American International University-Bangladesh Sustainable Development Goals Report

SUSTAINABLE DEVELOPMENT GALS







































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AIUB's Contributions to SDG 13: Climate Action

American International University–Bangladesh (AIUB) demonstrates a strong commitment to **Sustainable Development Goal 13 (Climate Action)** through comprehensive initiatives in campus operations, academics, community engagement, and partnerships. The following report outlines AIUB's climate action efforts and outcomes from 2020 to 2024, structured in key areas for THE Impact Rankings submission.

On-Campus Environmental Sustainability

AIUB has integrated on-campus renewable energy solutions, such as solar photovoltaic canopies, to power facilities while providing shade and sustainable infrastructure <u>aiub.edu</u>.

- Energy Efficiency & Renewable Energy: AIUB has prioritized reducing its carbon footprint through energy-efficient infrastructure and clean energy adoption. The university's Climate Action Plan calls for using efficient appliances, LED lighting, and modern cooling systems, as well as investing in solar power on campus aiub.edu. AIUB joined the global Race to Zero campaign, pledging net-zero emissions and developing a Climate Action Task Force and strategy for a greener campus aiub.edu. Notably, solar photovoltaic panels have been installed on campus rooftops and canopies, supporting electricity needs and serving as hands-on learning labs aiub.edu. These measures, along with promoting energy-saving behavior, have led to measurable results AIUB's greenhouse gas emissions declined consistently from 2022 to 2024, affirming the effectiveness of its efficiency upgrades and renewable energy transition aiub.edu.
- Sustainable Transport: To address transportation emissions, AIUB encourages sustainable transport options. The university operates shuttle services for students and staff to reduce individual car use (public transport use is common among the campus community). AIUB is also exploring electric mobility solutions on campus. In 2024, engineering students and faculty developed a solar-powered electric vehicle, which was showcased by giving visitors a tour of the campus in an EV charged by on-site solar panels aiub.edu. This demonstration highlights AIUB's innovative approach to green transport and its commitment to future electric vehicle infrastructure. Bicycle use is welcomed on the green campus, with ample outdoor space and pathways, contributing to a cleaner, low-carbon environment.
- Green Buildings & Climate-Resilient Infrastructure: AIUB's purpose-built permanent campus (opened in 2017) was designed with sustainability in mind. Spread over a 13-acre site, the campus retains extensive green space and landscaping, making it "one of the picturesque green campuses of the country" aiub.edu. Modern architectural design maximizes natural light and ventilation in academic buildings, reducing energy demand. Climate resilience is considered in infrastructure for example, campus buildings are elevated above flood levels and use durable materials suitable for local weather extremes. In 2023, AIUB partnered with Bangladesh's Housing and Building Research Institute (HBRI) and an engineering university to promote sustainable building practices and research climate-resilient construction, aligning with SDG targets aiub.edu. While pursuing formal green building

- certifications (like LEED) is an ongoing exploration, the campus already serves as a living laboratory of sustainable design for students and visitors.
- Waste & Water Conservation: AIUB has implemented policies for waste reduction, recycling, and water efficiency as part of its environmental management. The university maintains a waste segregation system on campus – with designated bins and programs to recycle paper, plastic, and metal – and actively discourages single-use plastics. In fact, the theme of World Environment Day 2023 on campus was "Beat Plastic Pollution," reinforcing AIUB's stance on minimizing plastic waste aiub.edu. The university ensures safe disposal of hazardous waste (e.g. laboratory chemicals) through authorized handlers, and extends sustainability expectations to its suppliers to reduce packaging waste aiub.edu. On the water front, AIUB monitors water consumption per person and has installed water-saving fixtures (low-flow faucets, dual-flush toilets) to conserve water aiub.edu. Free drinking water fountains are available throughout campus to reduce bottled water usage aiub.edu. Although AIUB is exploring rainwater harvesting (a 2018 workshop with WaterAid jump-started campus discussions on this aiub.edu), the current focus is on efficient municipal water use and preventing wastage. These efforts collectively foster a culture of conservation on campus and contribute to SDG 13 by lowering resource depletion and emissions.

