SUSTAINABLE DEVELOPMENT GOAL

12

RESPONSIBLE CONSUMPTION AND PRODUCTION

UNIVERSITY OF DHAKA
Sustainability Progress Report 2025

SDG 12: Responsible Consumption and Production

1. Executive Summary

Responsible consumption and production are essential to building sustainable institutions. Universities consume significant quantities of water, energy, food, construction materials, and other resources through their academic, administrative, and residential operations. They also generate different forms of waste and contribute to local environmental pressures. As a major public university, the University of Dhaka recognizes the importance of managing these resources responsibly and embedding environmental considerations into its institutional operations.

During 2025, the university undertook a range of initiatives contributing to Sustainable Development Goal 12 (SDG 12): Responsible Consumption and Production. The available institutional records for 2025 demonstrate progress in environmental governance, pollution prevention, organic waste management, food preservation, water resource management, sanitation, and sustainable infrastructure development.

One of the most important institutional developments was the strengthening of campus-wide environmental regulations. The university maintained restrictions on fireworks, firecrackers, and sky lanterns during year-end celebrations, receiving national recognition from the Ministry of Environment, Forest and Climate Change in December 2025. It also launched the "Stop Burning Fallen Leaves" campaign on 11 December 2025, establishing a campus-wide prohibition on open leaf burning and promoting the conversion of organic waste into fertilizer.

The university also demonstrated practical progress in circular resource management. At Kavi Jasimuddin Hall, fallen leaves were collected and processed into organic fertilizer for use in hall gardens. This initiative provides an example of how waste materials generated through routine campus maintenance can be recovered and reused rather than discarded or burned.

Food preservation and waste prevention received attention through improvements to residential dining and storage facilities. Sheikh Fazilatunnesa Mujib Hall installed six floor-level refrigerators and one commercial dining deep-freezer, while Kavi Jasimuddin Hall improved food storage surfaces and repaired cooking stoves. These interventions support better food storage and handling, helping reduce the risk of spoilage and avoidable food waste.

Water management was another important area of institutional activity. Several residential halls undertook cleaning, disinfection, and maintenance of water reservoirs and supply lines. Four drinking water filtration units were installed at Kavi Sufia Kamal Hall, while other facilities improved their water distribution and storage systems.

The university also advanced long-term infrastructure planning through the BDT 2,841 crore Mega Campus Development Project. The approved project incorporates modern waste management facilities, upgraded drainage systems, and restoration of four major campus waterbodies. These planned investments provide an opportunity to strengthen the university's capacity for sustainable resource management.

In addition, the university undertook preventive sanitation and pest management activities across residential halls. These included physical cleaning of potential mosquito breeding areas, targeted pest control, hygiene improvements, and the introduction of less chemically intensive pest management approaches.

Taken together, these initiatives demonstrate the university's efforts to integrate responsible resource use into both institutional policy and everyday campus operations. Although several major infrastructure components remained at the planning or early implementation stage by the end of 2025, the available evidence indicates meaningful progress towards more sustainable consumption and production practices.

2. Institutional Approach and Alignment with SDG 12

2.1 Responsible Resource Management in University Operations

Universities have a direct responsibility to ensure that their daily operations do not create unnecessary environmental pressures. This responsibility extends to food procurement and storage, water consumption, waste generation, sanitation, pollution control, and the management of physical infrastructure.

At the University of Dhaka, SDG 12 is particularly relevant to the management of a large and diverse campus environment involving academic buildings, administrative facilities, residential halls, dining facilities, and shared public spaces.

During 2025, the university's initiatives reflected five interconnected priorities:

1. **Pollution prevention and environmental governance:** Strengthening institutional regulations to prevent harmful waste disposal and pollution.
2. **Waste reduction and circular resource use:** Recovering organic materials and promoting their reuse as productive resources.
3. **Food loss and waste prevention:** Improving food storage, preservation, and dining infrastructure.
4. **Water resource management and sanitation:** Maintaining water supply systems, filtration facilities, and hygienic residential environments.
5. **Sustainable infrastructure development:** Integrating waste management, drainage, and environmental restoration into long-term campus development planning.

