

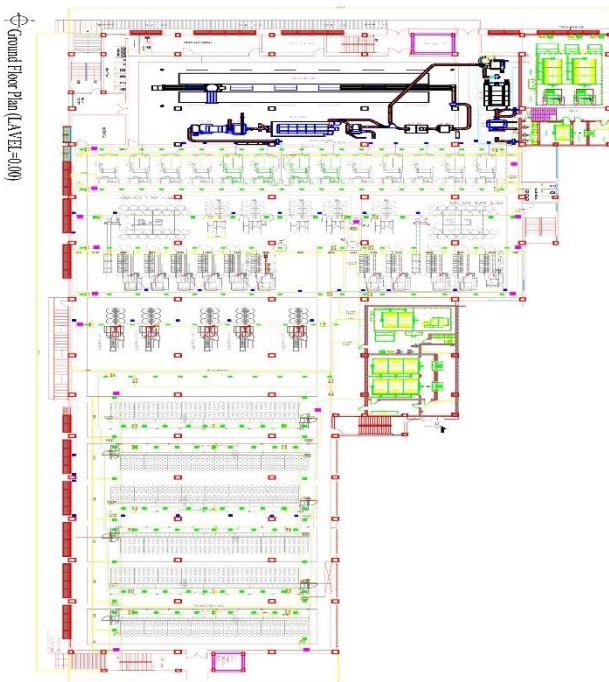


Pahartali Textile and Hosiery Mill

Pahartali Textile and Hosiery Mills (PTHM)

ISPAHANI

Revised Environmental & Social Impact Assessment (ESIA) for Expansion of Textile Spinning plant of Pahartali Textile and Hosiery Mill (PTHM) Under BIFFL and KfW Fund.



Ispahani Complex, north Pahartali region in the port city Chattogram.

Prepared By



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Unit Conversion Table

General Units

1 meter = 3.28 ft

1 kilometer = 0.621371192 mile

1 nautical mile = 1.852 kilometer

1 kilogram = 2.20 pound

1 metric ton = 1000 kg

1 barrel = 42 U.S. gallons = 159.0 liters

1 liter = 0.264172052 gallon (US)

1 square mile = 640 acres = 2.590 km²

1 hectare = 10⁻² km² = 2.471 acres

1 Pascal = 1 N/m² = 0.01 millibar

1 liter = 0.001 cubic meter

1°C = 274.15K = 33.80F

1 mg/m³ = 1 µg /L

1 mg/L ≈ 1 g/m³ ≈ 1 ppm (w/w)

1 ≈ g/L ≈ 1 mg/ m³ ≈ 1 ppb (w/w)

1 knot = 0.514444 m/s

1µg/m³ = 1 ppb*(12.187)*(M) / (273.15 + °C)



Acronyms

AFD	Agency Française de Development (French Development Agency)
ARIPA	Acquisition and Requisition of Immovable Property Act
BBS	Bangladesh Bureau of Statistics
BDT	Bangladesh Taka
BIFFL	Bangladesh Infrastructure Finance Fund Limited
BECA	Bangladesh Environmental Conservation Act
BMD	Bangladesh Meteorological Department
BNBC	Bangladesh National Building Code
BWDB	Bangladesh Water Development Board
DG	Director General
DoE	Department of Environment
EA	Environmental Assessment
ECA	Ecologically Critical Area
ECR	Environmental Conservation Rules
ECOSS	Environmental Conservation and Social Sustainability
EHS	Environmental, Health and Safety
EMP	Environmental Management Plan
ESMF	Environmental and Social Monitoring Framework
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
EZ	Economic Zone
FGD	Focus Group Discussion
GDP	Gross Domestic Product
GoB	Government of Bangladesh
GR	Game Reserve
GRM	Grievance Redress Mechanism
HH	Household
IEE	Initial Environmental Examination
ILO	International Labour Organization
KII	Key Informant Interview
PTHM	Pahartali Textile and Hosiery Mills
MoEFC	Ministry of Environment, Forest and Climate Change
NP	National Park
OHSE	Occupation Health, Safety and Environment



PA	Protected Area
PPE	Personal Protective Equipment
REB	Rural electrification Board
RMG	Ready-made Garments
SRDI	Soil Resources Development Institute
STP	Sewerage Treatment Plant
ToR	Terms of Reference
WASA	Water Supply, Sewerage Authorities
WASH	Water, Sanitation and Hygiene
WB	World Bank
WS	Wildlife Sanctuary



Glossary

adverse impact	An environmental impact that is harmful to human interests over either the short or long term.
amphibians	Amphibious organisms i.e., able to live both on land in water, such as frogs, toads, or newts.
avifauna	The birds that live in a certain place or at a certain time.
baseline studies	Work done to collect and interpret information on the status and trends of the environment likely to be affected by a development action.
beneficial impact	An impact that improves resources, the economy and/ or the quality of life for a population.
benthos	The community of organisms that live on, in, or near the seabed, also known as the benthic zone.
biodiversity	(Biological diversity) The variety and variability among living organisms.
charland/char	A tract of land surrounded by a river, sea, lake, or stream. The land is developed due to erosion and accretion of river.
compensation	Payment in cash or kind to the recipients of unavoidable, negative and/ or residual impacts.
decibel (dB)	A logarithmic scale used to denote the intensity, or pressure level, of a sound relative to the threshold of human hearing. A step of 10 dB is a ten-fold increase in intensity or sound energy, which, to the human ear, sounds a little more than twice as loud.
drainage congestion	The local abundance of surface water due to sudden high inflow or impeded outflow.
eco-park	A short form of Ecological Park. It is exploited as an amusement park, without hampering its natural environment, so that the bio-diversity remains unaffected there. Generally, a particular area of a forest is demarcated and brought under intensive management for this purpose. Sometimes forest areas having special natural features are selected as eco-parks. Flora of the concerned area gets preference for such consideration. Beauty offered by the nature is



opened to the visitors, and efforts to attract and entertain the visitors are also visible in the eco-parks.

ecology	The study of the relationships and interactions between various organisms and their environment.
ecosystem (ecological system)	A marine, freshwater, or terrestrial linkage of dynamic and interactive components normally divided into two major categories - biotic (living) and abiotic (non-living).
enhancement	The improvement of the environmental performance of a project beyond that required for mitigation where the benefits of such enhancement significantly exceed the costs.
environmental impact	The change in the state or functioning of an environmental resources or component caused by the action(s) of a project.
endangered species	Species in danger of extinction, and whose survival are unlikely if the existing conditions continue to operate. Included among those are species whose numbers have been reduced to a critical level, or whose habitats have been so drastically reduced that they are deemed to suffer from a significant danger of extinction.
flora	The plant species found in a given area.
fauna	A collective term denoting the animals occurring in a particular region or period.
floodplain	The area of low, flat ground on one or both sides of a stream or river channel subject to flooding.
guide bund	The site of a barrage, weir, bridge, etc., to guide the river flow through the confined waterway without causing damage to the structure and its approaches. They are provided in the direction of flow, both upstream and downstream of the barrage of one or both flanks depending on requirement.
habitat	The natural home or environment for a plant or animal.
hazard	A type of event that causes damages and/ or loss of human life, land use and /or the environment, e.g., floods, erosion, earthquakes, pollution.



mammals	Vertebrates comprising humans and all other animals that nourish their young with milk secreted by mammary glands.
mitigation	Mitigation is any action taken to reduce unacceptable negative impacts. It includes both design changes to the Project and operational strategies.
mouza	A Bangla word for the smallest government administrative area corresponding to a village revenue unit.
monitoring	Systematic measurement and / or observation of environmental and social variables in time and space.
plankton	The aggregate of passively floating, drifting, or somewhat motile organisms occurring in a body of water, primarily comprising microscopic algae and protozoa.
reptiles	Cold-blooded, air-breathing vertebrates comprising alligators, crocodiles, lizards, snakes, turtles, etc., Reptiles crawl or move on their belly (such as snakes) or on small short legs (such as lizards).
sediment	Solid particles transported and deposited by water, glaciers, and wind.
species	A uniform, interbreeding population distributed over time and space.
sensitive receivers	Receivers that are affected in some way by a particular external stimulus, generally noise or vibration.
stakeholder engagement	The process by which an organization involves people who may be affected by the decisions it makes, or can influence the implementation of its decisions. They may support or oppose the decisions, be influential in the organization or within the community in which they operate, hold relevant official positions, or be affected in the long term.
stakeholders	Those who may be potentially affected by a proposal or project.
terrestrial	Living on land (as opposed to in water).



Pahartali Textile and Hosiery Mill



topography

The study and description of the physical features of an area.

union

Smallest unit of local self-government comprising several villages.

upazila

An administrative sub-division of a district.

wildlife

Organisms that can survive in their natural environment without any human assistance. The four general types are: mammals, amphibians, reptiles, and birds, however, some classifications also include plants and microorganisms such as protozoans and bacteria.



Executive Summary

1. Introduction

Pahartali Textile and hosiery Mill (PTHM), the focus of this Environmental and Social Impact Assessment (ESIA) study, has emerged as a trailblazer in the spinning industry within the dynamic landscape of Bangladesh. Established in 1954, the company has swiftly ascended to become one of the nation's foremost spinning enterprises, capitalizing on the immense potential that Bangladesh holds in this sector. Demand for yarn in the domestic market remains robust, driven by demand from all user segments. The rapid growth recorded by the services sector has led to robust demand for commercial, manufacture, and thus demand spinning mills and their products. To holds a pivotal role in Bangladesh's dynamic textile and garment sector, contributing substantially to the nation's economic development, PTHM decided to increase their existing production capacity 52 metric ton per day to 63 metric ton/day by setting up new units. The unit will be equipped with the facilities for manufacturing of Cotton Yarn.

According to Environmental Conservation Rule, 2023, the proposed expansion of PTHM facilities falls under orange category and thus Environmental Clearance Certificate from the Department of Environment (DoE) is required. To that end, an initial environmental examination (IEE) along with EMP is acceptable to the DoE as part of the ECC application. PTHM authority already prepared the Environmental Impact Assessment (EIA), which is approved by the DoE and provided ECC in favor of PTHM (Appendix I). The expansion of the PTHM, on the other hand, is categorized as a "B" category by the World Bank because the potential impacts are site-specific, reversible, and in most cases, mitigation measures can be easily designed to manage the impacts. Therefore, the expansion of PTHM is required to conduct an Environmental and Social Impact Assessment (ESIA) in compliance with the requirements of laws and regulations of the Government of Bangladesh (GoB) such as Bangladesh Environmental Conservation Act, 1995 (BECA, 1995), Environmental Conservation Rules, 2023 (ECR, 2023). ESF of BIFFL will be followed to get fund from KfW financed Energy Efficiency in Industries Project. The KfW adopted the Environmental and Social Framework (ESF) of World Bank (WB) as given in ESF of BIFFL and as the regulatory requirements. The ESIA report has been prepared to fulfil the requirements of BIFFL for funding. The KfW adopted the Environmental and Social Framework (ESF) of World Bank (WB) as given in ESF of BIFFL and as the regulatory requirements. The ESIA report has been prepared to fulfil the requirements of BIFFL for funding.

To meet the Environmental and Social Framework (ESF) requirements of the Bangladesh Infrastructure Finance Fund Limited (BIFFL), the project must adhere to both World Bank (WB) ESF standards and national regulations. In compliance with these requirements, Environmental Conservation and Social Sustainability (ECOSS), an emerging firm in the environmental consultancy has been assigned by PTHM authority to conduct the ESIA study prepare the ESIA Report. This ESIA report will show the path to reducing the impact of the project in an environmentally sound manner.

2. Project Description

Pahartali Textile & Hosiery Mills (PTHM), a spinning unit of M. M. Ispahani Limited located at the Ispahani Complex, north Pahartali region in the port city Chattogram. The geographical



coordinates of the project site are approximately N- 22°21'50.40'' and E- 91°47'13.20''. The project area is well-connected with various communication facilities and is easily accessible via the highway.

The expansion of the PTHM will be constructed over 7.71 hectars/19.1 Acres of land, so the total land area is 77,100 Sqm, among which floor area is 55,742 Sqm and proposed floor area is 11,613 Sqm for the expansion of PTHM. The entire 7.71 hectars/19.1 Acres of land is owned by the PTHM authority. The land is already developed and there are no Project Affected Persons (PAPs) recorded in the project area. As a result, no land acquisition or resettlement is required for the expansion of the PTHM facilities..

Name of the Project	Pahartali Textile & Hosiery Mills
1. Type of Business/ Operation	Export Oriented Yarn Spinning
2. Final Product	Yarn 10s Ne to 50s Ne
3. Production Capacity (per year)	Existing 52 metric ton per day (18,408 MT/Y) to 63 metric ton/day (22,302 MT/Y) by setting up new unit
4. Raw Materials	Raw Cotton, Viscose, Polyester, Recycled Polyester
5.No. of Employees	Existing 1793 and after expansion 1983 Person (approx.)
6.Factory Running Time	24 Hours (03 Shift = 600 am-1400 pm, 1400 pm-2200 pm, 2200 pm-600 am)
7.Electricity Requirement	Existing requirement: PDB 200 kw/hr, Gas generator: 9,300 kw/hr, Solar Generation 150 kw/hr After expansion requirement: PDB 2,100 kw/hr, Gas generator: 9,300 kw/hr, Solar Generation 250 kw/hr
8.Source of Electricity	PDB, GAS Generator & Solar (7 MW, 11.95 MW & 1.32 MWp)
9.Water Requirement	Existing: 1050 m ³ / day after expansion: 1200 m ³ / day
10.Source of Water	CWASA & Ground Water
11.Total No. of Generator and Capacity	10 Nos Natural Gas Generators & 11.95 MW
12.Type of Generator	Gas
13.Total Land Area	77,100 Sqm/ 7.71 Hectares/ 19.1 Acres
14.Area Covered by Factory	Existing 55,742 Sqm.
15.Proposed floor area	Expansion 11,613 Sqm (Two Storied Factory Building)

The facilities will be taking into account the Gender and Disability inclusive development construction in its design. In addition, energy savings and green building construction approach will also be included in its construction and design.



The construction commencement of the project started November, 2023. During the construction period, the total manpower required 120 person per day over 12 months. After implementation, the project will create job opportunities for 1983 personnel of different categories. The major activities that would be carried out during the construction phase of the proposed project are mainly mobilization of personnel, materials and equipment including establishment of project office and labor shed, etc.); providing ancillary facilities as per layout; ground preparation; basement construction with ramps; piling and foundation; construction of the major buildings, installation of generators and compressors; furniture and furnishings; internal roads, drainage and infrastructure construction; traffic and pedestrian management system and landscaping/tree plantation, etc. In the operation stage, major activities are stipulated as the regular operation and maintenance of PTHM's units like buildings, roads, drainage and regular operation and maintenance of the production, Security and Internal traffic system management etc.

3. Policy, Legal and Framework

The ESIA presents a review of the existing laws and policies related to the environmental and social dimensions of the expansion of the PTHM project. Along with providing a summary of the relevant GoB laws and policies, it presents the World Bank's Safeguard Policies. Gaps between the relevant government laws and World Bank Safeguard Policies are also presented along with remedial measures to address the gaps. Where gaps exist, the project will adopt the most stringent standards.

The national environmental policies and laws and legal framework applicable to the proposed project have been identified. An overview of a few of the major national environmental laws and regulations that are relevant and may be applicable is provided. along with the World Bank's ESS and related ones are applicable.

4: Environmental and Social Baseline

The expansion of the PTHM will be constructed over 7.71 hectars/19.1 Acres of land, so the total land area is 77,100 Sqm, among which floor area is 55,742 Sqm and proposed floor area is 11,613 Sqm for the expansion of PTHM. The entire 7.71 hectars/19.1 Acres of land is owned by the PTHM authority. The land is already developed and there are no Project Affected Persons (PAPs) recorded in the project area. As a result, no land acquisition or resettlement is required for the expansion of the PTHM facilities. The Study Area is characterized by heavy rainfall. With the exception of the relatively dry western region of Rajshahi, where the annual rainfall is about 1,600 mm (63.0 in), most parts of the country receive at least 2,300 mm (90.6 in) of rainfall per year. As temperature record shows, April is the warmest month with average temperature of 34°C and January is the coolest month with temperatures averaging 13°C. In the project area the wind direction is predominantly characterized by South, South-Southeast, and South-East wind flow. The average wind speed ranges from 5 to 19 km/h during maximum period in a year. Geologically, the proposed study area falls within "Tipam sandstone". The Tipam Sandstone formation, about 1.2 km to 2.5 km thick, is dominantly composed of medium grained sandstone frequently cross bedded, with little shale and this indicates deposition under a river environment. The general soil types of the project road area predominantly include the Grey Piedmont soils. This type of soil occurs extensively on the northern and eastern Piedmont Plains and locally on the Chattogram coastal plain. They have been formed in the out-wash alluvium at the foot of hills, having a cambic B-horizon which has a grey matrix



and is medium or very strongly acid in reaction. They are mainly included in Dystric or Eutric Gleysols.

Tectonically, the proposed location falls in the folded belt unit. Folded Belt represents the most prominent tectonic element of Bengal Foredeep with general sub-meridional trending hills parallel to the Arakan Yoma Folded System. The expansion of PTHM should have safe distance from active fault. The nearest major technical fault is “Chittagong-Myanmar fault” which is located around 20 km away from the project site. Historically, multiple earthquakes with magnitudes ranges between 2 and 6 were reported close to the proposed project. According to the BNBC (2015), Bangladesh is divided into four classes as earthquake zone I, II, III and IV. It worth mentionable, those zones represent major damage zone, moderate zone, minor zone and negligible zone. According to the classification, proposed location lies in seismic zone III (seismic co-efficient: 0.28) i.e., moderate zone. The area may be considered as moderately venerable to seismic hazard. However, the area is in a close vicinity of the Teknaf- Sitakunda Fault and on the same alignment’ as such adequate geo-tectonic and seismic study should be carried out on the project area before finalizing the design. It is recommended that the design of all the structures of the project should follow the Building Code of Bangladesh.

Air quality monitoring was carried out at four (04) locations at the project corridor on February 2024 for 24 hours. The sampling locations were selected to ensure a representative value of the local air quality. WBG EHS/WHO Air Quality Standards 2021 and Bangladesh national standards for ambient air quality are followed for the air quality analysis. The key air quality parameters (particulate matter- PM10 and PM2.5, oxides of sulfur - SO_x, oxides of nitrogen – NO_x, carbon monoxide- CO, Ozone-O₃ and SPM) were analyzed from samples collected at each sampling sites. The measurement results showed achievement of all air quality standards for national but failed to meet the WBG EHS/WHO Air Quality Standards 2021 for some parameters. Based on the ambient air quality standard of DoE, air quality in the project areas can be stated as in good condition. Particulate matter PM2.5 value was 50 and PM10 value was 85 which are far below the DoE standard.

Ambient noise level during day time and night time was measured at around the proposed Project site. Since the Project site is located within industry, the project site has been considered as industrial areas. Four sampling locations have been monitored for addressing the present noise level at the project site. All the collected noise data were collected and compare them with the Bangladesh standard limit (Noise Pollution Control Rules, 2006) and international standard (IFC, 2007). The noise in generator room found higher than the DoE standard. However, it is recommended to provide earplugs to workers of those places to avoid occupational health hazard in the highly noise area.

The ground water was collected and analyzed of the study area by DoE. All the parameters analyzed for the groundwater were found to be within the corresponding drinking water limits set in the ECR, '2023 and WHO guidelines.

The project area falls under cyclone high-risk zone. However, from the analysis of the major cyclone track, no major cyclone hit the project study area, but due to its geographic location, severe to moderate flash flood occurs in the project area during monsoon or cyclone events. As per the flood study findings, the PTHM study is situated in a relatively high area. According to the people living around the study area, during the most recent cyclone Roanu in 2016 and



Mora in 2017, storm surge did not flood the area, but most of the study area was flooded up to 3 to 5 feet.

The present land use pattern of the PTHM and 1 km buffer area is classified based on satellite image classification and field study. According to field data of the study region, that households and other commercial structure land use dominates the study region, accounting for about 58%, of total land uses. The second most important land use is vegetation, which covers 20%. The barren land use account for 13% of the study area. There exists waterbodies and road network cover 8% and 1.65 % respectively. At present, the expansion of PTHM plot is currently a piece of high land with ground level elevation of 12-40 m MSL.

There are a few trees were observed near the project corridor. However, in the buffer zone, there are various types of plants found in the hillside and in the settlement area. Varieties of plants including herbs and shrubs been observed during the field visit within the study area among them sada koroï, narikel, amm etc were found in the project area. The settlement vegetation was found as common species and was not much diversity within the study area. The most dominant species observed in the study area were plum trees such as date plam (Phonix sylvestris), betel nut (Areca catechu) and coconut (Cocos nucifera).. The fruit bearing trees are mostly planted almost all the house. The hill vegetation in the project area reflects the diverse characteristics typical of the hilly terrain in the southeastern region. These plants exhibit unique natural traits, such as germination challenges, distinguishing them from other vegetation types. The forest features a mix of evergreen species in the lower canopy and deciduous species in the upper canopy. Prominent upper canopy species include Civit (Swintonia floribunda), Garjan (Dipterocarpus sp.), Chapalish (Artocarpus chaplasha), Chundul (Tetrameles nudiflora), and Telshur (Hopea odorata). The lower canopy is enriched with species like Pitraj (Aphanamixis polystachys), Toon (Toona ciliata), Nageshwar (Mesua ferrea), Uriam (Mangifera sylvetica), and various species of Ficus. The undergrowth is dense and predominantly consists of shrubs, interspersed with cane, bamboo, and wild banana, which are particularly prominent in the area

A total of 28 terrestrial faunal species have been identified from the proposed project site and adjacent areas, and most of them are avian species. The study area Foy's Lake and seasonal water bodies like: ponds and ditches. Such water bodies are ornamented by true aquatic plant species such as free floating, rooted floating, submerged, sedges and meadows and marginal plants. Free floating plants are commonly observed throughout the study area.

No ECA, EPA and WS exists at or near the proposed project site. The nearest ECA is Sonadia Island which is located around 92 km away from the project site. The nearest PA are Sitakunda eco park (31.5 km from the project site). Dudh Pukuria-Dhopachari Wildlife (27 km from the project site), Chunati Wildlife sanctuary (38.9 km from project site).

A Social Survey was carried out in the project influence areas to create a profile of the socio-economic features of the communities during February 2024. The economic condition of the project study areas seems to be relatively good compared to other regions of the country. The local economy is vibrant and thriving through various businesses operating in this locality. Some governmental offices and financial institutions exist there and provide services to the local, city and entire Bangladeshi peoples. People's occupation varies in the project study areas. People's occupation in the project study areas are mainly industries (34%), services (60%) and agriculture (4%) sector oriented. Private services in the market, shop, bank, working in garments sector and transport-related occupation (e.g., bus, car, rickshaws, three-



wheelers, CNG taxi, truck, etc.) are available that play an important economic role among the people of present society. Many small shops exist beside the roads from where people buy their necessary foods and commodities. Many service sector workers are privately employed in maintenance of buildings, markets & shops, and most of them stay in other city areas. Some small to medium factories are observed in the study area, of which garment related factories are in majority. All types of income groups (low, middle & high) people live in the area.

According to social survey, 2024, it is found that, basically, the livelihood depended on service and industrial work, involving 94 %, whereas only 4% of people are involving with agricultural activities. The maximum wage rate for male non-farming laborer is BDT 600 to BDT 700 per day and for female is BDT 500 to BDT 600 per day. Nonlocal laborers in the area are commonly found, which stands around 35%; while 10% of the local labor commute to outside areas for work. These workers are predominantly employed in the garments and business/commercial sectors, while, a good number of out the area workers are engaged in different development activities. These workers are engaged in mostly non-farming activities (e.g., industries, business, brickfield, earthworks and construction work etc.) are culturally the same as the local people and mostly live in the community and thus can't be considered as migrant workers.

No historical or archeological establishments have been identified in the project study area and project influence area

5: Alternative Analysis

Only two alternative options are available for the PTHM and these have been assessed.

PTHM Current Location and its suitability: The expansion of the PTHM will be constructed over 7.71 hectares of land. The entire 7.71 hectares of land is owned by the PTHM authority. The land is already developed and there are no Project Affected Persons (PAPs) recorded in the project area. As a result, no land acquisition or resettlement is required for the expansion of the PTHM facilities. There was no cultural, historical, and aesthetic interest in the project land and no loss of a sensible place. The land is already developed and belongs to PTHM and there are no illegal settlers on it as well. The ES impact of the project is likely to be site independent. The project will also provide temporary and long-term employment opportunities for the local people. Thus, the current location is ideal from all considerations.

No Project Scenario: The "No Action Alternative" simply means no construction of the expansion of PTHM project. The expansion of PTHM will provide much needed employment opportunities, which is currently lagging; and the industries currently must rely on foreign service providers at high cost and delay. In the absence of the expansion of the PTHM, the industries will continue to suffer from the support facilities, that can be obtained from the PTHM.

6. Environmental and Social Impact and Risk

Project influence area will not cross any protected areas, or protected forests or sensitive areas (within 5 km). Moreover, there is little possibility of affecting the local cultural due to the project activity. The project will also provide temporary and long-term employment opportunities for the local people. The expansion of the PTHM will be constructed over 7.71 hectares of land. The entire 7.71 hectares of land is owned by the PTHM authority. There are no squatters/encroachers on the project land and there is no one living in the project site. So, there is no issue of displacement of people, rehabilitation of settlement, or impacts on private



property. But, construction-related risks and impacts are expected, including increased risk to health and safety of workers and communities, increased traffic flow and traffic-related accidents and social issues related to increased labor influx such as gender-based violence and child labor– all expected to take place during construction.

During the construction phase, the project will have moderate impacts on the air pollution particularly dust particles, noise level in the adjacent area, water quality due to polluted water from the construction yard, OHS of the workers, demand on the local utility services, labour influx etc. The construction contractors are expected to establish construction camp sites, material stack yards, hot mix plants and workforce camps at suitable place of the site. The accommodation for the skilled and unskilled labors will be provided at the work force camps, whereas all other category of construction workforce (supervisors and above rank) will be provided with rented accommodation at nearby settlement areas/towns. In addition, this influx of labor may affect the project area adversely in terms of additional burden on public infrastructure such as health services, utilities (i.e. water and electricity), housing and social dynamics. Other related issues would be increased risk of spreading of communicable diseases and increased rates of GBV/SEA/SH. Infrastructure construction equipment and activities usually creates excessive noise (beyond standards) in the project area. which would be a matter of concern including potential health impacts to the people in the project impact area. Handling of heavy construction machineries may cause injuries to the labors in the project sites. In fact, OHS risks constitute the highest risks during the construction phase. Unsafe and unhygienic labour sheds may create health hazards, sometime communicable diseases like COVID, STD, HIV etc. may spread due to mixing of labors at the site and nearby communities. Heavy construction machinery, vehicular traffic, excavation and filling operations will all be part of the construction activities. These activities may provide certain safety risks, not only to the construction workers, but also to the residents of the area. The project interventions will also expose communities to health and safety risks from increased traffic during construction along the transport routes.

7. Impact Evaluation

The mitigation measures for impacts have been assessed according to three basic principles: avoidance, minimizing and off-setting of impacts. In the assessment, “impact avoidance measures” refer to the adoption of any mitigation measure to avoid those impacts. Both environmental and socio-economic impacts and associated mitigation plan are suggested, especially for the significant, major or medium impacts. Predicted minor impacts might be eliminated through use of the environmental code of practices by the contractors. The environmental and social parameters will experience beneficial effects during operation of the expansion of PTHM. Efforts should be made to enhance these beneficial impacts, which may include incentives for proper growth of industries in the area. PTHM authority would be responsible for overall environmental and social management during operation phase of the project.

8. Environmental and Social Management Plan

ESMP has been designed to mitigate the Project’s environmental and social risks and impacts. It includes site-specific impacts on sensitive receptors, mitigation measures, monitoring, responsibilities and reporting system and budget. In addition, the ESMP provide measures to address GBV issue at the project level.



During the operation stage, wastewater and proper solid waste management plan will be needed to be implemented. Rainwater harvesting should also be considered, as one of the good practices during the operation stage. Nonetheless, air and noise pollution management plan, energy management plan, flood management plan, emergency response and preparedness plan, occupational health and safety management plan, as well as good housekeeping should be implemented during the operational phase. To implement the ESMP, an institutional setup has been proposed in this document that has to be implemented for the construction and operation phases of the project, along with allocation of adequate budget as prescribed by this ESIA. Tree Plantation and Biodiversity Enhancement Plan is included in Appendix XIX. Medical, solid, and hazardous waste handling agreements are enclosed in Appendix XV, XVI, and XVII respectively. Gender-based violence (GBV) mitigation measures and code of conduct are presented in Appendix XIV. The Traffic Management Plan (TMP) is provided in Appendix XXI. For details of Emergency Response Plan, refer to Appendix XX.

As an enhancement plan, it is proposed that the management authority should develop a thick green belt all around the project site, proper storm water drainage, and a rainwater harvesting system to harvest rainwater and use it to meet daily water demand and reduce pressure on groundwater resources.

9. Public Consultation and Disclosure

As part of the consultation process the ESIA consultant carried out public consultation, KII and FGDs with (i) community members (ii) officials from different departments and sector (iii) community leaders, (iv) Union Parishad Chairman and (v) women to capture gender dimensions. Environmental and social consultations were held at two locations within the study area. The public consultations revealed that the participants weren't fully informed about the status of the project, once explained about the nature of the project, the stakeholders provided inputs in terms of project design and other amenities. KII and FGDs also revealed support for the project from various stakeholders and they provided critical information on the views of the stakeholders on labour influx, traffic management and occupational health and safety of the workers. On the whole the stakeholders were welcoming of labour inflow from other districts and requested officials to equip workers with the adequate safety equipment. Moreover, a robust traffic management plan was also requested by the stakeholders.

Summary of the ESIA report along with ESMP will be translated into Bengali language and disseminated locally. The full report (in English) and the summary (in Bengali) will also be uploaded to the website of the PTHM. A hard copy of the ESIA and ESMP will also be available at the PTHM office

10. Grievance Redress Mechanism

A three-tier bottom up GRC system is established to receive, evaluate and facilitate the resolution of affected people's concerns, complaints, and grievances. The GRM aims to provide a time bound and transparent mechanism to voice out and resolve social and environmental concerns linked to the project. 1st Level: Supervisor, Manager (Production), Worker Participation Committee, Grievance Box, Welfare/Compliance Officer, or Factory Working Group (if resolution fails or not satisfied), 2nd Stage: Human Resource/Administrative Department (if the solution fails or is not satisfactory), 3rd Stage: General Manager, Executive Director, Managing Director (if the solution fails or is not satisfactory) and 4th stage: Legal



proceedings if necessary. Grievances will be redressed within a month from the date of lodging the complaints. GRC decisions will be on a majority basis and will be disclosed and available for review by the stakeholders. If any disputant is unhappy or unsatisfied with the outcome of the Project level GRC, he/she may seek judicial redress.

11. Conclusions

The PTHM managements will comply with provision of ESMP in this document in the construction and operation phases respectively. The compliance will be overseen, monitored, and audited by a dedicated team on behalf of the PTHM managements. The Project will make its best effort to minimize the environmental and social impacts unavoidably associated with the Project; during its entire life cycle by implementing required mitigation measures and management plans as described in this ESIA; to ensure compliance with the requirement of BIFFL for funding. Provision for an indicative budget resource have been recommended for the purpose. PTHM management will ensure that the Project conforms to all the legal, regulatory and policy objectives and also ensure that all the necessary permits and clearances from the authorities are obtained and renewed from time to time as necessary.

Finally, it is expected that all necessary information/ evidence contained in this ESIA report are enough to meet all requirements for the construction and operation of the expansion of PTHM's facilities to fulfil the requirements of BIFFL for funding.

Annual renewal of the Environmental Clearance Certificate (ECC) and periodic third-party environmental monitoring will be required throughout the project lifecycle to maintain regulatory compliance.



Chapter 1: Introduction

1.1 Background

The spinning industry in Bangladesh is experiencing a surge in investment as local entrepreneurs strive to expand their production capacities or establish new units to meet the escalating demand for garment raw materials. Currently, there are nearly 500 spinning mills in Bangladesh (Textile Today, 2022). Data from the Bangladesh Textile Mills Association (BTMA) reveals a substantial investment of Tk 5,970 crore in 26 new manufacturing plants, incorporating over 745,400 new spindles into their collective capacity. Employing more than 3.6 million workers, with a significant portion being women (Mridha, 2021), almost 430 spinning mills operate daily. Among these, only 27 factories produce Man-Made Fiber (MMF), primarily focusing on specific polyester yarns (Textile Today, 2022). This robust growth is primarily driven by the surging demand for garment raw materials, prompting significant investments and expansions. However, the industry heavily relies on imported fibers, as Bangladesh does not domestically produce these essential materials (Textile Focus, 2019).

Demand for yarn in the domestic market remains robust, driven by demand from all user segments. Demand from the industrial sector continues unabated driven by rising income levels, fiscal incentives, and a moderate interest rate regime. The rapid growth recorded by the services sector has led to robust demand for commercial, manufacture, and thus demand spinning mills and their products. Pahartali Textile & Hosiery Mills (PTHM), a spinning unit of M. M. Ispahani Limited located at the Ispahani Complex, north Pahartali region in the port city Chattogram, which was designed as a backward linkage industry for the export-oriented RMG sector. To hold a pivotal role in Bangladesh's dynamic textile and garment sector, contributing substantially to the nation's economic development, PTHM decided to increase their existing production capacity by setting up new units. The unit will be equipped with the facilities for manufacturing of Cotton Yarn.

Before taking up any project, the environmental and social aspects of the proposed development activities must be taken into consideration and due attention must be paid to protecting the environment. Proper Environmental and Social Management Plan (ESMP) is mandatory to minimize the environmental and social impacts during construction and operation phase of the expansion of the PTHM. To ensure the environmental and social sustainability, an Environmental and Social Impact Assessment (ESIA) study is being carried out for the expansion of the PTHM facilities to look into the potential impacts of the proposed activities, and its function along with the relevant environmental and social management plan.

1.2 Purpose of the ESIA Study

According to Environmental Conservation Rule, 2023, the proposed expansion of PTHM facilities falls under orange category and thus Environmental Clearance Certificate from the Department of Environment (DoE) is required. To that end, an initial environmental examination (IEE) along with EMP is acceptable to the DoE as part of the ECC application. PTHM authority already prepared the Environmental Impact Assessment (EIA), which is approved by the DoE and provided ECC in favor of PTHM (Appendix I).



The expansion of the PTHM, on the other hand, is categorized as a "B" category by the World Bank because the potential impacts are site-specific, reversible, and in most cases, mitigation measures can be easily designed to manage the impacts.

This report is prepared to fulfill the requirement of Bangladesh Infrastructure Finance Fund Limited (BIFFL) to get funding. Also, the report follows the guidelines given in Environmental and Social Framework (ESF) of BIFFL. This ESIA is part of the process of compliance in accordance with the Government of Bangladesh laws/rules and the World Bank Safeguard Policies. The ESIA assesses the risks and impacts and provides various environmental and social measures to avoid, reduce, mitigate and compensate these risks and impacts during preparation, construction and operation of the project. In compliance with these requirements, Environmental Conservation and Social Sustainability (ECOSS), an emerging firm in the environmental consultancy has been assigned by PTHM authority to conduct the ESIA study.

1.3 Scope of the ESIA

The ESIA requires conforming to the applicable environment and social legal and regulatory framework of Government of Bangladesh as well as World Bank's Environmental and Social Standards. The scope of the ESIA report describes the following most important features:

- A review of the environmental legislative, regulatory and policy guidelines and considerations relating to the implementation of the project;
- A general description of the project and existing physical, biological and socio-economic conditions;
- Assess the existing baseline status of the social and environment within Corridor of Impact and Project Influence Area;
- Analysis of different alternatives to the project in terms of environmental and social perspectives;
- Identification and assessment of the potential impacts on the natural and human environment in the project area, from the construction of the project;
- Consultation with the locals/stakeholder involving concerned people in order to identify and act on any undocumented or perceived environmental issues and;
- Identification of mitigation measures including monitoring framework in the form of an Environmental and Social Management Plan (ESMP).

1.4 Approach and Methodology

The study has been conducted in accordance with Environment Conservation Rules, 2023, Government of Bangladesh (GOB) and the World Bank's Environmental and Social Standards (ESS). The study is based on both primary and secondary data and information. The primary data includes data collected from field observations and secondary data includes the review of the Bangladesh Bureau of Statistics (BBS) and relevant information from Government Departments and published literatures. For social baseline, discussions were held with stakeholders including government officials, community representatives and a wide range of current users and project sites dwellers. The main purpose of this approach was to obtain a fair impression on the people's perceptions of the project and its environmental impacts.

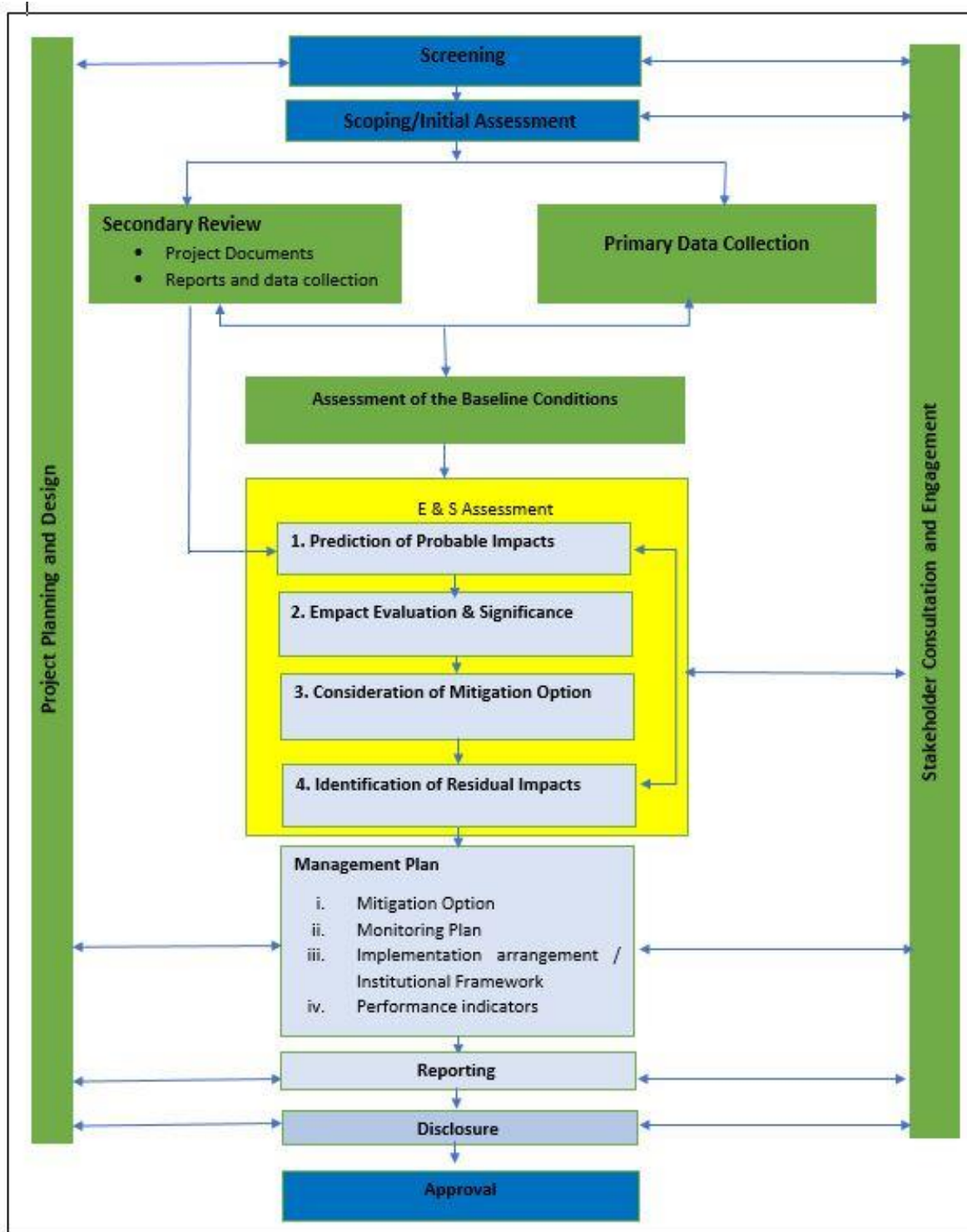


Figure 1: Methodology for the ESIA of Pahartali Textiles and Hosiery Mills



1.4.1 Baseline Data Collection and Analysis

In order to establish the baseline biophysical conditions within the study area, relevant secondary and primary data was collected and reviewed, a comprehensive field survey was undertaken, and a number of consultations with local people were carried out.

Primary data collection was conducted during January-April 2024. The physical environment parameters surveyed were air quality, noise level and ground water quality. A set of baseline conditions was recorded, once sampling stations were defined, and data was collected. This dataset was then used to predict the likely impacts, and will be applied to monitor change (usually negative) during construction and operation.

The environmental data collected in the Project corridor were from both primarily and secondary sources. The secondary sources included the Bangladesh Water Development Board, Bangladesh Meteorological Department, Soil Resource Development Institute, and the International Union for Conservation of Nature (IUCN), Bangladesh.

Air Quality

The air quality samplings ($PM_{2.5}$, PM_{10} , CO, SO_2 , NO_2 , O_3 ,) have been conducted at the project sites. The major sources of air pollution identified in the study area include the nearby road with heavy vehicle movement. For the collection of samples, the nearest sensitive receiver points were selected for ambient air quality, indoor air quality at work place and exhaust gas quality.

Air quality monitoring was carried out at four (04) locations at the project corridor in February 2024 for 24 hours. The sampling locations were selected to ensure a representative value of the local air quality. WBG EHS/WHO Air Quality Standards 2021 and Bangladesh national standards for ambient air quality are followed for the air quality analysis. The key air quality parameters (particulate matter- PM_{10} and $PM_{2.5}$, oxides of sulfur - SO_x , oxides of nitrogen – NO_x , carbon monoxide- CO, Ozone- O_3 and SPM) were analyzed from samples collected at each sampling sites.

All the samples and data were collected from about 1-1.5 meters in height. The tested parameters were $PM_{2.5}$, PM_{10} , CO, SO_2 , NO, NO_2 and O_3 . The data was collected using the Environmental Perimeter Air Sampler (EPAS) (model haz-Scanner) of Environmental Devices Corporation (EDC), USA. The sampling process was conducted repeatedly, for one to five minutes over a 24-hour sample period.

Noise

The main purpose of ambient noise level measurement was to determine sound intensity at the monitoring locations. These locations were chosen in such a way that a representative data could be recorded for all over the study area. Ambient noise level during day time and night time was measured at around the proposed Project site. Since the Project site is located within industry, the project site has been considered as industrial areas. Four sampling locations have been monitored for addressing the present noise level at the project site. All the collected noise data were collected and compare them with the Bangladesh standard limit (Noise Pollution Control Rules, 2006) and international standard (IFC, 2007).

During the baseline survey, the existing land used pattern have been mainly demarcated as commercial zone . The noise levels were monitored using ANSI Type-2 Sound Level Meter (Model-DT 8850) of the company CEM. However, the noise level monitoring was conducted



1-hr continuously during day and night time periods. The data were averaged using standard procedure for averaging dBA data, which are logarithmic quantities.

Ground Water Quality

The groundwater sampling and analysis was undertaken to understand the overall baseline ground water quality. The parameter tested are pH, Po4, No3, Turbidity, SS, Fe, Chloride, Total coliform of the groundwater in the study area. Groundwater samples were taken from different groundwater sources of the study area. Two groundwater samples were collected and analyzed by Department of Environment during April 2024.

1.4.2 Ecology

An ecological survey was conducted in the Project area during January 2024 to determine the extent, species composition, and condition of existing vegetation, wildlife, and threatened and protected flora and fauna, as well as important habitats for local migratory species. The following activities were undertaken during the terrestrial and aquatic field surveys.

- **Direct Observation**

The occurrence and abundance of flora and fauna were directly observed while travelling within water bodies, along road edges, across the agricultural fields, and within village groves. Animal presence was also identified based on tracks, footprints, feeding signs, and animal and bird calls. Appropriate field guides and data proformas were used for this activity, so that information was accurately recorded.

- **Interviews with Local Residents**

During the field survey period, extensive interviews were conducted with local people to collect information on animal and plant presence, including occurrences, behavior, breeding, distribution, and seasonal appearance.

- **Inspection of Fishermen's Catches and Fish Market Survey**

Whenever available, the catches of local fishermen were examined to assess species composition and abundance. The local fishermen were also interviewed to collect information on the occurrence and abundance of species and seasonality, etc. As with the terrestrial data collected during local resident interviews, the data collected from these activities did not comprise, but rather supplemented the core information of the aquatic assessment. The major fish markets, including the local fish landing centres, were also surveyed to record the local fish species caught, along with other aquatic animals collected with the fish catch (e.g. insect larva collected in cast nets). Fish sources were ascertained prior to observations, to verify that they came from within the local study area.

1.4.3 Stakeholder Consultation

The approach undertaken for consultation meetings involved the following key processes: (i) Identification of Stakeholders, (ii) Undertaking public consultations/focus group discussion (FGDs) and interviews with key stakeholders (KII), and (iii) Summarizing the observations and key findings from the consultations.



Separate individual interviews were held with disadvantaged and vulnerable members of the community to disseminate information about the project and to understand their views about the project. Women at select locations were also consulted on their interest to engage themselves as labor during construction period. A separate questionnaire was administered to females on questions relating to Gender Based Violence (GBV) particularly at locations where labor camps and socially sensitive receptors such as Schools and hospitals are located.

All the feedback and suggestions are received, and responses are well documented. Feedback and suggestions are incorporated to the project design. The ESIA will be disclosed to PTHM websites, Hard copies of the ESIA and relevant E&S documents will be kept at PTHM project site office.

1.4.4 GIS Mapping

Geographical Information Systems (GIS) was used as a specialized analysis and presentation tool. Prior to field investigations, spatial analysis of satellite imagery was used to identify administrative areas and other boundaries and constraints to be considered for both the environmental and social assessments. For example, the administrative boundaries of local government areas were defined, and alignment, settlement areas, and drainage networks were identified. These tools also supported detailed on-ground surveys, and particularly spatial features that may be directly or indirectly influenced by project activities. Detailed on-ground validation of spatial information - particularly land use - was conducted using a hand-held, non-differential GPS. The spatial data acquisition team took detailed transect walks through the Project area to identify various land use types, and to confirm the findings of the satellite imagery analysis. The extensive exercise both validated the land use mapping, and identified additional sensitive areas to include for sampling in the environmental fieldwork. The collected information is demonstrated in the numerous GIS mapping figures throughout this report.

1.4.5 Impact Assessment Methods

The ESIA process identifies the potential environmental impacts that may result from the implementation of the Project. Both positive and negative potential impacts for the Project were identified through the application of standardized international best practice methods of environmental and social impact assessment.

1.4.6 Methods for Mitigation and Management

An Environmental and Social Management Plan (ESMP) has been developed for each of the issues identified and assessed within this ESIA. The ESMP incorporates environmental and social mitigation measures and forms a practical guide to the ongoing management of all aspects of the Project, including biophysical monitoring and performance criteria auditing for the life of the Project. Based on the nature of activities, a monitoring plan has been prepared. Finally, a tentative budget for ESMP implementation and monitoring have been estimated to allocate it at the very beginning of the project formulation which assists to comply World Bank and National Rules and Regulations.

1.5 Limitation of the Study

An ESIA is generally carried out as an integral part of the Feasibility Study (FS) or together with it and before going into the final design phase and into the construction phase of a



particular development project. If so than the findings of the ESIA could be incorporated in the project design, overall planning and budget and that the project could be implemented accordingly. When an ESIA is conducted separately as just an add-on, often it does not get due importance in the overall implementation of the project, which undermines the role of the ESIA's and can contribute to environmental damages.

In evaluating subject site, consultant relies in good faith on information provided by client's management or employees. The Consultant assume that the information provided is factual, accurate and accepts no responsibility for any deficiency, misstatement or inaccuracies contained in this report as a result of omission or misrepresentation of any person interviewed or contacted. However, the consultant notifies the contradictions and errors in the data, where it seems appropriate. It should be recognized that the information given in the report is time specific and with the passage of time the relevancy of data and analysis may suffer. Specific circumstances and condition of site can change due to which conclusion and opinions may change.

1.6 Study Team

The ECOSS has prepared this ESIA report led by the team leader Md. Rashe Dun Nabi, Environmental Consultant, with the contribution of the following environmental consultants, scientists and researchers in the field of sustainable environmental management for the industries. The ESIA team members have visited the industry sites and recorded the relevant information as per the national and international requirements of the environmental laws, rules, acts and policies. The ESIA report was then prepared incorporating all environmental aspects, their underlying impacts and the mitigation measures. The team members with their positions are presented below Table 1.

Table 1: Team member for the ESIA study

Sl. No.	Name of the Expert	Assigned for this Project
1	Mohammad Rashe Dun Nabi	Senior Environmental Expert
2	Md. Nurul Absar	Environmental Expert
3	Md. Mahmudul Hasan	Environmental Expert
4	Wahidur Khan	Ecologist
5	Md. Istiaque Ahmed Anik	Sociologist
6	Shariful Islam	GIS Specialist
7	Sohel Sarkar	Field Surveyor



Chapter 2: Project Description

2.1 Introduction

Pahartali Textile Hosiery Mills (PTHM), the focus of this Environmental and Social Impact Assessment (EIA) study, has emerged as a trailblazer in the spinning industry within the dynamic landscape of Bangladesh. Established in 1954, the company has swiftly ascended to become one of the nation's foremost spinning enterprises, capitalizing on the immense potential that Bangladesh holds in this sector. Committed to delivering top-notch products and services, PTHM stands as a beacon of excellence in the industry.

Within the thriving garment, textile, spinning, and ready-made garments manufacturing sectors of Bangladesh, PTHM has carved out a distinctive niche. By setting high standards of quality and competitiveness, the company has significantly contributed to the economic fabric of the nation. What sets PTHM apart is its unwavering dedication to cultivating enduring relationships with business partners and providing industry-leading benefits and opportunities to its workforce. As a frontrunner in Bangladesh, PTHM guarantees a seamless fusion of quality and efficiency. Its pivotal role in the garment and textile industry is underscored by its commitment to meeting global standards in quality, cost-effectiveness, service delivery, and the scale of operations. The company boasts a workforce of approximately 1800 well-compensated employees operating within an exemplary work environment that includes in-house medical facilities.

Beyond ensuring quality production through a state-of-the-art machinery setup, PTHM places a strong emphasis on responsible waste management. This commitment is encapsulated in its dedicated waste management plan. In its relentless pursuit of excellence, PTHM has continually expanded its production capacity, fostered a skilled workforce, and embraced integrated technologies to remain at the forefront of global industry trends. With a history steeped in achievements and a future brimming with promise, the company envisions itself as a world-class quality yarn manufacturer while upholding its social, ethical, and environmental commitments.

The mission of PTHM extends beyond its operational boundaries. It is rooted in the execution of a Lean manufacturing system, adherence to corporate best practices in management, and maintaining maximum flexibility and transparency in its dealings with valued customers and suppliers. The company's commitment to prioritizing academic qualifications and technical expertise, irrespective of societal distinctions, reflects its dedication to fostering an inclusive and progressive work environment. In producing world-class products through diligent effort, PTHM is not just a business entity but a catalyst for positive change in the industry, exemplifying a commitment to customer satisfaction, environmental responsibility, and ethical business practices.

Table 2: Description of the project at a Glance

Name of the Project	Pahartali Textile & Hosiery Mills
1. Type of Business/ Operation	Export Oriented Yarn Spinning
2. Final Product	Yarn 10s Ne to 50s Ne



Name of the Project	Pahartali Textile & Hosiery Mills
3. Production Capacity (per year)	Existing 52 metric ton per day (18,408 MT/Y) to 63 metric ton/day (22,302 MT/Y) by setting up new unit
4. Raw Materials	Raw Cotton, Viscose, Polyester, Recycled Polyester
5.No. of Employees	Existing 1793 and after expansion 1983 Person (approx.)
6.Factory Running Time	24 Hours (03 Shift = 600 am-1400 pm, 1400 pm-2200 pm, 2200 pm-600 am)
7.Electricity Requirement	Existing requirement: PDB 200 kw/hr, Gas generator: 9,300 kw/hr, Solar Generation 150 kw/hr After expansion requirement: PDB 2,100 kw/hr, Gas generator: 9,300 kw/hr, Solar Generation 250 kw/hr
8.Source of Electricity	PDB, GAS Generator & Solar (7 MW, 11.95 MW & 1.32 MWp)
9.Water Requirement	Existing: 1050 m ³ / day after expansion: 1200 m ³ / day
10.Source of Water	CWASA & Ground Water
11.Total No. of Generator and Capacity	10 Nos Natural Gas Generators & 11.95 MW
13.Total Land Area	77,100 Sqm/ 7.71 Hectares/ 19.1 Acres
14.Area Covered by Factory	Existing 55,742 Sqm.
15.Proposed floor area	Expansion 11,613 Sqm (Two Storied Factory Building)

2.2 Project Location

Pahartali Textile & Hosiery Mills (PTHM), a spinning unit of M. M. Ispahani Limited located at the Ispahani Complex, north Pahartali region in the port city Chattogram. The geographical coordinates of the project site are approximately N- 22°21'50.40'' and E- 91°47'13.20'' (**Figure 2: Location Map of Pahartali Textile and Hosiery Mills**). The project area is well-connected with various communication facilities and is easily accessible via the highway. (**Figure 3**).

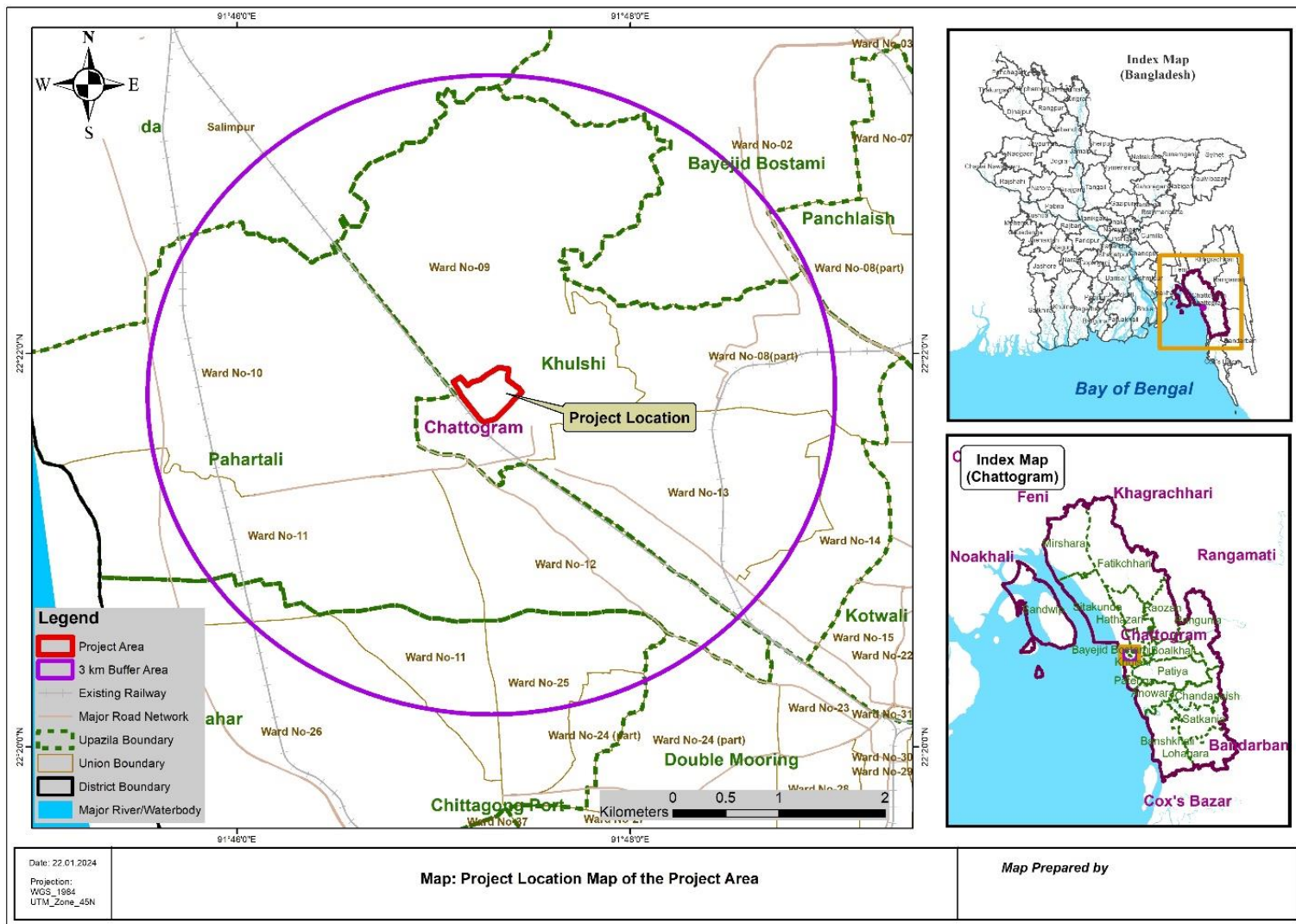


Figure 2: Location Map of Pahartali Textile and Hosiery Mills

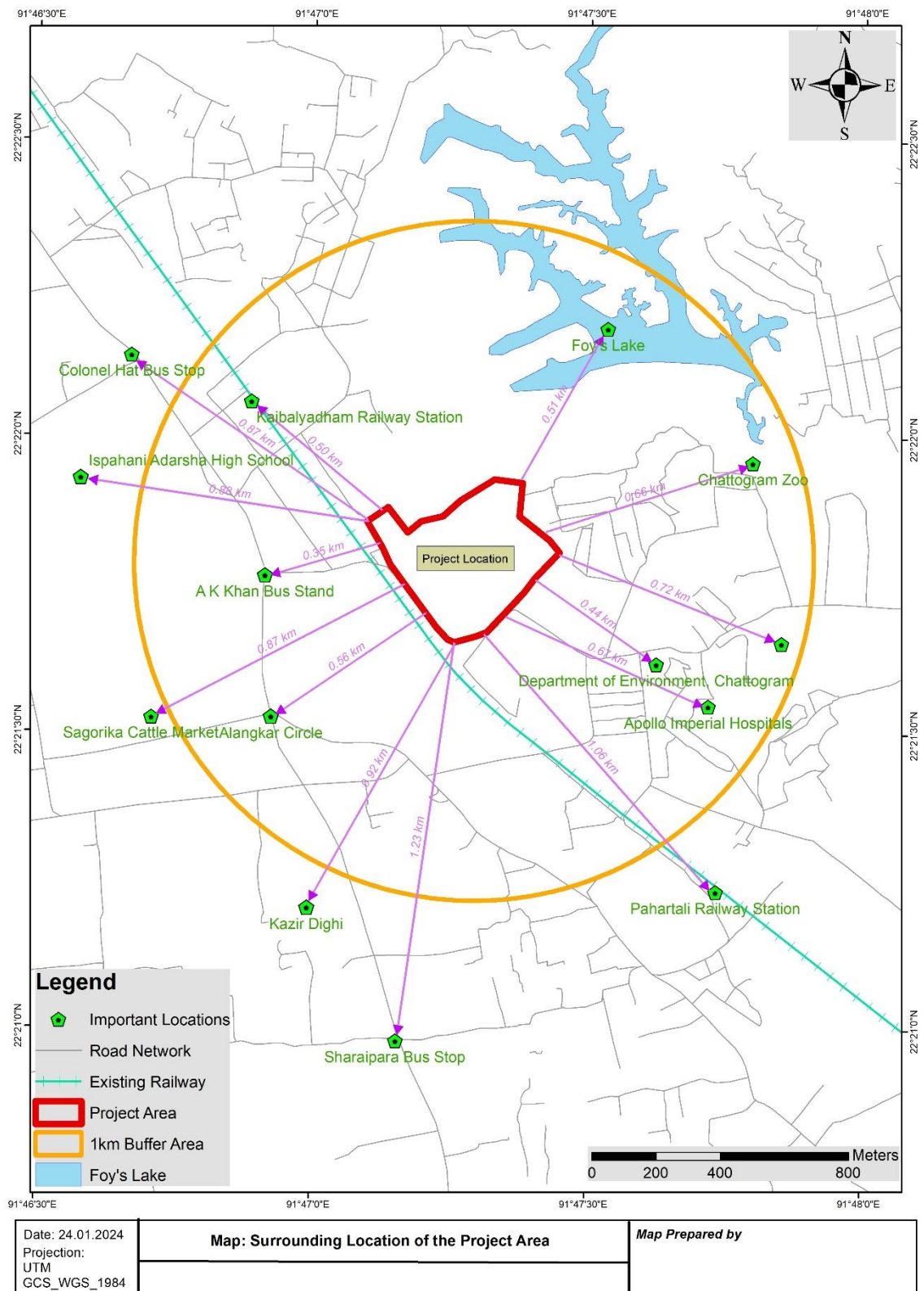


Figure 3: Distance along with communication facilities of PTHM

2.3 Project Components

PTHM has meticulously developed its infrastructure to encompass a comprehensive array of facilities, ensuring the seamless and effective operation of its diverse activities.

2.3.1 Project Description

The expansion of the PTHM will be constructed over 7.71 hectares/19.1 Acres of land, so the total land area is 77,100 Sqm, among which floor area is 55,742 Sqm and proposed floor area is 11,613 Sqm for the expansion of PTHM. The entire 7.71 hectares/19.1 Acres of land is owned by the PTHM authority. The land is already developed and there are no Project Affected Persons (PAPs) recorded in the project area. As a result, no land acquisition or resettlement is required for the expansion of the PTHM facilities.

So, there is no significant impact on the landscape of the area. The proposed project didn't require any relocation of homestead. There was no cultural, historical, and aesthetic interest in the project land and no loss of a sensible place. The existing condition and the construction activities are provided in **Figure 4** and **Figure 5** respectively. The proposed PTHM building master layout, ground floor and first floor layout is provided in **Figure 6**, **Figure 7** and **Figure 8**.



