

American International University-Bangladesh

Sustainable Development Goals Report



SDG 17: PARTNERSHIPS FOR THE GOALS



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AIUB and SDG 14: Life Below Water – Sustainability Report (Impact Rankings Submission)

Introduction

American International University-Bangladesh (AIUB) demonstrates a strong commitment to **SDG 14: Life Below Water**, integrating marine and aquatic sustainability into its teaching, research, and campus operations. From cutting-edge faculty research on aquatic ecosystems to student-led environmental campaigns, AIUB actively contributes to the protection of underwater life aiub.edu. This report highlights AIUB's key initiatives – academic research projects, community outreach programs, strategic partnerships, and campus policies – that collectively advance marine conservation and water sustainability.

Academic and Research Initiatives

AIUB leverages its academic capacity to address marine and freshwater challenges through interdisciplinary research and innovation. Notable initiatives include:

- **Sustainable Aquaculture Technology:** AIUB engineers have developed a “*Smart Biofloc Fish Farming*” system that uses IoT sensors (for pH, TDS, temperature) and renewable energy to monitor water quality and fish growth in real-time aiub.edu. This project, led by Dr. Md. Saniat Rahman Zishan and team, integrates modern technology into aquaculture for healthier aquatic ecosystems and efficient resource use.
- **Marine Pollution and Robotics:** AIUB students in Computer Science have explored the use of drones, skimmers, and autonomous robots to clean up plastic waste from oceans and rivers. One student research paper evaluates how AI-powered aerial drones and aquatic robots can detect and collect marine debris, offering innovative solutions to the 11 million metric tons of plastic entering oceans annually aiub.edu. This work illustrates AIUB's hands-on approach to tackling marine pollution through robotics and AI.
- **Environmental Ethics & Water:** AIUB faculty are also connecting *arts and humanities* with marine sustainability. For example, a research publication titled “*Love as Water: Environmental Ethics in Ponyo and The Shape of Water*” analyzes popular films to discuss humanity's relationship with water and promote an ecocentric ethic aiub.edu. By examining cultural narratives, researchers like Mr. Shibaji Mridha highlight the importance of respecting aquatic life and ecosystems in our values and imagination.
- **SDG-Focused Innovation:** Many AIUB research projects explicitly align with sustainable development targets. A notable example is the study “*Embedded System Design to Attain Sustainable Development Goals*”, which showcases how technological innovation (e.g. sensor networks) can support environmental monitoring and resource management tied to SDGs aiub.edu aiub.edu. Likewise, in the publication “*COVID-19 and Sustainable Development Goals: Bangladesh Perspective*,” AIUB researchers evaluated pandemic impacts on environmental goals and observed that

reduced industrial activity during lockdown provided brief respite for air and water quality (a temporary improvement in SDG 14 metrics) aiub.edu. Such research underscores the interdependence of human activities and aquatic health, guiding policy for post-pandemic sustainable recovery.

These academic and research initiatives, spanning engineering, science, and the humanities, exemplify AIUB's multifaceted approach to marine and freshwater conservation. Faculty and students are actively contributing new knowledge and practical solutions to protect aquatic biodiversity, from Bangladesh's wetlands to the world's oceans.

Community Outreach and Awareness Initiatives

AIUB students from the Environment Club participate in an environmental awareness rally (August 2025), collaborating with local NGOs and other universities to promote a cleaner, quieter city aiub.edu.

Engaging the broader community is a cornerstone of AIUB's SDG 14 efforts. The **AIUB Environment Club (AEC)**, established in 2023, leads many of the university's outreach and awareness campaigns. With over 100 active student members from all faculties, AEC works to educate peers and the public on pressing environmental issues – including plastic pollution, water pollution, and aquatic ecosystem preservation aiub.edu. The club organizes a variety of activities such as seminars, rallies, tree plantation drives, and clean-up campaigns to encourage sustainable practices. Notably, AEC's programs emphasize reducing plastic use and preventing waste from entering waterways, aligning with the goal of protecting marine life aiub.edu.

AIUB regularly observes environmental days with inclusive events. For instance, on **World Environment Day 2024**, the Environment Club – supported by the Office of Student Affairs and the Department of Chemistry – hosted a day-long program on campus aiub.edu. Activities included distributing tree saplings, an expert seminar on pollution, and a student-faculty rally displaying placards about conservation aiub.edu. These events not only raise awareness about protecting land and water resources but also actively involve students in advocacy. Such hands-on participation helps instill a sense of responsibility toward local rivers, lakes, and the overall environment.