These priorities align particularly with the following SDG 12 targets:

SDG target	Institutional relevance
Target 12.3 – Food waste and food loss reduction	Improving food preservation, cold-storage capacity, and dining facilities.
Target 12.4 – Environmentally sound management of chemicals and waste	Preventing open burning, restricting harmful pollutants, and strengthening responsible pest management.
Target 12.5 – Waste reduction and recycling	Recovering organic waste and converting fallen leaves into fertilizer.

Target 12.8 – Sustainability awareness and information	Conducting campus environmental campaigns and promoting responsible environmental practices.
Target 12.a – Scientific and technological capacity for sustainable consumption and production	Developing sustainable waste, drainage, water, and environmental infrastructure.

An important characteristic of the university's approach is the connection between central administrative policies and decentralized implementation. While central authorities establish environmental regulations, individual halls and institutional units translate these directives into practical operational activities.

This combination of institutional governance and hall-level implementation provides a foundation for integrating responsible consumption and production into the university's everyday management practices.

3. Campus-Wide Environmental Governance and Pollution Prevention

3.1 Strengthening Institutional Environmental Regulations

Responsible consumption and production require institutions to address environmental problems at their source rather than relying exclusively on corrective measures after pollution has occurred.

During 2025, the University of Dhaka strengthened its environmental governance through administrative restrictions and public awareness initiatives targeting activities that contribute to air pollution, noise pollution, and unnecessary waste generation.

One significant example was the university's prohibition on fireworks, firecrackers, and sky lanterns during Thirty-First Night celebrations.

The restrictions were enforced during the 31 December 2024 celebrations and received formal national recognition in December 2025.

On 18 December 2025, the Ministry of Environment, Forest and Climate Change presented an honorary award and commemorative crest to Professor Dr. Niaz Ahmed Khan at the Department of Environment.

The recognition highlighted the university's environmental leadership and its efforts to prevent the use of hazardous pyrotechnic materials within the campus.

The restrictions addressed several environmental and safety concerns:

- **Air pollution:** Reducing toxic smoke emissions and particulate matter associated with fireworks and firecrackers.
- **Noise pollution:** Limiting excessive noise and associated disturbance within the campus.

- **Fire and safety risks:** Preventing potential fire incidents in densely populated academic and residential areas.
- **Wildlife protection:** Reducing acoustic stress, physical injury, and habitat disturbance among campus birds and other urban wildlife.
- **Waste reduction:** Avoiding the accumulation of chemical residues, plastic debris, and other non-biodegradable materials after celebrations.

The initiative was also connected to four broader institutional environmental designations: Clean Campus, Green Campus, Pollution-Free Campus, and Bird-Friendly Campus.

The national recognition demonstrates the value of consistent environmental regulations and provides an example of how university-level policies can contribute to wider environmental protection objectives.

3.2 Preventing Air Pollution Through the Stop Burning Fallen Leaves Campaign

Open burning of organic waste is a common but environmentally harmful disposal practice. Fallen leaves generated through routine campus maintenance can contribute to localized air pollution when burned instead of being collected and reused.

Recognizing this issue, the university launched a major environmental awareness campaign on 11 December 2025 under the slogan "Stop Burning Fallen Leaves" (Shorapata Projjolon Bondho Korun).

The campaign was organized at the campus main square through collaboration among the Dhaka University Arboriculture Center, DUCSU, Green Future Foundation, and the Environment Parliament.

The Vice-Chancellor led a public awareness symposium and rally addressing the environmental and public health consequences of biomass combustion.

The initiative established an institutional prohibition on burning fallen leaves and promoted the collection and preservation of organic materials for productive reuse.

This campaign represents an important shift in campus waste management. Instead of treating fallen leaves as unwanted materials requiring immediate disposal, the university encouraged their recovery as a useful resource.

