

**Environmental and Social Assessment**  
**For**  
**Establishment of University Innovation Hub at**  
**Bangladesh Agricultural University, Mymensingh, Bangladesh**



**January 2024**

**Digital Entrepreneurship and Innovation Eco-system Development Project**  
**Bangladesh Hi-Tech Park Authority (BHTPA)**  
**ICT Division, Ministry of Posts, Telecommunications and ICT,**  
**Agargaon, Sher-e- Bangla Nagar, Dhaka - 1207**

<b>Name</b>	<b>Digital Entrepreneurship and Innovation Eco-System Development Project (DEIEDP) under PRIDE Bangladesh Hi-Tech Park Authority</b>
<b>Report For</b>	<b>Bangladesh Agricultural University Mymensingh, Bangladesh</b>

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## **1. Introduction**

### **1.1 Project Background**

To make Bangladesh a middle-income country Information and Communication Technology (ICT) has been performing an important role. It is also playing a significant role in becoming a smart country by 2041 by transforming into a developed country through overall development. The Bangladesh Hi-Tech Park Authority (BHTPA) was established in 2010 to accelerate the country's economic development, encourage digital entrepreneurship and generate private investment and employment in the IT and IT-enabled services (ITES) industries. BHTPA is also mandated to establish, operate and develop and expand Hi-Tech Parks (HTPs) and Software Technology Parks (STPs) at various locations within the country.

The World Bank's Private Investment & Digital Entrepreneurship (PRIDE) project is aimed to promote private investment and job creation in economic zones and digital entrepreneurship in hi-tech parks. The project will spearhead the adoption and mainstreaming of green industrial park concepts in the implementation and development of economic zones in Bangladesh. The project has four components. The first three components will be implemented by Bangladesh Export Processing Zone Authority (BEZA) and the fourth component will be implemented by Bangladesh Hi-Tech Park Authority (BHTPA). Components 1-3 are not discussed here as they are not under the jurisdiction of BHTPA. Only the activities of Component - 4 are discussed here.

#### **Component – 4: Strengthening the Digital Entrepreneurship and Innovation Ecosystem Implementing Agency: Bangladesh Hi-Tech Park Authority (BHTPA)**

This component aims to strengthen the foundation of the digital entrepreneurship and innovation ecosystem in Bangladesh. It will create the country's largest agglomeration of IT and ITeS companies in Dhaka's Vision-2041 Smart Tower and promote digital entrepreneurship more broadly among young professionals and women. It will design and implement a program that supports digital entrepreneurship at three levels. First, it will establish modern and professional start-up and scale-up facilities and services in Software Technology Park's (STPs). Second, it will introduce entrepreneurship and innovation hubs in different public and private technological universities. This will also offer accredited and rapid training programs to budding entrepreneurs and managers in the IT and ITeS field. Thirdly, it will offer a media-based challenge program with grant prizes to help change attitudes and attract more youth, women and young professionals to consider becoming entrepreneurs.

Sub-component 4.2: Bangladesh Hi-Tech Park Authority is going to develop an effective ecosystem with respect to digital entrepreneurship in Bangladesh and to upgrade existing innovation culture in the country. The intention is to establish University Innovation Hubs as the key driver to promote innovation culture and nurture future leaders for innovation and hence to motivate setting up new ventures and startup among new generation. Under this sub-component, University Innovation Hubs and Incubation centers will be established in a few Universities in Bangladesh. Initially, Bangladesh University of Engineering and Technology (BUET), Chattogram University, Khulna University, Rajshahi University of Engineering and Technology, Sahjalal University of Science and Technology, Sylhet, United International University, Dhaka has been selected for the purpose. Some more universities are also under consideration where

innovation hubs will be set up in phases. The sites of nine universities have been inspected. This brief report was prepared for the Bangladesh Agricultural University (BAU), Mymensingh an innovation hub based on ES screening, site visits, and information gathered from university authorities and consultation with relevant stakeholders.

### **1.2. Objectives of ESA**

The objectives of the ESA are:

- i. To identify and assess the environmental and social risks and impacts of the sub-component Bangladesh Agricultural University Innovation Hub based on screening examination, site visits and information gathered from university authorities and consultation with relevant stakeholders during pre- construction, construction and operation phases;
- ii. To develop a mitigation approach to the sub-components environmental and social risks and impacts;
- iii. Recommend specific measures to avoid or mitigate adverse environmental and social impacts and to enhance positive impacts.
- iv. Prepare Environmental and Social Management Plan (ESMP) for managing the environmental and social impacts and risks and;
- v. Recommend suitable institutional mechanisms to monitor and supervise effective implementation of ESMP

### **1.3 Scope of the ESA**

The scope of the ESA is to:

- i. A general description of the project and existing physical, biological and socio-economic conditions;
- ii. Identification and assessment of the potential impacts on the natural and human environment in the sub-component area, from the construction and operation phases;
- iii. Consultation with the locals/stakeholders involving concerned people to identify ES risk and impacts consistent with screening examination.

## **1.4 Approach and Methodology**

The preparation of this ESA report consists of the following sequential steps:

- Identification of all the activities to be undertaken under the component;
- Identification and screening of the environmental issues relevant to the proposed activities through a scoping process;
- Site visits to capture environmental and social baseline;
- Identify Stakeholders and consultation with relevant parties;
- Assessment of potential risk and impacts on relevant environmental and social parameters;
- Preparation of Environmental and Social Management Plan (ESMP)

Field visit has been done to the sub-component site helped to identify the environmental parameters/components (relevant to the sub-component actions) which are likely to be affected. The field visit also included a participatory approach, which involved discussions with teachers, students and officials in order to identify the perceptions and priorities of the stakeholders in and around the academic area. Information was also derived from secondary sources such as different reports, satellite imagery and Google maps etc.

## **2. Sub-component Description**

Component 4, which will be implemented by the BHTPA, aims to strengthen the foundation of the digital entrepreneurship and innovation ecosystem in Bangladesh and take advantage of the increasing global and domestic demand for digital services further ramped up by the Covid-19 pandemic. It will create the country's largest agglomeration of ITS and ITES SMEs in Dhaka's Vision 2041 Smart Tower that will be turned into a green building; and promote digital entrepreneurship more broadly among young professionals and women. Digital entrepreneurship will be supported at three levels. First, it will establish modern and professional start-up and scale-up facilities and services in STPs. Second, it will pilot entrepreneurship and innovation hubs in some leading technological universities and business schools. This will also offer accredited and rapid training programs to budding entrepreneurs and managers in the ITS and ITES field. Third, it will offer a media-based challenge program with prizes to help change attitudes and attract more youth, women, and young professionals to consider becoming entrepreneurs. The goals are to create entrepreneurship hubs, to increase market entry and growth rates of digital startups and SMEs, and to create a gender-inclusive culture. The Component 4 will be managed by BHTPA and aims to strengthen the foundation of the digital entrepreneurship and innovation ecosystem. The component 4 of the PRIDE project has two sub-components:

Under the sub-component 4.2 the University Innovation Hubs in Dhaka, Chattogram, Dhaka, Rajshahi, Khulna and Sylhet and other places of the country will be established in phases to attract more students to become digital entrepreneurs within leading technological universities and business schools. Currently, the HTP Authority is working on 10 Universities in different divisions. These are BUET, UIU and BRACU in Dhaka, Chittagong University, Khulna University, SUST in Sylhet, RUET and Varendra University in Rajshahi, BAU in Mymensingh, Bangabandhu Sheikh Mujibur Rahman Science and Technology University in Gopalganj. Professional operators will be engaged to design, operate and then transfer the University Innovation Hubs to the

universities in which they are embedded. The project will finance refurbishment/works, including retrofitting of existing buildings with architectural or building changes that enable reduction of energy consumption, energy efficiency improvements in lighting appliances and equipment of the innovation hub spaces in existing universities as well as goods and technical assistance to ensure that the new facilities can attract top talent and service providers.

