



**DEEN DAYAL UPADHYAYA  
GORAKHPUR UNIVERSITY  
GORAKHPUR**

**POLICY  
DOCUMENT**

Internal Quality Assurance Cell (IQAC)

# **WASTE MANAGEMENT POLICY**

# WASTE MANAGEMENT POLICY

## INTRODUCTION:

Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur, is committed to providing a clean and green campus, and several efforts are being made in this direction. The waste management policy has been framed to care for different wastes generated in and around the campus. Gorakhpur Municipal Corporation, Gorakhpur, and some firms associated with rendering services in BRD Medical College and ICMR-RMRC are being explored to address management issues related to solid, liquid, bio-medical, and e-wastes separately. Substantial efforts are being made to promote sustainable and holistic waste management practices on the campus to create a safe and healthy environment for faculty members, students, and visitors. The University aims to adopt the existing waste management policy laid down by the state and central government based on feasibility.

## POLICY STATEMENT

The University is committed to adopting the ‘best practicable environmental option’ in delivering its waste management services and maintaining its campus green and waste-free zone. The University will adhere to the popular ‘waste hierarchical approach’ to reduce, reuse, recycle and recover waste products by disposing of waste landfill. The University recognizes the importance of meeting these legal requirements and managing its waste responsibly, reducing the volume of waste sent to landfills, and maximizing reuse and recycling where possible. It also ensures compliance with all waste legislation.

## OBJECTIVES

- Waste management strategies to be adopted as per the norms of state and central government waste management legislations.
- An effort to minimize the waste generation at the source.
- Promote reduce, reuse, recycle approach for waste management in a cost-effective manner.
- To ensure safe handling and storage of wastes in the university.
- Provide awareness programs for waste management for teachers, residents, staff, students, and other stakeholders.
- To adopt an effective strategy for solid, liquid, biomedical, and e-waste collection and disposal in consultations with Government and private agencies.

## ORGANIZATION AND MANAGEMENT:

An advisory board comprising of the following members will have the responsibility for executing the waste management policy of the University. It will include

- (1) Vice-Chancellor- Chairman

- (2) Deans representing different faculties- Members
- (3) External expert (to be nominated by the Vice-Chancellor)
- (4) Co-ordinator Green Campus initiative –Member

**The function of the advisory board will be**

- i. To develop appropriate strategies, guidelines, and SOPs for solid, liquid, biomedical, and e-wastes management and carry out the task with the aid of government and private agencies.
- ii. To explore relevant Memorandum of Agreement (Understanding) (MOA/MOU) with both government and private firms involved with waste management.
- iii. To conduct conferences/seminars/workshops/ meetings to promote awareness for holistic, sustainable waste management practices on the university campus.
- iv. To frame relevant environmental performance indicators to promote waste management.

**ACTION PLAN:**

● **Solid Waste Management:**

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. The UNSD Glossary of Environment Statistics describes waste as “materials that are not prime products (that is, products produced for the market) for which the generator has no further use in terms of their purposes of production, transformation or consumption, and of which they want to dispose. Residuals recycled or reused at the place of generation are excluded.”

Solid waste is the unwanted or useless solid materials generated from human activities in residential, industrial, or commercial areas. It may be categorized in three ways. According to its:

- i. Origin (domestic, industrial, commercial, construction, or institutional).
- ii. Contents (organic material, glass, metal, plastic paper, etc.).
- iii. Hazard potential (toxic, non-toxin, flammable, radioactive, infectious, etc.).

Solid waste management involves the collection, segregation, transportation, treatment, and disposal of solid materials that are no longer useful and has been discarded. The basic 4Rs principle involving Reduce, Reuse, Recycle, and Recovery or Reclaim needs to be adopted for the management of wastes in general. If not, adequately managed solid wastes from different point sources would create unsanitary conditions, which might serve as breeding grounds for several vector-borne diseases.

Solid waste management at the university level is executed by the active participation of the faculty members, students, and non-teaching members in collaboration with the staff of Municipal Corporation, Gorakhpur. MoUs

with Municipal Corporation Gorakhpur for management of solids wastes have been initiated recently. Some of the initiatives taken by the University are

- i. Provision of separate dustbins in all the departments, centers, and administration buildings for segregation and collection of wastes.
- ii. Under “Zero Waste Campus” initiatives, solid wastes collected from different departments of the University are taken over to Zero Waste Incubation Centre, and degradable wastes are converted to organic compost while the municipal Corporation, Gorakhpur, collects non-degradable solid wastes like plastics.
- iii. Some of the solid wastes are also being used in the “Biogas plant” (kindly donated by Vivekanand Centre, Kanyakumari sponsored Shakti Surabhi AzollaAmritam Pvt. Ltd, Varanasi) set up in the Department of Biotechnology to generate energy in the form of gas and biofertilizer.