The initiative also emphasized the importance of changing everyday environmental practices among students, faculty members, administrative personnel, and residential hall maintenance staff.

By combining administrative restrictions with public awareness and practical alternatives, the university sought to establish a more responsible approach to organic waste management.

4. Circular Economy and Organic Waste Transformation

4.1 Converting Organic Waste into Useful Resources

A central principle of responsible production and consumption is the reduction of waste through prevention, reuse, and recycling.

For a university campus with substantial green areas, fallen leaves represent a recurring source of organic material. Rather than treating this material as waste, the university began demonstrating how it could be converted into a productive resource.

On 11 December 2025, Kavi Jasimuddin Hall implemented an organic waste recovery process as part of the university's broader leaf-burning prevention initiative.

The process involved three interconnected stages.

Collection and preservation: Fallen leaves across the hall premises were systematically collected and stored without open burning.

Organic decomposition and conversion: The collected biological material was allowed to undergo managed decomposition and conversion into organic fertilizer.

Reuse in campus gardening: The resulting fertilizer was used directly for maintaining hall gardens and supporting campus greenery.

Hall maintenance personnel participated in the process, making organic waste recovery part of routine facility management.

Similar administrative participation was encouraged across other residential facilities, including Sheikh Fazilatunnesa Mujib Hall.

4.2 Environmental and Operational Benefits

This initiative demonstrates a practical application of circular economy principles within university operations.

First, it provides an alternative to open burning, helping prevent smoke emissions and associated particulate pollution.

Second, it reduces the amount of organic material requiring conventional disposal.

Third, it creates an internally available resource for maintaining campus gardens, potentially reducing dependence on commercially purchased synthetic fertilizers.

The initiative also creates an opportunity to demonstrate sustainable waste management through everyday institutional practices.

Rather than treating waste management as a separate environmental activity, the university connected it directly with gardening, landscaping, and routine maintenance.

This approach aligns with SDG Target 12.5 by promoting waste prevention, recovery, and reuse.

Although the available records do not quantify the volume of leaves collected or the amount of fertilizer produced, the initiative provides a practical foundation for developing a more systematic campus-wide organic waste recovery programme.

5. Sustainable Infrastructure and Institutional Waste Management

5.1 Integrating Resource Efficiency into Long-Term Campus Development

Effective waste management requires more than individual recycling activities. It also depends on appropriate physical infrastructure, collection systems, drainage networks, and organized waste treatment facilities.

Recognizing this requirement, the University of Dhaka incorporated several environmental infrastructure components into its BDT 2,841 crore Further Development Project.

The five-year development programme, covering 2025–2030, received an initial Annual Development Programme allocation of BDT 60 crore for its first year.

A Project Director was appointed on 12 October 2025, and the Annual Procurement Plan was published through the national e-GP portal under the supervision of a dedicated Project Management Unit.

The project includes several infrastructure components directly relevant to responsible consumption and production.

Modern municipal waste management facilities: The plan includes dedicated waste segregation, recycling, and disposal infrastructure to support more organized management of campus waste streams.

Drainage system modernization: Comprehensive renovation and expansion of underground drainage networks are intended to improve water flow and reduce problems associated with inadequate drainage.

Waterbody restoration: Four major campus waterbodies are included in the development plan, with proposed dredging, ecological restoration, and environmental improvement.

Improved sanitation infrastructure: Two public toilet facilities are included in the broader development programme.

These investments are important because sustainable resource management depends on the availability of reliable physical systems. Without appropriate waste collection and treatment infrastructure, individual waste reduction initiatives may remain fragmented.

5.2 Moving Towards an Integrated Resource Management System

The inclusion of waste segregation, recycling, drainage, and waterbody restoration within one development programme creates an opportunity to adopt a more integrated approach to campus resource management.

For example, organized waste segregation facilities could help distinguish organic, recyclable, and non-recyclable materials. Improved drainage systems could reduce the movement of unmanaged waste into water channels. Restoration of campus waterbodies could also contribute to protecting local aquatic environments.