The UIHs will over time be expected to expand to add complementary innovation activities such as hardware prototyping spaces, joint research centers with industry, technology transfer offices, etc. This is in line with the University Grants Commission's (UGC) vision and objectives. The objective is to develop systematic programs that include investment into commercializing research and supporting innovative ideas so that UGC can demonstrate academia's role in the ecosystem. BHTPA will develop and mainstream innovation hub guidelines for university-based Innovation hubs, which will follow international standards and focus on outcomes and key principles that would allow flexibility to innovation, local customization and adjustments to develop suitable models for universities.

### **2.1 Planned Activities**

- Identify key approaches for university innovation hubs through analyzing local context, potentiality and the prevailing skill gap, and propose program designs and strategies that will enable delivery of the promised results, including the preparation of annual work plans.
- Design, develop and deploy a management information system (MIS) and operational processes customized to local needs as well as necessary digital systems to manage and track the incubation program to be run under this project.
- Provide mentoring of the selected startups in developing their products/ services to commercialization by developing an innovation culture in hubs throughout the project period.
- Transfer the programs to the universities in which they are embedded to ensure program sustainability.
- This will include training-of-trainers activities - and overseeing an on-the-job training through methods such as secondment and job shadowing.

### **2.2 Justification of Establishing Innovation Hub at BAU**

Bangladesh Agricultural University (BAU) stands as a path-finder in the sector of agricultural education within the country. Recognized as a leader in agricultural research and innovation, BAU has played a pivotal role in the nation's development since its inception. The university has made substantial contributions to important agricultural projects by offering expert services and working closely with stakeholders and the government. Now to assist in materializing the dream of smart Bangladesh, the institution feels a pressing need of establishing an Innovation Hub.

The primary aim of Innovation Hub, as part of the Bangladesh Hi-Tech Park Authority project is to foster close collaboration with both local and international industries, working together to transform research expertise and business concepts into innovative products, services, and processes. The innovation hub is customized to provide facilities in diverse areas, such as:

- Facilitating interdisciplinary collaboration among researchers, students, and industry professionals to encourage innovative solutions in agriculture.
- Serving as a platform for the smooth transfer of advanced agricultural technologies from research

labs to the farming community.

- Providing a conducive environment for students and researchers to explore entrepreneurial ventures in the agricultural sector.
- Accelerating the pace of agricultural research by offering facilities and resources within the innovation hub.
- Supporting the incubation of agri-tech startups by offering mentorship, funding opportunities, and infrastructure.
- Promoting the development and adoption of sustainable agricultural practices through research, education, and innovation.
- Providing a platform for addressing real-world challenges faced by the agricultural sector through collaborative problem-solving and applied research.

Establishing the University Innovation Hub at Bangladesh Agricultural University (BAU) is the suitable choice, supported by various pertinent factors such as:

- BAU produces qualified employable graduates.
- The oldest and the top ranked agricultural university of Bangladesh.
- Comparable infrastructure with most of the public universities.
- Largest university campus about 1200 acres of land.
- A research oriented institution; 262 on-going Research Projects under Bangladesh Agricultural University Research System (BAURES).
- Institutions/Centers in BAU:
  - Bangladesh Agricultural University Extension Centre (BAUEC)
  - Graduate Training Institute (GTI)
  - Institute of Agribusiness and Developmental Studies (IADS)
  - Interdisciplinary Institute for Food Security (IIFS)
  - Char and Haor Development Institute

Innovation hub can create a dynamic ecosystem that fosters creativity, collaboration, and the development of groundbreaking ideas and solutions. To accelerate the progress of digitization and to transform all the expertise and business concepts into innovative products, services, and processes the transition of Bangladesh into a smart nation, BAU requires strong support. This includes setting up an Innovation Hub as a crucial component of the Digital Entrepreneurship.

### **2.3 Location of the Project**

The BAU campus, with an area of about 1200 acres is located in scenic rural surroundings on the western bank of the old Brahmaputra River, 5 km south from Mymensingh Railway Station and 120 km north from Dhaka, the capital city of Bangladesh. It also houses two national research institutes, namely, Bangladesh Institute of Nuclear Agriculture (BINA) and Bangladesh Fisheries Research Institute (BFRI). The University Innovation Hub will be established on the 1st floor of the University's Central Library Building. The area is about 3000 sqft. On the west side of the building is a garden and open space, on the north side is an open space followed by a department of the university and part of the central library on the south and east sides.

### **2.4 Present condition of the proposed Innovation Hub site**

The site of the proposed university innovation hub is situated on the 1st floor of central Library building of Bangladesh agricultural University. The proposed site is presently vacant. Total vacant area is about 7000 square feet. This floor was constructed recently and reserved the north block for



the Innovation Hub. The other spaces on this floor have been used as the library and office room. The space has sufficient ventilation facilities and is suitable for establishing such a Hub (Picture 2.1 - 2.5). But a boundary wall from the library will have to be demolished to make way for UIH.



Figure 2.1: Discussion with VC and his colleagues for the establishment of UIH



Figure 2.2: Central Library building (UIH will be established on 1st floor)



