SUSTAINABLE DEVELOPMENT GOAL

14

LIFE BELOW WATER



UNIVERSITY OF DHAKA

Sustainability Progress Report 2025

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SDG 14: Life Below Water

1. Executive Summary

Water resources and aquatic ecosystems are essential to environmental sustainability, public health, biodiversity, and economic development. For Bangladesh, a deltaic country closely connected to its rivers, estuaries, and the Bay of Bengal, protecting aquatic environments is particularly important. Universities have a significant role in this effort through marine and freshwater research, environmental education, scientific collaboration, responsible campus management, and the development of institutional capacity.

In 2025, the University of Dhaka (DU) advanced its contribution to Sustainable Development Goal 14 (Life Below Water) through a range of academic, administrative, infrastructural, and environmental initiatives. Its activities addressed marine research capacity, coastal disaster management, freshwater resource management, pollution prevention, and aquatic engagement.

A key area of progress was the expansion of academic collaboration in maritime and coastal research. On 10 July 2025, the university held a high-level meeting with Bangladesh Maritime University to explore joint educational programmes, collaborative marine research, and institutional cooperation. Later in the year, a partnership discussion with Central Queensland University, Australia, focused on coastal disaster management, climate-related challenges in vulnerable coastal areas, and capacity building for early-career researchers. The Department of Soil, Water and Environment also announced applications for the Raeya Mobarak Memorial Scholarship to support students pursuing academic and research work in relevant fields.

The university also advanced its freshwater resource management efforts. Residential halls and academic units undertook maintenance of water supply pipelines, cleaning and sanitation of reserve and overhead water tanks, and installation or servicing of drinking water filtration systems. These interventions helped strengthen the management of campus water infrastructure and support access to safer drinking water.

At the infrastructure planning level, the university advanced its BDT 2,841-crore Further Development Project, which includes the proposed restoration of four major campus water bodies and modernization of drainage and waste management systems. These measures are relevant to the protection of freshwater ecosystems and the management of land-based pollution. However, the restoration activities were part of a development plan and should not be interpreted as completed during 2025.

Environmental pollution prevention was another important component of the university's approach. The Ministry of Environment, Forest and Climate Change formally recognized the university in December 2025 for its prohibition of fireworks, firecrackers, and sky lanterns during major celebrations. The restriction helps prevent potentially harmful residues and other waste from entering campus drainage systems and surrounding aquatic environments.

The university also promoted aquatic engagement through its inter-hall swimming and water polo competitions, organized by the Physical Education Centre and the Inter-Hall Athletics

Committee. These activities supported student participation in aquatic sports and provided an opportunity to promote water safety and engagement with aquatic environments.

Overall, the university's 2025 activities demonstrate progress in connecting academic cooperation, freshwater infrastructure management, pollution prevention, and coastal resilience. Future progress would benefit from stronger quantitative monitoring, particularly in relation to water quality, wastewater discharge, freshwater consumption, campus water-body restoration, and marine research outcomes.

2. Institutional Approach to SDG 14

2.1 Recognizing the connection between campus water management and aquatic ecosystems

The University of Dhaka's contribution to SDG 14 reflects an understanding that protecting aquatic environments requires action at different levels. Marine conservation is closely connected to freshwater management, urban drainage, waste disposal, pollution control, and the development of scientific knowledge.

Although the university is located inland, its environmental management practices are relevant to the wider aquatic system of Bangladesh. Rainwater runoff and drainage from urban areas can carry waste and pollutants into nearby rivers and, eventually, downstream aquatic environments. Responsible management of campus drainage, waste, and water bodies is therefore an important part of preventing land-based pollution.

In 2025, the university's approach combined three broad areas of intervention:

1. **Research and academic capacity:** Strengthening marine and coastal research through institutional partnerships, scholarships, and academic collaboration.
2. **Water resource management:** Improving campus water infrastructure, maintaining water storage systems, and planning the restoration of campus water bodies.
3. **Pollution prevention and environmental engagement:** Supporting pollution-control policies, aquatic sports, and greater institutional awareness of water-related environmental responsibilities.

This approach recognizes that SDG 14 requires more than activities directly conducted in marine environments. It also requires effective management of the land-based activities that influence aquatic ecosystems.

2.2 Alignment with SDG 14 targets

The university's documented initiatives in 2025 were particularly relevant to the following SDG 14 targets.