Zakir Hossain Road



Entrance Gate



Internal Road



Parking area



Security Office



Internal Drainage

Figure 4: Existing Condition of PTHM



Figure 5: Construction Activities at the proposed expansion building of PTHM

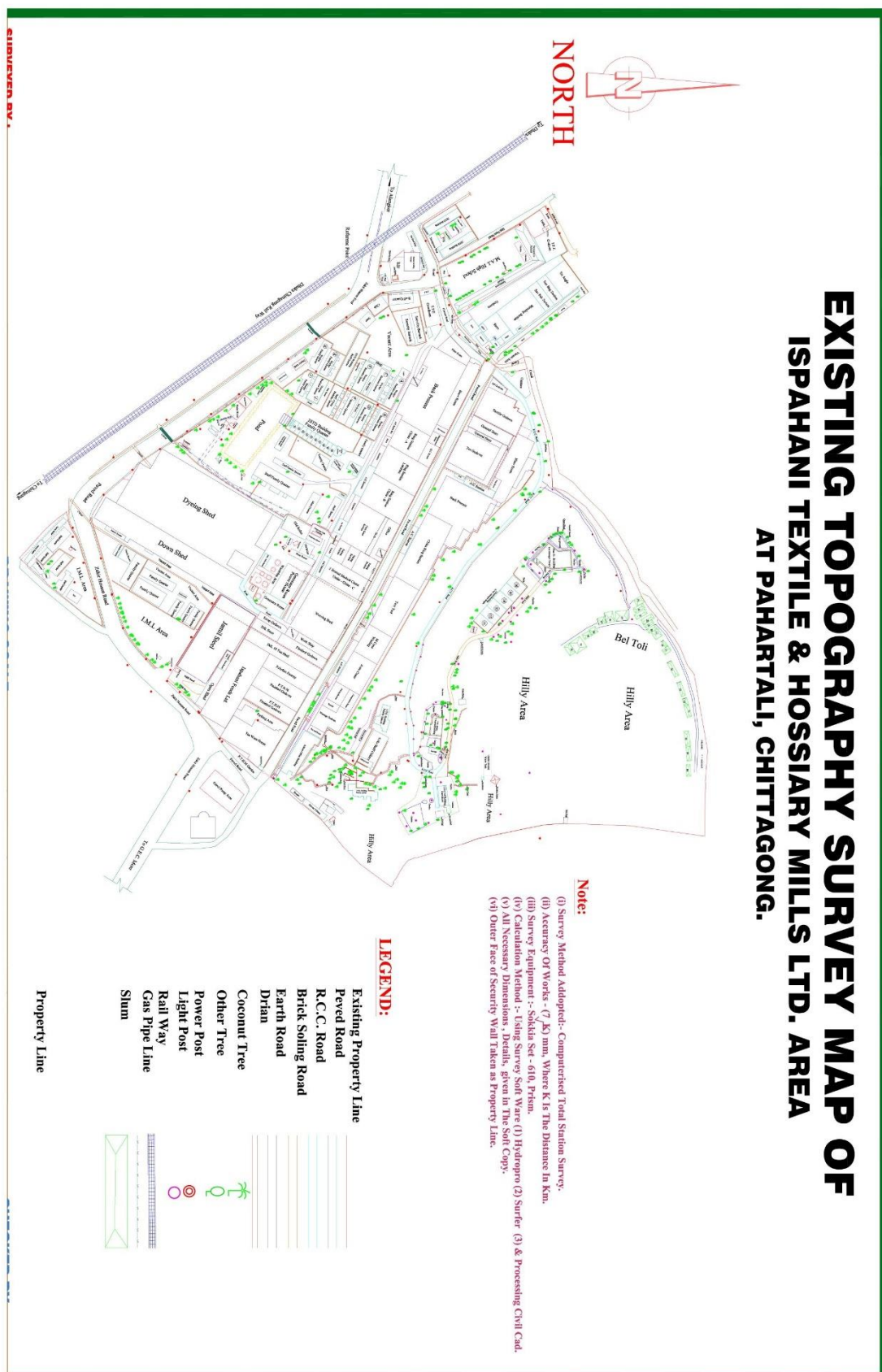


Figure 6: Master Layout Plan of PTHM



Pahartali Textile and Hosiery Mill

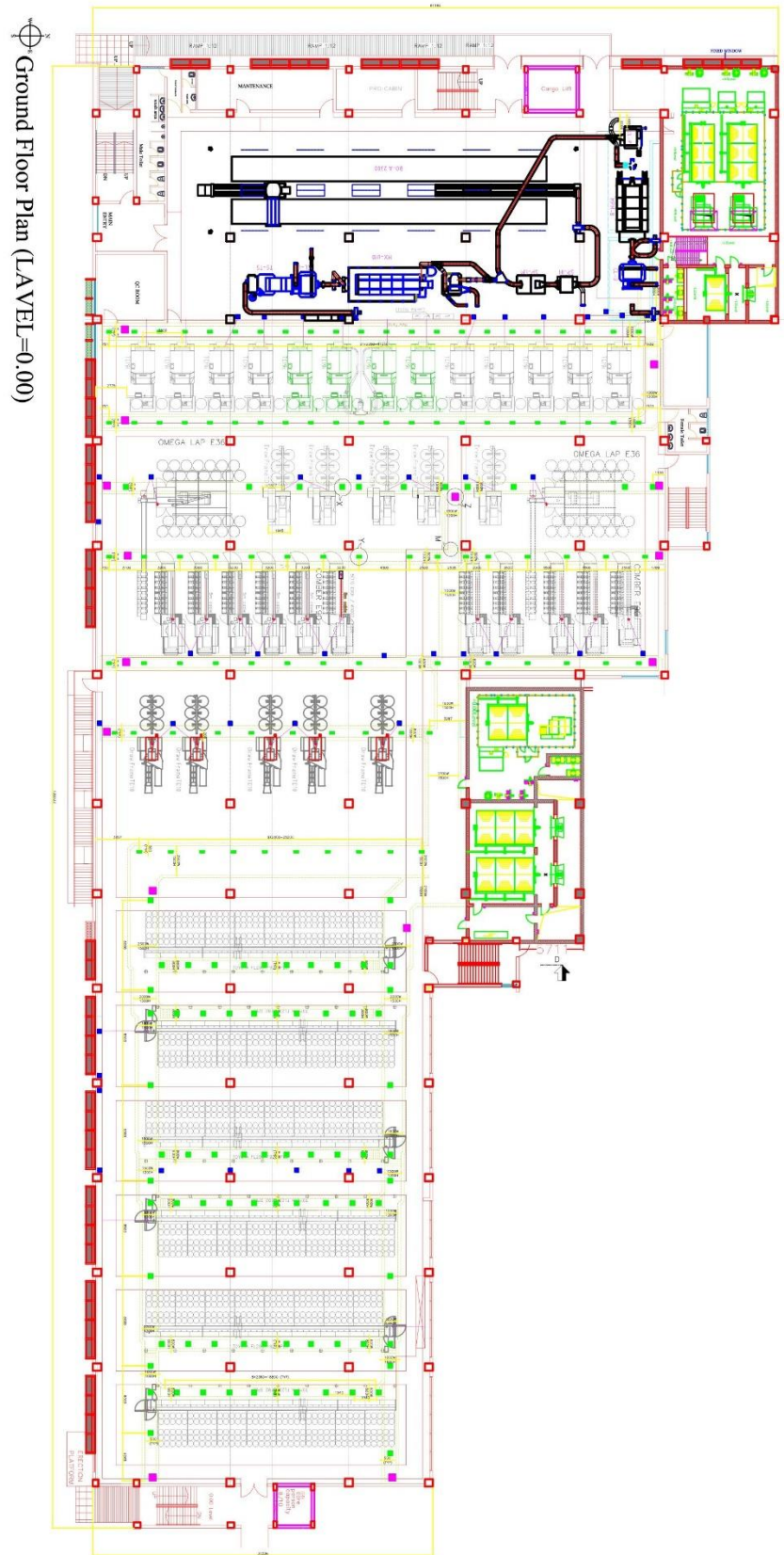


Figure 7: Ground Floor Layout Plan of PTHM

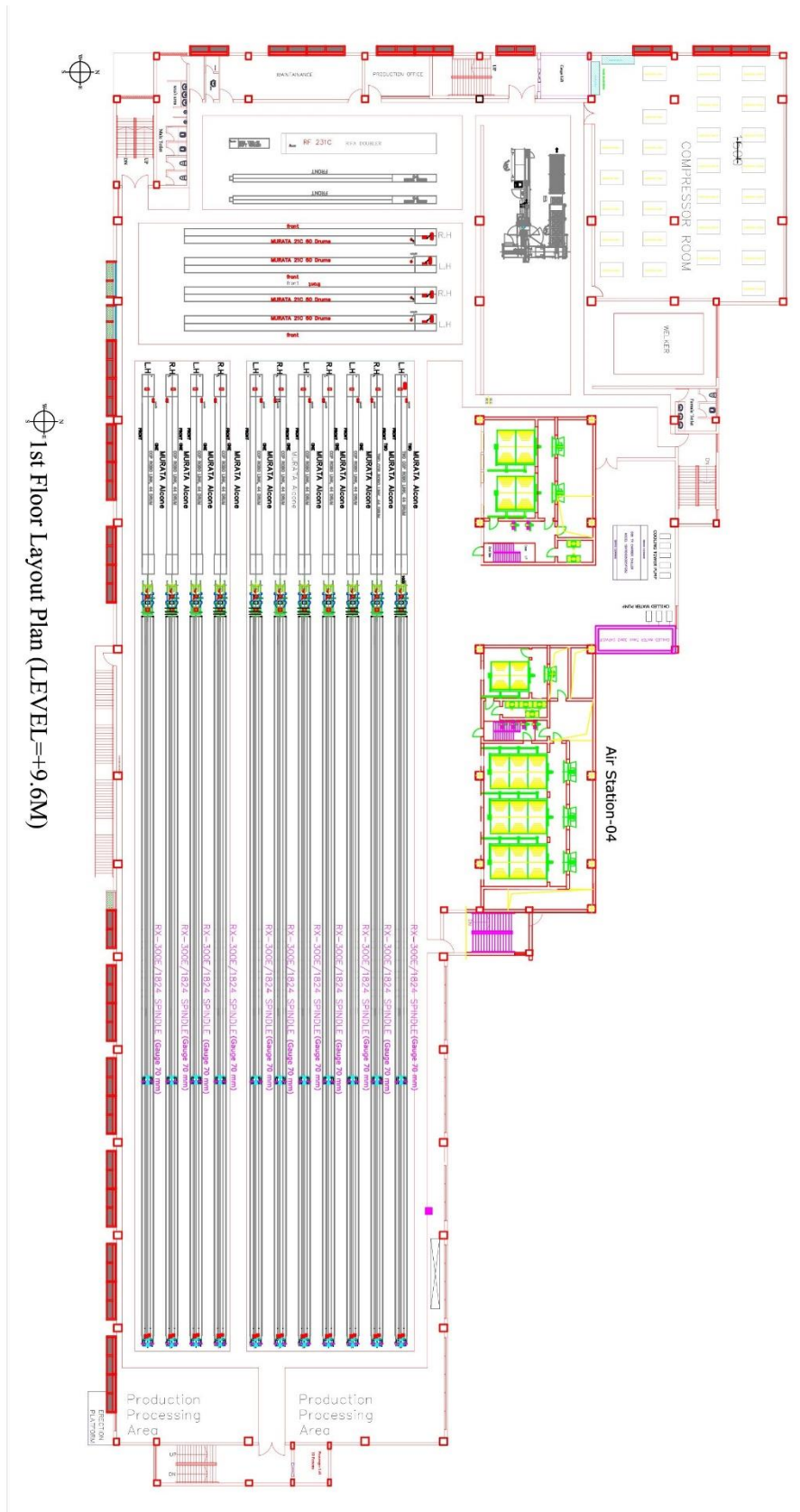


Figure 8: First Floor Layout Plan of PTHM

2.3.2 Existing and Proposed Production Process

The process of existing and proposed production is presented in **Figure 9**, **Figure 10** and **Figure 11**.

Process of Carded Melange Yarn of Blended Yarn Unit-1

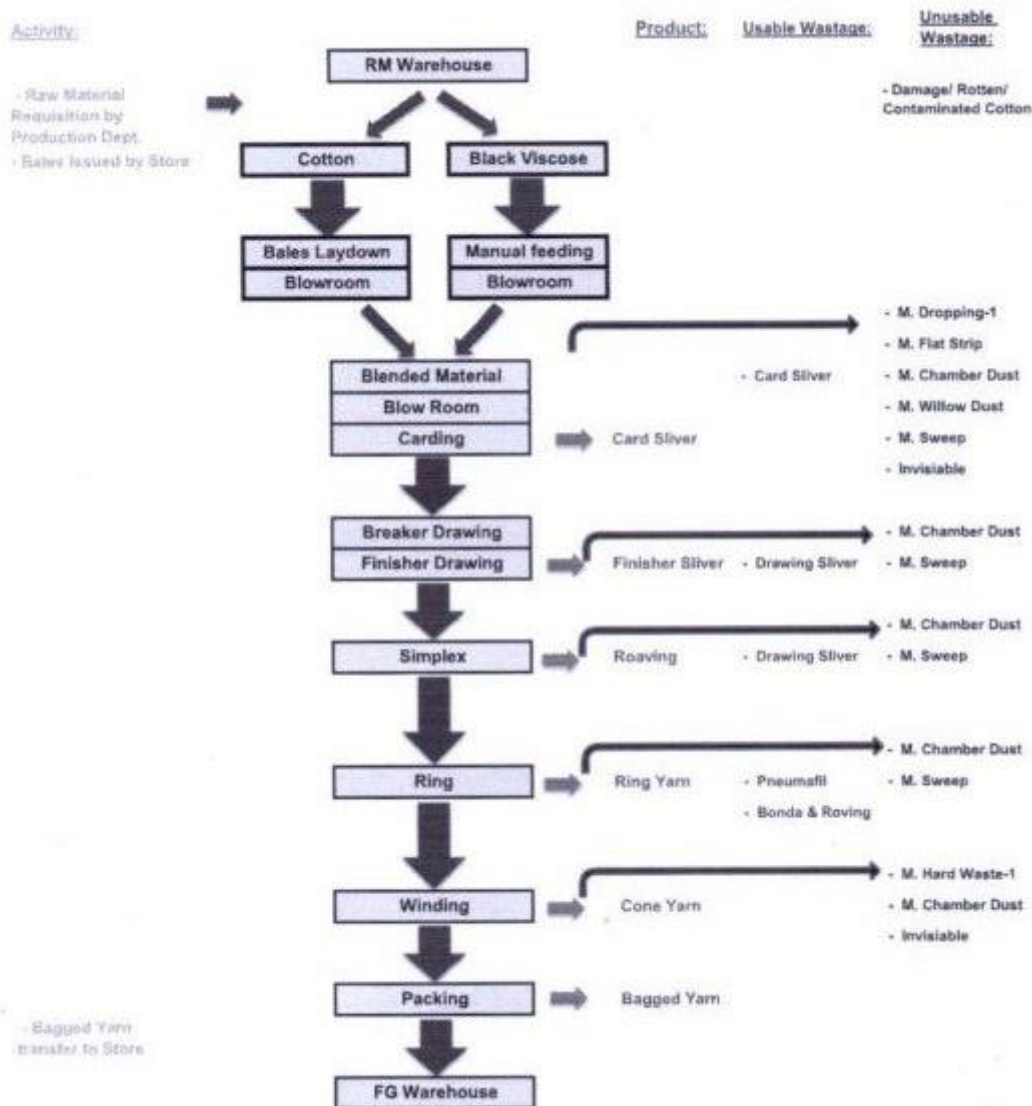


Figure 9: Process Flow Diagram of the Existing Operation Process

Process of Cotton Carded Yarn/Cotton Carded Slub Yarn of Mill-1 & Mill-2

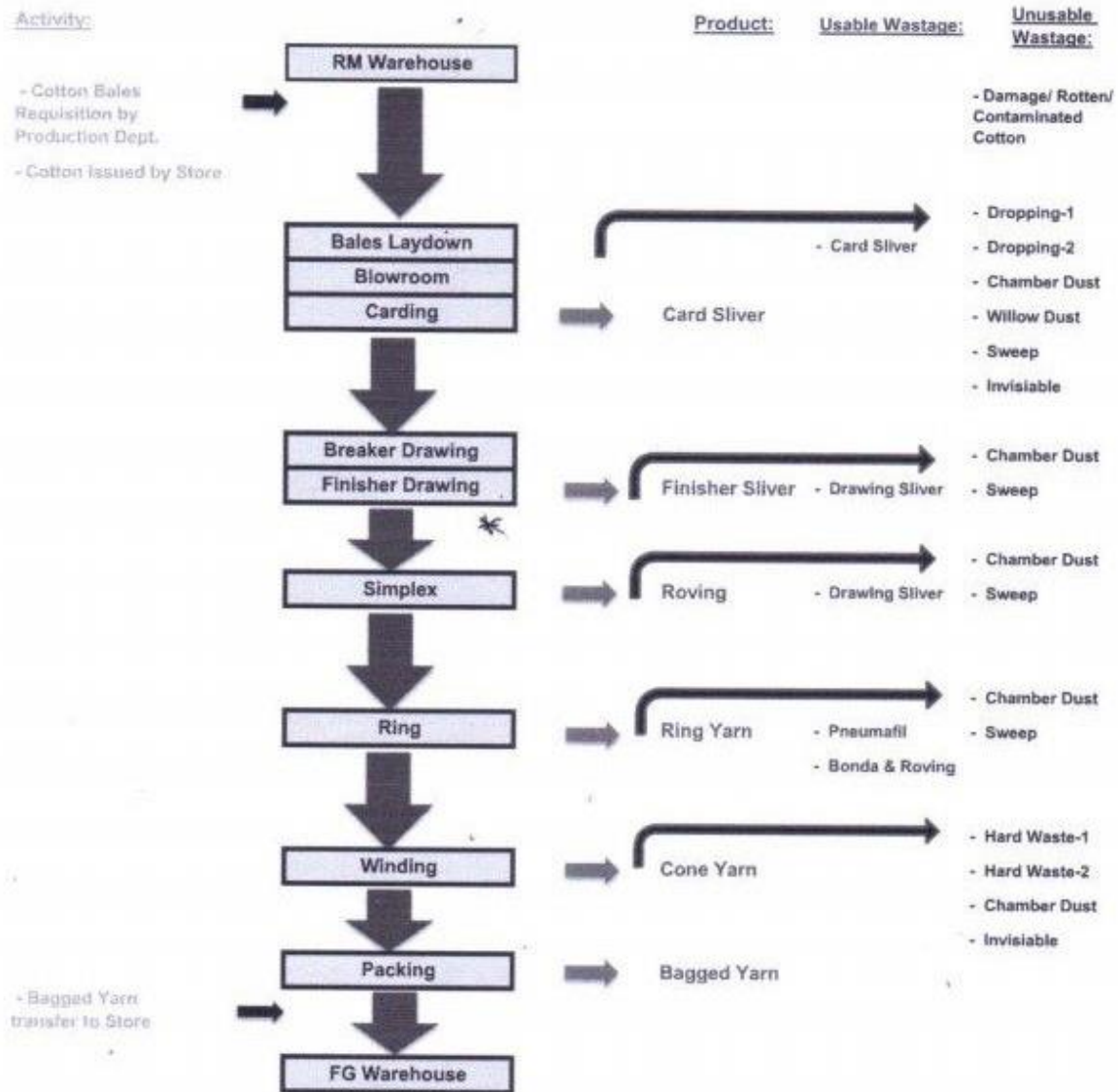


Figure 10: Process Flow Diagram of the Proposed Operation Process



Blow Room



Carding



Drawing



Combing



Simplex



Ring



Link Coner



Vortex

Figure 11: Photograph of existing Process flow



- I. Raw Cotton Warehouse (Store):** The Raw Cotton Warehouse serves as the starting point, providing a structured space for the storage of incoming raw cotton. This controlled environment ensures the preservation of raw materials in optimal conditions, setting the stage for subsequent processing.
- II. Raw Cotton:** At the core of the entire process is the careful selection and sourcing of raw cotton. This fundamental step lays the foundation for the quality and characteristics of the final yarn product.
- III. Blow Room:** Raw cotton advances to the Blow Room, initiating the processing journey. Here, fibers are opened and cleaned, preparing them for the intricate stages that follow.
- IV. Carding:** The Carding stage refines the fibers further, aligning them into a consistent and high-quality fiber web. This precision is vital for achieving uniformity and ensuring the subsequent spinning processes are optimized.
- V. Breaker Drawing:** Moving forward, the Breaker Drawing process enhances the fibers' length, strength, and overall quality. This stage contributes significantly to the production of a refined and superior material.
- VI. Finisher Drawing:** Building upon the results of the Breaker Drawing, the Finisher Drawing stage takes the refinement process to the next level. Fibers are further optimized, preparing them for the intricate steps that follow.
- VII. Simplex:** In the Simplex stage, fibers undergo elongation and twisting, resulting in the creation of a uniform and durable yarn. This step is pivotal in shaping the final quality and characteristics of the yarn.
- VIII. Ring:** The Ring spinning stage is where the twisted fibers are meticulously wound onto spools or bobbins. This process forms the foundational element for the subsequent phases of production.
- IX. Winding:** Winding systematically transfers the spun yarn onto larger packages, ensuring efficient storage, transportation, and further processing. This step plays a crucial role in logistics and overall production efficiency.
- X. Yarn Conditioning:** Yarn Conditioning is a critical stage where the spun yarn undergoes processes to meet and exceed specified standards. This ensures that the final product possesses the desired qualities and performance attributes.
- XI. Packing:** The final stage, Packing, is where the meticulous preparation of the yarn for distribution takes place. Packaging is designed to safeguard the quality of the yarn during transportation and until it reaches its intended destination.

Through these meticulously orchestrated processes, PTHM demonstrates a dedication to producing high-quality yarn, upholding standards of excellence in the textile industry. The company's commitment to precision and efficiency ensures that the final product meets and exceeds industry expectations.



2.3.3 Machineries and Utilities

The machinery setups within the factory are of world-class standards, reflecting the company's commitment to utilizing cutting-edge technology for its production processes. To maintain the efficiency and reliability of these machines and utilities, PTHM Industries employs a proactive approach to maintenance. This includes scheduled maintenance activities to prevent issues before they occur, as well as corrective maintenance when necessary to address any unexpected problems.

Table 3: Final Phase Machine List of PTHM

Sr. No.	MACHINE NAME	MODEL	MAKE	QTY
1	BLOW ROOM			
	a) Automatic Bale Opener	BLENDOMAT BO-A	TRUETZSCHLER	1
	b) Heavey Parts Seperator	SP-IH	TRUETZSCHLER	1
	c) Metal & Fire Detector	SP-EM	TRUETZSCHLER	1
	LINE 1			
	d) Pre Cleaner	CL-X	TRUETZSCHLER	1
	e) Universal Mixer	MX-U10	TRUETZSCHLER	1
	f) Universal Cleaner	CL-U	TRUETZSCHLER	1
	g) Truetzschler Scan/T-Scan	TS-T5	TRUETZSCHLER	1
	LINE 2			
	h) Pre Cleaner	CL-P	TRUETZSCHLER	1
	i) Multi Mixer	MPM-8	TRUETZSCHLER	1
	j) Universal Cleaner	CL-U	TRUETZSCHLER	1
	k) Contamination Sorter	Jossi Vision Shield with Magic Eye	TRUETZSCHLER	1
	l) ARGUS	Fire and Metal Detector	ARGUS	5
2	CARD	TC-19i	TRUETZSCHLER	4
3	CARD	TC-19i	TRUETZSCHLER	9
4	Breaker Draw Frame	TD-9	TRUETZSCHLER	3
5	Breaker Draw Frame	TD-9	TRUETZSCHLER	2
6	Lap Former	Omegalap E-36	RIETER	1
7	Lap Transport	Servolap E26	RIETER	1
8	Lap Former	Omegalap E-36	RIETER	1
9	COMBER	E-90	RIETER	5
10	COMBER	E-90	RIETER	6
11	Finisher Draw Frame	TD-10	TRUETZSCHLER	2
12	Finisher Draw Frame	TD-10	TRUETZSCHLER	3
13	Roving Frame	FL-200 FRD/192 Spd	TOYOTA	3
14	Roving Frame	FL-200 FRD/192 Spd	TOYOTA	3
15	Bobbin Transportation System	BTS	TECHONE	1
16	Ring Frame	RX-240/1200 Spd	TOYOTA	7
17	Ring Frame	RX-300/1824 Spd	TOYOTA	11
18	Ring Data	RSM & ISM	PREMIER	11
19	Winder	Aicone Link/42/40/39 Head	MURATA	11
20	Winder	Process Coner 21C/60 Head	MURATA	2
21	Winder	Alcone RM/60 Head	MURATA	2
22	DOUBLER/Assembly Winder	RF 231C/80 Heads	RIFA	1



Sr. No.	MACHINE NAME	MODEL	MAKE	QTY
23	Two for One Twister TFO	SIRIUS 200 BR/160 Head	SAVIO	2
24	Precision Package Winder	SSM TWT-W/6 Head	SSM	1
25	Heat Set Machine	Condibox 1600L	WELKER	1
26	Auto Packing Machine	ROCSTORE/ROCPACK/ROCBAG	ZANCANER	1
27	Compressor	KAISER - 55KW	KAISER	3
28	Compressor	KAISER - 45KW	KAISER	8
29	Compressor	INGERSOLL - 75KW	INGERSOLLRAND	2
30	Compressor	Turbo Compressor 550 KW	IHI	1
31	FDP for Blow Room & Carding Filter		LUWA	1
32	A/C Plant for Blow Room & Carding		LUWA	1
33	FDP for Comber Filter		LUWA	1
34	A/C Plant for Back Process (Preratory)		LUWA	1
35	A/C Plant for Ring (Spinning) RX300		LUWA	1
36	A/C Plant for Winding (Autoconer)		LUWA	1
37	A/C Plant for Ring (Spinning) RX240		LUWA	1

Table 4: Machine List Purchased from the Fund of KfW

SI No	Category Name	Qty by Category	Brand	Model	Country of Origin
PHASE 1 (2024)					
1	Blow Room	1	TRUETZSCHLER	BO-A + BR-EU	GERMANY
				BR-MT	
				BR-FD 500	
				BR-COU +SP-IH	
				BR-2W	
				BR-AC	
				BR-FD 425	
				CL-U	
				LC-I2	
	Carding	4	TRUETZSCHLER	TC-19i + TC-CCL + TC-VSD	GERMANY
	Draw Frame	2	TRUETZSCHLER	TC-FG13-19	GERMANY
				TD9+TD-FB9+TD-SC9	
2	Blow Room	1	TRUETZSCHLER	TD-10+TD-FB10	GERMANY
				BR-MC	
				BR-FD 500	



SI No	Category Name	Qty by Category	Brand	Model	Country of Origin
				CL-X	
				BR-FD 425	
				MX-U 10+ BR-WS	
				CL-U	
				TS-T5	
				BR-F 320	
				BR-FF	
				BR-ASI	
				BR-WC+BR-PS	
	Draw Frame	2	TRUETZSCHLER	TD9+TD-FB9+TD-SC9	GERMANY
				TD-10+TD-FB10	
3	Comber	7	RIETER	E36	Switzerland/Czech Republic
				E26	
				E90	
4	Humidification Plant	1	LUWA		
6	Yarn Conditioning	1	WELKER	Condibox 1600L	GERMANY
8	Bobbin Packaging Line in Bags	1	ZANCANER		ITALY
9	Generator	1	MWM	TCG2020V16K	GERMANY
Sub-Total					
PHASE 2 (2025)					
2	Carding	4	Trutzschler	TC-30i+TC-CCL+TC-FBC	GERMANY
				TC-GD	
				TC-ME+TC-MEA	
3	Draw Frame	6	Trutzschler	TD9+TD-FB9+TD-SC9	
				TD-10+TD-FB10+TD-OS	
8	GAS GENERATOR 1.5 MW	2	MWM	TCG2020V16K	GERMANY



Generator Room



Boiler Room

Figure 12: Photograph of existing Generator and Boiler

2.3.4 Raw Material Sourcing and Circular Economy Practices

Cotton Sourcing Strategy

Pahartali Textile & Hosiery Mills (PTHM) primarily uses cotton as the core raw material for its production processes. The sourcing mix comprises approximately 7–8% certified organic cotton and the remainder as conventional cotton. The cotton is procured from diverse global origins, including Brazil, USA, West Africa, Australia, with organic cotton sourced specifically from Turkey and India.

To reinforce responsible sourcing, PTHM is a member of multiple internationally recognized sustainability initiatives and holds third-party certifications such as:

- Global Organic Textile Standard (GOTS) – License No. USB 007797, Scope Certificate No. USB TEX-7797-GOTS-2405, valid until 17 May 2025
- Organic Content Standard (OCS) – TE-ID: TE-00022848, Scope Certificate No. USB-00022848-OCS-2405, valid until 17 May 2025
- Cotton made in Africa (CmiA) – Certificate No. Y-550/2024, valid until 30 November 2025
- U.S. Cotton Trust Protocol – Membership ID: 4YPQ78RJ, valid until 31 July 2025

These certifications demonstrate the company's commitment to environmental sustainability, traceability, and ethical sourcing throughout the cotton value chain. In addition to certification compliance, PTHM undergoes annual audits by international buyers (e.g., H&M) as part of due diligence and continuous improvement.

Circular Economy Practice – Cotton Residue Utilization

Aligned with circular economy principles, PTHM implements a system to recover and utilize production residues. Comber noil and other cotton waste generated during spinning are



collected and sold to denim manufacturers, supporting resource efficiency and waste minimization within the textile value chain.

Reference documentary evidence as follows:

- **Appendix XXIII – GOTS Scope Certificate (USB TEX-7797-GOTS-2405)**
- **Appendix XXIII+1 – OCS Scope Certificate (USB-00022848-OCS-2405)**
- **Appendix XXIII+2 – CmiA Certificate of Registration**
- **Appendix XXIII+3 – U.S. Cotton Trust Protocol Membership Certificate**
- **Appendix XXIII+4 – 2024 Sustainability Audit Report (GOTS, OCS, GRS & RCS)**

2.4 Resources and Utilities Demand

2.4.1 Power Source

Pahartali Textile and Hosiery Mills (PTHM) existing electricity supply source are as follows:

Gas Generators: 12.425 MW (primary supply source)

Solar Rooftop: 1.3 MW (currently operational) with an additional 0.85 MW under installation, totalling 2.15 MW

Purchased Electricity (PDB): 7.0 MW (for supplementary and peak demand support)

The primary source of electricity remains captive power generation using natural gas, while solar energy and purchased grid electricity will enhance the reliability and sustainability of operations.

Table 5: Existing Gas Generator Primary Power Supply Source

S/I	Name of generators	Engine model	Serial no.	Generator capacity (kw)
1	caterpillar-1	g-3516a	L6A-00150	965
2	caterpillar-2	tcg 2020 v16 k	2218144	1500
3	caterpillar-3	g-3516a	LZBA-02056	1030
4	caterpillar-4	g-3516a	CSZ-00743	1030
5	caterpillar-5	g-3516a	ZBA-00167	1030
6	caterpillar-6	g-3516a	ZBA-01076	1030
7	caterpillar-7	g-3516a	L6A-00215	920
8	caterpillar-8	g-3516a	L6A-00347	920
9	caterpillar-9	g-3516h	NWH00193	2000
10	caterpillar-10	g-3516h	NWH00192	2000
Grand Total				12425



Please note that the existing source of electricity supply will remain unchanged even after the expansion of the facility.

2.4.2 Water Requirement

Currently the PTHM is using total 1050 m³/day water for sanitation, drinking and other purpose. After expansion of the project, total required water is 1200 m³/day for sanitation, drinking and other purpose.

Source: The source of water will be ground water and CWASA. The PTHM has permission of ground water withdrawal from CWASA, as per the GoB policy which attached in Appendix XVIII.

2.4.3 Labor Force

Currently, 1793 employee is working. The project is expected to employ around 1983 people during its operational phase.

Table 6: Existing manpower distribution of Pahartali Textile & Hosiery Mills

SI	Department	FEMALE	MALE	Grand Total
1	Admin	14	105	119
2	Civil & Construction		8	8
3	Electrical & Electronics		51	51
4	Generator & Sub Station		23	23
5	Maintenance		187	187
6	Marketing		9	9
7	Operation		1	1
8	Production	670	574	1244
9	Quality Control		32	32
10	Store	1	12	13
11	Transport		18	18
12	Utility		88	88
Grand Total		685	1108	1793

Table 7: Future manpower distribution of Pahartali Textile & Hosiery Mills

SI	Department	FEMALE	MALE	Grand Total
1	Admin	14	105	119

SI	Department	FEMALE	MALE	Grand Total
2	Civil & Construction		8	8
3	Electrical & Electronics		51	51
4	Generator & Sub Station		23	23
5	Maintenance		196	196
6	Marketing		9	9
7	Operation		1	1
8	Production	763	659	1422
9	Quality Control		32	32
10	Store	1	12	13
11	Transport		18	18
12	Utility		91	91
Grand Total		778	1205	1983

2.5 Health and safety

2.5.1 Domestic Wastewater Treatment

The uncontrolled dumping of domestic wastewater into water bodies and open land due to a lack of sewage management legislation and the absence of treatment procedures in textile industries might pose risks to the environment and human health. The authority of PTHM is aware about the proper sewage management within the project area.

Existing Condition: Septic tanks have already been constructed for proper domestic wastewater management. There are 22 septic tanks with soak pit is present within the project area. Dimension of each septic tanks is about 5m×4m×2m. The total volume of 22 septic tank is 880 m³/day, which are sufficient for 1793 employees.

Proposed condition: The - domestic wastewater will be - preliminarily treated by septic tank and soak pit then it will be sent to the city corporation drain. In the expansion portion about 200 people will be employed during the operation period.

Dimension of septic tank is about 4.867m×4.345m×3.042m. The capacity of the septic tank is 64.21m³.



Figure 13: Layout of Septic Tank of proposed project at PTHM



Standard Assumptions:

Per Capita Wastewater Generation: 120 liters per person per day

Retention Period: Typically, 2 days (standard for septic tanks).

Tank Utilization Factor: 70% of the total tank volume is used for liquid waste storage.

Daily Wastewater Volume:

Daily Volume = $200 \text{ people} \times 120 \text{ L/person/day} = 24,000 \text{ L/day}$

Tank Capacity for 2-Day Retention:

Required Tank Volume = Daily Volume $\times$ 2 days

Convert to cubic meters: = **48.0 m³**

Effective Capacity of One Tank:

The effective capacity of one septic tank is **44.95 m³** (70% of the total capacity of 64.21 m³).

For the additional employees (200 people), 1 septic tank of the given dimensions is sufficient.

2.5.2 Worker Safety Equipment

The facility will be using a variety of safety equipment for its employee safety purpose. The list of safety equipment is given below

Table 8: List of Safety Equipment of Pahartali Textile and Hosiery Mills.

SL.	Name of PPE	Number
1	Fire Alarm	91
2	Fire Bucket	70
3	Fire Drum	15
4	Hand Gloves	12
5	Fire Gas Mask	08
6	Helmet	15
7	Blanket	02
8	Fire Suit	01
9	Fire Hook	06
10	Fire Beater	06
11	Fire Crowbar	02
12	Fire Pick Axe	02
13	Fire Lock Cutter	02



14	Torch Light	06
15	Rechargeable Light	10
16	Collider up rope	02
17	Emergency Life savings apparatus	02
18	Ladder	02
19	Stretcher	02
20	Hand Mike	02
21	Trolly	01
22	Caution Board	700

2.5.3 Fire Safety Equipment

The facility will be using a variety of firefighting equipment for production and utility purposes. This equipment will be kept in lucrative positions where it can be reached easily during any kind of emergency. Prior training to any fire hazard or training will be provided to the workers. The list of the equipment is given below.

Table 9: List of Firefighting Equipment of Pahartali Textile and Hosiery Mills.

SL. No.	Fire Fighting Equipment List:	Number
1	Fire Extinguisher (ABCE Dry Powder)	393
2	Carbon Di-oxide (CO ₂) Extinguisher	124
3	Water Type Extinguisher	20
4	Foam Type Extinguisher	15
5	Fire Hydrant	127
6	Fire Drum	13
7	Fire Hose	130
8	Fire Bucket	62
9	Fire Detector	500
10	Fire Pump	4

2.6 Construction and Installation Works – Post-Construction Verification and Audit Findings

The construction and installation activities for Pahartali Textile & Hosiery Mills (PTHM) Unit-2 were carried out with the dual objective of increasing production capacity and adhering to sustainable development standards. All works were conducted under a stringent



Environmental and Social Management Plan (ESMP) and guided by LEED v4 BD+C Platinum certification requirements. The development included a new two-story reinforced concrete (RCC) building, equipped with green features to minimize environmental footprint and improve energy efficiency.

Key Components of Construction Work:

- **Site Preparation & Foundation:** Land clearing, excavation, and soil stabilization, including piling in weak zones.
- **Structural Framework:** RCC foundation, columns, beams, and slabs designed for long-term durability.
- **Roofing & External Envelope:** Prefabricated metal roofing and insulated external walls to improve fire resistance and energy efficiency.
- **Internal Works:** Installation of flooring, walls, ceilings, windows, and doors to optimize workflow in production, storage, and admin areas.

The mechanical, electrical, and plumbing installation works were designed to reduce operational emissions and maximize resource efficiency.

- **Mechanical:** HVAC systems, energy-saving machinery, and an on-site water treatment unit were installed.
- **Electrical:** Power systems integrated with energy-efficient LED lighting, transformers, and backup generators aligned with LEED's energy performance credit system.
- **Plumbing:** Included water-efficient fixtures, dual piping, and drainage systems supporting water reuse and stormwater management targets.

The civil construction phase began on July 19, 2023, and achieved substantial completion on January 27, 2025. Installation of MEP systems and machinery is ongoing, with final commissioning targeted for May 2025. The new facility replaced an outdated structure built in the 1960s. The old building's asbestos-containing roof was demounted rather than demolished in compliance with safety and environmental protocols.

Construction Milestones:

- **Start of Construction:** July 19, 2023
- **Substantial Completion of Civil Works:** January 27, 2025
- **Expected Commissioning:** May 2025
- **Civil and Structural Works:** Completed
- **Fire Protection System:** Installation pending

2.6.1 Construction Workforce and Accommodation

During the construction phase of the PTHM Unit-2 expansion, the daily on-site workforce ranged from 65 to 114 workers, as evidenced by the October 2024 Monthly Safety Report prepared by P2P Engineering & Construction Ltd. This log recorded daily manpower engagement alongside safety briefings and incident tracking, offering reliable verification of



average and peak workforce deployment. The workforce averaged approximately 83 workers per day, with peak manpower reaching 114 workers on October 15, 2024.

All workers were provided accommodation within the industrial campus in a newly constructed on-site dormitory facility. The dormitory was developed in accordance with ILO core labor standards and provided:

- **Gender-segregated living quarters**
- **Potable drinking water**
- **Sanitary toilets and bathing facilities**
- **A communal dining area**
- **Ventilated sleeping arrangements and first-aid access**

These amenities supported the occupational health and safety needs of the workforce and complied with both local labor regulations and international best practices. Photographic documentation of the facilities, amenity layout, and compliance checklist are provided in **Figure 14, Figure 15 and Figure 16.**

Additionally, the daily safety briefings documented in the safety log demonstrate that EHS awareness was regularly emphasized. No major incidents were reported throughout the month, with only one minor near-miss (hammer slip) logged on October 26, 2024.



P2P Engineering & Construction Ltd.								
Ispahani PTHM project								
Monthly Safety Report - October-2024								
Sl No	Date	Manpower(person)	Saety Briefing	Near Miss	Description	Incident	Description	Remarks
1	01-10-24	80	Yes	No	N/A	No	N/A	
2	02-10-24	82	Yes	No	N/A	No	N/A	
3	03-10-24	88	Yes	No	N/A	No	N/A	
4	04-10-24	85	Yes	No	N/A	No	N/A	
5	05-10-24	80	Yes	No	N/A	No	N/A	
6	06-10-24	85	Yes	No	N/A	No	N/A	
7	07-10-24	85	Yes	No	N/A	No	N/A	
8	08-10-24	87	Yes	No	N/A	No	N/A	
9	09-10-24	80	Yes	No	N/A	No	N/A	
10	10-10-24	80	Yes	No	N/A	No	N/A	
11	11-10-24	79	Yes	No	N/A	No	N/A	
12	12-10-24	96	Yes	No	N/A	No	N/A	
13	13-10-24	99	Yes	No	N/A	No	N/A	
14	14-10-24	109	Yes	No	N/A	No	N/A	
15	15-10-24	114	Yes	No	N/A	No	N/A	
16	16-10-24	94	Yes	No	N/A	No	N/A	
17	17-10-24	95	Yes	No	N/A	No	N/A	
18	18-10-24	98	Yes	No	N/A	No	N/A	
19	19-10-24	88	Yes	No	N/A	No	N/A	
20	20-10-24	86	Yes	No	N/A	No	N/A	
21	21-10-24	92	Yes	No	N/A	No	N/A	
22	22-10-24	79	Yes	No	N/A	No	N/A	
23	23-10-24	87	Yes	No	N/A	No	N/A	
24	24-10-24	83	Yes	No	N/A	No	N/A	
25	25-10-24	80	Yes	No	N/A	No	N/A	
26	26-10-24	88	Yes	Yes	hammer slip	No	N/A	
27	27-10-24	85	Yes	No	N/A	No	N/A	
28	28-10-24	80	Yes	No	N/A	No	N/A	
29	29-10-24	85	Yes	No	N/A	No	N/A	
30	30-10-24	89	Yes	No	N/A	No	N/A	
31	31-10-24	72	Yes	No	N/A	No	N/A	

Prepared by
Engr. Mir Rezaul Karim
AM- Compliance & Coordination
P2P Engineering & Construction Ltd.

Figure 14: Monthly Safety report along with manpower

Dormitory Facilities

To ensure worker welfare and uphold international standards during the construction period, PTHM constructed purpose-built dormitory buildings within the industrial campus. These facilities were developed in compliance with national labor regulations and aligned with international best practices, including IFC Performance Standard 2 and LEED worker welfare guidelines.

Key features of the dormitory facilities included:

- Separate sleeping quarters for male and female workers, based on workforce composition and privacy considerations.
- Essential amenities provided throughout the premises:
 - Clean and accessible drinking water stations on each floor
 - Well-maintained sanitary facilities with ventilation and running water
 - Sufficient natural ventilation and lighting in all rooms



- Recreational and social spaces, including common rooms and open courtyards, to enhance worker well-being
- Fire safety systems, including installed smoke detectors, fire extinguishers, and clearly marked evacuation routes
- Dedicated first-aid stations and immediate access to the factory's medical center

The dormitory design prioritized worker safety, comfort, privacy, and access to essential services, thereby contributing to a dignified and supportive living environment.

Sanitation and Health Management

PTHM adopted a proactive approach to maintain high standards of sanitation and hygiene in both the dormitory and construction zones, guided by WHO and ILO health protocols.

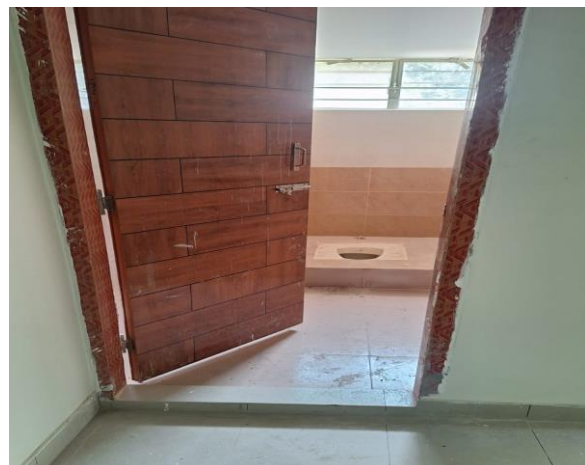
Key measures implemented included:

- Daily cleaning and maintenance, performed by a dedicated housekeeping team
- Weekly sanitation audits, carried out by the EHS team to monitor hygiene conditions
- Vector control protocols, including regular waste bin clearance, mosquito repellent usage, and stagnant water prevention
- Prominent display of health awareness materials, covering topics such as personal hygiene, COVID-19 precautions, and basic first aid
- All sanitation blocks were equipped with:
 - Water-sealed toilets
 - Hand-washing stations with running water and soap
 - Proper drainage systems to prevent accumulation of wastewater

These measures significantly enhanced worker health, morale, and safety, reducing the risk of communicable diseases and fostering a healthy construction workforce.



Worker Dormitory Building



Sanitation Inside worker dormitory



Worker Dormitory



Inside worker dormitory

Figure 15: Worker Dormitory Facilities and Accommodation



Prayer facilities



Dining facilities



Intertenment Facilities



Accommodation facilities

Figure 16: Worker Welfare and Support Facilities

2.6.2 Demolition of Legacy Structure and Asbestos Management

Background and Legacy Risks: The original PTHM Unit-2 building, constructed in the 1960s, featured load-bearing brick masonry walls, concrete flooring, and asbestos cement sheet roofing—a common construction material in mid-century industrial facilities. Asbestos, now a banned substance in many countries, is known to pose serious occupational and environmental health risks.

Asbestos Risk Mitigation and Demolition Strategy

Pre-Demolition Asbestos Removal (2017–2018):

During a prior maintenance phase, the asbestos-containing roofing sheets were carefully demounted and sold to a licensed third-party buyer. This intervention eliminated hazardous materials from the site before the BMRE project began. **Figure 17** highlights the skeletal roof frame after asbestos sheet removal, showing dismantling in progress

Safe Demolition Works (2023):

The remaining brick and steel structures were dismantled manually under direct engineering supervision. As shown **Figure 18** and **Figure 19**, proper deconstruction protocols were followed to minimize dust dispersion and ensure safety.

Waste Management and Material Recovery:

As illustrated in **Figure 18** and **Figure 19**, salvageable materials (e.g., ducts, metal sheets, pipes) were sorted for reuse or resale. No hazardous waste was generated in 2023 due to demolition.

Worker Safety Compliance:

Throughout the demolition (**Figure 18** and **Figure 19**), site personnel were observed wearing appropriate PPE (helmets, vests, gloves), consistent with the health and safety plan.

Compliance Measures:

- All activities were carried out in accordance with ECR 2023, LEED SMP guidance, and applicable international demolition protocols.
- No documented cases of community or worker exposure to asbestos were reported.
- Full elimination of legacy asbestos risk was confirmed before structural demolition.



Figure 17: Exposed Steel Truss Framework During Legacy Roof Demolition at PTHM Unit-2



Figure 18: Onsite Demolition of Legacy Industrial Structure at PTHM Unit-2



Figure 19: Ongoing Demolition and Material Segregation Activities at Legacy PTHM Unit-2 Building

2.6.3 Air Emissions and Dust Control

To mitigate air pollution and prevent construction-related emissions, the project implemented the following measures:

- **Sedimentation Prevention:** Measures such as silt fences, sediment traps, and stabilized construction entrances were employed to prevent soil erosion and sedimentation into water bodies.
- **Dust Reduction:** Water sprinklers, dust suppression barriers, and the use of low-emission construction equipment helped reduce airborne particulates.
- **Low-Emission Materials:** The use of low-VOC paints, adhesives, and sealants ensured better indoor air quality.
- **Excavation Safety:** Excavated embankments, vertical edges, and pits were covered with polythene to prevent erosion.
- **Construction Vehicle Emissions:** Idling restrictions were enforced, and vehicles were required to comply with stringent emission standards.
- **GHG Emission Reduction:** Carbon reduction strategies included the use of energy-efficient equipment and low-carbon construction materials.



Figure 20: Temporary Sedimentation Chambers



Figure 21: Control of wind erosion and dust generation



Figure 22: Covered excavated areas and vertical edges

2.6.4 Waste Management and Demolition Practices

A comprehensive waste management plan was implemented to minimize construction and demolition waste:

- **Waste Segregation and Recycling:** Designated waste collection zones for recyclables like wood, metal, concrete, and plastics were established. Crushed concrete was used for on-site landscaping, reducing landfill waste.

Hazardous Waste Management: Hazardous waste materials were managed according to international and local regulation.



Figure 23: Sustainable Sourcing: The project prioritized the use of recycled materials with minimal packaging, supporting a circular economy approach.



Figure 24: Segregation of waste (Using signing boards)

2.6.5 Water and Energy Management

Efficient water and energy management strategies were put in place to minimize resource consumption during the construction phase:

- **Water Conservation:** Water-efficient fixtures were installed in temporary construction facilities. Rainwater was collected for dust suppression and landscape irrigation, while treated wastewater was used for non-potable applications. Cement mixing and curing processes also reduced water usage.
- **Energy Management:** A temporary solar power system was set up to supply energy to construction offices, reducing reliance on grid electricity. Energy-efficient site lighting with motion sensors helped reduce energy waste, and regular energy audits were conducted to ensure efficiency.

- **Efficient HVAC Systems:** HVAC systems were designed in line with energy conservation best practices to reduce energy demand.



Figure 25: Temporary drains and hums

2.6.6 EHS Monitoring and ESMP Implementation

Environmental and social safeguards were closely monitored during the construction phase of the PTHM Mill-2 project through a dedicated EHS management system.

To ensure LEED-aligned EHS compliance, the following team structure was established during the construction phase of the PTHM Mill-2 project:

Table 10: EHS Team Structure and Key Responsibilities During Construction

Name	Position and Organization	Contact Number	Key Responsibilities
Md. Badsha Nura Alam	EHS Lead, PTHM	+8801XXXXXXXXXX	Overall leadership and oversight of EHS management during construction.
Debashis Paul	CTO Construction, P2P	+8801896100256	Supervising overall construction EHS execution and strategic coordination.
Mir Razaul Karim	Assistant Manager, EHS Compliance & Coordination (HoD), P2P	+8801896100283	Compliance reporting, ESMP alignment, EHS documentation, training, and sustainability efforts.
Saifur Rahman	EHS Inspector, P2P	+8801673267094	Site inspections, risk observations, daily monitoring, and CAPA (Corrective and Preventive Actions) implementation.
Mohammad Faisal	EHS Officer cum Site Engineer, P2P	+8801601941200	On-site implementation of EHS controls, contractor liaison, accident/near-miss reporting.

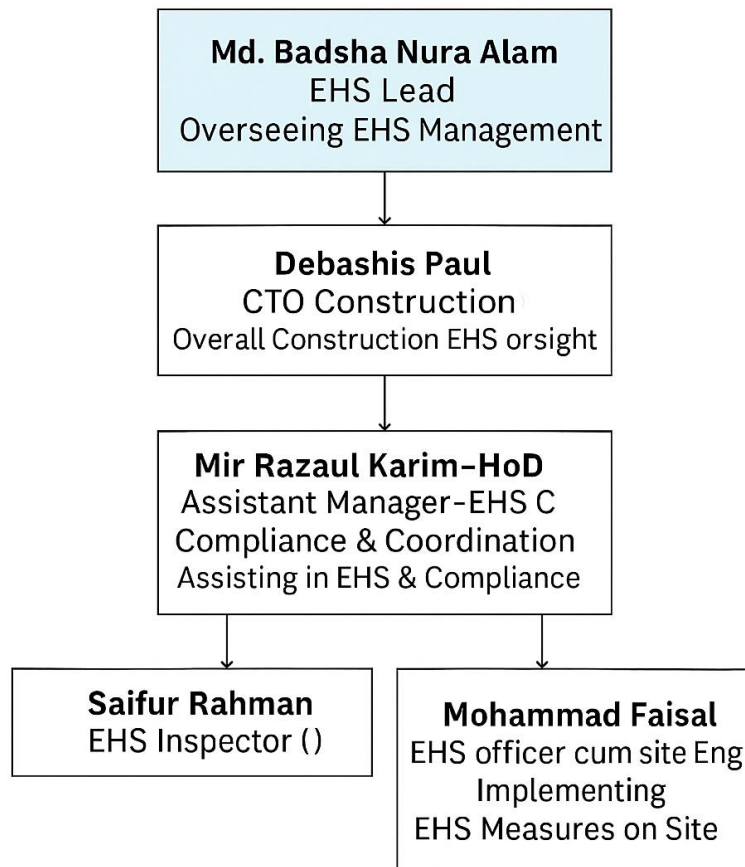


Figure 26: Construction EHS Management Team Structure

The PTHM Unit-2 expansion project followed a robust Environmental, Health, and Safety (EHS) management framework aligned with national labor laws, KfW sustainability criteria, and internal site-specific protocols. EHS implementation was led by a designated team overseeing planning, daily supervision, incident tracking, and training.

Occupational Health and Safety (OHS) Measures

- Personal Protective Equipment (PPE) use was strictly enforced, including helmets, gloves, safety harnesses, and boots. Spot inspections ensured compliance, with corrective actions taken immediately for non-compliance.
- Site safety infrastructure included scaffolding, barriers, and fall protection systems, all routinely checked.
- Permit-to-work systems and daily tool inspections minimized risk during high-hazard tasks.
- Medical support was available via on-site first-aid and access to the factory's medical center.
- Housekeeping and hazard mitigation were maintained through weekly checklists, ensuring clear access paths and organized storage zones.

EHS Training and Capacity Building

Between August 2024 and January 2025, six formal training sessions were conducted on key topics like excavation safety, working at height, electrical hazards, and general industrial safety. Sessions were led by certified professionals from P2P Engineering & Construction Ltd., supported by visual aids and practical demonstrations.

In addition, daily toolbox talks, monthly safety meetings, and HSE inductions for new workers were conducted to enhance on-site awareness and reduce occupational risks.



Figure 27: Safety Training Sessions and Workshops for Construction Team





Figure 28: Safety Training and Awareness Sessions for Construction Workers



Figure 29: Worker safety and well being

Monitoring and Compliance

- Routine monitoring using standard checklists ensured scaffolding safety, PPE adherence, and overall compliance with the ESMP.
- PPE compliance was continuously observed via spot checks, reinforced through daily safety briefings.
- Incident reporting was maintained daily. No major injuries were recorded, and minor near-miss events were documented and reviewed (e.g., hammer slip on 26 October 2024).



Throughout the construction phase, daily toolbox meetings were conducted to reinforce safety awareness and address ongoing hazards. Standardized checklists were used for scaffolding inspections and weekly housekeeping practices, ensuring the work environment remained organized and hazard-free. These initiatives reflect a strong commitment to worker safety and environmental responsibility, consistent with ESMP objectives and best international practices.

2.6.7 LEED Platinum Certification Status

The PTHM Unit-2 expansion project has been registered under the LEED v4 Building Design and Construction (BD+C) rating system, with the goal of achieving Platinum certification. As of the date of this audit, the LEED certification process remains ongoing, with substantial documentation compiled and periodic site-level assessments conducted in accordance with the LEED Site Management Plan (SMP).

LEED Implementation Status:

- A dedicated LEED AP (Accredited Professional) has been overseeing the certification process in coordination with the PTHM ESG focal person.
- Monthly site inspections and walkthroughs have been carried out by the LEED AP team, using checklists aligned with LEED SMP standards.
- Observations from LEED site visits were documented in issue-tracking logs, with non-conformities flagged and resolved through internal CAPA procedures.
- As of this audit, approximately 85% of required documentation has been compiled, though final submission to the USGBC (U.S. Green Building Council) remains pending.

Key Documentation Prepared:

- Construction Waste Management Logs – showing waste segregation, recycling volumes, and diversion percentages in line with LEED MR (Materials and Resources) credits.
- Air and Water Efficiency Plans – indicating installation of low-flow fixtures, solar-assisted lighting, and energy-efficient HVAC units as part of the Energy and Atmosphere (EA) credit compliance.
- Indoor Environmental Quality (IEQ) Assessments – covering indoor air quality testing (PM2.5, VOCs, HCHO), thermal comfort, and ventilation controls in line with LEED standards.
- Site Housekeeping and Erosion Control Protocols – implemented during excavation and construction stages to minimize dust, runoff, and sedimentation.
- Sustainable Material Procurement Records – with documented sourcing of regionally available, recycled, and low-VOC materials (LEED MR and EQ credits).

Next Steps Toward Certification:

- Finalize outstanding documentation, including GRM disclosure practices and water metering logs.
- Upload all project documentation into the LEED Online portal for preliminary review.



- Schedule LEED preliminary review meeting and resolve any feedback prior to final submission.

The project team is encouraged to expedite internal reviews and documentation compilation to meet the targeted Platinum certification submission deadline by June 2025.

2.6.8 Environmental and Social Compliance Summary

The following table presents a consolidated overview of key environmental and social safeguards (ESS) issues identified under the ESIA and ESMP, the mitigation measures proposed during planning, and their implementation status during the construction of the PTHM Unit-2 facility. The table further lists the responsible implementing and supervising parties and highlights the final compliance status based on site inspections, audit documentation, and third-party verification.

Overall, the audit finds that the project maintained high compliance with applicable national and international environmental and social standards, including KfW's Sustainability Guidelines, BIFFL's ESMF, and LEED Platinum certification requirements. All mitigation measures were implemented effectively, with evidence of regular supervision, documentation, and training. No significant noncompliance was observed during the audit period.

Table 11: Environmental and Social Safeguards Compliance Summary (Construction Phase)

Issue / Impact	Proposed Mitigation Measures	Actual Mitigation Measures	Implemented By	Supervised by	Compliance Status
Assessment and Management of Environmental and Social Risks and Impacts (ESS-1)	Conduct ESIA, prepare ESMP and monitoring plan; comply with DoE clearance and ADB/World Bank guidelines.	ESIA prepared and submitted; ECC obtained; LEED audit and post-construction audit completed.	Environmental Consultant, PTHM Management	Md. Badsha Nura Alam, Mir Rezaul Karim	Compliant
Labor Management and Social Conflict (ESS-2)	Local labor engagement, conflict prevention training, separate worker sheds, and proper worker lodging.	Locals engaged; dormitories built with facilities; conflict prevention training conducted.	HR/Admin & EHS Officer, P2P Engineering	Engr. Rajib Roy, Md. Badsha Nura Alam	Compliant
Occupational and Health Safety (ESS-2)	Provide PPE, appoint EHS manager, ensure training, maintain site safety per ILO/World Bank/Bangladesh Labor Code.	EHS lead and officers appointed; PPE provided; safety trainings and CAPA enforced.	P2P Engineering EHS Team	Debashis Paul, EHS Coordinator	Compliant
Air Quality (ESS-3)	Sprinkling water, use covered trucks, store materials for short duration, use low sulfur diesel.	Dust suppression twice daily; low-emission fuel; compliant ambient monitoring at four locations.	Site Contractor and Environmental Focal	Engr. Samir, Mir Rezaul Karim	Compliant
Indoor Air Quality (ESS-3)	Ensure air filtration, material coverage, minimal VOC use, and adequate ventilation.	IAQ monitoring done at 57 locations; VOCs/formaldehyde tracked; ventilation improved in godown/warehouse.	Greentech Ltd. and Site Environmental Officer	Mir Rezaul Karim, EHS Lead	Compliant
Water Quality (ESS-3)	Avoid excavation during rain, control run-off, follow 3R strategy, block drainage prevention.	Runoff managed; excavation paused during rain; 3R implemented; drainage unobstructed.	Civil Contractor and Utility Team	Debashis Paul, Site In-Charge	Compliant
Noise Level (ESS-3)	Limit noisy work to daytime, enforce use of ear protection, install noise barriers, monitor noise levels.	Daytime-only noisy work; PPE used; high-noise zones flagged; compliance recorded across 61 points.	EHS Officer and Site Engineers	EHS Lead, LEED Coordinator	Compliant



Issue / Impact	Proposed Mitigation Measures	Actual Mitigation Measures	Implemented By	Supervised by	Compliance Status
Solid Waste (ESS-3)	Segregate, recycle, compost food waste, proper sanitation, regular disposal, use of dustbins.	Segregation and recycling conducted; composting applied; sanitation maintained; bins provided.	Site Sanitation Team and EHS Officer	Admin Manager, Mir Rezaul Karim	Compliant
Stack Emissions (ESS-3)	Use gas-fired equipment, maintain low NOx/CO levels, conduct periodic stack testing.	CEMS tested 10 generators + boiler; all within DoE/WB limits; stack monitoring log maintained.	P2P Engineering Environmental Unit	Md. Badsha Nura Alam, Rajib Roy	Compliant
ODS Management (ESS-3)	Leak test for refrigerants, document gas types and usage, ensure R-22/R-410a control.	ODS audit done; 66+ units reviewed; no leak; R-22/R-410A documented; all within 0 tons ODS.	Greentech Ltd. and PTHM Facility Manager	Md. Badsha Nura Alam, Greentech Supervisor	Compliant
Community Health and Safety (ESS-4)	Keep dust/noise within factory boundary, enforce sprinkling, maintain effective physical boundaries.	Boundary impacts minimized; water sprinkling and air/noise control prevented offsite effects.	Site EHS and Construction Team	Debashis Paul, EHS Officer	Compliant
Stakeholder Engagement and Disclosure (ESS-10)	Conduct FGDs, post ESIA on website, make hard copies available onsite for review.	FGDs conducted; draft ESIA uploaded; physical copies at site for stakeholder view.	PTHM Management and ESIA Consultant	PTHM ESG Focal and Consultant Team	Compliant
Waste Management and Demolition Works	Safe demolition of CI/asbestos, segregate and reuse materials, document disposal and recycling.	CI sheets safely removed/sold; no asbestos; waste documented; reused materials tracked.	Demolition Subcontractor, Site Waste Handler	Engr. Rajib Roy, Md. Yusuf	Compliant
E&S Construction Management and EHS Meetings	Maintain EHS organogram, conduct toolbox meetings, record EHS briefings and internal audits.	Construction EHS organogram implemented; weekly toolbox/EHS meetings recorded.	EHS Officers, Contractor Admin Team	Debashis Paul, EHS Lead	Compliant
Water and Energy Management During Construction	Monitor diesel/water use, apply rainwater harvesting, install solar, use energy-efficient equipment.	Water and solar monitored weekly; efficient lighting used; diesel usage logged.	MEP Contractor, Utility and Site Support Team	Debashis Paul, Site Manager	Compliant



Issue / Impact	Proposed Mitigation Measures	Actual Mitigation Measures	Implemented By	Supervised by	Compliance Status
LEED AP Site Visit Protocols	Monthly site audits by LEED AP, issue tracking and closure logs, documentation as per LEED v4 guidelines.	LEED site visits monthly; site matrix and issue logs maintained; aligned with LEED SMP.	EnergySolve International and LEED Coordinator	LEED AP and PTHM ESG Focal	Compliant
GHG Emission Monitoring (ESS-3)	Inventory CO ₂ , CH ₄ , N ₂ O from gas and electricity; maintain emission logs and promote reduction strategies.	GHG estimated: 42,320.95 tons CO ₂ e (gas/electricity); Tier 1 method used; improvement plan recommended.	Environmental Consultant, PTHM Utility Engineers	Mir Rezaul Karim, Md. Badsha Nura Alam	Compliant



Chapter 3: Policy, Legal and Framework

3.1 Overview

ESF of BIFFL will be followed to get fund from KfW financed Energy Efficiency in Industries Project. The KfW adopted the Environmental and Social Framework (ESF) of World Bank (WB) as given in ESF of BIFFL and as the regulatory requirements. The ESIA report has been prepared to fulfil the requirements of BIFFL for funding.

To meet the Environmental and Social Framework (ESF) requirements of the Bangladesh Infrastructure Finance Fund Limited (BIFFL), the project must adhere to both World Bank (WB) ESF standards and national regulations. The World Bank's ESF includes ten Environmental and Social Standards (ESSs), which set requirements for borrowers, detailed in subsequent sections.

Pahartali Textiles and Hosiery Mill (PTHM) must comply with legal and institutional requirements set by national environmental legislation. Consequently, PTHM assess relevant legal provisions, policies, strategies, and institutional considerations before implementing a program or plan. This project is classified under the 'orange' category per the Bangladesh Environment Conservation Rules (ECR) 2023, necessitating an Environmental Impact Assessment (EIA) and the preparation of an Environmental Management Plan (EMP) to secure environmental clearance from the Department of Environment (DoE). EIA approval for the proposed project has already been obtained from the DoE, with the approval document included in **Appendix I**.

The environmental approval process in Bangladesh is overseen by the Department of Environment (DoE) under the Ministry of Environment, Forest and Climate Change (MoEFCC). Key regulations governing this process include the Environment Conservation Act (ECA), 1995 (amended in 2010), the Environment Conservation Rules (ECR), 2023, and the National Environment Policy (NEP), 2018. The DoE ensures adherence to these environmental regulations and offers guidance throughout project implementation.