Fig 2.3: Proposed site for the UIH

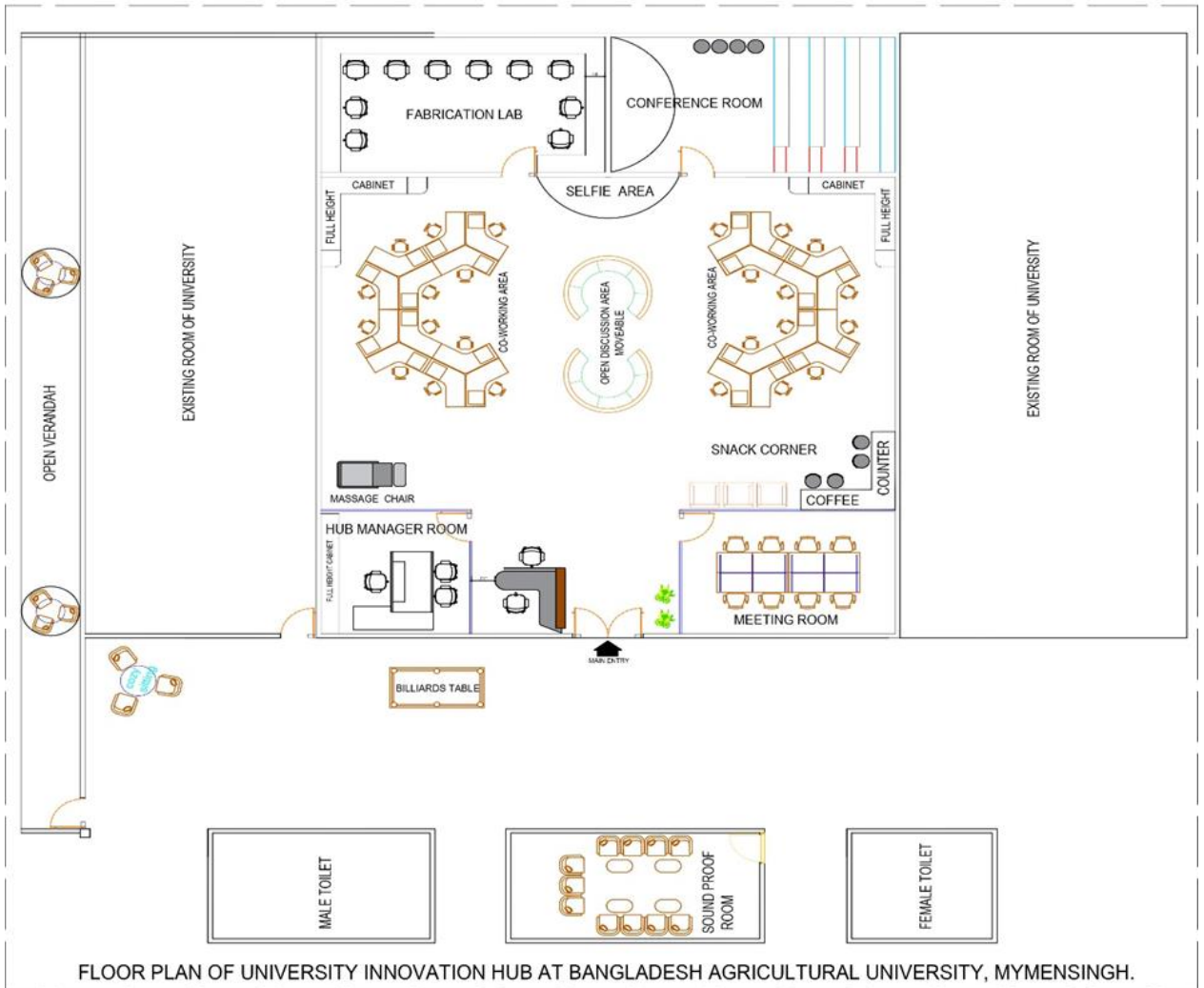


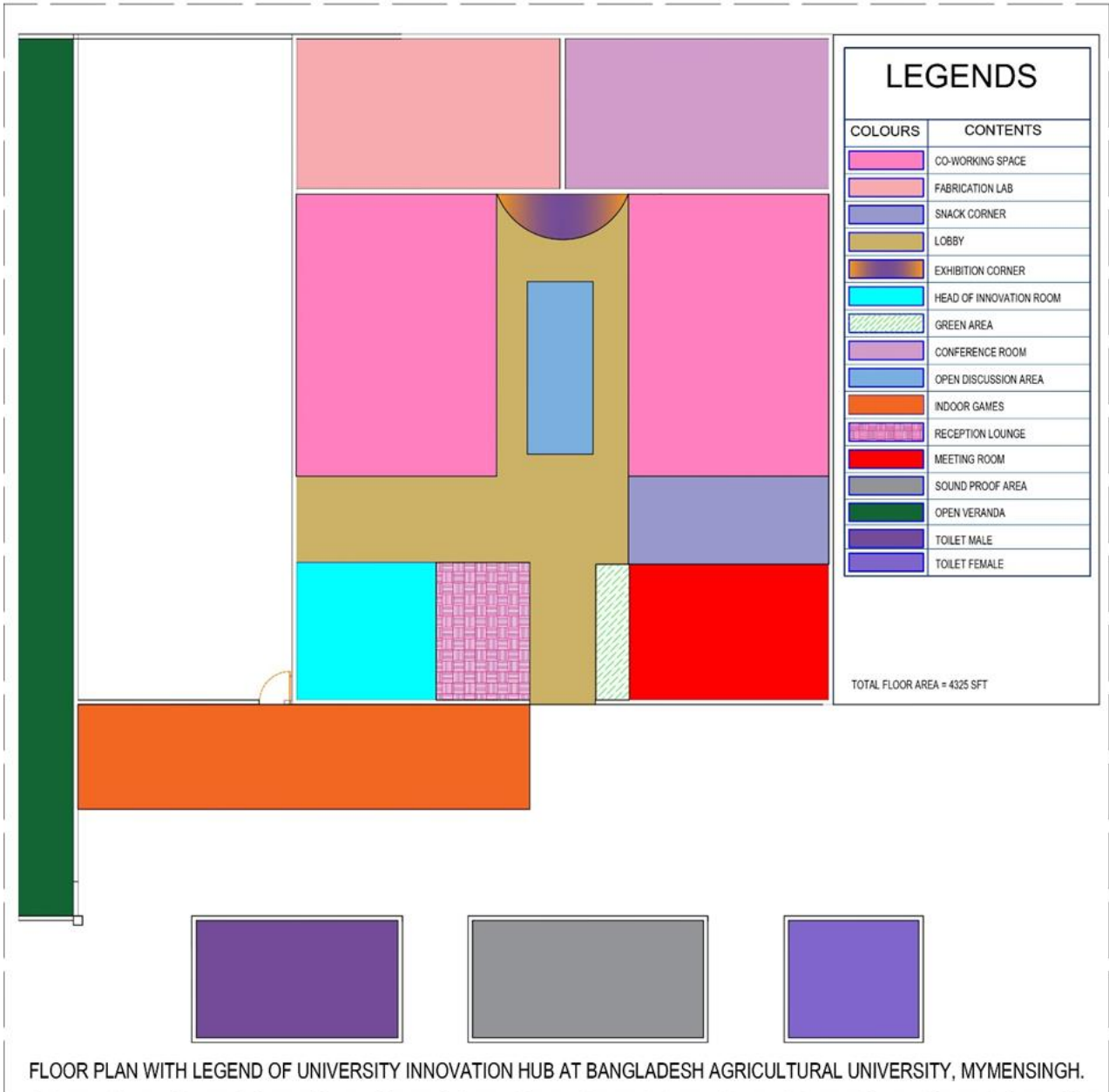
Fig 2.4: Visiting proposed site for the



Fig 2.5: Visiting proposed site for the UIH

## 2.5 Proposed Interior Layout Plan with Planned Activities





## **2.6. Estimated Budget for Innovation Hub**

Estimated cost for the Innovation Hub is BDT. 1, 69.52, 653.00 (One Crore Sixty-Nine Lac Fifty-Two Thousand Six Hundred Fifty-Three only)

## **2.7 Project Phases and Activities**

The following are the three main project phases as planning and pre-construction, construction and operation and various activities under each phase.

### **2.7.1 Planning and Pre-Construction Phase**

The planning and pre-construction phase of the sub-component involves the following activities. Since the component is planned to be implemented in phases, some of these activities will be parallel to earlier phases of construction.

- Environmental & Social Assessment (ESA) and the submission of the report.
- Preparation of the site
- Environmental study based on site visit and consultation

### **2.7.2 Construction Phase**

Mainly interior works will be done during construction phases. In addition to these main works other activities may be undertaken as needed. Activities during construction phase of the component are as follows:

- Reception lounge
- Lobby
- Co-working space
- Fabrication Lab
- Exhibition corner
- Meeting room
- Room for Head of Innovation
- Green area
- Conference room
- Game zone
- Toilet for male and female
- Coffee Counter
- Snack Corner
- Open discussion area
- Open verandah
- Etc.

### **2.7.3 Operation and Maintenance Phase**

Some local activities related to the upkeep of the built or refurbished sites might take place during the operation phase. Along with this, the main activities of Innovation Hub will also start. Main activities during operation of the component as follows:

- a) Create a co-working space
- b) Space for pitching and training
- c) Research and development activities
- d) Incubation activities
- e) Mentorship program
- f) Networking events for linkage with potential investors

BAU has its own Operations & Maintenance department fully staffed with experienced and trained engineers and operators for the smooth functioning of the activities. These personnel will be engaged during component implementation for optimal functioning of the activities.

### **3. Potential Environmental and Social Risks, Impact and Mitigation Measures**

The objective of the project is to establish a world class business environment for targeted high growth industrial sector and new business and to develop indigenous technological capability for the development of the local industries. Thus, the IT Business Incubators will have a positive impact in innovation and entrepreneurship, research and development among IT Professionals, Entrepreneurs, and Graduates of the Academic Institutions.

