

University of Liberal Arts Bangladesh

Climate Action Policy

7/31/2023

University of Liberal Arts Bangladesh

Climate Action Policy

The University of Liberal Arts Bangladesh (ULAB) is an institution devoted to developing young minds to their fullest potential through the free and creative pursuit of knowledge. We are firmly committed to helping young men and women to become responsible and caring citizens of their nations and the world. ULAB Graduates are expected to think critically and communicate effectively. They will be technologically sophisticated and globally aware. They will be set free to explore, to create, to challenge. Imbued deeply with the principles of freedom, creativity, and service, they will become thoughtful, productive members of society, and capable of meeting challenges of the new century.

ULAB Climate Action Policy advances the vision of ULAB and its entire team in actualizing institutional sustainability in all its activities. Through its various centers, engagement initiatives, governing committees ULAB aims to become a leader for sustainability in Bangladesh. Through the Climate Action Policy ULAB aims to lead university efforts to enable pathways to achieve net zero carbon through its focus on renewable energy, circular economy in waste and food, smart resource use through the use of smart technologies, promoting ecological balance and hence inspiring a resilient, inclusive and sustainable future.

Climate Goals

Goal: The University of Liberal Arts Bangladesh attempts to decrease greenhouse gas emissions by the year 2070 in line with global climate efforts. Initiating with a transformative path towards sustainability, ULAB is committed to function as a leader and a light of hope for organizations committed to a more sustainable and resilient future.

1. Targets:

- By 2030: 10% reduction of GHG emissions from the 2022 baseline.
- By 2050: Reduce GHG emissions by 15% from the 2022 baseline..
- By 2070: Reducing GHG emissions by 25% from the 2022 baseline.

2. Strategies:

- Increase Renewable Energy Adoption: Apply renewable energy sources including solar, wind, and biomass to all activities.
- Enhance Energy Efficiency: Improve energy saving in buildings and facilities by implementing cutting-edge technology and intelligent systems.
-

- Sustainable Campus Development: To reduce energy usage, apply eco-friendly design ideas to upcoming projects.
- Implement Waste Reduction: To reduce GHG emissions, promote recycling and organic waste composting.
- Invest in Carbon Offsetting: In order to absorb carbon and offset remaining emissions, support nature-based alternatives like reforestation and afforestation programs.
- Promote Behavioral Change: Encourage ethical behavior to cut back on carbon footprints and include the neighborhood in sustainability projects.
- Support Research and Innovation: Encourage innovation for a sustainable future by making a contribution to clean energy and climate solutions.

3. Impact:By committing to these actions, The University of Liberal Arts Bangladesh will take the lead in addressing climate change, encouraging other businesses and promoting a more resilient and sustainable future for future generations.

Built Environment Goals

Goal: The University of Liberal Arts Bangladesh will promote responsible construction practices ensuring the achievement of LEED (Leadership in Energy and Environmental Design) certification to new buildings and major modifications. The goal is to create a greener, more sustainable, and a healthier environment that contributes to a low-carbon and sustainable future.

1. Targets:

- By 2030: Apply for LEED certification implementation to all new constructions and major modifications.
- By 2050: Increase the LEED certification implementation to all new constructions and major modifications.

2. Strategies:

- Green Building Design: Green building design refers to the use of eco-friendly design principles in all new construction and significant renovation projects.
- Energy Efficiency: Energy efficiency is the adaptation of energy-saving technology and equipment and accessories while minimizing their negative effects on the environment.
- Sustainable Materials: Promote the use of locally sourced and sustainable building materials to reduce your impact on the environment.

- Water Conservation: ULAB will reduce water usage in buildings by monitoring and implementing water-saving technology (sensor-based water taps) and systems.
- Indoor Environmental Quality: ULAB will focus on fostering a healthy and comfortable indoor environment through effective ventilation and air quality control within all its campus through the use of air quality monitors.
- Knowledge exchange: To encourage widespread use of sustainable building techniques, ULAB expects to share best practices and success stories with other universities in Bangladesh.

