



Aliah University

(Under the Department of Minority Affairs and Madrasah Education, Govt. of West Bengal)

IIA/27, New Town, Kolkata - 700160, West Bengal

Environmental Consciousness and Sustainability

7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

Attached below are qualitative write-ups in prescribed format, scanned copy of Green Policy, Geo Tagged Photographs.


02/05/24
Registrar (Officiating)
Aliah University
New Town, Kolkata-700160

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Environmental Consciousness and Sustainability

7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

Aliah University boasts comprehensive facilities for managing various types of waste effectively, as per standards regulations; ensuring a sustainable and environmentally friendly approach to waste management.

Solid waste management: It encompasses a multi-faceted approach to handle different categories of waste with designated collection points. The dry waste consists of the non-bio-degradable waste like metal cans, glass, plastic bottles, laboratory glass apparatus, and other items that can be recycled. Segregation at the source is facilitated through clearly marked bins (e.g., green for degradable, blue for recyclables, red for non-degradable). The institution has designated areas for composting organic waste like garden waste, leftover food from university and hostel canteens, kitchen wastes, etc., ensuring its conversion into nutrient-rich compost for landscaping or gardening. Non-recyclable solid waste undergoes proper disposal through either landfilling or waste-to-energy processes in collaboration with Newtown Kolkata Development Authority (NKDA), minimizing the environmental impact.

Liquid waste management: The University adheres to a strict protocol of liquid waste disposal in its laboratories focussing on minimizing the impact of liquid waste on the surrounding environment. The laboratory liquid waste from Chemistry or other labs are treated first or diluted, as per required environmental standards before being discharged. The blackwater (from toilets) are separated from greywater (from sinks, showers) and subjected to targeted treatment to prevent any spread of water borne diseases. Additionally, the university has a robust rainwater harvesting systems in the campus to conserve water resources and reduce dependence on external sources. The conserved rain water is utilised for watering the gardens and ground water recharge.

Biomedical waste management: The institution maintains dedicated biomedical waste collection points equipped with biohazard bins and autoclaves for sterilization. Stringent protocols are followed to ensure the protection of staff, students, and the environment from the hazards associated with biomedical waste. This includes the safe collection, segregation,

treatment, and disposal of waste generated from healthcare facilities and research activities in compliance with standard regulations.

E-waste Management: With the proliferation of electronic devices, proper management of electronic waste (e-waste) is imperative. The institution facilitates e-waste collection drives and recycling programs to divert electronic devices from landfills. Specialized recycling partners are engaged to responsibly dismantle and recycle electronic components, recovering valuable metals and minimizing environmental pollution from hazardous substances.

Waste Recycling System: The Institution has set up a robust waste recycling system that encourages the separation and recycling of paper, plastics, glass, and metals. This is facilitated through awareness campaigns, convenient recycling bins, and partnerships with recycling companies.

Hazardous Chemicals and Radioactive Waste Management: Specialized facilities and protocols are in place for the safe handling, storage, and disposal of hazardous chemicals and radioactive waste. These materials are managed in accordance with stringent regulations to safeguard the health and well-being of the community and prevent any adverse effects on the environment.

In summary, Aliah University prioritizes the implementation of sustainable waste management practices across all its facilities, with a focus on minimizing environmental impact and promoting a culture of responsible waste disposal and recycling.



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Green (Environmental) Policy

A. Introduction

Achieving sustainability, which encompasses environmental, social, cultural, and economic considerations, is a crucial goal. The concept gained global recognition during the United Nations Conference on the Human Environment in Stockholm in 1972. The World Conservation Strategy of 1980, jointly developed by IUCN (International Union for Conservation of Nature and Natural Resources), UNEP (United Nations Environment Programme), and WWF (World Wildlife Fund), has played a pivotal role in promoting sustainable development through the conservation of natural resources. The previous philosophy of Cradle-to-Grave (C2G) manufacturing and the End-of-Life (EOL) concept have been surpassed by the Cradle-to-Cradle (C2C) approach. In this new paradigm, emphasis is placed on reusing and recycling materials, with a focus on minimizing waste. The challenges posed by the increasing built environment and human movements underscore the pressing environmental issues we face. To attain environmental sustainability, specific conditions and processes must be met, and the framework of sustainable development serves as the pathway to achieve this goal. Aliah University in West Bengal, a public State University with campuses in New Town, Park Circus, and Taltala, covering approximately 30.109 acres, has embraced sustainable initiatives across all levels of its educational activities. With a current student population exceeding five thousand, the University has been committed to promoting sustainability since its establishment.

