

Report on SDG 13

Progress Towards Climate Action



**Take urgent action
to combat
climate change
and its impacts**

Daffodil International University



August 2023

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SDG 13:

Sustainable Development Goal 13 is to limit and adapt to climate change. It is one of 17 Sustainable Development Goals established by the United Nations General Assembly in 2015. The official mission statement of this goal is to "Take urgent action to combat climate change and its impacts".

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DIU's Contribution and Progress:

Signatory to SDG Accord	Yes
Reported to SDG Accord	Yes
Race to Zero Commitment	Member
Sustainable Development Solutions Network	Member
Established Academic Department	Department of Environmental Science & Disaster Management
Climate Action Strategy	Implementing
Climate change related projects	2 (1 completed & 1 in progress)

Initiatives Towards Ensuring Less Energy Usage and Alternative Source of Sustainable Energy

Energy efficient building at DIU



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Policy strategy for reducing carbon emission

DIU has been following a policy strategy for reducing carbon emission on campus along with a net zero emission target.

<https://sustainability4d.daffodilvarsity.edu.bd/environmental-sustainability-strategy>

DIU's Contribution to the "Development of a Solar Based Electricity Model for Public University of Bangladesh and its advocacy for Solar PV Electricity Promotion Research Project"



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The team of EEE Department of DIU successfully conducted the inaugural session of "Development of a Solar Based Electricity Model for Public University of Bangladesh and its advocacy for Solar PV Electricity Promotion Research Project", organized by the University Grants Commission of Bangladesh (UGC) Auditorium where Prof Dr. Mohammed Alamgir, Chairman, UGC was the chief guest and Prof Dr. M Shamsul Alam, Advisor, Consumers Association of Bangladesh (CAB) and Dean, Faculty of Engineering, DIU Chaired the session. The EEE team, Mohammad Shihab, Nusrat Chowdhury, Tasmia Baten, Kanij Ahmad, Intekhab Alam and Sampad Ghosh has been working on the project for Development of a Solar Based Electricity Model for Public University of Bangladesh.

Collaboration with Pacific Solar for ensuring full solar energy-based campus



An MoU has been signed between "Pacific Solar" and DIU on OPEX based solar system for DIU. Under the agreement the Pacific Solar is going to install "3 Mega watt" solar system at DIU campus.

An OPEX solar system is a solar energy setup where a third party owns and maintains the solar panels, and the property owner pays for the electricity generated at an agreed rate, reducing upfront costs and maintenance responsibilities.

Inauguration of the Renewable Energy Research Laboratory and Training Center

A momentous occasion unfolded on June 3, 2023, as Mr. Nasrul Hamid, MP, Minister of Power, Energy, and Mineral Resources, GoB inaugurated the Renewable Energy Research Laboratory and Training Center of Daffodil International University. This state-of-the-art facility is set to drive innovation and research in renewable energy technologies, enriching the educational experience and advancing sustainable solutions for the community and beyond.

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At inaugural ceremony of "Solar Electricity Laboratory and Training Centre" Honorable State Minister, Ministry of Power, Energy & Mineral Resources, Mr. Nasrul Hamid, MP was present as the Chief Guest. Mr. Nahim Razzaq, MP Convenor of Climate Parliament Bangladesh and Member of the Parliamentary Standing Committee on Ministry of Foreign Affairs and honorable Vice-Chancellor, Daffodil International University, Professor Dr. M Lutfar Rahman joined as special guest.

Collaboration with Sustainable and Renewable Energy Development Authority" (SREDA) in Bangladesh

Solar net metering is a billing arrangement that allows solar panel owners to receive credit for the excess electricity their panels generate and feed back into the grid. This credit can offset the electricity they draw from the grid when their panels aren't producing enough power, effectively reducing their overall energy costs.



A brief workshop organized by EEE was conducted by "Sustainable and Renewable Energy Development Authority" (SREDA) in Bangladesh. SREDA is a government agency responsible for promoting and regulating renewable energy initiatives and projects in Bangladesh. It aims to facilitate the development and utilization of sustainable and renewable energy sources to meet the country's growing energy needs while reducing environmental impacts.

Free bicycle for on campus movement

Daffodil International University's new eco-friendly initiative (free bicycle for on campus movement), supported by PRAN-RFL Group, promotes bicycles as pollution-free transportation.

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Electric Cars in Campus

DIU has a good number of electric cars to ensure environment-friendly movement on campus by its stakeholders with zero carbon emission. It has a charging station for electric vehicles. The electric cars operate around the campus during the entire day for on campus movement as fuel-based vehicles are prohibited to enter the campus.



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Contributions to Knowledge:

The researchers of Daffodil International University conducted research and subsequently published the research results in reputed journals that contributed to the knowledge domain of SDG-13. Below is a highlight of such contribution:

SL	Article Title
1	Global Advancements and Current Challenges of Electric Vehicle Batteries and Their Prospects: A Comprehensive Review
2	Understanding the socio-economic impacts of climate change on riparian communities in Bangladesh
3	Electric Vehicle-to-Grid (V2G) Technologies: Impact on the Power Grid and Battery
4	The impacts of fuel exports on sustainable economic growth: The importance of controlling environmental pollution in Saudi Arabia
5	Synthesis of biodiesel from <i>Carthamus tinctorius</i> L. oil using TiO ₂ nanoparticles as a catalyst
6	Impact of climate change on agricultural production; Issues, challenges, and opportunities in Asia
7	Have international remittance inflows degraded environmental quality? A carbon emission mitigation analysis for Ghana
8	Pathways to decarbonization in India: the role of environmentally friendly tourism development
9	A review of the global climate change impacts, adaptation, and sustainable mitigation measures
10	Pathways towards environmental sustainability: exploring the influence of aggregate domestic consumption spending on carbon dioxide emissions in Pakistan
11	Environmental Performance, Corporate Governance and Financial Performance of Chinese Heavy Polluted Industries
12	Challenges for Implementing Environmental Management Plans in Construction Projects: The Case of Malaysia
13	Socioeconomics determinants of household carbon footprint in Iskandar Malaysia
14	Farmers' livelihood and adaptive capacity in the face of climate vulnerability
15	Do economic policy uncertainty and geopolitical risk surge CO ₂ emissions? New insights from panel quantile regression approach
16	Investigating the Environmental Kuznets Curve hypothesis amidst geopolitical risk: Global evidence using bootstrap ARDL approach
17	The Mediation Effect of Carbon Accounting in Relation to Carbon Risk Management and Carbon

