

SUSTAINABILITY REPORT 2022

STATUS OF SDGs

EDITED BY
PROFESSOR DR. MD KABIRUL ISLAM



FACULTY OF GRADUATE STUDIES
DAFFODIL INTERNATIONAL UNIVERSITY
SEPTEMBER 2022

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Foreword

Daffodil International University is a young university in Bangladesh. The university has been maintaining educational quality since its inception in 2002. The prime intention was to produce graduates to fulfill demands of the country and serve the society around them and beyond. Apart from academic and co-curricular activities, the teaching and learning communities are highly encouraged to engage themselves in various development initiatives executed nationally and globally. The university has a reputation for its Information Technology (IT) supported infrastructure in Bangladesh and partnerships with the Government Organizations, industry, NGOs and international collaborators for their involvements in various development sectors. The stakeholders of the university are committed to working for the United Nations Sustainable Development Goals (SDGs). A lot of courses of different programs have been made aligned with the SDGs to acquaint the students with the challenges and identify solutions to act on it in a professional manner. Nevertheless, our contributions include several innovative projects which are under implementation at different departments and huge numbers of quality publications done by the faculty members jointly with the national and international partner universities. The Division of Research is managing a sustainability for development website to highlight our achievements and evidences and communicate to the international communities.

The sustainability report 2022- status of SDGs of DIU is an excellent initiative of the Division of Research. The report is a glimpse of the events, activities, ongoing projects, research outcomes and their significance, and the attainments. Mr. Mohammad Monir Hossain, Senior Assistant Director of the Division of Research has performed the key responsibility of collecting the facts and organizing the resources. Our esteemed colleagues from the Department of ESDM, Civil Engineering, Architecture, EEE, Public Health, Nutrition and Food Engineering and Law responded to my request in a timely manner and provided their scholarly inputs and outcomes. Our heartiest congratulations to the contributors for their outstanding performances.

Professor Dr. Md Kabirul Islam
Dean, Faculty of Graduate Studies

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1. INTRODUCTION

1.1. Daffodil International University Viewpoint

Daffodil International University (DIU) is one of the leading private universities in Bangladesh, established on 24 January, 2002. The university aims to become a global leader in providing tertiary level education that produces graduates with high self-esteem who are able to accept challenges in a fast-changing environment. DIU provides higher education supported by 23 academic departments in the areas of Science and Technology, Engineering, Business and Entrepreneurship, Humanities & Social Sciences and Allied Health sciences aligning with the adoption of contemporary technological advancement in both bachelor and masters levels. The mission of the University is to:

- Supporting quality education and research, and implement latest educational pedagogies that nurture creativity, critical thinking and collaborative learning by students and faculty members
- Creating a research culture at the department level and the university as a whole and consequently, establish DIU as a Research University in international arena
- Promoting fundamental and applied research to fulfill the demand of the society and the global needs. In turn, special focus will be imposed on the national development agenda, digital Bangladesh vision, and the United Nations agenda for Sustainable Development Goals (SDGs)
- Promoting entrepreneurial education and develop entrepreneurial mindset among the students and encourage them to be able to self-employed
- Creating opportunity for underprivileged and rural populace access to higher education
- Conducting Human Resource (HR) development training suitable for local and global employers.

The University is serving the citizens of the country as well as the international knowledge seekers through its quality education for lifelong learning, research and publications, entrepreneurship initiatives, outreach programs, international collaborations and nurturing its graduates to respond positively towards national and global challenges. The students are provided broader access to the institution's educational resources. In a recent report, the University Grants Commission (UGC) of Bangladesh, has acknowledged that the highest number of international students studying at DIU in both bachelor and masters programs.

As a young university, DIU undertook lots of initiatives in various higher education domains and took part in international mobility programs for its internationalization. As a partner institute of Erasmus+ many students of DIU are studying in Turkey, Poland, Portugal, Italy, UK, Lithuania, and Finland with scholarships. The university has built a strong network and partnership with nearly four hundred universities/academic institutions in home and abroad for mobility of the teaching and learning communities in the form of inbound and outbound exchange programs which enables knowledge sharing, research collaboration, and internationalization. DIU has integrated an information technology (IT) supported system for managing its academic and administrative activities in a professional manner. DIU leads the Daffodil Education Network (DEN) that comprises 13 educational institutions of the Daffodil Family (DF) successfully.

1.2. The UN agenda for SDGs and DIU Context

According to the United Nations, Sustainable Development Goals (SDGs) were adopted by its member states to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The proper integration of policy interventions in all 17 areas of SDGs will lead to take action in one area will affect outcomes in others and eventually development must balance social, economic and environmental sustainability. As a higher education institute, Daffodil International University (DIU) is committed to respond to this universal call for SDGs and take actions to comply with the United Nation's endeavor and to support the Government of Bangladesh for achievement of desired outcomes. In this regard DIU is working closely with the Government, private sector, civil society and citizens jointly for implementation of SDGs and to make sure that we create a better and sustainable planet for our future generations.



Figure 1. The UN agenda for Sustainable Development Goals

In the past few years, Daffodil International University has been striving to make a footprint in this arena through its contributions towards sustainable development initiatives. In order to promote achievement of certain SDGs through research and academic excellence DIU has established a separate academic department namely Department of Environmental Science and Disaster Management (ESDM). In addition, a number of departments for example, Civil Engineering, Architecture, Electrical and Electronic Engineering, Public Health, and Nutrition and Food Engineering undertake a lot of initiatives which are aligned with the SDGs. The student affairs division of DIU conducts numerous events engaging students of all levels round the year to meet the challenges of SDGs and consequently, it increases

environmental awareness of the students as a whole. The university adopts sustainable practices in all its development activities and initiatives. Apparently, DIU arranges a lot of events in collaboration with other partners in the area of sustainability and environmental wellbeing every year.

1.3. Dissemination of Achievements of SDGs

The Division of Research of DIU has developed and maintained a very informative and data-driven website namely Sustainability for Development (<https://sustainability4d.daffodilvarsity.edu.bd/>). The intention was to increase visibility of the university's efforts and contributions towards achievements of different sustainable development goals and recognize ourselves as an active partner of the United Nations communities.

With this sustainability for development website, DIU would like to share its initiatives, thoughts, outcomes, research findings, achievements, and lessons learnt from different projects implemented at DIU with the national and international communities and partners.

2. RESEARCH PROJECT AND OUTCOMES

Daffodil International University cultivates educational innovations, collaborations and knowledge sharing and conducts research for improvement of life of people and creating a sustainable environment for future generations.

2.1. Promoting Sustainability in the Global Microfinance Industry: The role of Employee Turnover, Organizational Characteristics, and Macroeconomic Environment

The project team is formed with the Principal Investigator Dr. Aslam Mia, Assistant Professor, School of Management, USM & Visiting Faculty, BA, DIU and co-investigators Ms. Rozina, Akter, Assistant Professor, DBA, DIU and Ms. Tanzina Hossain, Associate Prof., DBA, DIU. DIU students are also included in this project.

Objective:

To investigate how employee turnover, Organizational Characteristics, and Macroeconomic factors affect the financial performance in the microfinance context

Expected outcome:

1. 4 ISI/Scopus Publications will be published
2. 1. Undertake policies to mitigate the employee turnover problem by considering internal and external marketing approaches to enhance their financial performance.

2. Enhance the academic literature by verifying and expanding the existing theories (e.g.: Job Embeddedness Theory, Herzberg's Two-Factor Theory, the Resource-Based View, Equity Theory, Human Capital Theory).
3. One of the important aspects of this research grants is the transfer of knowledge. We will team up with DIU students and staff and provide training on various empirical techniques and tools so that they can conduct research independently after the successful completion of the project. Moreover, as we plan to publish 4 papers out of this research project, it will enhance the international visibility of DIU and help in promoting its global rank etc.

2.2. A Novel Business Model to Mitigate COVID-19's Effects through Technological Innovation and the Circular Economy: A Way Forward to Sustainable Development

The project team is formed with the Principal Investigator Principal Investigator Dr. Muhammad Mehedi Masud, Visiting Professor, DIU & Senior Lecturer, Department of Development Studies, Universiti Malaya and Co-Investigators Dr. Sunjida Khan, Assistant Professor, BA, DIU; Mrs. Rozina Akhtar, BA, DIU; Dr. AKM Mohsin, Senior Lecturer, BA, DIU and Dr. Rulia Akhtar, Research Fellow, Universiti Malaya. DIU students are included in this project.

Investigative Purpose:

1. To examine the role of technological innovation in circular business to mitigate the effects of COVID-19 and improve organizational sustainability.
2. To explore factors that influence entrepreneurs' participation in the circular economy for sustainable development in Bangladesh and Malaysia.
3. To investigate the barriers and challenges of adopting a circular business model in Bangladesh and Malaysia.

Expected outcome:

This study offers valuable insights that may be useful for policymakers in promoting greater public engagement in implementing circular behavior among business organizations.

2.3. A simple formulation for determining the residual strength of a RC structure exposed to fire

The Principal Investigator of the project is Md. Mehedi Hassan Bhuiyan, Lecturer, Department of Civil Engineering, DIU and Co-Investigator Dr. Shameem Ahmed, Associate Professor, Department of Civil Engineering, BUET. Two Research Assistant students are contributing to this project: Dewan Md. Jakirul Islam, Student, Department of Civil Engineering, DIU & Marzia Tabassum Faria, Student, Department of Civil Engineering, DIU.

Objective:

1. Evaluating the post-fire capacity of beams and columns with fire exposure times of 2 hours or more is accomplished through the use of an advanced numerical method.
2. Validated structural members for high and normal-strength concrete with standard fire curve.

3. Compare residual capacity using the available empirical simplified method with the numerical result.
4. Determine the relationship between the cooling method and the residual capacity of fire exposed RC structures.

Expected Outcome:

1. Using an advanced numerical approach, the residual capacity of various fire durations (ranging from 2 to 6 hours) is evaluated in accordance with ISO 834 fire curves.
2. The present available simplified method will be examined with FEA results to find out if this method works for longer fire durations or not.
3. Validation will be done for the beam and column for NSC and HSC material properties.
4. In the future, this verified modeling approach will be used to evaluate the residual capacity of different RC structures.

2.4. Smart Classroom for Every School to Ensure Effective Education and Integrated Learning Environment

The Principal Investigator of this project is Nazmus Shakib Sayom, Lecturer, Department of ICE/ETE, DIU and Co-Investigators Mohetuzzaman Mobin, Lecturer, SWE, DIU; Md. Rittique Alam, Lecturer, SWE, DIU; Abdullah Al Mamun, Post Graduate Student, TESOL, IML, DU. Advisors; Md. Taslim Arefin, Associate Professor and Head, Dept. of ICE/ETE, DIU; Engr. Md. Zahirul Islam, Assistant Professor, SWE, DIU. Two Research Assistants Md Bashir Sarker, Student, ICE, DIU and Md. Kamrul Hasan, Student, ICE, DIU are also working on this project.

Purpose:

1. Studying the requirements and potential effectiveness of a smart classroom in Bangladesh
2. Creating and evaluating a framework for interconnected smart classrooms that resolves the problems mentioned in the previous chapter
3. Analyzing present state-of-arts in the field of smart classroom implementations
4. Comparing available technologies to choose the best fitted technological stack for the system that will be developed
5. Prototyping a smart classroom solution that addresses all the problems mentioned in the problem statement chapter
5. Conducting field studies to compare the outcome of the system compared to traditional classrooms

Expected Outcome:

1. Student Profiling: The proposed system can keep detailed profiles of the students from any institution, including grades, attendance, and performance. It will be easier than ever to address drop-out issues using Educational Data Mining (EDM) and increase student engagement.
2. Content Hub: This system can be used as a platform to deliver high-quality teaching content (Multimedia) from a centralized body to all classrooms that will ensure equity in the learning environment. In some cases, remote education will be possible.

3. Learning Analytics: It can act as a massive-scale data collection gateway, enabling us to generate in-depth insights into our education system to optimize learning efficiency and make learning more personalized.

4. Technological Adoption: Introducing tech-based education at an earlier age will make students more adaptable to technologies, ensuring their higher education is more eloquent and compelling.

2.5. Cognitive Test Anxiety and Academic Success of Science Undergraduates of the Private University of Bangladesh

Principal Investigator of the project is Dr. Md Kamrul Hossain, Associate Professor and Head, GED, DIU and Co-investigators are: Dr. Mohammad Shamsul Ahsan, Associate Professor, Department of Psychiatry, Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh; Dr. Md Zobear Hasan, Lecturer, School of Science, Monash University, Malaysia; Arifur Rahman, Research Fellow, University of Melbourne, Australia. Sisilia Murmu, Student, Department of Public Health, DIU is contributing as a Research Assistant.

Purpose:

1. To examine the association between CTA and Academic performance of undergraduates of private university.
2. To determine whether there is any difference between cognitive test anxiety and students' academic performance in terms of students' gender.
3. To determine the level of cognitive test anxiety and compare the level among the departments.
4. To assess the influence of students' socio demographic factors on cognitive test anxiety.

Expected Outcome:

1. Level of math anxiety among the undergraduate science and engineering students of private universities and association with their performance will guide policy makers to understand the impact of math anxiety; therefore, they will be able to develop policies to reduce anxiety.
2. Identified determinants will help teachers as well as counseling psychologists for proper counseling.

2.6. Unmanned aerial systems-based assessment of tree cover and deforestation dynamics in Bangladesh

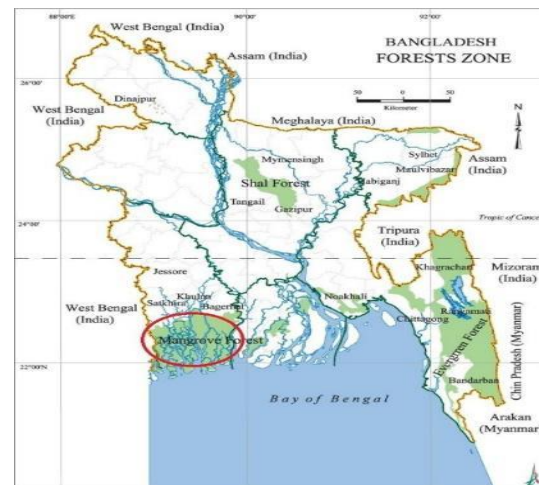
The project team was formed with the Principal Investigator Dr. A.B.M Kamal Pasha of Daffodil International University and the U.S. Partner Demetrios Gatzolis for implementation within a duration of four years from December 2017 - December 2021. Dr. Demetrios Gatzolis is a member of The United States Forest Service.

The main advantages of photogrammetry based on unmanned aerial vehicles (UAVs) compared to traditional aircraft imaging campaigns are low cost and flexibility. In addition, aircraft-based image

acquisition usually requires months of planning and must cover a substantial area to justify the cost. UAVs can be deployed at a moment's notice and require practically no maintenance. They can also be deployed at easily customizable above-canopy altitude, camera orientation, trajectory, and speed. They are thus ideal for imaging small areas of forests, such as over individual tree stands, management units or inventory plots (Gatziolis et al., 2015). Most developing countries do not yet have the capacity or knowledge base to support modern forest inventories and typically depend on satellite imagery and applications developed elsewhere to meet their needs, including the obligation to report on the status of their forests if they participate in the international REDD initiative. Satellite-based assessment is adequate in many instances—for example, to assess deforestation in the Amazon basin. It can be problematic and biased, however, when the anthropogenic interventions and ensuing disturbances are either gradual or have a spatial footprint much smaller than the resolution of the satellite imagery employed. The advent of novel, inexpensive technologies, including UAVs, and the development of affordable software capable of performing complex photogrammetric tasks hold promising potential into assisting the assessment of forest resources in developing countries and facilitating their verifiable participation in efforts to mitigate the effects of deforestation and forest degradation.



Mangrove forests in the Sundarbans, Bangladesh.



Study area (red oval) in the Sundarbans forest of Bangladesh

In this project, the PI and his team will devise and optimize a fully-automated UAV-based image acquisition protocol compatible with generating comprehensive (gap-free), high-density, precisely geo-referenced point clouds representing forest canopies for areas centered on selected locations in the Sal and Sundarbans forest types that host national forest inventory plots of the Bangladesh Forest Department (BFD). The researchers will generate canopy surface and canopy height rasters for each selected inventory plot and its surroundings, as well as estimates of canopy cover for each subplot of every selected inventory plot, and compare them to those obtained by inventory personnel during

field visits. Using the data they will gather, they will develop forest type-specific models of forest biomass and outline a framework for forest change detection and quantification based on periodic satellite imagery and incorporating UAV-derived information over selected areas. Methodologies, findings, and results will be shared with the United Nations Food and Agriculture Organization, representatives of the U.S. Government technical cooperative program SilvaCarbon in Bangladesh, BFD officials, and ultimately the public.

Project updates

During the January - March 2021 period, as planned, the PEER team resumed planning for the expedition to collect data in the Sundarbans. The plots were carefully selected to encompass all three saline zones of the Sundarbans' forest, and trip logistics were finalized with the help of USAID Bangladesh Mission. The expedition took place during the second half of February 2021. The team covered a wide range of different forest plots from Tambulbunia, Horintana, Shapla, Kokilmoni, Dubla, Harbaria, Jhapshi, Nondobala, Moraposhur and Hiron point forest range. The team observed unexpected findings in terms of tree composition and variation. After the expedition, the team moved on to raw data processing in partnership with Bangladesh Forest Department (BFD) with whom they now share data collection methods and hardware to conduct research.

In terms of outreach and collaboration, the project team continues their partnership with the Bangladesh Forest Department. The PEER team shared with BFD their data analysis methods and helped BFD develop and train their drone patrol team, which recently commissioned a new drone for patrolling the Sundarbans with technical advice by the PEER team. According to Dr. Pasha, this was a huge milestone for BFD and for the PEER team ever since the drone regulation law was passed in Bangladesh in 2020, following the team's year-long efforts for passing of such legislation. As part of the ongoing partnership, PEER team continues to rely on BFD's commitment to give PEER team access to BFD's central remote sensing lab where the team can access the needed data and conduct post-campaign data processing and analysis.

Bangladesh's very first policy for UAV operation for research purposes is in the pipeline. The draft for this historic legislation evolved around operational aspects of UAV use, which the PEER team highlighted in their permit acquisition documents. This is a significant milestone, considering the already complex approval processes in Bangladesh. Furthermore, technical feedback the team gave during the meeting to representatives of the intelligence community and air defense experts in attendance have cleared a lot of aspects of UAV usage for research that had not been addressed before. This breakthrough is anticipated to have opened a window of opportunity for conducting UAV based research in Bangladesh in the future.



Patrick Meyer (USAID/Bangladesh), Lisa Patel (USAID) and Lina Stankute-Alexander (NAS) visit PI Dr. Pasha at DIU, Bangladesh, November 2019



The team enters Mangrove forest in the Sundarbans. November 2019



Bangladesh Mission Director (MD) Derrick S. Brown and U.S. Ambassador Earl. R. Miller visit the Sundarbans site with the PEER



Drone launch in the Sundarbans. November 2019 NAS and USAID site visit

2.7. Pattern of COVID-19 Management and Prevention in Urban Bangladesh

The principal investigator of the project titled: Pattern of COVID-19 Management and Prevention in Urban Bangladesh is Professor Dr. Md. Shahjahan, Department of Public Health. The project is being implemented with the funding from Daffodil International University. The project overview is as following:

- The proposal focuses on the present COVID-19 pandemic situation and investigates a few key issues in Bangladesh context
- The results will have practical implications to deal with COVID-19 patients and management of the hospital at the present critical situation
- Four Scopus/ISI publications in high impact factor Journals may come out from this study
- The research team comprised the students and faculty members of the department of Public Health
- The study hopefully will open up future collaboration with the health sector of the Government and NGOs and create opportunities for future projects with funding.

2.8. Identification of Biological Effects of selected Mangroves Phytochemicals on Stressed animal Health

The principal investigator of the project titled: Identification of Biological Effects of selected Mangroves Phytochemicals on Stressed animal Health is Ms. Farzana Islam Aovi, Lecturer, Department of Pharmacy of Daffodil International University. This project is being implemented with the funding from DIU.

Project update:

- The imported reagents have already been purchased for the project activity purpose
- The PI is looking for the appropriate diagnostic center to analyze the fish samples as this is new for all the diagnostic centers. She has contacted the University of Health Sciences, Bangladesh, Technical, Dhaka for assisting the analysis. They have agreed to analyze the sample as a test basis.
- After getting their confirmation, the sample analysis for the project will be started.