B. Vision

The vision of the Green Campus initiative is to create professionals with environmental, social and moral consciousness.

C. Mission

1. To raise awareness among essential stakeholder groups.
2. To recognize and address environmental issues or hazards through on-campus risk assessments.
3. To involve nearby village communities to introduce innovative perspectives in teaching, learning, and research.
4. To produce skilled individuals capable of working independently or collaboratively in diverse global settings, contributing significantly to the improvement of human life quality.

D. Objectives

1. To encourage students to be ethical towards social, environmental and cultural issues



2. To create environmental awareness amongst all stakeholders of the University including visitors, vendors etc.
3. To promote optimal use of natural resources.

E. Organization

Environment and Energy Committee

1. Dr. Md. Zakir Hossain, Asst. Professor, Dept. of Biological Sciences – Chairman
2. Dr. Indranil Mookherjee, Asst. Professor, Dept. of Civil Engg. – Convener
3. Dr. Aznarul Islam, Asst. Professor, Dept. of Geography, Member
4. Dr. Nasim Ali Khan, Asst. Professor, Dept. of Electrical Engg., Member
5. Dr. Zeenat Rehena, Asst. Professor, Dept. of Computer Science & Engg., Member
6. Dr. Md. Reyaz, Asst. Professor, Dept. of Journalism and Mass Comm., Member
7. Dr. Md. Hedayetullah Mir, Asst. Professor, Dept. Chemistry, Member
8. Ms. Lipika Mondal, Asst. Professor, Dept. of Nursing, Member
9. Dr. S. K. Sabir Ali, Sports Section, Member
10. Mr. Shahbaz Afzal, Finance Section, Member

Stakeholders

The University offers 29 UG programmes, 25 PG programmes, 1 integrated UG-PG programme and 21 Doctoral programmes.

Primary Stakeholders: The University currently has 176 teaching staff, 97 non-teaching staff and more than 5000 students.

Secondary Stakeholders : The secondary stakeholders constitute the parents, visitors, vendors and interested individuals/ groups.

F. Functions of the Green Campus initiative

1. To stimulate environmental consciousness by organising various activities
2. Inform and educate stakeholders.
3. Gain information and feedback from stakeholders to inform decisions made by management, to ensure their views are understood and considered in decision making.
4. Partner with or convene a network of stakeholders to develop mutually agreed solutions and joint plan of action.

G. Green Campus Policy of the University

The Aliah University, West Bengal, is committed towards creating an environmental friendly campus by addressing environmental issues through innovation and education. These responsibilities are implemented through reduce-reuse-recycle (3R) policy and can be demonstrated within the following areas:

1. Research sustainability: The University aims to address the major issues related to environment through research grant application, student projects, classroom projects etc.

2. Education for sustainability: The University aims to foster an interdisciplinary learning environment to cultivate professionals who are environmentally aware. Campus initiatives will encompass awareness programs, informational displays, inclusion of course credits related to the environment in the curriculum, educational campaigns, competitions, awards, and the promotion of environmental literacy across various disciplines.



3. Governance and administration: The University will persist in its Green Campus Initiative by collaborating with or assembling a network of stakeholders to tackle environmental concerns. It will advocate for paperless administrative practices to diminish reliance on natural resources. Additionally, the University will sustain its commitment to educating about disaster preparedness, identifying environmental hazards, and encouraging landscaping with green vegetation

4. Energy, carbon and climate change: The University aims to reduce dependence on fuel energy, at least 20% of total consumption within 5 years, and generate electricity derived from renewable sources like solar energy. The University will continue to encourage commuting by bicycle and using e-vehicle within campus to reduce vehicular emission. The University will promote a noise-free campus.

5. Water use: The University aims to optimize recycling of waste water to reclaim maximum water for reuse. The University will implement rainwater harvesting/ groundwater recharge and promote biodiversity associated with pond ecosystem.

6. Material flows: The University aims to manage / reduce / reuse/ disposal of solid waste into categories, municipal solid waste, construction and demolition, biodegradable waste, plastic waste, hazardous waste, e-waste, etc.

H. Measurement and Monitoring of Green Campus

The University shall measure the Green initiative through internal and external evaluations, e.g.

