

SUSTAINABLE DEVELOPMENT GOALS



15. LIFE ON LAND

Waste Disposal Policy – Hazardous Materials

Policy Statement

Chennai Institute of Technology (CIT) is committed to ensuring that all hazardous materials and wastes generated on campus are managed safely, efficiently, and in compliance with environmental and health regulations. The institution recognizes the potential risks posed by hazardous substances and has established this policy to prevent pollution, protect human health, and ensure sustainable disposal practices.

Objectives

Ensure safe handling, segregation, storage, and disposal of all hazardous waste.

Prevent contamination of soil, air, and water due to improper waste disposal.

Comply with all applicable national and state-level environmental regulations.

Promote awareness, training, and accountability among all individuals handling hazardous substances.

Support the broader institutional goals of sustainability and environmental protection.

Procedure

Waste Segregation

- Hazardous waste must be separated from general waste at the point of generation.
- Color-coded containers and hazard-labeled bins are used for chemical, e-waste, and toxic material collection.

Handling and Storage

- Only trained personnel are permitted to handle hazardous materials.
- Waste must be stored in sealed, corrosion-resistant containers with appropriate hazard labels.
- Temporary storage areas should have ventilation, spill trays, and impermeable flooring.

Collection and Transportation

- Collection is carried out periodically by authorized staff using proper protective equipment (PPE).
- Waste is transferred to a centralized storage area for inventory and documentation.
- Transportation to treatment or recycling facilities is carried out by certified vendors approved by TNPCB.

Treatment and Disposal

- Chemical wastes are neutralized or treated before disposal, wherever possible.
- E-waste is handed over to authorized recyclers under formal agreements.
- Biomedical and potentially infectious waste is treated and disposed of in accordance with Biomedical Waste Management Rules.

Documentation

- Each waste type is recorded in the Hazardous Waste Register maintained by the Waste Management Officer.
- Annual reports on hazardous waste management are submitted to the Sustainability Cell and reviewed during audits.

Review and Continuous Improvement

This policy will be reviewed annually by the Sustainability Cell to ensure relevance, compliance, and improvement in practices. Revisions will incorporate new technologies, regulatory updates, and audit recommendations.

Policy History

Policy created on	24-03-2022
Policy reviewed on	20-11-2024



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Policy for Minimisation of Plastic and Paper Use

Policy Statement

Chennai Institute of Technology is committed to reducing the use of paper and plastic on campus through sustainable practices, digital transformation, and community awareness. The institution promotes the principle of “Reduce, Reuse, and Recycle” to minimize environmental impact and support a clean, zero-waste campus.

Objectives

- To eliminate single-use plastics in all campus activities.
- To minimize paper consumption through digital documentation.
- To promote the use of reusable and eco-friendly materials.
- To encourage staff, students, and vendors to adopt sustainable practices in daily operations.

Scope

This policy applies to all members of the CIT community, including students, faculty, staff, contractors, and visitors.

It covers all areas of campus operations such as:

- Academic and administrative offices
- Laboratories and classrooms
- Hostels and canteens
- Events, workshops, and student activities
- Campus shops and external vendors

Operational Guidelines

Paper Minimisation

- **Digital Transformation:** All registration forms, applications, and reports are processed through e-forms and digital portals, eliminating paper-based documentation.
- **Digital Notes and Books:** Faculty and students are encouraged to use e-books, online resources, and laptops or tablets for note-taking.
- **Paperless Communication:** All notices, circulars, and announcements are issued electronically.

- Paperless Meetings: All meetings utilize digital agendas, presentations, and minutes.
- Double-Sided Printing: All printers are configured to default duplex printing; single-sided printing is allowed only when necessary.
- Recycling Partnership: Used paper is collected and recycled through ITC WOW, ensuring a circular material flow.

Plastic Reduction

- Ban on Single-Use Plastics: Single-use plastic items such as bottles, cups, straws, covers, and disposable cutlery are strictly prohibited on campus.
- Reusable Alternatives: Cafeterias and mess facilities use stainless steel and glass tumblers instead of plastic.
- Eco-Friendly Bags: Students and staff are encouraged to use cloth or jute bags for shopping and events.
- Green Events: All campus events follow eco-friendly guidelines, including digital invitations, reusable decorations, and refillable water stations.
- Recycling Collaboration: Plastic waste is collected and recycled through Bisleri's Bottles for Change and certified recycling agencies.

Awareness and Engagement

- Regular campaigns such as "Plastic-Free World", "No Single-Use Plastics", and "Digital Documentation Week" are conducted on campus and in nearby schools and villages.
- Workshops and poster campaigns highlight the importance of reducing material waste.

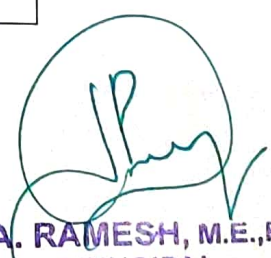
Monitoring and Evaluation

- Quarterly waste audits are conducted to measure paper and plastic consumption.
- Compliance is monitored by the Sustainability Cell with reports submitted to management.