2.9. Daffodil Agro Complex

Vehicle exhaust is a major source of anthropogenic carbon dioxide (CO₂) and the main emission sources of air pollution in metropolitan cities of Bangladesh. Daffodil Eco-friendly Agro Support Centre was established targeting clean environment, conservation of nature, biodiversity, research, extension and development of different kinds of fruits, vegetables and medicinal plants by using inexpensive sandy fallow land. To support the efforts for a cleaner environment, most of the fruit plants are broad leaved and evergreen which sink more CO₂ and release more O₂ for a consequently cleaner and healthier environment. Moreover, it also produces safe fruits and vegetables giving rise to the availability of nutritionally rich high value crops for fulfilling the nutritional food deficiency (hidden hunger) of poor and ultra-poor peoples. In spite of being the project area filled with sandy soil, DIU researchers have been successfully able to grow different types of fruits, vegetables and medicinal plants with acceptable amounts of yields through organic farming systems. The centre also serves as a germplasm facility for education, research and training. The current activities include fruit saplings production and distribution, germplasm collection and conservation, and technical service to farmers.



This project is going to be popular with different strata of people for the aesthetic value of fruit plants. It is an attractive place for the visitor from home and abroad which is enlightening the status of university too. However, we are going to establish an agro-tourisms centre where people can enjoy organic food and a clean and healthy environment as a green space.

Daffodil Eco-friendly Agro Support Centre is an integral part of Department of Nutrition and Food Engineering (NFE) which has the mission to ensure quality of food from “Farm to Fork.” This mission refers to the quality impact in our integrated food value chain. Without organic farming it is almost impossible to maintain the high value food ensures to the society. Daffodil Agro complex is relentlessly working towards the pursuit of supplying organic food products at an affordable price. This endeavor automatically contributes to the enhancement of green sustainability through an organic farming system.

A germplasm is a collection of genetic resources for an organism and plants, the germplasm may be stored as a seed collection or, for trees, in a nursery. Daffodil Eco-friendly Agro Support Centre is established to make it one of the largest depository/germplasm centers of fruits, medicinal plants and agroforestry in Bangladesh. The mission of establishing a seed bank and extension of technologies among the farmers. Daffodil Eco-friendly Agro Support Centre will be extended to 15 acres of land very shortly (currently 5 acres).



2.10. Agro Textile Research Project

The textile based agro nets are successful to fight against insect attacks in the farmlands. This DIU funded research project is being implemented by Mr. Sanjib Kumar Talapatra, Student, (MSc) of Department of Textile Engineering, DIU under the supervision of Prof. Dr. Mahbubul Haque. Dr. Md. Ubaidullah Kaysar, Chief Scientific Officer, Regional Agriculture Research Center, Bangladesh Agricultural Research Institute (BARI) has also been involved in this research project.

Textile based agro nets can successfully prevent use of insecticides in the farmland which will ensure sustainability of the farmland as well. We were Right First Time (RFT) in selecting the agronet. After intense study we finalized the particulars of the intended net. Then the nets were arranged and used in the field and was found to be 100% okay. Accordingly both the time and the cost of the study were also minimized.



The use of textile based agro nets in brinjal cultivation



Without textile agro net, brinjal plant

Brinjal plant with textile agro net

2.11. Social stigma related to prevention and treatment of Covid-19: A contemporary public health challenge

The project titled: “Social stigma related to prevention and treatment of Covid-19: A contemporary public health challenge” is an externally funded project received from the Bangladesh Medical Research Council (BMRC) by Prof. Dr. Md. Shahjahan, Department of Public Health, DIU. The purpose of this study is to identify direct and indirect social stigma associated with preparedness of post pandemic Covid -19 about discrimination, fear, acceptance and self-efficacy among community leaders, media personnel (both electronic & print) and healthcare providers at the community level.

Specific objectives:

- To determine socio-demographic characteristics of the respondents
- To examine direct social stigma like the discrimination, misconception, fear, acceptance and self-esteem among the study subjects.
- To identify indirect social stigma like unnecessary hospitalization, media rumor, stereotypes, hiding illness and discourage from adopting healthy behavior.
- To investigate the relationship between social stigma and psycho-behavioral related variables associated with it.

- To find out if there is any association between smart social stigma and socio-demographic variables.
- To assess the risk of social stigma and discrimination to change or prevent dangerous behaviors and attitudes.

2.12. Development and standardization of process for value added beet root products commercialization (Funded by BANBEIS)

Funded by the BANBEIS, Ministry of Education, GoB, this project is being led by Professor Dr. Md. Bellal Hossain, Associate Dean, Faculty of Allied Health Science, DIU. This project is related to the theme of SDG 2: No hunger.

The objectives of the project are:

- i. Beet roots availability in Bangladesh assessed;
- ii. Proximate composition of the locally cultivated beet roots analyzed;
- iii. Different products (jam, jelly, preserves, pickles, candies, chips, dehydrated beet roots, colorants, functional beverages etc.) from the beet roots developed;
- iv. Composition and shelf-life of the products assessed;
- v. Sensory evaluation (taste panel evaluation) of the developed products conducted.

2.13. Natural Water Conservation and Restoration Using Aquatic Macrophytes

Due to the industrialization, our water bodies such as rivers, lakes, ponds and wetlands of Dhaka are being polluted by the discharge of toxic chemicals and harmful substances which degrades the water quality and it creates back-to-back harmful impacts on humans and also the aquatic ecosystem. To improve water quality in a natural we need to think any possible solution related with biological method. In this regard a submerged macrophyte was used to reduce the level of pollutants and contaminants from the natural fresh water.

Objective:

- To find the concentration level of heavy metals
- To improve the water quality by our native aquatic plants
- To observe the efficiency of our native aquatic plants on the wastewater.
- To detoxify the water in a naturally occurred manner through aquatic plants
- To implement this cost effective way for the treatment of our polluted water body.

Methodology: This research has systematic procedures to follow. The overall process is being illustrated below:

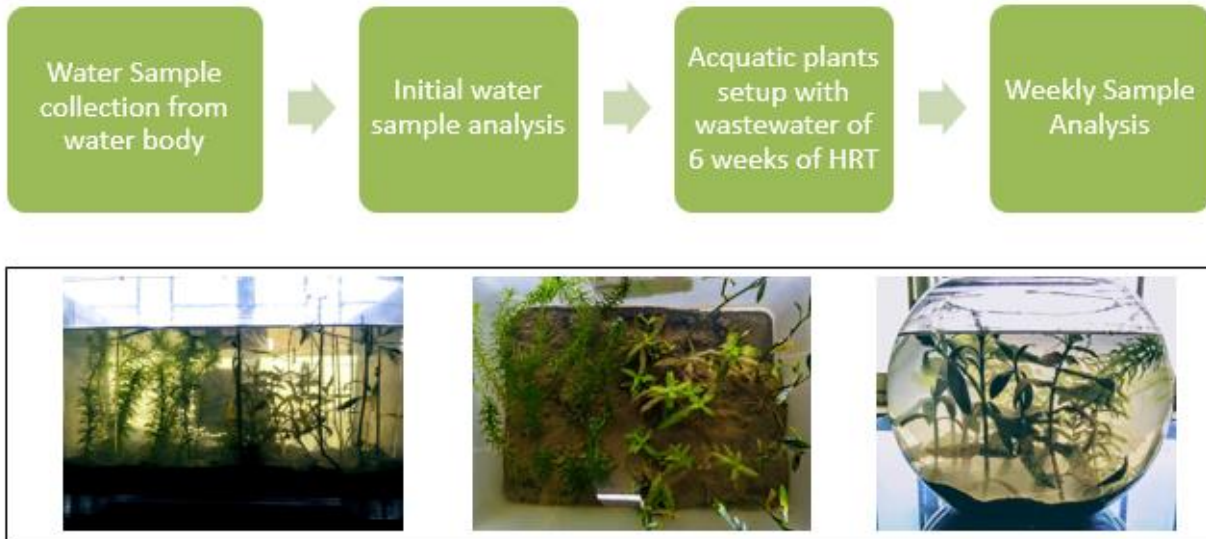


Fig. 1. Natural water quality improvement via aquatic plants in laboratory.

Research Outcome:

- The treatment has successfully changed the water quality
- It's a plant-based treatment, so the oxygen is increased and creates a healthy environment for aquatic organisms
- Huge changes have been identified in water color and its odor.
- A huge percentage of reduction of heavy metals and other toxic chemicals.
- This research will assure the plausible sound life for aquatic organisms.

2.14. DIU Blended Learning Center

Daffodil International University (DIU) developed and initiated the Blended Learning Center (BLC) online platform to ensure uninterrupted education since emergence of COVID-19 pandemic. Blended Learning Center is the digital teaching and learning hub of Daffodil International University. The platform aims to connect teachers and students effectively allowing teachers to track progress of individual students and better facilitate their learning.

This was very innovative and effective in a sense that while all other universities in Bangladesh totally postponed their academic and administrative activities during the COVID-19 pandemic, only Daffodil International University, with its pre-readiness through the OSOL project and implementation of BLC platform could ensure full educational activities virtually. Students also get essential IT training and training on BLC platform to enable them to utilize the laptop both in physical and virtual classes and for outsourcing purposes to supplement their expenses.

Link: <https://elearn.daffodilvarsity.edu.bd/?redirect=0>

Students and Teachers can get guidelines on the Blended Learning Center platform from the website. Teachers can get the Content Guidelines and support from this BLC platform. The DIU BLC apps is available at Google play store from where students and teachers can easily download it and can get

access from elsewhere of the world. Student Experience Sharing about DIU Blended Learning Center (BLC): <https://www.youtube.com/watch?v=obrixnoRu08>

2.15. Free Laptop Distribution under One Student One Laptop Project

DIU perceived that the BLC virtual platform could not be effective without ensuring computer devices for all the students. To solve the problem, DIU initiated an innovative the project “One Student One Laptop” (OSOL) to provide free laptops to every student and ensure uninterrupted education and soft skills development and employability of students. The students could continue their virtual classes by using that free laptop during COVID-19 pandemic which ensured uninterrupted teaching-learning at DIU.

Web link: <https://laptop.daffodilvarsity.edu.bd/>

Video Link: <https://www.youtube.com/watch?v=cNijEo06SPQ>

News link: <https://www.risingbd.com/english/campus/news/75492>

<https://www.newagebd.net/article/122319/diu-distributes-laptops-among-3000-students>

2.16. Support for Clean Energy Scale Up and Investment in Bangladesh

The project on Support for Clean Energy Scale Up and Investment in Bangladesh is being implemented with the funding from the National Renewable Energy Laboratory (NREL), USA and United States Agency for International Development (USAID), USA. The Principal Researcher of the project is Dr. Md. Alam Hossain Mondal, Associate Professor, Dept. of EEE and Co-Researchers are: Md. Dara Abdus Satter, Associate Professor, Dept. of EEE and Dr. Md. Rezwanul Ahsan, Assistant Professor, Dept. of EEE.

As part of the USAID-NREL Bangladesh second phase work, NREL will build on the results of the wind resource assessment completed in June 2018 and continue to provide technical support to the GOB to meet development goals and renewable energy targets, promote public and private sector investment, in clean energy and strengthen the capacity of relevant GOB officials and private sector stakeholders to facilitate data driven decision making.

3. RESEARCH & PUBLICATIONS

3.1. Scholarly Publications in 2021

As stated earlier, DIU cultivates a sustainable development mindset among the faculty and the students and integrates several sustainable development goals related courses which encourages our faculty members to conduct research into certain development areas and publish papers in quality journals and conferences jointly with the local and foreign university faculty members. A list of such publications is given below.

SDG	Title	Authors
GOAL 1: No Poverty	Exploring the nexus between fiscal decentralization and energy poverty for China:	Xia W., Murshed M., Khan Z., Chen Z., Ferraz D.

	Does country risk matter for energy poverty reduction?	
GOAL 2: Zero Hunger	Impact of lockdown due to COVID-19 on nutrition and food security of the selected low-income households in Bangladesh	Rezaul Karim K.M., Tasnim T.
	Implications of updated protocol for classification of childhood malnutrition and service delivery in world's largest refugee camp amid this COVID-19 pandemic	Anwar A., Mondal P.K., Yadav U.N., Shamim A.A., Rizwan A.A.M., Mistry S.K.
	Implementing E-Commerce Mobile and Web Application for Agricultural Products: e-Farmers' Hut	Chakraborty S., Shamrat F.M.J.M., Islam M.S., Kabir F., Khan A.N., Khater A.
	Smart Agricultural System Using IoT	Suny M.F.I., Khatun T., Zaman Z., Fahim M.M.R., Islam M.A., Jesmin R., Akhund T.M.N.U.
	IoT Based Automated Monitoring System for the Measurement of Soil Quality	Proshad P.K., Bajla A., Srijon A.H., Talukder R., Rahman M.S.
GOAL 3: Good Health and Well-being	Diabetes Complication Prediction using Deep Learning-Based Analytics	Albi T.R., Rafi M.N., Bushra T.A., Karim D.Z.
	Diabetes among adults in Bangladesh: changes in prevalence and risk factors between two cross-sectional surveys	Chowdhury M.A.B., Islam M., Rahman J., Uddin M.J., Haque M.R.
	Understanding the omicron variant (B.1.1.529) of SARS-CoV-2: Mutational impacts, concerns, and the possible solutions	Islam F., Dhawan M., Nafady M.H., Emran T.B., Mitra S., Choudhary O.P., Akter A.
	Machine Learning Approaches to Predict Breast Cancer: Bangladesh Perspective	Islam T., Kundu A., Islam Khan N., Chandra Bonik C., Akter F., Jihadul Islam M.
	Predicting the mental health of rural Bangladeshi children in coronavirus disease 2019	Moon N.N., Hossain R.A., Jahan I., Shakil S., Uddin S., Hassan M., Nur F.N.
GOAL 4: Quality Education	In quest for sustainable quality assurance in higher education: An empirical investigation	Ahmed H., Ashraf M.A., Islam K., Hasinat R.
	Evolution of quality assurance practices in enhancing the quality of open and distance education in a developing nation: a case study	Ferdousi F., Ahmed A., Momen M.A.

	Promoting student-centred blended learning in higher education: A model	Islam M.K., Sarker M.F.H., Islam M.S.
	Sentiment Analysis using Machine Learning and NLP for Digital Education	Hossen M.S., Chowdhury M.N.A., Sristy A.M., Jahan N.
	Acceptance of E-Learning Among University Students During Covid-19 Crisis: Bangladesh Perspective	Tamal M.A., Sarker M.F.H., Islam M.K., Hossain M.E.
GOAL 5: Gender Equality	Exploring factors associated with women's willingness to provide digital fingerprints in accessing healthcare services: A cross-sectional study in urban slums of bangladesh	Mistry S.K., Akter F., Hossain M.B., Huda M.N., Irfan N.M., Yadav U.N., Storisteanu D.M.L., Arora A.
	Do women on boards affect employee benefits? Evidence from the global microfinance industry	Mia M.A.
	Sentiment Analysis of User-Generated Reviews of Women Safety Mobile Applications	Bonny A.J., Jahan M., Tuna Z.F., Al Marouf A., Siddiquee S.M.T.
	How Does Green Innovation Strategy Influence Corporate Financing? Corporate Social Responsibility and Gender Diversity Play a Moderating Role	Javeed S.A., Teh B.H., Ong T.S., Chong L.L., Abd Rahim M.F.B., Latief R.
	Antenatal depression among women with gestational diabetes mellitus: a pilot study	Tasnim S., Auny F.M., Hassan Y., Yesmin R., Ara I., Mohiuddin M.S., Kaggwa M.M., Gozal D., Mamun M.A.
GOAL 6: Clean Water and Sanitation	Groundwater Contamination and Health Risk Evaluation of Naturally Occurring Potential Toxic Metals of Hatiya	Rahman M., Khan M.S.I., Hossain M.S., Hossain M.I.S., Hasan M., Hamli H., Mustafa M.G.
	Assessment of Ecosystem Services, Plant Diversity Pattern, and Water Quality of an Urban Water Body in Dhaka, Bangladesh	Rezwan S.M., Chowdhury M.A.H., Rahman S.M.M.
	Household drinking water E. coli contamination and its associated risk with childhood diarrhea in Bangladesh	Khan J.R., Hossain M.B., Chakraborty P.A., Mistry S.K.
	Groundwater quality and human health risk assessment in selected coastal and floodplain areas of Bangladesh	Rakib M.A., Quraishi S.B., Newaz M.A., Sultana J., Bodrud-Doza M., Rahman M.A., Patwary M.A., Bhuiyan M.A.H.
	Detection of Rotavirus Strains in Freshwater Clams in Japan	Hoque S.A., Wakana A., Shimizu H., Takanashi S., Okitsu S., Anwar K.S.,

		Hayakawa S., Maneekarn N., Okabe N., Ushijima H.
GOAL 7: Affordable and Clean Energy	Roadmap for achieving energy sustainability in Sub-Saharan Africa: The mediating role of energy use efficiency	Murshed M., Khan S., Rahman A.K.M.A.
	The impacts of renewable energy, financial inclusivity, globalization, economic growth, and urbanization on carbon productivity: Evidence from net moderation and mediation effects of energy efficiency gains	Murshed M., Apergis N., Alam M.S., Khan U., Mahmud S.
	Recent progress in emerging hybrid nanomaterials towards the energy storage and heat transfer applications: A review	Muhamad Azim M.K., Arifutzzaman A., Saidur R., Khandaker M.U., Bradley D.A.
	A path towards environmental sustainability: The role of clean energy and democracy in ecological footprint of Pakistan	Ahmed Z., Caglar A.E., Murshed M
	Pathways to securing environmentally sustainable economic growth through efficient use of energy: a bootstrapped ARDL analysis	Alam M.S., Alam M.N., Murshed M., Mahmood H., Alam R.
GOAL 8: Decent Work and Economic Growth	Exploring renewable energy, financial development, environmental quality, and economic growth nexus: new evidence from composite indices for environmental quality and financial development	Fakher H.A., Ahmed Z., Alvarado R., Murshed M.
	Determinants of Pro-Environmental Behaviour in the Workplace	Foster B., Muhammad Z., Yusliza M.Y., Faedah J.N., Johansyah M.D., Yong J.Y., Ul-Haque A., Saputra J., Ramayah T., Fawehinmi O.
	Green logistics and environment, economic growth in the context of the Belt and Road Initiative	Mohsin A.K.M., Tushar H., Abid Hossain S.F., Shams Chisty K.K., Masum Iqbal M., Kamruzzaman M., Rahman S.
	Pathways to securing environmentally sustainable economic growth through efficient use of energy: a bootstrapped ARDL analysis	Alam M.S., Alam M.N., Murshed M., Mahmood H., Alam R.
	The Impact of Entrepreneurial Skills, Entrepreneurship Education Support Programmes and Environmental Factors on Entrepreneurial Behaviour: A Structural Equation Modelling Approach	Akter B., Iqbal M.A.
GOAL 9: Industry,	Investigating the impact of AI-powered technologies on Instagrammers' purchase	Yeo S.F., Tan C.L., Kumar A., Tan K.H., Wong J.K.

Innovation and Infrastructure	decisions in digitalization era–A study of the fashion and apparel industry	
	Nexus among blockchain visibility, supply chain integration and supply chain performance in the digital transformation era	Tan C.L., Tei Z., Yeo S.F., Lai K.-H., Kumar A., Chung L.
	Digitalization and Centralization of Medical Information and Patient History in Bangladesh	Nasim M., Abdullah-Al-Noman S., Ragib Hasan A., Sattar A.
	DVTChain: A blockchain-based decentralized mechanism to ensure the security of digital voting system voting system	Alvi S.T., Uddin M.N., Islam L., Ahamed S.
	Digitalization and Centralization of Medical Information and Patient History in Bangladesh	Nasim M., Abdullah-Al-Noman S., Ragib Hasan A., Sattar A.
GOAL 10: Reduced Inequality	Implications of updated protocol for classification of childhood malnutrition and service delivery in world's largest refugee camp amid this COVID-19 pandemic	Anwar A., Mondal P.K., Yadav U.N., Shamim A.A., Rizwan A.A.M., Mistry S.K.
GOAL 11: Sustainable Cities and Communities	Exploring factors associated with women's willingness to provide digital fingerprints in accessing healthcare services: A cross-sectional study in urban slums of bangladesh	Mistry S.K., Akter F., Hossain M.B., Huda M.N., Irfan N.M., Yadav U.N., Storișteanu D.M.L., Arora A.
GOAL 12: Responsible Consumption and Production	Effect of abrasion and chemical treatment of recycled aggregate on the workability, strength, and durability properties of concrete	Ahmad S., Maslehuddin M., Shameem M., Faysal R.M., Adekunle S.K.
	Strategies for Enhancing Construction Waste Recycling: A Usability Analysis	Omer M.M., Rahman R.A., Almutairi S.
	Critical Success Factors for Concrete Recycling in Construction Projects	Badraddin A.K., Radzi A.R., Almutairi S., Rahman R.A.
GOAL 13: Climate Action	Correction to: Pathways to decarbonization in India: the role of environmentally friendly tourism development (Environmental Science and Pollution Research, (2022), 29, 33, (50281-50302), 10.1007/s11356-022-19239-2)	Rej S., Bandyopadhyay A., Murshed M., Mahmood H., Razzaq A.