### **COMMITTEE FOR SOLID WASTE MANAGEMENT**

Head, Department of Botany-Chairman

Coordinator Green Campus Initiative-Member

One Faculty member, Department of Botany (Nominated by Vice-Chancellor)- Member

Estate Officer-Member

#### ● **Liquid Waste Management**

Liquid waste with respect to university campuses generally includes laboratory wastes from practical classes and research laboratories. Both organic and inorganic liquid waste containing hazardous/nonhazardous organic solvents and solutions are generated in the laboratory. Additionally, expired and unlabeled chemicals are also considered waste. Conscientious and careful management of chemical wastes is important. Improper or careless disposal practices have significant effects on the individual as well as on our environment, including polluting water sources, poisoning wildlife, and creating toxic sites. In the case of chemical waste, it does not matter how much waste is generated depending on its reactivity and hazards; one ml may need to be regulated the same as one gallon when it comes to chemical waste. Therefore, the identification and classification of hazardous and nonhazardous chemical waste are most important to proper management.

The current liquid waste management practices are:

- i. Hazardous waste identification and safety training for employees, students, and whosoever generates chemical waste in laboratories
- ii. Collection, labeling, and segregation of all chemical wastes.
- iii. Disposal or recovery or accumulation of waste as per the hazards/ non-hazardous nature of waste

- iv. The organic solvents are collected and recovered by appropriate processes, and acidic or basic liquid waste is disposed of in the soak pits (12' deep underground pits).

The recent MOU to be signed with Municipal Corporation, Gorakhpur will also take care of management of liquid waste especially municipal sewage wastes.

### **COMMITTEE FOR LIQUID WASTE MANAGEMENT**

Head, Department of Chemistry-Chairman

Coordinator Green Campus Initiative-Member

One Faculty member, Department of Chemistry (Nominated by Vice-Chancellor)- Member

Estate Officer-Member

#### ● **Bio-medical /Biohazard Waste Management**

Bio-medical wastes include wastes generated in most healthcare facilities, research labs, and centers dedicated to medical research and are mandatory for Medical colleges and Institutes. The University has BRD Medical Colleges as an affiliated college, where the biomedical waste management is being practiced. The amount of biomedical waste generated on the University campus is quite less, and recently university authority has decided to hire a private firm that is offering services in the BRD Medical College, Gorakhpur, and Regional Medical Research Centre (RMRC), Gorakhpur for biomedical waste management. It will deal with the collection, transportation, and disposal of waste.

### **COMMITTEE FOR BIO-MEDICAL /BIOHAZARD WASTE MANAGEMENT**

Head, Department of Zoology -Chairman

Coordinator Green Campus Initiative-Member

One Faculty member, Department of Biotechnology (Nominated by Vice-Chancellor)- Member

Estate Officer-Member

#### ● **E-waste Management:**

E-waste generally represents all electronic products that are unwanted, not working, and nearing or at the end of their “useful life.” Computers, televisions, VCRs, stereos, copiers, and fax machines are everyday electronic products. These could be quite dangerous as several toxic chemicals might be naturally leached out from the metals inside if not managed properly and just buried in the ground. With advances in technology, the problem of e-waste management is also witnessed, and institutions need to adopt the policy for its proper management. The University action plan in this direction is highlighted here:

- (i) The various electronic gadgets used in the University, predominately computers, printers, xerox machines along with several instruments used by faculty of sciences, etc., are recorded in the Estate Office after purchase, and once decided that it is non-functional, it is again collected by the Estate office and is auctioned.
- (ii) The efforts are made to promote “reuse” in many items like refiling cartridges several times.
- (iii) The University is in the process of adopting the policy of donating the lower version of computers to the needy once newer versions are being procured based on enhancing the efficiency by the advanced technology.
- (iv) The University also adopts the buy-back scheme for electronic equipment in some situations to avoid unnecessary purchases and disposal of computers and other electronic gadgets.

**COMMITTEE FOR E-WASTE MANAGEMENT :**

Head, Department of Physics -Chairman

Coordinator Green Campus Initiative-Member

One Faculty member, Department of Electronics (Nominated by Vice-Chancellor)- Member

Estate Officer-Member