SDG 14 target	Relevant University of Dhaka initiatives
14.1 – Reduce marine pollution	Environmental restrictions on fireworks, firecrackers, and sky lanterns; proposed drainage and waste management improvements; prevention of land-based pollution.
14.2 – Protect and restore aquatic ecosystems	Proposed restoration of four campus water bodies; coastal disaster management research and collaboration.
14.a – Increase scientific knowledge and research capacity	Collaboration with Bangladesh Maritime University, partnership discussions with Central Queensland University, and the Raeya Mobarak Memorial Scholarship.

The university's freshwater infrastructure and sanitation initiatives also contribute indirectly to the wider objectives of SDG 14 by strengthening responsible water resource management and reducing the risk of contamination within campus water systems.

3. Strengthening Marine Research and Academic Collaboration

3.1 Building institutional cooperation for maritime research

Bangladesh's maritime and coastal environments face several interconnected challenges, including marine pollution, coastal erosion, extreme weather events, sea-level rise, and pressure on aquatic ecosystems. Addressing these issues requires specialized scientific knowledge and cooperation among universities and research institutions.

Recognizing the importance of institutional collaboration, the University of Dhaka engaged with Bangladesh Maritime University (BMU) to explore opportunities for strengthening maritime education and research.

On 10 July 2025, the Vice-Chancellors of the two universities held a high-level bilateral meeting. The discussion focused on expanding joint educational programmes, collaborative marine research projects, academic exchange, and mutual institutional support.

The proposed cooperation offers an opportunity to combine the academic expertise and research facilities of both institutions. It may also support the development of specialized knowledge in oceanography, maritime studies, marine resource assessment, and aquatic ecosystem conservation.

The engagement is relevant to SDG Target 14.a, which emphasizes the importance of scientific knowledge, research capacity, and the transfer of marine technology.

For Bangladesh, stronger cooperation between higher education institutions can help develop the scientific expertise needed to understand and manage marine resources. The meeting therefore represented an important step towards expanding the university's engagement with maritime research.

The available records document the bilateral meeting and its intended areas of cooperation. They do not provide evidence of completed joint research projects or newly established degree programmes during 2025.

3.2 Advancing research on coastal disaster management

Coastal communities are among the groups most exposed to environmental and climate-related hazards in Bangladesh. Cyclones, storm surges, coastal flooding, erosion, and other hazards can disrupt livelihoods, damage infrastructure, and affect access to essential services.

Addressing these risks requires research that connects environmental science with disaster management, education, and community preparedness.

On 18 December 2025, the Vice-Chancellor held an international partnership meeting with Prof. Dr. Olaf Muralink of Central Queensland University, Australia.

The discussion focused on establishing joint research initiatives related to disaster management in vulnerable coastal areas of Bangladesh. The proposed areas of cooperation included:

- Research on disaster management in coastal regions.
- Educational continuity for children during climate-related disasters.
- Capacity-building workshops for early-career researchers.
- Collaboration on research relevant to coastal vulnerability and resilience.

The initiative is significant because coastal disaster management requires both scientific understanding and practical knowledge of the communities affected. Research on educational continuity, for example, can help examine how environmental disasters disrupt children's access to learning and how education systems can respond.

The partnership also provides an opportunity for early-career researchers to strengthen their skills and contribute to research on coastal vulnerability.

The meeting established a framework for future cooperation. Its long-term contribution will depend on the implementation of joint research, training programmes, and related academic activities.

3.3 Supporting young researchers in soil, water and environmental sciences

Developing marine and aquatic research capacity requires sustained investment in students and early-career researchers. Academic scholarships can help students pursue specialized research and build the expertise needed to address environmental challenges.

On 11 December 2025, the Department of Soil, Water and Environment announced application procedures for the **Raeya Mobarak Memorial Scholarship**.

The scholarship framework provides for full-year financial stipends for eligible second-year B.Sc. Honours and Master's students. Applicants were required to submit written applications to the Department Chair by 15 January 2026, outlining their academic merit and research interests.

The initiative is relevant to SDG 14 because research in soil and water sciences contributes to understanding aquatic pollution, hydrological processes, water chemistry, and the relationship between land-based activities and aquatic ecosystems.

By supporting students in these disciplines, the university can strengthen the academic foundation required for future research on freshwater and marine environmental challenges.

The scholarship announcement represents an institutional commitment to academic capacity building. As applications were scheduled to close in January 2026, the available 2025 record does not establish how many students ultimately received the scholarship or what research outputs resulted from it.