1. Green Audit
2. Energy Audit
3. Creating action plan for implementing and monitoring progress towards goals
4. Education and Outreach activities.



7.1.3. Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (5)

Aliah University boasts comprehensive facilities for managing various types of waste effectively, as per standards regulations; ensuring a sustainable and environmentally friendly approach to waste management.

Solid waste management: It encompasses a multi-faceted approach to handle different categories of waste with designated collection points. The dry waste consists of the non-biodegradable waste like metal cans, glass, plastic bottles, laboratory glass apparatus, and other items that can be recycled. Segregation at the source is facilitated through clearly marked bins (e.g., green for degradable, blue for recyclables, red for non-degradable). The institution has designated areas for composting organic waste like garden waste, leftover food from university and hostel canteens, kitchen wastes, etc., ensuring its conversion into nutrient-rich compost for landscaping or gardening. Non-recyclable solid waste undergoes proper disposal through either landfilling or waste-to-energy processes in collaboration with Newtown Kolkata Development Authority (NKDA), minimizing the environmental impact.



Fig.7.1.3.1: Different bins for collection of biodegradable and non-biodegradable solid waste (left); dry and wet waste being taken out by NKDA for recycling and reuse

Liquid waste management: The University adheres to a strict protocol of liquid waste disposal in its laboratories focussing on minimizing the impact of liquid waste on the surrounding environment. The laboratory liquid waste from Chemistry or other labs are treated first or diluted, as per required environmental standards before being discharged. The blackwater (from toilets) are separated from greywater (from sinks, showers) and subjected to targeted treatment to prevent any spread of water borne diseases. Additionally, the university has a robust rainwater harvesting systems in the campus to conserve water resources and reduce dependence on external sources. The conserved rain water is utilised for watering the gardens and ground water recharge.



Fig.7.1.3.2: Rain water harvesting system at New Town Campus, Aliah University

Biomedical waste management: The institution maintains dedicated biomedical waste collection points equipped with biohazard bins and autoclaves for sterilization. Stringent protocols are followed to ensure the protection of staff, students, and the environment from the hazards associated with biomedical waste. This includes the safe collection, segregation, treatment, and disposal of waste generated from healthcare facilities and research activities in compliance with standard regulations.

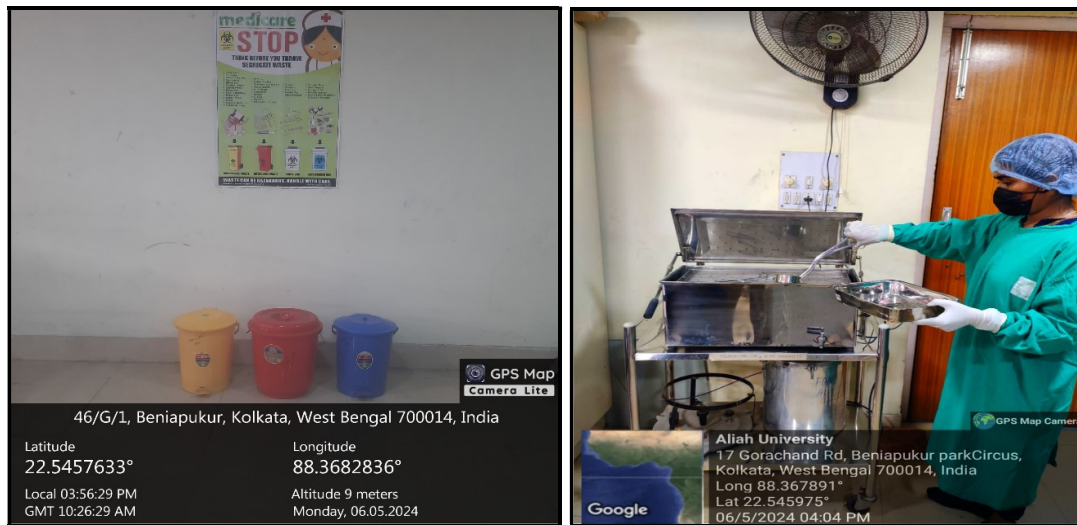


Fig.7.1.3.3: Biomedical Waste Management by Nursing Dept.

E-waste Management: With the proliferation of electronic devices, proper management of electronic waste (e-waste) is imperative. The institution facilitates e-waste collection drives and recycling programs to divert electronic devices from landfills. Specialized recycling partners are engaged to responsibly dismantle and recycle electronic components, recovering valuable metals and minimizing environmental pollution from hazardous substances.