Though the component's work is expected to have some positive social impacts, there may be anticipated some low or minor concern about the environmental and social aspects related to the activities of the sub-project during implementation period. For example, site preparation renovation activities, setting up small stock yards for typical pre-construction phase activities. However, it is expected that the extent and scale of the impacts will be low and can be easily mitigated by applying the best methods and appropriate mitigation measures. Those mitigation measures should be in line with the provisions of the World Bank's ESF and in accordance with the requirements of national legislation.

There are some common impacts during pre-construction and construction/renovation phase for the establishments of the Innovation Hubs. For example, impacts during the construction/renovation and demolition of a wall may include:

- Operation of vehicles and equipment during site/floor preparation, construction, hauling of equipment and demolition of a wall is likely to increase the noise level and dust emission in the buildings
- Generation of solid waste can block drainage channels and contaminate land resources if not handled properly
- Since the Innovation Hubs will be in university areas where traffic movement is minimal, additional vehicle movement can create little congestions particularly in areas where the academic building is situated
- Interactions of students and teachers with workers can spread any contagious disease in absence of proper care.
- Female students can be harassed at any time if proper care is not taken against any SH

## **Positive Impacts**

- The proposed Project is expected to have some positive social impacts such as:
- In the long run, the work will contribute to an overall improvement in government effectiveness
- It will improve investment climate, and potentially contributing to more investment
- Will create new jobs in the IT sector of the country
- Will promote innovation and entrepreneurship, research and development among IT professionals, entrepreneurs, and graduates of the academic institutions.
- Also, in terms of the construction work to be undertaken, there are also several positive impacts associated with the civil works such as:
  - Employment of local labor, creation of jobs.
  - Improvement of associated existing infrastructure (improved waste management and sanitation facilities)
- Positive economic impacts on small market suppliers for raw materials needed during construction (i.e., building materials).

## **Negative Impacts**

### **Community Health and Safety Risks**

Since there are no mass level construction activities or civil work, the overall risk of the component's work is low. Though there may be a need for some construction (small construction or renovation or rearrangement) of the Innovation Hub within existing building, it is expected to have minimal community health and safety risks. Construction sites may be a source of both liquid and solid waste if not properly managed.

### **Land and Livelihoods**

The Innovation Hubs will be established within the university campus. So, this will not affect the land or livelihood of the campus. Since the location of the component will be inside the university boundaries, there will be no land acquisition or people would need to relocate or resettle.

### **Impacts on Cultural and Historic Heritage**

As the location of the sub-component will be inside the university boundaries, where there are no cultural or historic heritages in those locations. There is also no archeological site in the proposed locations.

### **Labor Influx**

The Project is expected to use local labor hence impacts due to labor influx is not expected. However, interior designer and specialized interior work may require designer and specific types of workers for the subproject.

The minimal construction related works for establishing the Innovation centers will require few workers who are likely to be young. Therefore, there may be potential cases of harassment of female students and teachers by them, if not monitored and trained.

### **COVID-19 labor Health and Safety of the Workforce**

The project will require construction workers that may raise issues with manual labor employment, particularly regarding potential transmission risks for COVID-19 both within the worksite and for nearby communities, although a large number of workers may not be involved under this sub-component. These risks are not only from workers that are mobilized locally but also workers moving

from other regions/countries. Moreover, the national COVID-19 response protocol guidelines will be adopted by the contractors for the health and safety of the labors.

### **Dengue**

Dengue has now become a major concern, with many people claiming that the impact of this dengue outbreak is more dangerous than Covid in Bangladesh. Dengue outbreaks have been reported in a number of countries around the world. According to the World Health Organization, 390 million dengue infections occur each year, resulting in 96 million symptomatic cases and 21,000 deaths.

During the dengue outbreak, ensuring the safety of construction workers is of utmost importance. To mitigate the risk of dengue infection, several measures should be taken. Construction workers should be provided with adequate personal protective equipment (PPE), including long-sleeved clothing and mosquito repellent. They should also be educated about the importance of regularly applying mosquito repellent and taking other precautions, such as avoiding stagnant water.

### **Air and Dust Pollution**

Due to movement of vehicles and cutting for construction/renovation works and demolition of a wall can contribute to air and dust pollution. This can lead to impacts on the surrounding environment of the buildings where the centers will be set up.

### **Noise and Vibration**

Increased noise level (noise from the mechanical machinery and equipment, vehicles, construction and renovation work etc.) may occur during the establishment of the centers. Additional noise and vibration may disturb readers in libraries in existing buildings.

### **Traffic**

Though there will not be transport required for the project works but since the site is within university areas where roads are very minimal there may be slight congestion during movement of loaded transport.

### **Typical Mitigation Measures**

This ESMP highlighted a broad range of mitigation and enhancement measures to reduce negative impacts and enhance benefits of the establishment of the Innovation centers. Mitigation measures are identified and designed to avoid or eliminate or offset adverse environmental impacts or reduce them to acceptable levels during both construction and operation phases of a project intervention.

Due to the construction of a University Innovation Hub at BAU, there may occur some environmental and social aspects and consequently, there will be some impacts. The mitigation measures corresponding to individual impacts and estimated cost are outlined in chapter 5.

## **4. Stakeholder Consultation**

### **4.1 Introduction**

The purpose of public consultation meetings was to invite comments and detailed suggestions on any environmental and social issues considered relevant by the people living around the site. The public consultation program is an essential part of the environmental assessment process and has been undertaken both formally and informally to ensure that the knowledge, experience, and views



of stakeholders during the ESA work and mitigation measures and the suggestions from the stakeholders have been included in this ESA. For this purpose, two stakeholder consultations were held, one in September 2023 and another in December 2023.

#### 4.2 Approach and Methodology for Consultation

The approach undertaken for information disclosure and consultation involved the following key processes.

- Mapping and Identification of key stakeholders
- Undertaking consultation, interviews with the respective stakeholders
- Assessing the influence and impact of the sub-component based on stakeholder’s comments
- Summarizing of key findings and observations from the consultation

#### 4.3 Consultation

Stakeholder consultations at the beginning phase of the ESA preparation were held with the teachers, students and BAU University officials during the September and December 2023. The key findings of the consultations are described in Table 4.1.

**Table 4.1: key findings of the consultations**

SL	Key issues raised	Participants/Type	Response
1.	How they know about the project?	Students/ Faculty members/ officials of BAU University	Most of the participants said, they have heard that an innovation hub will be established in BAU finance by the BHTPA.
2.	Who lives and works near the project/sub-component site and how the project will affect their health and safety	Students, Teachers, Officials and Staff of BAU University	During daytime when academic /Research and other works are ongoing the Students, Teachers, Officials and Staff of BAU will be present. So, the noise during construction/renovation of Innovation hub may create a minimal disruption of their academic session. They requested the project authority to be careful during construction/renovation period to take steps so the noise during construction work does less hamper because a calm environment is needed while academic sessions and library work are going on.