These components are currently part of the approved development plan rather than fully operational facilities during the reporting period.

Nevertheless, their inclusion demonstrates that environmental management is being considered within the university's broader infrastructure planning process.

The project provides an opportunity to move from localized waste management activities towards a coordinated and institution-wide system.

6. Responsible Water Consumption and Resource Management

6.1 Maintaining Safe and Reliable Water Supply Systems

Water is an essential resource in university operations. Residential halls, dining facilities, academic buildings, and administrative units depend on reliable water supply systems for drinking, cooking, sanitation, and everyday activities.

Responsible water management therefore requires not only access to water but also proper maintenance of storage facilities, supply pipelines, and filtration systems.

During 2025, the University of Dhaka undertook several water infrastructure maintenance activities across its residential and institutional facilities.

At Bangladesh-Kuwait Maitree Hall, major water supply pipeline improvements and technical repairs to reserve water storage tanks were undertaken on 14 August 2025.

The Social Welfare and Research Institute repaired damaged overhead water tank supply lines serving its South Building on 9 October 2025.

Kavi Jasimuddin Hall conducted comprehensive mechanical cleaning, flushing, and chemical disinfection of its reserve water tanks and overhead storage facilities on 9 October 2025. The work covered the North and South residential blocks, canteen, mess facilities, and house tutor residence. Student drinking water filtration units were also serviced.

These activities reflect the university's attention to the maintenance of essential water infrastructure and the importance of preventing contamination within high-density residential environments.

6.2 Expanding Access to Filtered Drinking Water

In addition to maintenance, the university expanded drinking water filtration capacity.

On 9 October 2025, Kavi Sufia Kamal Hall installed four new high-capacity pure drinking water filtration units in its main student residential building.

The installation improved access to filtered drinking water within the hall and complemented the broader water supply maintenance activities undertaken across the university.

Such interventions demonstrate how responsible resource management can support both environmental and public health objectives.

By maintaining filtration facilities and water storage infrastructure, the university can help reduce water contamination risks and improve the reliability of essential residential services.

6.3 The Importance of Regular Water Infrastructure Maintenance

The activities undertaken during the reporting period highlight that water sustainability requires continuous operational attention.

Cleaning and disinfecting storage tanks, repairing supply lines, and servicing filtration systems are essential for maintaining the quality and reliability of water distribution.

The university's activities therefore contribute to SDG 12 through more responsible management of institutional water resources and the maintenance of supporting infrastructure.

Future monitoring of water consumption, leakage, water quality, and maintenance frequency would further strengthen the effectiveness of these interventions.

7. Food Waste Prevention and Responsible Dining Infrastructure

7.1 Addressing Food Spoilage in Residential Facilities

Food waste is an important sustainability challenge in residential universities. Large student dining facilities must manage food preparation, storage, preservation, and distribution on a regular basis. Inadequate storage infrastructure can increase the risk of food spoilage, particularly in high-density communal living environments.

Recognizing the importance of food preservation, the University of Dhaka undertook several improvements to residential dining and food storage facilities during 2025. These initiatives were particularly visible at Sheikh Fazilatunnesa Mujib Hall and Kavi Jasimuddin Hall.

7.2 Expanding Cold-Storage Capacity at Sheikh Fazilatunnesa Mujib Hall

On 13 November 2025, Sheikh Fazilatunnesa Mujib Hall introduced a comprehensive food preservation improvement initiative. The hall installed six floor-level refrigerators and one commercial deep-freezer in its dining area. Of the six refrigerators, five were procured by the

Hall Union and one by the Hall Administration. The commercial deep-freezer further expanded the hall's food storage capacity.

This intervention is significant because appropriate refrigeration helps maintain food quality, reduce spoilage, and support safer food handling. In a residential environment where large quantities of food are handled regularly, improved cold-storage facilities can also reduce the risk of unnecessary food disposal.

The initiative therefore contributes to SDG Target 12.3, which calls for reducing food loss and waste.