	Farmers' livelihood and adaptive capacity in the face of climate vulnerability	Akhtar R., Masud M.M., Rahman M.K.
	Climate change and COVID-19: shared challenges, divergent perspectives, and proposed collaborative solutions	Wahaj Z., Alam M.M., Al-Amin A.Q.
	A review of the global climate change impacts, adaptation, and sustainable mitigation measures	Abbass K., Qasim M.Z., Song H., Murshed M., Mahmood H., Younis I.
	Farmers' livelihood and adaptive capacity in the face of climate vulnerability	Akhtar R., Masud M.M., Rahman M.K.
GOAL 14: Life Below Water	Co-management approach to sustainable management of marine protected areas: The case of Malaysia	Masud M.M., Shahabudin S.M., Baskaran A., Akhtar R.
GOAL 15: Life on Land	Does agricultural ecology cause environmental degradation? Empirical evidence from Bangladesh	Chowdhury S., Khan S., Sarker M.F.H., Islam M.K., Tamal M.A., Khan N.A.
	Co-management approach to sustainable management of marine protected areas: The case of Malaysia	Masud M.M., Shahabudin S.M., Baskaran A., Akhtar R.
	Assessment of Ecosystem Services, Plant Diversity Pattern, and Water Quality of an Urban Water Body in Dhaka, Bangladesh	Rezwan S.M., Chowdhury M.A.H., Rahman S.M.M.
	THE IMPACT OF FINANCIAL DEVELOPMENT ON ACCELERATING THE ENVIRONMENTAL DEGRADATION IN BANGLADESH	Chowdhury S., Rahman M., Zayed N.M., Hasan K.B.M.R., Nitsenko V.
GOAL 16: Peace and Justice Strong Institutions	Human rights violations and associated factors of the Hijras in Bangladesh—A cross-sectional study	Amanullah A.S.M., Abir T., Husain T., Lim D., Osuagwu U.L., Ahmed G., Ahmed S., Yazdani D.M.N.A., Agho K.E.
	E-commerce Merchant Fraud Detection using Machine Learning Approach	Hasan F., Mondal S.K., Kabir M.R., Al Mamun M.A., Rahman N.S., Hossen M.S.
	Co-F I N D: LSTM Based Adaptive Recurrent Neural Network for CoVID-19 Fraud Index Detection	Anjum A., Keya M., Masum A.K.M., Khushbu S.A., Noori S.R.H.

GOAL 17: Partnerships to achieve the Goal	Correction to: Applying a dynamic ARDL approach to the Environmental Phillips Curve (EPC) hypothesis amid monetary, fiscal, and trade policy uncertainty in the USA (Environmental Science and Pollution Research, (2022), 29, 10, (14914-14928), 10.1007/s11356-021-16716-y)	Bhowmik R., Syed Q.R., Apergis N., Alola A.A., Gai Z.
	Applying a dynamic ARDL approach to the Environmental Phillips Curve (EPC) hypothesis amid monetary, fiscal, and trade policy uncertainty in the USA	Bhowmik R., Syed Q.R., Apergis N., Alola A.A., Gai Z.

Master Thesis

SDG	Title	Authors
GOAL 1: No Poverty	A Study on the Role of NGOs in Poverty Reduction of Southern Somalia	Mahadale, Mohamed Ali; Mohamd, Abdirahim Abukar; Ali, Mohamud Abdirahman Hirsi; Hassan, Abdimalik Ahmed
	Micro Credit Program of Grameen Bank for Poverty Alleviation and Women Empowerment	Gausul Azum, MD.
	The Impact of Grameen Bank Micro Credit Program on Alleviating Poverty and Empowering Women	Al Mahmud, Abdullah
	Role of Formal Education in Poverty Alleviation at Hargeisa: Somalia	Yousuf, Hamse Ahmed
	Benchmarking Service Delivery Effectiveness of the Service Providers of Poverty Alleviation Programs in Bangladesh	Chowdhury, Tamgid Ahmed
GOAL 2: Zero Hunger	An Analysis of Marketing Activity of Rangpur Dairy and Food Products Limited	Hossai, Arif
GOAL 3: Good Health and Well-being	Stroke Prediction Using Machine Learning Techniques	Ahmad, Syed Washfi
	Vaccination Camp	Murshed, Abdullah Al
	Online Medicine Donation System (OMDS)	Islam, Robiul

	Classification of Heart Disease Using Artificial Neural Network	Shahrin, Farzana
	Digitization of Healthcare System in Bangladesh Implementation Challenges and Health Service Impact	Alam, Md. Ferdous
GOAL 4: Quality Education	Scholarship Hub	Neloy, Taufiq Ahommed
	Machine Learning-based Prediction and Possibility for University Admission Based on Student's Profile	Al-Mamun, Md.
	The Challenges of Students from Rural Backgrounds in Urban Institutions for Tertiary Education	Khan, Sunjida; Shahriar, Mohammad Shibli; Jahan, Sharmin; Zayed, Nurul Mohammad
	A Novel Study on Quality of Education Evaluation for Physical and Online Education System of Bangladesh Due to COVID.	Bhowmick, Borna
	Simulation On Education: Improving Education System by Using Simulation Based Applications	Jahangir, S. M.; Karim, Kazi Md. Anwarul; Aktar, Shammi
GOAL 5: Gender Equality	Micro Credit Program of Grameen Bank for Poverty Alleviation and Women Empowerment	Gausul Azum, MD.
	The Impact of Grameen Bank Micro Credit Program on Alleviating Poverty and Empowering Women	Al Mahmud, Abdullah
	The Rights of the Hijras or Third Genders in Bangladesh	Fardous, Jannatul
	Image Processing Based Gender Classification and Face Identification Using SVM	Sharma, Manas
	The Effect of Gender Stereotype and Glass Ceiling on the Career Advancement of Women Academics	Rahman, Md. Atiqur; Islam, Md. Johirul
GOAL 6: Clean Water and Sanitation	Assessment of Water Quality in Turag River & Its Impacts on Environment	Kabir, Faisal
	Impact of Water Salinity into the Local Plant Diversity of the Bakkhali River, Cox's Bazar	Rahman, S. M. Mahmudur
	The Impact on Industrial Water Pollution in Buriganga River, Bangladesh	Mohamed, Mahad Mohamud
	Analysis of Water Quality Index of Hatirjheel Lake, Dhaka	Mustafa, Syed Omayer
	Water Quality Monitoring System	Islam, Rashedul; Nisat, Abu Abdullah; Rahman, MD. Atikur
	Progress of Bangladesh Power Sector on Perspective of SDG7	Baten, Tasmia; Satter, Md. Dara Abdus

GOAL 7: Affordable and Clean Energy	Study on Solar Roof Top System in Bangladesh Under Dhaka Power Distribution Company Limited	Rafi, Mehdi Hasan; Rahmy, Halima
	A Study on Future Aspects of Renewable Energy in Bangladesh	Hasan, Mahmudul-
	Energy Challenges for a Clean Environment	Islam, Aminul; Hossain, Md Biplob; Mondal, Md Alam Hossain; Ahmed, Mohammad Tofayal; Hossain, Md Alam; Monir, Minhaj Uddin; Khan, Mohammad Forrukh Hossain; Islam, Kamrul; Khandaker, Shahjalal; Choudhury, Tasrina Rabia; Awual, Md. Rabiul
	Investigating Long Run Relationship among Renewable Energy Consumption, Fossil Fuel Energy Consumption and Economic Growth in South Asia with Time Series Analysis	Karim, Md. Aminul; Tanisa, Tanzeem; Sakib, K M Nazmus
GOAL 8: Decent Work and Economic Growth	Social Business for Sustainable Economic Development	Tuhin, MD. Tanvir Ahamed
	Social Business & Sustainable Development Goals	Tajdid, MD. Zayem Bin
	The Effect of Business Investment on Economic Growth in Mogadishu-Somalia	Hassan, Shirwac Shire
	Monetary Policy and Macro-Economy: An Empirical Study Based on Economic Statistics	Showrav, Dewan Golam Yazdani; Ferdous, Mostofa Shamim
	Political Stability and Foreign Aid on Economic Growth with Reference to Overlapping Generations Model: An Analysis	Pramanic, Md Yahya
GOAL 9: Industry, Innovation and Infrastructure	Analyzing customer expectations toward financial services of mobile	Ghosh, Sujit
	Marketing of Financial Services” A study on BRAC Bank Limited	Jahid, Md. Foysal
	Prospects Of E-Tourism Ecosystem In Bangladesh: Services And Infrastructure	Hasan, Mohammad Nazmul
GOAL 10: Reduced Inequality	Strategic Impact Assessment, Business Proliferation and Innovation of Creative Entrepreneurship: A Study on Bangladesh Ngo Foundation	Ali, Muhammad Mahboob

	The Effect of Gender Stereotype and Glass Ceiling on the Career Advancement of Women Academics	Rahman, Md. Atiqur; Islam, Md. Johirul
	Changing Scenario of India's Business Environment: A Lesson To Bangladesh	Yadav, S.K.S.
	Rape and Sexual Violence Against Women in Bangladesh	Islam, Farzana
	Social Business & Sustainable Development Goals	Tajdid, MD. Zayem Bin
GOAL 11: Sustainable Cities and Communities	Environmental Policy of Bangladesh and Role of Judiciary of Bangladesh to Protect Environment.	Mostafa, Nurul Adnan
	Assess the Area of Green Space in Selected Locations for Urban Sustainability by Using GIS	Mahbubul Alam, Md.
	A Study on Master Plan Projection	Kamal, Mostafa; Safayat, Al
	Sustainable Human Resource Management	Kamal, A. H. M. Asif
	IOT Implementation for Smart City Development	Hasan, Md. Shamim; Morsed, Md. Golam
GOAL 12: Responsible Consumption and Production	Solid Waste Management	Rahman, Md. Atiqur
	Effective Model of Waste Management For Waste to Energy	Sojol, Abu Sumain; Hossain, Md. Shahadat
	AN EVALUATION OF SOLID WASTE MANAGEMENT PRACTICE IN JAPAN	Moqsud, M. Azizul; Hayashi, Shigenori
	Detection of Recyclable Product	Islam, Sahajul; Lifa, Lifonar Afrin; Hasan, Mehedi
GOAL 13: Climate Action	Impact of Plastic Packaging and Short-term Plastic Usability on Environment	Talukder, Tasnia Tasnim
	Comparative Indoor Air Quality Analysis Among the Schools of Roadside and Residential Areas of Dhanmondi	Shakib, Md. Shihabul
	Print Media Coverage on Climate Change Issues in Bangladesh	Islam, Sheikh Mohammad Shafiul
	Rights of Climate Displaced People in Bangladesh	Nowshin, Mariath Afsan
	Climate-Saver System Based on IoT	Hassan, Mosfiqun Nahid; Galib, FM; Diba, Jannatun Nayem
GOAL 14: Life Below Water	Marine Pollution in Bangladesh	khuda, Kudrat-E-; Barsha,
	A Relational Study on Training and Performance of Ministry of Fishery and Ocean Resource in Hargeisa, Somaliland	Osman, Zakariye Ali

	Potential Fishing Zone (PFZ) Advisory for the Bay of Bengal, Bangladeshi Area	Sukhy, Esmotara; Eva, Nabila Ahmed
	Machine Vision Based Local Coastal Fish Recognition	Raihan, Afiq; Ananna, Nadeya Nusrat
GOAL 15: Life on Land	IDENTIFICATION AND IMPACT ANALYSIS OF INVASIVE SPECIES: A CASE STUDY IN THE MONGLA SEA PORT AREA OF BAGERHAT DISTRICT OF BANGLADESH	Amin, Md. Nurul; Ali, Mohd. Yousuf; Salequzzaman, Md.
	A Study on Deforestation in Ningi Area of Bauchi State, Nigeria	Abdulkareem, Jamil Hassan; Muhammad, Faisal; Arifuzzaman, Mohd.; Chowdhury, ABM Alauddin
	Analysis of Anthropogenic Activities on Protected Forest Area	Jesmin, Fariha
	An Investigation into the Temporal Pattern of Water Quality of a Newly Formed Freshwater Lake	Islam, Md. Sultanul; Chowdhury, Sraboni
GOAL 16: Peace and Justice Strong Institutions	Legal analysis of children abuse in Bangladesh	<u>Shikder, Md.Jomir Ali</u>
	An Overview of the Legal System of Bangladesh on Child Sexual Abuse	Akter, Moriom; Munira, Sirajum
	Combating Cyber Crimes in Bangladesh: A Critical Analysis in the Context of Legal Ramification of Law	Raqib, M.B.
	Rape and Sexual Violence Against Women in Bangladesh	Islam, Farzana
	Implementing the Rights of Children in Bangladesh	Akteruzzaman
GOAL 17: Partnerships to achieve the Goal	SME Loan Disbursement System of Standard Bank Limited	Ferdous, Jannatul
	Investment Management of Social Islami Bank Limited	Ali, Md. Julfiker
	The role of small business in economic growth, a case study Bosaso Somalia.	Botan, Halimo Sadik
	An Insight into the Diverse Startup Culture in Bangladesh	Farhana, Tisha
	An Analysis of the Human Resource Management Practices of Bangladesh Human Capital	Nayeem, Md. Abu

3.2. Publication of "Research Update"

The Faculty of Graduate Studies (FGS) of Daffodil International University published research-based publication titled: "Research Update" (ISSN 2791-1225 print; 2791-1233 online) and launched it on

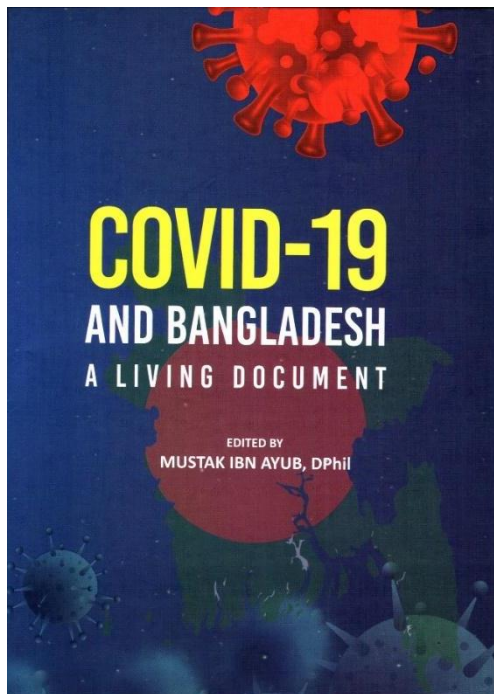
16 August 2022 at the DIU premises at Daffodil Smart City, Ashulia, Dhaka. The Honorable Vice Chancellor Professor Dr. M. Lutfar Rahman and Pro-Vice Chancellor Professor Dr. S.M. Mahbub Ul Haque Majumder of DIU, along with other dignitaries, unveiled the publication.



The publication highlights DIU's overall research strength, international research networking and research trends in different disciplines; international research directions and latest innovations; promising funded research projects of DIU; and potential researchers with their research interests. The data presented in various chapters will hopefully be useful for the researchers.

Link of Research Update: <http://research.daffodilvarsity.edu.bd/research-update>

3.3. Book Publication Titled: COVID19 & Bangladesh: A Living Document



Pandemics like COVID-19 come in a century or so and make lasting impacts on the world. From COVID-19, the world has experienced new dimensions and adopted innovations that forced the people to receive many adjustments. The daily life, economy, education, health and social life – all these regular domains have been affected. To combat future pandemics, these experiences and learnings from COVID-19 will be valuable. That is why, elaborate documentation of this pandemic is vital for all stakeholders.

Daffodil International University Press (DIUP) took a grand initiative to preserve the facts, views and analyses in this compilation titled as '*COVID 19 and Bangladesh: A Living Document*'. This will help store the thoughts and responses to COVID-19 in an easily accessible way and will be useful, handy and over all, a guide for reference to many researchers and policymakers in the future. The sole purpose is compilation of important information and data on COVID19 as part of social responsibility of the university.

4. CURRICULUM TO SUPPORT SDGS

Daffodil International University has been providing higher education to the youths especially the rural citizens of Bangladesh who come from low-income families. DIU has several programs that are

related to sustainability and which work for the implementation of the sustainable development goals of the United Nations.

Daffodil International University since its inception in 2002, has been striving to introduce timely and demanding courses along with state-of-the-art facilities for the students to be able to acquire skills and qualities to enter the national and international job markets. Hence, each year latest courses are introduced along with the new Departments to meet the rising demands of the industry. An overview of SDG related courses as per different disciplines are stated in the following section.

4.1. Sustainability Related Academic Courses in Different Disciplines

Courses related to environment and sustainability		
Sl.	Name of the Course	Department
1.	Introduction to Environmental Science and Disaster Management	Environmental Science and Disaster Management
2.	Geography and Environment	
3.	Environmental Biology	
4.	Environmental Biology lab	
5.	Soil and Environment	
6.	Environmental Economics	
7.	Bangladesh: Physical Environment	
8.	Fundamentals of Ecology	
9.	Introduction to Geographic Information System	
10.	Introduction to Geographic Information System Lab	
11.	Environmental Engineering	
12.	Environmental Chemistry	
13.	Environmental Chemistry with Lab	
14.	Environmental Resource Management	
15.	Statistics for Environmental Sciences	
16.	Forest and Wildlife Management	
17.	Environmental Hazard and Disaster Management	
18.	Fundamentals of Earth Sciences	

19.	Remote Sensing and GIS	
20.	Remote Sensing and GIS Lab	
21.	Fundamentals of Hydrosphere	
22.	Climatic Disaster Management	
23.	Environmental Pollution and Management	
24.	Database System Concepts	
25.	Database System Concepts Lab	
26.	Water Resources Planning & Management	
27.	Coastal & Marine Environmental Management	
28.	Biodiversity Conservation	
29.	Remote Sensing for Resource Appraisal	
30.	Remote Sensing for Resource Appraisal Lab	
31.	Urban Environmental Issues & Planning	
32.	Environmental Impact Assessment	
33.	Environmental Monitoring and Auditing	
34.	Research Method (Project Design)	
35.	Urban Waste and Effluent Management	
36.	Environmental Modeling	
37.	Seminar (Pre-approved Topic)	
38.	Public Health and Environment	
39.	Gender and Environment	
40.	Environmental Laws and Ethics	
41.	Instrumental Methods for Environmental Analysis	
42.	Landscape Simulation and Perception	
43.	Project and Seminar	
44.	Development Theories, Strategies and Issues	