Beyond campus, AIUB students extend their impact to the wider community. Students and faculty volunteers have participated in citywide cleanup projects and awareness rallies to improve environmental conditions in Dhaka. In one recent example, AEC members joined forces with the charity “Quiet and Clean” and peers from other universities in a public **Noise Reduction Awareness** rally (August 2025) aiub.edu. While focused on noise pollution, the campaign's ethos of a “cleaner, more sustainable urban space” complements efforts to reduce pollution of all kinds – including the reduction of waste that often finds its way into drainage canals and rivers. Through such collaborations, AIUB's youth ambassadors help foster community consciousness about maintaining cleaner water and healthier ecosystems.

AIUB's outreach also encompasses educational drives on water and sanitation in vulnerable communities. Through initiatives like the **Dr. Anwarul Abedin Lecture Series** and associated community projects, students have engaged in dialogues on improving access to clean water (WASH) in underprivileged areas. By educating local residents on safe water practices and demonstrating simple technologies (for example, low-cost water filters or rainwater harvesting

techniques), AIUB reinforces the importance of clean waterways and healthy aquatic environments in the community. These outreach efforts illustrate how AIUB is nurturing socially responsible graduates who champion conservation beyond the campus – from cleaning up local lakeshores to educating the next generation about the value of life below water aiub.edu.

Partnerships and Collaborations

Effective sustainability action often requires partnership. AIUB actively collaborates with local and international organizations, as well as government agencies, to amplify its impact on SDG 14:

- **Knowledge Partnership with WaterAid:** In July 2023, AIUB hosted a special WASH-focused seminar as part of the Dr. Anwarul Abedin Lecture Series, featuring **Ms. Hasin Jahan**, Country Director of WaterAid Bangladesh aiub.edu. This collaboration with a leading international NGO enabled students and faculty to learn from real-world expertise on water conservation and sanitation. The WaterAid director showcased ICT-based solutions for clean water (e.g. smart water management apps, data-driven sanitation systems) and even launched a “WASH Innovation Contest” for AIUB participants to propose solutions for water and hygiene challenges aiub.edu aiub.edu. Such partnership not only provided a knowledge exchange platform but also spurred student innovation in support of SDG 6 and 14. It exemplifies how AIUB works with global non-profits to enhance education and action around water sustainability.
- **Collaboration on Wetland Conservation:** AIUB researchers engage with national and international environmental bodies to protect aquatic ecosystems in Bangladesh. For example, Dr. Mohammad Rafiqul Islam (AIUB faculty) has contributed research on the sustainable development of the **Haor wetlands** – a critical freshwater ecosystem in northeast Bangladesh aiub.edu. His work emphasizes eco-friendly solutions over traditional development trade-offs, aligning with initiatives by the Bangladesh Haor and Wetland Development Board and IUCN to conserve wetlands like Tanguar Haor (a Ramsar site) aiub.edu aiub.edu. By interfacing with government master plans and IUCN guidelines, AIUB’s academic expertise supports evidence-based policies for preserving aquatic biodiversity and livelihoods in wetland regions. This reflects a strong partnership between academia, government agencies, and conservation NGOs in pursuit of SDG 14.
- **Youth and NGO Alliances:** AIUB encourages its student clubs to partner with community organizations on environmental causes. A clear example is the “**Quiet and Clean**” initiative in which AIUB’s Environment Club teamed up with a local NGO (and students from other universities) for a communal environmental campaign aiub.edu. Similarly, AIUB students have worked with municipal authorities and NGOs in cleanup drives of neighborhoods and parks, indirectly benefiting nearby water bodies by removing plastic litter and waste. These alliances demonstrate AIUB’s openness to multi-stakeholder collaboration – uniting academia, civil society, and youth from various institutions to address pollution and promote sustainable urban living. Such cooperative efforts enhance the reach and effectiveness of awareness campaigns, from reducing noise and air pollution to ultimately curbing the runoff of trash into rivers.
- **Global Networks and Commitments:** At an institutional level, AIUB is an active member of international sustainability networks. The university is a signatory of the **SDG Accord**, pledging to share best practices globally and report on its progress toward the UN goals aiub.edu. AIUB’s leadership participates in global forums (e.g.

International Association of Universities conferences, Erasmus+ partnerships) to exchange knowledge on sustainability and climate action. These connections help AIUB benchmark its efforts against global standards and form partnerships for research and capacity building. By collaborating across borders – whether on sustainable tourism education or joint research for climate resilience – AIUB contributes to collective global action for protecting life below water. Its commitment to **“Partnerships for the Goals” (SDG 17)** strengthens its SDG 14 initiatives through shared expertise, resources, and visibility on the world stage.

Through these diverse partnerships, AIUB amplifies its impact on marine and water conservation. Working alongside NGOs, government bodies, and international peers allows the university to leverage external expertise and reach wider communities. It ensures that AIUB’s contributions to SDG 14 are not in isolation but part of a concerted effort with like-minded organizations to protect our planet’s precious water ecosystems.