7.3 Improving Food Preparation and Storage Facilities

Kavi Jasimuddin Hall also undertook practical improvements to its dining infrastructure. On 11 September 2025, the hall completed concrete upgrades to food storage surfaces and repaired broken cooking stoves within its Nimantran student mess. These improvements were intended to support more hygienic food storage and preparation.

The hall also undertook additional kitchen and food service maintenance during the reporting period, helping improve the physical conditions of its dining operations. Such interventions demonstrate that reducing food waste requires attention not only to refrigeration but also to the quality of food preparation and storage environments.

7.4 Connecting Food Preservation with Responsible Consumption

The food storage initiatives at Sheikh Fazilatunnesa Mujib Hall and Kavi Jasimuddin Hall illustrate how improvements to basic residential infrastructure can contribute to broader sustainability goals. Better refrigeration helps reduce spoilage, while hygienic storage and preparation facilities support food safety.

These interventions may also reduce financial losses associated with discarded food and help prevent unnecessary organic waste generation.

8. Sustainable Sanitation, Pest Management and Responsible Chemical Use

8.1 Maintaining Hygienic Residential Environments

Responsible consumption and production also involve the safe management of cleaning materials, chemicals, and other operational inputs.

In residential university environments, sanitation activities must balance effective hygiene management with responsible chemical use and environmental protection.

During the reporting period, different residential halls undertook regular sanitation and maintenance activities to improve cleanliness and reduce potential health risks.

At Rokeya Hall, specialized cleaning activities included deep cleaning and restoration of bathroom mosaic floors. Bangladesh-Kuwait Maitree Hall maintained regular procurement of cleaning compounds and implemented recurring sanitation schedules across several months.

These activities supported the maintenance of hygienic shared residential facilities.

8.2 Adopting More Responsible Pest Management Practices

Pest and vector control is essential in high-density residential environments, particularly in a city where mosquito-borne diseases such as dengue present recurring public health concerns. However, the excessive or inappropriate use of chemical pesticides can create additional environmental and health risks.

During 2025, the university's residential halls undertook several pest management interventions, combining chemical applications with physical cleaning and less chemically intensive alternatives.

At Kavi Sufia Kamal Hall, pesticide spray bottles were distributed across student residential rooms on 14 August 2025. The hall also organized safety training on pesticide handling and introduced non-hazardous pest glue applications.

On 9 October 2025, the hall conducted a targeted bedbug eradication programme covering 29 student rooms.

Kavi Jasimuddin Hall adopted a complementary physical approach on 13 November 2025. Maintenance personnel used bamboo scaffolding and ropes to remove loose wall plaster and clear cornices from the ground floor to the fifth floor. The activity also involved levelling unmanaged soil mounds and clearing blocked perimeter drainage channels.

These measures addressed potential mosquito breeding areas and reduced reliance on chemical spraying as the only method of pest management.

8.3 Promoting Integrated Environmental Sanitation

The combination of targeted pest control, physical cleaning, drainage maintenance, and pesticide safety training demonstrates a more comprehensive approach to residential environmental management.

Rather than relying exclusively on chemical applications, the university's activities included preventive maintenance and physical removal of conditions that can support pest breeding and infestation.

This approach contributes to SDG Target 12.4 by emphasizing the importance of environmentally sound chemical management.

It also highlights an opportunity for the university to further strengthen integrated pest management through systematic monitoring, safer product selection, appropriate chemical handling, and regular staff training.

9. Sustainability Awareness and Institutional Participation

9.1 Making Responsible Practices Part of Campus Culture

Responsible consumption and production cannot be achieved through administrative directives alone. Long-term improvements require participation from students, faculty members, administrative staff, and residential hall communities.

During 2025, the university's environmental campaigns demonstrated the importance of combining institutional policies with public awareness and practical participation.

The Stop Burning Fallen Leaves campaign was particularly important in this regard. By involving the Arboriculture Center, DUCSU, Green Future Foundation, and the Environment Parliament, the university brought together institutional and student stakeholders around a common environmental objective.