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	Performance of Malaysian Companies
18	Climate change and COVID-19: shared challenges, divergent perspectives, and proposed collaborative solutions
19	A Cost-Effective IoT Device for Protecting People from the Dangers of Environmental Risk in Bangladesh
20	Analysis of Flood Risk Prediction Using Different Machine Learning Classifiers: A Study of Predicting Flood Risk in Rural Areas, Bangladesh
21	The panorama of corporate environmental sustainability and green values: evidence of Bangladesh
22	Does Globalization Trigger an Ecological Footprint? A Time Series Analysis of Bangladesh
23	Climate Change and Mitigation in Bangladesh: Vulnerability in Urban Locations
24	Influences of Aqueous Nanofluid Emulsion on Diesel Engine Performance, Combustion, and Emission: IoT (Emission Monitoring System)
25	INVESTIGATING THE IMPACT OF RE CONSUMPTION ON CO2 EMISSIONS: EVIDENCE FROM THE SAARC COUNTRIES
26	Dynamic linkages between globalization, human capital, and carbon dioxide emissions: empirical evidence from developing economies
27	Nexus of Stakeholder Integration, Green Investment, Green Technology Adoption and Environmental Sustainability Practices: Evidence from Bangladesh Textile SMEs

Activities and Events:

Dr. Mahfuza Parveen Joins Commonwealth Futures Climate Research Cohort as Mentor



Dr. Mahfuza Parveen, an Associate Professor in DIU's Department of Environmental Science and Disaster Management (ESDM), has been appointed as a mentor in the Commonwealth Futures Climate Research Cohort 23-24. This program, aligned with SDG 13 (Climate Action), focuses on early career researcher development, climate action, and research co-creation. Dr. Parveen will guide and support fellows throughout a 12-month training program, facilitating climate research collaboration and networking. Her role as a mentor highlights her commitment to climate research and nurturing the next generation of climate researchers, contributing to climate action and sustainable development.

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Colloquium on Sustainable Environment and Low Carbon Future

DIU's ESDM department, in collaboration with HRDI, organized a colloquium addressing sustainability, energy, groundwater, and low carbon options in Bangladesh. The event aligns with SDGs 7 and 13, focusing on clean energy and climate action. Prof. Shamsuzzaman Farooq chaired the session, and it provided a platform for insightful discussions among faculty and students at DIU, fostering a more environmentally responsible community.



World Environment Day Celebration at Daffodil International University

On June 5th, the world observes World Environment Day, the Department of Environmental Science and Disaster Management at Daffodil International University, located in Daffodil Smart City, Savar, organized a series of events, including rallies, tree planting initiatives, and discussion sessions. These activities underscore the university's commitment to raising awareness and playing an active role in safeguarding the environment.



Go Green: Cultivating Sustainability with DIU's Tourism and Hospitality Students

Daffodil International University's Department of Tourism and Hospitality Management organized the "Go Green" event on May 30, 2023, as part of their Sustainable Tourism course. Students from different batches participated under the guidance of Ms.

Fairooze Waziha, their course instructor. The event focused on tree planting, introducing various tree species, and aligning with the United Nations' Sustainable Development Goals (SDGs) to promote environmental conservation and responsible tourism practices. This initiative represents a collective effort toward a greener and more sustainable world.



Sustainable Environment Colloquium: Focus on Bangladesh

Daffodil International University (DIU) is hosting a colloquium on January 16, 2023, to address sustainable environmental concerns in Bangladesh. This event features experts discussing energy and groundwater sustainability, aligning with Sustainable Development Goals 6 and 7. Renowned speakers from international institutions will share insights, contributing to environmental awareness and collaboration in Bangladesh.

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Addressing Flooding Challenges: A Comparative Seminar on Climate Change Impact in Bangladesh and Australia



The Department of Environmental Science and Disaster Management (ESDM) and The Department of Real Estate (DRE) collaboratively organized a seminar focusing on the "Impact of Climate Change on Flooding" in Bangladesh and Australia. The event aimed to explore solutions for mitigating flooding issues in Bangladesh, a riverine country facing climate change challenges. The keynote speaker, Professor Dr. Ataur Rahman from Western Sydney University, Australia, shared valuable insights, emphasizing the importance of global cooperation and sustainable practices in addressing climate

change-related flooding, aligning with the United Nations Sustainable Development Goals (SDGs).

Sustainable Agriculture for Empowering Entrepreneurs

The "Daffodil Agro Project," located in Gozaria, Munshiganj, is a sustainable agricultural initiative managed by Daffodil International University's Department of Nutrition and Food Engineering and Department of Innovation and Entrepreneurship. It focuses on cultivating organic fruits sourced from the Germplasm Center of Bangladesh Agricultural University. Recently, it hosted faculty members from Mykolas Romeris University, Lithuania, as part of the EU's Erasmus Scholarship program. The project provides DIU students with opportunities for practical research, low-cost organic food production, and marketing, aligning with the United Nations Sustainable Development Goals (SDGs) and fostering entrepreneurship skills.