Policy History

Policy created on	30-07-2019
Policy reviewed on	30-09-2024




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15.2 Supporting land ecosystems through education

15.2.1 Events about sustainable use of land

The Chennai Institute of Technology, in collaboration with the NGO Streetlight, organized an awareness program titled “Farm2Plate” at Nallur. The event focused on promoting sustainable agricultural practices and responsible land utilisation to support environmental conservation and food security. Mr. S. Gokul, an organic farmer and YouTuber, served as the resource person and shared valuable insights on organic farming methods, soil health management, and eco-friendly cultivation techniques that protect biodiversity and reduce chemical dependency.



Sustainable Use of Land

The Chennai Institute of Technology, in association with the Suzhal Arivom Team, organized an “Awareness on Sustainable Use of Land” program at Poonthandalam on 28th June 2024. The event aimed to educate local communities and students on the importance of sustainable land management and responsible utilization of natural resources. Participants learned about soil conservation techniques, prevention of land degradation, and eco-friendly agricultural practices that help maintain the fertility and biodiversity of the land. The program encouraged collective responsibility toward protecting the environment and promoting sustainable livelihoods.



15.2.2 Sustainably farmed food on campus

The Chennai Institute of Technology practices sustainable food production through hydroponic and organic farming methods within the campus. In the hydroponic system, plants are cultivated without soil using inert media such as cocopeat, perlite, and clay balls, and are nourished with nutrient-enriched water. This method reduces water consumption, eliminates the use of harmful chemicals, and ensures efficient resource utilization. The organic farm on campus is used to grow fresh vegetables for campus residents using natural fertilizers and eco-friendly farming techniques. These initiatives promote eco-sustainable agriculture, encourage healthy food habits, and contribute to the campus's commitment to environmental responsibility and self-sufficiency.



15.2.3 Maintain and extend current ecosystems' biodiversity

The Chennai Institute of Technology actively works to maintain and enhance biodiversity within its campus through various animal conservation initiatives. The institution has established dedicated areas for the protection of fauna, including a Pekin Duck and Helmeted Guineafowl Conservation Farm and a Fish Conservation Area, ensuring the preservation of animal genetic resources.



15.3 Supporting land ecosystems through action

Policy For Sustainable Use, Conservation and Restoration of Land

Objectives:

- To Encourage sustainable land-use methods in forestry, agriculture, and urban areas that promote livelihoods and food security while preserving the health of ecosystems.
- To Use sustainable land management (SLM) techniques to put policies in place that will stop soil erosion, desertification, and deforestation, especially in areas that are already at risk.
- To improve biodiversity and ecological services, preserve natural habitats, stop fragmentation, and rebuild damaged ecosystems, such as forests, wetlands, grasslands, and

deserts.

- To Increase the ability of land-based systems to adapt to climate change by using natural solutions like rewilding, agroforestry, and afforestation.
- To Assure vulnerable and marginalized groups, such as women, local communities, and indigenous peoples, of fair land tenure and access rights.

Policy for Strategic Pillars and Actions:

- Utilizing technology to maximize land use, cut waste, and boost output without harming the environment.
- Initiative to increase the number of trees planted in degraded areas, emphasizing native species that enhance ecosystem services and promote biodiversity.
- To support the creation of new protected areas and corridors to safeguard biodiversity hotspots and migratory routes.
- Promotion towards endangered species and important habitats, such as forests, grasslands, and wetlands, is a top priority.
- Empowering local communities, particularly indigenous peoples, to manage forests sustainably and equitably.
- Encouragement of the use of natural solutions to adapt to and mitigate climate change, such as reclaiming wetlands for flood control and carbon sequestration.
- Encouraging initiatives that use sustainable management and restoration to increase carbon reserves in soils and forests.
- Land should be used and managed in ways that provide economic, social, and environmental benefits, without compromising the ability of future generations to meet their needs.
- Land-use and management strategies should integrate ecological principles, recognizing the interdependence of ecosystems, biodiversity, and human activities.
- Recognizing that landscapes are interconnected systems, and promote integrated approaches that consider the full scope of land, water, and biodiversity linkages.

This policy provides a comprehensive framework for the sustainable use, conservation, and restoration of land, aimed at fulfilling the commitments of SDG 15, to protect, restore, and promote the sustainable use of terrestrial ecosystems. By implementing this policy, we aim to build a resilient, biodiverse, and sustainable land management system that benefits both people and the planet, ensuring a prosperous future.

Policy History

Policy created on	07-06-2021
Policy reviewed on	23-03-2022

15.4.2 Plastic waste reduction

1. Regularly conducted awareness programs regarding 'No Single Use Plastics' in collaboration with the Bottles for Change team.
2. We conducted a 'Plastic-Free World' awareness program on campus and in local schools.
3. An awareness campaign titled 'Say No to Single-Use Plastic' was conducted on campus and in nearby villages.
4. Take small steps like reducing single-use plastic and using digital resources to create a big impact on our planet.
5. Labels are used to instruct to avoid plastic.
6. In all cafeterias and messes, only stainless steel or glass tumblers are used, completely eliminating the use of plastic cups.