3. Impact: The University of Liberal Arts Bangladesh will encourage a dramatic shift toward sustainable construction methods by pursuing these objectives and plans, resulting in built environments that are greener, healthier, and more resource-efficient. This dedication will set an example for the sector, hastening the move toward a more sustainable future and supporting larger international efforts to address climate change.

Energy Goals

Goal: The University of Liberal Arts Bangladesh aims to reduce energy usage by 2.5% annually, which will result in a significant drop by 2040. By promoting energy efficiency (using energy saving equipment/accessories and technology) and accelerating the switch to clean renewable energy sources integration by 2050, the ULAB hopes to set an example for sustainable energy practices and make a positive impact on the environment.

1. Targets:

- By 2030: 10% reduction in energy usage from the baseline.
- By 2050: 15% reduction in energy usage from the baseline.
- By 2070: Reach at least 25% reduction in energy usage from the baseline.

2. Strategies:

- Smart Technology Integration: Integrate smart technology to reduce energy usage in buildings and facilities by implementing cutting-edge energy management systems and IoT gadgets.
- Sustainable Infrastructure: Infrastructure that is environmentally friendly and uses energy-saving techniques is known as sustainable infrastructure.

- Behavioral Energy Conservation: ULAB aims to engage stakeholders through awareness campaigns to encourage behavioral energy conservation among staff, students, and the community.
- Data-Driven Decision Making: Use data analytics to find possibilities to save energy and monitor your progress toward efficiency targets.
- Energy audits and benchmarking: To find areas for improvement, ULAB will undertake routine energy audits and compare performance to industry norms.
- Collaboration with Industry Experts: ULAB aims to establish alliances with energy experts and business pioneers to investigate cutting-edge solutions and best practices.

3. Impact: The University of Liberal Arts Bangladesh's aim of improving energy efficiency will have a favorable impact on the community's energy consumption habits as well as significantly reduce greenhouse gas emissions and associated costs. With the ultimate goal of switching to clean renewable energy the University will serve as a driving force in sustainable energy practices and inspire and pave the path for a clean energy future, further demonstrating its dedication to a greener and more resilient world.

Food Goals

1. Goal: The University of Liberal Arts Bangladesh is committed to transforming food practices on campus by 2030, striving to achieve at least a 25% increase in sustainable food purchases made by campus foodservice providers.

2. Targets:

- By 2030, ULAB aims to achieve sustainable food purchases to a minimum of 25%, promoting environmentally friendly and socially responsible food choices for all.

3. Strategies:

- Local Sourcing: ULAB collaborates with nearby farmers and vendors to get fresh, in-season fruits and vegetables. This cuts down the transportation emissions and boosts the local economy.
- Promoting soil health, biodiversity, and carbon sequestration through organic and regenerative farming, you should support and buy food that has been cultivated in these ways. Through the GED 228 course: Organic/Sustainable Farming, ULAB

provides students with a plot of land to practice organic farming techniques and the importance of soil health, biodiversity and carbon sequestration.

- Plant-Based Options: ULAB is committed to providing delectable and nourishing plant-based menu items to promote a change to more environmentally and sustainably compatible diets. Through various cafeterias within the university campus ULAB ensures the availability of healthy affordable plants based options for all its students, faculty and staff.
- ULAB is committed to reducing food waste by putting in place activities like composting and food recovery to lessen the environmental effect and combat food poverty.
- Education and Awareness: Through various educational programs ULAB informs faculty, staff, and students about the value of sustainable food options and their beneficial effects on the environment.
- Additionally ULAB takes into account moral considerations into the sourcing of food to ensure fair labor practices.