Climate-Focused Academic and Research Activities

- Climate in Curriculum and Courses: AIUB integrates sustainability and climate change education across its academic programs. Sustainability has become a compulsory component in all degree curricula since 2023, ensuring every student gains literacy in sustainable development aiub.edu. For instance, the Faculty of Engineering offers courses on renewable energy technologies, environmental engineering, and energy management. The Faculty of Business includes modules on sustainable business and climate risk, and the Faculty of Science features courses in environmental science and climate change. A standout program is the Master of Development Studies (MDS), which is explicitly designed to cover all SDGs – its curriculum trains graduates in strategies to achieve targets like climate action and resilience aiub.edu. Across faculties, numerous courses are mapped to SDG 13 outcomes, from climate policy in social science to green architecture design in engineering. AIUB also offers co-curricular seminars and field trips to reinforce classroom learning on climate issues. This curriculum integration aligns with AIUB's strategic plan to produce graduates equipped to address climate challenges in their careers aiub.edu.
- Research on Climate Mitigation and Adaptation: Research is a cornerstone of AIUB's climate action support. The university established the Center for Sustainable Energy Research (CSER) under the Dr. Anwarul Abedin Institute of Innovation, dedicated to researching renewable energy and climate change solutions aiub.edu. Faculty members have been at the forefront of climate-related research, publishing studies on solar photovoltaics, energy efficiency, and climate adaptation. Recent publications include research on improving photovoltaic panel performance and forecasting solar power generation with machine learning aiub.edu contributions that have practical implications for expanding renewable energy use in Bangladesh. AIUB researchers have also explored climate adaptation in agriculture; for example, in 2024 the university co-initiated a multi-stakeholder research project on solar-powered irrigation for climate-smart agriculture, partnering with the World Bank and Bangladesh Agricultural Development Corp. to develop tools for diffusing solar

irrigation technology <u>aiub.edu</u>. Such projects address both mitigation (reducing reliance on fossil-fueled pumps) and adaptation (building agricultural resilience to climate impacts). Moreover, AIUB faculty secured external grants for sustainability research (e.g. a BAS-USDA funded project on sustainable aquaculture, addressing climate-linked food security challenges) <u>aiub.edu</u>. Undergraduate and graduate students are encouraged to join research teams or pursue thesis projects on climate action topics, from designing low-cost solar devices to analyzing climate data trends. This vibrant research culture not only advances SDG 13 but also feeds back into enriched teaching content.

- Conferences, Seminars and Publications: AIUB actively organizes and hosts academic events to disseminate climate knowledge. The university holds at least two international conferences per year focused on sustainable development aiub.edu. Notably, in January 2022 AIUB's Faculty of Arts and Social Sciences hosted the "International Conference on Sustainable Development: Opportunities and Challenges," where 82 research papers were presented – many addressing climate change mitigation, renewable energy, and environmental policy aiub.edu. AIUB also leverages its Dr. Anwarul Abedin Lecture Series to invite experts and practitioners to speak on climate-related issues; for example, talks on clean water and sanitation through ICT (WASH solutions) aiub.edu and future power grid controllers for renewable integration have been delivered to students and faculty. Throughout 2020-2024, numerous seminars and workshops honed in on climate action themes. The AIUB **IEEE Student Branch** celebrated 2023's Power & Energy Society Day with a webinar on sustainable power systems, and the Engineering Students Association (ESAB) organized a webinar on "Solar PV Energy Towards Carbon Neutrality by 2050" to educate the community on solar technology aiub.edu. In November 2023, AIUB hosted a national workshop on "Net-Metered Rooftop Solar in Bangladesh," in collaboration with the government's SREDA, to promote policy and technical knowledge exchange on solar adoption aiub.edu. These events, alongside AIUB faculty's regular contributions to journals and conferences on climate science, ensure that the university not only generates new knowledge but also shares it widely – multiplying its impact on climate action.
- Experiential Learning & Student Initiatives: AIUB emphasizes hands-on learning experiences in climate action. Engineering students work on capstone projects building solar-powered devices (from solar battery chargers to a solar-powered electric tiller for farms) which have been prototyped in the campus innovation labs aiub.edu. Business students engage in case studies on sustainable supply chains and carbon accounting. The university encourages interdisciplinary climate projects through competitions and the AIUB Research for Development (AIUBReD) Club, where students from all faculties collaborate on solutions (for example, a recent student project turned waste plastics into filament for 3D printing merging recycling with innovation aiub.edu). In addition, AIUB has introduced experiential learning challenges such as energy-saving competitions in dormitories and a proposed community garden initiative (allowing students to practice urban farming and learn about carbon sequestration firsthand) aiub.edu. Through these academic and research endeavors, AIUB is cultivating a new generation of climate-conscious leaders and problem-solvers, directly contributing to the targets of SDG 13.