Therefore, this Section presents an overview of the major national and international environmental laws and regulations that are relevant and may apply to the activities supported by the proposed project activities.

3.2 Relevant National Environmental Policies, Strategies and Guideline

Bangladesh has more than 200 laws and by-laws designed to tackle and guide the challenges related to environmental management. These are applied by five key agencies. In addition to the ECA, 1995 and ECR, 2023, there are a number of other policies, plans, and strategies to be considered in the Project. Table 0-1 provides the summary of relevant national legislation

Table 12: National Policies and Acts Relevant to the Project

Name of the Act/Rule	Enforcement Agency/Authority	Key Features	Applicability and Related Permit
Environment Conservation Act, 1995 (amendments in 2000, 2002 & 2010)	Ministry of Environment, Forest and Climate Change	- Define Applicability of environmental clearance - Regulation of development activities from environmental perspective - Framing applicable limits for emissions and effluents - Framing of standards for air, water and noise quality - Formulation of guidelines relating to control and mitigation of environmental pollution, conservation and improvement of environment - Declaration of Ecologically critical areas	Applicable as according to this act (Section 12), no industrial unit or project shall be established or undertaken without obtaining, an Environmental Clearance Certificate (ECC) from the Director General of DoE. Environmental Clearance Certificate is obtained from DoE.
Environment Conservation Rules, 2023	Ministry of Environment, Forest, and Climate Change	- NEQS for ambient air, surface water, groundwater, drinking water, effluents, emissions, noise, and vehicular exhaust. - Categorization of projects, development projects, and other activities based on actual (for existing development projects/ activities) and anticipated (for proposed development projects/activities) pollution load. - Procedure for obtaining ECC. - Requirements for undertaking IEE and EIA's as well as formulating EMP according to categories of industries/ development projects/activities. - Procedure for damage claim by persons affected or likely to be affected due to pollution activities or activities causing hindrance to everyday civic life.	Applicable - as the Projects fall under the Orange Category and require site clearance/ EIA approval/ ECC from DOE, Bangladesh. Environmental Clearance Certificate is obtained from DoE.
National Environmental Management Action Plan (NEMAP), 1995	Department of Environment (DoE) Ministry of Environment, Forest and Climate Change (MOEFCC)	- To identify the key environmental issues affecting Bangladesh; - To identify the actions necessary to halt or reduce the rate of environmental degradation; - To improve the natural and built environment; - To conserve the habitats and biodiversity; - To promote the sustainable development; - To improve the quality of life of the people.	Applicable as the project can cause environmental issues and this plan is required to reduce the rate of environmental degradation.



Name of the Act/Rule	Enforcement Agency/Authority	Key Features	Applicability and Related Permit
Bangladesh Climate Change Strategy and Action Plan, 2009	Ministry of Environment, Forest, and Climate Change	- Food security, social protection, and health. - Comprehensive disaster management. - Infrastructure. - Research and Knowledge Management. - Mitigation and low carbon development. - Capacity building and institutional strengthening.	Applicable - The project activities might cause soil erosion, which may have negative consequences for the local ecosystem.
National Environment Policy, 2018	Ministry of Environment, Forest and Climate Change	- Encourage collection and promotion of low carbon emission technology in the country; - Identifying and controlling all types of environmental pollution and degradation activities; - Ensure sustainable, long-term, and environmentally friendly use of all natural resources; - Maintain and streamline the environmental policies and strategies among other policy strategies in the interest of sustainable development; - Ensure the EIA and SEA are in all necessary sectors; - Take action to reduce poverty through environmental protection; - Strengthen observations on proper - compliance with environmental laws and regulations.	Applicable as the proposed project has a likeliness of having an impact on the surrounding environment.
Environment Court Act, 2010 and its amendment in 2019	Ministry of Environment, Forest, and Climate Change. Judiciary	- Establishment of one or more environmental courts in each district and one or more special magistrate courts in each district. - Also provides the jurisdictions of the environment court, the penalty for violating the court's order, a trial procedure in a special magistrate court, power of entry and search, a procedure for investigation, procedure, and power of the environment court, the authority of the environment court to inspect, appeal procedure and formation of the environment appeal court.	Applicable - the court has authority, under the act's provisions, over a trial for an offense or compensation under environmental law, imposing penalties for violation, etc.



Name of the Act/Rule	Enforcement Agency/Authority	Key Features	Applicability and Related Permit
EIA Guideline for the Industry 2021	Department of Environment	The EIA Guidelines for Industry, 2021, introduced by the Department of Environment, Bangladesh, is the only guideline for conducting an Environmental Impact Assessment in Bangladesh. It is not only for industries but also for all types of development works. It includes EIA procedures, methodology, guidelines for impact identification, forecasting, and evaluation, plans for mitigation measures, and monitoring programs.	Applicable -The project activities can create environmental, social, and ecological impacts during the construction and operation phases. EIA Guideline for Industries 2021 is the only guideline for conducting an Environmental Impact Assessment in Bangladesh that includes guidelines for impact identification, prediction, and evaluation, plans for mitigation measures, and monitoring programs.
Noise Pollution (Control) Rules, 2006	Ministry of Environment, Forest, and Climate Change	- The Rules have been established to manage noise-generating activities, which have the potential to impact the health and well-being of workers and the surrounding communities. - An area up to a radius of 100 meters around hospitals, educational institutions, offices, or similar types of institutions is designated as a silent area. The acceptable sound limit in the silent areas is 50 dB(A) for daytime and 40 dB(A) for nighttime. - Dwellings primarily occupy residential areas. The acceptable sound limit in residential areas is 55 dB(A) for daytime and 45 dB(A) for nighttime. - Mixed areas with a mix of residential, commercial, and industrial land use. The acceptable sound limit in the mixed areas is 60 dB(A) for daytime and 50 dB(A) for nighttime. - Businesses and offices primarily occupy commercial areas. The acceptable sound limit in commercial areas is 70 dB(A) for daytime and 60 dB(A) for nighttime. - Industrial areas are used for industry or manufacturing. The acceptable sound limit in industrial areas is 75 dB(A) for daytime and 70 dB(A) for nighttime. - An area between 500 meters from the last limit of a residential area for construction-related activity, use of brick and stone crusher machine is prohibited, and operation of mixture	Applicable - the project will create noise within the project boundary and surroundings. Incremental noise can impact human and terrestrial faunal species. Therefore, it requires complying with these rules.



Name of the Act/Rule	Enforcement Agency/Authority	Key Features	Applicability and Related Permit
		machine and construction-related machinery and equipment are prohibited from 7 PM to 7 AM. The guidelines say exceeding the maximum noise level in certain areas is a punishable offense.	
Air Pollution (Control) Rules 2022	Ministry of Environment, Forest, and Climate Change	- Aiming to protect environmental health, the government has published a new rule based on section 20 of The Bangladesh Environment Conservation Act, 1995. - The main objectives of this rule are to prevent, control, and reduce air pollution. - The government will appoint a Director General who will be responsible for managing and maintaining the environmental issue. - The Rule specified several types of pollution such as pollution caused by factories, vehicles, construction, garbage, etc. - According to the new rule, there will be a committee that will impose damages and punishment for such pollution. - As stated by the rule, the government will give rewards to those who protest against pollution and not cause any type of pollution.	Applicable - the project will create air pollution within the project boundary and surroundings. Air pollution can impact human and terrestrial faunal species.
Ecologically Critical Areas (ECAs) Management Rules, 2016	Ministry of Environment, Forest, and Climate Change	- The ECA Management Rule, 2016 has enabled the government to form a "National Committee" headed by the Secretary of MOEFCC. - To implement the decision of the Directorate, the District and Upazila committees may be formed. For the conservation and development of the ecologically critical area, one or more teams may be formed. The team's responsibility would be to implement the decision and planning of the Government to improve the Environment for Ecology. - The Rule also prohibited many activities and processes that are detrimental to the natural condition of habitat, tranquillity, biodiversity, etc.	Not Applicable – as there is no ecologically critical area within the 1 km radius of the proposed project location. Since the project is going to be constructed within the existing industrial area, there are minimal possibilities of adverse impact on natural ecosystem and biodiversity.



Name of the Act/Rule	Enforcement Agency/Authority	Key Features	Applicability and Related Permit
Biodiversity Act, 2017	Ministry of Environment, Forest, and Climate Change	- The Act has enabled the government to form a "National Committee on Biodiversity." The functions of the committee are to conserve biodiversity, genetic biodiversity, identification of biodiversity-related important areas, heritage, etc. - In consultation with local communities and bodies and in coordination with concerned ministries or departments, the government is empowered to declare any place or area significant for its biological heritage as a "Biodiversity Heritage Site." Prohibiting the taking of activities that may have an adverse effect on endangered animals or organisms, etc. No person shall take any such activity, viz (a) adversely affect, or may affect endangered species; (b) adversely affect or may affect the environmental characteristics of the endangered ecological community; or (c) In accordance with the Ramsar Convention, the wetland may adversely affect or affect the environment and environmental characteristics of the declared area.	Not Applicable - There are no protected areas within the project site and within a 1 km radius. Since the project is going to be constructed within the existing industrial area, there are minimal possibilities of adverse impact on natural ecosystem and biodiversity.
Wildlife (Conservation and Security) Act, 2012	Ministry of Environment, Forest, and Climate Change	- Prohibition is related to capturing, killing, shooting, or trapping wildlife. No person shall hunt any wild animal without a license. - Determination of threatened flora and fauna in four (4) schedules. - Prohibitions, entry, and declaration procedure of protected areas (sanctuary, national park, community conservation area, safari park, eco-park, botanical garden, wild animal breeding center, landscape zone or corridor, buffer zone, core zone, special biodiversity conservation area, national heritage, memorial tree, sacred tree, and kunjaban, etc.). - No person, institution, or company shall establish or operate any industrial factory or brick field within 2 (two) kilometers from the boundary of a sanctuary.	Not Applicable - There are no protected areas within the project site and within a 1 km radius. Since the project is going to be constructed within the existing industrial area, there are minimal possibilities of adverse impact on natural ecosystem and biodiversity.
Forests Act, 1927 and its amendment in 1982, 1989, 2000 and 2018	Ministry of Environment, Forest, and Climate Change	- The government can prohibit certain activities in the declared Reserved Forest area, causing any damage by negligence in felling any tree or cutting or dragging any timber, etc. - The act makes various provisions for the conservation of forests.	Not Applicable - The proposed project location is in the existing developed land, no forest (reserve, protected, social, mangrove, etc.) is found within the project site and 1 km radius. Since the project is going to



Name of the Act/Rule	Enforcement Agency/Authority	Key Features	Applicability and Related Permit
		- It defines the procedure to be followed for declaring an area to be a Reserved Forest, a Protected Forest, or a Village Forest. - It defines what a forest offense is, what acts are prohibited inside an RF, and penalties leviable on violation of the provisions of the act. - The act gives the government power to make any relevant rules to protect forests. - Guidelines for social forestry practice. - Control and collection of timber and other forest products, and duties on those.	be constructed within the existing industrial area, there are minimal possibilities of adverse impact on natural ecosystem and biodiversity.
Protected Area Management Rules, 2017	Ministry of Environment, Forest, and Climate Change	- The legal basis for the management and co-management of forest-protected areas. - Structures, functions, and obligations of management of some of the protected areas, excluding safari parks, zoos, botanical gardens, private parks, and wildlife fertility centers from their application. - The Rules have 33 sections and provide for a participatory co-management model consisting of forest-dependent communities, forest departments, civil administration, and civil society organizations. - The rules provide for financial benefits and income incentives to shareholders through participatory social forestry programs to be planted in buffer and landscape areas and eco-tourism.	Not Applicable – There are no protected areas within the 1 KM radius of the project location. Since the project is going to be constructed within the existing industrial area, there are minimal possibilities of adverse impact on natural ecosystem and biodiversity.
Bangladesh Water Act, 2013	Ministry of Water Resources	- Any infrastructure or landfilling activities over any natural watercourses, stopping the natural flow creating obstacles, or diverting or attempting to divert the direction is strictly prohibited. - According to the provision of section 43, all the costs may be incurred for the removal of infrastructure or landfilling materials from the person liable for making infrastructure or carrying on landfilling activities. - Any area or any part of any land connected with water resources can be declared as a Water Stress Area.	Applicable – The project proponent should minimize water pollution and minimize disruption of the aquatic environment and navigation system in the adjacent water body. License for deep tubewell is obtained from CWASA.



Name of the Act/Rule	Enforcement Agency/Authority	Key Features	Applicability and Related Permit
		- Ensuring safe abstraction of water from aquifers and executive authority may subject to the lowest safe yield of surface and groundwater. - Any infrastructure shall not be established in the immediate premises of the flood control embankment and ensure the sustainability and protection of the control structure. - No person shall not store, preserve, or divert the water of any water source in any natural or artificial reservoir.	
National Water Policy, 1999	Ministry of Water Resources	- Protection and prevention of the natural environment for ensuring sustainable development. - Minimize disruption to the natural aquatic environment in streams and water channels. - Water development plans will not interrupt fish movement and will make adequate provisions in control structures for allowing fish migration and breeding. - Water development projects should cause minimal disruption to navigation and, where necessary, adequate mitigation measures should be taken. - Full consideration of environmental protection, restoration, and enhancement measures consistent with NEMAP and the NWMP. - Ensure adequate upland flow in water channels to preserve the coastal estuary ecosystem threatened by the intrusion of salinity from the sea.	Applicable – The project proponent should minimize water pollution and minimize disruption of the aquatic environment and navigation system in the adjacent water body. License for deep tubewell is obtained from CWASA.
National Fisheries Policy, 1999	Ministry of Fisheries and Livestock	- Provide provisions for the protection and conservation of fish in freshwater and brackish water bodies. - Preservation, management, and exploitation of fisheries resources in inland open water. - Fish cultivation and management in inland closed water. - Prawn and fish cultivation in coastal areas. - Preservation, management, and exploitation of sea fishery resources. - Conserve fish breeding grounds and habitats, and	Not Applicable - There is no impact on fisheries due to the implementation of the proposed project.



Name of the Act/Rule	Enforcement Agency/Authority	Key Features	Applicability and Related Permit
		promote fisheries development and conservation in all water bodies.	
Protection and Conservation of Fish Act, 1950, and its amendment in 1982 and Rules, 1985	Ministry of Fisheries and Livestock	- The act was enacted to provide for the protection and conservation of fish. Under the Act, the Protection and Conservation of Fish Rules were adopted in 1985. - No person shall destroy or attempt to destroy any fish with explosives, gun, bow, and arrow in inland or coastal waters. During the Project intervention, it should be noted that if waste effluent is not treated, then it may cause significant damage to the local fishery and thus violate the provision of the law. - No person shall destroy or make any attempt to destroy any fish by poisoning of water or the depletion of fisheries by pollution, by trade effluents, or otherwise in inland waters. - Protection and conservation of fish in government-owned water bodies.	Not Applicable - There is no impact on fisheries due to the implementation of the proposed project.
National Agriculture Policy, 2018	Ministry of Agriculture	- Ensure food security and socio-economic development through the productivity of crops, boosting production and raising farmers' income, diversifying crops, producing safe foods, and developing a marketing system, profitable agriculture, and use of natural resources. - Increasing food availability, rights, and purchasing power by increasing crop productiveness and production. - Discourage the use of agricultural land for non-agricultural work to ensure sustainable food security. - Soil, water, flora, fauna, and overall environmental conservation and effective use initiative adoption.	Not Applicable - There is no impact on agricultural land and productivity due to the implementation of the proposed project.
Solid Waste Management Rules 2021	Department of Environment	- When recovering resources from waste, the principles of management that consider the waste hierarchy, such as the 3Rs, segregation, and reduction, must be followed at all stages from waste generation to the final disposal. - Responsibilities of waste generators, consumers, and users: Dispose of waste in accordance with the regulations of	Applicable - This rule is applicable for the project for the management of waste (i.e., solid wastes) to minimize/reduce environmental, social, and economic problems.



Name of the Act/Rule	Enforcement Agency/Authority	Key Features	Applicability and Related Permit
		authorities including local government; Dispose of waste separately; Do not dump, store, or burn waste outdoors. - Responsibilities of manufacturers (*not defined) and importers of products: Collect non-biodegradable products such as glass, plastic, polyethylene, multi-layered packaging, bottles, and cans from consumers and recycle or dispose of them if appropriate; Determine work plans and implementation procedures for recycling and disposal; Ensure that Extended Producer Responsibility (EPR) is properly implemented; Submit an annual report to the Department of Environment (DOE) on the amount of plastic recycled; Raise public awareness of proper waste management. - Any violation of the above provisions shall be subject to imprisonment for not more than two years or a fine not exceeding 200,000 Taka (BDT), or both. The Regulations also include provisions for the treatment of solid waste such as composting and energy recovery.	
National 3R Strategy for Waste Management, 2010	Department of Environment	- The concept of this strategy is minimizing waste impacts in terms of quantity or ill effects by reducing the number of waste products with simple treatments and recycling the waste by using them as resources to produce the same or modified products. The principle of “3R” is stated as reducing waste, reusing, and recycling resources and products. - Reducing means choosing to use items with care to reduce the amount of waste generated. - Reusing involves the repeated use of items or parts of items that still have usable aspects. - Recycling means the use of waste itself as a resource. - It suggests ISO 14001 or any other EMS structure that is significant for developing strategies relevant to the industry and its social and environmental setting. ISO 14001 is increasingly important in international trade.	Applicable - This strategy is applicable for the project for the management of waste (i.e., solid waste) to minimize/reduce environmental, social, and economic problems.



Name of the Act/Rule	Enforcement Agency/Authority	Key Features	Applicability and Related Permit
Imports and Exports (Control) Act, 1950	Ministry of Finance	No goods of the specified description shall be imported or exported except following the conditions of a license to be issued by the Chief Controller or any other officer authorized on this behalf by the Government.	Applicable - as the machinery, equipment, and other stuff for the proposed project will be imported.
National River Protection Commission Act, 2013	Ministry of Water Resources	An act to establish a Commission for preventing illegal occupation of rivers, pollution of water and environment, pollution of rivers caused by industrial factories, illegal constructions, and various irregularities and ensuring multidimensional use of rivers for socio-economic development including restoration of the normal flow of rivers, proper maintenance thereof and making them navigable.	Applicable , the proposed project has a likeliness of pollution impact on the environment due to construction and operation activities.
The Penal Code, 1860	Ministry of Law, Justice, and Parliamentary Affairs	- Valid provisions related to pollution management, environment protection, and health and safety protection. Chapter XIV of the Penal Code provides offenses effective public health, safety, convenience, decency, and morals: - Section 277: Falling Water or Public Spring or Reservoir. - Section 278: Making Atmosphere Noxious to Health. - Section 284: Negligent Conduct concerning Poisonous Substance. - Section 285: Negligent Conduct concerning Fire or Combustible Matter. - Section 286: Negligent Conduct concerning Explosive Substance.	Applicable - The proposed project has a provision for pollution impact on the surrounding environment.
The Building Construction Act, 1952 and subsequent amendments	Ministry of Works	This act provides for prevention of hazardous construction of building and excavation of tanks which are likely to interfere with the planning of certain areas in Bangladesh	Applicable since the project involves construction activities
The Building and Construction Act, 1952	Ministry of Housing and Public Works	As per Section 3A of this act, no owner or occupier of a building shall, without obtaining previous permission from the Authorized Officer or the Committee use the building for the purpose other than that mentioned in the sanction;	Applicable : PTHM will ensure that no building or tank shall be constructed without prior permission from the Authorized Officer or Committee of the area.



Name of the Act/Rule	Enforcement Agency/Authority	Key Features	Applicability and Related Permit
		All the construction, re-construction works to be undertaken as per terms or conditions prescribed.	
The Ground Water Management Ordinance, 1985	Upazila Parishad	- Management of ground water resources - Installation of tube-wells at any place after license from Upazila Parishad only	Applicable as groundwater is used for construction and operation purpose for the project.
Social Related Laws and Regulation			
Acquisition and Requisition of Immovable Property Act (ARIPA), 2017	Ministry of Land	- Current GoB Act, relating to acquisition and requisition of land. - According to the law, the affected person will get an additional 200% of the assessed value for land and an additional 100% for structures, trees, crops, and other assets. - This law deals with the social and economic impacts of land acquisition.	Not Applicable as the project developed in its own premises
Fatal Accidents Act, 1855	Ministry of Law, Justice, and Parliamentary Affairs	Provide compensation to families for loss occasioned by the death of a person caused by actionable wrong. It is mentioned in s.1 that whenever a wrongful act shall cause the death of a person, neglect or default, and the act, neglect or default is such as would (if death had not ensued) have entitled the party injured to maintain an action and recover damages in respect thereof, the party who would have been liable if death had not ensued shall be liable to an action or suit for damages, notwithstanding the death of the person injured, and although the death shall have been caused under such circumstances as an amount in law to a felony or other crime.	Applicable - as the proposed project has a provision for unlikely and accidental events that may cause fatal accidents.
Fire Prevention and Extinguish Act, 2003 and Rules, 2014	Ministry of Home Affairs	- Regulatory enactments regarding the prevention, the successful extinguishing of fire, and reduction of damages and consequences of fire. - States to obtain a license from the Director-General of Fire Service and Civil Defense in case of any warehouse.	Applicable - Proposed projects will store fuels during the construction and operation phases for mining and other purposes. During the construction and operation phase, there could be a fire incident if proper measures are not taken.



Name of the Act/Rule	Enforcement Agency/Authority	Key Features	Applicability and Related Permit
			Fire license is obtained by PTHM.
The Factories Act, 1965, and the Factories Rules, 1979 Bangladesh Labor Act, 2006, and amendments 2009, 2010, 2013 and 2018 Bangladesh Labor Rules, 2015	Department of Labor/Department for Inspection of Factories and Establishment/ Ministry of Labor and Employment	- Pertains to the occupational rights and safety of factory workers and the provision of a comfortable work environment and reasonable working conditions. - Provides health, safety, and well-being to the workforce during the project life cycle. - Children under 18 years are not allowed to be employed during the project life cycle. - Safety precautions regarding explosive or inflammable dust/gas, protection of eyes, protection against fire, work with cranes and other lifting machinery, and lifting of excessive weight. - Safety measures like appliances of first aid, maintenance of safety record books, rooms for children, housing facilities, medical care, group insurance, etc. - No building, wall, chimney, bridge, tunnel, road, gallery, stairway, ramp, floor, platform, staging, or other structure, whether a permanent or temporary character, shall be constructed, situated, or maintained in any factory in such a manner as to cause risk of bodily injury (Rule 38) of factory rules 1979, etc.	Applicable - as it provides the workforce's health, safety, and well-being during the project life cycle. Besides, it also stipulated that children under 18 years are not allowed to be employed during the project life cycle; therefore, this law must be complied with. Factory license is obtained by PTHM.
The Vehicle Act, 1927 The Motor Vehicles Ordinance, 1983 The Bengal Motor Vehicle Rules, 1940	Bangladesh Road Transport Authority (BRTA)	Exhaust emission; Vehicular air and noise pollution; Road/traffic safety; Vehicle Licensing and Registration; Fitness of Motor Vehicles; Parking bylaws	Applicable since the project involves use of vehicles in construction and operation.



Name of the Act/Rule	Enforcement Agency/Authority	Key Features	Applicability and Related Permit
Children's Act, 2013 (Act No. 24 of 2013).	Ministry of Labor	- No child who has not completed his fifteenth year shall be employed or permitted to work in any occupation - - connected with transport of passengers, goods or mails by railway; or - Involving the handling of goods within the limits of any port. (2) No child who has completed his fifteenth year but has not completed his seventeenth year shall be employed or permitted to work in any occupation referred to in sub- section (1), unless the period of work of such child for any day are so fixed as to allow an interval of rest twelve consecutive hours which shall include at least such seven consecutive hours between 10 p. m and 7 a.m.	Applicable as no children will be allowed to work during the construction and operation phase PTHM must ensure that at through all stages of construction and operation, no juvenile (children between ages 14 and 18)
National Occupational Health and Safety Policy, 2013	The Ministry of Labor and Employment	- Addresses national commitment as per Constitution for continual improvement of occupational health and safety management system of the establishment to prevent or reduce workplace fatalities and work-related diseases; - The National OSH Policy also ensures safety in transportation, maintenance and use of chemicals used in the production process.	Applicable as the extended project have the risk of different occupational hazard and accidents and proponents need to ensure the safety of the workers
The Bangladesh National Building Code (BNBC) 2020	Building Construction Committee, GoB	Sets out the constructional responsibilities of relevant authority to adopt precautionary measures to ensure the safety of the workmen. According to Section 1.2.1 of Chapter 1 of Part 7, "In a construction or demolition work, the terms of contract between the owner and the consultant and between a consultant and the owner shall be clearly defined and put in writing	Applicable since the project involves both construction and operational activities

3.3 KfW's Environmental and Social Standards

KfW classifies any project into high risk (Category A), substantial risk (Category B+) moderate risk (Category B), and low risk (Category C), based on the potential adverse environmental and social impacts and risks associated with it.

According to the relevance of potentially adverse environmental and social impacts and risks, KfW classifies industries/projects into four categories "A" (high risk), "B+" (substantial risk), "B" (moderate risk), or "C" (low risk). **Table 2.2** shows the proposed project applicability status as per KfW categorization.

Table 13: KfW categorization of proposed project

SL No.	Category Type	Category Status	Applicability
1	Category A	High Risk	Not Applicable
2	Category B+	Substantial Risk	Not Applicable
3	Category B	Moderate Risk	Applicable
4	Category C	Low Risk	Not Applicable

Since the project is going to be constructed within the existing industrial area, there are minimal possibilities of adverse impact on natural ecosystem and biodiversity. Moreover, there is no issue impacting land-based livelihood (land acquisition and resettlement), cultural heritage and indigenous people. Most of the environmental and social potential impacts, i.e., air, water, soil, noise, odor pollution, are manageable with appropriate mitigation measures. During the operation period the major concerns are related to indoor air, noise quality, management of solid waste, etc. Therefore, the project can be categorized as Category B, signifying moderate risks

In terms of Environmental and Social (E&S) risk management, the KfW does not have specific E&S Standards. Instead, it applies the World Bank Group Standards, incorporating the World Bank's ESS

3.4 World Bank's Environmental and Social Standard (ESS)

The Environmental and Social Framework (ESF) strengthens the World Bank's commitment to sustainable development by introducing 10 Environmental and Social Standards (ESS) to help Borrowers manage their environmental and social (E&S) risks. The ESF employs a risk-based strategy that increases oversight and resources for complex projects while encouraging enhanced responsiveness to changes in project circumstances through adaptive risk management and stakeholder engagement. The World Bank's Environmental and Social Standard (ESS) in the present project with explanations are given in the Table 14.



Table 14: The safeguard Policies of World Bank on Environmental Issues

WB ESS	Objectives	Applicability to the Project
ESS 1 – Assessment and Management of Environmental and Social Risks and Impacts	- To identify and evaluate environmental and social risks and impacts of the project. - To adopt a mitigation hierarchy to anticipate and avoid, or where avoidance is not possible, minimize, and, where residual impacts remain, compensate/offset for risks and impacts to workers, Affected Communities, and the environment. - To promote improved environmental and social performance of clients through the effective use of management systems. - To ensure that grievances from Affected Communities and external communications from other stakeholders are responded to and managed appropriately. - To promote and provide means for adequate engagement with Affected Communities throughout the project cycle on issues that could potentially affect them and to ensure that relevant environmental and social information is disclosed and disseminated	Applicable. The spinning industry project under the Program, such as Energy, Water and Waste Management, Agriculture, and Urban infrastructure, may entail Environmental and Social (E&S) impacts.
ESS 2 – Labor and working conditions	- To promote the fair treatment, non-discrimination, and equal opportunity of workers. - To establish, maintain, and improve the worker-management relationship. - To promote compliance with national employment and labor laws.	Applicable. The requirements of PS2 are relevant throughout the entire lifecycle of the project's activity, covering both the future construction and current and future operation phase. This comprehensive approach



WB ESS	Objectives	Applicability to the Project
	- To protect workers, including vulnerable categories of workers such as children, migrant workers, workers engaged by third parties, and workers in the client's supply chain. - To promote safe and healthy working conditions, and the health of workers. - To avoid the use of forced labor.	underscores the commitment to maintaining proper labor and working conditions in the industry.
ESS 3 – Resource efficiency, pollution prevention and reduction	- To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities. - To promote more sustainable use of resources, including energy and water. - To reduce project-related GHG emissions.	Applicable. PS3 is applicable to the spinning industry project. It extends to all phases of the project, not solely limited to the construction phase. This standard is activated for any project that may potentially generate adverse impacts on communities and the environment, ensuring comprehensive coverage throughout the project's lifecycle.
ESS 4 – Community health, safety and security	- To anticipate and avoid adverse impacts on the health and safety of the Affected Community during the project life from both routine and non-routine circumstances. - To ensure that the safeguarding of personnel and property is carried out in accordance with relevant human rights principles and in a manner that avoids or minimizes risks to the Affected Communities.	Applicable. Aligned with PS3, the Environmental and Social (E&S) risk assessment for the industry will encompass an evaluation of community health, safety, and security aspects. This assessment will extend



WB ESS	Objectives	Applicability to the Project
		throughout the entire lifecycle of the project.
ESS 5 – Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	- To avoid, and when avoidance is not possible, minimize displacement by exploring alternative project designs. - To avoid forced eviction. - To anticipate and avoid, or where avoidance is not possible, minimize adverse social and economic impacts from land acquisition or restrictions on land use by (i) providing compensation for loss of assets at replacement cost and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected. - To improve, or restore, the livelihoods and standards of living of displaced persons. - To improve living conditions among physically displaced persons through the provision of adequate housing with security of tenure at resettlement sites	Not Applicable as the project developed in its own premises
ESS 6 – Biodiversity Conservation and Sustainable Management	- To protect and conserve biodiversity. - To maintain the benefits from ecosystem services. - To promote the sustainable management of living natural resources through the adoption of practices that integrate conservation needs and development priorities.	Applicable. The environmental pollution from existing and proposed project activity may put negative impact on biodiversity. Since the project is going to be constructed within the existing industrial area, there are minimal possibilities of adverse



WB ESS	Objectives	Applicability to the Project
		impact on natural ecosystem and biodiversity. Further, there are no ecologically critical area, protected area nearby.
ESS 7 – Indigenous Peoples	- To ensure that the development process fosters full respect for the human rights, dignity, aspirations, culture, and natural resource-based livelihoods of Indigenous Peoples. - To anticipate and avoid adverse impacts of projects on communities of Indigenous Peoples, or when avoidance is not possible, to minimize and/or compensate for such impacts. - To promote sustainable development benefits and opportunities for Indigenous Peoples in a culturally appropriate manner. - To establish and maintain an ongoing relationship based on Informed Consultation and Participation (ICP) with the Indigenous Peoples affected by a project throughout the project's life-cycle. - To ensure the Free, Prior, and Informed Consent (FPIC) of the Affected Communities of Indigenous Peoples when the circumstances described in this Performance Standard are present. - To respect and preserve the culture, knowledge, and practices of Indigenous Peoples.	Not Applicable No indigenous peoples have been identified during the ESIA preparation stage and ESS-7 is not relevant to this project.
ESS 8 – Cultural heritage	To protect cultural heritage from the adverse impacts of project activities and support its preservation.	Not Applicable No cultural heritage have been identified during the ESIA



WB ESS	Objectives	Applicability to the Project
	To promote the equitable sharing of benefits from the use of cultural heritage.	preparation stage and ESS-8 is not relevant to this project.
ESS 09- Financial Intermediaries	- To set out how the FI will assess and manage environmental and social risks and impacts associated with the subprojects it finances; - To promote good environmental and social management practices in the subprojects the FI finances; - To promote good environmental and sound human resources management within the FI.	Applicable Financial Institution (FI) is required to monitor and manage the environmental and social risks and impacts of the project.
ESS 10-Stakeholder Engagement and Information Disclosure	- To establish a systematic approach to stakeholder engagement that will help Borrowers identify stakeholders and build and maintain a constructive relationship with them, in particular project-affected parties; - To promote and provide means for effective and inclusive engagement with project- affected parties throughout the project life cycle on issues that could potentially affect them; - To ensure that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner and format; - To provide project-affected parties with accessible and inclusive means to raise issues and grievances, and allow Borrowers to respond to and manage such grievances.	Applicable KII and FGDs were conducted to identify their valuable comments about this project and all the information about the project activity were disclosed to them.



3.5 Gap Analysis of World Bank Requirements and National Laws

A gap analysis between WB's Safeguard policies and GoB Regulations was conducted as part of the ES capacity assessment of the PTHM in light of the Overview Assessment of Bangladesh's Country Framework for Addressing Environmental Risks and Impacts of Development Projects.

The results of the gap analysis indicated the Bangladesh EIA System has a few material gaps with respect to the WB ESS. Foremost among these are: (i) it does not cover many of the issues relating to other WB Safeguard policies; (ii) the stakeholder engagement during the EIA study is almost non-existent or very limited, needless to say, that there is no requirement to engage stakeholders during construction; (iii) it does not emphasize the application of mitigation hierarchy in selecting mitigation measures; (iv) it recognizes only Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) and does not provide for other assessment instruments, particularly SEA, REA and cumulative assessment; and, (v) it does not require analysis of alternatives. It has also a few problems of its own when compared to a standard EIA system, including: (i) it does not provide any formal definition of the projects to be required the Environmental Clearance--the law only refers to "industry" and "industrial units"; (ii) the screening process is inadequate--there is no procedure or criteria for determining which category a project would fall into; and (iii) it does not have formal procedure for compliance monitoring and reporting. Although there are suggestions in the EIA Guidelines on these issues, the Guidelines does not have the same compelling effect as the force of law or regulation. There is no assurance that each WB ESS are considered in the EIA study and the formulation of the ESMP. Although the EIA is heavy towards the environmental aspects, more and more social issues are incorporated in the assessment. Moreover, the practice under normal circumstances does not include labor management issues.

Another critical gap pertains to lack of provisions for requiring the preparation of project specific ESMP. The eminent domain land acquisition system for example does not require the preparation of Resettlement Action Plan (RAP). There are some gaps between the existing land acquisition law of the country and WB ESS on Involuntary Resettlement (ESS 5) and on indigenous peoples (ESS 7) in terms of identification of affected persons and compensation packages and participation of community groups of diverse interests and vulnerabilities. The projects are also not required to formulate their own Labor Management Procedures/Plans (LMP).

Suggested gap-filling measures are given in Table 15. Given the gaps, this ESIA will follow the most stringent standards and requirement.



Table 15: Gap analysis and Gap Minimization on WB ESS and National Regulations.

WB Safeguard Policies	Equivalent National Environmental Policy and Regulation	Gap Analysis	Gap Minimization
ESS-1: Assessment and Management of Environmental and Social Impacts and Risks	The Environment Conservation Act, 1995 and subsequent amendments until 2010, ECR 2023.	The Bangladesh EIA System has a few material gaps with respect to the WB OP4. Foremost among these are: (i) it does not cover many of the issues relating to Social issues; (ii) the stakeholder engagement during the EIA study is almost non-existent or very limited, needless to say, that there is no requirement to engage stakeholders during construction; (iii) it does not emphasize the application of mitigation hierarchy in selecting mitigation measures; (iv) it recognizes only IEE and EIA and does not provide for other assessment instruments, particularly SEA, REA and cumulative assessment; and, (v) it does not require analysis of alternatives. It has also a few problems of its own when compared to a standard EIA system, including: (i) it does not provide any formal definition of the projects to be required the Environmental Clearance--the law only refers to "industry" and "industrial units"; (ii) the screening process is inadequate--there is no procedure or criteria for determining which category a project would fall into; and (iii) it does not have formal procedure for compliance monitoring and reporting. Although there are suggestions in the EIA Guidelines on these issues, the Guidelines does not have the same compelling effect as the force of law or regulation. In terms of other issues, the gaps are generally benign with almost full conformance on labor	ESIA is prepared following the ESS -1 requirements, given in the relevant sections of environmental management procedures. This ESIA's is conducted to address WB ESS in addition to GoB requirements. The basic principle of ESIA which is the mitigation hierarchy (avoid, minimize, mitigate, offset) is considered in this ESIA. In case, DoE rules/ regulations do not cover the WB requirements, and followed the more stringent safeguard requirements according to WB Safeguard policies



WB Safeguard Policies	Equivalent National Environmental Policy and Regulation	Gap Analysis	Gap Minimization
		and working conditions, pollution control and, on biodiversity conservation and sustainable management of living natural resources.	
ESS-2: Labor and Working Conditions	Bangladesh Labor Law, 2006, Bangladesh Labor Act, 2013 and Bangladesh Labor Rules, 2015 Industrial Policy, 1999	The Labor Act 2006 adequately addresses basic workers' rights, child labor, and women's needs, although it did not have explicit provisions about equal opportunity and non-discrimination, except for discrimination based on union memberships. The Labor Act's sections on occupational health and safety regulations also did not mention provisions of appropriate protective equipment for workers.	An OHS plan for the workers is developed.
ESS-3: Resource Efficiency and Pollution Prevention and Management	ECA 1995 Sustainable and Renewable Energy Development Authority Act 2012 Water Act 2013 Water Supply and Sanitation Act, 1996 The Ground Water Management ordinance, 1985 National Water Bodies Protection Act, 2000 National 3R Strategy for Waste Management, 2020 The National Water Act, 2013 Noise Pollution (Control) Rules 2006 Road Transport Act 2018 The Brick Burning Control Act, 1989 (Amendment Act, 1992 and 2001)	The ECA 1995 and its implementing rules adequately provides for the control of environmental pollution. Energy efficiency is also being promoted at the user or individual project levels through the Energy Conservation Rules 2014. There is currently no regulation or program to encourage conservation of water at the individual companies/projects. Also, there is still no regulation or policy encouraging individual companies/projects to minimize GHG emission.	ESMP is developed and addressed this issue and incorporate mitigation measures for efficient use of water resources.



WB Safeguard Policies	Equivalent National Environmental Policy and Regulation	Gap Analysis	Gap Minimization
	Draft Air Pollution Control Rules 2021 Hazardous Waste (E-Waste) Management Rules, 2021: National Information and Communication Technology (ICT) Policy 2015		
ESS-4: Community Health and Safety	National Building Code 1993 National Building Code 1993 (RHD Geometric Design Standards 2005) Road Transport Act 2018 Bangladesh Standards and Testing Institute Act 2003 Food Safety Act 2013 (Various Laws) ECA 1995 Pesticide Act 2009 National Water Bodies Protection Act, 2000 Noise Pollution (Control) Rules, 2006 National Strategy for Waste Management Bangladesh National Building Code (BNBC), 2006	The more serious issues are observed in the community health and safety. The country has no policy or standards for dam safety or even for water infrastructure safety and there is still no comprehensive legislation on hazardous wastes and substances, although the ECA 1995 already empowers the DoE to determine safe procedures for the use, storage and transportation of hazardous substances. Expectedly, there is no clear requirements and agency responsible for ensuring community health and safety in development projects during planning, except those that have been traditionally covered in the EIA with DoE as the agency responsible. There is a serious lack of enforcement in almost every aspect of community health and safety, and this is probably worse in terms of the building code, in the regulations of food safety, and the operational aspect of road safety (i.e., traffic rules, licensing, etc.).	The gaps are addressed through suitable provisions in ESMP.
ESS-5: Land Acquisition, Land Use Restriction, Involuntary Resettlement	The Acquisition and Requisition of Immovable Property Act, 2017 National Land Use Policy, 2001	Does not require the preparation of RAP; Does not provide compensation or assistance to those who do not have a formal legal claim to the land; Does not provide transitional allowances for restoration of livelihoods for	As the expansion of the PTHM will be on the existing developed land so no RAP is required.



WB Safeguard Policies	Equivalent National Environmental Policy and Regulation	Gap Analysis	Gap Minimization
		informal settlers; relies on cash compensation, no developmental objectives; no provision to give special attention to the vulnerable groups valuation of lost asset is not based on "replacement cost" standard	
ESS-6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	ECA 1995 Disaster Management Act 2012 Biodiversity Act 2017 National Integrated Pest Management Policy 2002 Marine Fisheries Act 2021 Forest Act 1927 Protection and Conservation of Fish Act 1950 National Biodiversity Strategy and Action Plan (2004) Wildlife Conservation (Protection and Safety) Act, 2012 Bangladesh Biodiversity Act, 2017	The biodiversity conservation regulations in Bangladesh focuses on identification of critical habitat areas and placing them under protected status. Given the protected status, development projects are generally not permitted in these areas, except when they are part of the protection plan for the area itself. Hence, there are no encompassing rules or guidelines in terms of managing projects' impacts and influence in these areas, such as the hierarchy rule in applying mitigation measures. However, the ECA 1995 does place liability to persons/companies for damages inflicted on ecosystem and provides that compensation for the damage will have to be determined by an expert. It should be noted that regulatory systems relevant to the other WB ESS Standards are generally not formally linked with the EIA. This is because these laws are not intended to be applied in the planning stage of a project. They impose requirements to be met during operations of business establishments or facilities. Thus, the challenge for the implementation of ES Standards in development projects in Bangladesh is to bring these laws to bear with project planning and vetting.	These issues have been addressed in the ESIA.



WB Safeguard Policies	Equivalent National Environmental Policy and Regulation	Gap Analysis	Gap Minimization
ESS-7: Indigenous People	Constitutional Rights of the Tribal People	No equivalent requirements on: coverage of IP impacts in the ESIA; special treatment or differentiated approach to IPs and vulnerable groups; conduct of FPIC; development of IP Plan.	No indigenous peoples have been identified during the ESIA preparation stage and ESS-7 is not relevant to this project.
ESS-8: Cultural Heritage	-	No equivalent requirements on: the application of the hierarchy of measures; the development of Cultural Heritage Management Plan; the development and adoption of project-specific Chance Find Procedures; and the engagement of cultural heritage experts.	No physical cultural resources have been identified during the ESIA preparation stage and ESS-8 is not relevant to this project.
ESS-9: Financial Intermediaries	There is no national rules and laws in Bangladesh related to financial intermediaries but as per the ESS-9 standards Financial Institutions (FIs) are involved in this project to monitor and manage the environmental and social risks and impacts of the project.		
ESS-10: Stakeholder Engagement and Information Disclosure	Right to Information Act, 2009 Women and Children Repression Prevention Act, 2010 The Convention on the Elimination of all Forms of Discriminations Against Women Convention Bangladesh, 2015 Rights & Protection of Persons with Disabilities Act, 2013 National Women Policy, 2011	The ECA/ ECR does not specifically require consultation, but the EIA guidelines issued by DoE and other agencies recommend public consultations during scoping and the preparation of the EIA. There is also no provision for any stakeholder engagements during project implementation.	A guideline for stakeholder engagement has been provided in this ESIA, and will be implemented throughout the life of the project Besides, GRM and grievance redress committees is established in three level to address issues and concerns for the project.



3.6 Environmental and Social Framework (ESF) of BIFFL

BIFFL adopted an Environmental and Social Framework (ESF) in 2024 which is to comply with all infrastructure projects as are to be funded by BIFFL. The objectives are: (i) to avoid, and when avoidance is not possible, to minimize and mitigate adverse impacts of subprojects on the environment and affected people; and (ii) to maximize opportunities for environmental and social benefits. According to the environmental categorization of ESF, the project has been categorized as a “Low Risk” project requiring significant compliance safeguards including comprehensive environmental impact assessment and regular monitoring. In consideration of social categorization, the project has been categorized as “Low Risk” in consideration of social safeguards as there is neither issue of indigenous people nor involuntary resettlement.



Chapter 4: Environmental and Social Baseline

4.1 Introduction

The baseline of the study area is rapidly changed with the development activities. As per norms of the ESIA study, a reference baseline should be prepared comprising environmental and social settings in the project area and area of influence area. The area of influence (AOI) has been demarcated as 1km around the proposed project boundary as an installation with low pollution potential, which is denoted as the study area.

The baseline study outlines the physical environment (which includes physiography, meteorological, hydrological, geological settings, air quality, acoustic environment, land use and communication), biological environment (including flora, fauna and ecosystems) and socio-economic situations which includes cultural activities, economic status, livelihoods, health and hazards of the study area. Primary and secondary data have been used to prepare the baseline status of this study.

As a part of the environmental assessment for the expansion of textile spinning plant of Pahartali Textile and Hosiery Mills (PTHM), an environmental and social baseline survey was carried out in the proposed project area and adjacent surroundings during January 2024.

4.2 Physical Environment

4.2.1 Climate and Meteorology

Despite the general predictability of the seasons in Bangladesh, local conditions vary widely across the country. As such, Bangladesh can be divided into seven climatic sub-zones based on differences in a range of factors including rainfall, temperature, evapotranspiration and local seasonality (Rashid, 1991). **Figure 30** shows that the Project corridor is in the South Eastern Climatic zone and is characterized by heavy rainfall, often in excess of 2000 mm/year, as well as somewhat mild summers and cloudy, cool winters. Mean daily maximum temperature reaches 38°C – generally in the month of April, and mean daily minimum temperature may at times fall below 10°C – usually in January. Average humidity is relatively high, often exceeding 80%, and most rainfall occurs during the monsoon season. Fog is very common in winter, and the north-eastern region is considered to be the cloudiest part of the country.

The Study Area is characterized by heavy rainfall often in excess of 3,132 mm/year, as well as somewhat mild summers and cloudy, cool winters. Mean daily maximum temperature reaches 31°C – generally in the month of April, and mean daily minimum temperature may at times fall below 10°C – usually in January. Average humidity is relatively high, often exceeding 80%, and most rainfall occurs during the monsoon season. Fog is very common in winter, and the north-eastern region is considered to be the cloudiest part of the country (Rashid, 1991).

1987-2023 climatic data collected from Chattogram weather station (Bangladesh Meteorological Department, Dhaka 2023) and the analysis result reflect the expected South-eastern weather pattern as outlined in Table 16: Weather Pattern of South-Eastern Region of Bangladesh.

Table 16: Weather Pattern of South-Eastern Region of Bangladesh

Description	Chattogram
Average Annual Maximum Temperature (1987-2023)	34.2(°C)
Average Annual Minimum Temperature (1987-2023)	19.4(°C)
Average Annual Rainfall (1987-2023)	3,132 mm
Average Annual Relative Humidity (1987-2023)	78%

Temperature – The highest average recorded temperature in this weather station was 34.95°C in May. The lowest average recorded temperature was found in the month of January which was 11.32°C. Both average monthly temperature graphs show that this area faces high temperature from April to September and lowest temperature during winter from December to February in the year. **Figure 31** shows the monthly average, maximum and minimum air temperature of Chattogram. As temperature record shows, April is the warmest month. Although in short spell, there exists a winter season in Bangladesh from November to February.

Rainfall -. **Figure 32** shows that July is the wettest month according to records with average rainfall of 726.3 mm. No or minimum rainfall were recorded during the months of November, December and January. About 88% rainfall occurs during the period from May to October; which about 36% pours during June – July.

Rainfall shows significant variation across the year in the project area and May, June, July, August, and September generally show the highest monthly average rainfall. The rainfall data collected from the above stated station represents that maximum rainfall occurs during June to September and the lowest rainfall occurs in November to February during winter season. Statistical data of 1987 to 2023 shows that Chattogram station experienced more than 750.46 mm rainfall during monsoon. In the month of December and January during winter season, around 6.46 mm rainfall occurred in the region of Chattogram weather station.

Humidity remains high in summer and comparatively low in winter season. The statistical data of humidity from 1987 to 2019 indicates that humidity in the Chattogram Station area maximized in June to September in the year which ranges from 82% to 85%. On the other hand, humidity falls around 70% in January, February, and March during the winter season in the considered station area **Figure 33**.

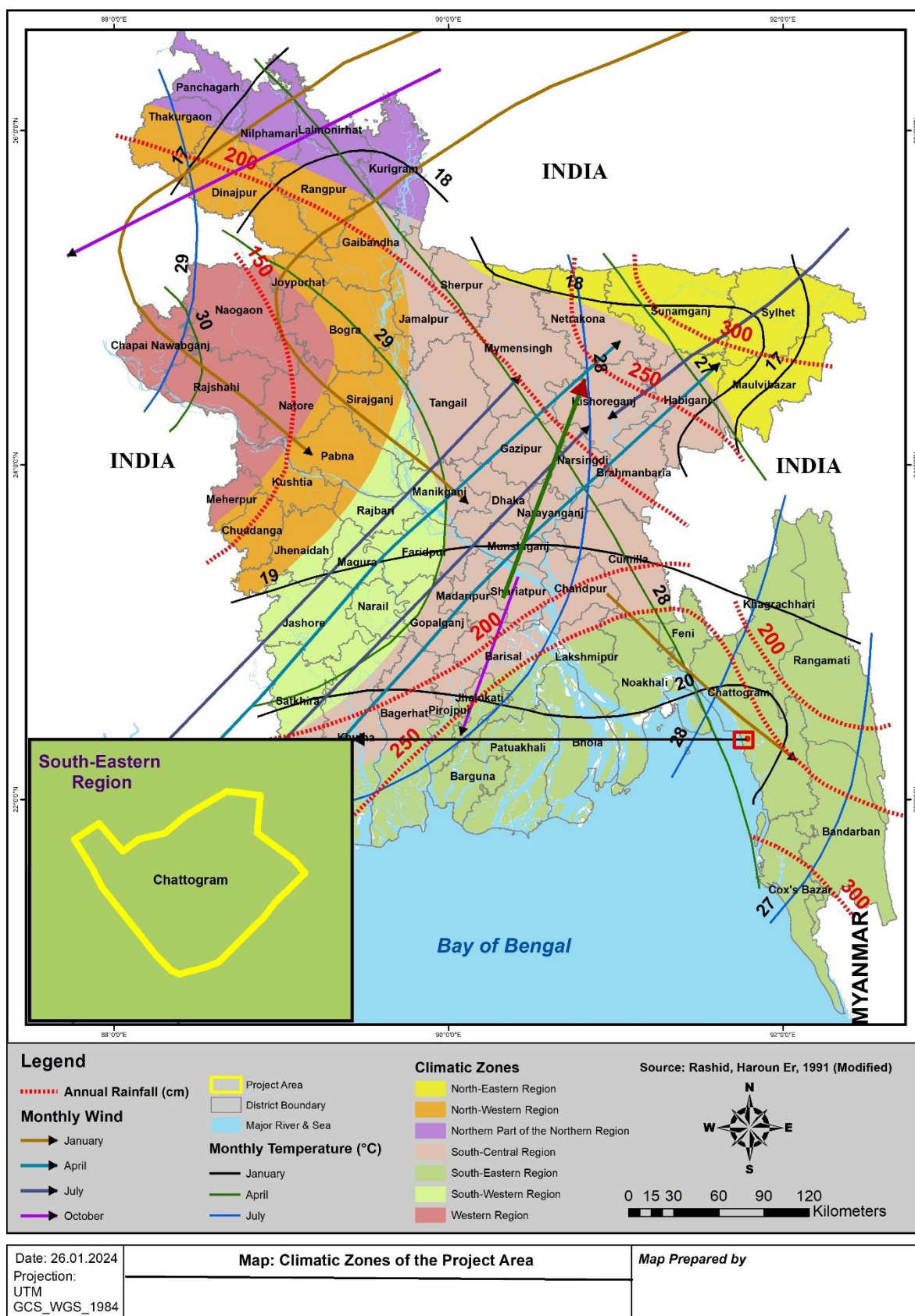


Figure 30: Climatic Sub-regions of Bangladesh

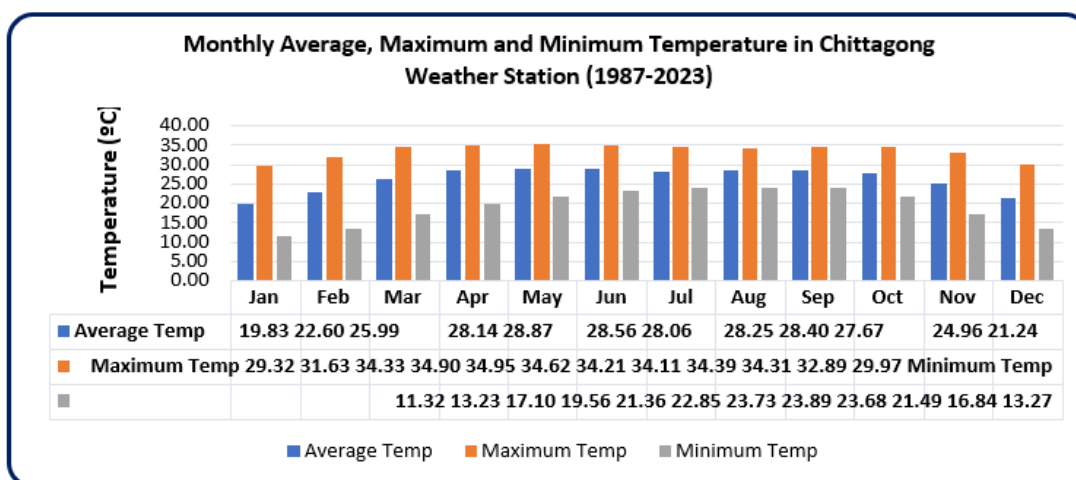


Figure 31: Monthly Average, Maximum and Minimum Temperature of Chattogram Weather Station

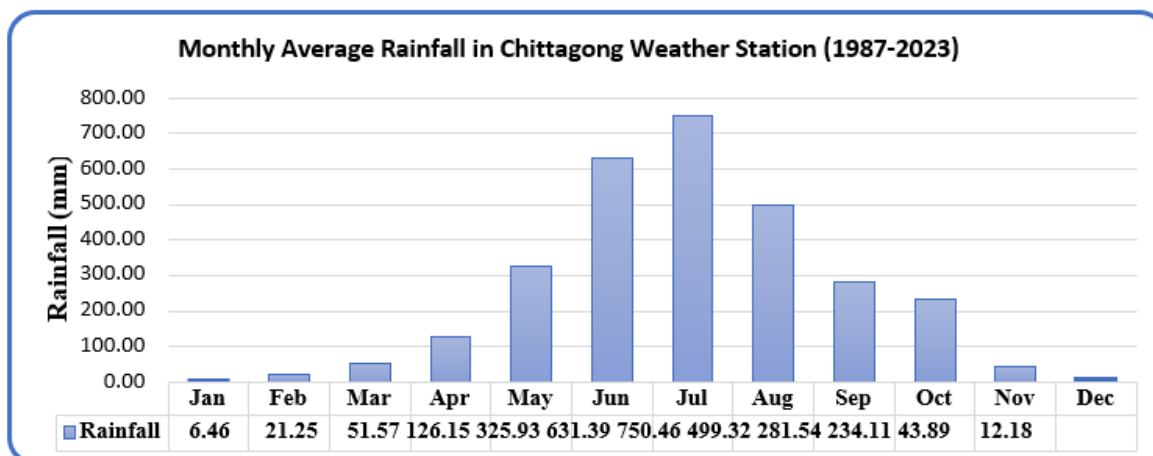


Figure 32: Average Monthly Rainfall of Chattogram Weather Station

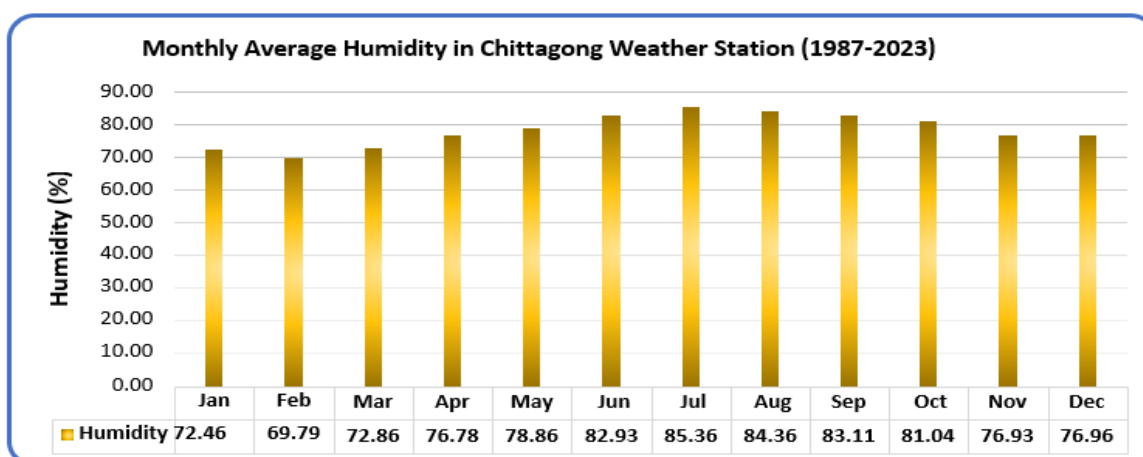
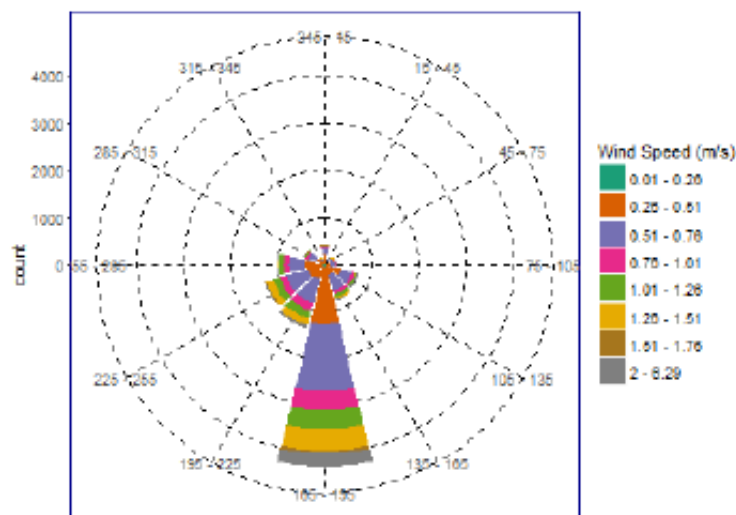


Figure 33: Average Monthly Relative Humidity of Chattogram Weather Station

Wind could be the biggest and most influential weather factor. So it is extremely important to know the direction and velocity. The Wind Rose model is used to understand wind factors. Monthly prevailing wind data (wind speed and wind directions) were collected from Chittagong substations for the years (2010-2023) to determine the distribution of wind force within the study area. These data were then used to formulate the wind rose (**Figure 34**) which provides an overview of prevailing wind condition within the survey area

a) Monsoon



b) Winter

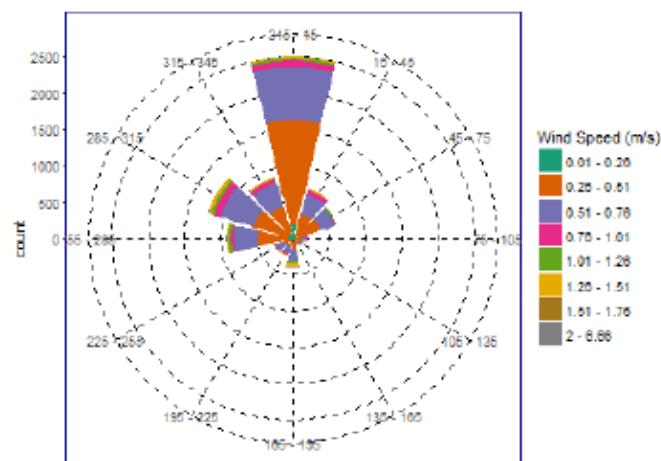


Figure 34: Windrose diagram of the Study area during Monsson and winter



4.2.2 Topography

Nearly 12.5 percent area of Bangladesh in north northeast and south-southeast regions is hilly, 8.5 percent in the north centre and Northwest is flood free terrace land and 79 percent area is level land prone to seasonal inundation to variable depths. Topography of the eastern hill region is steeply dissected uplands with valleys between the hills that slope towards the west. The relief of the valley area has changed with time due to gully erosion and due to human interventions e.g., clearing of vegetation for agriculture, land filling settlements, development of commercial, socio-cultural structures, digging of ponds for storing water, and urbanization.

The rivers and creeks that drain the eastern hill region shed water through the project area. Impact of shifting cultivation on hill slopes can cause gully erosion, the erosion products ultimately get deposited in rivers and channel bottoms affecting depth and duration of flood in coastal plains and valleys.

The physiography is the form of the earth's surface. In Bangladesh this may be classified into three distinct physiographic regions (a) floodplains, (b) terraces, and (c) hills. Each physiographic region has unique distinguishing characteristics. The three main physiographic regions can be further subdivided into 24 sub-regions and 54 sub-units.

Figure 35: a Digital Elevation Model (DEM) of Bangladesh based on a 300m grid. From the DEM, topography of the project area slightly undulating, with different ranges of elevation level is in between 12-40m from sea level.

4.2.3 Geological Features

Geologically, the proposed study area falls within "Tipam sandstone" (**Figure 36**).

The Tipam Sandstone formation, about 1.2 km to 2.5 km thick, is dominantly composed of medium grained sandstone frequently cross bedded, with little shale and this indicates deposition under a river environment.

The general soil types of the study area is predominantly include the Grey Piedmont soils (**Figure 37**). This type of soil occurs extensively on the northern and eastern Piedmont Plains and locally on the Chattogram coastal plain. They have been formed in the out-wash alluvium at the foot of hills, having a cambic B-horizon which has a grey matrix and is medium or very strongly acid in reaction. They are mainly included in Dystric or Eutric Gleysols.