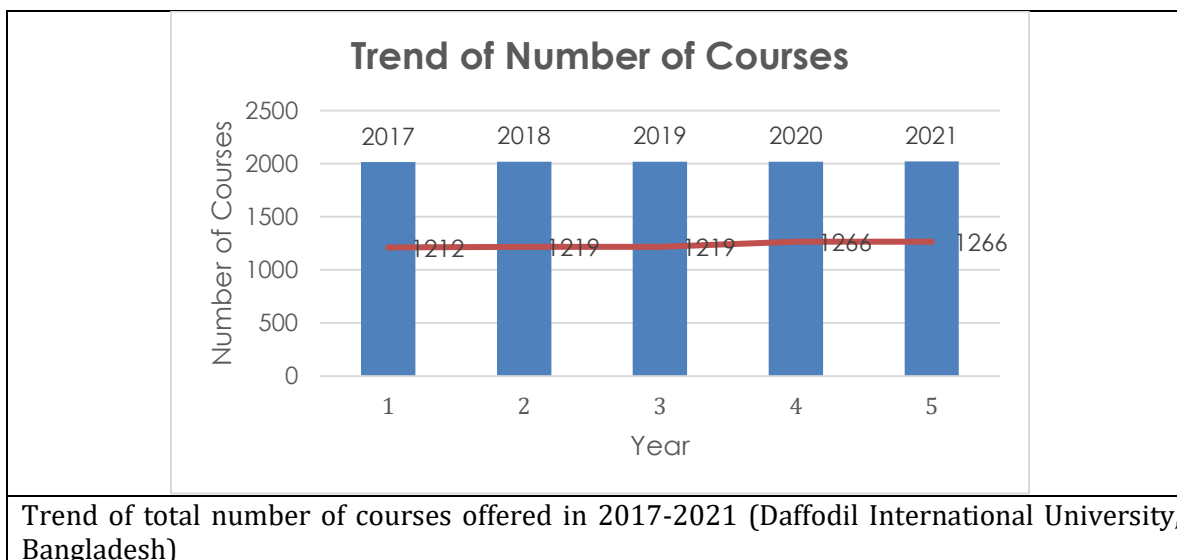
45.	Poverty Alleviation and Development	Development Studies
46.	Gender and Development	
47.	Governance and Development	
48.	Sustainable Development	
49.	Research Methodology	
50.	Basic Statistics for Development	
51.	Project Management	
52.	Natural Resource Management	
53.	Development Evaluation and Management	
54.	Rural Development	
55.	Introduction to Food Science and Technology	Nutrition and Food Engineering
56.	Physical, Inorganic and Analytic Chemistry	
57.	Methods for Nutritional Status	
58.	Statistics and Probabilities	
59.	Dietetics	
60.	Food Microbiology	
61.	Fruits and Vegetable Technology	
62.	Clinical Nutrition	
63.	Nutrition in Health and Disease	
64.	Water and Beverage Technology	
65.	Nutritional Planning	
66.	Environmental Food Technology	
67.	Food Preservation and Engineering	
68.	Sensory Evaluation	
69.	Food Storage Engineering	
70.	Organic Pharmacy	
71.	Biochemistry and Molecular Biology	
72.	Bangladesh Studies	

73.	Statistics and Probability	Computer Science & Engineering
74.	Art of Effective Living	
75.	Project Management	Multimedia and Creative Technology
76.	Business Statistics	
77.	Organizational Behavior	Business Administration
78.	Legal Environment in Business	
79.	Entrepreneurship Development	
80.	Research Methodology	
81.	Bangladesh Studies: Socio-Economic Perspective	
82.	Art of Living	
83.	Environmental Science and Business Management	
84.	Economic Geography	
85.	Projects Appraisals and Management	
86.	Agricultural Marketing	
87.	Disaster Management	
88.	Entrepreneurship	
89.	Art of Living	
90.	Environmental Issues in Real Estate	Real Estate
91.	Geographical Information System in Real Estate	
92.	Urban Land Use and Development	
93.	Urbanization & Regional Development	
94.	Research Project in Real Estate	
95.	Sustainable Land Use Planning and Management	
96.	Public Land and Natural Resources Laws	
97.	Geographical Information System	Tourism and Hospitality Management
98.	Entrepreneurship	

99.	Sustainable Tourism	
100.	Tourism Impact and Sustainability	
101.	Bangladesh: Land and Culture	Journalism, Media and Communication
102.	Art of Living	
103.	Communication Research Methodology	
104.	Statistics for Social Research	
105.	Health and Population Communication	
106.	Legal Research Methodology	Law
107.	Art of Living	
108.	Environmental Law	
109.	Renewable Energy Technology	Electronics & Telecommunication Engineering
110.	Radar and Navigation	
111.	Statistics and Probability	
112.	Environmental Mgt. in Textile & Allied Industries	Textile Engineering
113.	Climate Responsive Architecture	Architecture
114.	Ecology	
115.	Green Architecture and Sustainable Development	
116.	Luminous Environment in Architecture	
117.	Water Management in Buildings	
118.	Sustainable Architecture	
119.	Sonic Environment in Architecture	
120.	Environmental Design and Disaster Studies	
121.	Architectural & Urban Conservation	
122.	Research Method	
123.	Geology and Earthquake Engineering	Civil Engineering
124.	Environmental Engineering	
125.	Environmental Engineering Lab	
126.	Water Resource Engineering	
127.	Water Resource Engineering Lab	
128.	Climate Change and Sustainable Development	
129.	Biostatistics	
130.	Research Methodology	

131.	Occupational and Environment Health	Public Health
132.	Environment Health Toxicology	
133.	environmental policies, strategies, Regulation and occupational Environmental & Disease	

The following graph indicates an increase of number of courses introduced in the recent years.



5. STUDENT CLUBS FOR PROMOTING SDGs

The University has a number of active students' clubs and associations which are working on sustainable initiatives. DIU student clubs are encouraged to organize national and international events having collaborations with the relevant NGOs, Industries and Government entities. Required funding is provided from the university to make the programs a success. Respective academic departments and institutes assign the faculty members to lead the students in this regard.

5.1. Students' Club and Associations

- Society for Young Business Leaders (SYBL)
- DIU Earth and Climate Club
- DIU MUNA (Model United Nations Association)
- Social Business Students Forum
- Bangladesh National Cadet Corps (BNCC)
- DIU Business & Education Club (DIUBEC)
- Girls Computer Programing Club (GCPC)
- Cultural Club
- DIU HR CLUB (DIUHRC)
- DIU Creative Park
- DIU Sports Club
- DIU Computer and Programming Club (DIUCPC)
- Daffodil Prothom-Alo BondhuShova
- DIU Nature Study Club (DIUNSC)
- DIU Health Club (DIUHC)
- DIU Communication Club
- DIU Pharmacia Club
- DIU Career Club
- Entrepreneurship Club
- Business & Education Club
- Real Estate Association
- Software Engineering Club (SEC)
- DIU Voluntary Service Club
- English Literary Club
- DIU Air Rover Wing
- DIU Robotics Club
- Daffodil Moot Court Society
- DIU Adventure Club
- DIU Film Society
- Daffodil Civil Engineering Club
- Business Round-Up & Motivational Cell (BRMC)
- DIU Change Together Club
- DIU Cyber Security Club
- Daffodil-Prothomalo BondhuShova
- DIU Blood Donors Club
- Society for Young Business Leaders

The following photographs bear the evidences of students' participation in the events arranged round the year on different occasions.



DIU Voluntary Club Distributed Warm Clothes to Destitute People



Youthmappers Club training at (DIU)



DIU Cultural Club Organized First Listen Session with Band team 'ArtCell'



Daffodil International Model UN 2020



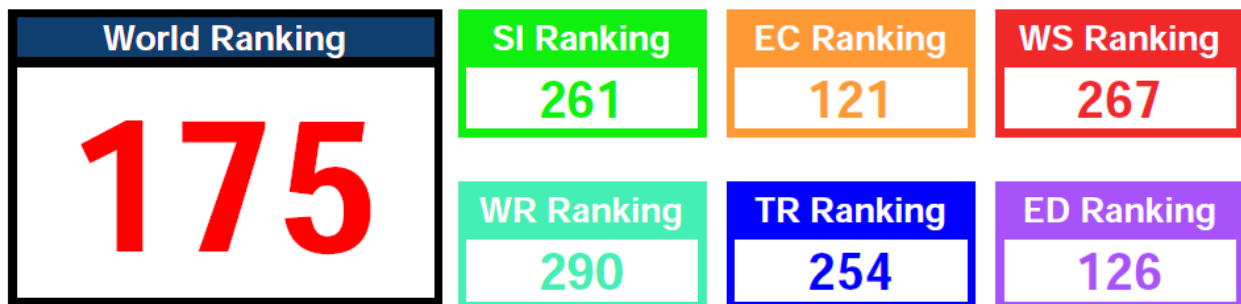
Warm Clothes Distribution by DIU BNCC

6. INTERNATIONAL RECOGNITION

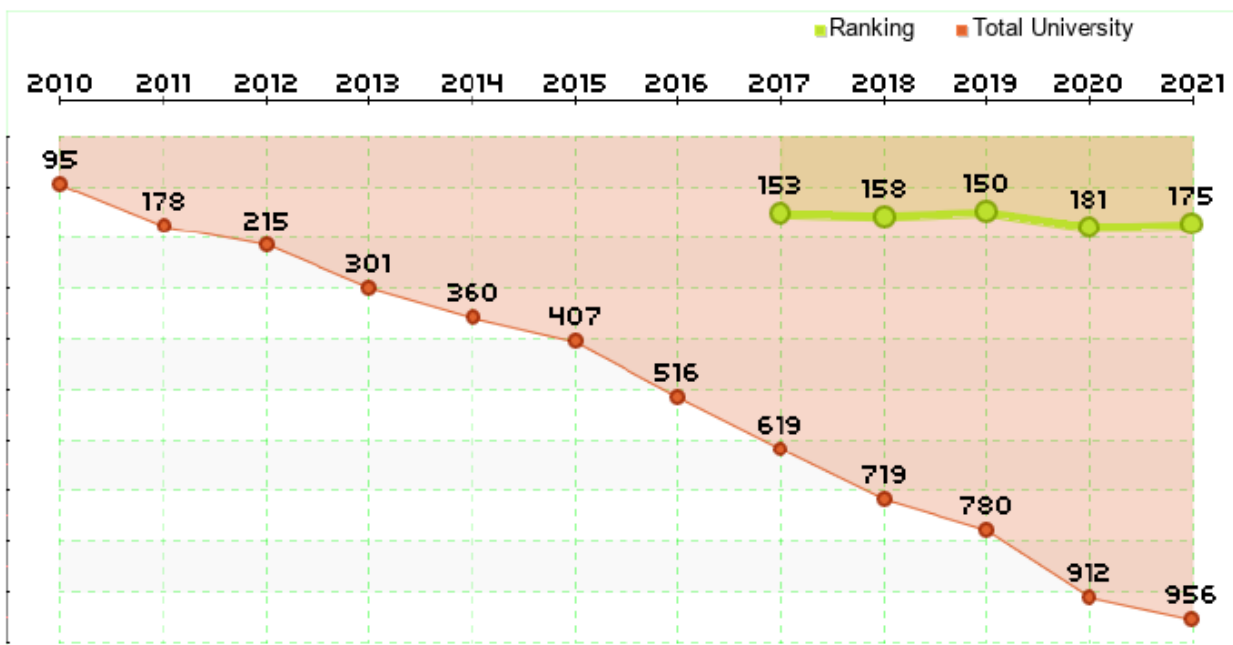
6.1. UI GreenMetric World University Rankings:

DIU Achieves 175th position globally in the UI GreenMetric world university rankings-2021. UI GreenMetric World University Rankings is an annual publication of university rankings on sustainability. It is an initiative from the University of Indonesia that ranks universities around the world based on their commitment and actions towards sustainability. UI GreenMetric World University Rankings aims to increase university awareness towards sustainability.

WORLD RANKINGS RESULTS SUMMARY



WORLD RANKINGS HISTORY



6.2. Times Higher Education University Impact Rankings

DIU Achieves Prestigious Position in THE Impact Rankings-2022



As per Times Higher Education (THE) Impact Ranking results 2022 released on 27 April, 2022, Daffodil International University obtained a prestigious position in the range of 301 to 400 among 1406 universities worldwide. It is worth mentioning that DIU was placed first among twelve universities including three public universities ranked from Bangladesh. THE Impact rankings measures the achievement of the United Nations Sustainable Development Goals attained by the participating universities and ranked accordingly.

It is really an outstanding achievement that DIU has been ranked 85th among 1180 universities ranked globally in Quality Education (SDG-4). It is a recognition of the university's continuous effort for development of teaching and learning as well as knowledge acquisition culture based on collaborative philosophy and importantly supported by the communication technologies.

Obtaining a seventy percent score in Partnership for the Goals (SDG 17) is another milestone of DIU in this year's THE Impact Ranking. It signifies strong collaboration and relationships with the national and international organizations and the Government of Bangladesh to carry out academic and research activities, and address social, environmental and economic issues through partnerships.

The full rankings can be seen at: <https://www.timeshighereducation.com/impactrankings/overall>

6.3. QS Asia University Ranking-2022

Daffodil International University (DIU) achieved a prestigious position in QS Asia University Rankings-2022. Based on the outstanding performance and initiatives, QS recognized Daffodil International University as one of the top 400 universities in Asia among 675 universities ranked. DIU achieved third position among private universities ranked from Bangladesh. In the 2022 edition, as a young university, (established in 2002) Daffodil International University performed among the top 52 percent in the QS World University Rankings (Asia). This is not only a great achievement for Daffodil International University but for the country



as well. This world ranking is offered mainly considering the quality education standard and research potentials of the ranked universities. DIU is recognized as the HIGH RESEARCH INTENSITY UNIVERSITY by QS.

The QS World University Rankings is an annual publication of university rankings which comprises the global overall and subject rankings. The QS World University Rankings is the most-widely read university rankings in the world.

6.4. Second Highest Scopus Indexed Research Publications in 2021 among Private Universities in Bangladesh

Daffodil International University (DIU) obtained second position among Private Universities in Bangladesh for its outstanding performance in Scopus Indexed Research Publications in 2021 with a total 514 Scopus indexed quality research publications. Earlier, DIU also obtained first position for its Scopus indexed publications in 2019 and 2020 among the private universities in Bangladesh.

Daffodil International University, a promising private university in Bangladesh cultivates quality education and research for sustainable development of the teaching and learning practices of the university. The university has created a congenial environment for the faculty members and the students for doing research in a collaborative manner and networking with the local and foreign universities.

6.5. DIU Ranked Within Top 500 Global Universities in U-MultiRank-2022



Daffodil International University (DIU) achieved overall position 490th among global universities by U-Multirank 2022. Besides, in the subject-wise ranking category, DIU's Computer Science & Engineering achieved 248th position among 396 universities; Civil Engineering achieved 176th position among 215 universities and Electrical Engineering achieved 149th position among 308 universities. DIU is the only university from Bangladesh to participate in this year's ranking.

The multi-dimensional approach of U-Multirank compares the performance of universities across a range of different activities based on five performance criteria: Teaching and Learning, Research, Knowledge Transfer, International Orientation and Regional Engagement. Both local and international students can make better informed choices about what, or where to study based on their preference. It is worth mentioning that the MIT, California Institute of Technology, University

of Cambridge, University of Oxford, Cardiff University, University of Leeds, etc. are also in this year's ranking list. A total of 2202 global universities have been included in the ranking list.

The full ranking list can be seen here:

<https://www.umultirank.org/compare?trackType=compare&sightMode=undefined§ion=compareRegion&mode=likewithlike&instutionalField=true&pref-4=1&pref-4=2&name=null&co&sortOrder=desc&sortCol=overallPerformance>

6.6. Research Award Giving Ceremony 2022



The main characteristics of a complete university is creating knowledge. Research is the key component of a university. To celebrate 500 Scopus indexed research publications in 2021 and to recognize the scholarly contributions of the faculty members, students and alumni, the Division of Research of Daffodil International University organized the "Research Award Giving Ceremony 2022" on 23rd March, 2022 at the International Conference Hall of the university, Daffodil Smart City, Ashulia, Dhaka. Prof. Dr. Biswajit Chanda, Member, University Grants Commission of Bangladesh (UGC) was present at the program as the chief guest.

6.7. SCIMAGO Institutions Rankings 2022



SCIMAGO
INSTITUTIONS
RANKINGS

Daffodil International University has been included in SCIMAGO Institutions Rankings (SIR) 2022 under Q2 category. The sustainable and environment-friendly quality research

and publications helped DIU to be included in the SCIMAGO Institutions Rankings. The SIR is a classification of academic and research-related institutions ranked by a composite indicator that combines three different sets of indicators based on research performance, innovation outputs and societal impact measured by their web visibility.

6.8. DIU Ranked in World's Universities with Real Impact (WURI)-2022



According to the World's University with Real Impact (WURI)-2022, Daffodil International University (DIU) was ranked in the 51–100 range for Entrepreneurial Spirit, which honors DIU's efforts and contributions to establishing an entrepreneurial education system and ecosystem in Bangladesh. In addition, DIU was ranked 201-300 in the world.

WURI is a ranking system that evaluates the real contributions of universities to society, highlighting creative and innovative approaches of universities' research and educational programs based on six categories: Industrial Application, Entrepreneurial Spirit, Ethical Value, Student Mobility and Openness, Crisis Management, and 4IR. This year's ranking was supported by the United Nations Institute for

Training and Research (UNITAR); the Hanseatic League of Universities (HLU); the Institute for Industrial Policy Studies (IPS); and the Taylor Institute of Franklin University Switzerland (FUS).

6.9. DIU-USAID PEER PROJECT



A Training and Workshop Program for the Students of the Department of Environmental Science and Disaster Management (ESDM), DIU was organized. Mr. Md. Jawadul Gani, Operations Manager and Research Assistant, USAID PEER Project, Md. Zaheer Iqbal, Deputy Conservator of Forests, Bangladesh Forest Department, Professor Dr. S. M. Mahbub Ul Haque Majumder, Pro-Vice Chancellor, Professor Dr. Engr. A. K. M. Fazlul Hoque,

Registrar, Professor Dr. A. B. M. Kamal Pasha, Head, Department of ESDM and other distinguished guests, faculties and students were present at the program.

The speakers recognized the contributions on Unmanned Aerial Systems-based Assessment of Tree Cover and Deforestation Dynamics in Bangladesh made by the Department of Environmental Science and Disaster Management of DIU through this project.

6.10. Recognition of DIU Alumni and Students

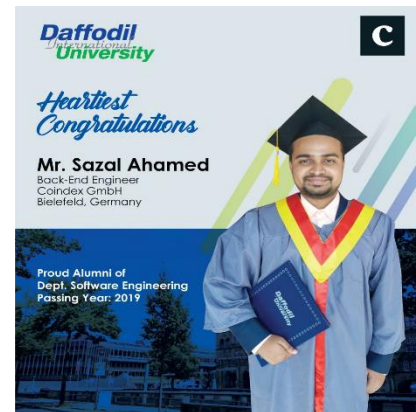
Mr. Ahmed Ishtiaq, an alumnus of the Department of Journalism, Media and Communication of DIU has been elected as the best journalist in the "Bashundhara Media Award" under the Freedom

fighter category of investigative journalism in print media. The title of his report was 'In search of an unknown freedom fighter'. Currently, he has been serving at the Daily Star newspaper.



Dr. A F M Shahan Shah, an alumnus of the Department of Electronics and Telecommunication Engineering of DIU achieved Gold Medal at the 32nd International Exhibition on Discovery, Innovation and Technology (ITEX). The exhibition was organized from 13-14 December 2021 in Malaysia.

Mr. Szal Ahamed has joined Coindex GmbH as a Back-End Engineer. Coindex is the first German platform for intelligent crypto portfolios (work with blockchain and crypto technology) located in Bielefeld, Germany. Mr. Szal is a Proud Alumnus of the Department of Software Engineering of DIU and completed his graduation in 2019.



Two of DIU students of the Department of Software Engineering, Tasnim Ara Shifa and Al Foysal Tuhin achieved the prestigious ERASMUS+ KA107 (a fully funded scholarship) to study one semester (Spring 2022) at Lodz University of Technology - TUL in Poland. The scholarship covered all expenses of the students for one semester including partial airfare. After completing the exchange program, students will be able to transfer the credit.



A Book Unveiling Ceremony was held titled 'DHEEFSHIIDKA & XANUUNDA HALEELA MARINNADA DHEEFSHIIDKA (Digestion and Alimentary Canal Diseases)' written by Mr. Awale Sheikh Dahir, an Alumnus of the Department of Public Health, Daffodil International University from Somalia. Dr. ABM Alauddin Chowdhury, Head of the Department of Public Health, DIU, unveiled the book as the Chief Guest.

Anirban” (অনির্বাণ), world’s first Bangla programing IDE for kids with STEM robot KITTY, developed by a student of the Department of Computer Science & Engineering of Daffodil International University Prapty Rahman and her team, was launched from Bangla Academy book fair stage on 02 March 2022. Professor Dr. Binoy Barman, Director of Future Leader Initiative (FLI), DIU, delivered a speech and launched it, in presence of the Director General of Bangla Academy Mohammad Nurul Huda. Other FLI members Dr. Sk. Abdul Kader Arafin, Dr. Bimal Chandra Das and Mr. Mustafizur Rahman Sameen addressed the occasion.



6.11. Daffodil International University Signs MoU with BRICM

A Memorandum of Understanding (MoU) has been signed between Daffodil International University (DIU) and Bangladesh Reference Institute for Chemical Measurements (BRICM) at Professor Aminul Islam seminar hall, of Daffodil Smart City, Ashulia, Dhaka on 3 February 2022. Dr. Mala Khan, Director General (Additional Charge), BRICM and Professor M. R. Kabir, Professor, Civil Engineering Department, DIU signed the MoU on behalf of their respective organizations.