Community Engagement and Awareness

AIUB faculty, students, and members of the Environment Club commemorate World Environment Day 2023 on campus, promoting the global "Beat Plastic Pollution" campaign <u>aiub.edu</u>.

- Student Environmental Clubs and Activities: The AIUB Environment Club (AEC), founded in 2023, is a student-led organization driving much of the campus's climate awareness efforts. With over 100 active members from all faculties, AEC's mission is to "protect and preserve the environment for future generations" and spread awareness about climate change among students aiub.edu aiub.edu. The club organizes a variety of activities – ranging from environmental seminars and literacy campaigns to rallies and tree planting drives aiub.edu. Key issues addressed by AEC include plastic pollution, waste reduction, air and water quality, deforestation, and recycling practices aiub.edu. In its inaugural year, the club made a splash by celebrating World Environment Day 2023 on campus. The event included a ceremonial tree planting by AIUB's Pro-Vice Chancellor, followed by a student rally with placards advocating eco-friendly habits aiub.edu aiub.edu. The club distributed hundreds of tree saplings to students as part of the day's activities, underlining the importance of reforestation. The campus was also decorated with informative posters and tips on sustainable living, with special focus on curbing single-use plastics in line with the WED 2023 theme aiub.edu. Beyond single events, AEC runs year-round campaigns – for example, poster and social media campaigns urging the AIUB community to adopt the "3R" principles (Reduce, Reuse, Recycle) and to participate in Earth Hour and Earth Day actions. Another noteworthy student initiative is the AIUB Social Welfare Club - Shomoy, which while broadly focused on community service, has partnered with the Environment Club on neighborhood clean-up activities and donated plants to city schools. Through enthusiastic student engagement, AIUB ensures that climate action and environmental stewardship are part of campus culture.
- Campus Campaigns and Green Events: AIUB regularly hosts and supports campuswide events that build environmental awareness and encourage sustainable habits among students and staff. In addition to World Environment Day, the university celebrates occasions like Earth Day and National Tree Plantation Day with interactive activities. During Earth Day observances, AIUB often sets up exhibition booths showcasing student projects on renewable energy and climate adaptation, and encourages a "car-free campus day" to cut emissions. The Office of Student Affairs, together with AEC, organizes tree plantation ceremonies each year - hundreds of saplings have been planted on university grounds and surrounding areas from 2020 to 2024 as a result. AIUB also engages its community through competitions and challenges: for instance, a "Green Idea Challenge" in 2022 invited students to propose solutions for campus sustainability (the winning idea led to installing additional bicycle racks to promote cycling). Environmental quizzes, documentary screenings, and debate competitions on climate change are other popular events that AIUB arranges to keep climate action in the conversation beyond the classroom. These campaigns not only raise awareness but also empower students with knowledge on how everyday actions (like saving electricity, reducing plastic use, or planting trees) contribute to larger climate goals.
- Outreach to Local Community and Schools: Embracing its responsibility to the broader community, AIUB extends its climate action efforts beyond campus through outreach and service. Faculty and student volunteers have conducted workshops at