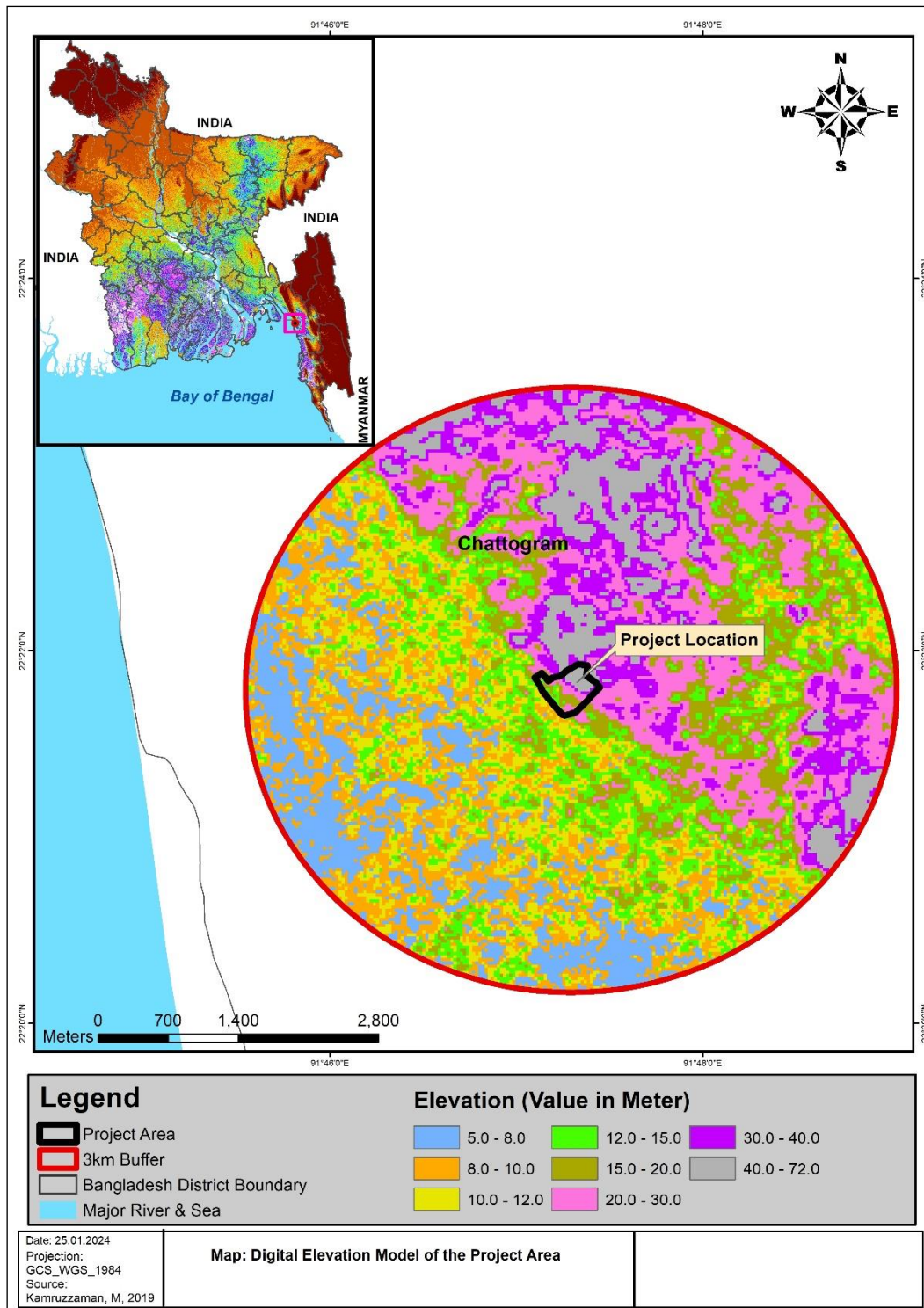


Figure 35: DEM of the Study area of PTHM

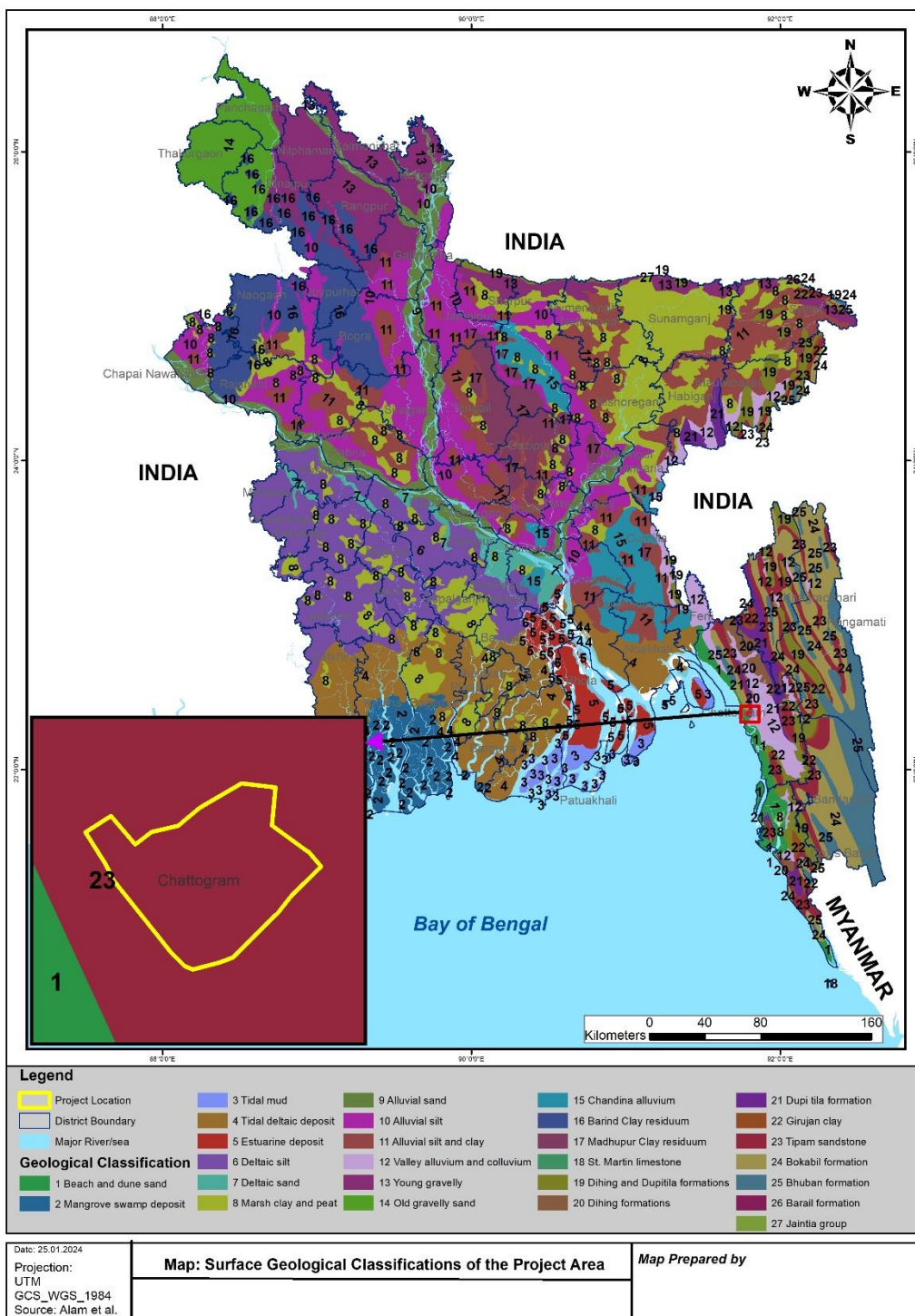


Figure 36: Geological Units of Bangladesh Showing the Project Area

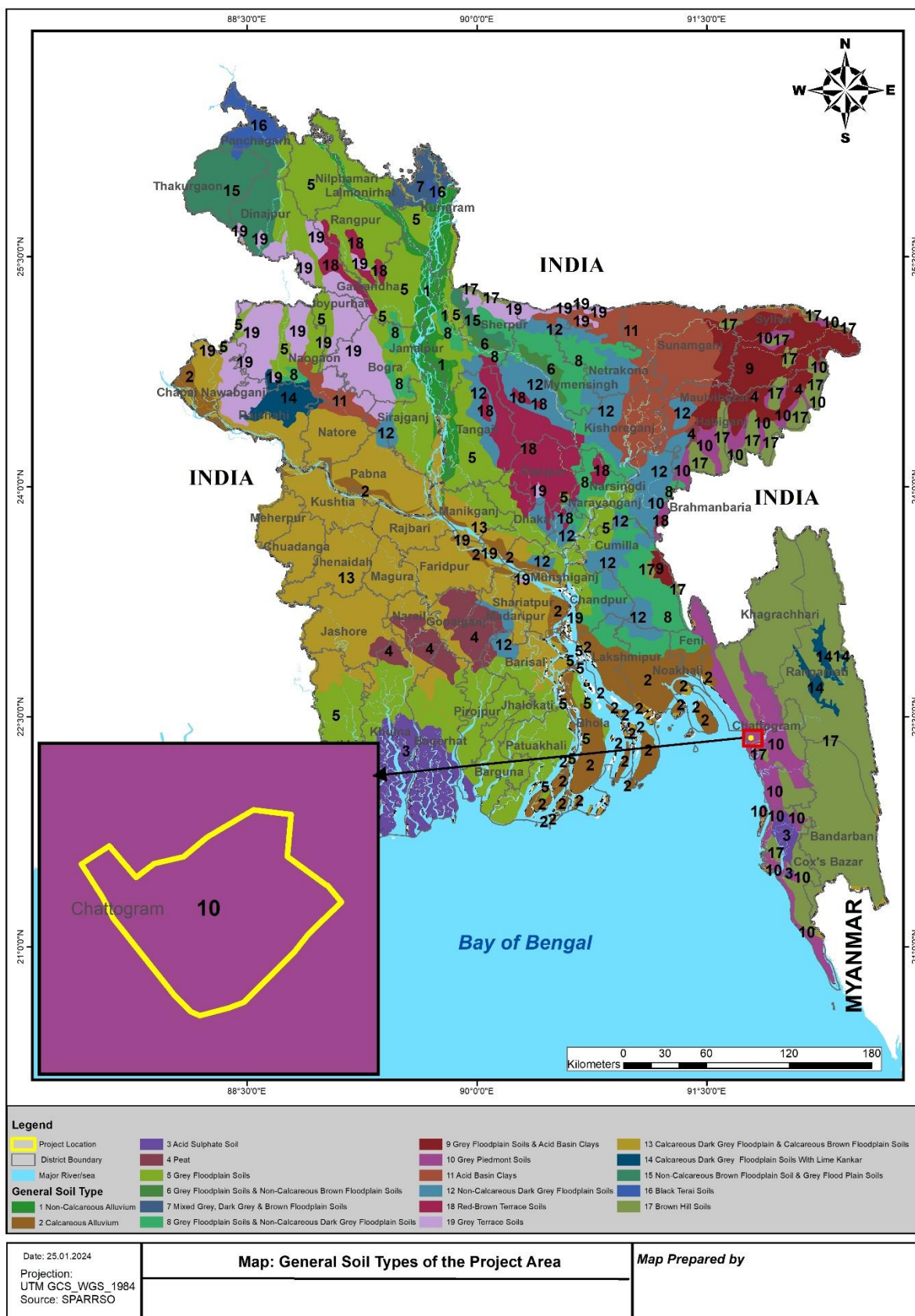


Figure 37: Soil Characteristics of the Proposed PTHM site



4.2.4 Tectonic

Bangladesh is situated in one of the most tectonically active regions in the world. Here is where three major plates meet (the Indian Plate, the Tibet Sub-Plate, and the Burmese Sub-Plate). The project area is located over the Indian Plate, which is moving north. However, due to the location of relevant plates, fault lines and hinge zones.

Tectonically, the proposed location falls in the folded belt unit. Folded Belt represents the most prominent tectonic element of Bengal Foredeep with general sub-meridional trending hills parallel to the Arakan Yoma Folded System. Folded belt extends within Bangladesh for 450 km (N-S) and about 150 km wide covering an area of 35,000 sq km of on-shore area. A large number of narrow, elongated N-S trending folds of the eastern part of Bangladesh (Sylhet and Chittagong Divisions), Tripura, southern part of Assam, Mizoram and Myanmar territory adjacent to S-E of the Chittagong Hill Tracts occupy the Folded Belt west of the Arakan Yoma Folded System. The folds are characterized by ridge forming, box-like in cross section, high amplitude with variable width and lie en-echelon with the adjacent structures. The elevation of these elongated anticlinal folds in Bangladesh ranges from 100 -1,000m. Some of the structures are faulted and thrust and the intensity of folding increases gradually from west to east. Consequently, the structures of the eastern part are tightly folded, faulted and thrust with narrower synclines between them. However, it is strongly recommended to follow existing BNBC standards during construction.

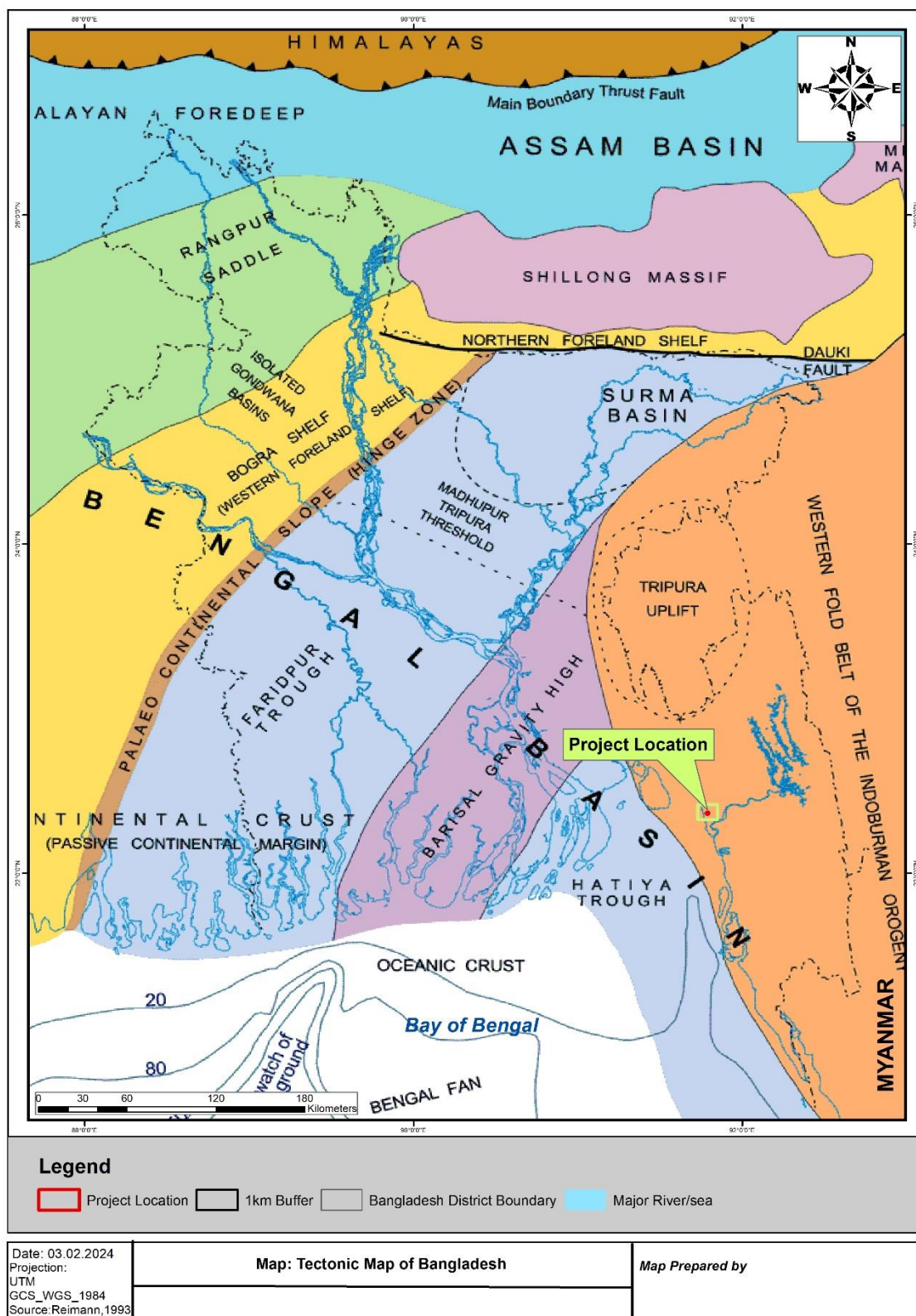


Figure 38: Tectonic Map of Bangladesh

4.2.5 Water Resources

Hydrological environment of the study area includes water bodies, canal and river system. The major rivers of this region are: Karnaphuli and its tributaries which is 6.28 km near to study area. Bay of Bengal (Dakshin Kattali Sea Beach) is 3.8 km far from project location. The nearest local stream is 1.6 km away, whereas, the foy's lake is the closest waterbodies, which is 0.60 km away from the PTHM site. **Figure 39** shows the major waterbodies around of the project corridor.

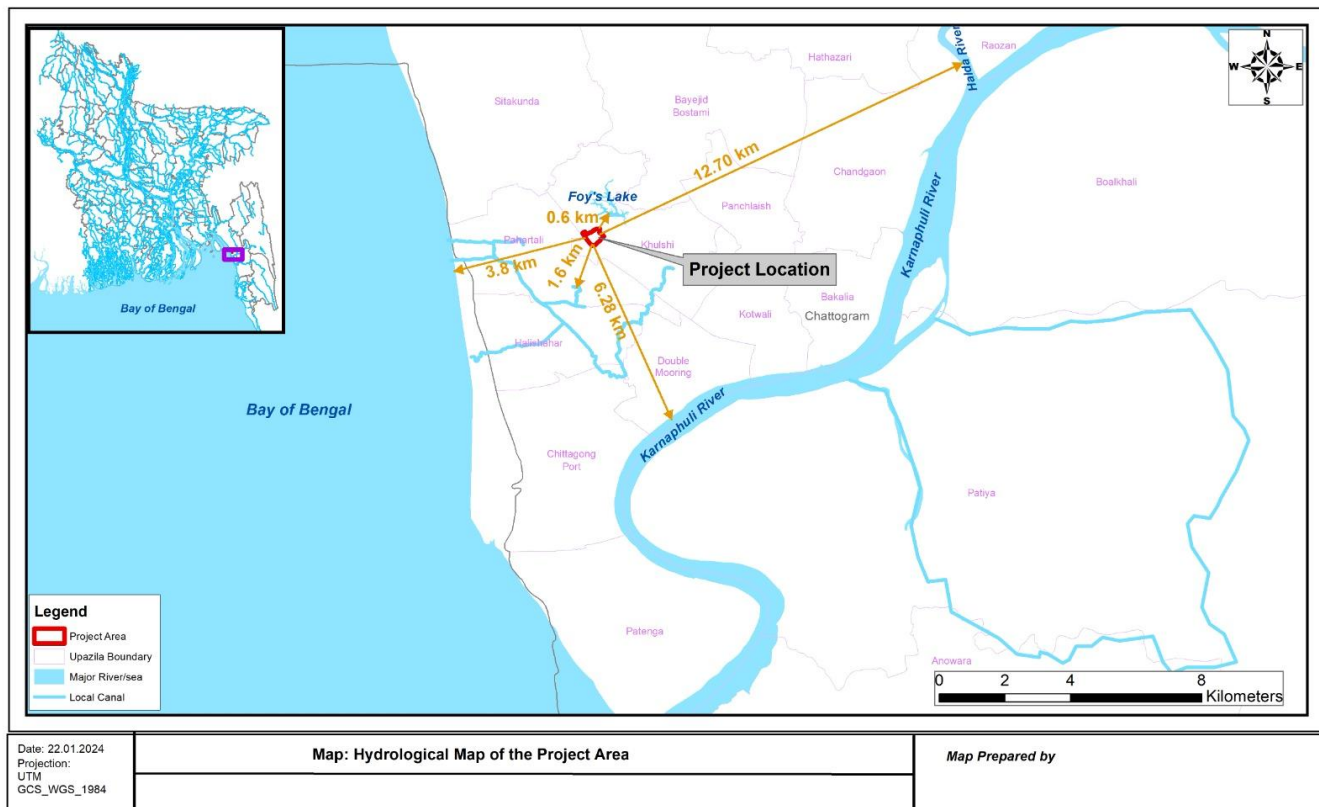


Figure 39: Surface Water Bodies around the project site

Table 17: Name of the Major River/ Sea around the project area

SL. No	Name	Distance from Project Location
1.	Bay of Bengal	3.8 km
2.	Local Cannel	1.6 km
3.	Karnaphuli	6.28 km
4.	Halda	12.70 km
5.	Foy's lake	0.60 Km

The groundwater level fluctuates seasonally, approaching the ground surface at some places from July to September. Groundwater is usually replenished each year during the monsoon season when rain and floodwater find their way into the aquifer slowly percolating down

through overlying soils and sediments. Local communities along the project corridor mainly relies on groundwater for potable supplies that is also an important source for industrial uses. Groundwater is also used for washing, bathing purposes in the project area.

Groundwater data of GT 1557017 (nearest to the project site, about 1.5 km away) is collected from BWDB for the period of 2021 to 2024 and analyzed to understand the status of groundwater availability in and around the study area. **Figure 39** shows the monthly variation of groundwater depth in the above-mentioned station. According to the figure, groundwater in the study area usually starts to deplete at later stages of monsoon (middle September) and continues up to end of March. Thereafter, with the beginning of monsoon, it starts to increase due to aquifer recharge. Groundwater table fluctuation indicates the recharge and discharge to the groundwater reservoir. The highest groundwater table occurs during the month of August-September when the aquifer recharges fully and the surface water level and groundwater table merges.

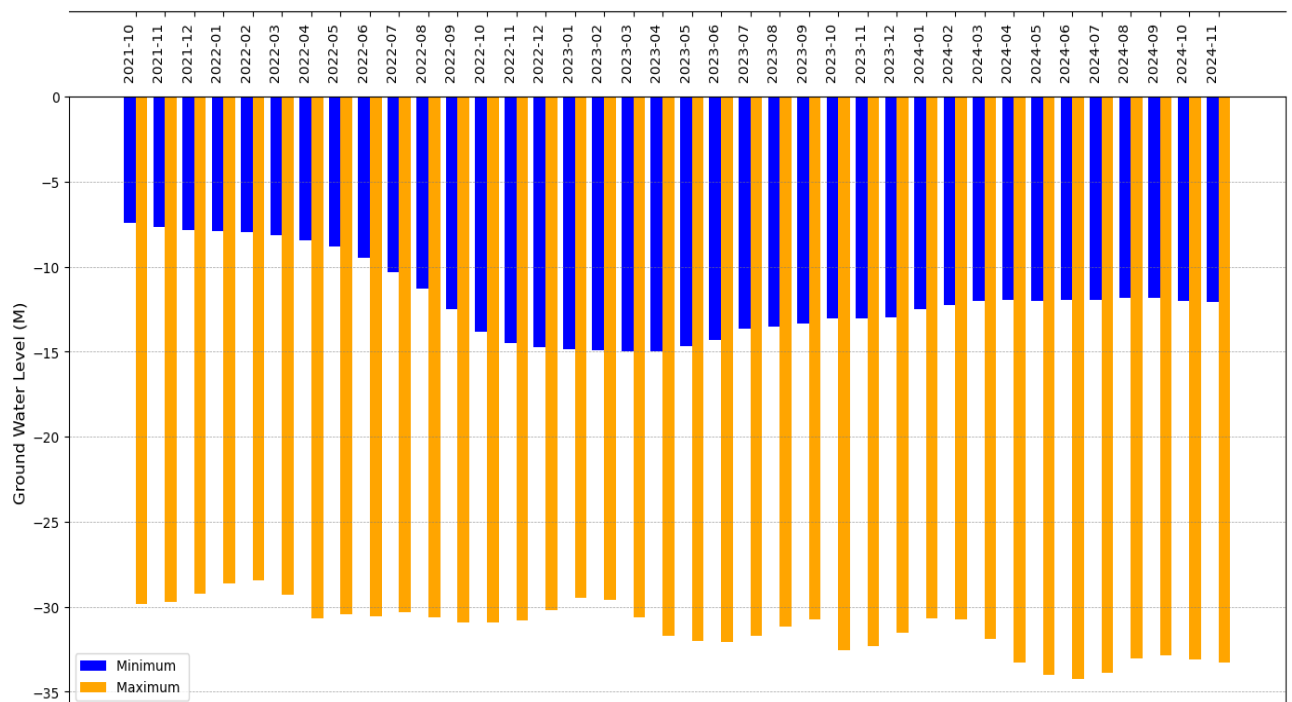


Figure 40: Average Monthly Ground water level

4.2.6 Air Quality

Air pollution due to enhanced anthropogenic activities has become an important environmental concern globally as well as in Bangladesh particularly highly industrial concentrated areas, in view of its adverse health effects. Air quality is mainly characterized by the presence of criteria pollutants in the ambient environment. The major criteria pollutants are Particulate Matter (PM₁₀ and PM_{2.5}), NO₂, CO, SO₂ and Ozone (O₃). DoE has also set national ambient air quality standards for these pollutants in APCR, 2022. However, particular matter especially PM₁₀ and PM_{2.5} are the main concerning issues at present in the cities of Bangladesh, including Chittagong. Moreover, this project will more sensitive to the emission of particulate matter, particularly during operation period.

Air quality monitoring was carried out at four (04) locations at the project corridor on February 2024 for 24 hours. Results of the air quality monitoring at the locations have been shown in



Table 18. The sampling locations were selected to ensure a representative value of the local air quality. WBG EHS/WHO Air Quality Standards 2021 and Bangladesh national standards for ambient air quality are followed for the air quality analysis. The key air quality parameters (particulate matter- PM10 and PM2.5, oxides of sulfur - SO_x, oxides of nitrogen – NO_x, carbon monoxide- CO, Ozone-O₃ and SPM) were analyzed from samples collected at each sampling sites. The measurement results showed achievement of all air quality standards for national but failed to meet the WBG EHS/WHO Air Quality Standards 2021 for some parameters. Based on the ambient air quality standard of DoE, air quality in the project areas can be stated as in good condition. Particulate matter PM2.5 value was 50 and PM10 value was 85 which are far below the DoE standard

Table 18: Air Quality Monitoring Results

Location	SPM	PM10	PM2.5	NO _x	CO	SO _x
AQ1- North Side, (construction site)	165	90.3	60.2	61.4	0.62	159
AQ2- South Side (generator site)	178	105.2	62.6	71.3	0.49	172
AQ3- West Side	169	56.5	42.8	47.3	0.45	144
AQ4- East Side	173	42.40	38.4	43.2	0.25	132
Units	µg/m ³	µg/m ³	µg/m ³	µg/m ³	ppm	µg/m ³
Air Pollution Control Rules,2022	200	150	65	80	1.67	80
WHO/ WBG EHS Standard, 2021		45	15	25	4	40
Source: Date of Sampling: February 2024 for ESIA and SPM by DoE,2024 All the data was calculated for 24 hours.						



Figure 41: Ambient Air and Noise Quality sampling activity Picture

4.2.7 Ambient Noise Level

Excessive noise is a potential issue for both human and biological receivers and can cause a range of negative issues, from mild annoyance and moderately elevated levels of aggression to significant disturbance of behavioral patterns and in severe cases temporary or permanent hearing loss. According to World Health Organization's Guidelines for Community Noise (1999), daily sound pressure levels of 50 decibels (dB) or above can create discomfort amongst humans, while ongoing exposure to sound pressure levels over 85 dB is usually considered the critical level for temporary hearing damage.

Three primary sources of noise have been identified in the project area:

- **Industry:** The project area is generally known as industrial zone where several industries and factories are located. Noise is generated from these industries and manufacturing factories in the project area.
- **Commercial Areas:** There are some commercial or refreshment areas where significant number of people gather. This is another source of noise pollution



- Road traffic is one of the major noise sources in the project area. The project road is the only route of transportation to and from the largest sea port of Bangladesh. This highway carries a relatively high volume of both motorized and non-motorized vehicles, resulting in road traffic noise impacts along the road corridors.

Ambient noise level during day time was measured at around the proposed Project site. Since the Project site is located within industry, the project site has been considered as industrial areas. Four sampling locations have been monitored for addressing the present noise level at the project site. All the collected noise data were collected and compare them with the Bangladesh standard limit (Noise Pollution Control Rules, 2006) and international standard (IFC, 2007).

During the monitoring, vehicular movement and construction activities were recorded around the monitoring sites. The result of the sound level survey has been tabulated in Table 4.6 shows that, sound level found within the permissible limit of industrial area during day time and night time.

Table 19: Ambient Noise Level at PTHM

Monitoring Location	Measured Noise Level (LAeq) dBA	
	Day time	Night time
AN1- North Side, (construction site)	70.7	52.6
AN2- South Side, (generator site)	76.1	60.4
AN3- West Side, of Captive Power plant	73.6	67.8
AN4- East Side, of Captive Power plant	74.1	68.8
Bangladesh Standard according to the Sound Pollution (Control) Rules-2006		
Industrial Area	75	70
Commercial Area	70	60
Mixed Area	60	50
Residential Area	55	45
Source: Date of Sampling: February 2024 for ESIA		

All the collected noise data were collected and compare them with the Bangladesh standard limit (Noise Pollution Control Rules, 2006) and international standard (IFC, 2007). The noise in generator room found higher than the DoE standard. However, it is recommended to provide earplugs to workers of those places to avoid occupational health hazard in the highly noise area.

4.2.8 Ground Water Quality

Two groundwater samples were collected by Department of Environment in April 2024 and analyzed by DoE laboratory. The water quality analysis report has been tabulated in Table 20. All the parameters analyzed for the groundwater samples were found to be within the corresponding drinking water limits set in the ECR, '23 and WHO guidelines.

Table 20: Results of Drinking water samples

Parameters	Concentration GW 1	Concentration GW 2	Drinking Water Standard (ECR, 2023)	WHO Standard for Drinking Water	Unit
pH	6.94	7.81	6.5 – 8.5	6.5 – 8.5	-
Chloride	34	29	250	NF	mg/l
SS	1	1	10	NF	mg/l
PO4	2.77	2.70	-	NF	mg/l
NO3	1.4	1.9	45	NF	mg/l
As	ND	ND	0.05	0.01	mg/l
Fe	0.03	0.35	0.3-1.0	0.3	mg/l
Hardness	19	17	500	NF	mg/l
Turbidity	0.4	0.3	5	0	NTU
Total Coliform	Absent	0	0	0	MPN/100ml
Source: Drinking water analysis result at DoE, April, 2024					

4.2.9 Land Use Pattern

A land use classification map is prepared based on google earth image classification and field observation and presented in **Figure 42**.

The present land use pattern of the PTHM and 1 km buffer area is classified based on satellite image classification and field study. According to field data of the study region, that households and other commercial structure land use dominates the study region, accounting for about 58%, of total land uses. The second most important land use is vegetation, which covers 20%. The barren land use account for 13% of the study area. There exists waterbodies and road network cover 8% and 1.65 % respectively. At present, the expansion of PTHM plot is currently a piece of high land with ground level elevation of 12-40 m MSL.

Table 21: Landuse within 1km Buffer of the PTHM

Land Type	Area (Acres)	Percent (%)
Road	14.45	1.65
Waterbody	70.3	8.02
Structure	506.75	57.80
Vegetation	170.83	19.49
Barren Land	114.37	13.05
Total	876.7	100.00

Source: Google Earth and field observation, 2024.

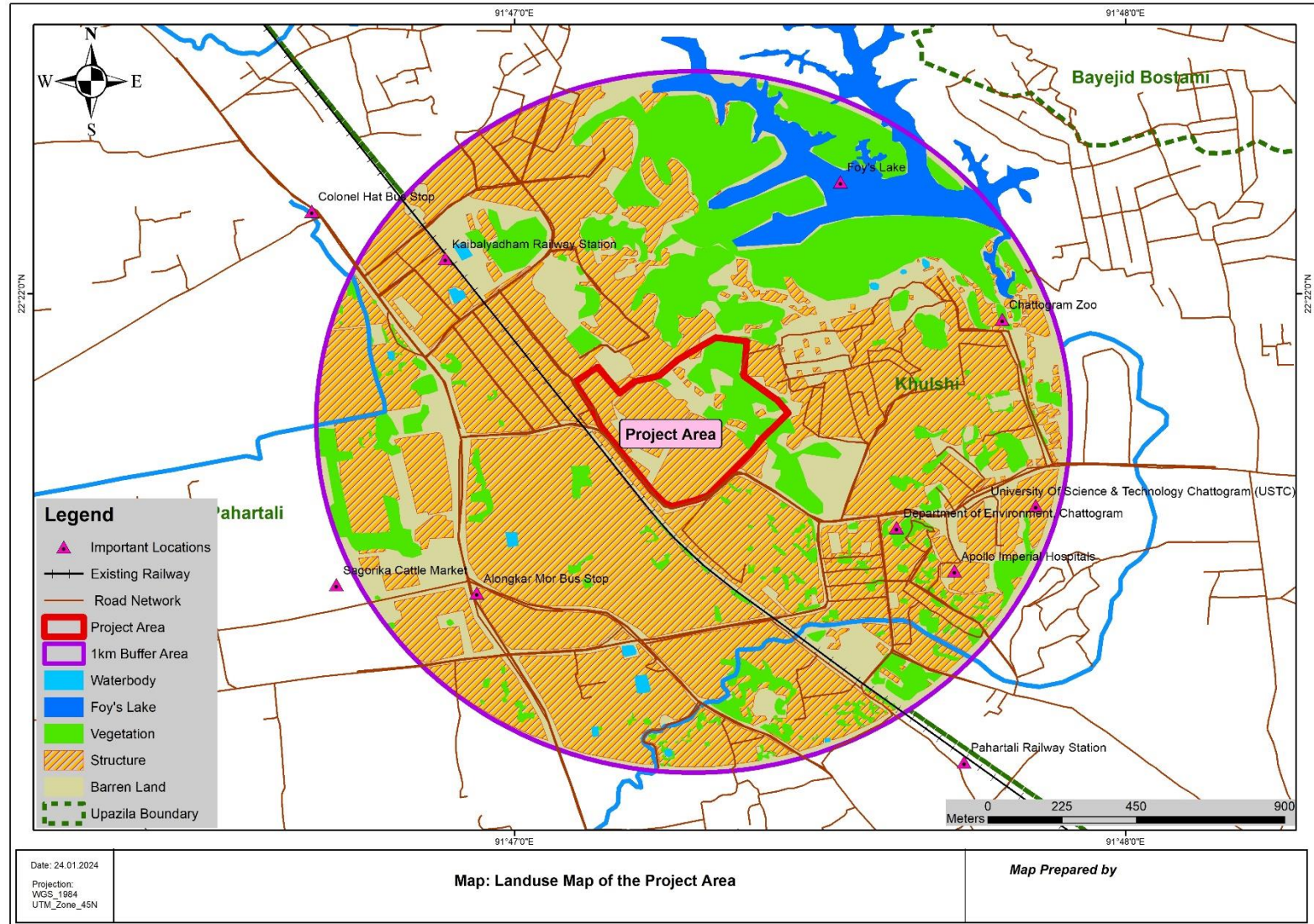


Figure 42: Land Cover Maps of the PTHM study area



4.2.10 Cyclone

Bangladesh suffers from devastating tropical cyclones frequently due to its unique geographic location. The funnel-shaped northern portion of the Bay of Bengal causes tidal waves when cyclones make landfall which affect thousands of people living in the coastal areas. Some of the most devastating natural disasters in recorded history with high casualties were tropical cyclones that hit the region now forming Bangladesh (Wikipedia, 2015). The project area falls under cyclone high-risk zone (Figure 43). However, from the analysis of the major cyclone track, no major cyclone hit the project study area, but due to its geographic location, severe to moderate flash flood occurs in the project area during monsoon or cyclone events Figure 44.

4.2.11 Flood and Flash Flood

As per the flood study findings, the PTHM study is situated in a relatively high area. According to the people living around the study area, during the most recent cyclone Roanu in 2016 and Mora in 2017, storm surge did not flood the area, but most of the study area was flooded up to 3 to 5 feet. The deadly cyclone of 1991 made landfall in Chattogram with a surge height of 3.66-6.71m. Back then the area was not up to the mark of present state, but a huge portion of the study area was inundated badly (Source: Mathematical Model Study Report, 2020).

Flooding normally occurs during the monsoon season from June to September during the monsoon. According to the information from people near the project site, this area is not affected by flooding. Recently (last 10 years), there is no record of waterlogging as well. The project area is also affected by Easterly Wind and lightening. Flooding normally occurs in Bangladesh during the monsoon season from June to September. The local people informed that, there is no record of flooding in the last 20 years. A map illustrating the flood prone area of Bangladesh is given in the following Figure 44: Major Cyclonic storms from 2000 to 2023 in Bangladesh

From this map it can be suggested that the project is located at located at “No Flood Zone” area. There is a creek flowing adjacent to the east side of the project boundary, which will enhance the drainage condition of the entire project area and minimize the chance of flooding and water logging.

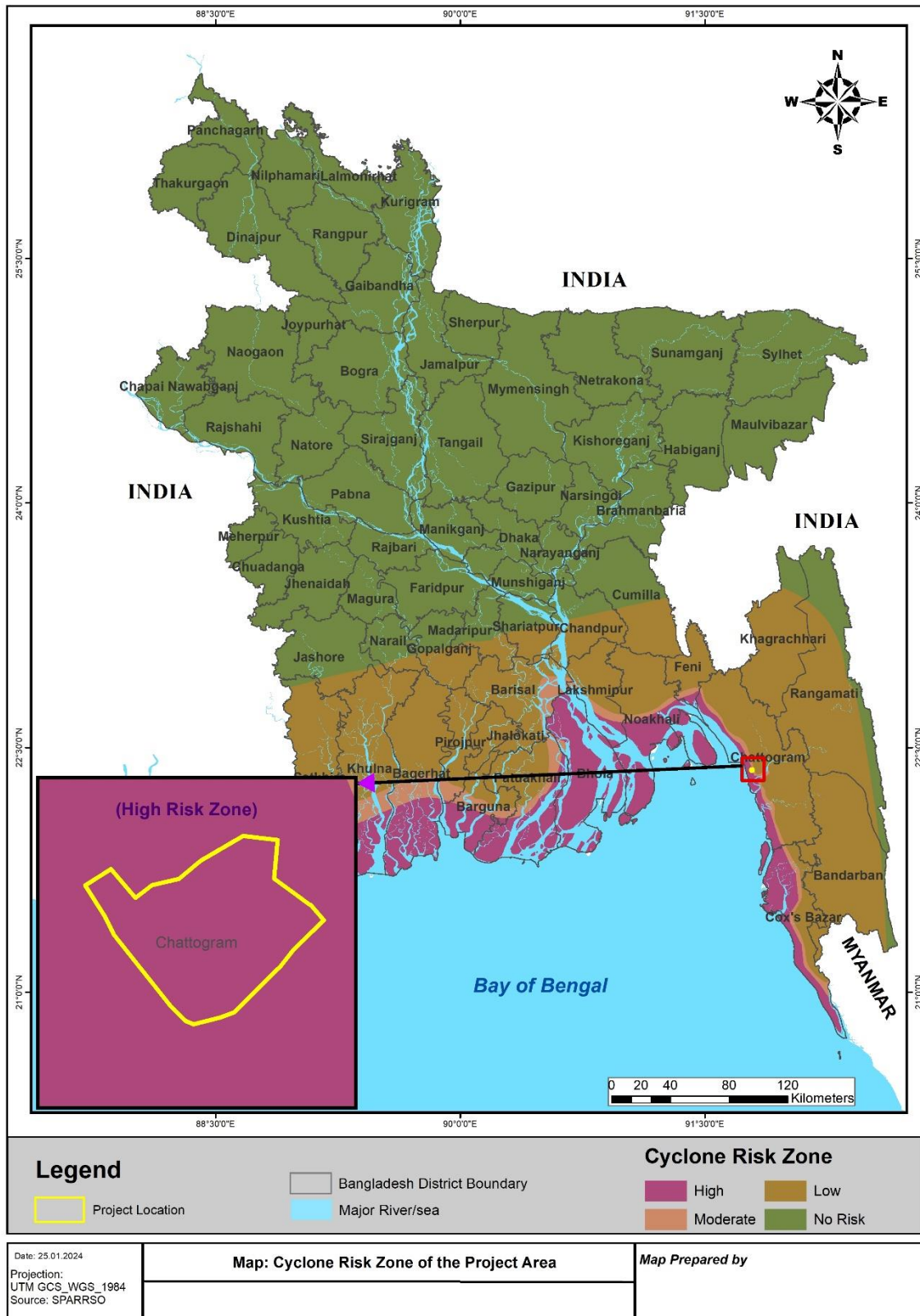


Figure 43: Cyclone Risk Zone the proposed PTHM project site

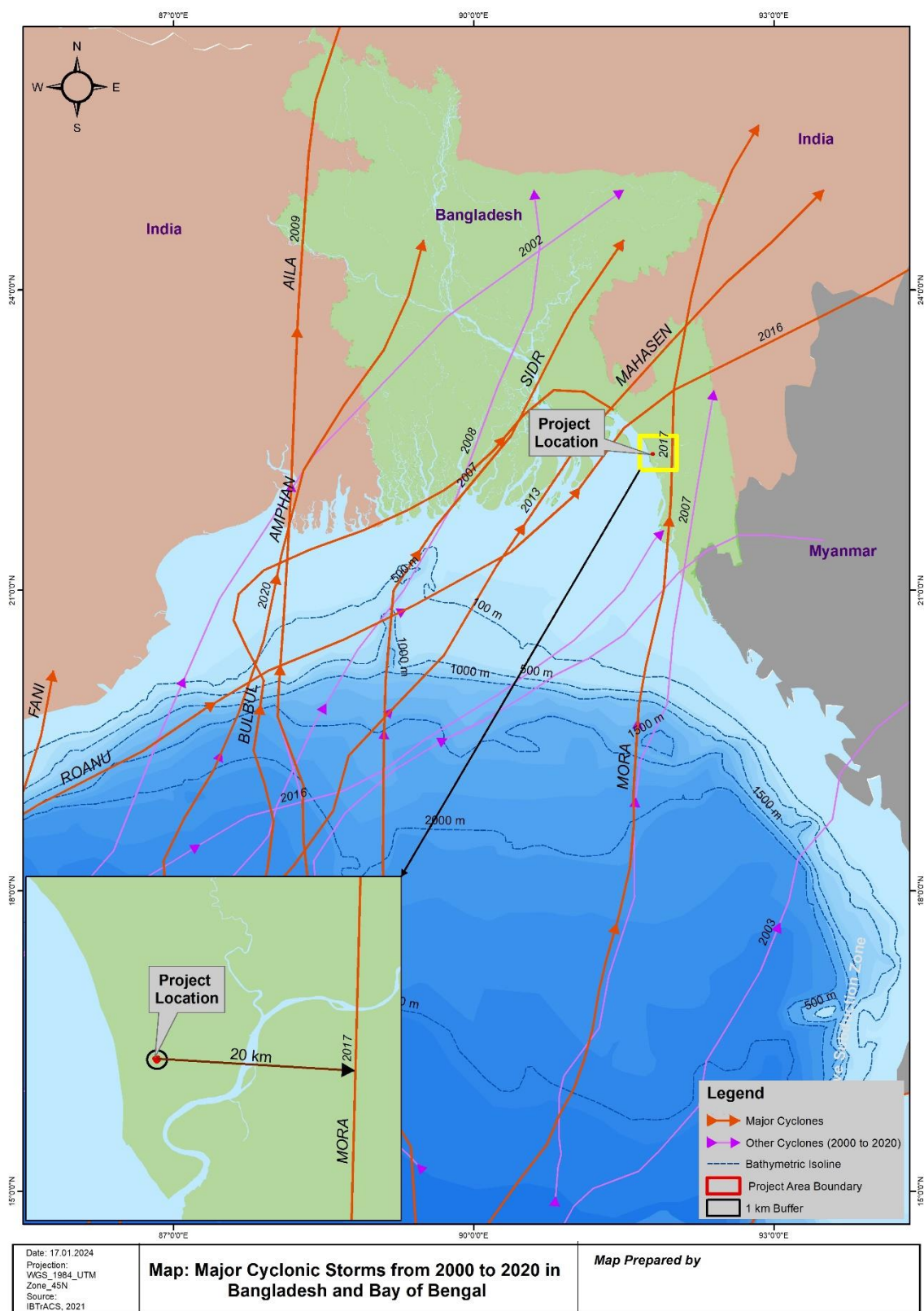


Figure 44: Major Cyclonic storms from 2000 to 2023 in Bangladesh

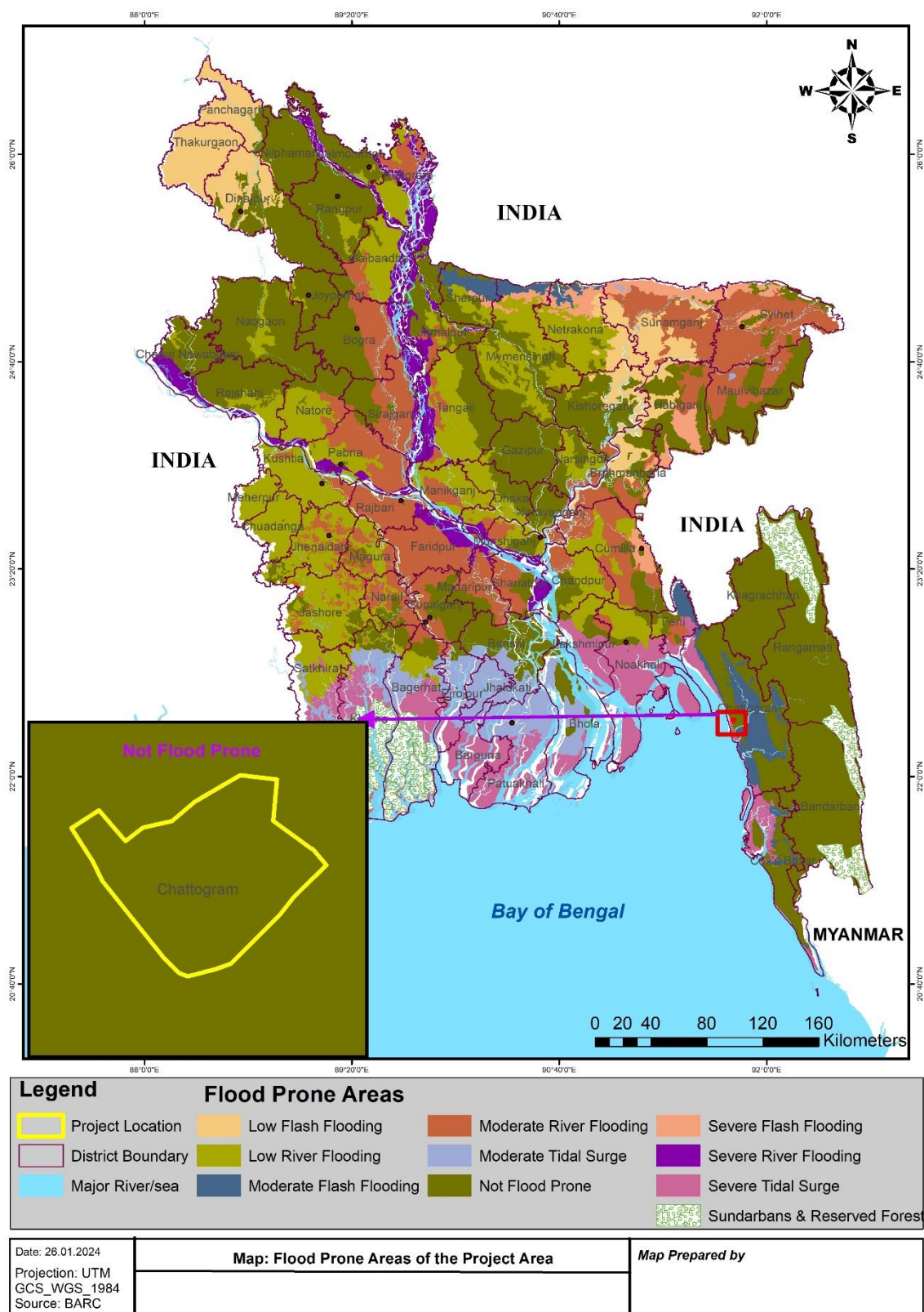


Figure 45: Flood risk Mapping of the proposed PTHM project site



4.2.12 Earthquake

The expansion of PTHM should have safe distance from active fault. The nearest major technical fault is “Chittagong-Myanmar fault” which is located around 20 km away from the project site (Figure 46). Historically, multiple earthquakes with magnitudes ranges between 2 and 6 were reported close to the proposed project (Table 22).

According to the BNBC (2015), Bangladesh is divided into four classes as earthquake zone I, II, III and IV. It worth mentionable, those zones represent major damage zone, moderate zone, minor zone and negligible zone. According to the classification, proposed location lies in seismic zone III (seismic co-efficient: 0.28) i.e., moderate zone (Figure 47). The area may be considered as moderately venerable to seismic hazard. However, the area is in a close vicinity of the Teknaf- Sitakund Fault and on the same alignment’ as such adequate geo-tectonic and seismic study should be carried out on the project area before finalizing the design. It is recommended that the design of all the structures of the project should follow the Building Code of Bangladesh.

Table 22: The Regional Earthquake History of Bangladesh for Last 450 Year

SL	Year	Source Area	Magnitude (Richter Scale)	Depth (Km)
1	1548	Sylhet	-	-
2	1664	Shillong-Plateau	-	-
3	1762	Chittagong-Arakan	-	-
4	1858	Sandway, Myanmar	6.5	-
5	1869	Cachar, India	7.5	48
6	1885	Sirajganj, Bangladesh	7	72
7	1897	Assam, India	8.1	60
8	1906	Calcutta, India	5.5	-
9	1912	Mandalay, Myanmar	7.9	25
10	1918	Srimangal, Bangladesh	7.6	14
11	1930	Dhubri, India	7.1	60
12	1934	Bihar, India-Nepal	8.3	33
13	1938	Mawlaik, Myanmar	7.2	60
14	1950	Assam, Himalaya	8.6	25
15	1954	Manipur, India	7.4	180
16	1975	Assam, India	6.7	112
17	1984	Cachar, India	5.7	4
18	1988	Bihar, India-Nepal	6.6	65
19	1997	Sylhet, Bangladesh	5.6	35
20	1997	Bangladesh-Myanmar	5.3	56
21	1999	Maheshkhal, Bangladesh	4.2	10
22	2003	Rangamati, Bangladesh	5.6	-
23	2011	Sikim, India	6.9	-

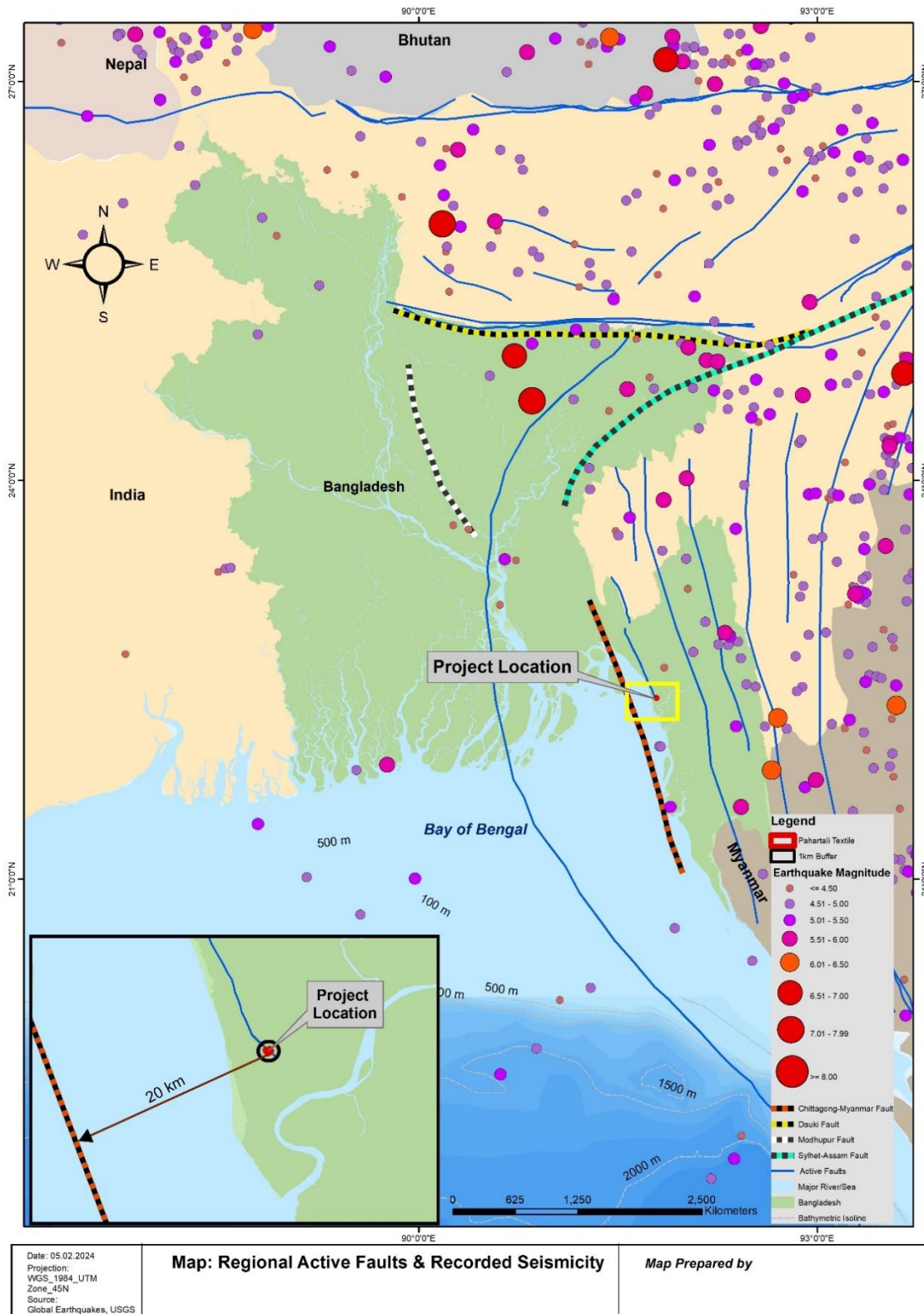


Figure 46: Regional Active faults and recorded seismicity

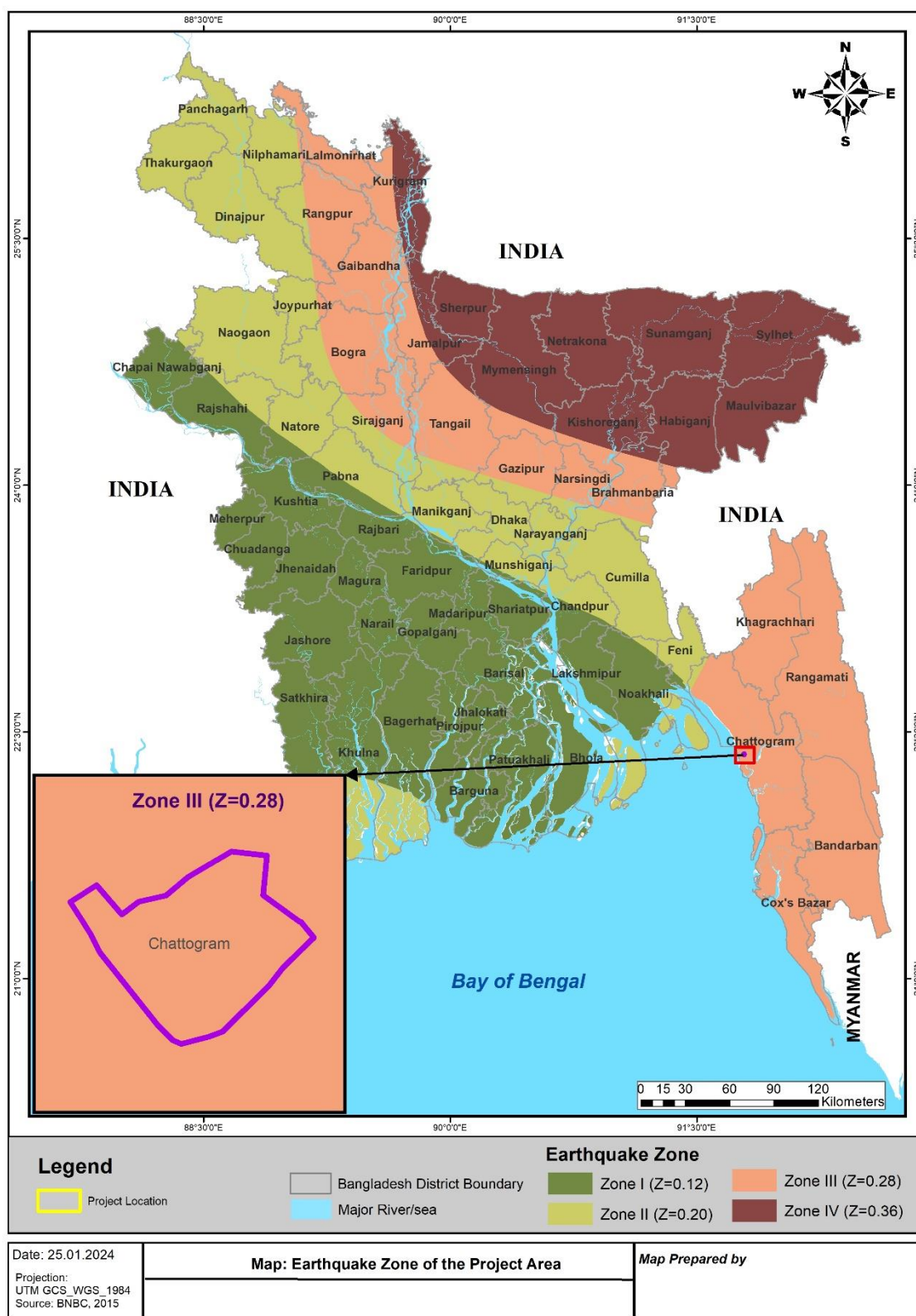


Figure 47: Location of the PTHM inside the Earthquake Zoning Map of Bangladesh



4.2.13 Landslide

Due to its geographical position and diversified terrain condition, Chittagong district is one of the hotspot areas for landslide hazard in Bangladesh. Each year, landslide events struck this area frequently—resulting in casualties, property damage, and economic loss. Notably, statistics of landslide occurrence indicate one conspicuous thing—there was always a certain time gap between two consecutive landslides in this area. However, surprisingly, in the recent past, the trend and frequency of landslides in this region are found to be increased within a short while, which were triggered by extensive rainfall. Like Dhaka, the capital city of Bangladesh, Chittagong is the second choice for settlement and/or employment among the people for playing a substantial role in the economic development of Bangladesh. Therefore, experts opine that the rapid population growth and eventually rapid urbanization fosters unplanned land use practices and obviously illegal hill cutting, which are the collective facts for enhancing the vulnerability of landslides in this locality. Under the circumstances, landslide intensity zonation using geospatial data (accurate both in scale and resolution) becomes one of the key prerequisites while dealing with the hazard assessment in the study area.

Landslide susceptibility zonation map from the study of “Utilization of Open Source Spatial Data for Landslide Susceptibility Mapping at Chittagong District of Bangladesh—An Appraisal for Disaster Risk Reduction and Mitigation Approach” is reviewed and the landslide susceptibility zonation map is adopted for PTHM proposed site, which is based on various classification schemes (a) natural break; (b) quantile and (c) equal area of Chittagong Metropolitan City. Previous landslide locations from a landslide inventory are shown as blue dots to validate the final outcomes. Among the administrative units Hathazari area exhibits maximum high hazard zones followed by Kulshi, Baizidbostami and Kotwali areas. In contrast, areas like Pahartali, Patenga, Bandar, Halishahar, Chandgaon, and Bakalia comprises very low to low hazard potential. So the location of the proposed PTHM site have very low to low landslide possibility (Figure 49).

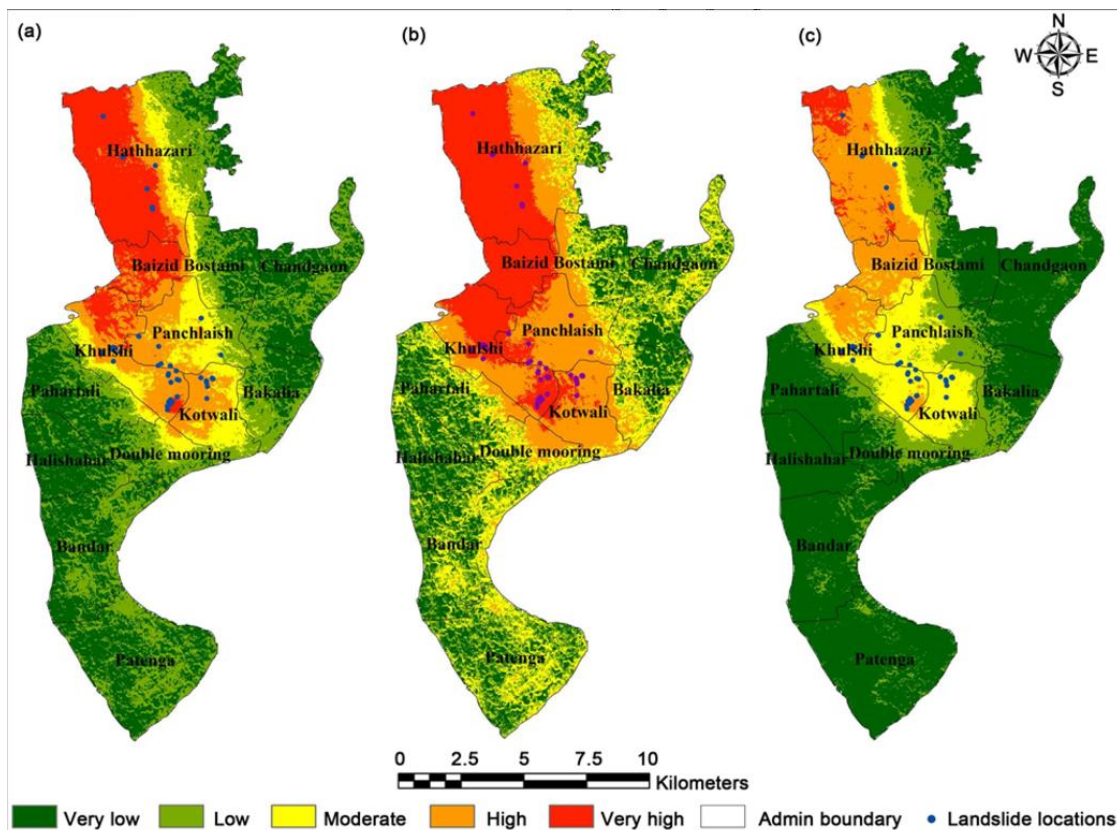


Figure 48: The landslide susceptibility zonation map based on various classification schemes (a) natural break; (b) quantile and (c) equal area of Chittagong Metropolitan City

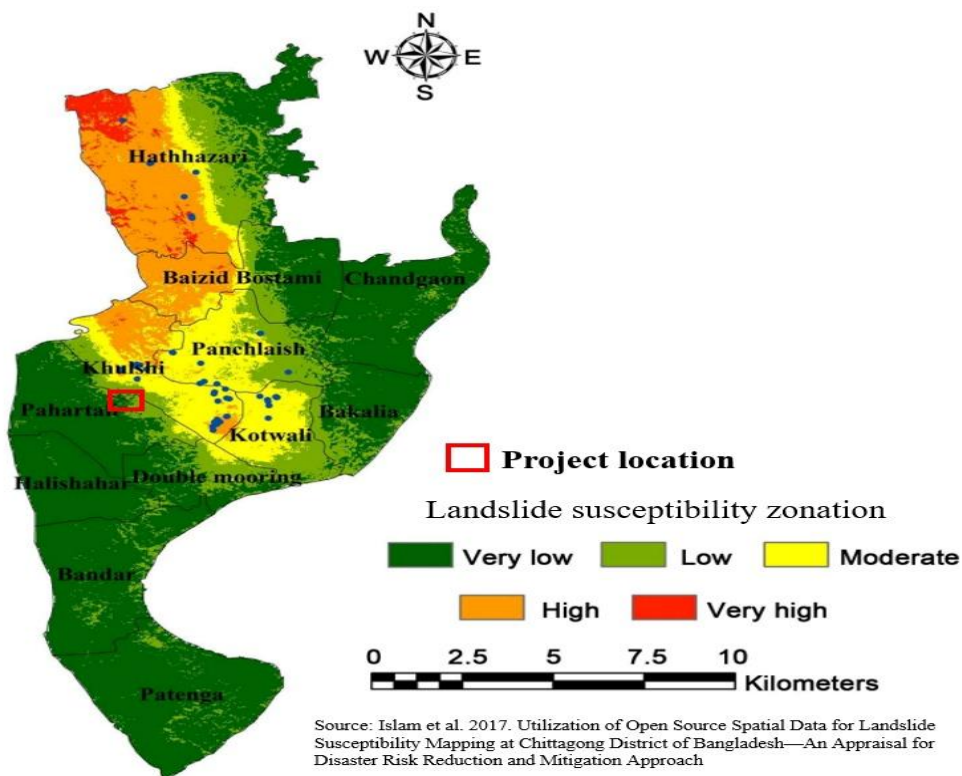


Figure 49: The landslide susceptibility zonation map and possibility of landslide in PTHM.