Under the agreement, DIU students and faculty members will get advantages in providing chemical metrological traceability, contract research & development, testing, calibration, and training services.

6.12. Collaboration Between DIU and the Foundation of Chartered Taxation of Bangladesh (FCTB)



An MoU was signed between the HRDI, Daffodil International University (DIU) and the Foundation of Chartered Taxation of Bangladesh (FCTB) at Daffodil International University. Under this MoU, the HRDI, DIU and FCTB will offer professional courses in Tax Management including Income Tax, VAT & SD Act, Customs Act, VAT & Tax Automated Calculation Software with Practical Based Curriculum. The MoU was signed by Dr. Mohammad

Abu Yusuf, Joint Secretary, Ministry of Finance, GoB and Sr. Vice President of FCTB and Professor Dr. M Mizanur Rahman, Executive Director, HRDI, Daffodil International University (DIU) from their respective organizations.

6.13. Collaboration with Korea International Cooperation Agency and World Business Angel Investment Forum

On February 20, 2022, a high-level delegation from KOICA (Korea International Cooperation Agency) and WBAF (World Business Angel Investment Forum) visited Daffodil International University, Daffodil Smart City, Ashulia to explore possible collaboration in entrepreneurship development between KOICA and the university, particularly with the Department of Innovation & Entrepreneurship. The visit was attended by a group of 13 high officials, including the Country Director of KOICA Bangladesh.

The main objective is to combine the strengths of both the parties in order to promote and support entrepreneurs in every way possible. The university's Pro-Vice Chancellor; CEO of Daffodil Family, Dean of Academic Affairs, Dean of FBE, Registrar, Head and faculty members of the Department of Innovation & Entrepreneurship joined the meeting.



6.14. DIU in Global Entrepreneurship Congress

A delegation represented Daffodil and Bangladesh at the Global Entrepreneurship Congress (GEC) 2022 held at The Ritz Carlton, Saudi Arabia with the representation of more than 200 countries. Daffodil International University (DIU) and Daffodil Family Chairman Dr. Md. Sabur Khan led the Bangladeshi delegation.



6.15. Workshop on “Concepts to clinic/ marketing of scope of IP, Challenges and opportunity”



Daffodil International University arranged a day-long workshop on “Concepts to clinic/ marketing of scope of IP, Challenges and opportunity” on May 26, 2022 at Professor Dr. Aminul Isam Seminar Hall at Daffodil Smart City. Professor Dr. Azam Ali, Director of the Center for Bioengineering and Nanomedicine at the University of Otago, New Zealand conducted the workshop. He first visited the green campus of Daffodil International University and expressed his fascination. He then gave his

directional presentation in this important workshop. The workshop was hosted by Daffodil Legal Research Center in collaboration with International Affairs, DIU.

6.16. Member of the ‘SCHOLARS AT RISK’ network

Daffodil International University is now an official member of the ‘SCHOLARS AT RISK’ network with the goal of hosting international scholars, Speaker Series, Student Advocacy Seminars, Remote Fellowships, Academic Freedom Legal Clinics, Academic Freedom Monitoring the project, and other initiatives in-collaboration with SAR member institutions. It is an international network of



academic institutions founded in 1999 that works to support and protect academic freedom values

and the human rights of scholars worldwide. Over 530 higher education institutions from 42 countries are members of the network. The aim of SAR is to protect scholars suffering grave threats to their lives, liberty, and well-being by arranging temporary research and teaching positions, and by providing advisory and referral services.

7. SDG POLICY GUIDELINES

7.1. Policy Guidelines on Implementation of Sustainable Development Goals (SDGs)

According to the United Nations, Sustainable Development Goals (SDGs) were adopted by its member states to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The proper integration of policy interventions in all 17 areas of SDGs will lead to take action in one area will affect outcomes in others and eventually development must balance social, economic and environmental sustainability. As a higher education institute, Daffodil International University (DIU) is committed to respond to this universal call for SDGs and take actions to comply with the United Nation's endeavor and to support the Government of Bangladesh for achievement of desired outcomes. In this regard DIU is working closely with the Government, private sector, civil society and citizens jointly for implementation of SDGs and to make sure that the coordinated effort can create a better and sustainable planet for the future generations. With an aspiration to work for SDGs, DIU has formulated a number of policy guidelines

Higher Education Institutions have a pivotal role to play in educating the people regarding the targets of sustainable development goals (SDGs) set by the United Nations and facilitate achieving the national SDG targets of any country. Education and research have been mentioned in a number of sustainable development goals (SDGs). Daffodil International University (DIU) strives to formulate a policy on SDGs to take initiatives to adopt sustainable practices in its all development activities as part of its societal and environmental responsiveness. SDGs have open up a new horizon for DIU to explore its capability, readiness and initiatives towards ensuring sustainable development aligning with the national SDGs targets as well as contribution to the global sustainable development initiatives.

- Building awareness among university stakeholders, government and non-government counterparts regarding sustainable development goals and involve them for implementation of SDGs.
- Identify challenges, opportunities, targets and gaps for ensuring the true achievement of the SDGs.
- Undertake various research projects and conduct research by the relevant departments and sections of DIU for innovations and solving projects with regard to achievement of SDGs.
- Encourage researchers to collaborate with foreign university faculty members for research and publications.

- Conduct events, demonstrations, activities in collaboration with the government and NGOs for implementation of SDGs.
- Develop a sustainable development culture at the university as well as in the country for ensuring a sustainable living environment for future generations.

DIU library will do promotional activities to disseminate the policy among the local communities and take necessary initiatives for implementation of this policy. The Librarian will take record of use of library by the local communities. He will also make a yearly report and submit the report to the Vice Chancellor and the Division of Research of the university.

Policy

1. There will be an approved central SDGs committee in DIU to identify the current status of knowledge on targets of SDGs.
2. The approved central SDGs committee will form separate subcommittees in each academic department to look after all the relevant SDGs aligning with the central targets and initiatives of DIU. The following matrix will be helpful for playing role by each academic departments and division of the university.
3. Responsibilities of the departments for implementation of corresponding SDGs are indicated in the following table.

SDGs and assigned Departments	Activities
SDG 1 : End poverty in all its forms everywhere Department of Entrepreneurship and Department of Student Affairs	<ul style="list-style-type: none"> ○ Create entrepreneur, encourage entrepreneurship , conducting research ○ Organize awareness building programs, dissemination of innovations and good practices ○ Collaboration with relevant government and NGOs
SDG 2 : End hunger, achieve food security and improved nutrition and promote sustainable agriculture Department of Nutrition & Food Engineering	<ul style="list-style-type: none"> ○ Undertake projects, conduct collaborative research, dissemination of good practices among the citizens, involve neighboring communities and stakeholders ○ Provide support to communities involving students and teachers for motivation and changing their food habit.
SDG 3 : Ensure healthy lives and promote well-being for all at all ages Department of Public Health	<ul style="list-style-type: none"> ○ Conduct research and publish papers ○ Work closely with the local communities of all ages to ensure their healthy lives ○ Provide counseling and guidance in a regular manner ○ Update statistics of the services given to the citizen and the number got benefits

<p>SDG 4 : Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all Institutional Quality Assurance Cell IQAC)</p>	<ul style="list-style-type: none"> ○ Undertake analyses of the four targets (sub-categories) of SDG 4 and define activities relevant to all the four categories ○ Make a five-year plan for implementation of the activities relevant to higher education. Share the plan with all the departments for implementation. ○ Involve all the departments and faculty members to undertake the tasks ○ Promote use of communication technologies at all levels for quality education ○ Review progress on a regular basis and identify improvements and weaknesses for further development ○ Take initiatives to support other three agenda of Quality Education (SDG4)
<p>SDG 5 : Achieve gender equality and empower all women and girls Directorate of Students' Affairs Disciplinary Committee</p>	<ul style="list-style-type: none"> ○ Monitor and promote implement the existing policy of the university ○ Ensure rights and facilities for women and girls working and studying in the university ○ Disseminate the results and impact to other organizations/ institutions for their encouragement and implementation of the issues related to SGD5
<p>SDG 6 : Ensure availability and sustainable management of water and sanitation for all Department of Environmental Science & Disaster Management (ESDM) Department of Civil Engineering (CE) Planning & Development Division</p>	<ul style="list-style-type: none"> ○ Monitor the water and sanitation facilities available to the stakeholders within the campus and neighboring communities ○ Highlight the real picture of the neighboring citizens to the government and NGOs who are responsible for them ○ Ensure the facilities within the university campuses. Make proposals for budget every year to fulfil demand of the users
<p>SDG 7 : Ensure access to affordable, reliable, sustainable and modern energy for all Department of Electrical & Electronic Engineering (EEE) Department of Architecture Planning & Development Division</p>	<ul style="list-style-type: none"> ○ Undertake new projects and promote implementation of the ongoing projects on sustainable and modern energy for all ○ Involve government and NGOs for implementation of the projects ○ Collaborate with the international partner universities for implementation of the joint projects and funding

	<ul style="list-style-type: none"> ○ Conduct research involving the students and the teachers
<p>SDG 8 : Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p> <p>Department of Business Administration (BA)</p> <p>Department of Real Estate (RE)</p> <p>Department of Innovation & Entrepreneurship (IE)</p>	<ul style="list-style-type: none"> ○ Conduct empirical research to discern achievement of SDG 8 in the context of Bangladesh ○ Review best practices of the other successful countries and take initiatives for implementation with collaboration of the relevant Ministry/Division of the Government
<p>SDG 9 : Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</p> <p>Planning & Development</p> <p>Department of Architecture</p> <p>Division of Research</p>	<ul style="list-style-type: none"> ○ Conduct research and create innovative design for Infrastructural development in the context of Bangladesh ○ Work closely with the government for promoting targets of the governments related to SDG9
<p>SDG 10: Reduce inequality within and among countries</p> <p>Department of Students' Affairs</p> <p>Disciplinary Committee</p>	<ul style="list-style-type: none"> ○ Monitor inequality issues in within the university ○ Promote advocacy to remove barriers if any with the university ○ Disseminate best practices and examples to the other institutions, industries, office environments ○ Collaborate with the government to ensure achievement at all sectors ○ Conduct demonstrations for awareness building throughout the country involving NGOs who are working implementation for SDG10
<p>SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable</p> <p>Department of Architecture</p> <p>Planning & Development</p>	<ul style="list-style-type: none"> ○ Make a plan to demonstrate history and trend of human settlement, and innovations ○ Do research to identify future realist and sustainable settlement approach in the context of Bangladesh
<p>SDG 12: Ensure sustainable consumption and production patterns</p> <p>Planning & Development</p> <p>Department of Civil Engineering</p> <p>Department of Textile Engineering</p>	<ul style="list-style-type: none"> ○ The assigned Departments will identify the research gaps in the proposed area ○ Undertake research projects in collaboration with the relevant government institutions and international partner universities

<p>SDG 13: Take urgent action to combat climate change and its impacts Department of Environmental Science & Disaster Management Department of Electrical & Electronic Engineering</p>	<ul style="list-style-type: none"> ○ Take initiatives for implementations of the current research projects ○ Conduct research and disseminate knowledge to all stakeholders including the government ○ Conduct awareness building program on a regular basis ○ Collaborate with the government Ministries and departments to promote implementation of SDG13
<p>SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development Department of Environmental Science & Disaster Management (ESDM)</p>	<ul style="list-style-type: none"> ○ Undertake research in collaboration with the partner universities at home and abroad ○ Publish papers in Journals and conferences to disseminate knowledge
<p>SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss Department of Environmental Science & Disaster Management (ESDM) Planning & Development</p>	<ul style="list-style-type: none"> ○ Undertake research in collaboration with the partner universities at home and abroad ○ Publish papers in Journals and conferences to disseminate knowledge
<p>SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels Department of Development Studies Department of Law Department of Journalism & Mass Communication</p>	<ul style="list-style-type: none"> ○ Make a plan to design several activities and conduct awareness buildings programs involving the teachers and the students ○ Conduct survey to figure out adverse practices of the society and demands of the citizens ○ Take help from different electronic and print medias to highlight the relevant issues ○ Work closely with the government departments for bringing a changes in the society a s a whole
<p>SDG 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development Department of Development Studies Division of Research International Affairs Division of Students' Affairs</p>	<ul style="list-style-type: none"> ○ As a higher education institution develop several models of achievements of SDGs in different country contexts ○ Collaborate with the Ministry of Planning and other relevant ministries to collect documents/ evidence to understand up to date achievement of SDGs (1-17) ○ Establish networking with the government and NGOs for organizing joint programs and provide

	<p>funding for implementations of projects, initiatives, events, demonstrations etc. throughout the countries</p> <ul style="list-style-type: none"> ○ Conduct research on achievement of sustainable development goals ○ Make a yearly report on achievement of sustainable development goals in the content of Bangladesh and contribution from Daffodil International University
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4. Each subcommittee will undertake necessary initiatives within their SDG(s) horizon to comply the central targets of DIU related with SDGs. The initiatives may include (but not limited to):
 - Formulating other relevant policies (if required)
 - Organizing events/cross discipline dialogues with the Government agencies/NGOs/other organizations
 - Conducting survey(s) and research on specific SDGs targets for finding an easy way for achievement of the targets
 - Partnering, collaborating and cooperating with the initiatives of the Government and NGOs with a view to implement the specific targets of relevant SDG(s)
 - Involving students and local community in the SDG related initiatives
 - Creating awareness among students, teachers, guardians, non-academic staff, local community etc. regarding the SDGs and their positive impact on the world.
 - Participating in relevant events, organized by others, both at home and abroad.
 - Developing necessary recommendations and comments which are significant for ensuring implementation of targets of SDGs and share the same (through DIU central SDGs committee) with the Government for inclusion in their policy initiatives.
2. Each subcommittee will keep record of each initiative and preserve those for future requirement
3. Each subcommittee will prepare an annual report incorporating all of its initiatives during that particular year and submit the report to the Convener of the central SDGs committee as per their given timeline.
4. The Central SDGs committee will guide and monitor the activities and initiatives of all subcommittees through holding at least two meetings per year to ensure that they are working in the right track.
5. Each subcommittee will hold at least three meetings for planning and implementation of their targets, initiatives and activities.

All the subcommittees and the central SDG committee will be reportable to the Vice Chancellor of the university.

7.2. General Guidelines on Water Pollution Reduction

General Guidelines on Water Pollution Reduction

Keeping a protected standard of water quality is considered to be very significant to all stakeholders, nowadays. Water quality is turning into a very important agenda required to be implemented to ensure the fullest implementation of certain sustainable development goals of the UN. It is essential for every individual organization along with the country at large to ensure the maximum level of water pollution reduction at their end through formulating and implementing relevant policy guidelines. Ensuring safe and healthy drinking water for all in the future is also a matter of concern as duly addressed in the SDGs of the UN. Medicine hormones, toxic chemicals, and other compounds are responsible for a variety of health problems in fish, and other aquatic animals and contaminate drinking water that people and livestock use. Daffodil International University (DIU) considers the well-being of its stakeholders as a top priority agenda. The formulation of general guidelines on water pollution reduction, complying with the environmental laws of the country, is a testimony to that concern of DIU.

Guidelines:

1. The Planning and Development wing of DIU is entrusted with the responsibility to coordinate, facilitate and oversee the implementation of aspects related to water pollution and to get required environmental permission from relevant government authorities.
2. All locations in the DIU campus at the Daffodil Smart City, and other spaces owned or controlled by the university are included under the guidelines.
3. Chemicals, used in laboratories by different departments and medicines along with medical wastes produced at DIU Medical Center, will be handled separately with proper care and caution so that chemicals can never be discharged through the normal drainage system of the university. The toxic chemicals and toxic wastes must be kept in separate toxic waste bins and be dumped into the dedicated toxic waste collection vehicles of the local government body. The concerned academic departments, medical center, and Planning & Development wing of DIU will ensure it.
4. As some chemicals like Phosphates can kill fish and other aquatic animals by reducing the oxygen level in the water, the Procurement Department of DIU will ensure the purchase of non-toxic cleaners and biodegradable cleaners (phosphate-free detergent and dish cleaner, etc.) to be used for various cleaning purposes to avoid probable pollution.
5. Grease, fat, and used cooking oil should be disposed of in a separate trash bin for disposal with other solid wastes in the waste collection vehicles of the local government body.
6. The Planning and Development wing of DIU will ensure setting up environment-friendly devices to ensure safe and pure drinking water across the campus free for all.
7. No chemicals and pesticides should be used on the planted vegetation and farming on campus as these chemicals and pesticides are mixed with rainwater and can make the water bodies of the university campus polluted. The Department of Nutrition and Food Engineering and Planning & Development wing of DIU will ensure the use of only organic composting in campus farming.
8. The water bodies situated within the DIU campus will need to be cleaned up every three months in an environmentally-friendly way. The Planning & Development wing will take initiatives to plant trees and grasses along the banks of the ponds, lakes and other water bodies to reduce erosion and water pollution.
9. The Department of Civil Engineering and Department of Architecture with the support of the Planning & Development wing of DIU will ensure rainwater harvesting; reuse of the used water; and ensure required water recycling programs on campus.

10. The Planning & Development wing of DIU will ensure that no plastic bottles & containers, wastes, and other materials be dumped into the water bodies on campus.
11. The Transport department of DIU will regularly check whether oil and other fluids leak from motor vehicles which also contribute to water pollution. They need to ensure proper maintenance and replace the worn parts of the vehicles to avoid such leakage.
12. The students' clubs along with respective academic departments can initiate cleaning up the sea beaches and rivers of the country as well with assistance from the University to facilitate water pollution control programs across the country.
13. Relevant academic Departments in cooperation with the Planning & Development wing of DIU will ensure necessary training and awareness programs so that students, faculty, and employees of the University can easily identify pollution sources and take steps toward solutions.

7.3. Guidelines on Smoking Free Campus

Guidelines on Smoking Free Campus

1. The entire campus of Daffodil International University (DIU), the premises of Daffodil Smart City (DSC), and other properties owned by the University is declared as a no smoking zone through immediate implementation of these guidelines.
2. The guidelines will also be applicable against the use of smokeless tobacco products like Zarda, Sadapata, Gul, etc. on campus.
3. Drinking alcohol and all type of alcoholic beverages by anyone is strictly prohibited at the university campus and premises owned by DIU.
4. No one (teachers, students, employees, visitors, Guests, guardians, etc.) is allowed to smoke inside the DIU campus to ensure a pollution-free campus.
5. Carrying cigarettes, alcoholic beverages, smokeless tobacco, any other drugs and substances, that are forbidden by the national laws, are strictly prohibited inside the DIU campus and its own premises outside the campus.
6. If anyone is found violating any clause of this policy, the Disciplinary committee of the university will take stern actions against him/her as per their jurisdiction and TOR.
7. These guidelines of Daffodil International University have been formulated to ensure a healthy and environment-friendly atmosphere inside the campus area. It will facilitate the prevention of all types of tobacco & alcohol use and drug addiction on campus. This will also support those who are willing to get rid of tobacco, alcohol and drug use for good.
8. These guidelines are applicable to all stakeholders including teachers, students, employees, visitors, members of the Trustees Board, Guests, third-party personnel/workers, guardians, etc. inside the entire DIU premises including halls, open spaces, sports grounds, libraries, canteen, classrooms, teachers' lounge, teacher's room, toilets, etc. along with outside locations possessed by the University.

7.4. Environmental Sustainability Strategy

Environmental Sustainability Strategy

Environmental degradation is a top-level concern of the global community. Every country has responsibilities and mandates for protecting their environment whatever ways are

available to them. As a young higher education institution Daffodil International University has formulated a set of sustainable strategies in various sectors of the university. The environmental sustainability strategy outlines the targets, goals and objectives in such a structured way that it strives to achieve the goals with a view to ensuring a greener, environment-friendly and sustainable campus. DIU has been implementing the strategies since 2021 so that it can have a better understanding and make pioneering contributions for creating a safer and sustainable planet. DIU has progressed positively towards sustainability which has also been recognized globally though DIU's achievement of several SDGs in the recent THE Impact Rankings.

The Strategy is also guided by our university's values of ethics, quality, leadership, innovation, diversity, and lifelong learning. The strategy focuses on the following priority areas.