nearby schools on topics such as climate change basics, waste recycling, and clean energy, often using interactive demonstrations (e.g. small solar toys or water filtration models) to engage younger students. In September 2025, building on groundwork laid in previous years, the AIUB Environment Club launched a two-day "Roots of Tomorrow" tree plantation drive across local schools and colleges aiub.edu. During this drive – which covered institutions in Dhaka and Gazipur – AIUB students teamed up with school eco-clubs to plant saplings of native trees (like neem, rain tree, and mango) and held mini awareness sessions on the importance of urban green spaces for climate mitigation aiub.edu. By 2024, plans were already in motion for such collaborative community planting events, exemplifying AIUB's commitment to engage youth outside its campus. AIUB also partners with NGOs for community-oriented projects; for example, the university has worked with organizations like WaterAid Bangladesh to promote rainwater harvesting techniques in water-scarce urban neighborhoods (through a 2018 workshop that continued to inform community trainings in the following years). Furthermore, AIUB's outreach includes public seminars open to local residents – topics have ranged from air pollution in Dhaka to climate-resilient public health. During the COVID-19 pandemic, AIUB's Engineering faculty developed a solar-powered disinfection chamber and shared the design freely with local hospitals aiub.edu, demonstrating how innovation at AIUB can directly benefit society in times of need. Whether through planting trees, sharing knowledge, or volunteering for clean-ups, AIUB's students and staff serve as ambassadors of climate action in the community, amplifying the impact of SDG 13 at the grassroots level.

External Collaboration for Climate Action

AIUB hosts the "Youthful Roots: Planting Harmony for Tomorrow" event (June 13, 2024) in partnership with NGOs and industry, as part of Green Fest 2023 – inspiring youth engagement in tree planting for climate action <u>aiub.edu</u>.

Partnerships with Government Agencies: AIUB actively collaborates with government bodies in Bangladesh to advance climate resilience and sustainable practices. The university has a close working relationship with the Sustainable & Renewable Energy Development Authority (SREDA). In 2023, AIUB hosted a SREDA-organized workshop on promoting net-metered rooftop solar adoption nationwide, bringing policymakers, industry, and academia together on campus aiub.edu. Government officials from the Department of Environment (DoE) also frequently engage with AIUB – for instance, AIUB convened a seminar with DoE and the Japan International Cooperation Agency (JICA) to discuss sustainable industrial practices and emissions reduction, positioning the university as a neutral platform for policy dialogue on climate action aiub.edu. Such cross-sector dialogues (aligning with SDG 17) often highlight SDG 13 goals and have led to policy recommendations (e.g. improving factory waste management to cut greenhouse gases) that AIUB contributes to government consultations. Additionally, AIUB faculty serve as expert members in national forums; a professor from AIUB's engineering faculty has advised the Ministry of Power on integrating solar energy in rural electrification, reflecting AIUB's growing role in climate policy development. Another significant collaboration is with the Bangladesh Agricultural Development Corporation (BADC): In February 2024, AIUB co-hosted a policy engagement workshop on climate-smart agriculture with