Fig.7.1.3.4: E-waste management by Computer Science Dept.

Waste Recycling System: The Institution has set up a robust waste recycling system that encourages the separation and recycling of paper, plastics, glass, and metals. This is facilitated through awareness campaigns, convenient recycling bins, and partnerships with recycling companies.



Fig.7.1.3.5: Waste water treatment and recycle plant at New Town Campus

Hazardous Chemicals and Radioactive Waste Management: Specialized facilities and protocols are in place for the safe handling, storage, and disposal of hazardous chemicals and radioactive waste. These materials are managed in accordance with stringent regulations to safeguard the health and well-being of the community and prevent any adverse effects on the environment.



Fig.7.1.3.6: Chemical Waste and Hazardous Substance Management by Chemistry Dept.

In summary, Aliah University prioritizes the implementation of sustainable waste management practices across all its facilities, with a focus on minimizing environmental impact and promoting a culture of responsible waste disposal and recycling.

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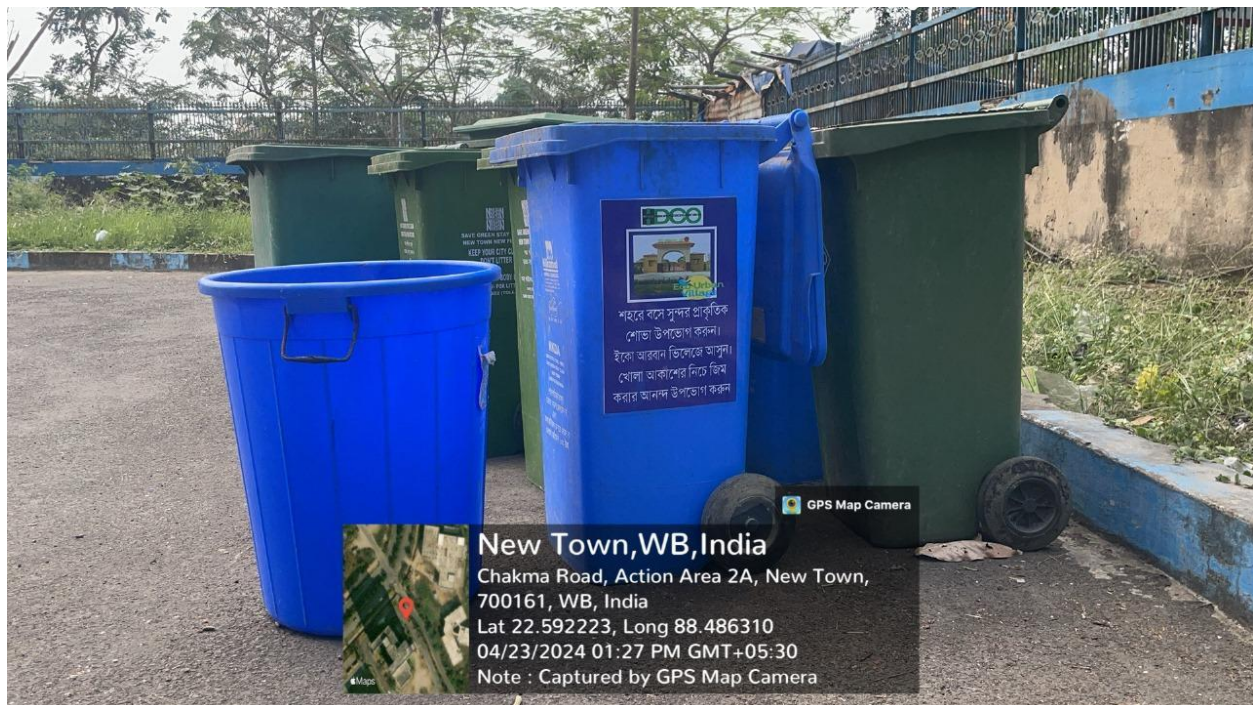


Figure 1. Solid waste management at New Town Campus



Figure 2. Liquid and Dry waste management at New Town Campus



Figure 3. Bio Medical Waste Segregation at Nursing Department



Figure 4 Bio Medical Waste management in Nursing Department



Figure 5 Bio Medical Waste management in Nursing Department



Figure 6. Bio Medical Waste management in Nursing Department