Curriculum:

DIU will create opportunity for its students of all programs to learn environmental sustainability, disaster management, SDGs, climate change etc. through active participation of various events both national and international round the year. Several graduate programs were designed and offered several years ago with a view to enhance achievement of SDGs as crucial agenda of national and international communities. These programs are executed by the departments of (i) Environmental Science & Disaster Management (ESDM), (ii) Development Studies, (iii) Civil Engineering, (iv) Architecture, (v) Textile Engineering etc. In addition, SDG related courses are included in the syllabi of different departments for understanding and reduce knowledge gaps of the students. Nonetheless, DIU students will be provided with experience of practical oriented best practices on environmental sustainability.

Student Associations:

All the students will be made aware of the significance of environmental sustainability and act on it for achievement of SDG goals by the year 2030 as set by the government of Bangladesh. At least twenty student associations (clubs) are working to involve students of all the programs of the university with environmental sustainability events, community development, socially works (education for all, poverty reduction, medical campaign) etc. The student affairs division of the university is responsible for providing this support through engagement of the faculty members of the respective departments.

Faculty:

The faculty members of the university regardless of the disciplines will participate in any national and international programs and events that articulates achievement of Sustainable development goals. The university will provide finding for organizing such programs in collaboration with the international organizations for example, WHO, UN, UNDP, UNESCO etc.

Documentation and reporting of their participation are mandatory for the teachers. These resources will be made available to the public through the DIU website.

Research into SDGs:

The university will continue its ongoing research and publications in the area of SDGs. The research will be governed by the university policy guidelines as well as maintaining collaborations and networking with the local and foreign universities. The University will encourage the faculty members and the students to submit research project on different disciplines of sustainability (climate change, medical and health, solutions for environmental pollution etc.) and provide funding for undertaking these projects as per the existing policy of the university.

Carbon emission:

DIU targets to reduce the net carbon emission and CFC released from transports, air coolers, refrigerators, and relevant equipment used in the university premises. The department of ESDM, EEE, and Civil Engineering will take initiatives and undertake these tasks.

Environment friendly infrastructure and accommodation:

The construction of the physical infrastructure (buildings) of the university will follow the environment friendly building design and integrate features of renewable energy approach for example solar energy production, air flow mechanism throughout the buildings, windmill, plantations in the campus, water reservoir etc. These will enable an environment friendly campus. The university will accommodate majority of the students in its residential halls both male and female by 2030. DIU also has targeted to fully accommodate both academic and non-academic staff in its hostels, dormitories, studio apartments, family apartments, etc. by the year 2030 in the Daffodil Smart City.

Food:

DIU will strive to provide enough facilities for the residents of Daffodil Smart City (DSC) to eat a balanced, fresh and safe food. It will develop proper rapport with the supply chain and will be monitoring the processing, packaging and preserving mechanism in this respect.

Energy:

DIU is fully committed to reduce the consumption of greed electricity by enhancing the energy generation from renewable sources. It will continue its effort in installing and maintaining solar panels in the rooftops of all the building of DIU campus. It will also set up Biomass plant to produce energy from alternative sources. DIU will also explore other alternative sources of renewable energy.

7.5. Sustainable Investment Policy

Sustainable Investment Policy

Preamble:

Addressing and accommodating the sustainable development goals (SDGs) of the UN in various initiatives is considered to be a significant agenda for Daffodil International University (DIU) since its inception. This policy outlines the strategy in making investment decisions recognizing environmental, socio-economic, cultural,

and governance issues in a responsible and sustainable manner so that the current investment made by the university will not have negative impact on future generations.

Objectives:

- Making a balance between return on investment and contribution towards environmental sustainability
- Creating awareness among university stakeholders regarding impactful and sustainable investment strategy
- Providing proper direction to take the investment decisions of the university by safeguarding the environment and the earth
- Maintaining a portfolio of diversified investment aligning with the future development plan of DIU

Scope:

The sustainable investment policy is applicable to all investments (both existing and future investments) by Daffodil International University irrespective of its amount, area, stakeholders and partners, etc. This investment policy strategy will be reviewed as and when required by the investment committee of DIU to address each significant new issue.

Sustainable Investment Policy:

1. DIU is committed to make investment for the development, updating and maintenance of effective online platform like Blended Learning Center (BLC) to ensure uninterrupted teaching-learning during any unexpected situations and pandemics.
2. Producing and maintenance of renewable energy; sustainable & environment-friendly innovations and projects like: solar car, solar-based dryer device, reducing use of plastic, etc. will be in the priority investment list by the university.
3. DIU is committed not to invest in any financial institution, Stock-security, or venture capital fund that has a stake in the exploration or extraction of fossil fuels, has link with high carbon-emitting industry & companies that use a high volume of greed electricity, have a direct negative impact on the environment and global warming, etc.
4. The university will continue its stands not to invest anywhere which will be harmful to society or the environment or to the human and animal health. DIU will never invest in companies or businesses for example: weapons & ammunition, plastic industry, alcohol, leather industry, tobacco and other businesses which are illegal as per the national and international laws.
5. DIU is highly committed to investing in any organization/financial institution/venture capital fund that strives to reduce carbon & greenhouse gas emissions, works on solutions for climate change, engages itself in community support activities, corporate responsibilities, etc. DIU will also put emphasis on investing in businesses with responsible culture, practices, no child labor use, and good governance.

6. A significant portion of the financial annual budget of the university will be invested in implementable and impactful research projects and publications that will facilitate the implementation of the sustainable development goals (SDGs).
7. The University will strive to be a signatory of the United Nations Principles of Responsible Investment (UNPRI), Bangladesh Environmental Lawyers Association, UN Global Compact, Association for the Advancement of Sustainability in Higher Education, SDG Accord, SDSN, SDG Help Desk, etc.
8. This policy will emphasize investment on sustainability, social responsiveness, positive environmental impact, implementation of SDGs, innovating less carbon-emitting devices and machinery, facilitating the affordability of zero-emission vehicles, etc.
9. The university will continue and increase its investment towards various entrepreneurial initiatives and projects of DIU such as: innovation lab, business incubator, Venture capital fund, Industrial & Innovation Park startup market, etc.
10. DIU is committed to enhancing its graduates' visibility and presence across the world through investment in organizing and hosting necessary events, competitions like: TEDxDaffodilU, Startup Fest, Industry-academia lecture series, HULT Prize DIU, etc.
11. The university will provide funding for research; conservation; development; and production of different kinds of organic fruits and trees and will continue (if required) the investment to Daffodil Agro Complex, situated at Gojaria.
12. An investment committee will be formed by the Vice Chancellor of the university which will report to the Board of Trustees of the university. The committee will submit annual investment report to the Board of Trustees through the Vice Chancellor for their information and approval.

7.6. Accommodation Facilities and Policy Guidelines (Special facilities are provided to disabled persons)

Accommodation Facilities and Policy Guidelines (Special facilities are provided to disabled persons)

Preamble

Accommodation is the basic need for employees and the students of the university. The management of Daffodil International University is committed to create a congenial environment for all the stakeholders. An environment friendly campus was built at Asulia, Dhaka to conduct the academic and administrative activities adopting advanced technology supported facilities for the employees and the students. In order to fulfill the necessity of the employees and the students, different types of accommodation facilities are created within the large campus area so that, everyone can perform their responsibilities in an efficient and effective manner. The in-campus accommodation facilitates a harmonic life of the stakeholders.

DIU is committed to providing equal opportunities and access irrespective of gender, religion, castes and creeds. However, the disabled/physically challenged people will get special favor in all of its facilities.

Objectives

- This policy aims at ensuring functioning, maintenance, livability, ethical recreation, safety, security etc. of the residents who will be enjoying the university accommodation facility.
- The policy intends to define the process for eligible students and staff (including persons with disability/physically challenged) of the university to seek reasonable accommodations arranged by the university.
- The following policy is applicable for all categories of students (undergraduate, graduate, local & international) as well as full-time and part-time staff of DIU.

Policy guidelines

1. Students and staff who are experiencing barriers to effective participation in the University activities due to having accommodation/distance accommodation problem are entitled to avail the university arranged accommodation facility.
2. The accommodation management committee will assign a team to conduct sudden visit to students' accommodation to see whether they are complying with applicable rules and regulation effectively or not.
3. The student (including person with disability) willing to avail the university accommodation facility, must have to officially apply through the online Hall portal (<https://pd.daffodilvarsity.edu.bd/hall>) following the guidelines (<https://hall.daffodilvarsity.edu.bd/page/guidelines>)
4. International students will need to apply for availing accommodation facility in the same process.
5. The accommodation management committee will evaluate the application and inform the decision to concerned accommodation office and then the office will inform the final decision to concerned applicant and officials for necessary implementation.
6. Before getting accommodated in university accommodation facility, the applicant must have to sign an agreement that he/she will be bound to comply with all rules and regulations of the authority as a resident student/staff.
7. The accommodation fee will be fixed by the accommodation management committee which will be collected from resident students during admission in each semester and will be deducted from the monthly salary of the resident staff by the central finance and accounts section of the university.
8. DIU intends to provide accommodation facility for the local and international guests who will be visiting the university on a temporary short-term basis. The concerned academic department will contact the accommodation management committee or international office for confirmation of the availability of accommodation and support services for the desired number of guests and also make arrangement for payment of required fee or waiver from DIU management.
9. Accommodation decisions will be reviewed on a regular basis in each trimester and adjusted accordingly by the accommodation office.
10. The university accommodation management committee thereby holds all the rights to approve or reject any applications for accommodations and modify or update the policy as and when required.

Facilities for Persons with Disability/Physically Impaired People

1. DIU defines disability as a physical or mental impairment that substantially limits one or more major life activities.
2. This policy ensures the significance of implementation of reasonable and friendly accommodation for its disabled and physically challenged students, academic and non-academic staff.
3. Students and staff who acknowledge and term themselves as disabled/physically challenged and officially seek university accommodation facility following the applicable procedures are eligible to avail accommodation facility.
4. Besides, the applicant will also need to provide evidence of his or her disability from the Government approved doctors who are practicing in Government approved hospitals in Bangladesh.
5. The accommodation management committee will provide free accommodation facility for persons with disability depending on the financial condition and needs of the applicant under this category with the support of Daffodil Institute of Social Sciences (DISS)- an institute which takes care of the disabled and destitute people of the society, and other scholarship facilities of the university.
6. The ground floor of all the halls will be allocated for persons with disability for ensuring their easy and comfortable entry and exit. There is ramp facility in all the stairs of the residence and all the elevators have easy access facility for the disabled.

Accommodation Types:

DIU intends to provide the following types of accommodation for its students and employees:

- Male Students Hall
- Female Students Hall
- Accommodation for International Students
- Dormitory (studio apartment) for faculty and admin

Accommodation Facilities

In-room Amenities

- One Bed per Student shall be offered
- Fully furnished rooms with beds & underbeds drawer
- Study tables & Chair
- Tube lights & LED, Fan
- Dust Bin in each room

Self Help Amenities

- Laundry Service
- Filter Water facility to be provided
- Medical facility available with first aid/ provided to sick Residents
- Doctor on call number(s) to be shared with the students
- Dining area

Security

- CCTV Cameras
- Security Guard
- 24 Hour Security (incl CCTV)

Electricity

- Electricity Facility
- Generator facility 24/7

Broadband &WiFi

- High speed internet to be provided for each student

Housekeeping

- Rooms
- Washrooms
- Common areas are cleaned on a daily basis
- Regular pest-controlled services

Entertainment

- Mini lounge area with sitting arrangement
- Common TV
- Indoor games like carrom, chess, table tennis etc.

Common Facilities in Campus area

- Separate hostel facility for boys and girls
- Fully furnished accommodation
- 24 hours security and CCTV
- Wifi Facility
- Study Room
- Newspapers reading area
- Uninterrupted power supply, separate Generator
- Medical facility
- Playground
- Well-equipped Gym
- Canteen
- All types of sports facilities (Indoor & outdoor)
- Laundry facility
- Barber shop
- Computer Lab
- Internet facility
- Transportation
- Water Purifiers
- Prayer Hall
- Television room
- Guest Rooms

- Common Room
- ATMs inside campus

Support Services

To ensure the students feel safe and secured and give a homely feeling, DIU has a dedicated team and resources to assist:

- Academic support
- Health Service
- IT Service
- Counselling (Male - Female - psychologist)
- Emergency Medical Service
- Emergency Ambulance Service
- Transport Service
- Sports & Extracurricular support

Safety and Security

- The hall/hostel/quarter administration under the guidance of the accommodation management committee will arrange and ensure all required safety and security measures inside and outside the accommodation premises so that the students, academic and non-academic staff can live and study with a peaceful and secured manner.
- The hall/hostel/quarter administration will ensure deployment of sufficient number of trained security guards (including female guards for female hostel) in each accommodation premises.
- The DIU Medical and fitness center will provide any emergency medical support and DIU ambulance service will be available to resident students and staff for emergency case only.

7.7. Sustainable Procurement Strategy

Sustainable Procurement Strategy

Daffodil International University embraced the agenda of sustainable development goals in their academic and administrative activities upto the optimum level. The Sustainable Procurement Strategy of the university outlines the sustainability viewpoint, identifies requirements, and adopts practices for procurement of products and services. It has been perceived that in case of purchasing huge items of goods in the university considering environmental sustainability was envisaged to be a part of this process. Formulating this policy/ strategy will direct the university authority and the committees who are involved in the procurement process to accomplish the tasks in an efficient manner.

Objectives

- procuring of products and services that ensure maximum efficiency with no or less harm to the environment and sustainability of the earth.
- ensuring the university's stakeholders that health safety, environmental wellbeing, social responsibility and ecological balance are positively considered while procuring products/services.

- creating awareness and promoting best practices in sustainable procurement across the university.

Scope

This strategy may be reviewed as and when required by the Procurement department in consultation with relevant persons of the university and it applies to everyone who procures and specifies products and services on behalf of DIU.

The sustainable procurement strategy of DIU

1. Striving to practice the procurement of recyclable and/or compostable products considering the environmental wellbeing
2. Practicing the procurement of products/services that are beneficial and safe for the university, local community, environment and sustainable economic development
3. Complying with the DIU's overall sustainability policy through sustainable procurement practice
4. Emphasizing not to procure any products where plastic/ hazardous materials/ chemicals are used in the production process or delivering services
5. Prioritizing waste reduction through adopting the 3R concept, (reduce, reuse and recycle).
6. Emphasizing and ensuring procurement of less carbon emitting products/ services, energy efficient appliances, water efficient appliances, and zero emission vehicles, etc.
7. • Procuring and installing equipment and machinery necessary for generating renewable energy in campus
8. Managing or arranging proper training for enhancing the understanding and knowledge of the university staff involved in the procurement process.
9. Selecting vendors/suppliers based on their level of social responsibility, commitment and practice towards environmental wellbeing and use of environment-friendly ingredients as well as production process.
10. Including the vendor company in the DIU blacklist if it practices use of child labor, modern slavery, noncompliance with the environmental and human rights standards (both national and international).
11. Emphasizing the vendor/supplier companies that employ physically challenged and disabled persons
12. Encouraging the local community, physically challenged, SME and ethnic minority suppliers/vendors to take part in the bid for university contracts

Sustainable Procurement Process

1. Concerned academic or non-academic department will first submit procurement request to the Procurement department (PD) of DIU
2. After receiving the procurement request, the PD will immediately start the procurement process
3. The PD will circulate the Request for Quotation (RFQ) for inviting vendors/suppliers to submit price quotation with specifications within a stipulated timeline

4. The vendors/suppliers will submit their quotations to a specific tender box
5. After the submission deadline, the PD will send all the received quotations (intact) to the Quotation evaluation committee (QEC)
6. The QEC will properly compare all the vendors' submitted quoted price with specifications and check their level of social responsibility, sustainable practices, environment-friendly work place, use of hazardous ingredients, child labor use, employing disabled people, economic and other relevant issues.
7. The QEC will prepare and submit a summary report (Comparative Statement – CS) with recommendations to the Selection committee.
8. The selection committee will finally select the vendor(s)/supplier(s) for awarding the contract
9. The PD will inform the selected vendor(s)/supplier(s) and make arrangement for contract signing as per DIU standard.
10. At the final stage, the PD will offer work order to the selected vendor/supplier

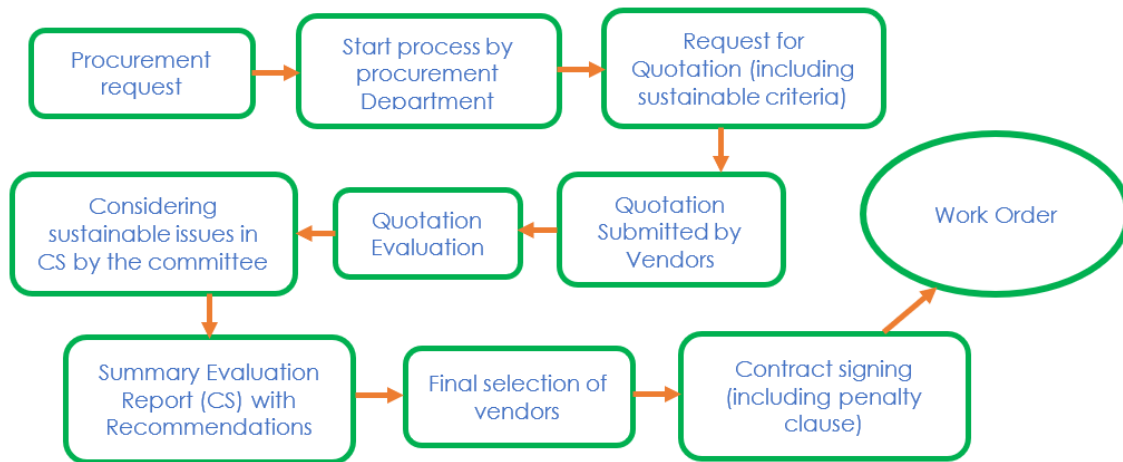


Fig 1: Sustainable procurement process at DIU

The above figure demonstrates how the procurement process is accomplished in an effective manner with careful attention on sustainability issues.

7.8. Sustainable Procurement Practice

Daffodil International University has been implementing the sustainable procurement practices. All the procurement procedures of DIU are maintained through online which does not require any use of paper. Sustainable ethical procurement guidelines is maintained during the procurement.

User Guide for Vendors:

[https://etender.daffodilvarsity.edu.bd/Online Procurement%20 System User Manual Vendor%20Ver-1.1.pdf](https://etender.daffodilvarsity.edu.bd/Online%20Procurement%20System%20User%20Manual%20Vendor%20Ver-1.1.pdf)

Sustainable procurement strategy of DIU:

https://sustainability4d.daffodilvarsity.edu.bd/sustainable_procurement_strategy.php

7.9. Other Relevant Policies

A number of SDG policy guidelines were developed before and made available online. The titles of these policies are given below with web links.

[Maternity Leave Policy](#)

[Anti-Harassment and Non-Discriminatory Policy](#)

[Policy for Managing Women's Career Counseling Services](#)

[Women Access, Participation, Counseling and Mentoring Policy](#)

[Women Access, Participation, Counseling and Mentoring Policy](#)

[Zero Emission Policy](#)

[Pedestrian Walkway Safety Policy](#)

8. EVENTS AND AWARDS

Daffodil International University regularly arranges a good number of events related to the sustainable development goals (SDGs) round the year. A number of selected events in collaboration with the government institutions, NGOs, local and international partners are given below.

8.1. Special Citizen Award for Changing perception and Improving the Quality of Life of Persons with Disabilities



The event, titled "UCBL Suborna Nagorik Award 2022: Special Citizen Award for Changing perception and Improving the Quality of Life of Persons with Disabilities" was organized by the Suborna Nagorik Foundation in association with United Commercial Bank (sponsor), Daffodil International University (strategic IT partner) and The Daily Star (media partner). A total of fifteen persons with disabilities and organizations working for them from different parts of the country were honored with crests and certificates at Daffodil Education Network Conference Hall in Dhanmondi on 5 September 2022. DIU Chairman Dr. Md. Sabur Khan was also present among others.

8.2. Webinar on Waterways in our Communities

The Department of Journalism, Media and Communication (JMC) organized a webinar on 'Waterways in our Communities' on September to celebrate World Rivers Day 2022.



Eminent river experts, academicians and activists shed light on the importance of waterways in the modern world at the webinar. The main objective of the webinar was to raise awareness and inspire students to learn more about the usage, utilization and conservation of our rivers as Bangladesh is a riverine country. A good number of

students joined the webinar and enhanced their learning regarding the waterways.