Awareness Banner



Use of Tumbler



Awareness Program

15.4.3 Hazardous Waste Disposal

Food Waste Treatment

At Chennai Institute of Technology, food waste management is carried out systematically to promote sustainability and resource recovery. Food waste generated from the hostel mess and cafeteria is collected in designated bins and carefully segregated to remove non-organic materials. The organic waste is then processed in the campus biogas plant, where it is converted into biogas used for cooking purposes. This initiative not only reduces the volume of waste sent to landfills but also supports clean energy generation and promotes a circular, eco-friendly waste management system on campus. In 2023–2024, 31.14 tonnes of food waste were processed, of which 29.14 tonnes were upcycled through the biogas plant.



Biogas Plant

Leaf Waste Treatment

At Chennai Institute of Technology, leaf waste management is a key component of the institute's sustainability efforts. Fallen leaves and waste grass collected from planted and forested areas are properly segregated to remove plastics and other inorganic materials. The organic waste is then processed through vermicomposting in a designated area, where it is transformed into nutrient-rich organic manure. This compost is utilized to enhance soil fertility and support the

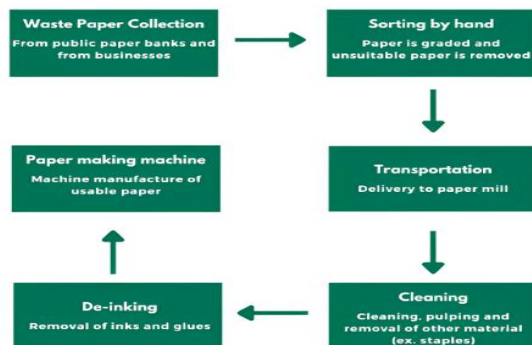
growth of vegetation across the campus, creating a sustainable cycle of waste reuse and environmental care. A total of 6.825 tonnes of leaf waste were generated, and 6.651 tonnes were upcycled as compost.



Vermicomposting Unit

Paper Waste

At Chennai Institute of Technology, paper waste is managed efficiently through a well-structured collection and recycling system. Waste paper is collected in designated bins across the campus, and after offline examinations, evaluated answer scripts are submitted to the exam cell and then moved to the waste storage room. The collected materials are carefully segregated to remove non-paper and inorganic waste before being stored. The institute collaborates with ITC's "Well-being Out of Waste (WOW)" initiative, through which the stored paper is collected for recycling. In exchange, new paper materials are provided, reinforcing a sustainable paper usage cycle. The institute has also received recognition from ITC WOW for its active participation in paper recycling and contribution to environmental conservation. During the reporting period, 6.7 tonnes of paper waste were generated, of which 6.424 tonnes were downcycled through the ITC WOW program, thereby contributing to the circular economy.

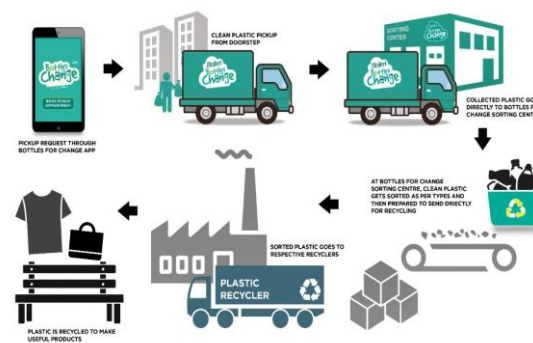


Paper Exchange

Plastic Waste

At Chennai Institute of Technology, plastic waste is systematically managed to promote responsible disposal and recycling. Plastic waste is collected from designated bins placed across the campus. The collected plastic is carefully segregated from other materials and stored in a designated area for proper handling. The institute collaborates with Bisleri's "Bottles for Change" initiative, under which plastic waste from the campus is collected every Thursday and sent for recycling. Through this initiative, plastic waste is sorted based on type, processed by certified recyclers, and transformed into useful products such as benches, bags, and clothing. In 2023–2024, 1.529 tonnes of soft plastic and 5.214 tonnes of hard plastic were produced, of which 1.429 tonnes and 5.168 tonnes were upcycled respectively.





Plastic Waste Treatment

E-waste Management

Electronic waste, including cables, peripherals, and outdated devices, is collected and processed through authorized recyclers. During the reporting year, 0.127 tonnes of e-waste were generated, all of which were down-cycled for material recovery.

Proportion of waste recycled

At Chennai Institute of Technology, a comprehensive waste management system ensures that a significant proportion of the total waste generated is reused, recycled, or upcycled to support the institution's sustainability goals.

Type of waste	Produced (t)	Treated (t)		
		Reused	Down-cycled	Up-cycled
Food Waste	31.14	-	-	29.14
Leaf Waste	6.825	-	-	6.651
Paper	6.700	-	6.424	-
Soft plastic	1.529	-	-	1.429
Hard plastic	5.214	-	-	5.168
e-waste	0.127	-	0.127	-

Total Waste Produced (t)	Waste Recycled / Reused (t)	Landfill Waste (t)
51.52	48.93	2.58