4.3 Ecological Settings

This section describes the baseline ecological settings which primarily focused on identifying the faunal and floral diversity and their abundance and distribution within and outside areas of the expansion of PTHM project site as well as their ecological status in Bangladesh. Potential impacts for the proposed project activities have been identified, evaluated, and described against these baseline situations in the relevant section of this ESIA report.

4.3.1 Bio-ecological Perspective

Bangladesh contains 25 bio-ecological zones, according to the IUCN. These zones are largely focused on physiography, climate, soil type, flooding depth, and biodiversity. These bio-ecological zones can be regarded as the country's principal ecosystems. The proposed project falls Chittagong Hills and the CHTS (**Figure 50: Bio-ecological Zone Map of Bangladesh** along with the PTHM site). This zone is composed of tropical evergreen and semi-evergreen forest. While the hills are not very high generally about 600m are rigged and often steep. These hill forests are the most important watershed areas of the country. The tropical evergreen and semi-evergreen forest are not very distinct, and are often intermingled and merged into one another in this zone. The majority of the species in the lower canopy are evergreen, and the upper canopy of the forest is deciduous type. Some of these deciduous tree species shed their leaves in the winter while other does it in the monsoon, so the forests appear evergreen. Tropical evergreen forest is found in the valleys of this zone. The predominant species are; Civit (*Swintonia floribunda*), Garjan (*Dipterocarpus Sp.*), Chapalish (*Artocarpus chaplasha*), Chundul (*Tetrameles nudiflora*), Telshur (*Hopea odorata*). In the lower canopy important species like the Pitraj (*Aphanamixis polystachys*), Toon (*Toonaciliata*), Nageshwar (*Mesua ferrea*), Uriam (*Mangifera sylvatica*) and various *Ficus* species can be found. The undergrowth is usually a tangle of shrubs, in which cane, bamboo and wild banana are the prominent species.

Knowledge on the diversity of reptiles and amphibians of this zone is rather rudimentary, as few surveys of these animals have been made. This zone possesses richest avifauna population of the country mostly marine and shore birds. Out of 66 families of birds occurring in the country, as many as 55 are represented in this zone. Mammalian species represented by Asian elephant (*Elephas maximus*), Smabar (*Cervus unicolor*), Slow loris (*Nycticebus coucang*), Leopard (*Panthera pardus*), Asiatic wild dog (*Cuon alpinus*).

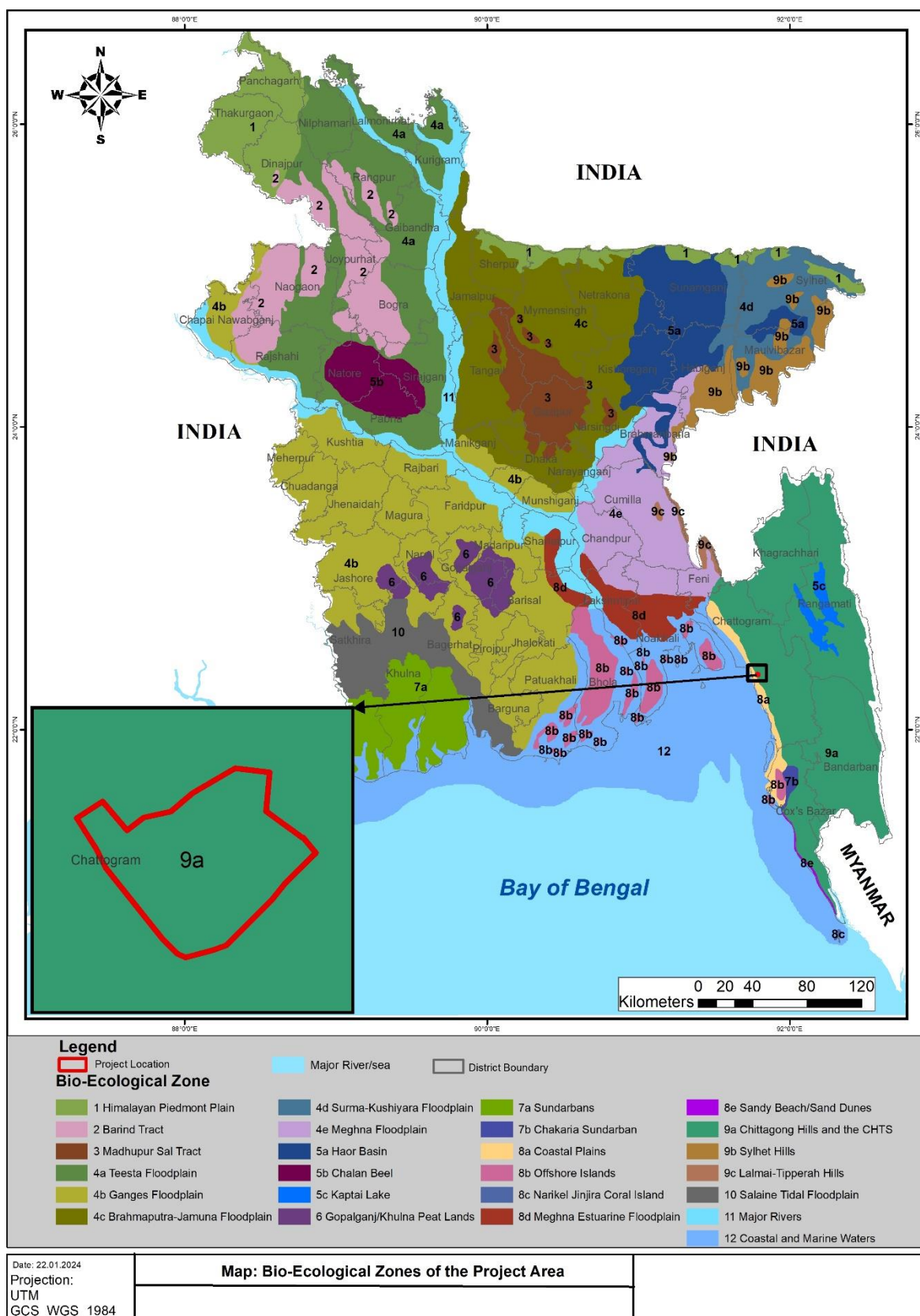


Figure 50: Bio-ecological Zone Map of Bangladesh along with the PTHM site

4.3.2 Terrestrial flora

There are a few trees were observed near the project corridor. However, in the buffer zone, there are various types of plants found in the hillside and in the settlement area. Varieties of plants including herbs and shrubs been observed during the field visit within the study area among them sada koroi, narikel, amm etc were found in the project area. The settlement vegetation was found as common species and was not much diversity within the study area. The most dominant species observed in the study area were plum trees such as date plan (Phonix sylvestris), betel nut (Areca catechu) and coconut (Cocos nucifera). The fruit bearing trees are mostly planted almost all the house.

The hill vegetation in the project area reflects the diverse characteristics typical of the hilly terrain in the southeastern region. These plants exhibit unique natural traits, such as germination challenges, distinguishing them from other vegetation types. The forest features a mix of evergreen species in the lower canopy and deciduous species in the upper canopy. Prominent upper canopy species include Civit (Swintonia floribunda), Garjan (Dipterocarpus sp.), Chapalish (Artocarpus chaplasha), Chundul (Tetrameles nudiflora), and Telshur (Hopea odorata). The lower canopy is enriched with species like Pitraj (Aphanamixis polystachys), Toon (Toona ciliata), Nageshwar (Mesua ferrea), Uriam (Mangifera sylvetica), and various species of Ficus. The undergrowth is dense and predominantly consists of shrubs, interspersed with cane, bamboo, and wild banana, which are particularly prominent in the area.



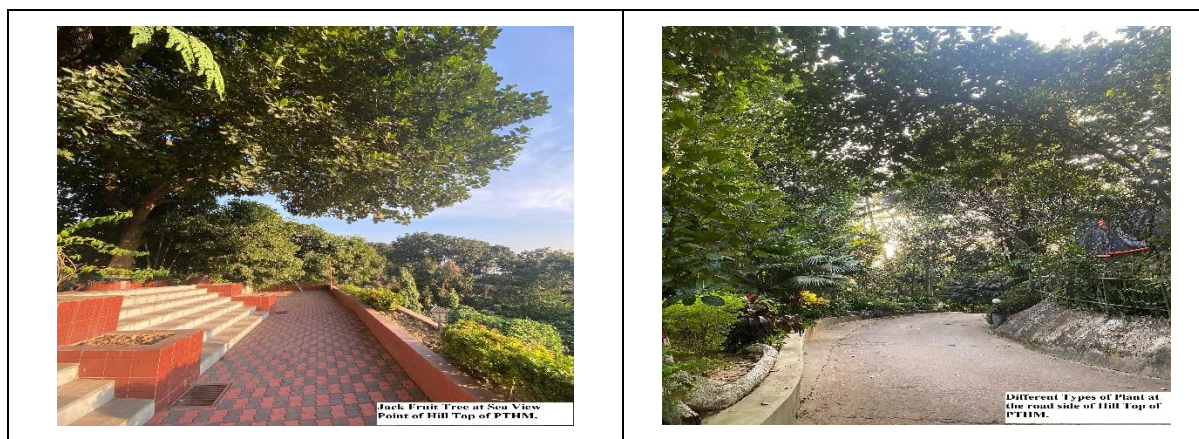


Figure 51: Existing vegetation condition in and around the project site (Hill Vegetation)



Figure 52: Existing vegetation condition within the project site

4.3.3 Terrestrial Fauna

Terrestrial habitat-dependent faunal species are the main components of fauna biodiversity which includes amphibian, reptile, bird, and mammal species. These faunal species depend (partially or fully) on the terrestrial environment to live or to get food, shelter, nest, breed, and produce offspring. Through, the study area is urban in nature, the project area is being used for industrial purposes and the ecological diversity is limited. To assess the terrestrial fauna species of the project site, a primary survey was conducted within 500m from the project site.

Moreover, the information on the terrestrial fauna was collected from 1 km radius from the project site through consultation.

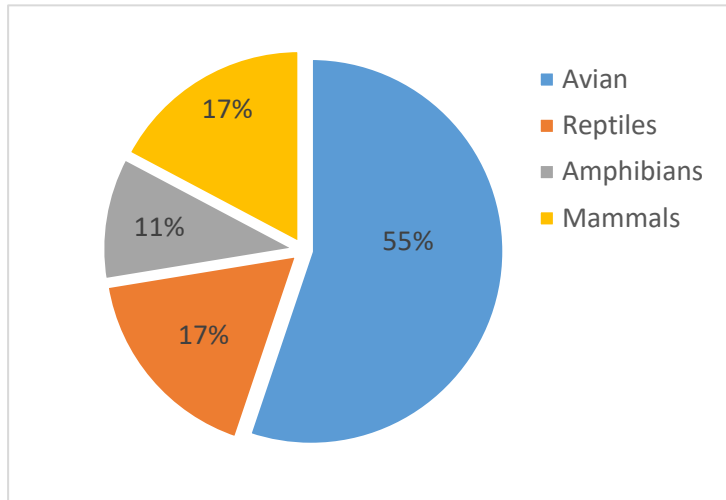


Figure 53: Composition of Terrestrial Ecology

The identified terrestrial fauna is divided into 4 major group viz. amphibian, reptile, bird, and mammal. A total of 28 terrestrial faunal species have been identified from the proposed project site and adjacent areas, and most of them are avian species.

	
Common kingfisher	Gracupica contra
	
Pigeon	House crow

Figure 54: Identified Fauna within and outside of the proposed project

Table 23: The identified flora within and around the proposed project area

SL	Name			Habitat			Status				Distribution	
	Local	English	Scientific	Observed	Local information	Previously recorded	C	R	T	E	0.5 km	1 km
1	Aam	Mango	Mangifera indica	✓	✓	✓	✓				✓	
2	Sazina	Moringa	Moringa oleifera	✓	✓	✓		✓				✓
3	Narikel	Coconut	<i>Cocos nucifera</i>	✓	✓	✓	✓				✓	
4	Pepe	Papaya	<i>Carica papaya</i>		✓	✓					✓	
5	Eucalyptus	Eucalyptus	Eucalyptus globulus Labill	✓	✓	✓		✓			✓	
6	Desi Neem	Neem	Azadirachta indica	✓	✓	✓		✓				✓
7	Kanthal	Jackfruit	<i>Artocarpus heterophyllus</i>	✓	✓	✓	✓				✓	
8	Taal	Doub palm	Borassus flabelifer	✓	✓	✓		✓				✓
9	Akashmoni	Earleaf acacia	Acacia auriculiformis	✓	✓	✓	✓				✓	
10	Khejur	Date or date palm	<i>Phoenix dactylifera</i>	✓	✓	✓		✓			✓	
11	Mehegoni	Mehegoni	<i>Swietenia macrophylla</i>	✓	✓	✓	✓					✓
12	Jaam	Java Palm	Syzygium cumini	✓	✓	✓					✓	
13	Raintree	Raintree	Samanea saman	✓	✓	✓					✓	

Source: Field observation

Table 24: The identified fauna within and around the proposed project area

SL	Name			Habitat			Status				Distribution	
	Local	English	Scientific	Observed	Local information	Previously recorded	C	R	T	E	.5 km	1 km
Avian Species												
1	Choroi	House sparrow	Passer domesticus	✓	✓	✓	✓				✓	
2	Doyel	Oriental magpie	Opsychus sularis		✓	✓	✓					✓
3	Kak	House crow	Carvus splendens	✓	✓	✓	✓				✓	
4	Ghugu	Eurasian Collared Dove	Streptapelia Orientalis	✓	✓	✓	✓				✓	
5	Shalikh	Common myna	Stuma contra	✓	✓	✓	✓				✓	
6	Masranga	Common kingfisher	Helcyon smyrrensis		✓	✓	✓				✓	
7	Finge	Black Drongo	Dicrurus macrocercus	✓	✓	✓	✓					✓
8	Bulbuli	Red-vented Bulbul	Pycnonotus cafer		✓	✓	✓				✓	
9	Chil	Clack kite	Milvus migrans		✓	✓	✓					✓
10	Pankouri	Little Cormorant	Phalacrocorax fuscicollis	✓	✓	✓	✓					✓
11	Kani bok	Indian pond heron	Ardeola grayii	✓	✓	✓	✓					✓
12	Kokil	Asian cuckoo	Eudynamys scolopacea		✓	✓	✓					✓
13	Suichora	Green bee-eater	Merops orientalis	✓	✓	✓	✓					✓
14	Pakra Maachranga	Pied kingfisher	Ceryle rudis		✓	✓	✓					✓
15	Go-shalik	Pied myna	Gracupica contra		✓	✓	✓					✓
16	Mete Mingey	Ashy Drongo	Dicrurus leucophaeus		✓	✓						

SL	Name			Habitat			Status				Distribution	
	Local	English	Scientific	Observed	Local information	Previously recorded	C	R	T	E	.5 km	1 km
Reptiles and Amphibians												
1	Dhora	Checkered keelback	<i>Xenochrophis piscator</i>		✓	✓	✓					✓
2	Tiktiki	House lizard	<i>Hemidactylus flaviviridis</i>		✓	✓						
3	Darash	Indian rat snake	<i>Ptyas mucosa</i>		✓	✓	✓					✓
4	Gui shap	Common Indian monitor	<i>Varanus bengalensis</i> Image		✓	✓				✓		✓
5	Bezi	Small Indian Mongoose	<i>Herpestes auropunctatus</i>		✓	✓		✓				✓
6	Kola Bang	Asian common Toad	<i>Duttaphrynus melanostictus</i>	✓			✓				✓	
7	Sona bang	Indian bullfrog	<i>Hoplobatrachus tigerinus</i>		✓	✓	✓					
Mammals												
1	Dhari Indur	Large Bandicoot Rat	<i>Bandicota indica</i>		✓	✓	✓					
2	Nengti Indur	House Mouse	<i>Mus musculus</i>		✓	✓	✓					
3	Chamchika	Indian Pipistrelle	<i>Pipistrellus coromandra</i>		✓	✓	✓					
4	Badur	The Indian flying fox	<i>Pteropus giganteus</i>		✓	✓	✓					
5	Boro Beji	Common Mongoose	<i>Herpestes edwardsii</i>		✓	✓	✓					

Source: Field observation

4.3.4 Aquatic Ecology

The hydrological environment of the study area comprises water bodies, canals, and river systems. The major rivers in this region include the Karnafuli River and its tributaries, located approximately 6.28 km from the study area. The Bay of Bengal, specifically Dakshin Kattali Sea Beach, lies 3.8 km from the project site. The nearest local stream is 1.6 km away, while Foy's Lake, the closest waterbody, is only 0.60 km from the PTHM site. Consequently, aquatic habitats around the project site are limited to Foy's Lake and seasonal water bodies such as ponds and ditches. These water bodies host true aquatic plant species, predominantly free-floating plants, which are widespread across the study area. Common free-floating plants include Kochuripana (*Eichhornia crassipes*) and Kutipana (*Azolla* sp.).

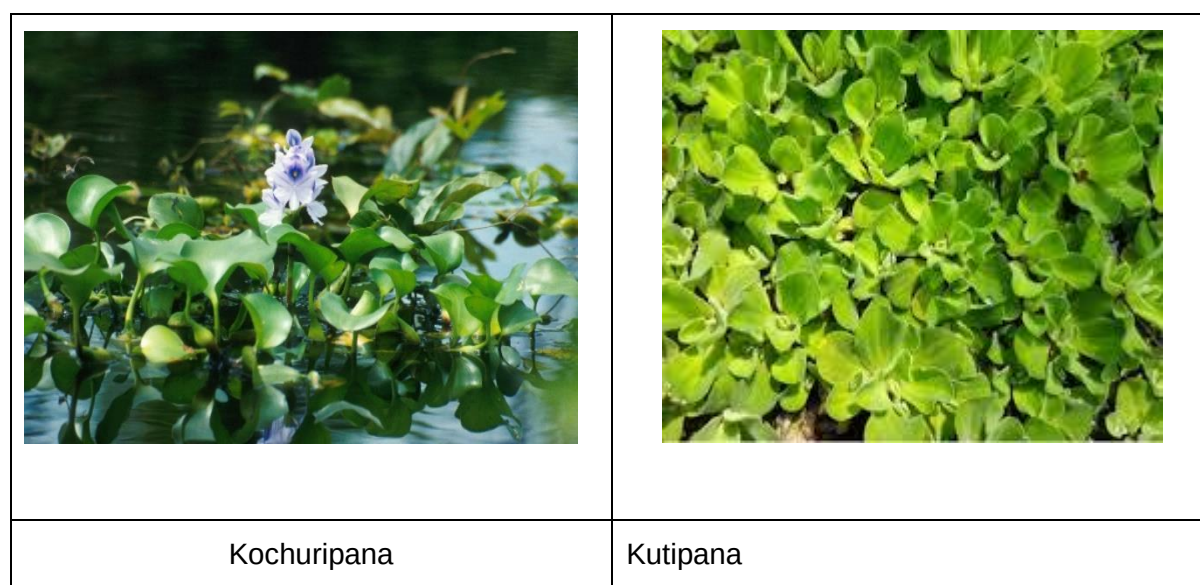


Figure 55: Identified Aquatic Flora within and outside of the proposed project

Foy's Lake is a man-made reservoir located in Chittagong, Bangladesh, constructed in 1924 as part of a dam project to provide drinking water to the city's residents. The lake is named after Mr. Foy, a British engineer who oversaw its construction during the colonial era. Over time, it has evolved into a prominent recreational destination. Now operated by Concord Group, the area features an amusement park offering boat rides, picnic spots, scenic trails, and adventure attractions, including a water park.

Nestled amid lush greenery and hills, Foy's Lake is a habitat for diverse bird species, aquatic plants, and animals, contributing to the region's ecological balance.

Despite its proximity to the PTHM site, Foy's Lake has no connection with the proposed project, and its operations will not impact the lake. Consequently, a detailed study on Foy's Lake has not been conducted.



Figure 56: Foy's lake outside of the proposed project

4.3.5 Ecological Sensitive Site

Ecologically Critical Area (ECA)

There is a provision under the Bangladesh Environment Conservation Act, 1995, where the ecosystem is considered to be threatened to reach a critical state, can be declared as Ecologically critical area (ECA). The declaration states restrictions on hunting, fishing, all activities that could destroy floral or faunal habitats, activities that could destroy natural characteristics of water and soil, activities detrimental to the fishery, installation of polluting industrial units, and discharge of domestic/ industrial liquid waste into the river. No ECA exists at or near the proposed project site. The nearest ECA is Sonadia Island which is located around 92 km away from the project site (Figure 57)

Protected Area (PA)

An area of land especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means is referred to as "Protected Area (PA)". Such an area is predominantly a natural area established and managed in perpetuity, through legal/customary regimes, primarily to conserve their natural resources. No PA exists at or near the project site. The nearest PA are Sitakunda eco park (31.5 km from the project site). Dudh Pukuria-Dhopachari Wildlife (27 km from the project site), Chunati Wildlife sanctuary (38.9 km from project site) Figure 58.

National Park (NP)

A National Park (NP) is reserve land, usually declared and owned by a national government, protected from most human development activities and pollution. The nearest national park, "Sitakunda eco park (31.5 km from the project site). Dudh Pukuria-Dhopachari Wildlife (27 km from the project site), Chunati Wildlife sanctuary (38.9 km from project site)m Figure 58.

Game Reserve (GR)

A Game Reserve (GR) is an area of land set aside for the maintenance of wildlife for tourism or hunting purposes. No GR exists at or near the proposed project site.



Wildlife Sanctuary (WS)

A Wildlife Sanctuary (WS) is an area that assures the natural conditions necessary to protect nationally significant species, groups of species, biotic communities, or physical features of the environment where these require specific human manipulation for their perpetuation. No WS exists at or near the proposed building project site. The nearest wildlife sanctuary, "Dudh Pukuria-Dhopachari Wildlife (27 km from the project site), Chunati Wildlife sanctuary (38.9 km from project site) Figure 58.

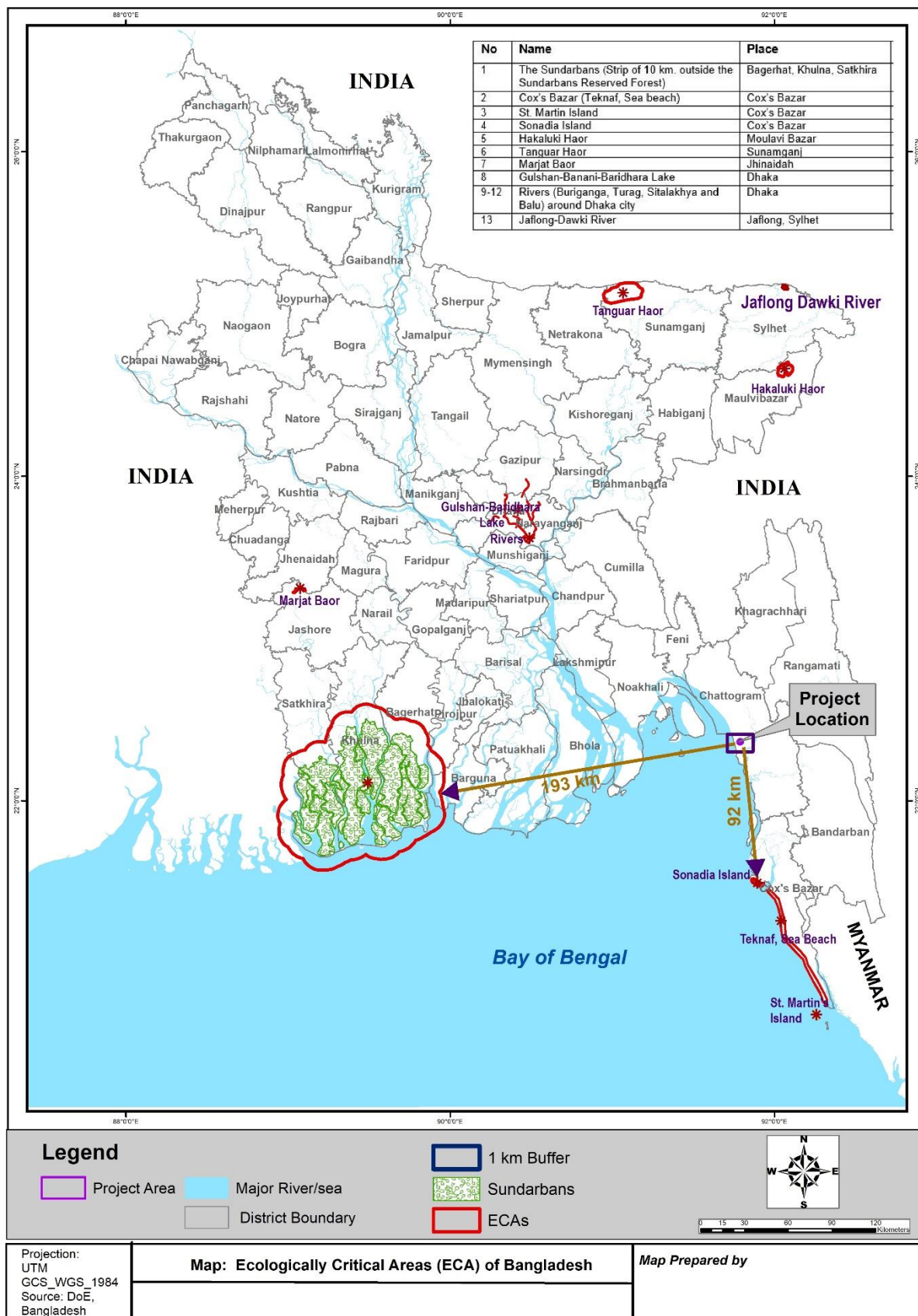


Figure 57: Nearest Ecological Critical Area from the PTHM site

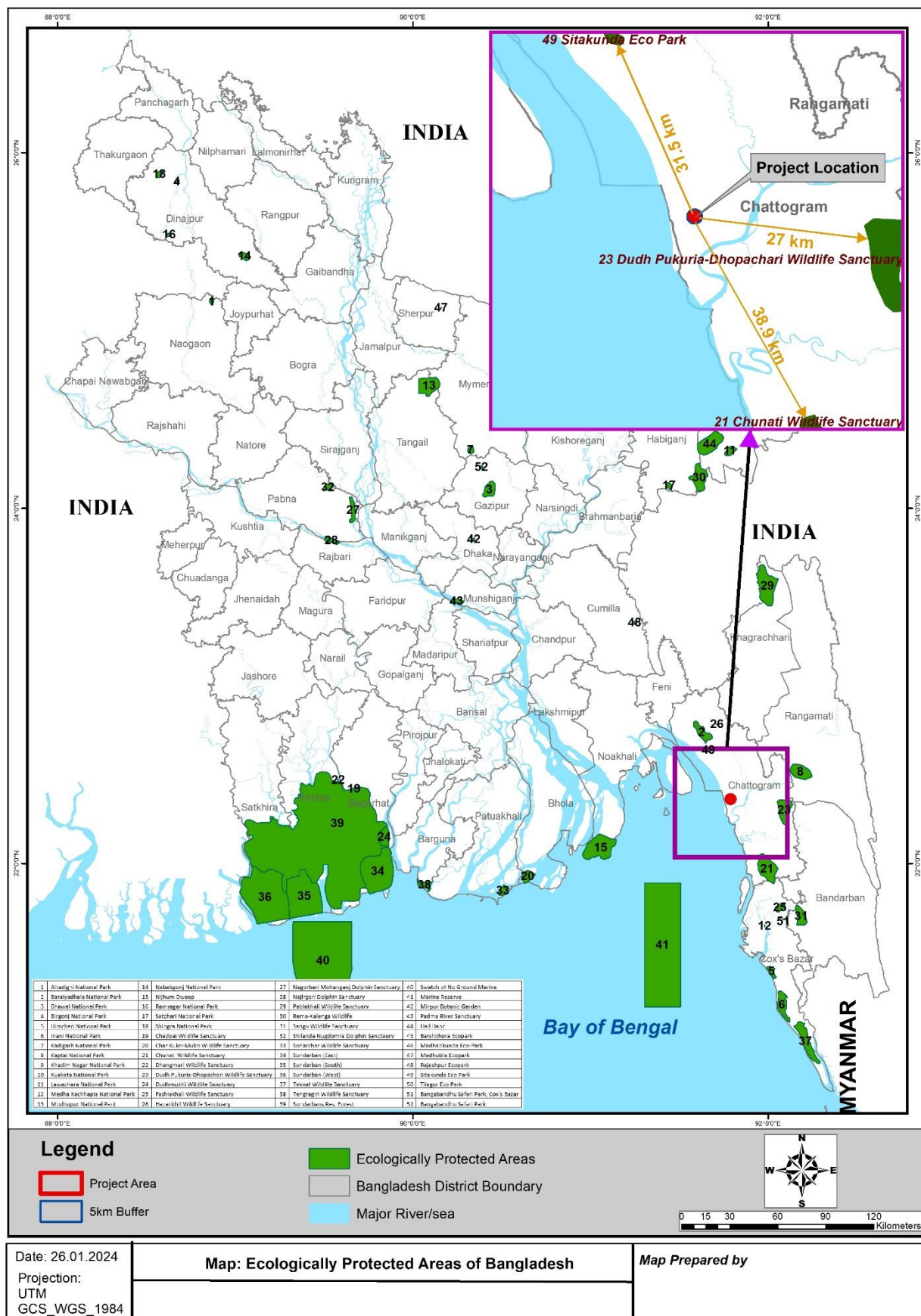


Figure 58: Nearest Ecological Protected Area from the PTHM site

4.4 Socio-economic condition

The objectives of the social baseline study were to gather information on the existing socio-economic aspects that exist within and outside of the proposed project site. The social assessment primarily focused on identifying the status of important economic and social conditions within the project areas. Potential impacts of the proposed project activities have been evaluated against these baseline socio-economic aspects, and later, mitigation measures have been suggested to reduce /eliminate the significant adverse impacts.

4.4.1 Socio-economic perspective

The socio-economic perspective of the expansion of PTHM project site and adjacent areas have been prepared based on primary information as well as secondary data collected through field survey and Focus group discussion, public consultation and KII.

The proposed project is located in an industry dominated area. The proposed project falls in Pahartali thana, Chattogram, Bangladesh. According to the household's survey 2024, in the study area, there are total of 3719 households and total of 18,302 populations.

4.4.2 Demographic Status

In the study area, there are about 9516 males and 8786 females (Table 25). The population data of 9,516 males and 8,786 females in the study area was derived from a combination of household surveys and extrapolated estimates. The survey team did not visit every household due to resource contain. Instead, a representative sampling approach was employed to gather demographic data, which was then scaled up based on the known number of households in the area and validated using secondary data sources (e.g., census records or local administrative data). This method ensures a reasonable level of accuracy while accounting for practical constraints. The economic condition of the project study areas seems to be relatively good compared to other regions of the country. The local economy is vibrant and thriving through various businesses operating in this locality. Some governmental offices and financial institutions exist there and provide services to the local, city and entire Bangladeshi peoples. People's occupation varies in the project study areas. Private services in the market, shop, bank, working in garments sector and transport-related occupation (e.g., bus, car, rickshaws, three-wheelers, CNG taxi, truck, etc.) are available that play an import economic role among the people of present society.

Table 25: Demographic status of the study area

HHs	Population	Population	
		Male	Female
3719	18302	9516	8,786

Source: Field Survey and extrapolated estimates, 2024.

Many small shops exist beside the roads from where people buy their necessary foods and commodities. Many private employed people do the job in high rise buildings, markets & shops, and most stay in other city areas. Some small to medium factories observed in the study site, of which garment related factory is remarkable. All sorts of income groups (low, middle & high) people live there.

4.4.3 Livelihood and Living Status

This study assessed the livelihood status of the study area. Basically, the livelihood depended on service and industrial work, involving 94 %. Some people maintain their livelihood through agriculture (4%) and other (2%) (Table 26).

Table 26: Percentage distribution of major livelihood activities

Field of Activity			
Industry (%)	Service (%)	Agriculture (%)	Others (%)
34%	60%	4%	2%

Source: Field Survey, 2024.

4.4.1 Sanitation Status

Sanitation of dwelling households of the study areas shows three categories with sanitary latrine, non-sanitary latrine and no toilet facilities. According to Statistics, the study area has good sanitation system. Maximum household use sanitary toilet (73.2%). Non-sanitary system was recorded as 25.7% and very insignificant percentage (1.2%) having no sanitary facility. (Table 27) represents the sanitation facility of the Pahartali thana.

Table 27: Sanitation Facility of the Proposed Project Area

Sanitation Facility (%)				
Household	Population	Sanitation facility	Non-sanitary facility	others
3719	18302	73.2	25.7	1.2

Source: Field Survey, 2024

4.4.2 Religious Believe

Maximum population of the study area are practicing Muslim religion. Table 28 shows that most 96 % are Muslims, and 2 % are Hindu and 0.8 % are Christian and 1% belong to Buddhist of the total population.

Table 28: Distribution of Population by Religion

Types of Disability				
Muslim	Hindu	Christian	Buddhist	Others
96%	2%	0.8%	1%	0.2%

Source: Field Survey, 2024

4.4.3 Public utilities

In this study area, 100 per cent of people have access to electricity. Besides, tap and Tube well is the basic water source of this study area population. 41.7 per cent of people have access to tube well water, while 54.1 per cent of people used Tap water as a primary source for their daily livings and only 4.2 per cent use other water sources for their water needs. Moreover, 2.8 per cent of households are rent-free. 31.3 per cent have owned HHs for living,

and 65.9 per cent pay rent for their HHs. Table 29 shows the status of the study area in this regard.

Table 29: Distribution of Access to Drinking Water, Electricity and Housing Tenancy

Source of Drinking Water			Electricity	Housing Tenancy		
Tap	Tube Well	Others		Owned	Rented	Rent Free
54.1	41.7	4.2	100	31.3	65.9	2.8

Source: Field Survey, 2024

4.4.4 Archaeological and Socially Sensitive Sites

No historical and archeological establishment have been identified in the project study areas and project influence area.

4.4.5 Labor Market

During the field survey, it is found that most of the people are involved in service and industries related activities (94%). 4% of people are involved with agricultural activities. Those who do not own land mainly earn their living by working as day labor. In the study area, the wage rates of farming and non-farming activities are analyzed. The maximum wage rate for male non-farming laborer is BDT 600 to BDT 700 per day and for female is BDT 500 to BDT 600 per day. The farming wage rate is similar to non-farming wage rate. Nowadays, for the development work (flyover and others) of the study area, the availability of laborer is high for non-farming activities in industries, business, brickfield, earthworks and construction works.

4.4.6 Migration

During field visit and data collection, people stated that non-local laborers are around 35% while 10% of the local people are predominantly employed in the garments and business/commercial sectors, while, a considerable number of non-locals are engaged in different non-farming activities (industries, business, brickfield, earthworks and construction works).

4.4.7 Ethnic Groups

There are no ethnic community people living at the project area and in the study area

4.4.8 Safety Nets

The major social safety nets and poverty reduction programs initiated in the area include the Vulnerable Group Development (VGD), Food for Education/Cash for Education, Old Age Allowance and Freedom Fighter Allowance. According to local people, these programs have created food security as well as social safety nets among the targeted poor households and vulnerable communities to some extent. A number of local, national and international NGOs are also working in the study area. The main activities of these NGOs are operating micro credit, health and education programs among the rural poor and landless women/men.



4.4.9 Common Property Resources

The common property resources and/or community facilities in the area are different social amenities e.g. schools, mosques, graveyards, playgrounds, open water bodies and Eidgahs (place for offering Eid prayers). These are used by the local people for the purposes of religious, social and cultural gathering. The Table 30 is showing the common property resources within the study area.

Table 30: Distance of Common Property Resources from the PTHM site

Sl	Name	Distance from PTHM
1	Apollo Imperial Hospital	1250 m
2	North Pahartali Government Primary School	600 m
3	Pahartali Girls School & College	900 m
4	Pahartali Textiles Jame Masjid	200m
5	Ahmed Ispahani High School	200m

Source: Field Survey, 2024



Apollo Imperial Hospital



North Pahartali Government Primary School

Pahartali Girls School & College



Pahartali Textiles Jame Masjid

Ahmed Ispahani High School

Figure 59: Nearest Common Property Resources around the PTHM site



Chapter 5: Alternative Analysis

5.1 Introduction

Alternative analysis is one of the important tools to avoid or minimize the significant environmental and social impacts without compromising the project objectives. In this section, alternative analysis has been prepared depending on the scope of this ESIA report. Two alternatives are considered here, namely the expansion of the PTHM site and the no project scenario.

5.2 PTHM Current Location and its suitability

Pahartali textile and Hosiery Mills is situated in Pahartali thana, Chattogram, Bangladesh. The expansion of the PTHM will be constructed over 7.71 hectares/19.1 Acres of land, so the total land area is 77,100 Sqm, among which floor area is 55,742 Sqm and proposed floor area is 11,613 Sqm for the expansion of PTHM. The entire 7.71 hectares/19.1 Acres of land is owned by the PTHM authority. The land is already developed and there are no Project Affected Persons (PAPs) recorded in the project area. As a result, no land acquisition or resettlement is required for the expansion of the PTHM facilities. There was no cultural, historical, and aesthetic interest in the project land and no loss of a sensible place. The land is already developed and belongs to PTHM and there are no illegal settlers on it as well. The ES impact of the project is likely to be site independent. Thus, the current location is ideal from all considerations.

5.3 “No Action” Alternative

The “No Action Alternative” simply means no construction of the expansion of PTHM project. The expansion of PTHM will provide much needed employment opportunities, which is currently lagging; and the industries currently must rely on foreign service providers at high cost and delay. In the absence of the expansion of the PTHM, the industries will continue to suffer from the support facilities, that can be obtained from the PTHM.

Chapter 6: Impact Assessment

6.1 Introduction

As a part of the Environmental and Social Impact Assessment (ESIA), environmental impacts of the specific project activities on different ecological, physicochemical and human-interest related parameters, both during the construction phase and the operation phase, have been identified and assessed in this section. Project activities will result in environmental and social impacts during its life cycle with level of magnitudes that are proportional to the level of activities.

6.2 Impact Identification

Detailed description of the expansion of the PTHM project has been provided in Chapter 2 and the baseline environment of the areas within and surrounding of the project site has been presented in Chapter 4. In this section, the potential significant impacts of the proposed project on the surrounding baseline environment during both construction and operational phases are screened for detailed impact assessment. All the environmental and social aspects, which are potentially affected by the expansion of the PTHM project activities are being identified initially. Checklist method is used for impact identification for both the construction and operation-maintenance phase. Major activities of construction stage and operation stages are identified, and the potentially impacted environmental and social aspects have been included. The relation with the major bio-physical and social parameters like air pollution, water pollution, noise and vibration, species diversity, habitat status, flora and fauna, social structure, livelihood, culture issues, health, aboriginal community of the project activities during construction and operation stages are addressed during the matrix analysis method.

Significance of impacts identified by '0, -, +' marks in the matrix. From the matrix, the stage wise impact link can be identified which will be detailed out in the next level. Finally, the valued environmental and social component has been addressed through this matrix analysis. Table 31: Identification of the potential impacts of the proposed project activities identifies the potential impacts on environmental and social aspects during construction and operation stages of the project.

Table 31: Identification of the potential impacts of the proposed project activities

	Phases of the Project													
	Pre-construction and Construction							Operation						
Project Activity	Transportation of Materials and equipment at sites	Change of existing land used	Clearing the sites for labor camps and other activities	Material Storage and Handling in the project sites	Works like excavation, piling, dumping, compaction, cursing, mixing, road	Construction works like rod binding, welding, painting, glass & wood work etc	Solid and liquid waste generation from the sites	Repair and fabrication of parts and sub-systems for machineries	Residential building running	Vehicular movement and operation of the facilities	Water, electricity and fuel and other utilities services	Liquid waste (domestic and chemical)	Solid waste from the PTHM	Employment of the PTHM
Indicators														
Land Acquisition	-	-	-	-	-	-	-	0	0	0	0	0	0	0
Demolition of existing building	-	-	-	-	-	-	-	0	0	0	0	0	0	+
Labor Influx	-	-	-	-	-	-	-	0	0	0	0	0	0	+
Gender based violence/SH	-	-	-	-	-	-	-	0	0	0	0	0	0	+
Occupational Health and Safety	-	0	-	-	-	-	-	-	-	-	-	-	-	+
Air pollution	-	-	-	-	-	-	-	+	-	-	-	0	-	0
Water quality	0	0	-	-	-	-	-	+	-	-	-	-	-	0
Noise & Vibration	-	-	-	-	-	-	0	+	-	-	-	0	0	-
Drainage System	-	0	-	-	-	-	-	-	0	0	-	-	-	0
Species Diversity	-	-	-	0	0	0	-	0	+	-	0	-	-	0
Forest Habitat	-	-	-	-	-	0	-	0	0	0	0	-	-	0
Wild Animals	-	-	-	-	-	-	-	0	0	0	0	0	0	0
Fisheries resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Livelihoods	+	+	+	+	+	+	0	+	+	+	+	0	0	+
Health and diseases	-	0	0	-	-	-	-	-	+	+	+	-	-	+
Occupational Health and safety	-	0	-	-	-	-	-	-	0	-	-	-	-	+
Community Health and Safety	-	0	-	-	-	-	-	-	-	-	-	-	-	-
Traffic accident	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Local Culture	0	0	-	0	0	0	0	0	-	0	0	0	0	-

Note: Negative Impacts (-), Positive Impacts (+) and No impact (0).



6.3 Impact during Pre-Construction Phase

6.3.1 Land Acquisition

Impact Origin

Pahartali Textiles and Hosiery Mills (PTHM), a spinning unit of M. M. Ispahani Limited located at the Ispahani Complex, north Pahartali region in the port city Chattogram. Owned by the PTHM, there was no use of agricultural or fisheries or homesteads. Due to this project, no agricultural, wetland, or homestead land is reduced.

The expansion of the PTHM will be constructed over 7.71 hectars/19.1 Acres of land, so the total land area is 77,100 Sqm, among which floor area is 55,742 Sqm and proposed floor area is 11,613 Sqm for the expansion of PTHM. The entire 7.71 hectars/19.1 Acres of land is owned by the PTHM authority. The land is already developed and there are no Project Affected Persons (PAPs) recorded in the project area. As a result, no land acquisition or resettlement is required for the expansion of the PTHM facilities.

So, there is no significant impact on the landscape of the area. The proposed project didn't require any relocation of homestead and land acquisition has been done by paying proper compensation of land to the landowners. There was no cultural, historical, and aesthetic interest in the project land and no loss of a sensible place. So, the impacts that are mentioned above are negligible.

Impact Potentiality Level: **No impact**

Mitigation Measure

Affected localities due to project setup should be employed in the project.

6.3.2 Site Clearance and Demolition of Existing Building

The proposed project is located within the PTHM premises. Currently, a one-story building occupies the project site. As part of site preparation, the existing building needs to be demolished. A pre-demolition survey was conducted to identify hazardous materials, such as asbestos; however, none were detected. Recyclable waste from the demolition was sold to third-party vendors, and a copy of the agreement can be found in Appendix XVI: Existing Solid Waste Disposal Agreement. By implementing the mentioned mitigation measures, the demolition phase can be conducted with minimal environmental and community impacts.

Potential Impacts of Demolition Activities

Air Pollution

- Dust generation from demolition activities and debris handling.
- Emissions from demolition machinery and equipment.

Noise Pollution

- Increased noise levels from machinery and demolition operations.



Waste Generation

- Generation of construction and demolition waste (C&D waste).
- Potential presence of recyclable and non-recyclable materials.

Safety Risks

- Risk of injury to workers and nearby communities.
- Falling debris posing a hazard to the surrounding area.

Mitigation Measures for Demolition Impacts

Air Pollution Control

- Sprinkling water regularly to suppress dust during demolition.
- Use of dust barriers or screens around the demolition area.
- Ensure all machinery and equipment are well-maintained to minimize emissions.

Noise Pollution Management

- Conduct demolition activities during daytime hours to minimize disturbance.
- Equip machinery with noise-suppressing devices or silencers.
- Use personal protective equipment (PPE) like earplugs or earmuffs for workers.

Waste Management

- Segregate demolition waste into recyclable and non-recyclable categories.
- Ensure proper disposal of waste through authorized vendors or landfill sites.
- Maintain records of waste sold or disposed of, as included in **Appendix XVI**.

Safety Measures

- Erect barricades and warning signs around the demolition site.
- Provide PPE to all workers, including helmets, gloves, and safety boots.
- Train workers on safety protocols and emergency response procedures.

6.3.3 Design Considerations

- **Sustainability:**
 - Incorporate energy-efficient designs (e.g., LED lighting, natural ventilation).



- Use environmentally friendly construction materials (e.g., recycled aggregates).
- **Climate Adaptation:**
 - Design to account for local climatic conditions (e.g., rainwater harvesting, flood-resilient structures).
- **Social Aspects:**
 - Ensure designs provide safe, accessible spaces for all users.
 - Include public consultation feedback in the design process.
- **Regulatory Compliance:**
 - Adhere to local building codes, environmental standards, and guidelines.

6.4 Impact during Construction Phase

6.4.1 Impacts related to Assessment and Management of Environmental and Social Risks and Impacts (ESS-1)

The proposed project is anticipated to have some environmental and social risks during construction activities. To address these risks, an Environmental and Social Impact Assessment (ESIA) study should be conducted. This ESIA study has recommended several Environmental and Social Management Plans (ESMPs) to mitigate the negative impacts of the project activities. Additionally, the project authority should establish a dedicated monitoring team to oversee regular compliance. This monitoring team will be responsible for ensuring daily adherence to the ESMPs. Regular stakeholder consultations should also be conducted periodically throughout the project lifecycle.

The expansion of the PTHM will be constructed over 7.71 hectares/19.1 Acres of land, so the total land area is 77,100 Sqm, among which floor area is 55,742 Sqm and proposed floor area is 11,613 Sqm for the expansion of PTHM. The entire 7.71 hectares/19.1 Acres of land is owned by the PTHM authority. The land is already developed and there are no Project Affected Persons (PAPs) recorded in the project area. As a result, no land acquisition or resettlement is required for the expansion of the PTHM facilities.

The project falls under Orange Category which requires to take IEE Approval, so, an EIA report has been prepared and ECC obtained in Favor of PTHM.

ESF of BIFFL will be followed to get fund from KfW financed Energy Efficiency in Industries Project. The KfW adopted the Environmental and Social Framework (ESF) of World Bank (WB) as given in ESF of BIFFL and as the regulatory requirements. The ESIA report has been prepared to fulfil the requirements of BIFFL for funding.



6.4.2 Impacts Related to Labour and Working Condition (ESS-2)

6.4.3 Labor and Working Condition (ESS-2)

During the construction of related facilities for the expansion of the PTHM., approximately 120 workers were employed over 10 months. Poor working conditions common problem with large construction projects across Bangladesh. The project is likely to impact the working conditions. Provision of appropriate worker accommodations is a common problem in Bangladesh. The non-local workers are likely to face the risk of accommodation at the construction sites and therefore appropriate measure need to be drawn to ensure that nonlocal workers find separate accommodation and have the necessary amenities, this. probability of conflict with the local communities. World Banks Safeguard measures in relation to workers accommodation should be followed in this regard. The non-local skilled workers who are likely to be a few in numbers, may not be considered as migrant labor due to cultural homogeneity.

Potential labor risks: Following are the potential risks associated with workers/ labors engaged in PTHM.

- i. Safety issues while at work like injuries/ accidents/ fatalities leading to even death, while at work.
- ii. Short terms effects due to exposure to dust and noise levels, while at work.
- iii. Long term effects on life due to exposure to chemical / hazardous wastes.
- iv. Inadequate accommodation facilities at work force camps, including inadequate sanitation and health facilities.
- v. Non-payment of wages by Employer.
- vi. Non-payment of benefits (compensation, bonus, maternity benefits etc.) by Employer.
- vii. Discrimination in Employment (e.g., abrupt termination of the employment, working conditions, wages or benefits etc.).
- viii. Engagement of child labor.
- ix. Sexual harassment at work.
- x. Forced labor trafficking.
- xi. Security of women work force.
- xii. Inadequate facilities for pregnant women and lactating mothers.
- xiii. Inadequate facilities for the children of the workforce at workforce camp sites.
- xiv. Possibility of Gender based violence as the embankment shall pass through/ alongside sensitive locations such as schools, mosques etc. that are near to habitations.
- xv. Absence or inadequate or in accessible emergency response system for rescue of labor/ workforce in situations of natural calamities like earthquake, floods etc.
- xvi. Health risks of labor relating to HIV/ AIDS and other sexually transmitted diseases.
- xvii. Unclear terms and conditions of employment.
- xviii. Discrimination and denial of equal opportunity in hiring and promotions/ incentives/ training opportunities.
- xix. Denial for workers' rights to form workers organizations, etc.
- xx. Absence of a grievance mechanism for labor to seek redressal of their grievance issues.



Impact Potentiality Level: **Moderate**

Mitigation Measures

PTHM have their Safety and Health Policy, which is attached in Appendix XXII: The responsibility to manage these adverse impacts would be clearly reflected in the contractual obligations of the Civil Works Contractor with appropriate mechanisms for addressing non-compliance. The PTHM has already taken adequate mitigation measures. The factory has all sorts firefighting arrangements. Regular health and safety training, fire drill is conducted. Though in some places firefighting equipment's and walkways are obstructed with production raw materials. Designated floor level workers are trained and give responsibility for primary health treatments. Adequate numbers of first aid facilities are available. But in some places first aid boxes are found poorly maintained. It has been made compulsory to use PPEs like ear plug, ear muff etc. in noisy areas like production floor and generator room. Also some of workers are found not wearing ear plug. Work place monitoring is done regularly by third party. The factory has renewed fire license, emergency evacuation plan is available in the factory. Fire license attached as Appendix IX.

6.4.4 Impact on Occupational Health Safety (ESS-2)

Impact Origin

Under a controlled situation, an accident is not expected. However, occasionally it occurs during construction works. An accident may occur during earth cutting, casting, construction works, and installation of heavy machinery. The protection of the head, eye, ear, hand, and foot of the workers, laborers, and project personnel could be affected if a proper and adequate arrangement is not ensured.

Impact Potentiality Level: **Moderate**

Mitigation Measures

- The workers would wear PPE (Personal Protective Equipment), safety goggles, helmets, vests, and other necessities.
- Health & safety training would be conducted daily and monthly on-site.
- The workers and laborers would be made aware of their safety
- Ensuring safety measures taken by the on-site workers would be made by the EHS Manager

6.4.5 Gender Based Violence (GBV)(ESS-2)

The likelihood of labor induced GBV/ SEA/ SH may create unwanted social issues; women may be discouraged from working. The following probable impact is expected to occur if proper human resource management are not taken in project site.

- Wage discrimination between men & women
- Women friendly working arrangement and drinking water facilities may not be provided
- Eve teasing and sexual abuse
- Women, particularly of weaker sections may be discouraged to speak and demand equitable benefits in the name of porda/ dignity of women
- The project has been screened for GBV risks and it has been rated as "medium".



Impact Potentiality Level: **Moderate**

The following measures will be taken:

- Training on GBV/SEA/SH to all workers, including consequences due to non-compliance
- The signing of the Code of Conduct (attached in Appendix XIV)
- Separate rest area and washroom for males and females
- Grievance redress system and channel
- Assignment of female staff as a GBV/SEA/SH focal point
- The special emphasis on culturally appropriate behaviours if workers come into contact with small ethnic communities.

6.4.6 Impacts Related to Resource Efficiency and Pollution Prevention and Management (ESS 3)

6.4.7 Impact on Air Environment (ESS-3)

Impact Origin

All earthworks construction, site clearing, civil construction, mechanical construction, handling and stocking of construction materials, dry materials stockpiling, hauling of materials, and construction of drainage generate dust and affect the local air shed. The air may be polluted due to dust arising from sand/ earth stockpiles by the wind. Construction dust is likely to be the most significant direct potential impact on the local community. Dust mites are a common cause of asthma in children.

Carbon dioxide and nitrogen oxides may be emitted from the combustion of petroleum products in project-related vehicles, machinery, generators, etc. during the construction period. Their impact on air quality will not be significant as the pollutant emission activities (point and area sources) will be limited within the project boundary and the activities will be short-term (only for the construction period).

Impact Potentiality Level: **Moderate**

Mitigation Measures:

This impact may further be minimized by adopting the following mitigation measures:

- The sprinkling of water at the construction site and haul roads
- Trucks transporting fine materials, soil, and waste to and from the project site will be covered to reduce the release of dust
- Raw materials excavated soil and other debris should be stored under covered sheds
- Generators, electric cutters, and other equipment to be shut down when not infused;
- Provision of face masks to workers to minimize inhalation of dust particles
- Construction vehicles and machinery should be regularly serviced and checked for pollution control
- Low Sulphur diesel should be used for running construction equipment and vehicles
- Air emission monitoring program to be undertaken quarterly by the contractor,



- A green buffer will be developed all along the project boundary.

6.4.8 Impact on Water Level (ESS-3)

Impact Origin

Groundwater will be required for construction activities such as concreting, equipment cleaning, concrete mixing, curing, etc. Water will also be required for drinking and sanitation purposes of the construction worker.

The groundwater will be extracted through pumps and stored in an enclosed area and later used during the construction eventually leading to groundwater depletion. Apart from it, the required amount of water that will be used for drinking purposes will be extracted from the groundwater source which may also lower the groundwater level.

Impact Potentiality Level: **Moderate**

Mitigation Measures

To reduce the impact on groundwater and surface water level, the project proponent may adopt the following mitigation measures:

- A water trigger nozzle will be used instead of open pipe flow to reduce water wastage
- Recycled water should be used for construction equipment cleaning
- Awareness will be increased through proper training, monitoring, posturing, and signage.
- Increasing water storage in the reservoirs

6.4.9 Impact on Noise Environment (ESS-3)

Impact Origin

The operation of different types of machinery and equipment for construction activities and regular vehicular movement for material and equipment transport may generate noise during the construction period. The produced noise may have an impact on the existing acoustic environment. Local inhabitants may feel disturbed due to noise from line sources (traffic movement). Impacts of noise will potentially affect the following.

a. Impacts of Noise to Immediate Neighbors

- Continuous exposure of neighbors to noise nuisance may result in noise-induced hearing loss;
- Noise nuisance may reduce the concentration of neighbors

b. Noise Impacts on Employees

- The high noise level will force employees to shout loud when communicating with one another;
- Exposure of employees to high noise levels (above 85dB) continuous for 8 hours per day may result in noise-induced hearing loss;
- Exposure of the ear to peak sound level instantaneously may result in deafness.



Continuous exposure of neighbors to noise nuisance may result in noise-induced worker hearing loss. The soil extractor or soil collector truck will movement will be the main source of noise pollution. Vehicles and machinery may generate noise. However, low-noise construction vehicles will be used and construction work will not do at night hour. Moreover, the construction period will be done as soon as possible.

Impact Potentiality Level: **Moderate**

Mitigation Measures

- The machinery to be used should comply with the noise standards prescribed by DoE;
- Vehicles and machinery should be regularly serviced and checked for pollution control;
- Employees who work at high noise areas should be provided earplugs;
- No noise-generating activity shall be carried out at the night;
- No construction activities to be undertaken during night hours to prevent any disturbance to nearby residents and laborers in labor camps;
- Fitting noise machines with noise reduction devices;
- Temporary noise barriers should be provided near the high noise generating areas like metal or tiles cutting sites, generator rooms, etc.;
- Any employee who may complain about ear-related pain and or complication while at work to access medical attention at the expense of the contractor or project proponent;
- Regular noise monitoring.

6.4.10 Impact on Natural Drainage (ESS-3)

Impact Origin

A temporary drainage system will be made during the construction phase for the discharge of the runoff and domestic waste. It will be connected to the nearby water body. No damage to the natural drainage system will be made because of the construction of a new one.

Impact Potentiality Level: **Minor**

Mitigation Measures

- Cover the drainage for less pollution
- Proper management of the drainage for less contamination
- Site drainage controls to isolate potentially contaminated areas from discharge to the environment

6.4.11 Impact due to Solid Waste (ESS-3)

Impact Origin

The proposed project will generate both hazardous and non-hazardous solid waste. Non-hazardous solid wastes like waste poly, plastic, paper, etc. will be generated from both the construction and domestic activity. Hazardous wastes may include scrap metal, chemical drums, chemicals, broken glass, etc. which need to dispose of properly. Uncontrolled discharge of these



wastes will severely damage the soil quality, and water quality, clog the drainage system as well as damage the natural environment.

Impact Potentiality Level: **Moderate**

Mitigation Measures

- Effective storage facility with protection from rain and leachate generation will be built for both hazardous and non-hazardous waste;
- Solid waste will be stored in the storage area before selling to the authorized third party;
- Environmental training and awareness programs for tenant workers should be required

6.4.12 Impacts Related to Community Health and Safety (ESS 4)

The construction phase of any project can have significant impacts on community health and safety. These impacts can be multifaceted, involving physical, environmental, and social dimensions. Here are some key areas where construction activities can affect community health and safety:

Air Quality

- Construction activities often generate dust and particulate matter, which can degrade air quality and cause respiratory issues, especially for vulnerable populations such as children, the elderly, and those with pre-existing health conditions.

Noise Pollution

- The use of heavy machinery, demolition, and construction operations generate high noise levels, which can lead to hearing loss, sleep disturbances, and increased stress levels among nearby residents.

The impact of air and noise quality does not reach the nearest receptor because the construction is within the existing facilities of PTHM and boundary is elevated to about 15 feet. This height effectively contains the air and noise within the boundary, the air quality remains within acceptable limits due to water sprinkling and noise does not go out of boundary. As a result, there is no impact on the surrounding community. So, no additional mitigation measures required for community people.

6.4.13 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS- 05)

The expansion of the PTHM will be constructed over 7.71 hectares of land. The entire 7.71 Hectares of land is owned by the PTHM authority. The land is already developed and there are no Project Affected Persons (PAPs) recorded in the project area. As a result, no land acquisition or resettlement is required for the expansion of the PTHM facilities



6.4.14 Impacts Related to Biodiversity & Living Natural Resources (ESS 6)

The expansion will be carried out within the existing facilities of PTHM. There is no large vegetation or any forest within the PTHM boundary. There will be no impact on natural vegetation during civil activities. It is already stated that the PTHM is in well-developed land. Moreover, the PTHM site is not surrounded by any forest land, wildlife sanctuaries, or parks. Hence, no major adverse impact on this account is anticipated. Nonetheless, careful monitoring and additional protective measures will be implemented to further minimize any indirect impacts on the biodiversity.

There is no protected or ecologically critical area or habitat for threatened species in the study area. In addition, no species were found during field visit which fall under IUCN red category.

Impact Potentiality Level: **Insignificant**

Mitigation Measures

- Water sprinkling for dust suppression;
- No solid or liquid waste shall be discharged in surface water bodies;
- Provide adequate sanitation facilities for workers to prevent contamination by human waste. Septic tanks/soak pit will be provided to treat sewage to be generated from labour camps and prevent its disposal in water body;
- Excavation and filling will be carried out in phased manner to minimize exposure of loose earth for longer duration;
- All the raw material and debris will be stored in covered sheds on paved surfaces to minimize the contamination of rainfall run-off;
- Preserve existing vegetation and restore any disturbed areas with native plant species to prevent erosion;
- Will reduce night construction work;
- Erect noise barriers around the construction site to minimize the impact of construction noise.

6.4.15 Impacts Related to Tribal/Indigenous Population (ESS 7)

No tribal or indigenous people were within the project influence area.

6.4.16 Impact Related on Impacts on Cultural Heritage (ESS 8)

The proposed project does not have any archaeological sites around the 0.5 km radius of the project; thus, no impacts are foreseen on ancient monuments and archaeological sites due to the construction of the project.

Since the boundary is raised up to 15 feet high, water sprinkling is carried out to maintain air quality, and noise does not exceed beyond the boundary, so no impact on community properties. Therefore, no additional mitigation measures are required.

6.4.17 Financial Intermediaries (ESS 9)

Proponent should prepare all the Environment and social documents related to this project and disclose them on their websites.



6.4.18 Stakeholder Engagement and Information Disclosure (ESS 10)

Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.

During the social survey, KII and FGDs were conducted to identify valuable comments about this project and all the information about the project activity was noted down

6.5 Impact during Operation Phase

6.5.1 Impacts Related to Assessment and Management of Environmental and Social Risks and Impacts (ESS-1)

The proposed project activities within the exiting PTHM premises, anticipated to have some environmental and social risks. These risks need to be managed according to the approved ESIA and ESMP. This ESIA study suggested some ESMP to minimize the negative effect of the project activity which should be followed, and proper monitoring should be undertaken according to the specified schedule mentioned in this ESIA report. The proponent has already obtained ECC for this project.

6.5.2 Labour and Working Condition and Gender Based Violence (ESS-2)

Working conditions and terms of employment examples are wages and benefits; wage deductions; working hours; overtime arrangements and overtime compensation, breaks, and leave for illness, maternity, vacation or holiday in a week. There are existing 1793 manpower within the PTHM and after expansion the number of manpower will be 1983.

The health of the project personnel, workers and labourers could be impacted if arrangement of sanitation and drinking water is not ensured adequately and properly. During operation stage, workers and labourers generate human waste and other waste. These are the potential source for spread of diseases, as various insects will play dominating role in the spread of diseases. There are chances for the spread of water borne diseases also. There are canteen and dining facilities available for staffs and workers. There is safe drinking water facility for all and separate toilet facilities for male and female workers.

Impact Potentiality Level: **Significant**

Proposed Mitigation Measures

- The proponent will adopt and implement human resources policies and procedures as per the ILO Core Labour Standards Convention and Bangladesh Labor Act, 2006;
- The Company will not make employment decisions on the basis of personal characteristics unrelated to inherent job requirements;
- Project proponent should maintain standard salary, salary deductions; hours of work; overtime arrangements and overtime compensation;
- Child labor and forced labor should strictly be prohibited;
- Project personnel and workers will follow appropriate means of waste removal and sanitation measures;
- Ensure sanitary facilities for the workers to encourage personal hygiene;
- All the workers and staffs should follow the safety protocol (i.e., Physical distancing,



Face coverings, Gloves, Goggles & Face Shields, Hand hygiene, Coughing/Sneezing hygiene, Personal disinfection, request for cleaning supplies and Face coverings to others)

- Separate Male and female toilets should be available;
- Adequate number of toilets and bathrooms should be made for the workers. Standards range is 1 unit to 15 persons;
- Sanitary waste should be treated and adequately disposed of in drainage system to avoid surface water contamination.
- Discrimination between male and female labor should be prohibited;
- Measures should be taken to prevent and address harassment, intimidation, and/or exploitation, especially in regard to women;
- Establish Internal (worker's) grievance mechanism which should be accessible to all project employees/workers.

Sanitation Hazard & Drinking Water

The uncontrolled dumping of domestic wastewater into water bodies and open land due to a lack of sewage management legislation and the absence of treatment procedures in textile industries might pose risks to the environment and human health. The authority of PTHM is aware about the proper sewage management within the project area.

Impact Potentiality Level: **Moderate**

Proposed Mitigation Measures

Existing Condition: Septic tanks have already been constructed for proper domestic wastewater management. There are 22 septic tanks with soak pit is present within the project area. Dimension of each septic tanks is about 5m×4m×2m. The total volume of 22 septic tank is 880 m³/day, which are sufficient for 1793 employees.

Proposed condition: The - domestic wastewater will be - preliminarily treated by septic tank and soak pit then it will be sent to the city corporation drain. In the expansion portion about 200 people will be employed during the operation period.