8.3. Day-long training session on- Basic Psycho-social Support Skills for Teachers

Daffodil International University is not only concerned about the academic excellence of students but also focuses on their psychological and emotional well-being. With that in mind, the Office of the Director of Students' Affairs, DIU organized a day-long training session on- Basic Psycho-social Support Skills for Teachers on 31st August 2022 conducted by Counseling Psychologist Dr. Lipy Gloria Rozario, Faculty, Department of Educational and Counseling Psychology, University of Dhaka. Dr. Rozario completed Bachelor in Clinical Psychology (Rome), Italy; MA in Counseling Psychology & Spirituality (USA) and Ph.D. in Counseling Psychology. The session was attended by more than 30 faculty members of DIU to be introduced with the basic psycho-social support skills and techniques for responding to students' psychological & emotional issues so that they can identify students who are in need of additional academic or personal counseling.



8.4. World Environment Day 2022 Observed

Department of Environmental Science and Disaster Management, Daffodil



International University observed #World_Environmental_Day_2022 at the Daffodil Smart City, Ashulia, Dhaka.

World Environment Day Summit 2021 is a two (02) day long program of talks, activities, student competitions and webinars on the theme of World Environment Day 2021, presented by the Department of Environmental Science and Disaster Management (ESDM), Daffodil International University (DIU).

8.5. Independence Day Mini Marathon 2022

To mark the celebration of 52nd Independence Day and National Day of Bangladesh, Daffodil International University organized Independence Day Mini Marathon 2022 at the Daffodil Smart City, Ashulia, Dhaka. Total 175 DIU students participated in this Mini Marathon.



8.6. World Environment Day Summit 2021

World Environment Day Summit 2021 was a two (02) day long program of talks, activities, student competitions and webinars on the theme of World Environment Day 2021, presented by the Department of Environmental Science and Disaster Management (ESDM), Daffodil International University (DIU).



8.7. Seminar on 'Waste to Energy Conversion'

The Department of Environmental Science and Disaster Management (ESDM) of Daffodil International University organized a virtual seminar on 'Waste to Energy Conversion' on December 12, 2021. The keynote speakers at the seminar were Professor Mahbub Hasan, Founder Chairman, MPower (Canada) and 3M Energy Ltd and Mr. Naimul Islam, Managing Director, Solar E Technology Australia Ptv. Ltd.



The seminar was presided by Dr. Kamal Pasha, Head, Department of ESDM. Md. Sadril Islam Khan, Lecturer of the department, moderated the event.

8.8. Workshop on Engaging University Students with UNODC Educational Materials TIP & SOM Modules



The Department of Law, Daffodil International University in collaboration with United Nations Office on Drugs and Crime (UNODC) with the support of its GLO ACT-Bangladesh Project, organized a Workshop titled “Engaging University Students with UNODC Educational Materials TIP & SOM Modules” on 11 June 2022 at Professor Aminul Islam Seminar Hall, Daffodil Smart City, Ashulia. The program was arranged to familiarize the UNODC education for justice TIP and SOM university level modules with the students

of the Law Department of Daffodil International University, and also to explore the opportunity to engage them in awareness raising about human trafficking and migrant smuggling.

The program has been graced by the kind presence of Prof. Dr. S.M. Mahbub-Ul-Haque Majumder, Pro-Vice Chancellor, Professor Dr. Engr. A. K. M. Fazlul Hoque, Registrar, Professor A. M.M. Hamidur Rahman, Dean, FHSS, DIU, Mr. A.B.M. Imdadul Haque Khan, Advocate, Supreme Court of Bangladesh & Head of Chamber, I.H. Khan & Associates and respected faculty members of Dept. of Law.

8.9. Seminar on "Impact of Climate Change on Flooding: Bangladesh and Australia



The Department of Environmental Science and Disaster Management (ESDM) and The Department of Real Estate (DRE) jointly conducted a seminar on "Impact of Climate Change on Flooding: Bangladesh and Australia" to reduce the flooding problem in our beautiful riverine country with the comparison between two countries. Professor Dr. Ataur Rahman, Professor of Water Engineering, Western Sydney University, Australia was present at the seminar as the keynote speaker.

8.10. Lithuanian Faculty visited Daffodil Agro Complex at Gozaria

Daffodil Agro Complex, situated at Gozaria, Munshiganj, is managed under the supervision of Daffodil International University's Department of Nutrition and Food Engineering and Department of Innovation and Entrepreneurship to grow varieties of organic fresh fruits from the Germplasm Center of Bangladesh Agricultural University. Recently, Dr. Gražina Čiuladienė, Professor and Dr. Miglė Eleonora Černikováitė, Associate Professor, Institute of Communication, Faculty of Human and Social Studies, Mykolas Romeris University, Lithuania (Exchange Faculty Members of DIU Under EU's Erasmus Scholarship) visited 'Daffodil Agro Project' to explore variety of fruits and know about the project in person. Through this initiative, students of DIU are able to develop themselves as entrepreneurs through hands-on learning of various researches, low-cost organic food production and marketing by using this garden.



8.11. Inauguration of Health Informatics Research Lab at DIU.



The Inauguration Ceremony of Health Informatics Research Lab was held at the Prof. Aminul Islam Conference Hall, Daffodil Smart City, Ashulia today.

Dr. Md. Zahid Hasan, Associate Professor, Department of CSE, DIU and Dr. Sami Azam, Senior Lecturer, Charles Darwin University, Australia were present at the inauguration ceremony as the speakers. The Head of the Department of CSE, Associate Head, Faculties and students of the Department were present at the program.

8.12. 14th Foundation Day of the Department of Real Estate

The celebration of 14th Foundation Day of the Department of Real Estate was held with a spectacular cultural show. Cultural club of DIU performed with students, alumni and teachers in the program.



8.13. Workshop on Developing Employability Skills



The Faculty of Business & Entrepreneurship, DIU organized a workshop on “Developing Employability Skills” which was held at Professor Dr. Aminul Islam Conference Hall, Daffodil International University, Daffodil Smart City, Ashulia, Dhaka. This session was conducted by Mr. Ashraful Haque Emu, Deputy Manager, 10-minutes School. Students learnt

leadership skills, communication skills, coachable skills, confidence building, attitude development, etc through numerous activities and interactions from the workshop. Md. Shibli Shahriar, Associate Professor, Department of Business Administration, Faculty of Business and Entrepreneurship (FBE) organized and moderated the life-changing session.

8.14. Fire Evacuation Drill Practice, Fire-Fighting, Earthquake, First Aid, Rescue Training

To create awareness and take precaution about the rescue from fire and earthquake incidents, Safety & Security Department of Daffodil International University Organized Fire Evacuation Drill Practice, Fire-Fighting, Earthquake, First Aid, Rescue Training on 20 October 2022 at Daffodil Smart City, Ashulia, Dhaka.



8.15. Workshop on National Taskforce for Blended Education



To prepare a masterplan for higher education of Bangladesh, the National Taskforce for Blended Education, University Grants Commission of Bangladesh and the Ministry of Education, GoB organized the workshop on National Taskforce for Blended Education, hosted by Daffodil International University.

8.16. Virtual Postgraduate Research Summit 2022

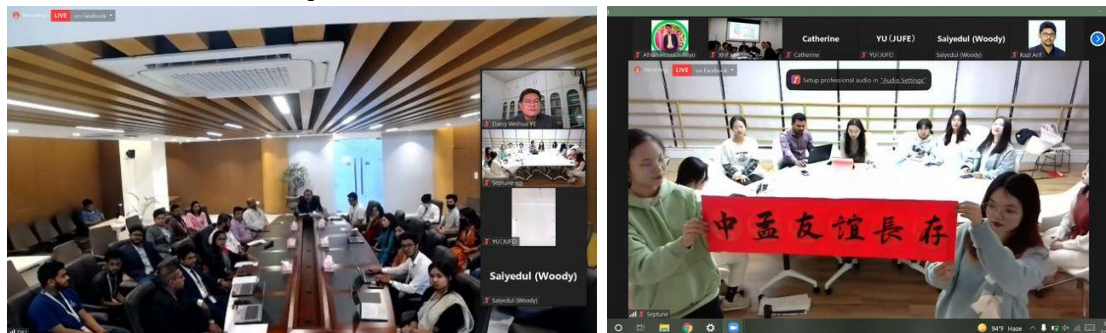


Three days long "Virtual Postgraduate Research Summit 2022" was held on 27 February to 1 March 2022 with the vibrant involvement of nearly 70 fellow enthusiastic researchers and participants from 16 countries across Asia, Africa, the Middle East, South, and North America. Dr. Tay Huay Ling, Associate Professor, Singapore University of Social Science, Singapore, Prof. Mohammed Masum Iqbal, PhD, Dean, Faculty of Business and Entrepreneurship, DIU and Prof. Dr. Md Kabirul Islam, Director of Research Division, DIU joined the Ceremony to

share their valuable remarks on research collaboration & best practices.

8.17. Bangladesh and China Youth Talk

DIU Belt and Road Research Center (DIUBRRC) organized its very first Chinese Corner under the name of Bangladesh and China Youth Talk with a collaboration of Overseas Education School Jiangxi University of Finance and Economics, China. The main objective of this program is to develop a bilateral relationship between the two nations through cross cultural activities in a blended platform. Two nations upheld their respective cultural identity through activities like song, dance and calligraphy. The participants of the program came to know about the views and ethnic values of each other. More importantly, they are upgrading the self-identity to the global extent with an international exposure of culture.



8.18. Glimpses of Other Events

Various events are organized by the Daffodil International University for implementation of several SDGs round the year in collaboration with the Government, Non-government and international organizations. The following photographs are taken from a number of events.



Glimpses of Events Related to Environment and Sustainability



THE CHINESE STYLE BUSINESS NEGOTIATIONS BASED ON CONFUCIANISM THEORY

Keynote Speaker: Dr. Zhang Xifeng, Dean & Professor, School of Foreign Languages, Jiangxi University of Finance and Economics

Chief Guest: AFM Anisul Islam, Consul General, Bangladesh Consulate General, Kunming, China

Guest of Honor: Dr. Yang Hui, Director, Confucius Institute of University of Finance and Economics, Kunming City Office, Kunming, China

Session Chair: Prof. Dr. Muhammad Hossain Iqbal, Dean of Faculty of Business and Enterprise Studies, Member of the Board of Professors (BOP), Daffodil International University

Session Reactor: Prof. Hafiqul Islam, Senior Dean, Faculty of Business and Enterprise Studies, Daffodil International University

Special Guest: Laura Li, HR, Mingyang Securities Co., Ltd.

Session Moderator: Dr. AOM Mahain, Deputy Director, DU, Belt and Road Research Centre

Session Coordinator: Muhammad Saadul Islam (Nawab), Senior Research Fellow, DU, Belt and Road Research Centre

Register now to join the webinar: <https://cutt.ly/forzoom>

Jointly organized by: Daffodil International University Belt and Road Research Centre, Bangladesh; Belt and Road Research Institute, Jiangxi University of Finance and Economics, China



BANGLADESH BLOCKCHAIN SUMMIT

5 Masterclasses, 6 Panel Discussions
May 27, 2022

In Association with: **THE BUSINESS STANDARD**

Education Partner: **Daffodil University**

Job Placement Partner: **bdjobs.com** LARGEST JOB SITE IN BANGLADESH

Sponsor: **MAXWELL STAMP LTD**

Organized By: **THRIVING SKILLS** SKILLS FOCUSED SELF-EDUCATION



Examples of Events Related to Environment and Sustainability

9. NATIONAL AND INTERNATIONAL PARTNERSHIP FOR THE SDGS

SDG 17: Partnership for the Goals

9.1. Daffodil International University Signs MoU with BRICM



A Memorandum of Understanding (MoU) has been signed between Daffodil International University (DIU) and Bangladesh Reference Institute for Chemical Measurements (BRICM) at Professor Aminul Islam seminar hall, of Daffodil Smart City, Ashulia, Dhaka on 3 February 2022. Dr. Mala Khan, Director General (Additional Charge), BRICM and Professor M. R. Kabir, Professor, Civil Engineering

Department, DIU signed the MoU on behalf of their respective organizations. Under the agreement, DIU students and faculty members will get advantages in providing chemical metrological traceability, contract research & development, testing, calibration, and training services.

9.2. Foundation of Chartered Taxation of Bangladesh (FCTB)



An MoU was signed between the HRDI, Daffodil International University (DIU) and the Foundation of Chartered Taxation of Bangladesh (FCTB) at Daffodil International University. Under this MoU, the HRDI, DIU and FCTB will offer professional courses in Tax Management including Income Tax, VAT & SD Act, Customs Act, VAT & Tax Automated Calculation Software with Practical Based Curriculum. The MoU was signed by Dr. Mohammad Abu

Yusuf, Joint Secretary, Ministry of Finance, GoB and Sr. Vice President of FCTB and Professor Dr. M Mizanur Rahman, Executive Director, HRDI, Daffodil International University (DIU) from their respective organizations.

9.3. Collaboration with KOICA and WBAF

On February 20, 2022, a high-level delegation from KOICA (Korea International Cooperation Agency) and WBAF (World Business Angel Investment Forum) visited Daffodil International University, Daffodil Smart City, Ashulia to explore possible collaboration in entrepreneurship development between KOICA and the university, particularly with the Department of Innovation & Entrepreneurship. The visit was attended by a group of 13 high officials, including the Country Director of KOICA Bangladesh.

The main objective is to combine the strengths of both the parties in order to promote and support entrepreneurs in every way possible. The university's Pro-Vice Chancellor; CEO of Daffodil Family, Dean of Academic Affairs, Dean of FBE, Registrar, Head and faculty members of the Department of Innovation & Entrepreneurship joined the meeting.



9.4. Collaboration with Genex Infosys, a leading BPO and IT service provider



Department of Software Engineering, Daffodil International University signed MoU with Genex Infosys, a leading BPO and IT service provider in Bangladesh on March 24, 2022 at Prof. Aminul Islam Hall, Daffodil Smart City, Ashulia. The purpose of the MOU is to provide a framework for cooperation and coordination between Daffodil International University and Genex Infosys in terms of research training, career

development, job placement and knowledge sharing.

9.5. Collaboration with Dhaka University Entrepreneurship Development Club

The Department of Innovation and Entrepreneurship, DIU and Dhaka University Entrepreneurship Development Club will work in future to make a good contribution to the society. As the only university in the country, Daffodil International University introduced the Department of Innovation and Entrepreneurship for the future entrepreneurs of the country. A special delegation from Dhaka University Entrepreneurship Development Club (DUEDC) visited Daffodil International University's Green Campus and the University's Innovation and Entrepreneurship Department and Innovation Lab as part of its educational activities on March 22, 2022. During the day-long visits, the delegation exchanged views between the students of the two universities, exchanged economic ideas and discussed lifelong learning with the teachers.

Dr. Rafiuddin Ahmed, Assistant Professor of the Department of Marketing of Dhaka University led the team. Prof. Dr. Mohammed Masum Iqbal, Dean, Faculty of Business & Entrepreneurship, DIU, and Mr. Md. Kamruzzaman Didar, Head, Department of Innovation & Entrepreneurship, DIU were present in the session.



9.6. Global Money Week celebrated



The 10th Anniversary of the Global Money Week celebration kicked off in Bangladesh with the theme “Build your future, Be smart about money”. The formal announcement was given through a very formal session organized by Daffodil International University and Bangladesh Skill Development Institute along with the partner Watermark, Inspiring Bangladesh.

9.7. DIU Chairman Attended the ‘World Rector’s Forum’

Dr. Md. Sabur Khan participated as a keynote speaker of the ‘World Rector’s Forum’. In developing the national innovation ecosystems, the higher education institution can take a lead role and considering the fact with highest priority the global Education Leaders joined a very important conference of the World Rectors Forum in Bishek, Kyrgyzstan. The chairman of the board of trustees at Daffodil International University of Bangladesh, Dr. Md. Sabur Khan joined the conference on an invitation to present the keynote speech in a session and represent Bangladesh. Mr. Akylbek Japarov, Prime Minister of the Kyrgyz Republic was present at the event as the Chief Guest while Dr. Almaz Beishenaliev, Minister of Education and Science of the Kyrgyz Republic moderated the Forum. Mr. Khan presented his keynote address on 'Entrepreneurship Development in Higher Education'.



9.8. Achievement of DIU

Daffodil International University has proudly received the recognition of outstanding engagement through DIUs' cooperation and students' participation in the 2021 Digital Boot Camp on Essential English for Cross-Cultural Communication for ASEAN from October 26 to 29, 2021, organized by the Don Mariano Marcos Memorial State University (DMMMSU), Philippines. Apart from that, one of the DIU participants won the Best Vlogger award & the Team Bangladesh DIU won a Vlog competition for this camp.



9.9. DIU Delegation attended the 32nd Annual EAIE Conference and Exhibition 2022



To enhance internationalization and enlarge the global network for partnership, a team of Daffodil International University led by Dr. Mohamed Emran Hossain, Director (Administration) along with Mr. Syed Raihan-Ul-Islam, Senior Assistant Director International Affairs, DIU attended the 32nd Annual EAIE Conference and Exhibition 2022 that took place from 13–16 September at Fira Barcelona Gran Via, Barcelona, Spain. DIU delegation conducted collaborative discussion meetings with hundreds of HEI leaders and officials from different universities of the world for academic exchanges, partnership, joint Erasmus Projects,

Internship, Scholarships and more. EAIE is Europe's largest international higher education conference that brings experts of Internationalization to share and exchange the ideas among all for new opportunities. Hopefully the participation and meetings will bring many more new opportunities for the students of Daffodil International University in the coming days.

9.10. Collaboration with St. Joseph's College, Trichy, Tamil Nadu, India



A Memorandum of Understanding (MoU) was signed between Daffodil International University, Dhaka, Bangladesh, and St. Joseph's College, Trichy, Tamil Nadu, India, on 15 September 2022. The signing ceremony was held in the office of the Principal Rev. Dr. M. Arokiyasamy Xavier, who signed the document on college side. Professor Dr. Binoy Barman, Department of English, signed it on DIU side.

This MoU will pave the way for students and faculty exchange, collaborative research and joint projects in various common academic areas. Under this MoU, the faculty members of DIU will get an opportunity to complete their PhD from St. Joseph's College in minimum cost.

9.11. DIU and Ain O Shalish Kendra (ASK) jointly organized “UPR and Bangladesh: Dialogue with Youths”

Daffodil Legal Research Centre (DLRC) and Ain O Shalish Kendra (ASK) jointly organized a program titled “UPR and Bangladesh: Dialogue with Youths” held at Daffodil International University (DIU) on September 27, 2022. Representatives of the ASK conducted the dialogue. Around 30 students participated in the dialogue. Professor Dr. S. M. Mahbub Ul Haque Majumder, Pro Vice Chancellor of DIU, Professor A. M. M. Hamidur Rahman, Dean, Faculty of Humanities and Social Sciences (FHSS), Dr. Kudrat-E-Khuda Babu, Professor and Head of the Department of Law, and Abu Ahmed Faijul Kabir, Senior Coordinator of Advocacy and Networking of the ASK addressed in the inaugural session of the program. Md. Riaduzzaman, Assistant Professor of Law moderated the program.



9.12. Contributed to the 2022 IAUP Regional Meeting

The Chairman of the Board of Trustees of DIU Dr. Md. Sabur Khan made Keynote Presentation at the 2022 IAUP Regional Meeting of the International Association of University Presidents (IAUP) held on the theme “Recovery and Transformation: New Challenges for Higher Education Leaders” in Colombia from September 28 to 30, 2022. For three days, the higher education leaders from around the world came together to discuss highly relevant topics that contribute to the enhancement of senior leadership in the context of current trends and future needs. Dr. Md. Sabur Khan represented Bangladeshi HEIs in this prestigious global platform. Dr. Khan presented a keynote speech on “Today's Higher Education key value proposition: Student wellbeing, life project and employability”.



9.13. Industrial visits to Everest Pharmaceuticals



The Department of Pharmacy, Daffodil International University arranged consecutive 2-day industrial visits to Everest Pharmaceuticals in Narayanganj recently. Students of the Department visited the state-of-the-art facility of Everest Pharmaceuticals and got an exposure of the latest technology of pharmaceutical environment especially Anti-cancer drug manufacturing and their quality management systems. Head of the Department of Pharmacy Professor Dr. Muniruddin Ahmed expressed his gratitude to the management of Everest

Pharmaceuticals as well as to the DIU management to assist this industrial tour.

10. TRANSPORTATION



Transportation is a major issue to both students and staff. Realizing the needs for the students, DIU has introduced around 50 buses to their transport pool which are exclusively used for our students/faculty/admin staff. A dedicated Car and an ambulance are also available for the students and their parents. Total transportation system is managed from the Ashulia campus. All the transports (buses) are moving to different routes and campuses from Ashulia Campus for transportation of the students. Students are required to show their ID cards for getting this facility. It saves both time money and traveling hassle in a public bus. Particularly this service is very helpful for the female students. They can easily escape from the unavoidable circumstances or any types of unpleasant situations in the public transports.