3.	Time of construction work and carrying construction goods on site	DEIEDP/ BHTPA representatives, Environmental Specialist/Social Specialist, Project Engineers and University Authority/Contractor	<p>Participants said carrying construction materials at night would be good. Construction work should be done during the daytime.</p> <p>Construction materials would not be carried to the location daily, but rather once or twice a week. Participants suggested to carry the construction goods during weekends such as Thursday/Friday when offices, academic activities are off.</p>
4.	What measures should be taken regarding dust and other pollutions/ wastes during construction period?	DEIEDP/ BHTPA representatives, Environmental Specialist/Social Specialist, Project Engineers and University authority/Contractor	<p>It has assured them mitigation measures are to be mentioned in the ESMP report if any environmental impacts happen during renovation/construction period on minimizing environmental pollution.</p> <p>Brick, sand, cement etc. will be kept inside the construction boundary covered by tarpaulin.</p> <p>It has also assured them high priority will be taken to minimize disturbance during construction. Regularly spraying water on the construction materials will also be followed to minimize the level of dust in the air. Participants were ensured that an indicative budget will be kept in the BOQ for the proper management of wastes.</p>

5.	Labor influx	DEIEDP/ BHTPA representatives, Environmental Specialist/ Social Specialist, Project Engineers and University Authority/Contractor	This is not a major construction work. Moreover, the number of laborers is not expected to be high. There will be a labor management Plan and GRM process to mitigate the labor risk properly. University authority /Contractor will provide a room/camp with all facilities including water, toilet and living arrangements etc. Proper training will be arranged for laborer, contractor and his representatives, where SEA/SH will also be included.
6.	Traffic management	DEIEDP/ BHTPA representatives, Environmental Specialist/ Social Specialist, Project Engineers and University Authority/Contractor	Participants agreed on the problem in case of any traffic management. Though it will be very minimal.
7.	Occupational health Safety (OHS) during construction	DEIEDP/ BHTPA representatives, Environmental Specialist/ Social Specialist, Project Engineers and University Authority/Contractor	To ensure occupational health and safety during construction OHS training will be provided for all laborers, contractor and/or representatives. A full set of PPEs will be provided for ensuring the health and safety of labors. Provision of PPE cost will be included in ESMP of the project BoQ.

## 5.0 Environmental and Social Management Plan (ESMP) with proposed costs

### 5.1 Introduction

Carrying out environmental and social screening of the sub-component, it appears that impact of the activities would not have any significant environmental and social impact, as there would not be construction of any new building under this sub-component and would include small scale civil work within the existing infrastructure. The University Innovation Hubs and incubation centers will be set up in the existing building of the university central library. However, this Environmental and Social Management Plan (ESMP) will ensure that all the activities of the component are screened out, and those activities are supported where the potential environmental and social risks and impacts are predictable, not significant in magnitude and site specific with low probability of serious adverse effects to human health and/or environment.

Therefore, depending on the scope, design and location of the sub-sub-project, establishment of an innovation hub will have very minimal environmental and social risks and impacts. As such this sub-project may fall under low risk as per WBs risk classification. Whereas according to national law, the sub-project activities is not listed in the schedule 07 of Bangladesh Environment Conservation Rules 2023. However, the screening report and public consultations suggest some mitigation measures to reduce negative impacts during construction and operation phases. The mitigation measures corresponding to individual impacts and estimated cost are outlined in (Table 5.1).

Table 5. 1: Identification of Potential Environmental and Social Impacts and suggested mitigation measures.

Activities	Environmental and Social Impacts	Suggested Mitigation Measures	Time and Responsibility including approx. estimated cost in Taka
A	B	C	D
Accommodation for Labor (If the university in its existing facilities can provide sufficient space for the laborers with all facilities mentioned in column C, then no separate labor shed will be required)	<ul style="list-style-type: none"> <li>● Ventilation problem</li> <li>● Drinking water problem</li> <li>● Sanitation problem</li> <li>● Sewerage problem</li> <li>● labor-student interaction can have an impact on students and</li> </ul>	<ul style="list-style-type: none"> <li>● Proper ventilation facilities need to be required</li> <li>● Need to be ensured potable water</li> <li>● Toilet facilities with sufficient water supply and proper sewerage network need to be completed on time</li> <li>● Labors will be trained and monitored.</li> <li>● Any cases of GBV, SH and SEA</li> </ul>	<ul style="list-style-type: none"> <li>● If required, a labor shed Should be prepared before construction activities</li> <li>● The approx. estimated cost for this activity is Tk. 80,000 (Eighty thousand only)</li> </ul> <p><b>Responsibility: Contractor</b></p>

	<p>staff if proper measures are not taken</p> <ul style="list-style-type: none"> <li>• This can lead to inappropriate behavior such as SH of female students and women.</li> </ul>	<p>will be referred to the appropriate authority (GRC) to redress the issue.</p> <ul style="list-style-type: none"> <li>• (If the university in its existing facilities can provide sufficient space for the laborers with all facilities mentioned above then no separate labor shed will be required).</li> </ul>	
<p>Construction activities and boundary wall demolition inside the building and vehicle movement with construction materials</p>	<ul style="list-style-type: none"> <li>• Dust emission</li> <li>• Air pollution</li> </ul>	<ul style="list-style-type: none"> <li>• Control dust by spraying water on dust emitting materials during construction and boundary wall demolition time</li> <li>• Uncovered aggregates and loose materials such as sand, construction wastes, etc. should be covered well.</li> <li>• Use tarpaulins to cover sand and other loose material when transported by vehicles</li> <li>• Perform the pre-construction activities at night time and minimize work done during the day-time</li> <li>• Regulate the speed limitation for vehicles inside the university</li> <li>• Care should be taken while moving construction materials/ accessories to the construction site (1<sup>st</sup> floor of the library building). Proper PPE should be worn to avoid injury to workers while carrying construction materials.</li> </ul>	<ul style="list-style-type: none"> <li>• Water spraying at least 2 times/day and as per requirement.</li> <li>• The approx. estimated cost for these activities is Tk. 20,000 (Twenty thousand) only</li> </ul> <p><b>Responsibility: Contractor</b></p>
<p>OHS training including Personal Health and Safety and COVID-19 kits</p>	<ul style="list-style-type: none"> <li>• Without proper Personal Protective Equipment (PPE) it may cause fatal danger to the workers at any time which may endanger health and safety (OHS) of the workers</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of adapted Personal Protective Equipment (PPE) i.e., Boots, Helmets, Hand gloves, Face mask, Ear plugs, aprons, eye protector etc.)</li> <li>• Supply and ensure utilization of adapted PPEs to all labors involved in construction of proposed onsite developments.</li> </ul>	<ul style="list-style-type: none"> <li>• The approximate estimated cost for these activities is Tk.70,000 (Seventy thousand) only</li> </ul> <p><b>Responsibility: Contractor</b></p>

	<ul style="list-style-type: none"> <li>• Due to the Covid-19 infections without proper health and safety measures, it can cause any human health problems</li> </ul>	<p>As much as possible maintain social distancing during construction works.</p> <ul style="list-style-type: none"> <li>• Unnecessary movement should be avoided</li> <li>• Used face masks should be disposed properly. OHS training may be provided at the site for the laborers and related persons.</li> </ul>	
<ul style="list-style-type: none"> <li>• Noise generation because of construction activities, boundary wall demolition and workers movement</li> </ul>	<ul style="list-style-type: none"> <li>• Noise and vibration inside the building may cause a nuisance for the students and teachers and disturb any academic activities</li> </ul>	<ul style="list-style-type: none"> <li>• There is no possibility of using a generator for power supply but in any case, if a generator is used it should be arranged to reduce the noise. Must be covered with a canopy and use silencer if necessary.</li> <li>• If there is a need to cut any tiles, the noise should be kept to a minimum so that it does not go beyond the national standards. Possible measures should be taken to reduce noise from the working of tiles.</li> <li>• Use noise barrier and absorbing materials in case of other noise sources as for example: Welding, Drilling, tiles fitting, mixture machine, woodwork, demolition of a boundary wall etc.</li> <li>• Unnecessary movement of workers should be avoided during class time.</li> </ul>	<ul style="list-style-type: none"> <li>• The approximate estimated cost for these activities is Tk. 30,000 (Thirty thousand) only</li> </ul> <p><b>Responsibility: Contractor</b></p>
First Aid Facility	<ul style="list-style-type: none"> <li>• Accidents can be severe without any onsite first aid facility</li> </ul>	<ul style="list-style-type: none"> <li>• Provide First Aid Boxes and Emergency Medical kits including sanitizer and any other COVID-19 kits (following COVID-19 protocol).</li> </ul>	<ul style="list-style-type: none"> <li>• The approx. estimated cost for these activities is Tk. 30,000 (Thirty thousand) only</li> </ul> <p><b>Responsibility: Contractor</b></p>