Dimension of septic tank is about 4.867m×4.345m×3.042m. The capacity of the septic tank is 64.21m³.

Standard Assumptions:

Per Capita Wastewater Generation: 120 liters per person per day

Retention Period: Typically, 2 days (standard for septic tanks).

Tank Utilization Factor: 70% of the total tank volume is used for liquid waste storage.

Daily Wastewater Volume:

Daily Volume=200people×120L/person/day=24,000L/day

Tank Capacity for 2-Day Retention:



Required Tank Volume=Daily Volume×2days

Convert to cubic meters: = **48.0 m³**

Effective Capacity of One Tank:

The effective capacity of one septic tank is **44.95 m³** (70% of the total capacity of 64.21 m³).

For the additional employees (200 people), 1 septic tank of the given dimensions is sufficient.

GBV/SEA

The likelihood of labor induced GBV/ SEA/ SH may create unwanted social issues; women may be discouraged from working. The following probable impact is expected to occur if proper human resource management are not taken in project site.

- Wage discrimination between men & women
- Women friendly working arrangement and drinking water facilities may not be provided
- Eve teasing and sexual abuse
- Women, particularly of weaker sections may be discouraged to speak and demand equitable benefits in the name of parda/ dignity of women
- The project has been screened for GBV risks and it has been rated as “medium”.

Impact Potentiality Level: **Moderate**

The following measures will be taken:

- Training on GBV/SEA/SH to all workers, including consequences due to non-compliance
- The signing of the Code of Conduct (attached in Appendix XIV)
- Separate rest area and washroom for males and females
- Grievance redress system and channel
- Assignment of female staff as a GBV/SEA/SH focal point
- The special emphasis on culturally appropriate behaviours if workers come into contact with small ethnic communities.

Existing Situation at Pahartali Textile and Hosiery mill:

Pahartali Textile and Hosiery mill has already developed GBV/SEA/SH policy and employee Code of conduct to address these issues.

6.5.3 Occupational Health and Safety (ESS-2)

There might be hazards to plant workers, operators, employees and technical personnel from working at the floor level, utility sections, and storerooms. Provisions need to be made by the project for protecting occupational health, including protection of workers from hazards, fires etc. as well as protection of workers' health and assurance of safe drinking water supply and sanitation.

Based on the magnitude of the impact for fire and the area that can be potentially affected, the emergency management plan may either be an onsite management plan or an offsite management plan. There are also possibilities of the above hazards to take place during natural causes like earthquake, cyclone etc.



Impact Potentiality Level: **Significant**

Mitigation Measures

- The layout of the project should be such that the high-risk zones are separated from the low-risk zones. Green belt development shall be at the periphery and not within the plant area – the plant area should have an open lawn.
- Roads inside the plant area should be broad and spacious so that fire brigades can operate smoothly. All high-risk zones must be easily accessible.
- Hazard and risk-prone areas should be identified and characterized by conducting risk assessment.
- On-site and off-site disaster management plans, based on impact magnitude and its severity, need to be prepared.
- Pre-job risk assessment must be done for new and hazardous work. This should be also followed by work permits specifying risks, management options and persons responsible to take corrective actions.
- Personal protective equipment (hand gloves, safety goggles, nose masks and helmets) to be provided to all the employees working in the plant.
- Training for employees to educate them about the hazardous nature of chemicals used in the process.
- Supervision of high risks jobs should be ensured.
- There should be provision for delegation of supervision to ensure more safety.
- Workers can be rotated within jobs so that they are not faced with continuous noise exposure for a long period of time.
- Trained medical personnel and first aid facilities as well as safety equipment such as fire extinguishers and fire alarms to be made available at place of work.
- Medical examinations to be conducted for the workers from time to time. If significant occupational health problems are observed, the management should take appropriate measures.
- Identification and implementation of management procedures including process safety, training, management of change, incident investigation, employee participation, contractor training and oversight.
- Developing and implementing an emergency response programmer, including emergency response procedures, emergency equipment, training, review and updates.
- Health & safety performances of employees & contractors must be recorded & reviewed.
- Each & every incidents should be reported; later investigations must be done by root cause analysis. Later action plans may be developed for continuous improvement, monitoring & review.

Existing Situation of Health and Safety

The PTHM has already taken adequate mitigation measures. The factory has all sorts firefighting arrangements. Regular health and safety training, fire drill is conducted. Though in some places firefighting equipment's and walkways are obstructed with production raw materials. Designated floor level workers are trained and give responsibility for primary health treatments. Adequate numbers of first aid facilities are available. But in some places first aid boxes are found poorly maintained. It has been made compulsory to use PPEs like ear plug, ear muff etc. in noisy areas like production floor and generator room. Also some of workers are found not wearing ear plug.



Work place monitoring is done regularly by third party. The factory has renewed fire license, emergency evacuation plan is available in the factory. Fire license attached as Appendix IX. Further, PTHM have their Safety and Health Policy, which is attached in **Appendix XXII**. Key Highlights of Safety and health Policy is provided below:

Commitment to Safety:

PTHM values employee safety and commits to providing a safe workplace. A comprehensive injury prevention program involves management, supervisors, and employees in identifying and mitigating workplace hazards. Core Safety Policy: No task is considered so important that it justifies violating safety rules or risking injury/illness to complete it. Employees must comply with safety rules and participate in making the workplace safer.

Roles and Responsibilities:

- Health & Safety Committee: Responsible for ensuring employee safety, identifying hazards, and eliminating risks.
- Management: Allocates resources for safety, forms safety committees, identifies/corrects hazards, plans for emergencies, and provides training.
- Supervisors: Ensure employees receive orientation and training. Monitor competence and safe operation before employees begin tasks.

Safety Philosophy: Safety is a collective responsibility requiring teamwork to maintain a healthy and hazard-free workplace.

6.5.4 Impacts Related to Resource Efficiency and Pollution Prevention and Management (ESS 3)

6.5.5 Impact on Air Quality and Climate (ESS 3)

Pahartali Textile and Hosiery Mill's key air emission sources are the natural gas-fired generators and boilers, operating continuously to support textile production. Emissions from these units primarily consist of CO₂, CH₄, and N₂O, which contribute to both local air quality degradation and global climate change. Stack emissions, though minimized by the use of cleaner fuels, can release unburned hydrocarbons, CO, and trace SO₂, and have implications for thermal pollution due to high flue gas temperatures.

In addition, cotton dust generated from spinning and raw material handling poses occupational health risks, including byssinosis. Control measures like localized dust extraction systems, regular ventilation inspection, PPE usage, and floor-level vacuum cleaning are in place across most units, with the exception of the raw cotton processing area.

While industrial projects often contribute to climate change through greenhouse gas (GHG) emissions, the PTHM Unit-2 expansion project has been designed with sustainability principles and energy efficiency in mind. The development occupies a relatively small, flat site with well-planned drainage and no impact on ecologically sensitive areas. As such, the project is not expected to cause any significant adverse effect on local or regional climatic conditions.



GHG Emissions Analysis for Energy Use

The facility operates on a mixed-source energy system, with total monthly electricity consumption averaging 6,542,633 kWh,

Table 32: Energy Consumption data 2024

Month	Gas Consumption	Electricity Consumption
	(M ³)	(kWh)
January, 2024	1595532.65	1194255.0
February, 2024	1768029.0	13896.0
March, 2024	1881488.0	-
April, 2024	1266045.0	549000.0
May, 2024	1973527.0	396000.0
June, 2024	1247530.0	1082853.0
July, 2024	1542351.0	1059147.0
August, 2024	1770986.0	576801.0
September, 2024	1815382.0	663759.0
October, 2024	1728903.0	1376955.0
November, 2024	1543252.0	1177929.0
December, 2024	1585804.0	804357.0
Total (Jan–Dec, 2024)	19718829.65	8894952

Source: PTHM, 2024

The breakdown and emissions per energy source are as follows:

This section presents a summary and interpretation of the Greenhouse Gas (GHG) emissions from Pahartali Textiles Limited for the reporting year 2024, based on the audit conducted by Greentech Inspection Ltd. The assessment covers both direct emissions from gas combustion and indirect emissions from electricity consumption, calculated in accordance with the 2006 IPCC Guidelines using the Tier 1 approach.

For detailed GHG emission monitoring results, see Appendix XXIV.

Table 33: Result of GHG Emissions Summary



Category	Parameter	Value
In Case of Gas	CO ₂ Emission	37,169.205 ton/year
	CH ₄ Emission	662.553 Kg CH ₄ /year
	CH ₄ Equivalent (CO ₂ e)	0.663 ton CO ₂ e/year
	N ₂ O Emission	66.255 Kg N ₂ O/year
	N ₂ O Equivalent (CO ₂ e)	0.066 ton CO ₂ e/year
	Total CO ₂ e Emission (Gas)	37,205.314 ton CO ₂ e/year
In Case of Electricity	Total Electricity Consumption	8,894,952 KWH/year
	CO ₂ Emission	5,115.632 ton/year
	CO ₂ Emission per MWH	5.115632 ton CO ₂ e/year

Source: Greentech Inspection Ltd., January 2025

Interpretation and Conclusion

- Direct emissions from natural gas usage account for 88% of total emissions.
- Indirect emissions from purchased electricity make up the remaining 12%.
- Emissions of methane (CH₄) and nitrous oxide (N₂O) are negligible and do not significantly influence the overall climate impact profile.

The total annual emissions fall within acceptable limits for textile manufacturing operations of this capacity. Nevertheless, the data underscores the reliance on fossil fuels and presents opportunities for further mitigation through:

- Expansion of solar energy capacity
- Fuel-switching to cleaner alternatives (e.g., biogas, LNG)
- Investment in high-efficiency equipment and process optimization

Given the moderate emission intensity and integration of renewable energy, no immediate climate mitigation measures are deemed necessary. However, continuous monitoring and improvement of energy performance are recommended to align with long-term sustainability goals.

Impact Potentiality Level: **Moderate**

Overall, the air quality impact is assessed as moderate, with emissions remaining within national limits. The project's energy-efficient design and use of cleaner fuels support alignment with LEED goals and KfW climate resilience criteria.

Mitigation Measures

Mitigation strategies include providing adequate stack height, tuning the air-fuel ratio for efficient combustion, expanding renewable solar capacity, and continuous monitoring via third-party audits.

Existing Situations at Pahartali Textile and Hosiery mill



Pahartali Textile and Hosiery mill have generator for its production. The operation of this generator results emission of exhaust gases. If it is not managed properly, it can create pollution of the surrounding air quality.

To ensure proper and efficient operation of generator it is suggested to monitor the exhaust gases regularly and tune burners accordingly. The facility has dust control system at every operational unit except the raw cotton processing unit.

6.5.6 Impact Acoustic Environment (ESS 3)

Impacts and Origin

Noise is a problem for workplace. The main noise emitting source for Pahartali Textile & Hosiery Mills (A unit of M.M. Ispahani Limited) is boiler, generator, compressor and production section. The term 'noise' may be defined as an unwanted sound at a wrong time and a wrong place. Noise is considered to be one of the dimensions of pollution, which leads to degradation of the environment and also creates psychological and physical effects on human health. The discomfort caused by noise is difficult to assess; it includes auditory fatigue and temporary lessening of hearing ability. Perception of noise is often relative to the background sound level, so that new roads in quiet areas or noisy trucks at night are often perceived as worse than higher levels of noise in a busy area during working day. Noise levels depend on the two parameters- sound pressures and sound intensity.

Impact Potentiality Level: **Significant**

Potential environmental impacts of noise

Noise pollution can potentially affect immediate neighbors, employees and visitors. The impacts are:

- Continuous exposure of neighbors to noise nuisance may result in noise induced hearing lose;
- Noise nuisance may reduce concentration of neighbors in their private matters.
- High noise level will force employees to shout loud when communicating to one another;
- Exposure of employees to high noise level (above 85dB) continuous for 8hours per day may result in noise induced haring lose;
- According to BLR 2015 (68), noise level above 80 dB at production area will consider as unhealthy.
- Exposure of ear to peak sound level instantaneously may result to deafness.
- A significant loss of hearing contributes to social isolation and reduced quality of life, career prospects, increased absenteeism, worker turnover and lowered work performance.

Existing Situation of Pahartali Textile and Hosiery mill

In order to assess the present sound quality, sound quality monitoring was conducted at different sections of Pahartali Textile and Hosiery mill, results indicates that the sounds levels are meets the DoE standard for industrial area.



Mitigation Measures

Noise pollution is mostly related to occupational health impacts, to which due attention has to be provided. The following mitigation measures are suggested to reduce impacts of noise resulted from the operations of Pahartali Textile and Hosiery mill

- Noise shielding by barriers or buildings mostly at the generator room
- Regular noise quality monitoring at the site
- Mandatory use of PPEs inside noisy areas
- Replacing noisy machines with low noise/ noiseless machines
- Regular maintenance of machineries or equipment's
- Green belt development surrounding the boundary of the project area.

6.5.7 Solid and Hazardous Waste Management (ESS 3)

Waste management at the PTHM Unit-2 site is currently functional and compliant with national environmental regulations. However, the expansion—particularly the construction of the new dormitory and increased operational workforce—requires a modest scaling up of waste handling infrastructure and oversight.

Current Waste Management Practices

- Hazardous Waste: Limited to 1–2 kg/month, primarily from medical facilities (first-aid and infirmary). This waste is collected in color-coded containers and handed over to a certified third-party hazardous waste handler (licensed under DoE).
- Non-Hazardous Solid Waste: Includes packaging, food waste, paper, and general refuse generated from production support areas and worker facilities.
 - Waste is collected daily at designated waste collection centers.
 - However, minor lapses were observed during the site visit, including scattered solid waste near perimeter walls, indicating the need for improved housekeeping and segregation.
- Recyclables: Materials such as plastic, paper, and metal are separated at source and sold to local recyclers.

Anticipated Increase in Waste Generation

The ongoing investment program does not introduce significant new industrial processes and thus will not create additional process-related waste. However, the increase in workforce—estimated at ~10% due to the new dormitory facility—will proportionally increase the volume of domestic and general solid waste.

Estimated Additional Waste:

Based on existing per capita waste generation rates (~0.5 kg/person/day), the new dormitory is expected to generate an additional 15–20 kg of waste per day, or approximately 500–600 kg per month.



Waste Management Adjustments and Responsibilities

To address this increase:

- The onsite housekeeping and janitorial teams will be expanded by one full-time worker per shift to manage additional cleaning and segregation duties.
- More color-coded bins will be installed across dormitory and dining areas.
- A weekly waste audit and improved monitoring will be implemented under the EHS Manager's oversight to ensure no overflow or spillage occurs.
- The Environmental & Social (E&S) Focal Person from the PTHM management team is responsible for overall waste management coordination and compliance.
- Final disposal remains outsourced to a DoE-certified municipal waste handler, with whom a service agreement is in place.

Handling of Hazardous Waste (Medical Waste)

Hazardous waste is limited to medical waste generated at on-site health facilities, averaging 1–2 kg per month. This waste is collected and handed over to a licensed third-party hazardous waste disposal company under regulatory compliance.

Planned Demolition of Asbestos-Roofed Building

One building with legacy asbestos cement roofing remains within the industrial campus and is slated for demolition as part of future site upgrades. The following approach is planned:

- The EHS Manager, in coordination with the Factory Project Engineer, will oversee the safe dismantling of asbestos materials, in accordance with DoE and ILO guidelines for hazardous materials handling.
- Workers will be trained and equipped with full PPE (including respirators and disposable coveralls).
- The asbestos cement sheets will be carefully demounted, sealed, labeled, and handed over to an approved hazardous waste management contractor, capable of transporting and disposing asbestos waste at a designated landfill facility.

6.5.8 Impact of Water Use & water extraction from Environment (ESS 3)

Impacts and Origin

Water is a vital element for our daily activities. That is why water quality is a principal environmental concern and therefore, understanding the consumption, sources and characteristics of the waste water and selection of adequate treatment options are crucial from the management viewpoint. Daily 1200 m³ water used in production and other use of plant. The direct extraction of groundwater may cause deterioration of groundwater level in future.



Impact Potentiality Level: **Moderate**

Mitigation Measures

Most of the measures that is required to minimize the extraction of groundwater includes the following

- Limiting overall water consumption
- Regular monitoring of ground water quality
- Installation of rainwater harvesting system at least for the office buildings.
- Reuse of process water if found viable

Existing water usage and demand

Pahartali Textile and Hosiery mill currently using 1050 m³/ day water, after new project 1200 m³/ day water is required every day for its domestic purposes. According to the project authority the total water demand is met through Ground water extraction and CWASA. PTHM already have obtained the ground water extraction permission from CWASA. The permission copy is renewed each year. The copy is attached in **Appendix XVIII**.

6.5.9 Impact Due to Solid Waste Generation (ESS 3)

Impacts and Origin

Significant amount of solid waste generated from a factory, which included waste yarn, empty drums/containers, dirt, kitchen/canteen wastes, etc. If this solid waste is not managed properly, it can impose great danger to the environment & community, which are:

- Poorly disposed waste yarn, waste paper & especially plastic waste can block drainage;
- Empty chemical drums & containers if not disposed properly can pollute soil & water of the receiving environment;
- Odor emanating from degradable waste especially kitchen waste can pollute local ambient air;
- Poorly managed and disposed kitchen waste can attract disease vectors;
- Decomposing kitchen waste can pollute local ambient condition;
- Poorly managed electrical, mechanical and chemical wastes can pollute soil, water and air.

Impact Potentiality Level: **Moderate**

Mitigation Measures

Solid wastes need proper handling, transportation and disposal. Disposal of solid wastes should be of the sanitary land filling type among others, which does not pose hazards to ground water pollution in any case. Containers containing chemical dyes and other chemicals of possibly harmful nature may be sold to DoE approved vendors or after proper washing should be disposed of in an environment friendly manner. The following mitigation options are generally recommended for solid waste management:



- Solid waste to be handled, managed and disposed according to the waste management regulations;
- Waste handling bins to be provided, each bin should have a lid which should always be covered;
- Color code to be used to distinguish waste bins of different waste;
- Waste to be sorted at source;
- All scrap metal and wood to put in a designated handling area which should be away from active areas, the area should also be marked and labeled appropriately and preferably have some form of enclosure;
- Paving of unpaved areas, regular sprinkling of water on dusty areas and regular sweeping of fine particles from paved areas can address the issue of dust and fine particles emanating from paved and unpaved areas within the facility;
- Daily disposal of food based waste before decomposition and production of odor;
- Plastic waste should be collected and handled separately in closed waste receptacles;
- Prompt maintenance of sewer line, appropriate location of soakage pits away from boreholes will avoid contamination of ground water resources.
- There should be no scattering of waste during transportation to disposal site.

Existing Management Practices

PTHM already have SOP for waste handling (Appendix XV) and Waste selling agreement (Appendix XVI) to ensure safe disposal of these wastes. Pahartali Textile and Hosiery mill has sufficient numbers of cleaners who regularly cleans and collects solid wastes generated in the complex. Sufficient numbers of dustbins have been put in place. In case of electro mechanical waste the amount is very negligible and collected and stored in store room. The PTHM have the following policy for waste handling:

Policy: All unusable process wastage generates in yarn production process to be sold in the local market.

The objective is to define wastage sale management in a way that confirms proper benefit for the company as well as prevent the negative impact on environment. This SOP will focus on the efforts of the responsible persons and would help to understand the correct procedure in connection with sale of process waste.

The saleable wastage generates in production process to be sold to interested Wastage Buyers in the market and the management in its own discretion will nominate the specific buyers to procure wastage from PTHM. There will be individual signed agreement between the management and the party for buying and selling Wastage for a specific period.

The Management will reserve the rights to change the sales arrangement and procedure in accordance with the best industrial practices of market and industry standards.

The Chief Operating Officer of PTHM will be prime responsible for ensuring the following:

- Ensure the best price of the wastage.
- Allot the quantity for each buyer as per available stock and production.
- Ensure on-time selling of saleable wastage.
- Co-ordination of total waste sale management



6.5.10 Impacts Related to Community Health and Safety (ESS 4)

Traffic and Transportation

As the project is located within the PTHM existing area, there is limited impact to affect the surrounding community health and safety. The project manager will evaluate the risks and impacts to the health and safety of the affected Communities during operation phase. Increase in vehicular traffic in the area is likely to be experienced during operation phase of the project. During the operation phase, increase in vehicular traffic in the area may result in:

- Possible traffic congestion of Zakir Hossain road;
- Occasional experience of delays on the Zakir Hossain roads;
- Pedestrians and cyclists using the roads around the project area may face accidents on the Zakir Hossain roads;
- There will be an increase of exhaust emission from vehicles, which will pollute local atmospheric air.

About 3 nos. of Trucks/hour will have their movement which will cause similar level of traffic movement effect. The Zakir Hossain road is very wide about 15 m. Further PTHM have their own parking place, so no congestion on Zakir Hossain road was observed. Moreover, the internal roads facility of the project site is very satisfactory and well planned. There is no traffic jam around the existing project area, but it can be increased during the operation of the proposed project.

Proposed Mitigation Measures

- A Traffic Management Plan is attached in Appendix XXI. PTHM should follow this plan for better traffic management.
- Management to provide for adequate internal parking, for all vehicles coming to the project premises;
- All users of said roads to always observe traffic rules this will give pedestrians and cyclist their space and safety while using the road;
- Piloting should be done for internal traffic with materials and goods to avoid any accidents;
- Enforce on-site speed limit, especially close to the sensitive receptors, schools, health centers, etc.;
- Marking of the roads, warning signs / lights, road signs to be clearly used..
- Regularly evaluate the accident record, the status of effectiveness of adopted measures and overall co-operation from the respective community.

6.5.11 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS- 05)

No impact anticipated. The extension of PTHM is established within the existing PTHM boundary.



6.5.12 Impacts Related to Bio-diversity & Living Natural Resources (ESS 6)

No impact anticipated. The extension of PTHM is established within the existing PTHM boundary. A tree plantation program will be implemented which will further improve the terrestrial flora and fauna habitats

Mitigation Measures:

- Specific procedures and necessary preparedness should be undertaken to contain any accidental spill at source and also to prevent their spread in the surrounding environment;
- Site should be kept clean so as no pollutant from site should enter the water bodies along with run-off.

6.5.13 Impacts Related to Tribal/Indigenous Population (ESS 7)

The surveys indicated no tribal or indigenous people were found within the project influence area.

6.5.14 Impact Related on Impacts on Cultural Heritage (ESS 8)

The proposed project does not have any archaeological sites around the 5km radius of the project. Since the boundary is raised up to 15 feet high, water sprinkling is carried out to maintain air quality, and noise does not exceed beyond the boundary, so no impact on community properties. Therefore, no additional mitigation measures are required.

6.5.15 Financial Intermediaries (ESS 9)

Proponent should prepare all the Environment and social documents related to this project and disclose them on their websites. The updated ESMP includes several additional monitoring components such as GHG emissions tracking, fugitive emissions, emergency response readiness, and GBV/GRM monitoring. These parameters are detailed in Table 40 and should be monitored as per prescribed frequency to ensure effective environmental and social performance.

6.5.16 Stakeholder Engagement and Information Disclosure (ESS 10)

The updated ESMP includes several additional monitoring components such as GHG emissions tracking, fugitive emissions, emergency response readiness, and GBV/GRM monitoring. These parameters are detailed in Table 40 and should be monitored as per prescribed frequency to ensure effective environmental and social performance. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.

Throughout the entire project lifecycle, ongoing consultations with stakeholders will be conducted.

6.6 Beneficial Impacts and Enhancement

6.6.1 During Construction

During the construction period, the project will create job opportunities for skilled, semi- skilled, and unskilled laborers. However, the impact will be a relatively short duration, being restricted



locally to the construction period. Although the numbers of people who benefited in this way are relatively small, the impacts on individuals can be disproportionately high compared to the other local people.

Benefit Enhancement Measure

Although labor recruitment is a matter of the construction contractor who has the right to determine whom he shall not employ, still the project proponent shall encourage the contractor to hire local people wherever possible and to give preference to the employment of the landless people.

6.6.2 During Operation Phase

The most significant positive impact of the project would be the producing export quality yarn. The other important positive impact of the project would be the employment of personnel for the operation of the industry. The project envisages employing an undetermined number of skilled and unskilled personnel during its operational phase. Apart from the positive impacts, other beneficial impacts include benefits to the local economy due to employment, community development, etc.

Benefit Enhancement Measure

A maximum of probably 120 workers and 1983 workers may be employed during the construction and operational periods respectively at the PTHM. Although labor recruitment is a matter of the project proponent who has the right to determine whom he shall and shall not employ, still the project proponent might take initiative to employ local people wherever possible and to give preference to employment of the jobless people.

6.7 Impact Evaluation

The impact assessment methodology defines four levels of sensitivity and magnitude i.e., Minimal, Minor, Moderate/Medium or Major. The significance of an impact is determined on the basis of the level of sensitivity and magnitude of the impact.

Table 34: Parameters for determining magnitude

Category	Consequence Level	Impact Level
Major	4	Impacts that last 20 years or above
Moderate	3	An impact which continues for 10 years or more but less than 20 years
Minor	2	Generally last only for three (3) years
Minimal	1	Temporary with no potential impacts

Table 35: Criteria for determining sensitivity

Sensitivity	Ranking	Definition
Very High	4	Minimal opportunity for mitigation
High	3	Limited opportunity for mitigation



Moderate	2	Moderate opportunity for mitigation
Minor	1	Good opportunity for mitigation

6.7.1 Assessing significance of an impact

$$\text{Impact Significance} = \text{Magnitude} \times \text{Sensitivity}$$

Table 36: Cross-tabular matrix for assessing significance of an impact

Sensitivity	Magnitude			
	Very High (4)	High (3)	Medium (2)	Minor (1)
Very High (4)	16	12	8	4
High (3)	12	9	6	3
Moderate (2)	8	6	4	2
Minor (1)	4	3	2	1
13-16	Extreme- Beneficial	Positive Activity of the Project		
13-16	Extreme- Adverse	Activity should not be proceeded in current form.		
8-12	High	Activity should be modified to include some remedial planning		
4-6	Moderate	Activity can operate subject to management and for modification		
1-3	Minor	No immense action required		



Table 37: Evaluation of Impacts during pre-construction and Construction Phase

Environmental Aspect	Activities	Nature		Impact Type		Duration		Sensitivity	Magnitude	Significance	
		Positive	Negative	Reversible	Irreversible	ST	LT			Adverse	Beneficial
Assessment and Management of Environmental and Social Risks and Impacts (ESS-1)											
The project's environmental and social impacts necessitate an Environmental and Social Impact Assessment (ESIA) study in accordance with ESS 1 and the Environmental and Social Framework (ESF) of BIFFL. The ESIA study is currently in progress. The project already obtained ECC. Being subject to renewal of each year, PTHM renews it every year and the latest renewal certificate is attached in Appendix I.											
Labor and Working Condition (ESS-2)											
Occupational health and safety	The labors sometimes may be attacked by inhaling dust and different accidental issues (Reckless driving, faulty equipment's, etc.)		☐	☐			☐	4	1	Moderate (4)	
Labor and Working Condition	Ensuring fair and transparent labour practices for maintaining a motivated and productive workforce.		☐	☐			☐	3	2	Moderate (6)	
Sanitation Hazard and Drinking Water	The health and well-being of laborers can be significantly impacted by sanitation hazards and issues related to drinking water		☐	☐			☐	2	2	Moderate (4)	



Environmental Aspect	Activities	Nature		Impact Type		Duration		Sensitivity	Magnitude	Significance	
		Positive	Negative	Reversible	Irreversible	ST	LT			Adverse	Beneficial
Employment Generation	Creates numerous job opportunities across various skill levels, contributing to both local and regional economic development.	☐			☐	☐		4	3		High Beneficial (12)
Resource Efficiency and Pollution Prevention and Management (ESS 3)											
Air Pollution	Dust and gases from construction equipment and vehicles		☐	☐		☐		1	2	Minor (2)	
	Loading and unloading construction materials		☐	☐		☐		1	2	Minor (2)	
	Handling and mixing of cement		☐	☐		☐		1	2	Minor (2)	
	Ongoing Civil Construction work		☐	☐		☐		1	2	Minor (2)	
Water Pollution	Heavy runoff of rainfall		☐	☐		☐		2	2	Moderate (4)	
	Labor Camp		☐	☐		☐		1	2	Minor (2)	
Noise & Vibration	Noise generated during civil construction work		☐	☐		☐		2	2	Moderate (4)	



Environmental Aspect	Activities	Nature		Impact Type		Duration		Sensitivity	Magnitude	Significance	
		Positive	Negative	Reversible	Irreversible	ST	LT			Adverse	Beneficial
	Vehicles movement		☐	☐		☐		1	2	Minor (2)	
Offensive Odor	There is no evidence or trace of offensive odors around all the project sites		☐	☐		☐		1	1	Minor (1)	
Soil	Oil spillage from vehicle or machinery		☐	☐		☐		2	2	Moderate (4)	
	Improper of Solid Waste management		☐	☐		☐		1	2	Minor (2)	
Solid Waste Generation	The impact of waste generated in the construction phase is expected to be limited and well managed.		☐	☐		☐		1	2	Minor (2)	
Community Health and Safety (ESS 4)											
Community Health & Safety	Pollution (Air, Noise)		☐	☐		☐		1	2	Minor (2)	
	Traffic and Transportation		☐	☐		☐		1	2	Minor (2)	
	Social Acceptability of Workers to the		☐	☐		☐		1	2	Minor (2)	



Environmental Aspect	Activities	Nature		Impact Type		Duration		Sensitivity	Magnitude	Significance	
		Positive	Negative	Reversible	Irreversible	ST	LT			Adverse	Beneficial
	host community										
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS- 05)											
No impact anticipated. The expansion is established within the existing PTHM premises.											
Biodiversity Conservation and Sustainable Management of Living Natural Resources (ESS 6)											
Impact on Terrestrial and aquatic Environment	Noise and vibration from Construction machinery and vehicles		☐	☐		☐		1	2	Minor (2)	
	Air emission from vehicles, generator and other construction machinery/work.		☐	☐		☐		1	2	Minor (4)	
	Improper solid waste management system		☐	☐			☐	1	2	Minor (2)	
	Improper labor camp sewage management system		☐	☐			☐	2	1	Minor (2)	
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities (ESS-7)											
No tribal or indigenous people within the project influence area.											



Environmental Aspect	Activities	Nature		Impact Type		Duration		Sensitivity	Magnitude	Significance	
		Positive	Negative	Reversible	Irreversible	ST	LT			Adverse	Beneficial
Cultural Heritage (ESS-8)											
No impact anticipated											
Financial Intermediaries (ESS 9)											
PTHM should prepare all the Environment and social documents related to this project and disclose them on their websites.											
Stakeholder Engagement and Information Disclosure (ESS 10)											
Continuous engagement of stakeholder		☐			☐		☐	4	3		High Beneficial (12)

Table 38: Evaluation of Impacts during Operation phase

Environmental Aspect	Activities	Nature		Impact Type		Duration		Sensitivity	Magnitude	Significance	
		Positive	Negative	Reversible	Irreversible	ST	LT			Adverse	Beneficial
Assessment and Management of Environmental and Social Risks and Impacts (ESS-1)											
Renewal of ECC & Implementation of the ESMP of the approved ESIA		As this ESIA study also need to compliance with the national rules and regulation. So, the ECC should be renewed yearly from the DoE as well as follow the ESMP of the approved ESIA for funding from BIFFL. The monitoring reports will be submitted to DoE for regular environmental compliance monitoring.									
Labor and Working Condition (ESS-2											
Occupational Health and safety	The employee sometimes may be affected by inhaling emission and different accidental issues (Slip-fall, faulty equipment's/ operational error, fire, explosion, etc.).		☐		☐		☐	4	1	Moderate (4)	



Environmental Aspect	Activities	Nature		Impact Type		Duration		Sensitivity	Magnitude	Significance	
		Positive	Negative	Reversible	Irreversible	ST	LT			Adverse	Beneficial
	Improper solid/ hazardous waste management system		☐	☐		☐		2	1	Minor (2)	
	Improper industrial effluent and sewage management system.		☐	☐		☐		2	1	Minor (2)	
Labour and Working Condition	Working conditions and terms of employment examples are wages and benefits; wage deductions; working hours; overtime arrangements and overtime compensation, breaks, and leave for illness, maternity, vacation or holiday in a week		☐	☐			☐	3	2	Moderate (6)	
Sanitation Hazard & Drinking Water	The health of the project personnel, workers and laborers could be impacted if arrangement of sanitation and drinking water is not ensured adequately		☐	☐			☐	2	2	Moderate (4)	
Employment Generation	The main positive impacts during the operation phase are the availability of employment opportunities.	☐			☐		☐	4	4		Extreme Beneficial (16)
Resource Efficiency and Pollution Prevention and Management (ESS 3)											



Environmental Aspect	Activities	Nature		Impact Type		Duration		Sensitivity	Magnitude	Significance	
		Positive	Negative	Reversible	Irreversible	ST	LT			Adverse	Beneficial
Air Pollution	Limited emission of gas from vehicles and operational activities as there is no provision of high air pollutant emitting industries within the Project.		☐	☐			☐	2	2	Moderate (4)	
Water Pollution	Without treatment of sewerage and effluent may pollute the nearest surface water quality.		☐		☐		☐	2	2	Moderate (4)	
Noise Pollution	Noise generation from vehicles, and operational activities.		☐	☐			☐	2	1	Minor (2)	
Soil	Improper of Solid waste management		☐	☐			☐	1	2	Minor (2)	
Solid Waste	The quantity of this solid waste will be very minimal as the project is equipped with high technology machineries.		☐	☐			☐	1	2	Minor (2)	
Energy Efficiency	PTHM will adopt energy efficient latest technologies i.e., LOESCHE Vertical Roller Mills and they will run their plant with electricity supplied from Gas based Power plant.	☐			☐		☐	4	3		High Beneficial (12)
Community Health and Safety (ESS 4)											



Environmental Aspect	Activities	Nature		Impact Type		Duration		Sensitivity	Magnitude	Significance	
		Positive	Negative	Reversible	Irreversible	ST	LT			Adverse	Beneficial
Community Health and socio-economic condition	Traffic and Transportation		☐	☐			☐	2	3	Moderate (6)	
	Traffic congestion due to transport raw materials and final products		☐	☐			☐	2	3	Moderate (6)	
	Social Acceptability of Workers to the Host Communities		☐		☐	☐		2	3	Moderate (6)	
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS- 05)											
No impact anticipated											
Biodiversity Conservation and Sustainable Management of Living Natural Resources (ESS 6)											
Ecosystem	Noise and vibration from operational machinery and vehicles.		☐	☐			☐	1	2	Minor (2)	
	Air emission from vehicles, generator and other operational machinery/work.		☐		☐	☐		1	2	Minor (2)	
	Improper solid waste management system		☐	☐			☐	1	2	Minor (2)	
	Improper Industrial effluent and sewage management system		☐	☐			☐	2	1	Minor (2)	



Environmental Aspect	Activities	Nature		Impact Type		Duration		Sensitivity	Magnitude	Significance	
		Positive	Negative	Reversible	Irreversible	ST	LT			Adverse	Beneficial
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities (ESS-7)											
No impact anticipated											
Cultural Heritage (ESS-8)											
No impact anticipated. As the project will be established within PTHM											
Financial Intermediaries (ESS 9)											
International Financial Institutions (FIIs) are involved in this project to monitor and manage the environmental and social risks and impacts of the project.											
Stakeholder Engagement and Information Disclosure (ESS 10)											
Stakeholder Engagement	GRM	☐		☐		☐		2	2		Moderate (4)
Social and Economic enhancement around project area	The project is likely to bring about significant benefits for the nation.	☐			☐		☐	4	3		High Beneficial (12)



Chapter 7: Environmental and Social Management Plan

7.1 Introduction

The primary objective of Environmental and Social Management Plan (ESMP) is to mitigate the environmental impacts resulting from the project activities and to ensure implementation of the “mitigation measures” identified earlier (Table 39: Consolidated Environmental and Social Management Plan for the expansion of PTHM during Construction and Table 40) in order to reduce adverse impacts and enhance positive impacts from specific project activities. Besides, it would also address any unexpected or unforeseen environmental impacts that may arise during construction and operation phases of the project.

The ESMP should clearly outline: (a) the measures to be taken during both construction and operation phases of the project to eliminate or offset adverse environmental impacts, or reduce them to acceptable levels; (b) the actions needed to implement these measures; and (c) monitoring plan to assess the effectiveness of the mitigation measures employed. Environmental management and monitoring activities for Pahartali Textile and Hosiery Mill (PTHM) can be divided into management and monitoring in the: (a) during construction phase, and (b) during operation phase.

A combined ESMP for both the construction and operation phases is included in section 7.2. The relevant parts of ESMP will be included in the bid documents for contractor and will become a part of the civil works contract during construction. The strict implementation of the ESMP and project management’s strict enforcement of the adequate construction practices and standards will greatly reduce the negative impacts of the Project.

7.2 Environmental and Social Management plan

On the basis of identification of the environmental impacts and recommended mitigation measures linked with the project activities, a consolidated ESMP has been prepared (Table 39 and Table 40) which will be followed at the construction and operation stages. While preparing the ESMP, only significant and moderate impacts have been taken into consideration to recommend possible mitigation measures. A mitigation measure will be considered as successful when it complies with the Environmental Quality Standards (EQS), policies, legal requirements set by World Bank Safeguard Policies and DoE environmental guidelines and other relevant GoB legal requirements. In absence of DoE’s EQS, other relevant international or other recognized organization’s quality standard can be applied.

Table 39: Consolidated Environmental and Social Management Plan for the expansion of PTHM during Construction

Issues	Anticipated Impact	Proposed Mitigation Measures	Responsibility
Assessment and Management of Environmental and Social Risks and Impacts (ESS-1)			
The proposed project activities, anticipated to have some environmental and social risks. These risks need to be identified and managed by conducting an ESIA study, Management Plan and Monitoring As the project falls under Orange Category which requires to take IEE Approval, so, an EIA report has been prepared to get Environmental clearance from DoE which is attached in Appendix 1. The ESIA report has been prepared to fulfill the requirements of BIFFL for funding, and, as per guideline of the World Bank's ESS.			
Management plan for Labor and Working Condition (ESS-2)			
Labor Management and social conflict management	Labor Management including labor influx mitigation	- During construction phases, workers from outside the project area may be deployed where a conflict may arise among them and residents, because of any changes to the local customs or when the external workers fail to understand the local customs. In addition, sexual abuse of female workers by the male workers may happen at project site. Further, due to discrimination of wages, lack of adequate OHS, aggressive behavior by the migrant labors and manger etc. may create labour unrest in the project site. - Local people should be deployed for the construction works to the maximum extent possible, and the migrated workers from other areas or from other countries should be taught to respect local customs in order to facilitate good relationships with local people. - Ensure construction of the workers shed and stockyard at the designated place and should not be sited nearby any waterbodies and not in the vicinity of local community. - Proper training for workers shall be provided. - The lodgings of the project workers should be equipped with sufficient living facilities to keep workers at the project site as much as possible.	Appointed contractors and EHS unit of PTHM



Issues	Anticipated Impact	Proposed Mitigation Measures	Responsibility
Occupational & Health safety	- Construction work may pose health and safety risks to the construction workers and site visitors leading to severe injuries and deaths. The population in the proximity of the construction site and the construction workers will be exposed to a number of : - biophysical health risk factors, (e.g. noise, dust, chemicals, construction material, solid waste, waste water, vector transmitted diseases etc.), - risk factors resulting from human behavior (e.g. STD, HIV etc.) and (iii) road accidents from construction traffic.	- Implement suitable safety standards for all workers and site visitors which shall not be less than those laid down on the international standards (e.g. International - Labor Office guideline on 'Safety and Health in Construction; World Bank Group's 'Environmental Health and Safety Guidelines') and contractor's own national standards or statutory regulations, in addition to complying with the national standards of the Government of Bangladesh (e.g. 'The Bangladesh Labor Code, 2006'). - Provide the workers a safe and healthy work environment, taking into account inherent risks of this particular construction activity and specific classes of hazards in the work areas, - Provide personal protection equipment (PPE) for workers, such as safety boots, helmets, masks, gloves, protective clothing, goggles, full-face eye shields, and ear protection. Maintain the PPE properly by cleaning dirty ones and replacing them with the damaged ones. - Safety procedures include provision of information, training and protective clothing to workers involved in hazardous operations and proper performance of their job. - Appoint an environment, health and safety manager to look after the health and safety of the workers - Inform the local authorities responsible for health, religious and security before commencement of civil works and establishment of construction camps so as to maintain effective surveillance over public health, social and security matters	Appointed contractors and EHS unit of PTHM
Management plan for resource efficiency and Pollution Prevention and Management (ESS 3)			
Air Quality	Air Pollution	- Sand and other such dispersible material should be stored at the site for a minimum working period. - Material transportation truck should be covered - Ensure safe working procedures - Regular water sprinkled to bare surfaces - Use low Sulphur diesel to reduce emission	Appointed Contractor



Issues	Anticipated Impact	Proposed Mitigation Measures	Responsibility
Water Quality	• Water pollution from surface run-off • Blockage of drainage network	• Surface drainage shall be controlled to divert surface runoff away from the construction area • Strict supervision should be maintained to • avoid blockage of the nearby river • Avoid excavation activities during rain; • Implement the national 3R strategy for both solid and liquid waste management; • Minimize run-off by using sprays for curing; • A proper management plan should take in the sand filling period by the contractor;	Appointed Contractor
Noise Level	• Noise Pollution	• Noisy construction works to be limited to daytime hours • Ensure strict enforcement on user of ear protectors at noisy areas • Temporary noise barriers should be provided near the high noise generating areas like metal or tiles cutting sites, generator rooms etc; • Regular noise monitoring	Appointed Contractor



Issues	Anticipated Impact	Proposed Mitigation Measures	Responsibility
Solid waste	Small amount of waste generates in construction phase	- Segregate waste to minimize waste - Disposed in designated dumping site instructed by the section handling waste; - Implement the national 3R (Reduce, Reuse and Recycle) Strategy during construction phase for both solid and liquid waste management; - Waste from construction camp should be segregated at site. Food/wet waste should be composted in pit at the site, recyclable should be sent to authorized recyclers and rejected waste should be disposed regularly through responsible agency in the area; - Dustbins should be provided at the site and construction camps to prevent littering of waste. - Proper sanitation system should be provided and at the same time, regular, proper and safe disposal of human waste should be ensured. The workers will be made aware to practice those facilities.	Appointed Contractor
Community Health and Safety (ESS 4)			
Community Health and Safety	- Air Quality: Construction activities often generate dust and particulate matter, which can degrade air quality and cause respiratory issues - Noise Quality: Use of heavy machinery, demolition, and construction operations generate high noise levels, which can lead to hearing loss, sleep disturbances.	The impact of air and noise quality does not reach the nearest receptor because the construction activities confined to the existing premises. The existing boundary of PTHM effectively contains the air and noise within the boundary, the air quality remains within acceptable limits due to water sprinkling and noise does not go out of boundary. As a result, there is no impact on the surrounding community. So, no additional mitigation measures required for community people.	Appointed Contractor
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS- 05)			



Issues	Anticipated Impact	Proposed Mitigation Measures	Responsibility
No impact anticipated. PTHM is established within the existing facilities of PTHM.			
Bio-diversity & Living Natural Resources (ESS 6)			
No impact anticipated. PTHM is established within the existing facilities of PTHM.			
Tribal/Indigenous Population (ESS 7)			
No tribal or indigenous people were within the project influence area.			
Cultural Heritage (ESS 8)			
There are no archaeological sites and community properties within 2 km radius will not be affected by the project as per our baseline study. So, no impact anticipated.			
Financial Intermediaries (ESS 9)			
Not Applicable			
Stakeholder Engagement and Information Disclosure (ESS 10)			
FGDs were conducted to identify valuable comments about this project and all the information about the project activity was noted down. The draft ESIA report will be uploaded in the PTHM website to foster a shared understanding of project impacts and for public comments. As a part of the disclosure, hard copies will be available at the project office in addition to PTHM website.			

Table 40: Consolidated Environmental and Social Management Plan for the expansion of PTHM during Operation

Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
Assessment and Management of Environmental and Social Risks and Impacts (ESS-1)						



Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
The proponent has taken ECC for the proposed project and will renew it every year for regular compliance monitoring. The PTHM has also taken the fire license.						
LEED Platinum Certification	Risk of non-alignment with LEED v4 BD+C Platinum criteria	Risk of failing to meet green building and sustainability targets; reputational risk and reduced eligibility for green financing.	- LEED documentation initiated during design stage. Green building materials and energy-efficient design already applied - Complete commissioning; submit documentation; monthly tracking	Monthly until certification	LEED AP / Engineering Team	
Management plan for Labor and Working Condition (ESS-2)						
Labour and Working Condition	For their fair wages, overtime, hours of work, overtime compensation.	Labor Management including labor influx mitigation	- The proponent will adopt and implement human resources policies and procedures as per the ILO Core Labour Standards Convention and Bangladesh Labor Act, 2006; - The Company will not make employment decisions on the basis of personal characteristics unrelated to inherent job requirements; - Project proponent should maintain standard salary, salary deductions; hours of work; overtime arrangements and overtime compensation. - Child labor and forced labor should strictly be prohibited;		EHS unit of PTHM & workers.	



Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
			• Discrimination between male and female labor should be prohibited; • Measures should be taken to prevent and address harassment, intimidation, and/or exploitation, especially in regard to women; • Establish Internal (worker's) grievance mechanism which should be accessible to all project employees/workers. • Ensure construction of the workers shed and stockyard at the designated place and should not be sited nearby any waterbodies and not in the vicinity of local community. • Proper training for workers shall be provided. • The lodgings of the project workers should be equipped with sufficient living facilities to keep workers at the project site as much as possible. • Human resource management should be with proper humanitarian behavior rather than authorities' attitude. • Identification of factors that might create conflict between worker and management and those probable factors shall be avoided. • Labour should not be under-estimated rather they should be rewarded fairly. • Ensure proper OHS as per industrial rules of GOB and international guidelines. • Providing training facilities among the workers and increment facilities should be same for all, to avoid any discrimination.			



Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
EHS Monitoring and Training	Gaps in safety supervision and awareness among staff	Lack of awareness and inadequate supervision could lead to increased workplace accidents and non-compliance with safety standards.	Initial training matrix implemented. PPE inventory maintained and mandatory for high-risk operations.	Conduct quarterly EHS trainings; refresher for machinery and PPE	Quarterly	Training Coordinator / EHS
OHS Capacity (New Staff ~200+)	EHS team may be insufficient for expanded shift operations	Safety risks and reduced incident response due to limited EHS oversight in expanded shift operations.	Safety audits and incident reports reviewed. Initial training sessions already delivered through monthly toolbox meetings.	Hire EHS officer; assign shift-based safety reps	Every 6 months	HR Department / EHS Manager
OHS Management	Evaluation of effect of the work safety plan	Some activities in PTHM can pose substantial OHS risks	- Provision of medical centers and regular health check up - Provision of sufficient First Aid facilities - Provision of sufficient PPE, ensure strict	- Provide the workers a safe and healthy work environment, taking into account inherent risks of the particular activities and specific classes of hazards in the work areas, - Provide personal protection equipment (PPE)	- Visual inspection & consultation with worker - Record of accidents	EHS unit of PTHM & workers.



Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
			- PPE use - Develop Emergency response and disaster management - Effective firefighting systems	- for workers, such as safety boots, helmets, masks, gloves, protective clothing, goggles, full-face eye shields, and ear protection. Maintain the PPE properly by cleaning dirty ones and replacing them with the damaged ones. - Safety procedures include provision of information, training and protective clothing to workers involved in hazardous operations and proper performance of their job.		
Employment opportunities	- Creation of jobs; - Beautification of locality; - Support of local businesses; - Infrastructure development; - Revenue to Local Municipal Council;	Direct beneficiaries have been estimated between 1400 employees. These people will gain year-round employment and social security.	Equal opportunities for women, disadvantaged and vulnerable group participation in capacity building, citizen	- Local people should be given preference in case of recruiting new staffs - The authority should regularly pay all local taxes - Should sponsor local development and beautification works	- Number of trainings - Number of awareness program - Number of beneficiaries	PTHM Authority and EHS unit of PTHM



Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
	and Gains to the economy.		engagements and job recruitments	- Should take part in social activities - Conduct social awareness training		
Gender Action Plan	Awareness about GBV, Equal opportunity	Manpower will be required during the operation stage. This can result to generation of employment and increase in local revenue.	PTHM already have employment policy	- Employ at least 50% of labor force from communities in the vicinity of the site. This will have the added benefit of avoiding social problems that sometimes occur when workers are imported into host communities, and avoiding environmental and social problems from workers housed in poorly serviced camp accommodation. - To ensure engage women employee as per policy. - Ensuring training, information campaign	Monitor distribution of code of conduct & GBV related cases	PTHM Authority and EHS unit of PTHM
Management plan for resource efficiency and Pollution Prevention and Management (ESS 3)						



Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
Emission Control (Air pollution)	- To limit the harmful exhaust gas (SPM, VOC, SOx, NOx etc.) to an acceptable limit. - To ensure proper stack height considering building height. - To suggest appropriate control method to reduce stack emission for the present factory.	- GHG Emission - Deterioration of indoor air quality - Occupational health Impact	- Properly maintain Air-fuel ratio. - Regular maintenance of machineries. - Maintaining Boiler D-scaling on a regular basis. - Blow down in boiler manually.	- Steam flow meter should be installed for boiler for monitoring steam consumption. - Automated boiler blow down should be implemented.	- Annual monitoring of Stack gases - Annual Indoor Air Quality Monitoring	EHS unit of PTHM & workers.
Noise pollution	- To limit the overall noise level to an acceptable limit. - To ensure proper measuring and monitoring system in the production area especially high noise generating floor. - To suggest appropriate control method to reduce	- Noise induced hearing loss. - Reduced productivity and efficiency at workplace. - Fatigue, headache, Nervousness, irritability and high pretension resulting in accidents at	Personal Protective Equipment (PPE) is not satisfactory for the workers in high noise areas.	- Selecting equipment with lower sound power levels. - Installing silencer for fans. - Improving the acoustic performance of construction buildings by applying Sound insulation. - Installing vibration isolation for	Noise surveys Results of periodic noise surveys within High noise generating areas to determine noise levels from time to	EHS unit of PTHM & workers.



Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
	noise level for the present factory. - Noise induced hearing loss. - Reduced productivity and efficiency at workplace. - Fatigue, headache, Nervousness, irritability and high pretension resulting in accidents at workplace.	workplace. Stress to workers thus Reduced concentration		mechanical equipment. - Provided with anti-vibration padding at DG & motor foundation - In house Noise Measurements mainly in the high sound areas and maintaining register to record time to time. - Provision of Acoustic Barriers around areas generating high noise. - Implementing an effective noise control and hearing conservation Program. -Regular monitoring of PPE usage in high noise areas.	time (every 12 months)	
Water Management	- To reduce the overall water consumption rate to an acceptable limit. - To ensure proper record and	- Ground Water Pollution, odor, and Soil Pollution - Ground water scarcity	The factory also has a Feed Water Tank to use the return condense to make efficient	The present factory not installed at ground water extraction point & not monitored regularly and kept record for daily water consumption.	Monitoring of Groundwater level in a specific period interval.	EHS unit of PTHM & workers.



Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
	monitoring system at the extraction point. To suggest appropriate control method for proper use of ground water in the present factory.		water use. - Machine cooling water is reused. - Maintain proper RFT ratio.	- Separate water flow meter needs to install to measuring production, domestic & utility section - Leakages and losses should be identified and mitigated. - Process wise sub-metering system need to establish. - Rainwater Harvesting System (RWHS) should be implemented.	Monitoring drinking water quality in a specific period interval.	
Electricity Consumption	Increase in GHG emissions	Increased energy demand leading to higher operational costs and GHG emissions if not optimized.	Energy-efficient machines were selected. Solar power partially installed. Load optimization and meter readings are being done regularly.	Install energy meters, optimize load; monitor PDB, gas, solar usage	Quarterly	Utility Manager / EHS
GHG Emissions	Increased CO₂	Contribution to climate change through increased CO₂ and other	Gas generator emissions measured during annual	Maintain inventory, follow LEED carbon strategy; explore offsets	Bi-annually	EHS Department



Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
		greenhouse gas emissions from generators and production processes.	environmental testing. Use of solar energy and LEED framework acknowledged to reduce carbon footprint.			
Solid Waste (Increased Workforce)	10% increase in domestic waste	Higher volumes of domestic waste from expanded dormitory and staff facilities leading to strain on existing disposal systems.	Waste bins distributed on all floors. Organic food waste from dining area regularly disposed through an approved vendor.	Expand waste zones; increase collection frequency; train staff	Weekly	Facility Admin + Waste Vendor
Hazardous Waste (Medical)	Improper disposal of small-scale hazardous waste (1–2 kg/month)	Risk of environmental contamination and public health hazard if medical waste is not properly handled or disposed.	Certified contractor appointed for collecting and disposing medical waste; handling aligned with hospital-grade	Continue with certified hazardous waste vendor; log disposal	Monthly	Health Center Admin



Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
			protocols and national rules.			
Asbestos Waste (Legacy Structure)	Risk of exposure and improper disposal of asbestos roofing sheets	Occupational and environmental health risks due to improper handling or exposure to asbestos fibers during demolition.	Asbestos roofing sheets already dismantled in 2017–2018. Safely disposed of through a third-party contractor before project expansion.	Engage certified removal contractor; follow DoE protocols	One-time (During demolition)	Construction Department / EHS
Community Health and Safety (ESS 4)						
Community Health and Safety	Improper health and safety policy maintained at the project area during the operational phase may lead to the outbreak of different diseases to the surrounding communities through the sick staff and personnel working in the project area	Movement of construction vehicles for transporting the material, personnel and equipment into the project site, Labor influx	- Awareness creation through training on STDs, HIV/AIDS. - Adequate preventive measures are to be taken and regular health check-up.	- Instruct the drivers and limit the speed (15km/hour) of the vehicles near the settlement area especially in the bazar and school area. - Ban the use of mobile phones and talking during driving in the approach road. - Regular health check-up of the workers and awareness training	- Visual inspection & consultation with worker - Record of accidents	EHS unit of PTHM & workers.



Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
	as well as from visitors visiting the center			about the communicable diseases. • Proper lighting at the project site during the nighttime. • Avoid unnecessary noise pollution. • Water shall be spread in the dry surface to reduce the dust pollution.		
Traffic Safety	• Evaluation of effect of operational schedule	• Traffic congestion due to increased vehicular traffic movement	• PTHM Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites.	• A Traffic Management Plan is attached in Appendix XXI. PTHM should follow this plan for better traffic management. • Maintain safe passage for vehicles and pedestrians throughout the construction period. • Schedule truck deliveries of materials during periods of low traffic volume after consultation with the relevant authority.	• Record of accidents • Record of numbers of vehicles	EHS unit of PTHM & workers.



Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
				Erect and maintain barricades, including signs, markings, flags and flagmen informing diversions and alternative routes when required		
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS- 05)						
No impact anticipated. Expansion of PTHM is established within the existing facilities of PTHM.						
Bio-diversity & Living Natural Resources (ESS 6)						
Biodiversity		Loss of terrestrial ecology	- The treatment of domestic wastewater will be done by septic tank and soak pit; - Specific procedures and necessary preparedness should be undertaken to contain any accidental spill at source and also to prevent their spread in the surrounding environment; - Site should be kept clean so as no pollutant from site should enter the water bodies along with run-off.	Record of Biodiversity		EHS unit of PTHM & workers.
Tribal/Indigenous Population (ESS 7)						
No tribal or indigenous people were within the project influence area.						
Cultural Heritage (ESS 8)						



Item	Objectives	Potential Impacts	Existing Mitigation Measures	Proposed Mitigation Measures	Monitoring	Responsibility
There are no archaeological sites and community properties within 2 km radius will not be affected by the project as per our baseline study. So, no impact anticipated.						
Financial Intermediaries (ESS 9)						
Not Applicable						
Stakeholder Engagement and Information Disclosure (ESS 10)						
Stakeholder engagement will be conducted throughout the project implementation stage. The draft ESIA report will be uploaded in the PTHM website to foster a shared understanding of project impacts and for public comments. As a part of the disclosure, hard copies will be available at the project office in addition to PTHM website.						



7.3 Environmental Monitoring Plan

Environmental monitoring is an essential tool in relation to environmental management as it provides the basic information for rational management decisions. The prime objectives of monitoring are-

- To check on whether mitigation and benefit enhancement measures are actually 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 EMP, 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, coupled with inquiries
- Physical measurement of selected parameters

In the case projects in general, monitoring is done by physical measurement of some selected parameters like air, water, noise etc. It should be mentioned here that the monitoring program should be such so that it can ensure compliance with national environmental regulations and standards. The importance of this monitoring program is also for ensuring that the project 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. Pahartali Textile and Hosiery mill (PTHM) will require that regular monitoring of possible change in environmental parameters to be undertaken during the operational life of the project.

Environmental monitoring requires a set of indicators that could be conveniently measured, assessed and evaluated periodically to establish trends of impacts. The indicators may be independent or may be functionally related. The monitoring program, in view of the possible impacts as assessed earlier, should consider the indicators for the impact assessment related to following issues as presented in the tables in the following pages. Monitoring will involve measuring, observing, recording and evaluation of physical, socio-economic and ecological variables within the project area and the neighborhood.

It is important for the facility management to set up regular monitoring programs to assess parameters of the environment as stipulated in ECR 2023. This monitoring program will help to identify changes in the environmental situations giving opportunities for adopting appropriate control measures. A comprehensive checklist must be developed for operational usage. The basic activities for a sound-monitoring program should at least include:

- ✓ Collection and analysis of relevant environmental data of the project area;
- ✓ Preparation of proper effluent monitoring program; and
- ✓ Proper Risk Assessment programs

This would be the responsibility of the Environment Management cell.



A monitoring schedule has been developed based on the environmental components that may be affected during the construction and operation of the project is given below in **Table 41: Environmental and Social Monitoring Plan during Site preparation, Construction and Operation Phase.**



Table 41: Environmental and Social Monitoring Plan during Site preparation, Construction and Operation Phase

Affected Component	Environmental Issue	Parameters to be Monitored	Location	Frequency	Responsibility
Site Preparation and Construction Phase					
Assessment and Management of Environmental and Social Risks and Impacts (ESS-1)					
Renewal of ECC each year, timely monitoring and implementation of ESMP will be required.					
Labor and Working Condition (ESS-2)					
Occupational Health & Safety	PPE, First Aid facilities, Accidents or incidents due to construction activities, workers health	Near-misses, incidents, occupational diseases, dangerous occurrences	Project activity areas and construction workers camp	As defined in H&S Plan	Contractor/ EHS Team of PTHM
Sanitation & drinking water facility to workers		Availability of safe drinking water and sanitation to the workers at work place	Project activity areas and construction workers camp	Monthly	Contractor/ EHS Team of PTHM
Safety orientation & training of workers		Frequency of training & orientation of workers for safety	Project activity areas and construction workers camp	Monthly	Contractor/ EHS Team of PTHM
Resource efficiency and Pollution Prevention and Management (ESS 3)					
Ambient Air Quality	Dust generation	NOx, SPM, CO, CO ₂ , O ₂ , SO ₂ , Temperature,	Around the project site	Yearly	Contractor/ 3 rd Party Environmental Consultant
Ambient Noise Level	Increase in ambient noise levels	Noise levels	Around the project site	Yearly	Contractor/ 3 rd Party Environmental Consultant
Water Quality	Groundwater quality	pH, TDS, Chloride, Alkalinity, Hardness, Phosphate, As, Fe,		Yearly	Contractor/ 3 rd Party Environmental



Affected Component	Environmental Issue	Parameters to be Monitored	Location	Frequency	Responsibility
		Mn and Coliforms	Nearby Groundwater source		
Solid waste	Solid waste	Quantity of waste, segregation, storage, disposal process and transfer record	Around the project site	Monthly	Contractor/ 3 rd Party
Community Health and Safety (ESS 4)					
Community Health and Safety		Status of Communicable Diseases, Status of Vector Borne Diseases, Community Awareness Program, Training	Nearby Communities	Monthly	Contractor/ The project Authority
Traffic volume		Incoming & outgoing traffic and traffic movement records	Project site	Monthly	The project authority
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS- 05)					
No monitoring required					
Bio-diversity & Living Natural Resources (ESS 6)					
Terrestrial habitat		Monitoring of biodiversity	Project site	Monthly	The project authority
Tribal/Indigenous Population (ESS 7)					
No monitoring required					
Cultural Heritage (ESS 8)					



Affected Component	Environmental Issue	Parameters to be Monitored	Location	Frequency	Responsibility
No monitoring required					
Financial Intermediaries (ESS 9)					
No monitoring required					
Stakeholder Engagement and Information Disclosure (ESS 10)					
Stakeholder	Discuss about project constructional impacts on them		Project site	Quarterly	Contractor/ EHS of PTHM
Operation Phase					
Assessment and Management of Environmental and Social Risks and Impacts (ESS-1)					
Renewal of ECC each year, timely monitoring and implementation of ESMP will be required.					
LEED Platinum Certification	Non-alignment with LEED v4 BD+C standards	Commissioning report, LEED documentation	Entire facility	Monthly until certification	LEED AP / Engineering Team
Labor and Working Condition (ESS-2)					
Works Health and Safety	Accidents or incidents due to operation and maintenance activities, workers health	Near-misses, incidents, occupational diseases, dangerous occurrence etc.	Project activities areas	As defined in H&S plan	EHS of PTHM
Training and Capacity Building	Training topics, no. of trainees	Training log, attendance sheet	Project activities areas	Bi-annually	HR + EHS
OHS Performance	PPE usage, incident log	Visual inspection, training records	Project activities areas	Quarterly	EHS Unit
Gender Equity Women Worker/	Wage, increment, working hour etc.	accommodation and work site	weekly	Consultation with female labour	Supervision Engineer and EHS of PTHM



Affected Component	Environmental Issue	Parameters to be Monitored	Location	Frequency	Responsibility
Vulnerable/ Disadvantaged					
Sanitation & drinking water facility to workers		Availability of safe drinking water and sanitation to the workers at work place	The project site	Monthly	EHS of PTHM
Safety orientation & training of workers		Frequency of training & orientation of workers for safety	The project site	Monthly	EHS of PTHM
Incident record & reporting		Documented record of all incident accident and its remedial process.	The project site	Monthly	EHS of PTHM
Emergency response facilities	Regularly checking of fire extinguishers, Records of checking and re- filling, regular drills for factory workers		The project site	Monthly	EHS of PTHM
Resource efficiency and Pollution Prevention and Management (ESS 3)					
Air Quality	Stack Emissions Concentrations	NOx, SPM, CO, CO ₂ , O ₂ , SO ₂ , Temperature	Exhaust outlet	Yearly	EHS of PTHM
	Work place dust & Fugitive emission	PM _{2.5} , PM ₁₀ , CO ₂	At different locations of work place	Yearly	EHS of PTHM
Work place noise level	Noise level at work place	Sound Pressure Level	Noise at different locations at work place	Yearly	EHS of PTHM
Work place light level	Light level at work place	Light lux Level	Light at different locations at work place	Yearly	EHS of PTHM
Work place Temperature and	Temperature and humidity at work place	Temperature and Humidity	Temperature and Humidity at different	Yearly	EHS of PTHM



Affected Component	Environmental Issue	Parameters to be Monitored	Location	Frequency	Responsibility
Humidity			locations at work place		
Water Use & Wastewater	Water consumption, reuse volumes	Sub-meter readings, utility log	The Project site	Quarterly	Utility Manager
Electricity Consumption	High electricity usage from expanded operations	Energy meter logs, utility billing (PDB, gas, solar)	Main Utility Room / Power Distribution Area	Quarterly	Utility Manager / EHS
GHG Emissions	GHG emissions from generator and operations	GHG Inventory, LEED emission tracking	Boiler room / Generator room	Bi-annually	EHS Department
Solid Waste (Increased Workforce)	Increased domestic and packaging waste from more workers	Daily collection log, waste volume, segregation records	Waste storage and segregation area	Weekly	Facility Admin + Waste Vendor
Hazardous Waste (Medical)	Improper medical waste handling (clinic)	Disposal records, quantity, storage practice	Medical center waste room	Monthly	Health Center Admin
Asbestos Waste (Legacy Structure)	Asbestos exposure from old roofing	Clearance certificate, contractor record	Demolished zone / Disposal site	One-time (demolition phase)	Construction Department / EHS
Community Health and Safety (ESS 4)					
Community Health, Safety and Security	Inspection and interview of labor, project personnel followed by a checklist	Incident reports, inspection log	Beside the project site	Quarterly	EHS Unit
Traffic Management	Vehicle count, accident record	Logbook, route checks	The Project site	Quarterly	Security + EHS
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS- 05)					
No monitoring required					



Affected Component	Environmental Issue	Parameters to be Monitored	Location	Frequency	Responsibility
Bio-diversity & Living Natural Resources (ESS 6)					
Tree Plantation	Green belt, Plant Health	Plant Growth, Disease, etc.	1. Vertical Green belt 2. Landscape	yearly	Management and EHS of PTHM
Terrestrial habitat		Monitoring of biodiversity	Project site	Monthly	The project authority
Tribal/Indigenous Population (ESS 7)					
No monitoring required					
Cultural Heritage (ESS 8)					
No monitoring required					
Financial Intermediaries (ESS 9)					
Not applicable					
Stakeholder Engagement and Information Disclosure (ESS 10)					
Stakeholder	GRM, GBV	Complaint box and Consultation with female labour	accommodation and work site	Monthly	Supervision Engineer and EHS of PTHM



Table 42: Estimated Annual Costs for Environmental Monitoring Program

Item	Parameter	Unit Cost (Taka)	Frequency Per Year	Total Cost Per Year (Taka)
Construction Phase				
Ambient Air Quality	SPM, CO, NOx, SO2, PM10, PM2.5, CO2	20,000.00	03	60,000.00
Groundwater Quality	pH, TDS, Chloride, Alkalinity, Hardness, Phosphate, As, Fe, Mn, and Coliforms	20,000.00	03	60,000.00
Ambient Noise Level	Noise Level at different locations	10,000.00	03	30,000.00
Other Visual monitoring		Lump sum		50,000.00
Total cost in Construction Phase				2,00,000.00
Operation Phase				
Stack Emissions	NOx, SPM, CO, CO2, O2,, SO2, temp.	40,000.00	01	40,000.00
Work place dust emission	PM2.5, PM10, CO2 and VOC	40,000.00	01	40,000.00
Work place noise level	Noise at different locations	40,000.00	01	40,000.00
Work place light, temperature and Humidity level	Temperature, Humidity and light at different locations	40,000.00	01	40,000.00
Other Visual monitoring		LS		1,00,000.00
Total cost in Operation Phase				2,60,000.00
Total Monitoring Cost				4,60,000.00

7.4 ESMP implementation Budget

The parameters of various environmental components will be affected due to implementation of the Project. Therefore, a budget has been reserved for the mitigation and monitoring measures needed during the construction and operation of the Project. For example, the reclamation of construction areas and labor camps, and debris disposal etc., require a certain budget. The amount required for these reclamation activities are given in the budget provided. The Project



Contractor will provide environmental training to their workforce, which will be held at various stages of the Project cycle. The major issues of focus during the training involve both efficient environmental monitoring of the Project implementation, and social aspects.

