repair, and demolition activities undertaken within the University campus shall ensure scientific handling and disposal of construction and demolition waste. Such waste shall be segregated at source into reusable, recyclable, and inert fractions. Reusable materials such as bricks, metal frames, wood, doors, windows, tiles, and fixtures shall be recovered to the maximum feasible extent.

15. Non-reusable debris such as concrete, cement waste, rubble, plaster, and excavation material shall be collected separately and transported only through authorized agencies or municipal-authorized disposal facilities in compliance with applicable regulations.

16. Contractors, civil works agencies, and project management units shall be responsible for maintaining clean work sites and preventing indiscriminate dumping of debris within the campus.

17. Treatment, Recycling, and Disposal: The University shall encourage internal treatment and resource recovery systems wherever feasible. Food and horticulture waste shall preferably be processed through composting units or biogas plants. Recyclable solid waste shall be transferred to authorized recycling vendors. Biomedical, hazardous, e-waste, and construction waste shall be disposed of strictly through authorized agencies in accordance with statutory requirements.

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18. All disposal activities shall be supported by proper documentation, including quantity records, manifests, invoices, acknowledgements, and disposal certificates.

19. Food Waste Prevention and Resource Recovery: Food waste shall be managed in the following order: prevention at source, redistribution of safe surplus food to people in need, use as animal feed where permitted, and composting, vermicomposting or biogas generation. Compost and manure produced shall be used for campus landscaping. Wherever feasible, the University shall convert waste into value-added products such as compost, manure, biogas or reusable materials.

20. Institutional Targets and Performance Indicators: The University shall strive to achieve 100% source segregation of waste across all campus units. Maximum feasible diversion of biodegradable, recyclable, and construction waste from landfill disposal shall be ensured through composting, recycling, reuse, and recovery systems. The University shall measure the quantity of waste generated, recycled and sent to landfill across all campus areas and operations, fix a baseline year, and aim for a waste diversion rate of at least 50% by 2030.

    The Directorate of Facility Management Office shall monitor key performance indicators including waste generated per month, percentage recycled, percentage composted, quantity diverted from landfill, vendor compliance status, and annual waste reduction trends.

21. Measurement of Waste Sent to Landfill and Recycled: The CLM Office shall measure, by weight, the waste generated, recycled, composted and sent to landfill across the whole University, including academic blocks, hostels, canteens, laboratories, health centres, horticulture and construction activities. The proportion of waste recycled shall be calculated as (waste recycled ÷ total waste generated) × 100 and reported monthly and annually with a year-on-year comparison against the baseline.

22. Incident Reporting and Emergency Response: Any incident involving waste spillage, leakage, accidental exposure, unsafe disposal, or non-compliance shall be reported immediately to the Directorate of Facility Management Office and the concerned department head. Appropriate corrective and preventive actions shall be initiated and documented.

    For hazardous and biomedical waste, emergency spill response measures, personal protective equipment, and safe containment practices shall be followed as per approved SOPs.

23. Training and Awareness: The University shall periodically conduct awareness programs, workshops, and sensitization activities for students, faculty, staff, outsourced personnel, and contractors on waste segregation, safe handling, recycling practices, plastic-free campus initiatives, and sustainable construction waste disposal.

24. Outsourced Services and Suppliers: The requirements of this policy, including those on hazardous waste, waste measurement and recycling, plastics and

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disposable items, shall apply in full to outsourced services and outsourced suppliers. Tender documents, work orders and contracts shall require them to follow segregation and plastic and disposable-item restrictions, hold valid authorizations, submit monthly waste data, allow audits by the University, and accept corrective action or termination for repeated non-compliance.

25. Responsible and Ethical Sourcing: The University shall give preference in procurement to suppliers that reduce packaging, offer take-back or extended producer responsibility (EPR) arrangements for packaging, electronics and batteries.

26. Transparency and Public Reporting: This policy shall be published on the University website. Annual waste performance data, including waste generated, recycled, composted and sent to landfill, plastic waste and hazardous waste handed over to authorized vendors, shall be published in the University's annual Sustainability Report.

27. Research, Teaching and Student Engagement: The University shall encourage research, projects, curriculum content and student initiatives on waste management, recycling, circular economy and sustainable consumption, and shall use the campus as a living laboratory for these activities.