Campus Operations and Policies (Waste & Water Management)

AIUB has also embedded sustainability into its campus operations and policies to minimize environmental harm to local water bodies. The university recognizes that leading by example in daily practices – from waste disposal to water usage – is crucial for preventing pollution runoff into rivers and wetlands. Key policies and actions include:

- **Waste Reduction and Plastic-Free Campus:** AIUB has implemented an effective waste management program aimed at reducing single-use plastics and promoting recycling. The university’s Climate Action Plan explicitly calls for replacing disposables with reusable alternatives and cutting down on single-use plastic consumption on campus aiub.edu. In practice, this means encouraging reusable bottles, cups, and bags, and providing segregated waste bins for recycling. AIUB’s student-led initiatives, like the **“Zero-Waste Product Design Contest”** (2025), further reinforce this culture aiub.edu. That contest saw students design innovative products from waste materials under the theme “Rethink Waste”, demonstrating creative ways to upcycle plastics and reduce trash. By fostering such a zero-waste mindset, AIUB not only decreases the plastic litter on campus but also prevents plastic debris from eventually washing into drains and waterways. The campus grounds are kept clean through regular drives, and hazardous waste (like e-waste or lab chemicals) is handled following strict protocols, ensuring no toxic leakage into the soil or water. Overall, these measures contribute to cleaner run-off and exemplify responsible consumption and production in line with SDG 12, which in turn supports marine life protection under SDG 14.
- **Water Conservation and Pollution Prevention:** AIUB has taken significant steps to conserve water and ensure that its campus operations do not pollute surrounding water bodies. Water-saving fixtures (low-flow taps, efficient toilets) and routine monitoring of water use have been installed to avoid wastage aiub.edu. The university tracks water consumption per person and raises awareness about water conservation among students and staff. Importantly, AIUB provides **free drinking water through purified fountains** across campus aiub.edu. This practice discourages the use of disposable plastic water bottles and guarantees access to clean, safe water for the campus community. By reducing reliance on bottled water, AIUB cuts down on plastic waste and the risk of plastic pollution in nearby canals. Furthermore, campus landscaping is

managed to minimize chemical runoff – organic fertilizers and integrated pest management are preferred to protect the quality of groundwater and any local surface water. AIUB’s engineering and science departments contribute expertise by periodically testing water quality on campus and in adjacent areas as part of student projects, ensuring that the university’s environmental footprint on water is well-managed. For example, the smart aquaculture research mentioned earlier also doubles as a learning platform for water quality monitoring techniques (using pH, TDS sensors, etc.), reflecting how technology is used on campus to maintain healthy water systems aiub.edu. Through conscientious water use and pollution controls, AIUB strives to prevent any harmful runoff, thereby safeguarding the lakes and rivers in the Dhaka region from contamination.

In summary, AIUB’s on-campus sustainability practices reinforce its SDG 14 commitment by creating a **“green and blue” campus – one that is green in energy and waste management, and protective of blue resources (water)**. Policies to curtail plastic and waste, alongside water conservation initiatives, ensure that the university’s immediate environment contributes positively to the broader ecosystem. By instilling these practices in its students, AIUB is grooming environmentally conscious citizens who will carry forward the mission of protecting life below water.

Conclusion

From pioneering research in aquatic technology to grass-roots activism and strong institutional policies, AIUB showcases a holistic dedication to **Life Below Water (SDG 14)**. The university’s faculty and students are advancing knowledge on marine sustainability, whether through designing robots to clean oceans or studying the ethics of water in society. Simultaneously, student clubs and volunteers are translating awareness into action – cleaning up communities, educating peers and the public, and advocating for pollution-free rivers and seas. AIUB’s partnerships with NGOs like WaterAid, involvement in national conservation efforts, and adherence to global accords underline that its commitment extends beyond campus boundaries, contributing to collective efforts in Bangladesh and internationally. Finally, by cultivating an eco-friendly campus that minimizes waste and conserves water, AIUB ensures it “walks the talk” in its own operations.

AIUB’s multi-dimensional approach to sustainability demonstrates measurable impact toward the targets of SDG 14, such as reducing marine pollution and supporting aquatic ecosystems. These concerted efforts not only enhance the **Times Higher Education Impact Ranking** performance but, more importantly, foster a culture of environmental stewardship within the AIUB community. As future leaders graduate from AIUB having engaged in these projects and values, they carry forward the knowledge and passion to protect life below water. AIUB stands as a model for how higher education institutions can drive positive change – through research, education, outreach, and example – ensuring that our rivers and oceans are cleaner and teeming with life for generations to come.