Facilities inside the Buses:

- CCTV Camera
- Fire Extinguishers
- First Aid Box
- Air conditioner
- Excellent seats and safety belt
- Always on time
- Safe and time saving
- Better Environment
- Reduce traffic
- Reduce pollution
- It can teach time management
- Money saver

Benefits of Using University Transport

10.1. Shuttle Bus service for students



10.2. Shuttle service routes:



11. ENERGY AND SUSTAINABLE INFRASTRUCTURE

Daffodil International University has been striving to produce renewable energy inside the campus. The following are the initiatives taken:

1. Biogas plant
2. City campus Rooftop Solar Panel installed with 1.2 KW capacity
3. Ashulia campus Rooftop Solar Panel installed with 1.5 KW capacity
4. The wind turbine will be placed in the east and west verandah facing south, power generation will be around 0.1 M watt.
5. The university is going to install solar panel in the entire 10,000-meter square rooftop of the new academic building 4.



Solar panel at the roof top of Academic building 3 and 4 at Ashulia campus (Rooftop Solar Panel used for using 2000 KWH power annually)



Example of Biogas plant (Daffodil International University)



Planned Wind Turbine, Daffodil International University



Campus rooftop Solar Panel used for using 1500 KWH power annually



Solar panel energy grid

The Department of Nutrition and Food Engineering of Daffodil International University has been using the Multi-Commodity Solar Tunnel Dryer (MCSTD) technology for drying the food items with the solar panel without using the electricity. This is contributing towards reducing electricity consumption and directly impacting on environmental sustainability.



The Automatic Fire Alarm Sensor System and direct sun light and natural ventilation in classroom



Sensor-based LED lighting system in the buildings



Finger print-based, password protected and Face recognition locker system for students



Fingering system for daily attendance and access into the university



Fire Extinguisher along with Instructions to be followed (in local language) during fire and other accidents



Exit indication and audio speaker for use during any fire and accidental moment



Fire balls are placed in suitable places



Firefighting tools in the building



Card Touch and go system for access in the campus buildings



Central Monitoring and Surveillance Centre in the Building

12. WASTE MANAGEMENT

12.1. Inorganic Waste Management Project

The Department of Environmental Science and Disaster Management of Daffodil International University has been working on the web-based project for inorganic waste management. They have developed a website namely 'Safe the Environment' (<https://safeenvironment.github.io/>) and with the help of web-based application, it is working to ensure inorganic waste management.



Fig. 1. Ongoing Web based Project for Inorganic Waste Management

12.2. Organic Waste Management

Methodology: This research has systematic procedures to follow. The overall process is being illustrated below-

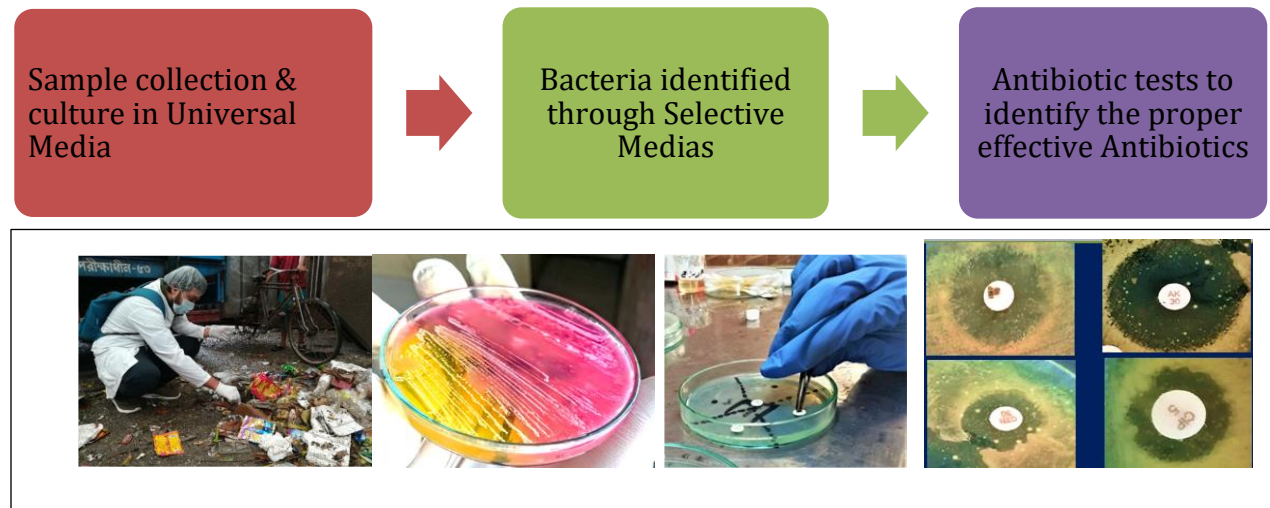


Fig. Sample collection from the sampling sites and work in research lab.

12.3. Water Spinach Utilization as a Phytoremediation Technique for Toxic Waste Management

Background: The present state of toxic waste management system in Bangladesh is not in a good condition. There is lack of proper management of toxic waste in different industries such as leather, textile, chemical and others industries which contain heavy metals. It has harmful effects on environment and human health. Waste water treatment cost is very high and it's a long time process. The waste water which has heavy metals that modify the cells of living organic substances, soil, water bodies and human body too. So, untreated waste water is a great problem for us and for the environment. If it remains untreated then it will become a great threat for the human race. The waste water can be treated with phytoremediation which is a process where plants are used to treat water and it is also very cost-effective way to manage toxic waste.

Objective:

- To manage the toxic waste coming from the industries.
- To find out feasibility of water spinach in toxic waste water.
- To find out the level of toxic content removed by the plants.

Methodology: This research has systematic procedures to follow. The overall process is being illustrated below-

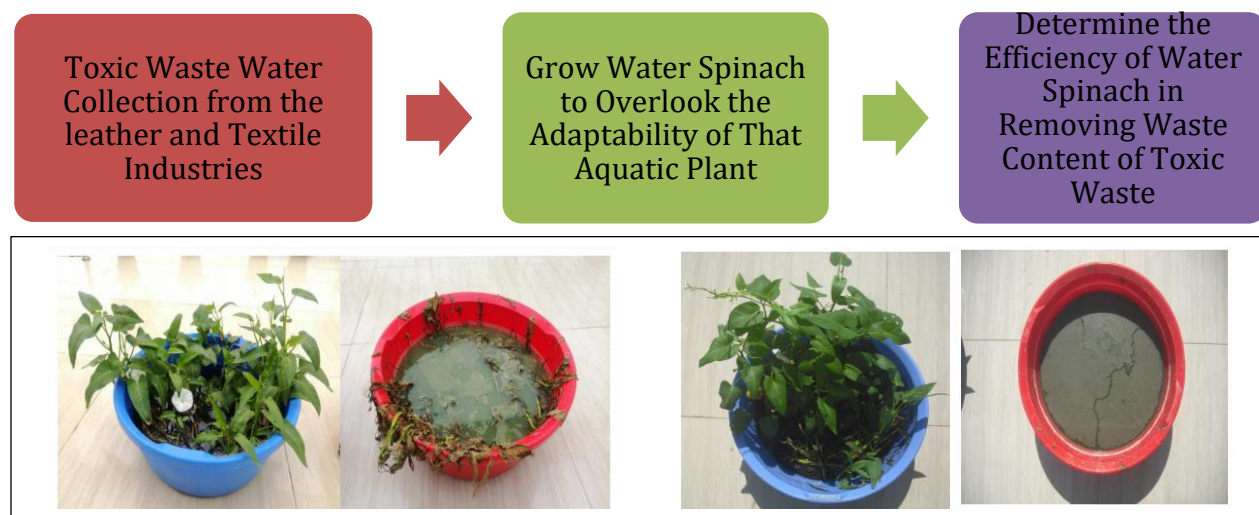


Fig: Adaptability Measures of Water Spinach in Textile and Leather Waste Water

Research Outcome:

- Water Spinach successfully survived in the textile toxic waste water for one month.
- Water Spinach could not survive in high leather toxic effluent for 2 days.
- A huge amount of contaminant and pollutant removed by phytoremediation.

13. WATER CONSERVATION AND SUSTAINABLE CONSUMPTION

13.1. Water Body Restoration and Quality Development

The permanent campus of Daffodil International University (DIU) at Ashulia is a phenomenal natural beauty and an art of perfect green entity. There is a water body adjacent to the campus which somehow restricts the flourishing visuals and environmental aspects. The place is posing impediments to study in a healthy environment, to the current as well as future students who will be belonging to the under-construction female halls nearby. It is therefore a crying need to work on the problem. Following is the description of the present state as well as an improvement plan for the place.

Pre-Condition: The water body is located at the permanent campus of DIU at North to the 'Shadhinota Shommelon Kendro', DIU. The approximate position is 23°87' N and 90°32' E. The concerned area is approximately 7.961 Acres, as estimated by the Civil Engineering Department of DIU. Aerial image has been captured to delineate the location and the shape of the concerned place.



Fig. 1. The proposed Area for Existing Water Body Restoration.

The targeted area has been marked with Red and Yellow color. Numbering has been done to link with the following pictures in order to understand the place better. Some glimpses of the place is shown below-





Fig. 2. Pre-Condition at Targeted Area

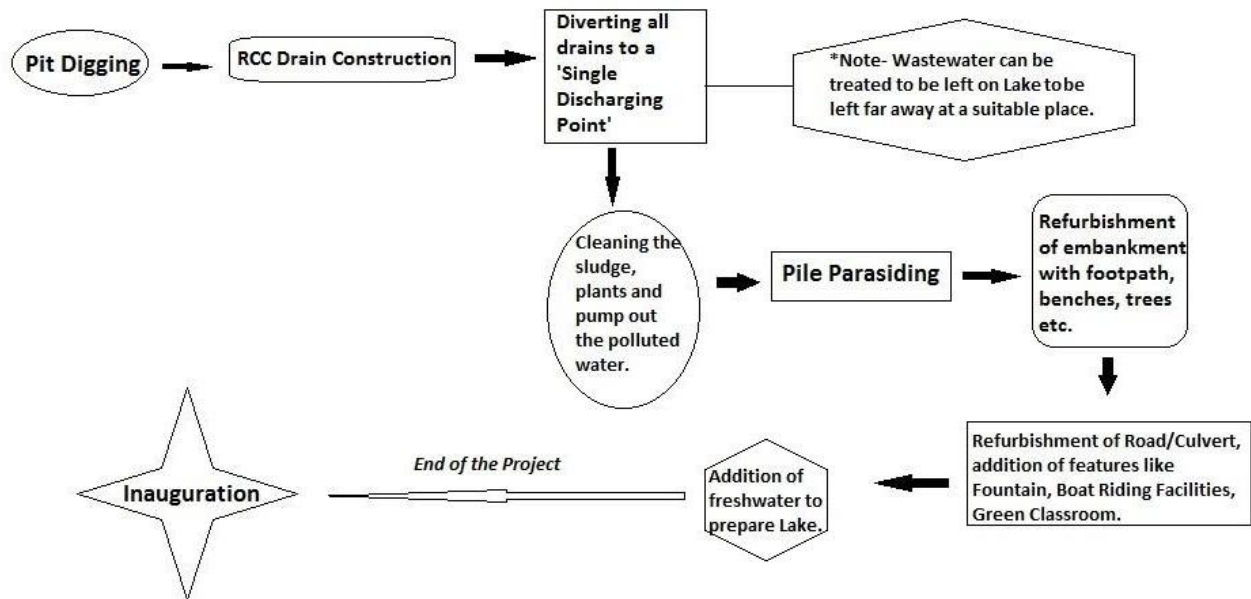
Improvement Plan: The improvement plan has been designed through a drawing which has been uploaded to the google drive. The content is viewable by clicking [here](#) online. For hard copies of the report, the design has been attached.

According to the design, plans have been set part by part. A secondary management plan has been proposed. Firstly, the main focus is to take care of the effluents that are being discharged from nearby industries and local villagers. For that, **Pit** will be dug below the discharging points of the pipes. Then following the pit, **Reinforced Cement Concrete (RCC) drain** would be built as shown with Cross-Section in the design. All the drains around would meet at a single point as shown in the design. After the construction of RCC drain, the pipes would be cut short so that the effluents can fall in pit and be directed towards the **Single Discharging Point**. That point can be extended to leave the wastewater at a suitable place or a treatment plant can be established to treat the wastewater and leave back as treated water to the lake.

After taking care of the effluent by diverting them, the next focus would be on the existing water body. So, the hyacinths and aquatic plants should be removed. Then the existing polluted water should be pumped out. Lime can be used to clean the water. Afterwards, the attention would be on the stability of the Lake's embankment. And for that, the proposal is for **Pile Parasiding**, almost 5 feet away from the existing embankment. Piled structure would shape the Lake. Then the embankment can be made ready by sand and clay filling. Later on, footpath can be added, a cross section of that has been added in the design. Some features like Fountain, Boat Riding Facilities, and Green Classroom have been added as well. Green classroom has been proposed to be under the Environmental Science and Disaster Management (ESDM) department, it will be powered by 'Green Energies' like Solar/Bio, and would be used as recreational and counselling purposes besides studies. In case of the road, it can be refurbished and the culvert can be extended as well as beautified. Lastly, Freshwater would be added

to the Lake. The place can then be inaugurated as an amusement park or other suitable title. A work flowchart has been added -

The budget of the project can be precise after necessary surveys and measurements by the engineers.



The proposal has been made to offer the feasibility with the least possible amount. For example, an alternative of pile parasiding would be 'RCC Retention Wall Construction'. But that would greatly increase the costing.



Fig. 3. Post-Condition at the targeted area

Conclusion: To reiterate, the water body is not conducive to the studios as well as healthy environment. The operation of the university with a purpose to serve the students with good quality environment, is being interrupted due to the polluted water. If immediate measures aren't taken now, the place might have more negative impacts in the long run, in terms of human health and environment. So, an improvement is urgent for now.

13.2. Home Scale Desalination Plant Design and Development

The present condition of drinking water for the people of coastal area is very much weak and unavailable at most of the coastal area. This research can bring a very handy solution for the people

of coastal area who are suffering from premature miscarriage, malnutrition, skin diseases & so on. This research can be used to develop a home scale desalination plant to treat the saline water through sublimation process.

Objective:

- To create a device or home scale plant to treat saline water
- To get salt from the saline water as a byproduct.
- To provide a handy and effective solution for the coastal people about fresh drinking water in a very low cost

Methodology: This research has systematic procedures to follow. The overall process is being illustrated below-

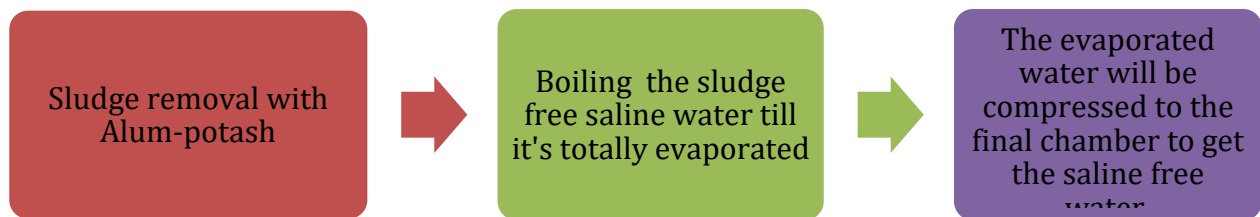


Fig. 1. Project demonstrated in competitive project exhibition

Research Outcome:

- About 70-80% fresh water can be produced from the total amount of saline water.
- 1-20% of salt can be collected as a byproduct from the plant.
- Handy and affordable.

13.3. Water Absorption Initiatives



Water absorption in DIU Pond and Lake



Recycled Water is used in DIU water fountain



Recycled water re-used for watering the plants



Preserved Rain water is used for water fountain



Preserved Rain water is used for fish cultivation

14. PLASTIC RECYCLING & REUSING

14.1. Plantation on Plastic Bottle

The Department of Environmental Science and Disaster Management (ESDM) always had a passion to protect the environment. From this passion, they want to know how the environment can be protected from pollution. After knowing this term, they thought about a plan by which we can clean our whole surroundings, can reduce environmental pollution and also can run a small business from which they can make some money. This business is a recycling or reusing business with a mid-term plan of going into full-scale recycling or reusing of some recyclable or reusable items, mainly plastics, and other (e.g. paper, metal, rubber, glass, etc), and a long term plan of converting waste to reusable products.

Plastic waste is arguably one of the most common forms of waste on this planet. Waste plastic such as plastic bottles, used plastic tins and containers, and shopping bags can be reused and formed into an amazing range of new and reusable products. According to the ESDO, 73,000 tons of plastic wastes end up in the Bay of Bengal every day through the GBM Basin of Bangladesh. A study report has done by the Ministry of Environment, Forest and Climate Change under the Department of Environment, Bangladesh, stated that plastic waste is 60% of the total waste found in the coastline, and most of the plastic waste is plastic bottles.

Objective:

- To reuse and recycle plastic wastes and other waste that are harmful to nature
- To aware people on the creative use of plastic and other wastes
- To create a business model for the community which is eco-friendly and sustainable

Methodology:

Anyone who is environmentally conscious, will know how important it is to reuse or recycle as much of our trash as we can. When we are done with that plastic drink bottle, we should not just throw it away, use it to make something awesome! Of course, we could just put it in with the rest of our recycling, but making something new out of our old bottles is much more fun, plus we could save ourselves some money by crafting something we need instead of having to go out and buy it. Take a look at these creative ideas for reusing bottles.

Instead of buying a can, glass, or ceramic pencil holder, simply recycle the old plastic bottles that you have at home. Ones with the widest circumference will do so that you can place as many pencils or pens as possible. Use a rubber lining on top and make it as plain or as colorfully designed as you'd like it to be. An easier way to create an organizer using plastic bottles is to cut the bottom part and place them alongside each other on your desk. You can use the containers to store pens, clips, wires, pins, stapler wires, and other office supplies.



Fig. 1. Reuse of Plastic Jar and Bottle for Plantation

Outcome:

- Starting up a recycling plant also contributes to the economy, concerning taxes, conservation of power consumption, local content creation, small and medium scale development, job creation, and wealth distribution. 1-20% of salt can be collected as a byproduct of the plant.
- For instance, the money saved through the consumption of less energy means more competitive price of goods. The production cycle can be greatly decreased. Taking paper as an instance, the whole wood growth time lag is removed from the producing process
- As a green entrepreneur or owner of an eco-conscious company, one can also contributing the quota in the movement for environmental protection because that A little company young people established will help to curtail many problems.



Fig. 2. Reuse of Plastic Bottle and Jar for Plantation

14.2. Plastic re-use and Reducing the Use of Plastic Products



Waste bin prepared with used plastic bottle



Mini plastic house model prepared with used plastic



Sitting Tool prepared with used plastic bottle



Jute bag used as Convocation kit (reducing the use of plastic products)

14.3.

Recycling is a great way to tackle the waste problem. The artwork is made by our student Fariha Jesmin using wastes like cardboard, tissue paper rolls, lace, beads and fallen leaves.



15. CONCLUSION

Daffodil International University is recognized as an environment-friendly university with having the largest green campus amongst the private universities in Bangladesh. All of its existing development initiatives and future plans put highest priority to the climate change, environment issue and sustainability. The mission of the university is somewhat aligned with the importance of SDGs: *“To positively influence and enhance the lives of people by promoting research that is aligned with national development agenda, Millennium Development Goals (MDGs), Sustainable Development Goals (SDGs), innovation and entrepreneurship.”* (<https://daffodilvarsity.edu.bd/article/strategy>)

This sustainability report of Daffodil International University strives to identify the strengths, opportunities and limitations of the university which remained undetected in the past. The report also acts as a catalyst to inform the management regarding the prospects and threats of the organization in the long run.

DIU is committed to pay close consideration to the issue of environmental changes and recognize the significance of the progressions it is seeing for the future of the Daffodil Family and rest of the world. DIU’s continued endeavor will be to manage new difficulties and to ensure its progression giving highest priority to the environmental wellbeing and sustainability of the eco-system of the earth. The university will impose importance on collaborations with the partner institutions, government and non-government bodies, nearby networks and will present real scenario of the sustainability and environment-friendly practices of the university in the yearly report on sustainability.