- BADC and international partners, focusing on scaling solar irrigation solutions for farmers <u>aiub.edu</u>. By partnering with government and regulatory agencies, AIUB helps shape and implement climate strategies at a national level whether it's renewable energy training, disaster preparedness planning, or environmental education in public curricula.
- NGOs and International Organizations: AIUB extends its impact through robust collaborations with NGOs and global organizations working on climate and sustainability. A prime example is AIUB's partnership with Grameen Shakti, a leading Bangladeshi clean energy NGO. Together they have conducted workshops to raise awareness on climate change and renewable energy, empowering students and community members to adopt sustainable solutions aiub.edu. This collaboration underpins both SDG 7 (clean energy) and SDG 13, as Grameen Shakti brings practical solar home system expertise while AIUB provides the academic platform. AIUB is also an institutional partner of the World Bank's WePower Network (Women in Power Sector Network South Asia), through which it promotes gender-inclusive capacity building in renewable energy – an effort that indirectly supports climate action by expanding the skilled workforce in the clean energy sector aiub.edu. On the international front, AIUB has joined the United Nations SDG Accord as a signatory, committing the university to share progress and collaborate globally on sustainable development aiub.edu. AIUB also proudly committed to the UNFCCC Race to Zero campaign, connecting with universities worldwide to achieve net-zero emissions by 2050 aiub.edu. These international affiliations enhance knowledge exchange and keep AIUB aligned with global best practices in campus carbon management and climate curriculum. In June 2024, AIUB hosted "Youthful Roots: Planting Harmony for Tomorrow," a flagship event of Green Fest 2023 initiated by the NGO Women's Federation for World Peace-Bangladesh (WFWP-BD) and sponsored by industry partner MGI aiub.edu. The event saw AIUB welcome diplomats (the Ambassador of Bhutan), NGO leaders, and youth representatives to campus, where teams of students committed to "mothering" newly planted trees over time aiub.edu. This partnershipdriven campaign aimed to create "Youth Green Leaders" and was a model multistakeholder initiative for climate awareness aiub.edu. By engaging NGOs like WFWP-BD and global organizations, AIUB amplifies its outreach and shares the load in tackling climate issues - from community tree plantings to research on climate adaptation.
- Participation in Climate Policy & Networks: AIUB's leadership and faculty actively participate in climate policy dialogues and networks, further extending the university's influence on SDG 13. The university often acts as a convener of multi-stakeholder dialogues, as seen in 2024 when it brought together academia, government, and NGOs in events on topics like climate-smart technology in agriculture and wastewater recycling for industries aiub.edu aiub.edu. Such events contribute to policy development by generating recommendations (e.g. incentives for solar irrigation or improved regulations on industrial emissions) which AIUB shares with relevant authorities. AIUB's Vice Chancellor and sustainability team also engage in international forums – for example, AIUB representatives presented in the Times Higher Education (THE) World Academic Summit's panel on university climate action in 2023 (discussing the integration of climate resilience in institutional strategy). Moreover, AIUB is a member of the Global University Partnership on Environment for Sustainability (GUPES) and attends the UN University's Higher Education Sustainability Initiative meetings, staying connected to global policy trends. Locally, AIUB maintains relationships with regional NGOs focused on disaster preparedness;

the university has collaborated with the Bangladesh Red Crescent Society on campus disaster drills and climate risk awareness, helping build community resilience to extreme weather events. By actively networking and sharing its experiences through these channels, AIUB not only learns from others but also positions itself as a **thought leader** in how universities can drive climate action. This spirit of collaboration and dialogue reinforces AIUB's commitment to SDG 17 (Partnerships for the Goals) while substantially advancing SDG 13 through collective action.

In summary, AIUB's multifaceted approach to SDG 13 spans greening its campus operations, infusing climate topics into education and research, mobilizing its student body and community for environmental stewardship, and partnering widely to influence broader climate initiatives. The period 2020–2024 has seen AIUB reduce its carbon emissions, produce graduates versed in sustainability, and foster innovation and awareness that reach well beyond the campus gates. These efforts underscore AIUB's role as a responsible higher education institution driving climate action in Bangladesh and contributing to global sustainability goals aiub.edu aiub.edu. AIUB will continue to build on these successes, striving for greater impact through continuous improvement, stakeholder engagement, and by serving as a model green university in the years leading up to 2030.