<p>Placing of barrier and precautionary/signal/sign board/banner/Information about GRM Focal point</p>	<ul style="list-style-type: none"> <li>• If there are no safety barriers or boundary lines or signal posts, students and teachers may have an accident while passing through the site.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide safety signage at construction points visible to all so that everybody can identify the area to avoid any accident</li> <li>• To aware of the workers, students, teachers, and officials, safety barriers should be placed, and precautionary signage/signboards/banners, etc. should be hung to avoid any accident.</li> </ul>	<ul style="list-style-type: none"> <li>• The approx. estimated cost for these activities is Tk. 20,000 (Twenty thousand) only</li> </ul> <p><b>Responsibility:</b> <b>Contractor</b></p>
<p>Waste Management</p>	<ul style="list-style-type: none"> <li>• Without proper management of different solid wastes may cause pollution hazards and GHG emission</li> </ul>	<ul style="list-style-type: none"> <li>• “Segregation of different waste at sources and keeping the waste in separate colorbins (Yellow for general waste, Green for organic Waste, Red for toxic, hazardous, and e- waste).</li> <li>• Transfer the wastes to the universities or City Corporation’s designated dumping site.</li> <li>• Incorporate waste reduction principle</li> </ul>	<ul style="list-style-type: none"> <li>• The approximate estimated cost for these activities is Tk. 20,000 (Twenty thousand) only</li> </ul> <p><b>Responsibility:</b> <b>Contractor</b></p>
<p>Firefighting facility</p>	<ul style="list-style-type: none"> <li>• There should be a firefighting system in case of an unexpected fire. Otherwise, it can lead to dangerous problems in and around the innovation hub floor.</li> </ul>	<ul style="list-style-type: none"> <li>• As per BNBC 2020 proper type and size of fire extinguishers should be installed at convenient points. Minimum 04 extinguishers need to be installed.</li> </ul>	<ul style="list-style-type: none"> <li>• The approximate estimated cost for this activity is Tk. 50,000 (Fifty thousand) only.</li> </ul> <p><b>Responsibility:</b> <b>Contractor</b></p>

Capacity building and Awareness Training	<ul style="list-style-type: none"> <li>• Ensure that all site personnel have a basic level of environmental and social awareness training</li> </ul>	<ul style="list-style-type: none"> <li>• Awareness campaign and provide training on the compliances of EHS/OHS including COVID-19 <u>protocol</u> to the employees and workers of the Contractor and others.</li> <li>• In the training program SEA, GBV and SH issues will also be included.</li> </ul>	<ul style="list-style-type: none"> <li>• The approximate estimated cost for these activities is Tk. 30,000 (Thirty thousand) only</li> </ul> <p><b>Responsibility:</b> <b>Contractor</b></p>
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## 6. Environmental and Social Monitoring Plan

### 6.1 Introduction

Environmental and social monitoring plan is an essential tool about environmental management as it provides basic information for rational management decisions. The prime objectives of monitoring are:

- To check on whether mitigation and benefit enhancement measures are being adopted and are providing effective in practice
- To provide a means whereby impacts which were subject to uncertainty at the time of preparation of ESMP, or which were unforeseen, can be identified, and steps to be taken to adopt appropriate control measures.
- To provide information on the actual nature and extent of key impacts and the effectiveness of the mitigation measures which, through a feedback mechanism, can be taken into account in the planning and execution of similar projects in future.
- There are two basic forms of monitoring:
  - Visual observation or checking
  - Physical measurement of selected parameters (if required)

As the sub-component activities are minor in nature and the possibility of environmental and social impacts are expected to be very low, therefore, physical measurement of different parameters of water, air and soil and any other will not be required. But there should be regular checking and observations by the contractors and PMU consultants to identify any impacts. The importance of this monitoring program is also for ensuring that the project/component does not create adverse environmental changes in the area and providing a database of operations and maintenance, which can be utilized if unwarranted complaints are made.

An Environmental and Social Monitoring Plan has been prepared (Table 6.1) along with this ESA for the execution as a means to mitigate or minimize the adverse impacts associated with construction and operational activities of the project/component on the natural and social environments.

### 6.2 Objectives

The objective of environmental and social monitoring during the construction and operation phases is to compare the monitored data against the baseline condition collected during the



study period to assess the effectiveness of the mitigation measures and the protection of the ambient environment based on national standards. The main objectives of the pre-construction, construction and operation phase monitoring plans will be to:

- i. Monitor the actual impact of the works on physical, biological and socioeconomic receptors within the project corridor for indicating the adequacy of the ESA;
- ii. Ensure compliance with legal and community obligations including safety on construction sites;
- iii. Appraise the adequacy of the ESA with respect to the project's predicted long-term impacts on the corridor's physical, biological and socio-economic environment;
- iv. Evaluate the effectiveness of the mitigation measures proposed in the ESMP and recommend improvements, if necessary; and
- v. Compile periodic accident data to support analyzes that will help reduce future risks.

Table 6. 1: Environmental and social management Plan - Monitoring Action

No.	Environmental and social Issues	Purpose of the Monitoring	Monitoring Method			Responsibility	
			Method of Collecting and Reporting Data	Location	Duration and Frequency	Implementation	Supervision
<b>Purpose of the Monitoring</b>							
1.1	Preparing ESMP	Ensuring the compliance with design and construction method and schedule	Preparation of report through site visit and visual checking	PMU and work site	During the design and pre-construction period	PMU	BHTPA
1.2	Existing Utilities	Implementation of ESMP	Obtain record of implantation	In the work site	Prior to contractor mobilization	Contractor	PMU
1.3	ESMP Implementation Training	Implementation of ESMP	Obtain record of training	PMU/Site	Prior to workers mobilization	CSC/Contractor	PMU
<b>2.0 Construction Phase</b>							
2.1	Air quality	Evaluation of effect of the mitigation measures towards air pollution	Visual observation or checking & consultation with local people	In the work site	Visual monitoring on a daily basis	Contractor	CSC/PMU

2.2	Noise & Vibration	Evaluation of effect of the mitigation measure towards noise pollution	Visual observation of the activities or checking & consultation with local people	In the work site	Visual monitoring on daily basis	Contractor	CSC/PMU
2.3	Waste Management	Evaluation of effect of the mitigation measure for waste	Record of kinds and quantity of waste, and the disposal method	In the work site and Worker's camp (if any)	Continuous, during Construction period	Contractor	CSC/PMU
2.4	Traffic Congestion	Evaluation of effect of construction schedule	Visual observation or checking & consultation with local people Record of accidents, Record of numbers construction	In the work site	Continuous, during Construction period	Contractor	CSC/PMU
2.5	Community health and safety	Evaluation of effect of the work safety plan	Visual observation or checking & consultation with local people	In the project area	Continuous, during Construction period	Contractor	CSC/PMU
2.6	Worker's health and safety	Evaluation of effect of the work safety plan	Visual observation or checking & consultation with worker	In the work site	Continuous, during construction period	Contractor	CSC/PMU
2.7	Post- construction clean-up	Evaluation the implementation of ESMP	Visual observation or checking & consultation with local people Reporting	In the work site	At the end of construction period along with the ESMP implementation	Contractor	CSC/PMU
2.8	Submission of ESMP implementation report	Evaluation the implementation of ESMP	Record of report submission	PMU and WB	At the end of construction period	Contractor	CSC/PMU