2.5. Nodal Department and Responsibility

- The Directorate of Facility Management Office shall be the central nodal department and the primary authority responsible for the planning, implementation, coordination, monitoring, documentation, and compliance of all waste management activities across the University campus.
- The Directorate of Facility Management Office shall oversee waste collection systems, source segregation practices, centralized storage areas, transportation, vendor coordination, treatment and disposal mechanisms, data management, and institutional reporting.
- It shall also maintain all relevant records, vendor documents, disposal certificates, and audit reports.
- All schools, departments, laboratories, hostels, and campus units shall extend full cooperation to the Directorate of Facility Management Office and ensure timely submission of monthly waste generation and disposal data.

3. COMPLIANCE AND EXCEPTIONS

- Regulatory Compliance: The University shall comply with all applicable regulations, including the Solid Waste Management Rules, 2016, Bio-Medical Waste Management Rules, 2016, E-Waste Management Rules, 2022, Hazardous and Other Wastes Management Rules, 2016, and Construction and Demolition Waste Management Rules, 2016, as well as the Plastic Waste Management Rules, 2016, the Battery Waste Management Rules, 2022 and the conditions of the consents and authorizations issued by the Andhra Pradesh Pollution Control

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Board. All vendors engaged for waste collection, recycling, treatment, and disposal shall possess valid regulatory authorizations and licenses.

- Statutory Authorizations and Authorized Agencies: The University shall obtain and keep valid the consents and authorizations required for bio-medical waste, hazardous waste and effluent discharge from the Andhra Pradesh Pollution Control Board, and shall register and report as a bulk waste generator under the Solid Waste Management Rules to the extent applicable. Written agreements shall be maintained with authorized agencies for the collection, recycling and disposal of bio-medical, hazardous, e-waste, plastic and municipal solid waste, and a register of these agencies, with the validity of their authorizations, shall be maintained.
- Exception Clause: Procurement of single-use plastic is permitted only where specifically required for laboratory, medical, safety, or statutory purposes, subject to prior approval and proper justification.
- Non-compliance: Failure by any department, unit, contractor, or external agencies to comply with the provisions of this policy shall be reported to the competent authority for corrective action. Repeated non-compliance may invite administrative review and necessary institutional action.

4. ROLES & RESPONSIBILITIES (RACI MATRIX)

Activity	Directorate of Facility Management	Housekeeping Staff	Faculty/Students
Source Segregation	A	C	R
Collection	A	R	I
Waste Storage	A	R	I
Vendor Disposal	A	I	I
Documentation	A	R	C
Training & Awareness	A	C	R
Hazardous Waste Handling and Handover	A	I	R
Plastic and Disposable Item Minimization	A	R	R
Waste Measurement (Recycled and Landfill)	A	R	C
Outsourced Services and Suppliers Compliance	A	C	I
Public Reporting (Sustainability Report)	A	I	I

(R=Responsible, A=Accountable, C=Consulted, I=Informed)

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5. DATA COLLECTION & MONITORING

- Data Maintenance: The Directorate of Facility Management Office shall maintain detailed monthly records of all waste streams generated, treated, recycled, composted, and disposed of across the campus.
- The University shall maintain records for food waste, solid waste, biomedical waste, e-waste, hazardous waste, and construction and demolition waste in the approved institutional formats.
- All records shall be preserved for a minimum period of five years and shall be made available for internal audits, accreditation processes, statutory inspections, and sustainability reporting.
- KPIs: Monitoring shall include category-wise quantities, percentage recycled/composted, treatment method, disposal route, vendor details, supporting documents, and remarks.
- Landfill and Recycling Metrics: The University shall record, in kilograms and for the whole University, the waste generated, recycled, composted and sent to landfill, plastic waste, hazardous waste handed over, per-capita waste generation and the proportion of waste recycled, with category-wise and location-wise breakup.
- Audit: The Directorate of Facility Management Office shall conduct quarterly internal waste management audits and submit an annual consolidated review report to the University administration. The policy shall be formally reviewed least once every three years, with performance data reviewed annually, or earlier if required due to regulatory changes or operational requirements. Each audit shall cover the types and quantities of waste generated, the preventive measures adopted and their adequacy, and its findings shall be used to set the next year's reduction targets.

6. VERSION HISTORY

Version	Date	Author/Editor	Summary of Changes
1.0	13-08-2024	CLM Office	Initial Release

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