4. Impact: By hitting these benchmarks, the University of Liberal Arts Bangladesh will inspire a radical change in campus dining policies, supporting a food system that nourishes both people and the environment and promoting a healthy planet. Our dedication to sustainability goes beyond the walls of the classroom, establishing a stellar example for other organizations and fostering a culture of thoughtful and responsible eating choices for a better, greener future.

Land Use Goals

Goal: The University of Liberal Arts Bangladesh aspires to integrate resource conservation and environmental stewardship into every new land use project, exemplifying sustainable practices and promoting ecological balance.

Status:

ULAB campus in Mohammadpur is built keeping in mind the local climatic conditions and without disturbing the local landscape. Bangladesh has a hot and humid climate. The ULAB campus was constructed taking into account the local landscape and climatic conditions.

- A fundamental element of the building is the spatial openness to facilitate natural cross-ventilation, eliminating the use of air conditioning in the corridors and the use of lights during the day.
- The entire building, including the ceilings, is made of locally produced ceramic bricks. The walls are thick cavity walls that reduce thermal conductivity and the windows of the

teaching wings are proportioned in a balanced way, taking into account the reduction of solar heat gain.

- Circular skylights in the deep circulation zones provide additional lighting and allow hot air to escape upwards.
- The roof is covered with a thermal mass of earth and green which also has a positive effect on the internal climate.
- The plants that hang down from the roof and penetrate the circular skylights like green lampshades are as much an integral part of the building as the screens of overflowing greenery that protect stairways and semi-open gathering areas from driving rain.
- The green shimmering in the dimmed light contrasts with the bright red of the brick and immerses the building in a cheerful stimulating atmosphere.
- ULAB campus also boasts a rich and local array of trees contributing to the biodiversity of the university local landscape.

Figure 1: ULAB Campus below



Targets:

- ULAB ensures that all new projects of ULAB, starting from 2025, adhere to principles of resource conservation and environmental sustainability.
- Strive to achieve at least a 30% reduction in overall resource consumption and environmental impact compared to conventional development methods.

Strategies:

- **Ecosystem-Centric Design:** Use an ecosystem-centric planning strategy to protect biodiversity and natural habitats while causing the least amount of ecological harm.
- Implement green infrastructure components including permeable pavements, green roofs, and rainwater harvesting systems to encourage water management and conservation.
- **Zero-Waste Practices:** To reduce landfill contributions, promote zero-waste activities through waste segregation, recycling programs, and composting in all its current and future campus buildings.
- To reduce emissions connected to transportation, ULAB plans to implement pedestrian-friendly routes, encourage cycling, and include infrastructure for electric vehicle charging stations.
- Additionally to the current campus ULAB plans to build an energy-efficient structure inbuilt in design features, effective lighting, and the incorporation of renewable energy sources to lower energy consumption and lower waste production in its upcoming new campus building.
- **Community Engagement:** Involve local communities, professors, and students in sustainable land use initiatives to promote a sense of pride and responsibility among all parties.

Impact: The University of Liberal Arts Bangladesh will establish a new benchmark for ecologically aware development by tenaciously following these cutting-edge land use practices, creating a thriving campus that serves as an inspiration for the area and beyond. These initiatives will help to safeguard biodiversity, preserve natural resources, and leave a lasting legacy for future generations.

Transportation Goals

Goal: The University of Liberal Arts Bangladesh (ULAB) aims for a future that decreases transportation for its students and faculty by providing accommodation facilities within close distance of the university - also including zero emissions transportation facilities either through cycling routes and through the electric vehicles.

1. Targets:

- By 2040: Invest in Student and faculty accommodation facilities in close proximity to the university to decrease the transportation cost of the university carbon emissions related to transportation.
- By 2040: Start a thorough study to invest in accommodation in close proximity to the university to decrease fuel consumption and emissions. Additionally, also understand the current concept of low-speed neighborhood vehicles along with their environmental impacts.
- By 2060: Activate the electrification infrastructure for all low-speed neighborhood vehicles within the ULAB campus.