**3.0 Operation Phase**

3.1	Air Quality		Visual observation or checking, and consultation with stakeholders, University O&M budget (if necessary) for periodic	BAU	During operation period	BAU	DEIEDP/BHTPA
3.2	Noise Level		Visual observation or checking, and consultation with stakeholders. University O&M budget (if necessary) for periodic monitoring	BAU	During operation period	BAU	DEIEDP/BHTPA
3.3	Awareness	To resolve the GBV, Equal opportunity issues	Ensuring training, information campaign and monitor: <ul style="list-style-type: none"> <li>▪ Number of trainings</li> <li>▪ Number of awareness program</li> </ul>	BAU	During operation period	BAU	DEIEDP/BHTPA
				<ul style="list-style-type: none"> <li>•Number of beneficiaries</li> <li>•Monitor distribution of code of conduct &amp; G B V related cases</li> </ul>			
3.4	Health & Safety		Visual observation or checking and consultation with local stakeholders. University O&M budget (if necessary) for periodic monitoring	BAU	During operation period	BHTPA	BHTPA

## **7. Grievance Mechanism**

### **7.1 Grievance Mechanism Structure**

The purpose of the GRM is to record and address any complaint that may arise during the project period effectively and efficiently. The GRM is designed to address concerns and complaints promptly and transparently with no impacts (cost, discrimination) for any reports made by project affected people (PAPs) and the complainants. Necessary signboard/billboard would be placed at the central places where people gather for sharing detailed information of the project.

#### **DEIEDP/BHTPA Level Grievance Redress Mechanism**

**The BHTPA level GRC shall be comprised of the following members:**

Sl. No	Name/Designation	Organization	Position in GRC
1	Director (Admin & Finance)	BHTPA	Convener
2	Project Director, DEIEDP	BHTPA	Member
3	Environmental Specialist	DEIEDP, BHTPA	Member
4	Social Specialist	DEIEDP, BHTPA	Member
5	Representative of University	University	Member
6	Deputy Director Planning &	BHTPA	Member
7	Assistant Director, DEIEDP	DEIEDP, BHTPA	Member Secretary

The BHTPA level Grievance redress committee shall do everything possible to hear and determine the issues within 15 (fifteen) days from the date the case has been transferred to it from the PIU and University level. 7(Seven) days' time may be extended if within 15(fifteen) days the case will not be settled. To ensure impartiality and transparency, hearings on complaints will remain open to the public. The GRCs will record the details of the complaints, the reasons that led to acceptance or rejection of the particular cases, and the decision agreed with the complainants. The GRC shall communicate the outcome to the aggrieved PAP(s)/staffs in writing. The GRC shall maintain a record of all outcomes related to each case.

### **7.2 GRM Monitoring and Reporting**

Day-to-day implementation of the GRM and reporting to the World Bank will be the responsibility of the Project Director. To ensure management oversight of grievance handling, the Internal Safeguard team will be responsible for monitoring the overall process, including verification that agreed resolutions are actually implemented.

### **7.3 GRM contact information -DEIEDP/BHTPA**

Information on the project will be available on the project's website and will be posted on information boards in a suitable visible place in the project site. Details information of GRC contact person will also be available in information boards at project site. The point of contact regarding any grievances at DEIEDP/BHTPA is given below:

Description	Contact details
Company:	DEIEDP, Bangladesh High-Tech Park Authority
To:	Project Director
Address:	DEIEDP, Bangladesh Hi-Tech Park Authority, ICT Tower (9th Floor), E-14/X Agargaon, Dhaka-1207
E-mail:	pd.deiedp@bhtpa.gov.bd
Website & Telephone	<a href="http://www.bhtpa.gov.bd">www.bhtpa.gov.bd</a> : +88-02- 55006889 Mobile: 01849462230

### 8. Conclusion and Recommendation:

Based on environmental and social screening, site visits and discussions with stakeholders, an innovation center can be set up at the proposed location of the BAU campus.

## 9. ANNEXES

### Environmental Screening Form (Prepared by Bangladesh Agricultural University and verified by Environmental Specialist of DEIEDP)

**Sub-component Name:** Bangladesh Agricultural University Innovation Hub

**Sub-component Details in Brief:** Bangladesh aspires to develop a robust innovation and entrepreneurship ecosystem for a flourishing economy to keep pace with the dynamics included by 4IR. Bangladesh High-tech Park Authority (BHTPA) has launched to build vibrant innovation hubs in 10 universities to serve as the fundamental block for the aforesaid ecosystem. The hubs will act as epicenters for raising greater awareness of the importance of innovation, nurturing a culture of innovation, inculcating an entrepreneurship mindset and promoting a collaborative environment and openness among students, graduates, researchers and faculties within the universities. The hubs will also strive to break stereotypes, which traditionally block the entrepreneurship development process.

**Sub-component location/s:** Bangladesh Agricultural University, Mymensingh

Project Details		
Sl.no	Components	Details
1	Project components	<b>Bangladesh Agricultural University</b> Innovation Hub Hub
2	Details of Alignment/Components (Main components including construction activities)	.
3	Location of the Project Sites & Current Land use (Provide information for all sites involved in the project), any historic land use (related to heritage, or contamination) Site Survey No:/s (with ownership), Geographical co-ordinates of the site	Bangladesh Agricultural University, Mymensingh 2202, Bangladesh is a public university in Bangladesh. The University campus is situated on the western side of the old Brahmaputra River covering an area of 1200 acres, 3 kilometers away south of Mymensingh town.

## Proposed Resource Use

Resource Use				
Sl.no	Proposed Resources	Area/ Quantity	Unit	Details
	Land Area/Building Area proposed to be used			The innovation Hub will be established in Central Library building. There are a "Bangabandhu chattar" in the north- east side, a big garden in the southern side and in the east side the administration building. Ground area of the building: 40,000.00 sft Building Area: 1st floor: 7000 sqft (Unused) Proposed floor for the establishment of the Innovation Hub.
	Estimated energy consumption			Electricity: Source 250 KVA/ 200 KW, Transformer Currently used - 60 KW (30%) of Source energy
	Estimated usage of water quantity for the project: Ground Water and Surface water?			Source: BAU Main Water supply line. Capacity of underground reserver of the proposed building: 30,000 Litre Capacity of overhead reserver of the proposed building: 20,000 Litre

## Baseline Environmental Conditions

Sl.no	Environmental Aspects	Yes	N o	Details
1	Is the project site located on or adjacent to any of the following (Provide information for all sites and alignment of The project components/subcomponents, associated activities; mention distance to these features in meters/kilo meters)			
i)	Critically Vulnerable Coastal Areas, Eco-sensitive Areas		✓	
ii)	Cultural Heritage site, Protected monuments		✓	



iii)	Natural Forests/ Protected Areas Is the project in an eco- sensitive or adjoining an eco-sensitive area? If yes, provided details.		✓	
iv)	Any other Wetlands/ Mangrove/ Estuarine Region?		✓	
v)	Any Natural Habitat areas, areas with natural features?		✓	
vi)	Any other Sensitive Environmental Components?		✓	
vii)	Any Residences, schools, hospitals, sensitive receptors?		✓	
viii)	Any culturally- socially important paths, areas/religious occupancies, burial grounds, tourist or pilgrim congregation areas, borders, etc.?		✓	
ix)	Any Drinking water source, upstream And down stream uses of rivers, etc.?		✓	
x)	Any Low-lying areas prone to flooding/ areas of Tidal Influence?		✓	
xi)	Any areas affected by other disasters?		✓	
2	Is the site in Critical/Over exploited condition?		✓	
3	Is the area disaster- prone? If yes; list all		✓	

