University : KARUNYA INSTITUTE OF TECHNOLOGY AND SCIENCES
Country : India
Web Address : www.karunya.edu

[3] Waste (WS)

[3.19] Impact of Waste Management programs in supporting the Sustainable Development Goals (SDGs)

Karunya Institute of Technology and Sciences has implemented a wide range of waste management initiatives that align with and significantly contribute to the achievement of the **17 Sustainable Development Goals (SDGs)**. These programs demonstrate the university's deep commitment to environmental stewardship, responsible consumption, and advancing a circular campus economy.

Key initiatives include:

- **Comprehensive Waste Segregation:** Implementation of a campus-wide segregation system that classifies waste into organic, inorganic, recyclable, hazardous, and e-waste categories at the point of generation.
- **Organic Waste Composting:** Operation of composting units that convert biodegradable waste into organic manure used for campus landscaping and garden maintenance.
- **Paper Recycling Unit:** A functioning paper recycling plant processes paper waste into eco-friendly stationery and products, reducing landfill contributions.
- **E-Waste Management:** Organization of e-waste collection and safe disposal drives in collaboration with authorized recyclers to ensure compliance with environmental standards.
- **Zero-Waste Awareness Campaigns:** Regular student-led programs and awareness drives encouraging the principles of Reduce, Reuse, and Recycle (3R) across all campus activities.
- **Reduction of Single-Use Plastics:** Enforcement of a ban on single-use plastics within campus canteens, hostels, and events, promoting reusable alternatives and biodegradable packaging.
- **Digital Transformation:** Adoption of digital documentation and online communication systems to minimize paper consumption in administrative and academic processes.
- **Academic Integration and Research:** Inclusion of waste management and sustainability topics in courses, student projects, and research on areas such as waste-to-energy, sustainable materials, and circular systems.
- **Sewage and Biogas Plants:** Establishment of multiple sewage treatment and biogas units to manage liquid waste efficiently while producing clean energy for campus use.

- **Collaborative Partnerships:** Engagement with local authorities, industries, and NGOs to enhance waste management practices and promote regional environmental sustainability.

These actions directly contribute to the achievement of several SDGs, including:

- **SDG 3:** Ensuring health and well-being through hygienic and safe waste management.
- **SDG 4:** Promoting education and research in sustainability and waste reduction.
- **SDG 6:** Ensuring clean water and sanitation through proper waste and sewage treatment.
- **SDG 9:** Fostering innovation in recycling and renewable energy systems.
- **SDG 11:** Advancing sustainable campus infrastructure and eco-friendly communities.
- **SDG 12:** Encouraging responsible consumption and production practices.
- **SDG 13:** Reducing greenhouse gas emissions and supporting climate action through recycling and energy recovery.
- **SDG 14:** Preventing land and water pollution from improper waste disposal.
- **SDG 15:** Protecting biodiversity through responsible and sustainable waste handling.
- **SDG 17:** Building strategic partnerships to promote sustainable waste governance and innovation.

Through these initiatives, **Karunya University** continues to uphold its vision of creating a **green, clean, and sustainable campus**, setting an example for higher education institutions in environmental responsibility and innovation.