The participation of hall maintenance staff in organic waste collection and fertilizer production further connected sustainability awareness with everyday operational responsibilities.

9.2 Institutionalizing Environmental Responsibility

The university's broader environmental designations—Clean Campus, Green Campus, Pollution-Free Campus, and Bird-Friendly Campus—provide a framework for promoting environmentally responsible behaviour across campus facilities.

These institutional commitments can help strengthen awareness of responsible waste disposal, pollution prevention, organic waste recovery, and the protection of campus biodiversity.

The national recognition received for the pyrotechnics ban also reinforces the importance of institutional leadership in promoting sustainable practices.

Together, these activities demonstrate that sustainability awareness is most effective when supported by clear policies, visible campaigns, practical alternatives, and participation from the wider university community.

10. Consolidated SDG 12 Performance and Institutional Outputs

The following table summarizes selected outputs and milestones from the available official records for 2025.

Strategic area	Selected institutional outputs
Environmental governance	Campus-wide restrictions on fireworks, firecrackers, and sky lanterns maintained; national recognition received in December 2025.
Air pollution prevention	Stop Burning Fallen Leaves campaign launched on 11 December 2025, with a campus-wide prohibition on open leaf burning.
Circular economy	Kavi Jasimuddin Hall collected and preserved fallen leaves for organic fertilizer production and garden reuse.

Sustainable infrastructure	BDT 2,841 crore Further Development Project advanced, with an initial BDT 60 crore ADP allocation.
Waste management	Modern waste segregation, recycling, and disposal facilities included in the 2025–2030 development plan.
Water resource management	Water supply pipelines, reserve tanks, and overhead storage facilities cleaned, disinfected, repaired, and maintained across several institutional units.
Drinking water	Four new high-capacity drinking water filtration units installed at Kavi Sufia Kamal Hall.
Food preservation	Six floor-level refrigerators and one commercial deep-freezer installed at Sheikh Fazilatunnesa Mujib Hall.
Food preparation	Concrete upgrades to food storage surfaces and cooking stove repairs completed at Kavi Jasimuddin Hall.
Pest management	Targeted bedbug control across 29 rooms at Kavi Sufia Kamal Hall, pesticide safety training, and physical clearing of potential mosquito breeding areas at Kavi Jasimuddin Hall.
Sanitation	Deep cleaning, bathroom floor restoration, and recurring residential sanitation activities undertaken.
Waterbody restoration	Restoration of four major campus waterbodies incorporated into the approved development plan.
Institutional awareness	Collaboration among the Arboriculture Center, DUCSU, Green Future Foundation, and Environment Parliament for environmental advocacy.

11. Conclusion

During 2025, the University of Dhaka undertook a range of initiatives to strengthen its contribution to SDG 12: Responsible Consumption and Production. The university's efforts addressed several important dimensions of responsible institutional resource management, including pollution prevention, organic waste recovery, food preservation, water infrastructure maintenance, sanitation, pest management, and long-term environmental infrastructure development.

The Stop Burning Fallen Leaves campaign and the conversion of organic materials into fertilizer represent practical examples of circular resource management. The restrictions on fireworks and sky lanterns demonstrate the importance of institutional regulations in preventing pollution and protecting the campus environment. Improvements to residential food storage and water facilities further reflect the university's attention to responsible management of essential resources.

At the same time, the BDT 2,841 crore Further Development Project provides an opportunity to institutionalize more comprehensive waste management, drainage, and environmental restoration systems over the coming years. Although several major infrastructure components remained under planning or early implementation by the end of 2025, the available evidence indicates meaningful progress towards more environmentally responsible university operations.

Moving forward, the university can strengthen these efforts by introducing measurable resource consumption indicators, expanding waste segregation and recycling systems, monitoring food waste, improving water efficiency, and integrating sustainability principles into procurement and infrastructure management. By embedding responsible consumption and production into both institutional governance and everyday campus practices, the University of Dhaka can further strengthen its contribution to SDG 12 and demonstrate how higher education institutions can become practical models of environmental responsibility.