Most of the mitigation measures require the project authority to adopt good site practice, which should be part of their normal procedures already, so there are unlikely to be major costs associated with compliance. Mitigation that is the responsibility of PTHM. The cost estimation for Environmental Mitigation Measures and Monitoring is given in the following Table 43: ESMP Implementation Cost.

Table 43: ESMP Implementation Cost

Item	Parameters	Unit Cost (Taka)	Frequency	Per Year (Taka)
Assessment and Management of Environmental and Social Risks and Impacts (ESS-1)				
ECC Renewal Fee	ECC	Lump sum	Yearly	5,75,000.00
Labor and Working Condition (ESS-2)				
Health and Safety (PPEs, ERP equipment)	PPEs for workers, safety equipment's, monitoring	Lump sum	Yearly	1,00,000.00
Emergency Response Plan (First Aid, Insurance etc.)	Purchasing equipment and services	Lump sum	Yearly	50,000.00
Waste Management (Bins, storage)	Prepared as per the ESMP	Lump sum	Yearly	1,00,000.00
Capacity Building and Training	Regular training and capacity build-up in EHS	Lump sum	Yearly	1,00,000.00
Resource efficiency and Pollution Prevention and Management (ESS 3)				
Environmental and social monitoring during project implementation	Reference: Table 42: Estimated Annual Costs for Environmental Monitoring Program		(Yearly)	4,60,000.00
Community Health and Safety (ESS 4)				
Community Health Safety	Corporate Social and Environmental Responsibilities	Lump sum	yearly	1,00,000.00
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS- 05)				
Bio-diversity & Living Natural Resources (ESS 6)				
Green belt development	Prepared as per the ESMP	Lump sum	Yearly	2,00,000.00



Item	Parameters	Unit Cost (Taka)	Frequency	Per Year (Taka)
Tribal/Indigenous Population (ESS 7)				
Cultural Heritage (ESS 8)				
Financial Intermediaries (ESS 9)				
Stakeholder Engagement and Information Disclosure (ESS 10)				
Stakeholder Consultation	GRM, GBV, consultation	Lump sum	yearly	50,000.00
Sub-total Cost				
Contingency budget (10% of subtotal cost)				1,73,500.00
Total Cost				19,08,500.00

7.5 Institutional Setup for ESMP Implementation

PTHM will employ a full environmental health and safety unit for ensuring overall environmental safety, environmental monitoring and occupational health and safety of its residence and employees.

PTHM developed a management team namely Environment Health & Safety (EHS) Team to manage all environmental-related activities of the proposed project. This team is headed by senior management personnel equivalent to the Manager along with other supporting staff. The organogram and reporting structure of the team along with their specific responsibilities is developed and assigned to the respective personnel.

The structure of the Environment Health & Safety (HES) Team is depicted below.

EHS Implementation Team:

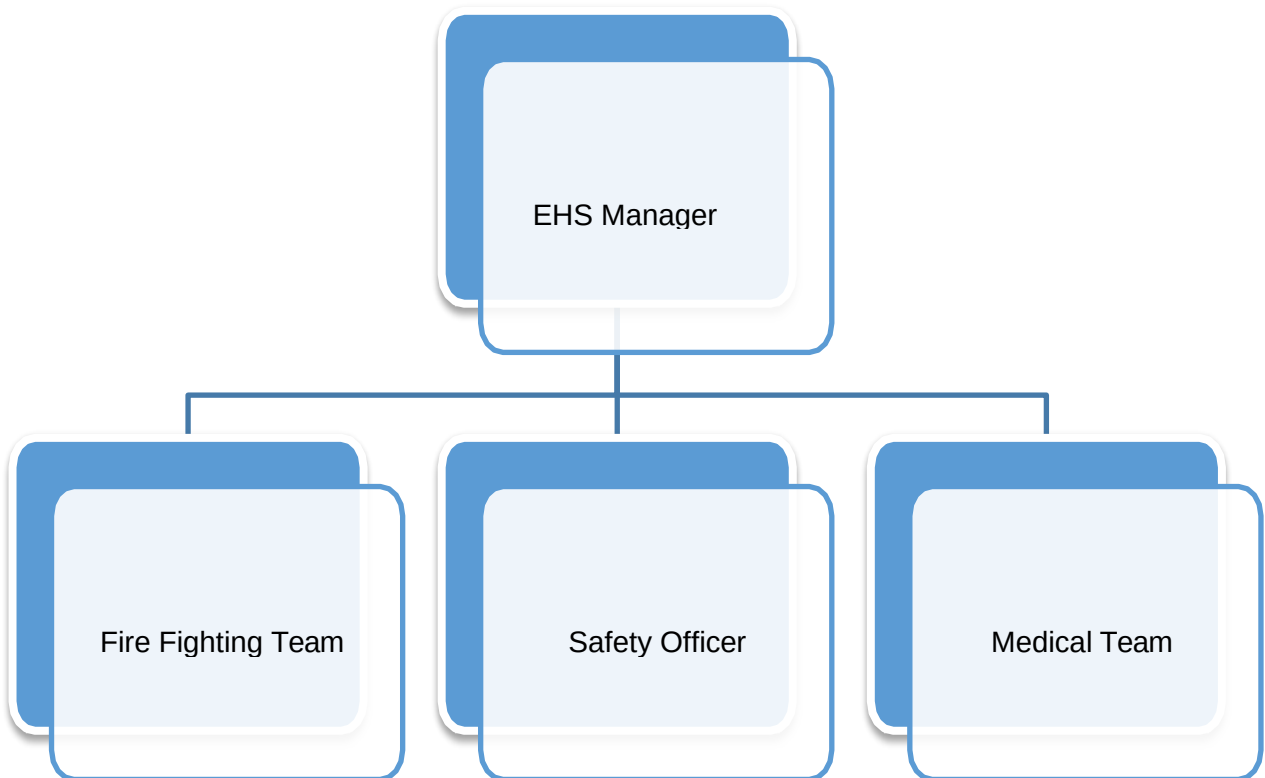


Figure 39: Institutional Arrangement of PTHM for EHS implementation

To help implementing an effective environmental management system the management cell should establish an in-house monitoring facility with all relevant monitoring equipment.

Table 44: Responsibility of Team Members

SL	Employee Name	Designation	Responsibility
EHS manager			
1.	Dr. Md. Monirul Islam	Senior Manager	- Inspect the facility to identify safety, health, and environmental risks; - Develop and implement inspection policies and procedures, and a schedule of routine inspections; - Develop and implement health and safety procedures; - Maintain records of employee exposure to waste and/or pollutants, as required; - Should take actions and instruct relevant officials for several activities during emergency situation; - Ensure training plan is implemented.
Safety Officer			
1.	M. Aziz Ahmed Chowdhury	Chief Of Security	- Assist EHS Manager to inspect the facility to identify safety, health, and environmental risks; - Prepare and schedule training to cover emergency procedures, workplace safety, and other relevant topics;



SL	Employee Name	Designation	Responsibility
			• Monitor compliance with safety procedures; • Ensure undertaking suggested monitoring and prepare monitoring reports during operation phase and supervise monitoring during construction phase
Medical Team			
1.	Dr. Md. Monirul Islam	Team Manager	• Provide primary health check-up and medicine facilities; • Treat patients affected with common illnesses; • Provide first-aid to the affected persons before sending them to actual medical aid.
2.	Dr. Rehnoma Tarannum Rahman Supti	Executive	
3.	Md. Mizanur Rahman	Junior Medical Assistant	
4.	Md. Oli Ullah	Medical Assistant	
5.	Md. Golam Sarwar	Medical Helper	
6.	Sabina Yasmin	Junior Medical Assistant	
7.	Monsur Ahmmed	Medical Helper	
8.	Sukumar Das	Medical Assistant	
9.	Rupayan Chakma	Medical Assistant	
10.	Manashi Rani Devi	Aid Nurse	
Fire Fighting & Rescue Team			
1.	M. Aziz ahmed chowdhury	Team Manager	• Conduct mock drills on a regular basis to make workers and staffs aware of fire emergency response; • Rescue affected personnel during any kind of fire hazard; • Check fire extinguishers at the strategic locations regularly; • Check proper signage and markings around the fire prone areas; • Carry out a fire risk assessment of the premises and review it regularly; • Provide staff information, fire safety instruction and training; • Mitigate the Fire as per procedure (Trained); • Report to EHS Manager about any kind of unusualness and scarcity of extinguishers immediately.
2.	Md. Saleh uddin	Back Tenter	
3.	Indrojit chowdhury	Head Fitter	
4.	Md. Sah alam	Senior Back Tenter	
5.	Jahangir alam	Operator (Spinning)	
6.	Abdul halim	Junior Line Man	
7.	Haji ziaul huq	Junior Line Man	
8.	Md. Didarul alam	Head Fitter	
9.	Kazi moniruzzaman	Fitter	
10.	Md. Mohi uddin	Junior Line Man	
11.	Md. Sahajahan	Assist. Mixing Man	
12.	Md. Abul kashem	Back Tenter	
13.	Md. Alamgir hossain	Sr.Production Helper	
14.	Md. Tofazzal hosain	Operator (Spinning)	
15.	Khanta mohon tripura	Junior Line Man	
16.	Md. Gias uddin	Autoclave Operator	
17.	Md. Rofiqul islam	Back Tenter	
18.	Md. Iqbal hossain	Junior Line Man	
19.	Samsur rahaman zafar	Autoconer	
20.	Md. Khurshed alam	Back Tenter	
21.	Md. Mohi uddin	Junior Line Man	
22.	Md. Shams uddin	Fitter	
23.	Md. Akter hossain	Head Fitter	
24.	Sultana rajia	Security Guard	
25.	Md. Tofazzel hossain	Security Guard	
26.	Md. Sultan mahmud	Security Guard	
27.	Md. Sakhawat hossain	Security Guard	
28.	Alal uddin	Security Guard	
29.	Md. Rafiqul islam	Security Guard	
30.	Md. Forsud meah	Security Guard	
31.	Md. Masud rana	Security Guard	
32.	Rasheda akter	Security Guard	
33.	Md. Altaf hossain	Security Guard	
34.	Md. Abul kashem (2)	Security Guard	
35.	Md. Sarwar	Security Guard	
36.	Md. Khalilur rahman	Security Guard	
37.	Md. Zahirul islam	Security Guard	



SL	Employee Name	Designation	Responsibility
38	Md. Yasin	Security Guard	
39	Dilimong marma	Security Guard	
40	Abdul majid sheikh	Security Guard	
41	Md. Mozammel haq	Security Guard	
42	Md. Musa	Security Guard	
Third Party Monitoring			
43	DoE and ECOSS		• Conduct analytical and visual monitoring during construction and operation phase; • Make reports and submit them to the EHS manager.

7.5.1 Capacity Assessment and Recommendation for Pahartali Textiles Limited (PTML)

The expansion project requires compliance with DoE regulations and KfW/BIFFL ESF, all of which stress on proper environmental monitoring, compliance, and reporting. Air, noise, and water quality monitoring are central to ESMP. Waste, stormwater, and pollution control plans are essential in the operational phase. The ESIA recommends actions like greenbelt development, rainwater harvesting, and climate-sensitive design. The ESMP explicitly includes institutional setup for implementation, monitoring, and reporting. However, it assumes the presence of trained environmental professionals capable of interpreting and implementing mitigation plans.

Based on the review of both the ESIA report and the existing organogram and training schedule of Pahartali Textiles Limited (PTML), here's a structured assessment and recommendation on the need for environmental expertise within the EHS team in light of expansion:

Table 45: Existing EHS Team Overview

Sl	Name	Current Role	Qualification
1	Mr. Badsha Nura Alam	EHS Lead	BSc in Mechanical Engineering + MBA
2	Dr. Monirul Islam	OHS & Medical	MBBS
3	Mr. Aziz Ahmed Chy.	Fire Safety	BSc in Chemistry + MBA

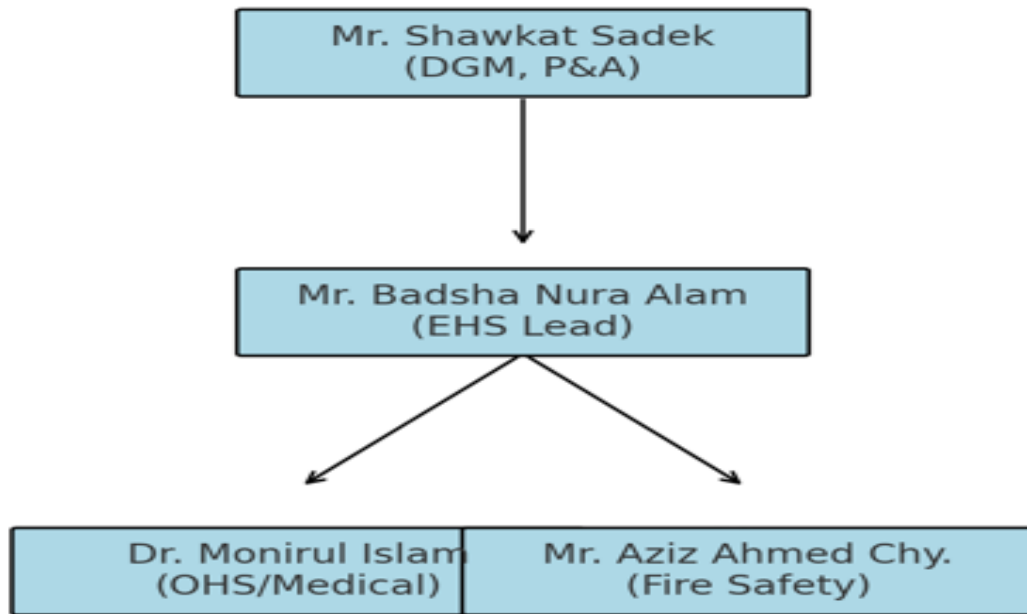


Figure 60: Existing EHS organogram of PTHM (before expansion)

Strengths

- Dedicated EHS Leadership: A core EHS structure is in place with leadership for health, safety, and fire management.
- Coverage of OHS and Fire Safety: Provides a foundation for worker protection, fire prevention, and emergency response.

Identified Gaps

No Dedicated Environmental Expertise:

- None of the team members have academic or professional training in environmental science, environmental engineering, or environmental management.

Limited Capacity for Environmental Monitoring:

- Key environmental parameters (air, water, noise, waste) required for ESMP implementation are not technically addressed.

Risk of Regulatory Non-Compliance:

Without proper environmental management, PTML faces risks including:

- Delays in ECC renewal
- Breaches of DoE/KfW/BIFFL compliance conditions
- Penalties or funding disruptions

Insufficient Environmental Training Programs:

Current training focuses on occupational safety but lacks modules on pollution control, waste management, and ISO 14001 environmental systems.

Recommendation

Table 46: Strategic Recommendations

Sl	Option	Action	Comments
1	Option 1 (Preferred)	Hire a Dedicated Environmental Officer/Manager	Best practice for sustainable long-term compliance.
2	Option 2 (Short-term)	Upskill Existing EHS Lead	Interim measure. Certified environmental training required (e.g., ISO 14001, Pollution Control, EIA Compliance).
3	Option 3 (Short-term)	External Consultancy Support	Retain external consultants like ECOSS for quarterly monitoring, reporting, and capacity building during the interim period.

Due to the complexity of regulatory compliance, funding obligations (BIFFL/KfW), and environmental risk, PTML should create a new full-time position for an Environmental Expert and embed them in the EHS organogram. Upskilling or outsourcing can be interim steps but do not replace the need for in-house, qualified environmental expertise for long-term sustainability and legal compliance.

**Updated EHS Organogram of PTML
(New Position Highlighted)**

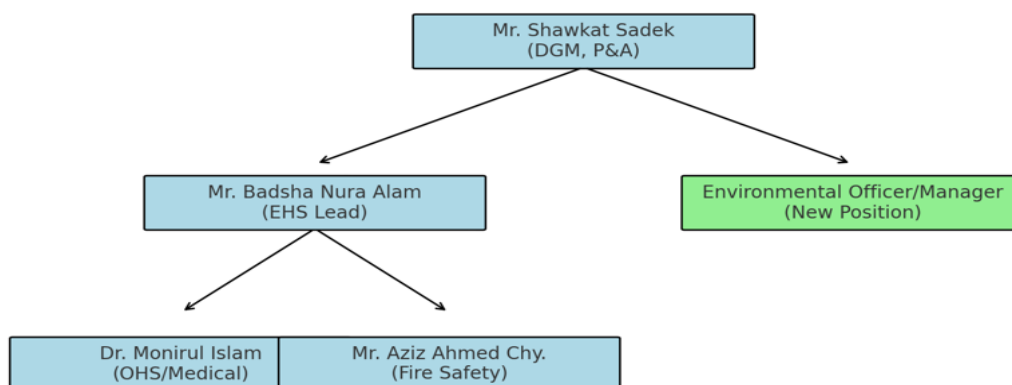


Figure 61: Updated EHS organogram of PTHM (proposed)

7.6 Training and Capacity Development

The PTHM authority should establish procedures to identify training needs and provide adequate safety training for all levels of employees. The safety training should provide staff with the



knowledge and skills necessary for organizing and managing occupational safety and health programs; management should implement and apply occupational safety and health activities; and workers with the knowledge, skills and right attitudes to enable them to work safely.

Table 47: Proposed Training Programs

Sl	Training Program	Target Participants	Frequency	Responsibility
1	Occupational Health and Safety (OHS)	All Workers, Supervisors	Quarterly	EHS Manager
2	Fire Safety and Evacuation Drill	All Workers, Fire Team	Monthly	Supervisor
3	Waste Management and Handling (Solid & Hazardous)	EHS Staff, Floor Managers	Quarterly	Supervisor
4	Energy Efficiency and Resource Conservation	Utility Operators, Machine Operators	Bi-Annually	EHS Manager
5	Air, Water, and Noise Pollution Control	EHS Staff, Engineers	Quarterly	EHS Manager
6	Environmental Monitoring Techniques	EHS Staff, Environmental Officers	Bi-Annually	EHS Manager
7	Emergency Response and Disaster Risk Reduction	All Staff, Emergency Team	Bi-Annually	EHS Manager
8	Gender-Based Violence (GBV), SEA/SH Awareness & Code of Conduct	All Workers, Management	Bi-Annually	EHS Manager
9	Grievance Redress Mechanism and Stakeholder Engagement	All Employees, HR Team	Annually	EHS Manager
10	Ethics, Equal Opportunity & Anti-Discrimination	All Staff and Supervisors	Annually	EHS Manager



Sl	Training Program	Target Participants	Frequency	Responsibility
11	Chemical and Hazardous Material Handling	Store Keepers, Safety Officers	Annually	EHS Manager
12	Use of PPE and Personal Hygiene	All Workers	Quarterly	EHS Manager

7.6.1 Gap Assessment Between ESIA-Mandated and Current Training Programs

An assessment of the training program conducted in January 2025 reveals that while the factory has initiated a wide range of training initiatives, some gaps remain when compared to the environmental and social training requirements outlined in the Environmental and Social Impact Assessment (ESIA). The existing training carry out by PTHM is provided in Appendix XXV Evidence of Existing Training Practice in PTHM.

Table 48: Training Implementation and Gap Matrix

Training Topic	ESIA Requirement	Implemented as of Jan 2025	Gap Identified	Recommended Action
Occupational Health and Safety (OHS)	Yes	Yes	No	Continue regular training
Fire Safety and Evacuation Drill	Yes	Yes	No	Continue monthly drills
Waste Management and Handling	Yes	Partial	Requires Expansion	Include hazardous waste handling component
Energy Efficiency and Resource Conservation	Yes	No	Missing	Introduce energy efficiency training
Air, Water, and Noise Pollution Control	Yes	No	Missing	Add environmental pollution control sessions



Training Topic	ESIA Requirement	Implemented as of Jan 2025	Gap Identified	Recommended Action
Environmental Monitoring Techniques	Yes	No	Missing	Provide hands-on monitoring technique sessions
Emergency Response and Disaster Risk Reduction	Yes	Partial	Limited Scope	Broaden scope to cover multi-hazard emergencies
GBV, SEA/SH Awareness & Code of Conduct	Yes	No	Not Covered	Initiate GBV/SEA/SH training and CoC process
Grievance Redress Mechanism and Stakeholder Engagement	Yes	No	Not Covered	Add GRM and stakeholder engagement orientation
Ethics, Equal Opportunity & Anti-Discrimination	Yes	No	Not Covered	Include in annual ethics and HR training
Chemical and Hazardous Material Handling	Yes	Yes	No	Maintain current schedule
Use of PPE and Personal Hygiene	Yes	Yes	No	Continue PPE awareness and hygiene promotion

Identified Gaps:

Limited Emphasis on Environmental Training:

While waste management and resource efficiency are referenced, the training does not adequately cover:

- Air and noise pollution mitigation
- Emission control techniques
- Energy efficiency linked with equipment usage



- GHG emission reduction training

Insufficient Coverage of Gender and GBV/SEA Awareness:

The ESIA specifies mandatory GBV/SEA/SH awareness training and the signing of a Code of Conduct. These are not listed in the January 2025 training schedule.

Emergency Response and Disaster Risk Reduction:

Fire safety is covered monthly, but comprehensive emergency preparedness (earthquake, flood, cyclone), first responder training, and rescue operations are absent or not documented.

Lack of Environmental Monitoring Training:

ESIA requires the workforce (especially EHS staff and supervisors) to be trained on monitoring air, water, and noise quality in line with the ESMP. These were not addressed in the existing training program.

Stakeholder Engagement and GRM Orientation:

The ESIA mandates orientation on grievance redress, worker rights, and community engagement, which is not reflected in the training schedule.

Ethics and Anti-Discrimination Policy Awareness:

Topics such as equal opportunity, non-discrimination in the workplace, and human rights (as emphasized in WB ESS2) should be formalized in training modules.

Recommendations to Fill the Training Gaps

To ensure full compliance with the ESMP, WB ESS, and KfW's Environmental and Social Framework:

- Expand the Training Matrix: Include modules on air quality management, energy efficiency, wastewater treatment, environmental monitoring techniques, and GHG emissions.
- Formalize GBV/SEA/SH Training: Conduct regular sessions including CoC signing, with records maintained (Appendix XIV).
- Include Disaster Preparedness Modules: Train staff on cyclone, earthquake, and flood response aligned with Appendix XXI emergency response procedures.
- Conduct Regular GRM & Worker Rights Sessions: All employees should be informed of their rights, the grievance process, and community communication protocols.
- Enhance EHS Monitoring Training: Technical teams and EHS officers must be trained on using instruments and interpreting results to support quarterly monitoring efforts.
- Document and Evaluate Training Effectiveness: Post-training evaluations, participant records, and refresher cycles should be institutionalized.

Chapter 8: Public Consultation and Disclosure

8.1 Introduction

Engaging with the community and stakeholders constitutes a foundational element of the Environmental and Social (E&S) of the assessment program. Stakeholders, representing groups or individuals directly or indirectly affected by the project, with an interest or the potential to influence it, encompass a diverse range, including local communities, individuals, representatives, governmental bodies, and civil society organizations. Community and stakeholder engagement transcends mere procedural steps; it is a fundamental approach ensuring the project's alignment with ethical, social, and environmental standards. This inclusive definition recognizes the diverse interests and influences of stakeholders, spanning from local communities to governmental bodies and civil society organizations.

Stakeholder consultation is employed as a method to actively involve both primary and secondary stakeholders in the project's decision-making processes. It serves the purpose of addressing their concerns, refining project design, operation and establishing legitimacy. Executed in a participatory and objective manner, stakeholder consultation becomes a catalyst for promoting project sustainability. Acknowledging the significance of community input, encompassing knowledge and values related to socioeconomic and environmental aspects, substantially enhances the overall decision-making process. Notably, stakeholder consultation extends beyond meeting legal requirements for the Environmental and Social Impact Assessment (ESIA) process in Bangladesh; it plays a pivotal role in elevating the social and environmental design of any project.

The chosen approach to stakeholder engagement in this project is guided by well-established principles, with specific reference to the International Finance Corporation's (IFC) Performance Standard 1 (PS1) and the IFC Stakeholder Engagement Handbook. These principles provide a robust framework for ethical and effective stakeholder engagement, ensuring that the project adheres to internationally recognized standards.

8.2 Objectives and Purpose of Stakeholder Consultation

The main objectives of the stakeholder consultation/meetings were to:

- * Promote better understanding of the project, its objective, and its likely impact;
- * Identify and address concerns of all interested and affected parties of project area;
- * Obtain suggestions (mitigation measures, enhancement measures, contingency measures, compensation measures) to resolve those problems.
- * Encourage transparency and inculcate trust among various stakeholders to promote cooperation and partnership with the communities and local leadership;

8.3 Identification of Stakeholders

Stakeholders include all those who may affect or are being affected by policies, decisions or actions within a particular system. Stakeholders can be groups of people, organizations, institutions and sometimes even individuals. Stakeholders can be divided into primary and secondary categories. In the consultation meeting, both the primary and the secondary stakeholder have been selected from project Level focusing on local communities, individuals,

and labors, industry official and higher management representative recognizing their immediate and direct association with the project's impact.

8.4 Approach of the Consultation

In this study, a participatory approach was followed during the consultation with both primary and secondary stakeholders of the project. A checklist was prepared in relation to the project intervention and to explore stakeholders' opinion on the project and its impact. During consultation the techniques like: a) stakeholder consultation meeting b) focus group discussion c) informal discussion and d) key informant interview was used to explore problems and possible suggested measures; to share the project activity and to obtain perception on tentative impacts of environmental and social components. List of stakeholder's attendance sheets are given in Appendix- XI.

Table 49: Location of Consultation and Discussion during the Field Visit

District	Place	Type of consultation	Date	Time	Number of Participants
Chittagong	PTHM Office	Key Informant Interview	03/02/2024	10: 00 AM	3
Chittagong	PTHM new construction site	Key Informant Interview and FGD	03/02/2024	12: 00 PM	18
Chittagong	PTHM Existing operation site	FGD	03/02/2024	02.00 PM	8
Chittagong	Fisherman outside the study area	FGD	04/02/2024	12.00 PM	7
Chittagong	Shop keepers nearby PTHM site	FGD	05/12/2024	02.00 PM	5





Figure 62: Photograph of FGD within and around the PTHM site



Figure 63: Photograph of Individual Level Consultation/Key Informant Interview (KII)

8.4.1 Stakeholder Concerns and Recommendations

Throughout the Consultation Meetings, the project and its associated activities, as well as various project-related concerns, were discussed. Representative from each community exhibited an overall positive outlook toward the current operation of the project, recognizing its potential for regional and national development. Despite this optimism, participants voiced valid concerns, and their suggestions for addressing site-related issues are summarized below:

Table 50: Major Problems and Suggested Solution by the Stakeholders

Issues	Solution
Noise Pollution	To address noise pollution concerns, the PTHM has implemented strategic measures. Noise-generating machineries are not kept active throughout the entire working hour, and during high-noise operations, the number of employees present is minimized. This intentional scheduling helps mitigate the overall impact on noise levels. Furthermore, the industry places a strong emphasis on employee well-being by providing comprehensive training on personal protection measures. Employees are educated on the proper use of personal protective equipment, including ear protection, ensuring their safety and comfort in the workplace. These practices demonstrate a commitment to responsible and considerate operations, minimizing the potential impact on both employees and the surrounding community.
Dust Emission	The PTHM has implemented robust measures to control dust emissions. Utilizing advanced technologies, airborne particles are effectively captured through strategically placed air capturing units on the floor and ceiling areas. Subsequently, the collected dust is stored in a designated chamber, ensuring proper containment. Following stringent waste management protocols, the industry disposes of the collected dust responsibly, aligning with environmental standards. These comprehensive dust control measures underscore the industry's commitment to operational efficiency and environmentally conscious practices.
Workers Safety	Worker safety is a top priority at existing PTHM facility, with specific measures in place to address industry-specific safety concerns. Comprehensive protocols cover machinery operation, spinning equipment handling, and personal protective equipment use. Regular training ensures employee proficiency in these guidelines, and the facility is equipped with specialized safety features tailored to spinning processes. Routine audits promptly identify and address spinning-related safety issues, fostering a culture of continuous improvement. Compliance with industry-specific regulations is rigorously maintained through ongoing updates and training sessions, ensuring a secure working environment for all.
Gender-Based Violence (GBV) Issue	The spinning industry strongly opposes Gender-Based Violence (GBV) or exploitation. A rigorous Grievance Mechanism is in place to promptly address and rectify any such issues. This proactive approach underscores the industry's commitment to a safe and respectful working environment, ensuring the protection of all employees from GBV or exploitation. The Grievance Mechanism serves as a crucial tool for reporting and resolving concerns, contributing to the overall well-being of the workforce.
Community Impact	The strategic location within an industrial zone helps contain operational effects within designated areas, minimizing potential disruptions to surrounding communities. Additionally, the implementation of robust dust control measures ensures that particulate matter emissions are efficiently managed, preventing adverse effects on the local community. This proactive approach reflects a commitment to environmental stewardship and community well-being in the operation of the spinning industry.
Resource Utilization	The current operation of the spinning industry, situated in an industrial zone with effective dust control facilities, ensures minimal community impact. Notably, the absence of water resource use in the current process further reduces environmental implications. Looking ahead, the industry is actively planning positive resource consumption strategies for future operations. These forward-looking initiatives aim to optimize resource utilization, enhance efficiency, and align with sustainable practices, demonstrating a



Issues	Solution
	commitment to responsible and eco-friendly manufacturing in the evolving landscape of the spinning industry.
Technology Obsolescence	Outdated technology may lead to decreased efficiency and competitiveness. Regularly upgrading and investing in the latest technology to stay abreast of industry advancements. Conducting technology foresight studies to anticipate future trends and fostering partnerships with technology providers to ensure continuous innovation.
Regular Environmental Monitoring	The PTHM already conducted a comprehensive environmental audit and monitoring within its premises, assessing waste management, air and water quality, energy consumption, and overall environmental impact and will continue the same for its new units too. The focus is ensuring compliance, identifying improvement opportunities, and aligning operations with sustainability practices. Ongoing monitoring allowed for real-time assessment, facilitating prompt corrective actions.

Table 51: Summary of KII with Govt. & Non-Govt. Officials

SI No.	Name	Designation	Authority	Comments	Response from PTHM
Government Officials (Chattogram Metropolitan)					
1.	Mrs. Sonia Sultana	Assistant Director	Department of Environment (DoE), Chattogram Metropolitan	• Must maintain all the environmental laws as per the guideline; • All the emission (air, noise, water etc.) level should meet the DoE guidelines; • Should use high technology so that it does not harm the elements of Environment; • All types of waste must be managed properly to avoid environmental pollution.	It was told that PTHM will maintain all the standard and guidelines regarding this project. In addition, latest technologies that PTHM will implement has been described.
2.	Mrs. Romana Ahkter	Assistant Director	Department of Environment (DoE), Munshiganj		
3.	Mr. Ruman Dey	Chief Revenue Officer	Chattogram Water Supply and Sewerage Authority (CWASA)	• Must Maintain the Environmental prevailing laws so that does not impact on community health; • Should give priority of all employees' health safety and security; • Must monitor labor & worker's health so that • Should use high technology to prevent any kind of pollution. • Social engagement is very important in this project.	It was mentioned that the entire Plant has been designed by using state-of-the-art technology machineries for dust and noise control. Therefore, pollution will be reduced to a minimum level. Also mentioned that, consultation with local people will be carried out during the entire life cycle of the project and GRM will be available to everyone.



SI No.	Name	Designation	Authority	Comments	Response from PTHM
4.	Eng. Mr. Nazim Uddin	AGM(Construction)	Ispahani Summit Alliance Terminal Ltd.	• Must focus on air and noise pollution; • The proponent should follow the DoE laws and regulations; • Theproponent should make a proper environmental management Plan.	It was told that PTHM will maintain all the standard and guidelines regarding this project. It was described that PTHM will have waste management policy which ensures proper handling of waste.
Elected Representatives, Political & Religious Leader					
5	Mr. SM Mujibur Rahman	Head Master	Mirza Ahmed Ispahani High School. Pahartali Chattogram	• Many local people can get employment opportunity from here; • But the proponent should take proper measures about noise and air pollution; • The proponent should maintain an environmental and social guideline so that the local people and atmosphere around it do not face any environmental pollution.	They mentioned that they will prioritize local people in different project activity based on their skill and will take necessary steps so that the project does not harm the local people.
6	Md. Moulana Rofiqul Islam	Religious leader	Pahartali Chattogram	• We have proper support to this project. • Proponent must follow the environmental laws to protect air, water, soil from pollution; • Employment opportunity should be given to the local people.	Environmental laws will be followed to protect air, water, soil from pollution. Local people will get priority based on their skill.
7	Md. Anwar Hossain	Assistant Imam	Khaja Chistia Jamae Masjid Pahartali Chattogram	• They should educate the labors to respect our religion and culture.	Project personnel and workers will respect all religious beliefs and sentiments of local people.

8.5 Stakeholder Engagement Plan

The stakeholder engagement process was carried out at three levels, namely, labour community, industry's governing bodies and lenders. A summary of the proposed plans that are to be initiated by the PTHM have been described below. It is to be noted that the proposed plan of activities relating to the stakeholder engagement can change as per the future planning of activities.

8.5.1 Stakeholder Mapping

The significance of a stakeholder group is categorized considering the magnitude of impact (type, extent, duration, scale, frequency) or degree of influence (power, proximity) of a stakeholder group and urgency/likelihood of the impact/influence associated with the particular stakeholder group in the project context. The magnitude of stakeholder impact/influence is assessed taking the power/responsibility and proximity of the stakeholder group and is categorized as negligible, small, medium and large. The Urgency or livelihood of the impact on/influence by the stakeholder is assessed in a scale of low, medium and high. The overall significance of the stakeholder group is assessed as per the matrix provided below.

Table 52: Stakeholder Significance and Engagement Requirement

Magnitude of Influence/ Impact	Urgency/Likelihood of Influence on/by Stakeholder		
	Low	Medium	High
Negligible	Negligible	Negligible	Negligible
Small	Negligible	Minor	Moderate
Medium	Minor	Moderate	High
Large	Moderate	High	High

On the basis of such an understanding, the stakeholders are categorized into High Influence/ Priority, Medium Influence/ Priority and Low Influence/ Priority. The stakeholders who are categorized as high influence are those who have a high influence over the project or are likely to be heavily impacted by the project activities, and are thus high up on the project proponent's priority list for engagement and consultation. Similarly, the stakeholders categorized as medium influence are those who have a moderate influence over the project or even though they are to be impacted by the project, it is unlikely to be substantial and these stakeholders are thus neither high nor low in the project proponent's list for engagement. On the other hand, the stakeholders with low influences are those who have a minimal influence on the decision-making process or are to be minimally impacted by the project and are thus low in the project proponent's engagement list.

Table 53: Stakeholder Profiles and Influence Mapping

Stakeholders	Category of Stakeholder	Profile/Status	Magnitude of Influence/Impact (Negligible, Small, Medium, Large)	Urgency/ Likelihood of Influence (Low, Medium, High)		Rating of Stakeholder Influence	
Project Management							
Pahartali Textiles and Hosiery Mills (PTHM)	Primary	PTHM decided to increase their existing production capacity 52 metric ton per day to 63 metric ton/day by setting up new units. The unit will be equipped with the facilities for manufacturing of Cotton Yarn.	PTHM is the primary project proponent owns a controlling stake of 100% in the project	Large	- Responsible for all the project related risks and impact liabilities. - Are the primary project proponents; - Responsible for establishment and operation of this project.	High	High
Community people							
Local Community	Primary	This stakeholder group comprises of the community residing in the study area	The local population has high expectation on getting employment opportunity from the project	Small	- Improvement of infrastructure in the area; - Increase in employment opportunities and preference in job; - Generation of business opportunities for the local community.	Medium	Minor
Women Groups (poor, old aged, women, children and destitute)	Primary	The marginal groups around the project area primarily comprises of households below poverty threshold, men headed households, old aged & destitute	- The employment opportunities available to them will be for short term only - Environmental pollution may impact negatively on their health	Small	- Employment opportunity during construction and operation phase; - Job prospect for their children; - Secondary business opportunities; - Mitigation measures should be strictly followed to avoid any health impact.	Medium	Minor

Stakeholders	Category of Stakeholder	Profile/Status	Magnitude of Influence/Impact (Negligible, Small, Medium, Large)		Urgency/ Likelihood of Influence (Low, Medium, High)		Rating of Stakeholder Influence
Local workers and laborers	Primary	Laborers and workers recruited from the area of influence mostly during the construction and operation phase of the project	Local workers expect to have high employment opportunity from the project	Medium	- Responsible for undertaking mostly skilled and semiskilled based work during construction and operation phase of the project; - Engagement level primary in civil construction part of the work.	Medium	Moderate
Local Fisherman	Primary	Local fisherman around the project site	Fisherman has expectation on getting employment opportunity for the younger generation.	Small	Dumping any waste in surrounding water bodies may create some negative impact.	Low	Negligible
Local Farmer	Primary	Local farmers around the project site	High expectation on getting employment opportunities from the project.	Small	- Employment opportunity through the entire project phase; - Better establishment of the community area.	Low	Negligible
Government Officials							
Department of Environment (DoE), Bangladesh	Primary	The Department of Environment is the primary government regulatory authority for this project	The project is required to obtain Environment Clearance from Department of Environment	Medium	- Government Regulatory agency to provide Environmental Clearance Certificate (ECC) to the project based on evaluation and approval of Environmental Impact Assessment (EIA) study - Environmental compliance throughout the project lifecycle.	Medium	Moderate
Department of Fisheries	Primary	It is responsible for managing, developing fisheries resources in the surrounding area	The authority is responsible for managing fishery resources	Small	Responsible for managing fishery resources and the welfare of fishing communities.	Low	Negligible
Public Works Department	Primary	Public Works Department (PWD), under the Ministry of Housing and Public Works, is the pioneer in	Responsible to set the trend and standard in the country's infrastructure development	Small	No major influence on project related activities.	Low	Negligible

Stakeholders	Category of Stakeholder	Profile/Status	Magnitude of Influence/Impact (Negligible, Small, Medium, Large)		Urgency/ Likelihood of Influence (Low, Medium, High)		Rating of Stakeholder Influence
(PWD)		construction arena of Bangladesh.					
Chattogram Water Supply and Sewerage Authority (CWASA)	Primary	CWASA is responsible for groundwater management in Chittagong	CWASA is the national lead agency for provision of drinking water supply and waste management in the Chittagong	Medium	Responsible for supplying safe drinking water	Medium	Moderate
Local Government Engineering Department (LGED)	Primary	LGED is one of the largest public sector organizations in Bangladesh entrusted with planning and implementation of local level infrastructure development programs.	Is responsible for maintenance of the approach road to the project site over the lifecycle of the project	Small	No major influence due to the project activity	Low	Negligible
Community representatives							
Political Administration	Secondary	Elected representative of people for a fixed tenure; they are the main administrative group who are responsible for the development activity of the area	- Mostly concerned about the environmental pollution due to project activity - High expectation on getting employment opportunity for the local people and development activity in the area	Medium	- Local Administration need to work out a mechanism for cooperation to avoid any adverse impact during construction works; - They need to play an effective role in grievance redress mechanism established by PTHM.	Low	Minor
Local representatives	Secondary	Elected representative for a fixed tenure.	High expectation on getting employment opportunity for the local people and development activity in the area	Medium	- Plays important role in providing public opinion and sentiment on the project; - Empowered to provide consent and authorization for - establishment of project on behalf of the community	Low	Minor



Stakeholders	Category of Stakeholder	Profile/Status	Magnitude of Influence/Impact (Negligible, Small, Medium, Large)		Urgency/ Likelihood of Influence (Low, Medium, High)		Rating of Stakeholder Influence
Other community leaders	Secondary	Elected representative i.e.; Headmaster, religious leaders	Expectation of having local employment opportunity	Small	- No major involvement in the project yet; - Plays important role in providing public opinion and sentiment on the project.	Low	Negligible
NGOs							
Local NGO	Secondary	BRAC, ASA, COAST, Grameen Sakti, SARC Bangladesh	Prioritization and employment of local workers during the project cycle	Small	- No major involvement in the project yet; - Possible inclusion during future stages of the project with respect to project related community welfare activities.	Low	Negligible

8.5.2 Stakeholder Engagement Plan

The stakeholders must be engaged for smooth continuation of the Project in all the phases of the project i.e., pre-construction, construction and operation stages. EHS manager will conduct meeting in quarterly with stakeholders who are directly and indirectly impacted and relevant with the project related activities. Issues of affected people, land related issues, community health and safety measures and any other issues related to land will be discussed in the meeting. EHS Manager should explain the procedure regarding Grievance Redress Mechanism (GRM), so that stakeholders can access the GRM and get solution. Besides that, EHS Manager will disclose the relevant project information and securing their opinions to overcome the adverse situation for project implementation. Assistant EHS Manager will note down all the queries, issues and problems of the stakeholders and report to project management. Project management should take necessary steps to sought out the matters. The stakeholders should be engaged at every step of the project development in an integrated way.

In the early stages of the development of the project, the initial identification of stakeholders was conducted, and these stakeholders were further grouped into government, non-government organizations, civil society group, businesses, institutions, indigenous people, and local communities and individuals. Analyzing the stakeholder's identity, roles, interest, and influence on the project we can further categorize the stakeholders into the following groups

Table 54: Stakeholder Groups

SI	Key Stakeholders	Proposed Plan
1	Direct Stakeholder	- These are the stakeholders identified as the most vulnerable to the - possible impacts and changes to be brought by the project.
2	Indirect Stakeholder	- These are stakeholders that may be indirectly affected by the project wherein consequences although indirect, may still be felt - due to changes and impacts brought by the project.
3	Other Relevant Stakeholders	- These are stakeholders that may have interest in the project and - influence its development and operations.

During each stakeholder consultation meeting, stakeholders should be aware of the ongoing progress/condition of the project. Any kind of constraints, incidents, accidents and GRM should be informed to the stakeholders. The concerns and overviews of stakeholders should be evaluated during the meeting and shared with top management of the proponent to make necessary steps to solve any issue that may arise adversely in near future. Stakeholders should be aware of their rights and privileges according to national and international regulatory guidelines. Effectiveness of GRM, possibility of job placement, community health issues should be discussed in the meeting. Stakeholders should consider the project as one of their own things to explore the opportunities they might get.

Table 55: Proposed Plan Activities Summary

SI	Key Stakeholders	Proposed Plan
1	Positively Influenced Stakeholders/ labour communities	- Set up a grievance redress mechanism and inform the community about the procedure; and - Discuss the management plan with the community and incorporate the comments.
2	Local Governing Bodies	Compliance with legal requirements
3	Lenders	- Compliance with AFD's ES Guidelines along with World Bank Operational Policies, IFC Sustainability Framework & other national and local legal requirements - Regular Reporting

This process will be followed in the implementation and operation phase of the project. During the future operation phase, consultation will be carried out focusing on several issues like maintenance of safety and security of the workers, the process to manage resources, proper communication, avoid the impact on environment and society, ensure cultural diversity and gender safety etc.

8.6 Information Disclosure

Availability of the Document: The full report (in English) will also be uploaded to the website of PTHM. A hard copy of the ESIA and ESMP will also be available at the PTHM project office.

Chapter 9: Grievance Redress Mechanism

The management of the factory recognizes the necessity of establishing an effective grievance procedure to address and resolve any concerns, misunderstandings, or grievances raised by the workers. A workplace grievance procedure serves as a channel for employees to voice dissatisfaction or raise issues related to unfair management practices and discriminatory treatment. The objective is to ensure a fair and impartial resolution of complaints, guided by established policies that uphold the overall well-being of the employees.

Common grievances among factory workers often fall into three primary categories: mental torture, physical torture, and sexual harassment. Each category exhibits distinct characteristics when considered individually:

(a) Mental torture

- Evident discriminatory conduct, mistreatment, teasing, etc., from supervisors or colleagues.
- Distressing verbal communication.
- Intentional degradation through the assignment of challenging tasks.
- Withholding of rightful legal and normal entitlements.

(b) Physical torture

- Enduring physical assault initiated by a supervisor or another worker.
- Physical harm through the consistent assignment of heavy work.
- Facing false accusations and physical assault based on fabricated information.

(c) Sexual harassment

- Harassment of women workers.
- Physical intercourse or attempted physical intercourse by fear, temptation.

9.1 Grievance Redress Committee (GRC)

A three-tier bottom up GRC system will be established in this Project.

1st Level: Supervisor, Manager (Production), Worker Participation Committee, Grievance Box, Welfare/Compliance Officer, or Factory Working Group (if resolution fails or not satisfied).

2nd Stage: Human Resource/Administrative Department (if the solution fails or is not satisfactory).

3rd Stage: General Manager, Executive Director, Managing Director (if the solution fails or is not satisfactory).

4th stage: Legal proceedings if necessary.

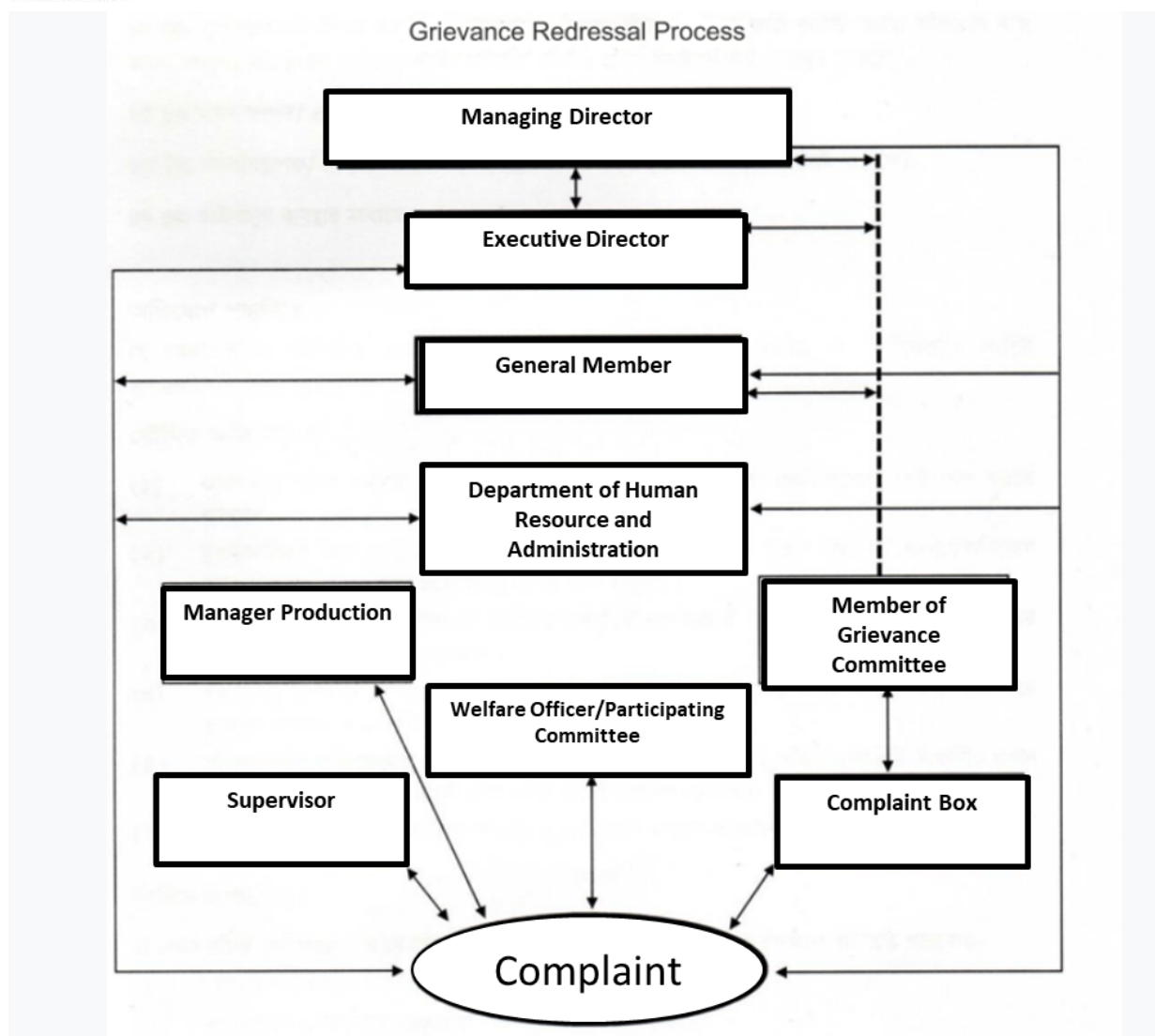


Figure 64: Grievance Redress process of the PTHM site

9.2 Compliant Procedure

Any employee has the option to formally or verbally report any issues or complaints in the workplace to the relevant supervisor, in-charge, or authority.

9.2.1 Verbal complaint:

- (1) Factory workers may present their grievances to their respective supervisors.
- (2) The supervisor in consultation with his concerned in-charge shall take necessary measures for immediate resolution of the problems/complaints raised by the workers.
- (3) However, in view of the complexity/depth of the problem, the Supervisor/Administrative Officer-in-Charge and the Welfare Officer may be removed.
- (4) The Administrative Officer and the Welfare Officer shall discuss with the concerned Head of Department and take necessary action through investigation.



- (5) In case of more complex complaints, the Administrative Officer and Welfare Officer concerned Head of Department G.M. and recommend necessary measures to the Director.
- (6) GM, Director shall consider and investigate all complaints and take necessary action.

9.2.2 Written complaint:

Any worker can report any kind of written complaint at the workplace to the authorities in two ways: -

- (1) Directly to the Authority in writing
- (2) In writing in complaint/suggestion box with hiding name and address.

9.2.3 Direct written complaint:

If an employee is not satisfied with the action taken in response to a verbal complaint, he can directly convey his complaint in writing to the authority.

- (a) GM and Director shall take necessary action through investigation based on written complaint.
- (b) Take action through personal hearing if necessary.
- (c) Decision on written complaint G.M. and the Director shall notify the complainant in writing.
- (d) Any written complaint shall be entered in the Register by the Administrative Officer.

9.2.4 Complaint written in the Complaint/Suggestion box concealing name, address:

If an employee is dissatisfied with the resolution of a verbal complaint, they may submit a written complaint to the authority through the designated complaint/suggestion box while keeping their name and address confidential.

- (1) The toilet of each floor of the factory has 1 suggestion box. Any worker there is can write complaints/suggestions in the box.
- (2) Every Thursday in the presence of the Administrative Officer, Welfare Officer and Compliance Officer the box shall be unlocked and the complaint shall be collected and recorded in a register.
- (3) The Administrative Officer, Welfare Officer and Compliance Officer shall recommend necessary action to the Director.
- (4) G.M. And the Director will consider and investigate all complaints and take necessary action.
- (5) GM and Directors must take advice of Group Legal Adviser as necessary.

9.3 Complaints and suggestions policy

If there is any complaint/suggestion of the working workers of the organization, the following procedure should be followed to reach the highest officer:



- a) Complaint/Suggestion Box: The company has installed complaint/suggestion boxes in various locations such as toilets and canteens to provide workers with a means to communicate difficulties, complaints, or suggestions. Workers are instructed to submit written complaints or suggestions into these boxes.
- b) Participating Committee Members: Workers can present written or verbal complaints and suggestions through the participating committee members.
- c) Welfare Officer: Women Welfare Officers are appointed to facilitate easy communication of worker concerns, suggestions, and grievances, allowing them to seek advice.
- d) Compliance Officer/Manager: Complaints or suggestions can be submitted to the Compliance Officer or Manager.
- e) General Manager: If no resolution is achieved through the grievance/suggestion box, participating committee members, Welfare Officer, or Compliance Officer/Manager, the matter is escalated to the Factory General Manager.
- f) Director: In case the above steps do not yield a resolution, a verbal or suggestion box complaint triggers an investigation within three working days, and the findings are communicated within five working days through notice board or PA system. If the complainant's allegations are proven false, appropriate action is taken against the accuser according to company policy. If the complainant fails to prove the truth, legal action is taken for making false allegations under the Labor Act.

Apart from these specific areas, the authorities may also extend the scope of complaints by workers to normal production activities. Any employee may file a grievance if the problems related to complete work are not remedied promptly or in time. If the problems are related to machine, repair, alternative measures, environment, concerned workers can complain to line chief, supervisor, production manager.

9.3.1 First Stage

- (a) Supervisor (Routine matters)- Temporary problems of machines, inadequate supply of raw materials used, lack of light in employment, solving general safety problems, matters related to floor cleanliness.
- (b) Manager (Production)- Direct administrative control of in-charges and supervisors, solving all production related problems which are only related to continuous process of overall production of the factory.
- (c) Compliance Officer -Taking appropriate steps to solve the problems related to the issues related to factory management in accordance with the statutory rules, proper compliance of the relevant sections of the labor law. Redress of problems related to activities contrary to national labor and International Labor Organization Conventions.
- (d) Worker Participation Committee-Analyzing problems related to the larger welfare of workers (but also applicable to individuals) Discuss with top management and recommend possible solutions.
- (e) Complaint Box- For good reason all complaints cannot be made directly. They should be done through complaint box.

9.3.2 Second level

Matters disposed of for the first level and if no acceptable resolution of the grievances relating thereto is found Mandatory on Human Resource Development Officer / Manager to be the face of the complainant(s) at the second level will behave

(1) Department of Human Resources: If grievances of the complaining worker(s) remain unresolved at the first level, a comprehensive report detailing the activities undertaken at that level, along with comments, must be submitted to the Divisional Manager in the Asset Division. Simultaneously, the complaining worker can directly submit their complaint letter to the Human Resource Development Manager. In cases where the complaint aligns with the overall policy of the factory and is routine rather than requiring significant change, the manager may independently recommend necessary administrative actions.

(2) Administration Department: The Administrative Manager/Officer is responsible for implementing administrative actions in line with the recommendations of the Human Resource Department. They are required to inform all concerned parties, including the complaining worker, about the actions taken.

9.3.3 Third level

If there is no decision on the complaint by the first two levels, the entire matter will be referred to the 3rd level for consideration of the action of those two levels along with level wise comments.

General Manager/Director: Present the information gathered from the preceding levels along with your comments and recommendations for final consideration. The pertinent top-level decision-maker will review all aspects, engage in personal discussions if required, and make the necessary decisions.

9.3.4 Fourth level

If the grievances of the complaining worker at any of the initial three levels fail to yield the desired outcome, the final recourse will be seeking resolution through legal avenues.

The company is committed to fostering a work environment that is entirely free from harassment and bullying. It expects all employees to uphold a workplace atmosphere devoid of any form of harassment, ensuring the dignity of every worker.

The aim is to create a workplace where all employees are free from harassment and oppression. These policies are applicable to both employee officers and anyone entering the factory.

The company adheres to the following policies to sustain a workplace free from harassment and bullying, and it seeks everyone's cooperation in upholding these standards. Any form of harassment or intimidating behavior against all workers employed by the company is strictly prohibited. These activities include: -

- Physical abuse.
- Giving abuse and threats.
- Mental torture
- Any form of sexual harassment.
- Legislators on fundamental rights of workers.
- Unreasonably restricting the movement of workers.



In view of the proof of the complaint on the above grounds, the accused will be prosecuted and legal action will be taken and the complainant will not face any kind of peace.

We take the following written measures to create awareness workers to report harassment and harassment to the authorities properly.

- Training of new staff.
- Training of line chiefs, supervisors and management staff.
- Exchange of views among employees through collective meetings.
- Post these policies on the notice board.

If any complaint is raised, the following information will be recorded subject to immediate investigation through the designated person.

Date of Complaint # Date of Occurrence # Type of Complaint # Name of Accused and Complainant # Date of Investigation and Name of Investigator # Method of Investigation # Investigation Report # Date of Decision and Name of Decision Maker # Peace Imposed and Date # Date of Sentencing to Person Received # The decision taken as per the investigation report will be communicated to the complainant and documented by signature.

In spite of this, the authorities can make changes in the existing policies to prevent harassment in cases where incidents of harassment and bullying continue to occur again and again.

9.4 Monitoring and Reporting on Grievances

To ensure impartiality and transparency, hearings on complaints at the GRC level will remain open to the public. The GRC will record the details of the complaints and their resolution in a register, including intake details, resolution process, and the closing procedures. PTHM will maintain the following three GRM Books:

Opening Book: (1) Case no., (2) Date and channel of receipt, (3) Name of complainant, (4) Gender, (5) Father or husband, (6) Complete address, (7) Main objection (loss of land/property or entitlements), (8) Complainants' story and expectation with evidence, and (8) Previous records of similar grievances.

Resolution Book: (1) Serial no., (2) Case no., (3) Name of complainant, (4) Complainant's story and expectation, (5) Date of hearing, (6) Date of field investigation (if any), (7) Results of hearing and field investigation, (8) Decision of GRC, (9) Progress (pending, solved), and (10) Agreements or commitments.

Closing Book: (1) Serial no. (2) Case no., (3) Name of complainant, (4) Decisions and response to complainants, (5) Mode and medium of communication, (6) Date of closing, (7) Confirmation of complainants' satisfaction, and (8) Management actions to avoid recurrence.

The GRC will also prepare periodic reports on the grievance resolution process and publish these on their websites. PTHM will consolidate reports from the GRCs on GRM and post in their website.



Chapter 10: Conclusions

This ESIA report has been prepared to meet the requirement of Bangladesh Infrastructure Finance Fund Limited (BIFFL) and national regulations for funding.

Considering the potential impacts and baseline situation, the ESMP implementation will ensure that all the impacts during the construction phase are properly managed. During the operation stage the ESMP implementation will lead to some enhancements in terms of landscaping and view, in addition to remediation of ES impacts. The specific areas of the ESMP implementation are discussed below.

Construction Related Issues

The construction phase of this projects involves construction works to be carried out by contractors on behalf of the PTHM. Thus, the impacts during the construction phase would be caused by the activities by the contractor and sub-contractors involved in supply and services for the contractor. The project activities during construction phase impacting the physico-chemical environmental parameter such as, drainage congestion, water pollution, noise pollution and air pollution, have been identified and management measures have been proposed. The OHS risk is most important in the construction phase.

Drainage and Wastewater

Developed drainage system provides the opportunity for adequate drainage for the area; minimizing the possibility of drainage congestion, possible inundation and pollution of other plots in the nearby area. As wastewater generation in the facility has been identified as a source with water pollution potential. Septic tanks have already been constructed for proper domestic wastewater management. There are 22 septic tanks with soak pit is present within the project area. Dimension of each septic tanks is about 5m×4m×2m. The total volume of 22 septic tank is 880 m³/day, which are sufficient for 1793 employees. Proposed condition: The - domestic wastewater will be - preliminarily treated by septic tank and soak pit then it will be sent to the city corporation drain. In the expansion portion about 200 people will be employed during the operation period. Dimension of septic tank is about 4.867m×4.345m×3.042m. The capacity of the septic tank is 64.21m³. The effective capacity of one septic tank is 44.95 m³ (70% of the total capacity of 64.21 m³). For the additional employees (200 people), 1 septic tank of the given dimensions is sufficient.

Water Resources

During the construction period water will be required for construction activities and for personal hygiene in the labor camp. In the operational period the water need will increase due to residential needs. Existing daily water demand is 1050 m³/ day after new project 1200 m³/ day. The units inside the PTHM will initially use groundwater extracted through a deep tube well.

Air and Noise

Mitigation measures will be taken as per ESMP. The potential source of GHGs emissions from the facility will be minimal as all power needs will be met from the national grid; and the use of emergency generators are likely to be infrequent.



Solid Waste

Impacts of demolition of existing building, foundation excavations, land development and construction waste generated will be dealt with according to ESMP and the issues faced are likely to cause only usual short-term problems. A staging area for storage of solid waste will be earmarked. PTHM already have SOP for waste handling (Appendix XV) and Waste selling agreement (Appendix XVI) to ensure safe disposal of these wastes.