4. Restoration of Campus Water Bodies and Protection of Aquatic Ecosystems

4.1 Recognizing the ecological importance of campus water bodies

Urban water bodies provide important environmental functions. They can support local biodiversity, store rainwater, contribute to drainage management, and provide ecological and recreational value within densely developed areas.

The University of Dhaka's campus includes several water bodies and reservoirs that form part of its local environmental landscape. Maintaining these areas is relevant not only to campus aesthetics but also to water resource management and ecological sustainability.

During 2025, the university advanced plans to restore four major campus water bodies under its broader development programme.

4.2 Four-water-body restoration under the Further Development Project

The proposed restoration is part of the **Dhaka University Further Development Project**, which carries an estimated allocation of BDT 2,841 crore and a five-year implementation period extending to 2030.

On 20 November 2025, the project received confirmation of an initial BDT 60 crore Annual Development Programme allocation from the Ministry of Education.

The university's Project Management Unit (PMU) was responsible for advancing the project implementation framework, including procurement planning and compliance with applicable public procurement procedures.

The water-related components include:

- Structural renovation of four major campus water bodies and reservoirs.
- Dredging and restoration works.
- Ecological stabilization and environmental improvement.
- Modernization of campus drainage systems.
- Integration of drainage and waste management improvements.

These proposed interventions have significance beyond the physical restoration of individual water bodies. They provide an opportunity to strengthen the relationship between campus drainage, water quality, and the wider urban environment.

4.3 Linking drainage management with aquatic pollution prevention

Water bodies are affected not only by direct activities within their boundaries but also by the condition of surrounding drainage and waste management systems.

In urban environments, poorly managed runoff can carry solid waste, sediment, and other pollutants into nearby water bodies. Effective drainage and waste management are therefore important for reducing land-based pollution.

The proposed modernization of DU's drainage infrastructure, alongside water-body restoration, reflects an integrated approach to campus water management.

The approach is relevant to SDG Target 14.1, which calls for the prevention and significant reduction of marine pollution, particularly pollution originating from land-based activities.

The source material also identifies the broader hydrological connection between the campus environment, surrounding river systems, and downstream aquatic ecosystems. However, the available records do not provide water-flow studies or pollution measurements establishing the specific volume of campus-originating pollutants reaching the Buriganga or Turag rivers.

The planned restoration and drainage improvements should therefore be understood as preventive environmental infrastructure rather than evidence of measured reductions in downstream pollution.

5. Aquatic Engagement, Student Participation and Water Literacy

5.1 Promoting engagement with aquatic environments through sports

Building awareness of aquatic environments requires more than formal academic instruction. Student participation in water-based activities can also provide opportunities to develop water safety skills, physical confidence, and a greater understanding of aquatic environments.

In July 2025, the University of Dhaka hosted its Inter-Hall Swimming and Water Polo Competitions for the 2024–2025 academic session.

The event was organized by the Physical Education Centre and the Inter-Hall Athletics Committee. Male and female athletes representing different residential halls participated in the competitions.

5.2 Inter-hall swimming and water polo achievements

The competitions included separate boys' and girls' divisions.

Boys' division

- Inter-Hall Swimming Champions: Muktijoddha Ziaur Rahman Hall.
- Inter-Hall Swimming Runner-Up: Kabi Jasimuddin Hall.
- Inter-Hall Water Polo Champions: Muktijoddha Ziaur Rahman Hall.
- Inter-Hall Water Polo Runner-Up: Shahid Sergeant Jahurul Huq Hall.
- Joint Best Male Swimmers: Sheikh Jamil Hasan of Muktijoddha Ziaur Rahman Hall and Rakibul Islam Tushar of Kabi Jasimuddin Hall.

Girls' division

- Inter-Hall Swimming Champions: Begum Fazilatunnesa Mujib Hall.
- Overall 2024–2025 Aquatic Sports Champions: Begum Fazilatunnesa Mujib Hall.
- Inter-Hall Swimming Runner-Up: Shamsun Nahar Hall.
- Best Female Swimmer: Juwairiya Ferdous of Shamsun Nahar Hall.

The event provided an institutional platform for student participation in swimming and water polo. It also supported the development of aquatic sports within the university community.

5.3 Relevance to broader aquatic awareness

The inter-hall competitions contribute indirectly to SDG 14 by encouraging student engagement with aquatic activities and supporting water-related skills and awareness.

However, aquatic sports should not be treated as a direct measure of marine conservation or aquatic ecosystem protection. Their contribution is primarily educational and participatory.