2. Strategies:

- Introduce compelling incentives and subsidies to promote the use of electric vehicles, making them more approachable and desirable to stakeholders.
- Educational Initiatives Encourage a culture of sustainability and responsible mobility by increasing knowledge of the advantages of electric and zero-emission transportation among students, faculty, and staff.
- Research and Innovation: Work with engineering and environmental science departments to study cutting-edge EV technologies, looking for ways to increase efficiency and lower carbon footprints.
- Collaboration with local governments and communities to expand the use of electric vehicles beyond the campus will help to create a cleaner and healthier transportation ecosystem.

3. **Impact:** ULAB's goal of having a fleet of low-speed neighborhood cars by 2030 will set the bar high for environmentally friendly transportation methods in Bangladesh. This transition will support a greener, healthier, and more livable environment for everyone while also significantly reducing emissions and inspiring nearby institutions and communities to adopt green mobility solutions.

Waste Goals

Goal: The University of Liberal Arts Bangladesh sets a target to achieve zero waste for organic waste produced by ULAB and decreasing municipal solid waste by 25% in the hope of promoting a sustainable campus that influences recycling, waste management, and resource management.

1. Targets:

- Achieve zero waste for organic waste by 2030 from all organic waste produced at ULAB. Repurpose organic waste to be used for regeneration and reuse as compost and fertilizers.
- Decrease in production of municipal solid waste keeping them out of landfills and burning by 2040.
- By 2050: Reach a 25% diversion rate using innovative trash management strategies.
- By 2060: Reduce overall waste produced at ULAB by 25% and work to achieve Zero Waste status..

2. Strategies:

- Waste Minimization Initiatives: Implement waste reduction campaigns and promote conscious consumption to minimize waste generation at its source.
- Robust Recycling Programs: Establish comprehensive recycling systems for paper, plastics, glass, and metals, encouraging active participation from students and staff.
- Composting Solutions: Set up campus-wide organic waste composting facilities to convert food and green waste into nutrient-rich compost for use in gardens and landscaping.
- E-waste Recycling: Establish safe e-waste collection points and collaborate with certified recyclers to manage electronic waste responsibly.
- Sustainable Purchasing: Prioritize eco-friendly and reusable products for campus operations and events, minimizing single-use items.
- Innovative Waste-to-Energy Projects: Investigate and invest in waste-to-energy technologies that utilize non-recyclable waste as a renewable energy source.
- Campus Engagement: Foster a culture of waste consciousness through awareness campaigns, educational programs, and involving students in waste-related research.

3. Impact: The University of Liberal Arts Bangladesh's dedication to Zero Waste will not only lessen its impact on the environment but will also spur a wider movement in the area toward sustainable waste management. The university will set an example for other academic institutions to follow by embracing new techniques, ethical waste management practices, and campus-wide involvement, resulting in positive change for a cleaner and more sustainable Bangladesh.

Water Goals

Goal: The University of Liberal Arts Bangladesh aims to reduce consumption of water by the year 2050, in comparison to the current average of water consumption. This sets to advance water sustainability and conservation.

1. Targets:

- By 2050: Achieve reduction in water usage through the repurposing of water, from the different water usages in the campus.

2. Strategies:

- Implement Water-Efficient Infrastructure: To reduce water use without sacrificing functionality, include water-efficient fixtures and technologies into campus buildings and facilities.
- Leak Detection and Repair: Inspect and maintain water systems on a regular basis to find leaks and fix them right away, preventing waste and conserving water.
- Implementing water recycling technologies for functions like cooling and irrigation will increase water efficiency across the campus.
- Campaigns to Change Behavior: By educating students, staff, and professors, you can promote responsible water usage and cultivate a culture of water conservation.
- Groundwater recharge projects and partnerships with adjacent water conservation efforts are just a couple of examples of sustainable water sourcing possibilities that can be investigated in conjunction with local populations.
- Integrate water sustainability principles into the curriculum, and motivate students to conduct water-related research.