Sl.no	Environmental Aspects	Yes	No	Details
	Disaster zone categories applicable		✓	
4	Describe the soil and vegetation on site			N/A
5	Is the site area and condition suitable for Proposed development?	✓		
6	Describe existing pollution or degradation In the site (s)			N/A
7	Any other remark on baseline condition?			N/A

#### Anticipated Environmental Impacts: Impacts on Land, Geology and Soils

Sl.no	Impacts	Yes/ May create	No	Details
8.	Will the proposed project cause the following on Land/Soil?			

i)	Impact on Surrounding Environmental conditions including Occupation on Low lying lands/flood plains		✓	
ii)	Substantial removal of Top Soil (mention area in sqm)		✓	N/A
iii)	Any degradation of land/eco-systems Expected due to the project?		✓	
iv)	Loss or impacts on Cultural/heritage properties		✓	
v)	Does the project activity involve cutting and filling/blasting etc.?		✓	
vi)	Will the project cause physical changes in the project area (e.g., changes to the topography) due to earthfilling, excavation earthwork or any other activity?		✓	
vii)	Will the project involve any quarrying Mining etc.?		✓	
viii)	Will the project/any of its component contaminate or pollute the Land?		✓	

### Impactson Water Environment

Sl.no	Impacts	Yes/May Create	No	Details
9	Will the subproject or its components cause any of the following impact on Water sources (Quantity or Quality):			
i)	Will the activities have Proposed at the site(s) Impact water quality (surface or underground) and water resource availability and use? Will this sub-project involve the dredging of water bodies, sea, canals, etc.		✓	
ii)	Impacts on Water Resources		✓	
iii)	Pollution of Water bodies/ground water nearby or down stream		✓	
iv)	Will the project affect the river /cannel flow pattern, stream pattern or any other irrigation canal?		✓	

v)	Will the project result in stagnation of water flow or pondage or weed growth		✓	
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### Impacts on Biodiversity and Host Communities

Sl.no	Environmental Impacts	Yes/May Create	No	Details
10	Will the sub project or its components cause any of the following impacts on Biodiversity or the neighborhood			
i)	Will the project necessitate cutting of? Trees/Loss of Vegetation		✓	
ii)	Will the project result in Health & Safety Risks in the neighborhood including the release of toxic gases, accident risks		✓	
iii)	Potential risk of habitat fragmentation due to the clearing activities? (e.g. Hindrance to the local biodiversity like disturbing the migratory path of animals /birds etc.)		✓	
iv)	Potential Noise and Light Pollution or disturbance to surrounding habitats/communities		✓	
v)	Potential disruption to common property, accessibility, traffic disruptions, conflicts or disruption to the local community within the subproject area?		✓	

### Impacts due to Storage and Wastes: Pollution and Hazards

	Type	Yes	No	Details
11	Will the sub project or its components cause any impact due to storage of materials, wastes or pollution due to releases during various project activities			
i)	Will the project use or store dangerous substances (e.g., large quantities of hazardous chemicals/materials like Chlorine, Diesel, Petroleum products; any other?		✓	

ii)	Will the project produce solid or liquid wastes; including construction/demolition wastes (including dredging, de-weeding wastes, muck/silt, dust); polluted liquids?		✓	
iii)	Will the project cause or increase air pollution or odor nuisance?		✓	
iv)	Will the project generate or increase noise levels which will impact surrounding biodiversity or communities?		✓	
v)	Will the project generate or increase visual blight or light pollution?		✓	
vi)	Will the project cause water pollution? (of water bodies/groundwater)?		✓	
vii)	Will the project involve dangerous construction activities which maybe a safety concern to workers/host communities		✓	
viii)	Is there a potential for release of toxic gases or accident risks (e.g., potential fire outbreaks)		✓	
12	Describe any other features of the project that could influence the ambient environment			N/A

### Suggested Environmental Enhancement Measures

	Enhancement Measures	Yes	No	Details
13	Has the sub project design considered the following enhancement measures?			
i)	Energy conservation measures/energy recovery options incorporated in sub project design	✓		
ii)	Considered waste minimization or waste reuse/ recycle options	✓		
iii)	Rainwater harvesting, water Recycling and other water resource enhancement measures			N/A
iv)	Considerations for extreme events, drought, flood, other natural disasters	✓		N/A
vi)	NOC for water withdrawal from surface water source	✓		N/A

vii)	Mining Permit (for dredging)			N/A
viii)	NOC for transportation and storage of diesel, oil and lubricants, etc.	✓		
ix)	Others (Mention)			Waste management by university authority

**Annex B: Social Screening Form ((Prepared by Bangladesh Agricultural University, Mymensingh 2202, and verified by Social Specialist of DEIEDP)**

Project Name: **University Innovation Hub**

Project location: Bangladesh Agricultural University, Mymensingh 2202, Bangladesh.

Land Use, Resettlement, and/or Land Acquisition				
Sl.no	Components	Yes	No	Details
1	Does the project involve acquisition of Private land?		✓	
2	Alienation of any type of Government land including that owned by Urban Local Body?		✓	
3	Clearance of encroachment from Government/Local body Land?			N/A
4	Clearance of squatters/hawkers from Government/Local Body Land?			N/A
5	Number of structures, both authorized and/or unauthorized to be acquired/cleared/			N/A
6	Number of households to be displaced?		✓	
7	Village common properties to be Alienated Pastureland(acres)Acquisition /Burial ground and others specify?		✓	
8	Existing land uses on and around the project area (e.g., community facilities, agriculture, tourism, private property) will be affected?		✓	

9	Will the project result in construction? Workers or other people moving in to or having access to the area (for a long-time period and in large numbers compared to permanent residents)?		✓	
10	Are financial compensation measures expected to be needed?		✓	
<b>Land Use, Resettlement, and/or Land Acquisition</b>				
<b>Sl.no</b>	<b>Components</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>
<b>Loss of Crops, Fruit Trees, Household Infrastructure and livelihood</b>				
11	Will the project result in the permanent or temporary loss of the following?		✓	
11.1	Crops?		✓	
11.2	Fruit trees? Specify with numbers		✓	
11.3	Petty Shops		✓	
11.4	Vegetable/Fish/Meat vending		✓	
11.5	Cycle repair shop		✓	
11.6	Garage		✓	
11.7	Tea stalls		✓	
11.8	Grazing		✓	
11.9	Loss of access to forest produce		✓	
11.10	Any others-specify		✓	
<b>Welfare, Employment, and Gender</b>				
12	Is the project likely to provide local employment opportunities, including employment opportunities for women?	✓		
13	Is the project being planned with sufficient attention to local poverty alleviation objectives?	✓		
14	Is the project being designed with Sufficient local participation (Including the participation of women) in the planning, design,			N/A
<b>Historical, Archaeological, or Cultural Heritage Sites</b>				
15	Historical heritage site(s) require Excavation near the same?		✓	

16	Archaeological heritage site(s) require Excavation near the same?		✓	
17	Cultural heritage site(s) require Excavation near the same?		✓	
18	Graves or sacred locations require Excavations near the same?		✓	
<b>Tribal Population/Indigenous People</b>				
<b>Land Use, Resettlement, and/or Land Acquisition</b>				
<b>Sl.no</b>	<b>Components</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>
19	Does this project involve acquisition of any land belonging to Tribal people?		✓	
<b>Beneficiaries</b>				
20	Population proposed to be benefitted by the proposed project	Approx.no.:		More than 10000 individuals' from BAU and other institutes like, BINA, BFRI
21	No. of Females proposed to be benefitted by the proposed project	Approx.no.:		At least 20%
22	Vulnerable households/population to be benefitted	Approx.no.:		N/A
23	No. of Families to be benefitted	Approx.no.:		N/A