Future programmes could strengthen this connection by integrating water safety education, aquatic biodiversity awareness, and environmental conservation messages into university sports and student engagement activities.

6. Pollution Prevention and Protection of Aquatic Ecosystems

6.1 Addressing land-based pollution through institutional environmental policy

Marine pollution is often associated with activities taking place directly in oceans and coastal areas. However, a significant share of aquatic pollution originates from land-based sources, including urban waste, drainage systems, chemical residues, and other forms of environmental contamination.

Universities can contribute to pollution prevention by regulating activities on their campuses and reducing the release of harmful materials into surrounding drainage networks.

In 2025, the University of Dhaka received national recognition for its environmental policy prohibiting fireworks, firecrackers, and sky lanterns during major celebrations.

6.2 National recognition for the prohibition of fireworks and sky lanterns

On 18 December 2025, the Ministry of Environment, Forest and Climate Change, together with the Department of Environment, presented the University of Dhaka's Vice-Chancellor with a commemorative crest and certificate of appreciation.

The recognition acknowledged the university's policy prohibiting sky lanterns, firecrackers, and fireworks during New Year's Eve celebrations.

The restriction was introduced in December 2024 and was recognized by the Ministry in December 2025.

The policy is relevant to aquatic ecosystem protection because fireworks and sky lanterns can leave behind chemical residues and physical waste. These materials may accumulate on land and potentially enter drainage systems through rainfall and surface runoff.

The university's prohibition therefore represents a preventive approach to reducing avoidable pollution and protecting the surrounding environment.

It also contributes to broader environmental protection objectives by limiting fire risks, noise pollution, and potential harm to birds and other wildlife.

6.3 Connecting campus environmental governance with SDG 14

The university's pollution-prevention policy demonstrates how institutional rules can contribute to wider environmental objectives.

Although the policy is not a direct marine conservation programme, it addresses a potential source of land-based pollution. It also reinforces the importance of considering the downstream environmental consequences of activities conducted within urban campuses.

The Ministry's recognition provides evidence of national acknowledgement of the university's environmental governance efforts.

Future reporting could strengthen this contribution by documenting the policy's continued implementation, compliance monitoring, quantities of waste prevented, and other measurable environmental outcomes.

7. Summary of Key SDG 14 Initiatives in 2025

The following table consolidates the main initiatives documented in the available official records.

Initiative	Main contribution to SDG 14
DU–Bangladesh Maritime University bilateral meeting	Expansion of opportunities for maritime research, academic cooperation, and scientific capacity building.
Inter-Hall Swimming and Water Polo Competitions 2024–2025	Student participation in aquatic sports and indirect promotion of water-related awareness.
Four campus water-body restoration plan	Planned restoration of freshwater ecosystems and associated drainage improvements.
Raeya Mobarak Memorial Scholarship announcement	Support for academic capacity building in soil, water, and environmental sciences.
Coastal disaster management partnership discussion with Central Queensland University	Proposed joint research and capacity building for vulnerable coastal areas.
National recognition for the fireworks and sky lantern prohibition	Recognition of pollution prevention and environmental governance measures.

8. Conclusion

In 2025, the University of Dhaka continued to strengthen its contribution to SDG 14 through academic collaboration, freshwater infrastructure management, pollution prevention, and engagement with aquatic activities.

The university's cooperation with Bangladesh Maritime University and Central Queensland University expanded opportunities for marine and coastal research. The announcement of the Raeya Mobarak Memorial Scholarship demonstrated an institutional effort to support academic capacity in soil, water, and environmental sciences.

At the operational level, maintenance of water supply pipelines, sanitation of storage tanks, and installation of drinking water filtration systems supported improved freshwater resource management. The proposed restoration of four campus water bodies and modernization of drainage infrastructure also created a foundation for longer-term aquatic ecosystem protection.

The national recognition for the prohibition of fireworks and sky lanterns further demonstrated the importance of institutional environmental policies in preventing pollution. Meanwhile, inter-hall swimming and water polo competitions supported student engagement with aquatic activities.

The next stage of progress should focus on translating these activities into measurable environmental outcomes. Regular water quality monitoring, effective wastewater management, implementation of water-body restoration projects, and stronger support for marine research will be important for strengthening the university's long-term contribution to aquatic ecosystem protection.

Through continued academic collaboration, responsible campus management, and evidence-based environmental governance, the University of Dhaka can further develop its role in advancing freshwater and marine sustainability in Bangladesh.