- ### 3. Impact:
- By actively pursuing these water-saving initiatives, setting an example for sustainable water management within the academic sector, and encouraging a more water-secure future for the institution and the larger community, the University of Liberal Arts Bangladesh seeks to contribute to the preservation of this vital resource.

Academics and Learning

Goal: The University of Liberal Arts Bangladesh (ULAB) through the Center for Sustainable Development utilizes academic sectors, which includes teaching, research and academic platforms to establish a sustainable learning environment. The Center for Sustainable Development established in 2006 is the oldest research center at the University. CSD is the only research institute in Bangladesh dedicated solely to the sustainable development dilemma: how can human development needs of all people be readied in a world of finite resources facing enormous environmental challenges, from the collapse of biodiversity to climate change? CSD conducts interdisciplinary research with local and international partners to address the complexities of natural and anthropogenic changes and to integrate sustainability in both policy and practice.

1. Targets:

- ULAB through its center has set a sustainable-based learning platform in terms of disciplines to foster environmental consciousness among students.
- ULAB is already initiating research organizations and departments in addition to partnering with national and international organizations to tackle climate change and environmental issues.

2. Strategies:

- Curriculum Integration: Incorporate environmental justice and sustainability concepts into all academic programs to inspire students to become activists for a greener, more just society.
- Research Excellence: Invest in state-of-the-art facilities for research and team up with relevant partners to help find solutions for mitigating and adapting to climate change.
- Community Engagement: CSD through its interdisciplinary work in the communities has created alliances with regional NGOs, government agencies, and local communities to tackle environmental issues and advance sustainable development.
- Sustainability Initiatives: CSD through its various events and programmes has organized campaigns and workshops to educate people about environmental issues and to persuade faculty and staff to live more sustainably.
- Green campus infrastructure: To reduce the university's environmental impact, ULAB campus has incorporated green infrastructure, green buildings, and sustainable mobility alternatives.
- Through its international collaborations CSD is engaged in knowledge exchange and cooperative projects with international universities and organizations to share best practices and jointly address global issues.

- 3. Impact:** By supporting these activities, ULAB is working to develop a new generation of environmentally aware leaders who are knowledgeable about and capable of addressing challenging sustainability issues. ULAB will have an impact on society outside the campus as a leading institution for environmental justice and sustainability, advancing a more just and sustainable society on both a local and international scale.

Engagement Mission

Goal: The Engagement Mission of the University of Liberal Arts Bangladesh aims to foster a culture of sustainability across the campus community, ensuring its institutionalization through various committees, grants, newsletters, reports, and innovative initiatives.

1. Targets:

- Increase student, professor, and staff involvement and awareness of sustainable practices significantly.
- Make sustainability a central priority that permeates all of the university's policies, courses, and daily activities.
- Make a campus that serves as an example for others in the area by smoothly integrating sustainability ideas.

2. Strategies:

- Establish cross-functional committees made up of stakeholders from various backgrounds to design and put into action sustainability initiatives.
- Newsletters on sustainability Publish news and articles on a regular basis that highlight ongoing initiatives, sustainable accomplishments, and best practices.
- Curriculum Integration: Include sustainability-focused courses in all academic sectors to equip students with the knowledge they need to practice environmental responsibility.
- Sustainable Workshops and Events: To inform and involve the university community, plan workshops, seminars, and awareness campaigns on sustainable behaviors.
- Outreach to the community: Promote collaborations with nearby communities to address shared environmental concerns while extending sustainability programs to them.

- 3. Impact:** Through these concerted efforts, the University of Liberal Arts Bangladesh will catalyze a transformative shift towards sustainability, ensuring that every member of the

campus community becomes an ambassador of positive change. By institutionalizing sustainability at every level, the university will be at the forefront of sustainability education, research, and action, driving regional progress towards a greener, more resilient future.