Traffic Management

Increase in vehicular traffic in the area is likely to be experienced during operation phase of the project. During the operation phase, increase in vehicular traffic in the area may result in possible traffic congestion of Zakir Hossain road. About 3 nos. of Trucks/hour will have their movement which will cause similar level of traffic movement effect. The Zakir Hossain road is very wide about 15 m. Further PTHM have their own parking place, so no congestion on Zakir Hossain road was observed. Moreover, the internal roads facility of the project site is very satisfactory and well planned. There is no traffic jam around the existing project area, but it can be increased during the operation of the proposed project. A Traffic Management Plan is attached in Appendix XXI. PTHM should follow this plan for better traffic management.

Environmental and Social Management Plan

An Environmental and social Management Plan (ESMP), including monitoring requirements, has been developed to ensure implementation of the “mitigation and abatement measures” identified in this ESIA document. Proper mitigation measures, as suggested in the ESMP, should be followed to reduce such adverse impacts to the extent possible. Enhancement of site environment will be a pertinent responsibility of the PTHM. Accordingly, the ESMP has provided suggestions on tree plantation, wetland and surface water body preservation and green area delineation which should be ensured by the PTHM. The project would bring about socio-economic benefits during its operational phase through employment of large number of workers.

Public Participation and Community Concern

During the operational phase, the project is likely to bring about significant benefit for the nation. Social issues are likely to play an important role during the construction as well as operational phases. The project activities are likely to generate opportunity for significant employment both at PTHM and elsewhere. Coordination among the PTHM authority, the tenant industries in the nearby area need to be ensured through a participatory approach. Relationship between the community and the project personnel regarding safety and security should be enhanced through participatory programs.

Labor Management and Occupational Safety

A maximum of probably 120 workers and 1983 workers may be employed during the construction and operational periods respectively at the PTHM. The number of female employees may be more going by the experience in other such establishments. PTHM management will take measures to facilitate employment of female workers. There are likely to be a small number of non-local workers during construction as most workers will be employed during construction will be local and during the operation periods the employment



will be on long term basis. During the construction period a worker camp is to be set up on temporary basis for contractors' employees, which accommodate only a small number (i.e., probably <50) for short periods. No significant issues are expected as no migrant labor are likely to be involved and most labors are expected to come from surrounding areas and commute to work. The ESIA has identified the labor management issues which are needed to be implemented to comply with GOB requirements; and also, ILO conventions to which GOB is a signatory. ESIA provides for implantation of required EHS regulations e.g. WB EHGS and sectoral EHS guidelines for worker safety. The PTHM already have Safety and health Policy (appendix XXII); that will help to reduce occupational hazards and health risks; and also, use of tools and procedures for proper implementation of ER reduction measures including fire protection.

Grievance Redress Mechanism

A Grievance Redress Mechanism has been proposed in this ESIA with due procedures; through which aggrieved parties may launch complaint during both the construction and operational phase, which will be addressed by a committee upon formal hearing and investigation.

Compliance to ESMP

PTHM managements will comply with provision of ESMP in this document in the construction and operation phases respectively. The compliance will be overseen, monitored, and audited by a dedicated team on behalf of the PTHM management. The Project will make its best effort to minimize the environmental and social impacts unavoidably associated with the Project; during its entire life cycle by implementing suggested mitigation measures and management plans as described in this ESIA; to ensure compliance with the requirement of the World Bank ESS and EHS guidelines. Provision for indicative budget resources have been recommended for the purpose. PTHM management will ensure that the Project conforms to all the legal, regulatory and policy objectives and also ensure that all the necessary permits are obtained and renewed from time to time as necessary.

Finally, it is expected that all necessary information/ evidence contained in this ESIA report are enough to meet all requirements for the construction and operation of the PTHM's facilities in accordance with the requirement of Bangladesh Infrastructure Finance Fund Limited (BIFFL) and national regulations for funding.

Recommendations

The following recommendations have been made for efficient and effective implementation of environmental conservation; health & safety, social responsibilities measure through the lifespan of the proposed project.

- Compliance national regulation; i.e., renewal of ECC with following the several conditions given in the certificates;



- Establish a dedicated Environmental and Social Unit covering the Corporate and Factory Level;
- PTHM should continuously (Preferably annually and half yearly) monitor the air, noise, and water to cope up with their environmental vision during both construction and operation phases;
- Proper training regarding EHS should be provided to Project Management Unit as well as work forces during construction and operation phases.



References

- World Bank, 2017, Environmental Management Framework Export Competitiveness for Jobs Project, SFG3122 V1
- World Bank, Environmental and Social Standards
- SRDI, 1997. *Physiography of Bangladesh*, Dhaka: Soil Resource Development Institute, Ministry of Agriculture, GoB.
- Agrawal, D. & Kassam, A., 1976. *The importance of multiple cropping in increasing world food supplies*. Wisconsin: American Society of Agronomy.
- Ahmed, Z. et al., 2008a. Encyclopedia of Flora and Fauna of Bangladesh. *Angiosperms: Dicotyledons (Acanthaceae-Asteraceae)* Asiatic Society of Bangladesh, Volume 6, pp. 1-408.
- Ahmed, Z. et al., 2008b. Encyclopedia of Flora and Fauna of Bangladesh. *Angiosperms: Monocotyledons (Orchidaceae-Zingiberaceae)* Asiatic Society of Bangladesh, Volume 12, pp. 1-552.
- Ahmed, Z. et al., 2008. *Encyclopedia of Flora and Fauna of Bangladesh*. 2008 ed. Dhaka: Asiatic Society of Bangladesh.
- Ara, H., Khan, and Uddin, S. N., 2013. *Red data book of vascular plants of Bangladesh*. Dhaka: Bangladesh National Herbarium.
- Ara, H., Khan, B. & Uddin, S., 2013. *Red Data Book of Vascular Plants of Bangladesh*. Dhaka: National Harberium.
- BBS, 2021. *Statistical Yearbook of Bangladesh*. s.l.: Bangladesh Bureau of Statistics.
- BBS, 2021. *Bangladesh Population Census 2021*, s.l.: Bangladesh Bureau of Statistics, Statistics Division, Ministry of Planning, GoB .
- BBS, 2021. *Report of the Household, Income & Expenditure survey 2021*, s.l.: Bangladesh Bureau of Statistics Division, Ministry of Planning, GoB.
- BMD, 2022. *Meteorological Database 2022*, s.l.: Bangladesh Meteorological Department, Ministry of Defence, GoB.
- Brammer, H., 1996. *The Geography of the Soils of Bangladesh*. Dhaka: Brammer.
- Brammer, H., 1996. *The Geography of the Soils of Bangladesh*. Dhaka: The University Press Limited.
- DoE, 2023. *Environmental Conservation Rules*. s.l.:Department of Environment, Ministry of Environment and Forestry, GoB.
- DoE, 2005. *Amended by notification SRO 220-Law/2005*, Dhaka: Department of Environment, Ministry of Environment and Forests, GoB.
- Goldsmith, F. & Harrison, C., 1976. *Description and Analysis of Vegetation*, s.l.: s.n.



Housing and Building Research Institute and Bangladesh Standards and Testing Institution, 1993. *Bangladesh National Building Codes*. 1st ed. Dhaka: BNBC.

IPCC, 2007. *Forth Assessment Report: Climate Change*, Cambridge: Cambridge University Press.

IUCN Bangladesh, 2003. *Bangladesher Biponno Bonnoprani*. s.l.:IUCN-The world Conservation Union.

IUCN, 2015. *Red List of Threatened Species. Version: 2015-4*. s.l.:World Conservation Union.

Khan, M. & Huq, A., 2001. *The vascular flora of Chunati Wildlife Sanctuary in South Chattogram, Bangladesh*. s.l.:Bangladesh J. Plant.

Khan, M., M.M., R. & M.M., A., 2001. *Red Data Book of Vascular Plants of Bangladesh. Bangladesh National Herbarium*. Dhaka: National Harberium.

MOEF, 2012. *Wildlife (Conservation and Security) Act*. Dhaka: Bangladesh Gazetterie .

Nishat, A. et al., 2002. *Bio-ecological Zones of Bangladesh*. Dhaka: The World Conservation Union (IUCN).

Nishat, A. et al., 2001. *Bioecological Zones of Bangladesh*. Dhaka, IUCN Bangladesh, p. 131.

Rahman, A., Huq, S. & Conway, G., 2000. *Surface Water Systems of Bangladesh*. Dhaka: The University Press Limited.

Rahman, M. A. & Mueyed, A., 2005. *Urban Air Pollution: A Bangladesh Perspective - Transactions on Ecology and the Environment*, s.l.: s.n.

Rashid, M. A., 1991. *Analysis of seasonal and annual rainfall trends in Bangladesh*. Dhaka: Rashid.

Siddique, K. I. M. et al., 2007. Encyclopedia of Flora and Fauna of Bangladesh. In: *Angiosperms: Mnocotyledons)Agavaceae-Najadaceae)*. Dhaka: Asiatic Society of Bangladesh, pp. 1-399.

Smith, A. L. A. O. R. M., 2000. *Contamination of Drinking Water by Arsenic in Bangladesh: A Public Health Emergency*, s.l.: WHO.

Statistics, B. B. o., 2022. *Statistical Yearbook of Bangladesh*. s.l.:BBS.

Wikipedia, 2015. *Geology of Bangladesh*. s.l.:Wikipedia.

Wildlife Conservation and Security Act, 2012. s.l.:Bangladesh Gazette.



Chapter 11: Appendix

Appendix I ECC from DoE in favor of PTHM



গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিবেশ অধিদপ্তর
চট্টগ্রাম মহানগর কার্যালয়
পরিবেশ ভবন, জাকির হোসেন রোড
ফয়েজ লেক এলাকা, খুলশী, চট্টগ্রাম -৪২০২
www.doe.gov.bd

পরিবেশগত ছাড়পত্র নবায়ন
ছাড়পত্র নং: ২৪-১২০৩৭৬

পরিবেশগত ব্যবস্থাপনা নিশ্চিতকরণ সাপেক্ষে সংযুক্ত শর্তে নিম্নবর্ণিত প্রতিষ্ঠান/প্রকল্পের অনুকূলে পরিবেশগত ছাড়পত্র নবায়ন প্রদান করা হলো :

প্রতিষ্ঠান/প্রকল্পের নাম	: Pahartali Textile & Hosiery Mills
উদ্যোক্তার নাম	: Mirza Salman Ispahani
সনাক্তকরণ নং	: ৫৬৬৭৯
প্রতিষ্ঠান/প্রকল্পের কার্যক্রম	: Spinning mill.
প্রতিষ্ঠান/প্রকল্পের শ্রেণী	: Orange
প্রতিষ্ঠান/প্রকল্পের ঠিকানা	: Ispahani Complex, North Pahartali, Chittagong 4202.
প্রদানের তারিখ	: ০৬ মে ২০২৪
মেয়াদ উত্তীর্ণের তারিখ	: ০৭ মে ২০২৫



এ ছাড়পত্র সনদের সাথে পৃথকভাবে সংযুক্ত প্রদত্ত শর্তাবলী যথাযথভাবে প্রতিপালন করতে হবে, অন্যথায় ছাড়পত্র বাতিল/কতিপূরণ আদায়সহ যে কোন আইনানুগ ব্যবস্থা গ্রহণ করা হবে।

বিগ্ধঃ এটি একটি সিস্টেম জেনারেটেড ছাড়পত্র এবং এতে কোনোরূপ স্বাক্ষরের প্রয়োজন নেই।

ছাড়পত্রটি যাচাই করতে ভিজিট করুন: https://ecc.doe.gov.bd/certificate_verification

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সনাক্তকরণ নং: ৫৬৬৭৯ Pahartali Textile & Hosiery Mills ছাড়পত্র নং: ২৪-১২০৩৭৬

পরিবেশগত ছাড়পত্র নবায়ন এর জন্য প্রযোজ্য শর্তাবলী:

১. প্রতিষ্ঠানের কোন কর্মকান্ড ও উৎপাদন প্রক্রিয়া দ্বারা কোনভাবেই পরিবেশ (বায়ু, শব্দ, মাটি ও পানি) দূষণ করা যাবে না।
২. এ ছাড়পত্র প্রতিষ্ঠানে শুধুমাত্র স্পিনিং কার্যক্রম পরিচালনার জন্য প্রযোজ্য হবে।
৩. প্রতিষ্ঠানের উৎপাদন বৃদ্ধি, জায়গা সম্প্রসারণ, উৎপাদন প্রক্রিয়া বা তৎসংশ্লিষ্ট কোন প্রকার পরিবর্তনের জন্য পরিবেশ অধিদপ্তরের অনুমোদনের প্রয়োজন হবে।
৪. প্রতিষ্ঠানটি চালু অবস্থায় প্রতি ছয় (০৬) মাস অন্তর অন্তর অর্থায়ন বছরে দুই (০২) বার প্রতিষ্ঠানের বায়ুর গুণগতমান (পিএম) ও শব্দের গুণগত মান বিশ্লেষণ ফলাফল এ দপ্তরে দাখিল করতে হবে এর ব্যতিক্রমে পরিবেশগত ছাড়পত্র নবায়ন করা হবে না।
৫. আগামী এক মাসের মধ্যে বায়ুর গুণগতমান (এসপিএম) ও শব্দের গুণগত মান বিশ্লেষণ ফলাফল এ দপ্তরে দাখিল করতে হবে।
৬. প্রতিষ্ঠানে সৃষ্ট বর্জ্য কঠিন, তরল ও বায়বীয় বর্জ্য পরিকল্পিত উপায়ে সংগ্রহ অথবা পরিশোধনপূর্বক তা স্বাস্থ্য ও পরিবেশসম্মতভাবে অপসারণের ব্যবস্থা নিশ্চিত করতে হবে।
৭. কারখানাটির বিরুদ্ধে ভবিষ্যতে পরিবেশ দূষণমূলক কোন অভিযোগ উত্থাপিত ও অত্র দপ্তর কর্তৃক তা প্রমানিত হলে অত্র দপ্তরের নির্দেশিত নিয়ন্ত্রণ / সংশোধনমূলক ব্যবস্থাদি (স্থানান্তর/কার্যক্রম বন্ধসহ) গ্রহণ করতে আপনার প্রতিষ্ঠান বাধ্য থাকবে।
৮. কারখানার পরিবেশগত ব্যবস্থাপনার জন্য যথাযথ ডিগ্রিধারী প্রশিক্ষিত জনবল রাখতে হবে।
৯. পেশাগত স্বাস্থ্য রক্ষার্থে সকল ব্যবস্থা সার্বক্ষণিক চালু রাখতে হবে। শ্রমিকদের নিয়মিত স্বাস্থ্য পরীক্ষা করতে হবে এবং এতদসংক্রান্ত রেকর্ড সংরক্ষণ করতে হবে।
১০. কারখানার কার্যক্রম দ্বারা জনস্বার্থের ক্ষতি হলে তৎক্ষণাৎ ক্ষতিপূরণ দিতে হবে। দূষণ নিয়ন্ত্রণ ব্যবস্থা কার্যকর না থাকলে এবং এর ফলে পরিবেশ ও প্রতিবেশের ক্ষতি হলে Polluters Pay Principal অনুসারে ক্ষতিপূরণ ধার্য করা হবে এবং নির্ধারিত সময়ের মধ্যে দিতে হবে।
১১. অগ্নি নির্বাপনকল্পে কারখানায় যথাপযুক্ত ব্যবস্থাদি যথা: ফায়ার এক্সিট, ফোমিং কম্পাউন্ডসহ ফায়ার হাইড্রেন্ট, ইমারজেন্সি লাইট স্থাপন, ভূ-গর্ভস্থ বা ভূ-উপরিস্থ জলাধারে সর্বদা পর্যাপ্ত পানি সংরক্ষণ ইত্যাদি ব্যবস্থাদি সার্বক্ষণিক কার্যকরী রাখতে হবে।
১২. কারখানার শব্দ এবং তরল/বায়বীয় বর্জ্যের নিঃসরণ/নিগর্মন মাত্রা যথাক্রমে শব্দ দূষণ (নিয়ন্ত্রণ) বিধিমালা-২০০৬ এবং পরিবেশ সংরক্ষণ বিধিমালা-২০২৩ এ বর্ণিত মানমাত্রার মধ্যে থাকতে হবে।
১৩. এই নায়নপত্রের মেয়াদ শেষ হওয়ার ৩০ (ত্রিশ) দিন পূর্বে নবায়ন ফি ও প্রয়োজনীয় কাগজপত্রসহ নবায়নের জন্য আবেদন করতে হবে।
১৪. বাংলাদেশ পরিবেশ সংরক্ষণ আইন, ১৯৯৫ (সংশোধিত-২০১০) এবং পরিবেশ সংরক্ষণ বিধিমালা, ২০২৩ এ প্রদত্ত ক্ষমতাবলে উপরিলিখিত শর্তসমূহ Enforce করা হবে।
১৫. ছাড়পত্রের মূলকপি প্রতিষ্ঠানে সংরক্ষণ করতে হবে। পরিবেশ অধিদপ্তরের এনফোর্সমেন্ট টিম, পরিদর্শক বা কোন কর্মকর্তা প্রতিষ্ঠানটি পরিদর্শনে গেলে তাদেরকে ছাড়পত্র/নবায়নপত্র প্রদর্শন ও প্রতিষ্ঠানের কার্যক্রম পরিদর্শনে সর্বাত্মক সহযোগিতা প্রদান করতে হবে।
১৬. উপরোক্ত ০১-১৪ অনুচ্ছেদে বর্ণিত শর্তাবলী যথাযথভাবে প্রতিপালনে ক্ষেত্রে সংশ্লিষ্ট কর্তৃপক্ষের কোনরূপ উদাসীনতা, শিথিলতা বা যে কোন শর্তেও লঙ্ঘন পরিবেশ দূষণ সংশ্লিষ্টতায় জনস্বাস্থ্যের প্রতি হুমকি বিবেচনায় প্রদত্ত ছাড়পত্র বাতিলসহ আপনার/ আপনার প্রতিষ্ঠানের বিরুদ্ধে বাংলাদেশ পরিবেশ সংরক্ষণ আইন, ১৯৯৫ (সংশোধিত-২০১০); পরিবেশ সংরক্ষণ বিধিমালা, ২০২৩ এবং শব্দ দূষণ (নিয়ন্ত্রণ) বিধিমালা-২০০৬ অনুসারে আইনগত ব্যবস্থা গ্রহণ করা হবে।

ছাড়পত্রটি যাচাই করতে ভিজিট করুন: https://ecc.doe.gov.bd/certificate_verification

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Appendix II ECC from DoE in favor of PTHM CPP



গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিবেশ অধিদপ্তর
চট্টগ্রাম মহানগর কার্যালয়
পরিবেশ ভবন, জাকির হোসেন রোড
ফয়েজ লেক এলাকা, খুলশী, চট্টগ্রাম -৪২০২
www.doe.gov.bd

পরিবেশগত ছাড়পত্র নবায়ন
ছাড়পত্র নং: ২৪-১১৪২৩৪

পরিবেশগত ব্যবস্থাপনা নিশ্চিতকরণ সাপেক্ষে সংযুক্ত শর্তে নিম্নবর্ণিত প্রতিষ্ঠান/প্রকল্পের অনুকূলে পরিবেশগত ছাড়পত্র নবায়ন প্রদান করা হলো :

প্রতিষ্ঠান/প্রকল্পের নাম	Pahartali Textile & Hosiery Mills Captive Power Plant
উদ্যোক্তার নাম	Mirza Salman Ispahani
সনাক্তকরণ নং	৩৪৮৪৩
প্রতিষ্ঠান/প্রকল্পের কার্যক্রম	Captive Power Plant 11.95 MV
প্রতিষ্ঠান/প্রকল্পের শ্রেণী	Orange
প্রতিষ্ঠান/প্রকল্পের ঠিকানা	Ispahani Complex, Pahartali, Chittagong-4202
প্রদানের তারিখ	০৯ জানুয়ারি ২০২৪
মেয়াদ উত্তীর্ণের তারিখ	০৯ জানুয়ারি ২০২৫



এ ছাড়পত্র সনদের সাথে পৃথকভাবে সংযুক্ত প্রদত্ত শর্তাবলী যথাযথভাবে প্রতিপালন করতে হবে, অন্যথায় ছাড়পত্র বাতিল/কতিপূরণ আদায়সহ যে কোন আইনানুগ ব্যবস্থা গ্রহণ করা হবে।

বিঃদ্রঃ এটি একটি সিস্টেম জেনারেটেড ছাড়পত্র এবং এতে কোনো রূপ স্বাক্ষরের প্রয়োজন নেই।

ছাড়পত্রটি যাচাই করতে ভিজিট করুন: https://ecc.doe.gov.bd/certificate_verification

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Appendix III Trade License

চট্টগ্রাম সিটি কর্পোরেশন

www.ccc.gov.bd





ই-ট্রেড লাইসেন্স

লাইসেন্স নং : TRAD/CHTG/036884/2018

লাইসেন্স ইস্যুর বিবরণ

ইস্যুর তারিখ : ১৭/০৭/২০২৩
ইস্যুর সময় : ১৫:০৮:৪০
পুরাতন ট্রেডলাইসেন্স নং : ১৭৩৬৩৭

স্থানীয় সরকার (সিটি কর্পোরেশন) আইন, ২০০৯ (২০০৯ সনের ৬০ নং আইন) এর ধারা ৮৪-তে প্রদত্ত ক্ষমতাবলে সরকার প্রণীত আদর্শ কর ডফসিল, ২০১৬ এর ১০ অনুচ্ছেদ অনুযায়ী ব্যবসা, বৃষ্টি, পেশা বা শিল্প প্রতিষ্ঠানের উপর আরোপিত কর আদায়ের লক্ষ্যে নিম্নে বর্ণিত ব্যক্তি/প্রতিষ্ঠানের আনুকুলে অত্র ট্রেড লাইসেন্সটি ইস্যু করা হলো।

১। ব্যবসা প্রতিষ্ঠানের নাম	পাহাড়তলী টেক্সটাইল এন্ড হোসিয়ারী মিলস এ ইউনিট অব এম এম ইস্পাহানী লিঃ		
২। প্রতিষ্ঠানের মালিকের নাম	মিজা সালমান ইস্পাহানী		
৩। পিতা/স্বামীর নাম	মরহুম মেহেদী ইস্পাহানী		
৪। মাতার নাম	রাজিয়া সুলতানা ইস্পাহানী		
৫। ব্যবসার প্রকৃতি	লিমিটেড কোম্পানী		
৬। ব্যবসার ধরণ	প্রস্তুতকারক, টেক্সটাইল আমদানী ও রপ্তানীকারক		
৭। প্রতিষ্ঠানের ঠিকানা	ইস্পাহানী বিল্ডিং, আগ্রাবাদ বা, এ, চট্টগ্রাম।		
৮। অঞ্চল/বাজার শাখা	৭	ওয়ার্ড/মার্কেট:	৩৬ নং গোসাইলডাঙ্গা
এলাকা	গোসাইলডাঙ্গা		
৯। এনআইডি/পাসপোর্ট/জন্ম নিব: নং	-	বিআইএন নং:	-
ফোন	-	ই-মেইল:	-
১০। অর্থ বছর	২০২৩-২০২৪ (নবায়নকৃত)	টিন নম্বর:	-
১১। মালিকের বর্তমান ঠিকানা	ব্যবসা শুরু তারিখ:		
হোল্ডিং নং	-	মালিকের স্থায়ী ঠিকানা	-
রোড নং	-	হোল্ডিং নং	-
গ্রাম/মহল্লা	৩৬ মমিন রোড	রোড নং	-
পোস্টকোড	-	গ্রাম/মহল্লা	-
থানা	কোতোয়ালী	পোস্টকোড	-
জেলা	চট্টগ্রাম	থানা	-
বিভাগ	-	জেলা	-
১২। ট্রেড লাইসেন্স/নবায়ন ফি (বার্ষিক)	-	বিভাগ	-
লাইসেন্স/নবায়ন ফি	১২০০০	সাইনবোর্ড কর	২০০০
সারচার্জ	০	ভ্যাট	১৮০০
আয়কর/উৎসেকর	৩০০০	বই ফি	০
বকেয়া ()	০	ফর্ম ফি	১৫
সংশোধনী ফি	০.০০	সর্বমোট	১৮৮১৫.০০

অত্র ট্রেড লাইসেন্স এর মেয়াদ ৩০ শে জুন, ২০২৪ পর্যন্ত



লাইসেন্স ও বিজ্ঞাপন পরিদর্শক
মোঃ মোরশেদুল হক
লাইসেন্স ইন্সপেক্টর
চট্টগ্রাম সিটি কর্পোরেশন



উপ-কর কর্মকর্তা (লাইসেন্স)
দিদারুল আলম খান
উপ-কর কর্মকর্তা (লাইঃ)
চট্টগ্রাম সিটি কর্পোরেশন।



কর কর্মকর্তা (লাইসেন্স)
মুহাম্মদ হোসাইন
কর কর্মকর্তা (লাইসেন্স)
সার্কেল-০৭
চট্টগ্রাম সিটি কর্পোরেশন।



Appendix IV BERC and Factory License



Government of the People's Republic of Bangladesh

Bangladesh Energy Regulatory Commission

DHAKA, BANGLADESH

Bangladesh Energy Regulatory Commission is pleased to renew the Licence issued on 10 March 2010 bearing Licence Reference No.BERC/POWER/CPP-0220/L/0521/725 for generation of 11.95 (Eleven point nine five) **MW** (gas based) electricity by Captive Power Plant (CPP) at Pahartali, Chattogram as per sections 27 & 28 of the Bangladesh Energy Regulatory Commission Act, 2003 and regulation 3 & 16 of the Bangladesh Energy Regulatory Commission Licence Regulations, 2006 in favour of

Pahartali Textile & Hosiery Mills

Ispahani Building (4th Floor), SK. Mujib Road Agrabad, Chattogram-4100.

This Licence will remain valid from **10 March 2023 to 09 March 2025**,
under the terms and conditions incorporated in the reference number:
28.01.0000.015.02.367.09(Part-1)/CPP-0220, Dated: **16 August 2023**.



Sector: Power
License No.: CPP-0220
Issue Date: 16 August 2023
Scan the QR code to verify the license
Powered by TechnoVista



Barrister Md. Khalilur Rahman Khan
Secretary



ISPAHANI



	“ শিশুশ্রম নিষিদ্ধ ”	কারখানা লাইসেন্স	
ফরম-৭৮			
[ধারা ৩২৬ এবং বিধি ৩৫৫(১) দ্রষ্টব্য]			
লাইসেন্স নং ৬১/চট্টগ্রাম	রেজিঃ নং ৬১/চট্টগ্রাম	তারিখ ১৬/০২/১৯৮১ খ্রিঃ	
শ্রেণী “আই” প্রতিষ্ঠান/শিল্পের ধরন “কটন স্পিনিং এন্ড উইভিং” লাইসেন্স ফি (টাকা) ৬০০/- (ছয়শত) টাকা, বাংলাদেশ			
শ্রম আইন, ২০০৬ এর বিধান সাপেক্ষে এতদ্বারা “কারখানা লাইসেন্স” মঞ্জুর করা হইল। উহা কেবল “পাহাড়তলী টেক্সটাইল এন্ড হোসিয়ারী মিলস”			
নামে পরিচিত হইবে ও পাহাড়তলী, চট্টগ্রাম			
স্থানে অবস্থিত “কারখানা” এবং জনাব. মির্জা সালমান ইস্পাহানী মালিক/ব্যবস্থাপনা পরিচালকের জন্য প্রযোজ্য।			
এই লাইসেন্স ২০২৩ সনের ৩০ জুন পর্যন্ত বলবৎ থাকিবে।			
স্বাক্ষরিত/- ১৬/০২/১৯৮১ এন. এ. চৌধুরী উপমহাপরিদর্শক কলকারখানা ও প্রতিষ্ঠান পরিদর্শন অধিদপ্তর গণপ্রজাতন্ত্রী বাংলাদেশ সরকার			



নবায়নের অংশ

যে বৎসরের জন্য বৈধ	শ্রেণি	মোট শ্রমিকের সংখ্যা			নবায়ন ফি	পরিশোধের তারিখ	নবায়ন বিলম্বের জন্য অতিরিক্ত ফি	উপমহাপরিদর্শকের স্বাক্ষর ও তারিখ
		পুরুষ	মহিলা	মোট				
(১)	(২)	(৩)	(৪)	(৫)	(৬)	(৭)	(৮)	(৯)
১৫-০২-২০২৪	আই	১৫৪	৭৬৬	৯২০	৭.০০০/-	০০/০৫/২০২৬ ২০/০৬/২০২৬	-	২৫/০৬/২০২৬ উপ মহাপরিদর্শক, চট্টগ্রাম।

শ্রেণি পরিবর্তনের অংশ

যে তারিখে শ্রেণি পরিবর্তন হইয়াছে	পরিবর্তিত শ্রেণি	মোট শ্রমিকের সংখ্যা			সংশোধন ফি	পরিশোধের তারিখ	উপমহাপরিদর্শকের স্বাক্ষর ও তারিখ
		পুরুষ	মহিলা	মোট			
(১)	(২)	(৩)	(৪)	(৫)	(৬)	(৭)	(৮)



Appendix V Air, Noise and Water Quality Test



Certified-ISO: 9001:2015, 14001:2015, 45001:2018



Environment and Resource Analysis Center Ltd. (ENRAC)

Block-C, Road-7, House-15, Level-3, Niketan, Gulshan-1, Dhaka-1213

Cell: +880248810445, E-mail: info@enrac.com.bd

ENRAC REF: ENRAC 0268/24

AMBIENT AIR QUALITY TESTING REPORT OF PTHM

COMPANY NAME : Pahartali Textile and Hosiery Mills
PROJECT NAME : " Environmental & Social Impact Assessment (ESIA) for Expansion of Textile Spinning plant of Pahartali Textile Hosiery Mills (PTHM)".
CLIENT REF. : N/A
SAMPLING DATE : 03/02/2024
ANALYSIS DATE : 09/02/2024

Location	SPM	PM10	PM2.5	NO _x	CO	SO _x
AQ1- North Side, (construction site)	175	90.3	60.2	61.4	0.62	159
AQ2- South Side, (generator site)	181	105.2	62.6	71.3	0.49	172
AQ3- West Side,	168	56.5	42.8	47.3	0.45	144
AQ4- East Side,	160	42.40	38.4	43.2	0.25	132
Units	µg/m ³	µg/m ³	µg/m ³	µg/m ³	ppm	µg/m ³
Air Pollution Control Rules, 2022	200	150	65	80	1.67	80
WHO/ WBG EHS Standard, 2021		45	15	25	4	40

* Air pollution control rules 2022

** NSE- No standards established yet



Prepared By

Md. Giash Uddin
Environmental Officer

Approved By

Mehedi Hasan
Environmental Specialist

Environment and Resource Analysis Center Ltd. (ENRAC)
Block C, Road 7, House 15, Niketan, Gulshan 1, Dhaka 1213, Bangladesh
Phone: +8802 7216611, 7219494, Email: info@enrac.com.bd
Web: www.enrac.com.bd



Certified-ISO: 9001:2015, 14001:2015, 45001:218



Environment and Resource Analysis Center Ltd. (ENRAC)

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Cell: +880248810445, E-mail: info@enrac.com.bd

ENRAC REF: ENRAC 0268/24

AMBIENT NOISE LEVEL TESTING REPORT OF PTHM

COMPANY NAME : Pahartali Textile and Hosiery Mills
PROJECT NAME : " Environmental & Social Impact Assessment (ESIA) for Expansion of Textile Spinning plant of Pahartali Textile Hosiery Mills (PTHM)".
CLIENT REF. : N/A
SAMPLING DATE : 03/02/2024
ANALYSIS DATE : 09/02/2024

Monitoring Location	Measured Noise Level (LAeq) dBA	
	Day time	Night time
AQ1- North Side, (construction site)	70.7	52.6
AQ2- South Side, (generator site)	76.1	60.4
AQ3- West Side, of Captive Power plant	73.6	67.8
AQ4- East Side, of Captive Power plant	74.1	68.8
Bangladesh Standard according to the Sound Pollution (Control) Rules-2006		
Industrial Area	75	70
Commercial Area	70	60
Mixed Area	60	50
Residential Area	55	45



Prepared By

[Signature]

Md. Giash Uddin
Environmental Officer

Approved By

[Signature]

Mehedi Hasan
Environmental Specialist

Environment and Resource Analysis Center Ltd. (ENRAC)
Block C, Road 7, House 15, Niketan, Gulshan 1, Dhaka 1213, Bangladesh
Phone: +8802 7216611, 7219494, Email: info@enrac.com.bd
Web: www.enrac.com.bd



গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিবেশ অধিদপ্তর
চট্টগ্রাম গবেষণাগার কার্যালয়
পরিবেশ ভবন, জাকির হোসেন রোড
ফয়েজ লেক এলাকা, খুলশী, চট্টগ্রাম - ৪২০
www.doe.gov.bd

স্মারক নং- ১৩০৬

তারিখ- ২১-১১-২০২৪

প্রাপক: Chairman , PAHARTOLI TEXTILES LIMITED CAPTIVE POWER PLANT , Ispahani Complex, North Pahartali, Akborshah, Chattogram.

বিষয়: সংগৃহীত পরিবেষ্টক শব্দ নমুনার বিশ্লেষিত ফলাফল ।

সূত্র: অনলাইন আবেদনের তারিখ - ২১-১০-২০২৪;ফাইল নং : ১৩০৬

সংগৃহীত পরিবেষ্টক শব্দ নমুনার বিশ্লেষিত ফলাফল নিম্নরূপ:

Location	Sampling Date	Noise Level dBa	Remarks
East Side Of captive power plant	2024-10-27	72.3	
West Side Of Captive power plant	2024-10-27	73.1	
North Side Of Captive power plant	2024-10-27	72.9	
South Side Of Captive power plant	2024-10-27	73.5	
Bangladesh Standard for Sound in Industrial Area as per sound pollution and (control) rules, 2006.		≤ 75	

Remarks:-The sound level is within the acceptable limit of sound pollution and (control) rules, 2006

Md. Shafiqul Islam
জুনিয়র কেমিস্ট

Md. Hojayfah Sarker
সিনিয়র কেমিস্ট

Md. Kamrul Hassan
উপপরিচালক

Nasim Farhana Shireen
পরিচালক





শেখ হাসিনার নির্দেশ
জনস্বাস্থ্য সচিব বাংলাদেশ



Government of The People's Republic of Bangladesh.
Department of Environment
Chattogram Divisional Laboratory
Zakir Hossain Road, Khulshi, Chattogram.
Email: ctglab@doe.gov.bd

Memo No. 22.02.1500.186.68.234.18-133

Date:- 16.09.2024

Name and Address of Applicant/Organization: Pahartali Textile & Hosiery Mills. Ispahani Complex, North Pahartali, Chattogram.
Subject: Drinking Water Analysis Report.
Reference: As per entrepreneur's application Dated -18.03.2024
Sampling Date: Supplied by Applicant

Sample Location	Lab code	pH	PO ₄ mg/l	NO ₃ Mg/l	Turbidity NTU	Arsenic mg/l	SS mg/l	Iron mg/l	Hardness as CaCO ₃ mg/l	Chloride mg/l	Total Coliform n/100ml
PTHM Sample-01	L-377	6.94	2.77	1.4	0.4	ND	01	0.03	19	34	< 1
PTHM	L-378	7.81	2.70	1.9	0.3	ND	01	0.35	17	29	< 1
Standard as per ECR'2023 in Bangladesh.		6.5-8.5	-	≤ 45	≤ 05	≤ 0.05	≤ 10	0.3-1.0	≤ 500	≤ 250	0

Remarks: 1. If no Coliform colonies are observed, Report the Coliform colonies counted as < 1 Coliform/100ml
2. ND-Not Detected.

16.04.24
Tested by
MD. SHAFIQUL ISLAM
Junior Chemist

16.04.24
Checked by
Md. Hojayfeh Sarker
Senior Chemist

16.04.24
Supervised by
Md. Kamrul Hassan
Deputy Chemist

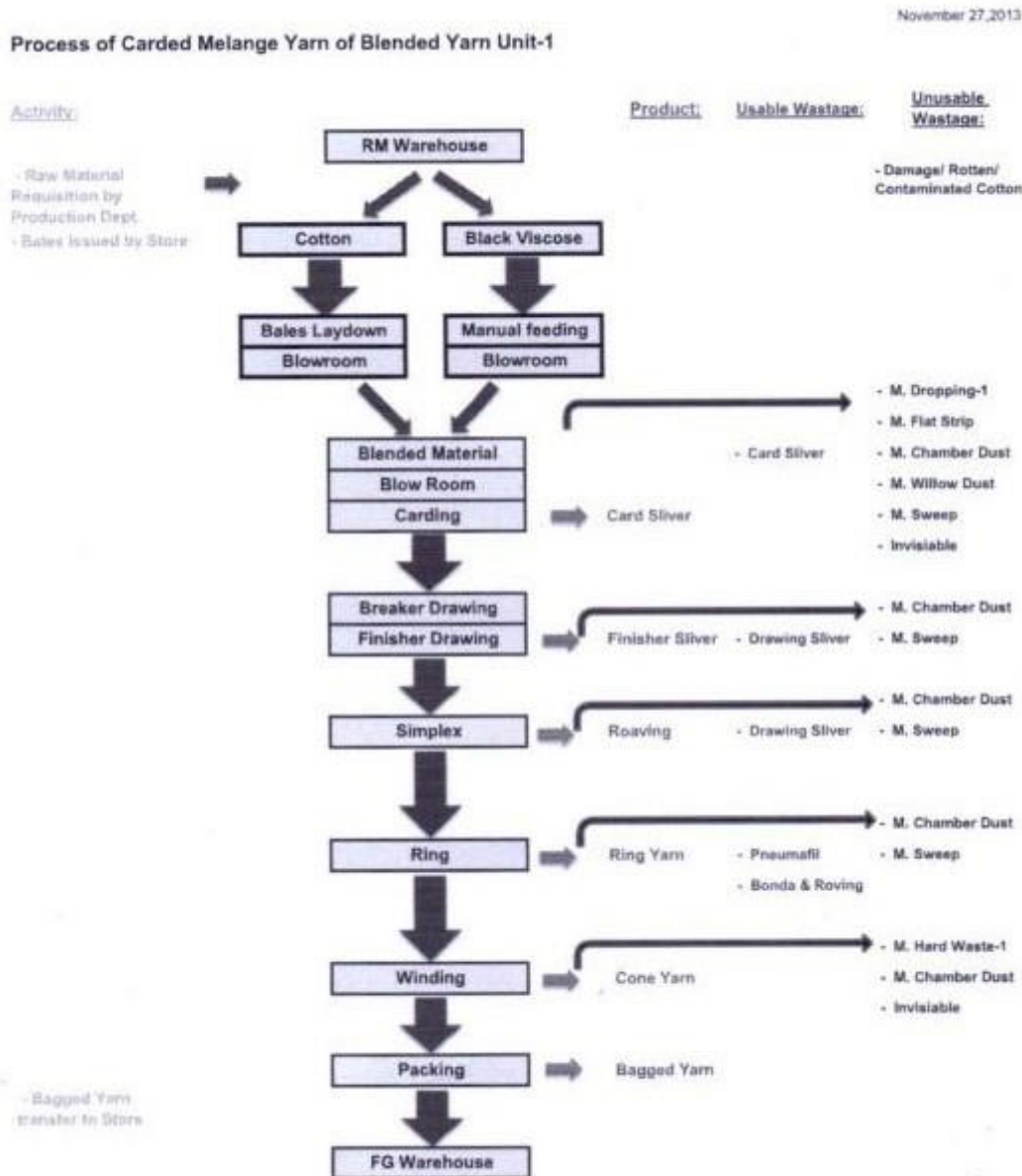
16.05.2028
Approved by
Nasim Farhana Shireen
Director (Laboratory)
Department of Environment
Chattogram.



Appendix VI Raw material

Sl	Name of Origin	Number of Bales	Remarks
1.	Australia Raw Cotton		
2.	Mali Raw Cotton		
3.	Burkinafaso Raw Cotton		
4.	Kazak Raw Cotton		
5.	Greece Raw Cotton		
6.	Indian Raw Cotton		
7.	Turkish Organic		
8.	Indian Fair Trade Conventional		
9.	Brazil BCI raw cotton		
10.	Cameroon raw cotton		
11.	Lenzing Ecovero White Viscose		
12.	Polyester		
13.	Recycle Polyester China		
14.	Recycle Polyester Bangladesh		
15.	Modal		
16.	Grey Silk(White Viscose)		
17.	Lenzing White Viscose		
18.	Black Viscose(China)		
19.	Black Viscose(India)		
20.	Recycle Cotton		
21.	USA Raw Cotton		
		Total= 11851 Bales	

Appendix VII Production Process flow chart

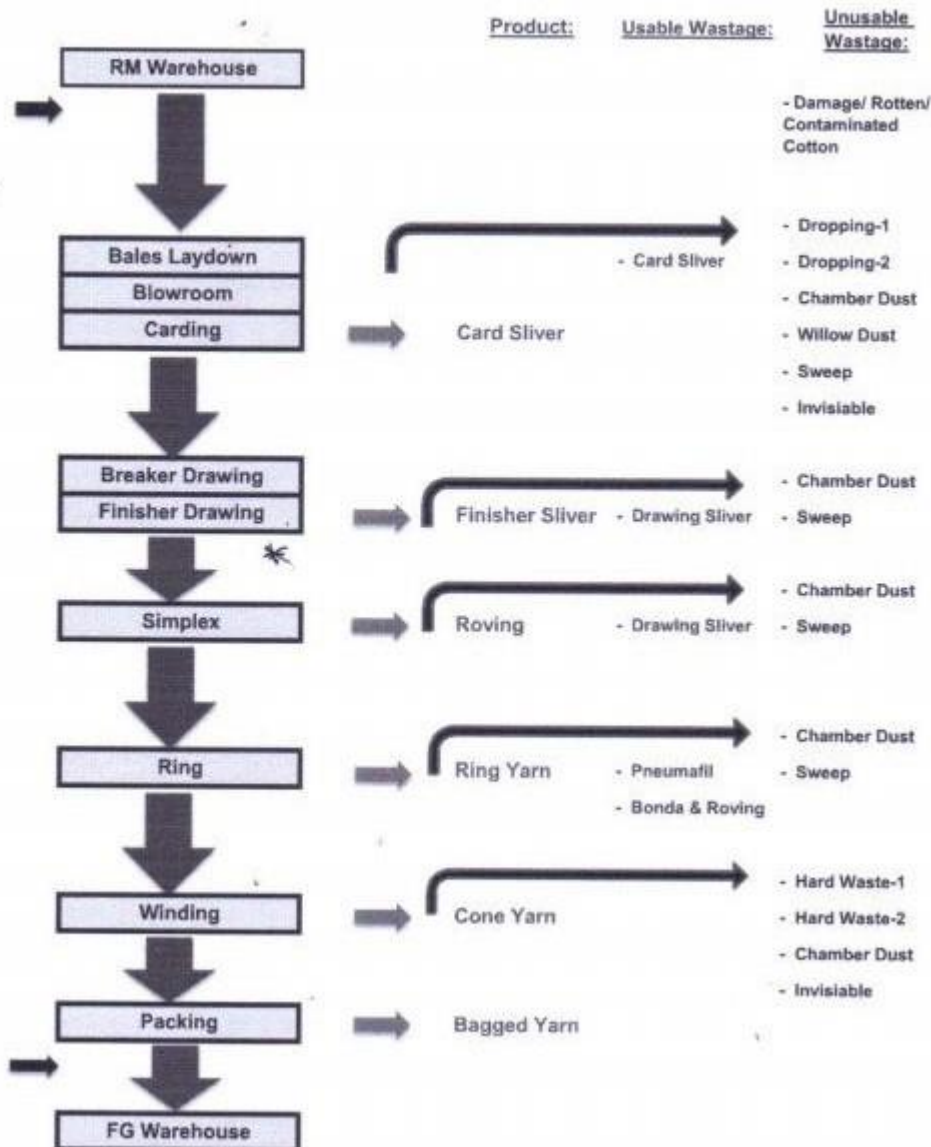


November 27, 2013

Process of Cotton Carded Yarn/Cotton Carded Slub Yarn of Mill-1 & Mill-2

Activity:

- Cotton Bales Requisition by Production Dept.
- Cotton Issued by Store



- Bagged Yarn transfer to Store



ISPAHANI



Appendix VIII Boiler license

ফর্ম VI

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
প্রধান বয়লার পরিদর্শকের কার্যালয়

সংখ্যা: চট্টগ্রাম-০৮৭২-২০২২-২০২৩ ৭৩৬৭

তারিখ: ৩১/০৫/২৩

বয়লার ব্যবহারের প্রত্যয়নপত্র
(প্রবিধি- ৩৬৯)

বয়লার নিবন্ধন সংখ্যা: বাঃবঃ৬৮২ বয়লারের প্রকার: হরিজন্টাল ফায়ার টিউব বয়লার

বয়লার রেটিং: ৩০০ বর্গফুট নির্মাণের স্থান ও বৎসর: যুক্তরাষ্ট্র, ১৯৯২

সর্বোচ্চ একটানা বাষ্পীকরণ:

মালিকের নাম: মির্জা সালমান ইস্পাহানী, চেয়ারম্যান

বয়লারের অবস্থান: পাহাড়তলি টেক্সটাইল এন্ড হসিয়ারি মিলস, পাহাড়তলি রেলগেইট, পাহাড়তলী, চট্টগ্রাম

মেরামত:

মন্তব্য: ২৮/০৫/২০২৩ তারিখে: ১৩ কেজি/বর্গ সে.মি. পর্যন্ত জলীয় পরীক্ষাকৃত।

আমি এতদ্বারা প্রত্যয়ন করিতেছি যে, আমি প্রধান বয়লার পরিদর্শকের ১৯২৩ সালের বয়লার আইন এর ৭/৮ ধারা বলে উপরে বর্ণিত সর্বোচ্চ: ১০ কেজি/বর্গ সে.মি.

চাপে ২৮/০৫/২০২৩ খ্রি: হইতে ২৭/০৫/২০২৪ খ্রি: পর্যন্ত চালনার অনুমতি প্রদান করিয়াছি।

সেফটি ভালবের চাপ ১০ কেজি/বর্গ সে.মি. অতিক্রম করিবে না।

আমি আরো প্রত্যয়ন করিতেছি যে, প্রধান বাষ্পনল

চাপে তারিখে জলীয় পরীক্ষাকৃত হইয়াছে।

ফি = ৩৫০০/- টাকা ২১/০৫/২০২৩ খ্রি: তারিখে পরিশোধকৃত।

তারিখে: স্থান:

অদ্য: দিবস: -

বয়লার পরিদর্শক
মোঃ ইজাজুল হক
বয়লার পরিদর্শক, চট্টগ্রাম।

উপ-প্রধান বয়লার পরিদর্শক
(মুহাম্মদ দিদারুল ইসলাম)
উপ-প্রধান বয়লার পরিদর্শক

প্রধান বয়লার পরিদর্শক



Appendix IX Fire License

ক্রমিক নং প্রতিলিপি	 ফায়ার লাইসেন্স	অনিবেশ ০০৩ প্রথম সংস্করণ ২০১২				
লাইসেন্স নম্বর: ৮৮-৮৮৮/১৮৭৫-১৮৭৮						
এতদ্বারা অগ্নি প্রতিরোধ ও নির্বাণ আইন ২০০৩ এর ৪ ধারা অনুযায়ী এবং উল্লিখিত শর্তাবলী সাপেক্ষে ফায়ার লাইসেন্স ইস্যু করা হইল।						
১। মালিক/কারখানার মালিক/ব্যবহারকারী/কর্তৃপক্ষের নাম, পদবী ও ঠিকানা : পাহাড়তলী টেক্সটাইল এন্ড হোসিয়ারী মিলস ইস্পাহানী শিল্প এলাকা, পাহাড়তলী, চট্টগ্রাম।						
ফোন : ফ্যাক্স : ই-মেইল :						
২। মালিক/কারখানার অবস্থান : (ক) প্লট নং/হোল্ডিং নং..... (খ) দাগ নং..... (গ) খতিয়ান নং..... (ঘ) জে এল নং..... (ঙ) মৌজা..... (চ) রোড নং..... (ছ) ডাকঘর..... (জ) থানা..... পাহাড়তলী..... (ঝ) উপজেলা..... চট্টগ্রাম সিটি..... (ঞ) জেলা..... চট্টগ্রাম।						
৩। ভবনের ব্যবহার শ্রেণী : ৪। ভবনের নির্মাণ শ্রেণী ও পরিমাপ :						
শ্রেণী-১	শ্রেণী-২	শ্রেণী-৩	দৈর্ঘ্য	প্রস্থ	উচ্চতা	মোট মেঝের ক্ষেত্রফল (বর্গ মিটার)
	সেমিপাকা					(৯২,৪১৯+৬,২১,৪১১) =৭,১৩,৮৩০ বর্গফুট।



৫। দাহ্য বস্তুর নাম ও মজুদ পরিমাণ : তুলা।

৬। ব্যবসার ধরন : সূতা প্রস্তুতকারক।

৭। অগ্নি ঝুঁকির মাত্রাঃ (ক) হালকা-১ (খ) হালকা-২ (গ) সাধারণ-১ (ঘ) সাধারণ-২ (ঙ) সাধারণ-৩ (চ) অতিমাত্রা

৮। অগ্নি ঝুঁকির শ্রেণীবিন্যাস (মোট ফ্লোর এরিয়ার অনুপাত ভিত্তিতে) : A.....% B.....% C.....%
D.....% K.....%

৯। মাসুল ও মেয়াদ :- ৭৭৬০/- টাকা হারে ০১/০৭/৯৬ হতে ৩০/০৬/০৯ পর্যন্ত ২,১৬,৫৮৫/- টাকা এবং ৭৭৬০/-
টাকা ০১/০৭/২০০৯ হতে ৩০/০৬/১৯ পর্যন্ত ৭৭৬০০/- টাকা সর্বমোট ২৯৪১৮৫/- টাকা মাসুল
পাওয়া গেল।

উপ-পরিচালক/সহকারী পরিচালক/উপ-সহকারী পরিচালক
ফায়ার সার্ভিস ও সিভিল ডিফেন্স **উপ-পরিচালক**
ফায়ার সার্ভিস এন্ড সিভিল ডিফেন্স
চট্টগ্রাম বিভাগ, চট্টগ্রাম।

লাইসেন্সের শর্তাবলী

- (১) প্রতি বছর ৩০ জুনের মধ্যে এই লাইসেন্সের অনুকূলে মাসুলের টাকা অগ্রিম লাইসেন্স ফি হিসাবে পরিশোধ করিতে হইবে।
- (২) এই লাইসেন্স হস্তান্তরযোগ্য নহে এবং কেবলমাত্র ক্রমিক-২ এ উল্লেখিত অবস্থানের জন্যই প্রযোজ্য হইবে।
- (৩) লাইসেন্সের শর্তাবলী যথাযথভাবে পালিত হইতেছে কিনা তাহা যাচাই করার জন্য অধিদপ্তরের ক্ষমতাপ্রাপ্ত কর্মকর্তা যে কোন কার্য দিবসে গুদাম বা কারখানা পরিদর্শন করিতে পারিবেন এবং পরিদর্শনকালে সংশ্লিষ্ট কর্তৃপক্ষ ইস্যুকৃত ফায়ার লাইসেন্সটি প্রদর্শন করিতে বাধ্য থাকিবেন।
- (৪) সার্বিক অগ্নি নিরাপত্তা ব্যবস্থা বাংলাদেশ ন্যাশনাল বিল্ডিং কোড ও অগ্নি প্রতিরোধ ও নির্বাণ আইন ২০০৩ এবং সংশ্লিষ্ট বিধির ভিত্তিতে নিশ্চিত করিতে হইবে।
- (৫) অগ্নি প্রতিরোধ ও নির্বাণ আইন ২০০৩ মোতাবেক লাইসেন্সের শর্ত ভঙ্গ করিলে শাস্তিযোগ্য অপরাধ হিসাবে গণ্য হইবে।

মানঃ ৭ম ও ৮ম, উক্ত প্রতিষ্ঠানে গুনগতমান সম্পন্ন ২২০ টি ডি.সি.পি ১০০(ক্রিম)
---টি সি.ও টু ও ১৫৭ টি ফোম ফায়ার এক্সটিংগুইশার সংরক্ষণ
করিয়াছে। বাকী ১৫৭ টি ডি.সি.পি, ১৫০ টি সিও টু ও ১৫০ টি ফোম ফায়ার
এক্সটিংগুইশার রক্ষণ করিতে হবে। আয়তন ৭,১৩,৮৩০ বর্গফুট।



তারিখ	চালান নং	মাস্তলের পরিমাণ	অর্থ বছর (১ জুলাই-৩০ জুন)	নবায়নকারীর স্বাক্ষর ও নামাঙ্কিত সীল
২৭/৬/২০	(মিডিল) ৩৬ ২০২০	= ৭৭৬০৮	৩০ মে জুন ২০২০ খ্রিঃ	মোঃ মোনেন বিশ্বাস ওয়ারহাউজ ইনসপেক্টর ফায়ার সার্ভিস ও সিভিল ডিফেন্স চট্টগ্রাম।
২৭/৬/২০	২২/২২ ২০২০ মিডিল	= ৭৭৬০৮ = ২২৬৪৮	৩০ মে জুন ২০২০ খ্রিঃ	মুহাম্মদ রাব্বুল আজম ওয়ারহাউজ ইনসপেক্টর ফায়ার সার্ভিস ও সিভিল ডিফেন্স চট্টগ্রাম।
২৬/৬/২০	৬২ ৬০ মিডিল	= ৭৭৬০৮ = ২২৬৪৮	২০২০-২০২২	মোঃ লামাহুল আলম ওয়ারহাউজ ইনসপেক্টর ফায়ার সার্ভিস ও সিভিল ডিফেন্স চট্টগ্রাম।
২০/৭/২০	১৬০ ১৬০	= ৭৭৬০৮ = ২১৬৪৮	২০২২-২০২৬ খ্রিঃ	মোঃ লামাহুল আলম ওয়ারহাউজ ইনসপেক্টর ফায়ার সার্ভিস ও সিভিল ডিফেন্স চট্টগ্রাম-০৭
৩০/৭/২০	২৬ ২০	= ৭৭৬০৮ = ২১৬৪৮	২০২৬-২০২৮ খ্রিঃ	মোঃ লামাহুল আলম ওয়ারহাউজ ইনসপেক্টর ফায়ার সার্ভিস ও সিভিল ডিফেন্স চট্টগ্রাম-০৭
				ফায়ার সার্ভিস ও সিভিল ডিফেন্স চট্টগ্রাম-০৭



Appendix X Fire Safety Plan

একই স্মারক ও তারিখে প্রতিস্থাপিত
গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
ফায়ার সার্ভিস ও সিভিল ডিফেন্স অধিদপ্তর
কাজী আলাউদ্দিন রোড, ঢাকা।
www.fireservice.gov.bd

১৩/০৫/১৪২৫ বঙ্গাব্দ।

তারিখ: ২৮/০৮/২০১৮ খ্রি:।

স্মারক নং-৫৮.০৩.০০০০.০০৭.০৪.১০৩.১৭.(অংশ-২২)-৭১৯৪

প্রতিঃ জনাব সাহাবুল আলম
চীফ অফিসার
পাহাড়তলী টেক্সটাইল এবং হোসিয়ারি মিলস্ লিমিটেড
ইস্পাহানী কমপ্লেক্স, পাহাড়তলী, চট্টগ্রাম।

বিষয়ঃ শিল্প ভবনের ফায়ার সেফটি প্ল্যান অনুমোদন প্রসঙ্গে।

উপর্যুক্ত বিষয়ের আলোকে জানানো যাচ্ছে যে, মেসার্স পাহাড়তলী টেক্সটাইল এবং হোসিয়ারি মিলস্ লিমিটেড, ইস্পাহানী কমপ্লেক্স, পাহাড়তলী, চট্টগ্রামস্থ ফায়ারিং-২ প্রাঙ্গণের ১টি ৬তলা, ১টি ২তলা, ১টি ১তলা শেড ও ১টি ২তলা ইউটিলিটি ভবনের ফায়ার সেফটি প্ল্যানটি কমিটি কর্তৃক পরীক্ষা করা হয়। উক্ত ফায়ার সেফটি প্ল্যান অত্র দপ্তরের চেকলিস্ট ও পরামর্শ মোতাবেক প্রস্তুত করা হয় এবং কমিটি কর্তৃক পরীক্ষা সঠিক প্রতিশ্রুতি দেওয়া হয়েছে। নিম্নলিখিত শর্তসাপেক্ষে আদিত হয়ে সেফটি প্ল্যানটি অনুমোদন প্রদান করা হল। উল্লেখ থাকে যে, অনুমোদিত প্ল্যানটি শুধুমাত্র ভবনের অগ্নি প্রতিরোধ, অগ্নি নির্বাপন ও জননিরাপত্তা বিষয় সংক্রান্ত।

শর্তসমূহঃ

- ফায়ার সেফটি প্ল্যান অনুমোদন প্রাপ্তির ০৬(ছয়) মাসের মধ্যে অগ্নি নিরাপত্তা ব্যবস্থাদি স্থাপন করতে। অগ্নিনিরাপত্তা ব্যবস্থাদির কার্যকারিতার সনদ প্রাপ্তির জন্য অত্র অধিদপ্তর বরাবর আবেদন করতে হবে।
- ভবন ব্যবহারকারীদের সমন্বয়ে অগ্নি নির্বাপন ও উদ্ধার সম্পর্কীয় ব্যবস্থাপনা কমিটি গঠন করতে হবে। কমিটির তত্ত্বাবধানে ভবন ব্যবহারকারীদের মধ্য থেকে ন্যূনতম ২০% ফায়ার সার্ভিস ও সিভিল ডিফেন্স অধিদপ্তর হতে অগ্নি নির্বাপন, উদ্ধার এবং প্রাথমিক চিকিৎসা বিষয়ে মৌলিক সাধারণ প্রশিক্ষণ গ্রহণ করতে হবে। (B N B C. Part-4. Appendix-A.)
- স্থানীয় ফায়ার সার্ভিস ও সিভিল ডিফেন্স বিভাগের সহযোগিতায় ভবন ব্যবহারকারীদের সমন্বয়ে পরবর্তী ২(দুই) বৎসর পর্যন্ত প্রতি ৩(তিন) মাস অন্তর অগ্নি নির্বাপন মহড়ার আয়োজন করতে হবে। তাছাড়া ৬(ছয়) মাস অন্তর মহড়ার ব্যবস্থা করতে হবে। (B N B C. Part-4. Appendix-A.)
- ভবনের সকল বৈদ্যুতিক স্থাপনা, ফিটিংস ও ওয়্যারিং প্রতি ২(দুই) বৎসর অন্তর ন্যূনতম একজন ডিপ্লোমা প্রকৌশলী দ্বারা পরীক্ষা করার বিষয়টি নিশ্চিত করতে হবে। (Electric Act. 1937 Modified 1947.)
- মহাপরিচালক প্রয়োজনবোধে অগ্নিপ্রতিরোধ ও নির্বাপনসহ যেকোন জননিরাপত্তামূলক ব্যবস্থার প্রয়োজনীয় সংযোজন বা সংশোধন করতে পারবেন এবং ভবন বা স্থাপনার মালিক বা দখলদার সেমত সংশোধন করতে বাধ্য থাকবেন। (অগ্নি প্রতিরোধ ও নির্বাপন আইন ২০০৩)
- মহাপরিচালকের হাটপত্র ব্যতিরেকে অনুমোদিত নকশার কোনরূপ সংশোধন বা কোন প্রকার পরিবর্তন করা যাবেনা। (অগ্নি প্রতিরোধ ও নির্বাপন আইন ২০০৩)
- ভবনের অগ্নিনির্বাপন ও অগ্নিপ্রতিরোধ ব্যবস্থাদির কার্যকারিতার রেজিষ্টার সংরক্ষণ করতে হবে।
- প্রতিষ্ঠানের কর্মরত কর্মকর্তা-কর্মচারীদের সমন্বয়ে ২০(বিশ) সদস্য বিশিষ্ট অগ্নি নির্বাপন ও উদ্ধার এবং প্রাথমিক চিকিৎসা বিষয়ক টিম গঠন করতে হবে।
- ভবনে স্থাপিত সকল Interior Materials সমূহ অগ্নিপ্রতিরোধক হতে হবে।
- সকল Duct Line ও Electrical Cable Line সমূহ Fire Retarded Conduit হতে হবে এবং এতে আগুন ও ধোঁয়ার বিস্তার রোধে GPG Mortar ব্যবহার করতে হবে।
- বয়সের বুকের নেওয়াস ৪৫টা ফায়ার রেটেড(আরসিসি) এবং দরজা ২ ফুট ফায়ার রেটেড হতে হবে।
- অবরুদী নির্মাণ সিঁড়ি সমূহ পজিটিভ এয়ার প্রেসারাইজড হতে হবে।
- অনুমোদিত ফায়ার সেফটি প্ল্যানটি অগ্নি প্রতিরোধ ও নির্বাপন আইন-২০০৩ এর ধারা ৮ মোতাবেক মহাপরিচালকের পরামর্শসুপারিশমালা।
- উপরোক্ত কোন শর্ত ভংগ কিংবা অনুমোদিতফায়ার সেফটি প্ল্যান বা আবেদনকারী কর্তৃক দাখিলকৃত অন্যান্য দলিলাদি ও তথ্যাদিতে উল্লেখ্যমূলকভাবে ভুল তথ্য উপস্থাপন বা কোন তথ্য গোপন করলে নকশাটির অনুমোদন বাতিল হিসেবে গণ্য হবে।

সংযুক্তিঃ মহাপরিচালকের পরামর্শ সম্বলিত অনুমোদিত নকশা ১ কপি।

শাহীন উদ্দীন চৌধুরী
উপ-পরিচালক (প্রশাসন ও অর্থ)

১৩/০৫/১৪২৫ বঙ্গাব্দ।

তারিখ: ২৮/০৮/২০১৮ খ্রি:।

স্মারক নং-৫৮.০৩.০০০০.০০৭.০৪.১০৩.১৭.(অংশ-২২)-৭১৯৪(৮)

বিতরণ জ্ঞাতার্থেঃ

- উপ-পরিচালক, ফায়ার সার্ভিস ও সিভিল ডিফেন্স, চট্টগ্রাম বিভাগ, চট্টগ্রাম।
- সহকারী পরিচালক, ফায়ার সার্ভিস ও সিভিল ডিফেন্স, চট্টগ্রাম।
- সিনিয়র স্টাফ অফিসার, ফায়ার সার্ভিস ও সিভিল ডিফেন্স অধিদপ্তর [মহাপরিচালক মহোদয়ের সদয় অবগতির জন্য]।
- উপ-সহকারী পরিচালক, ফায়ার সার্ভিস ও সিভিল ডিফেন্স, চট্টগ্রাম জোন-১/২/৩।
- সিনিয়র টেকনিক্যাল অফিসার, ফায়ার সার্ভিস ও সিভিল ডিফেন্স, চট্টগ্রাম।
- ওয়ারহাউজ ইন্সপেক্টর, চট্টগ্রাম, সহকারী পরিচালকের দপ্তর, ফায়ার সার্ভিস ও সিভিল ডিফেন্স, চট্টগ্রাম।

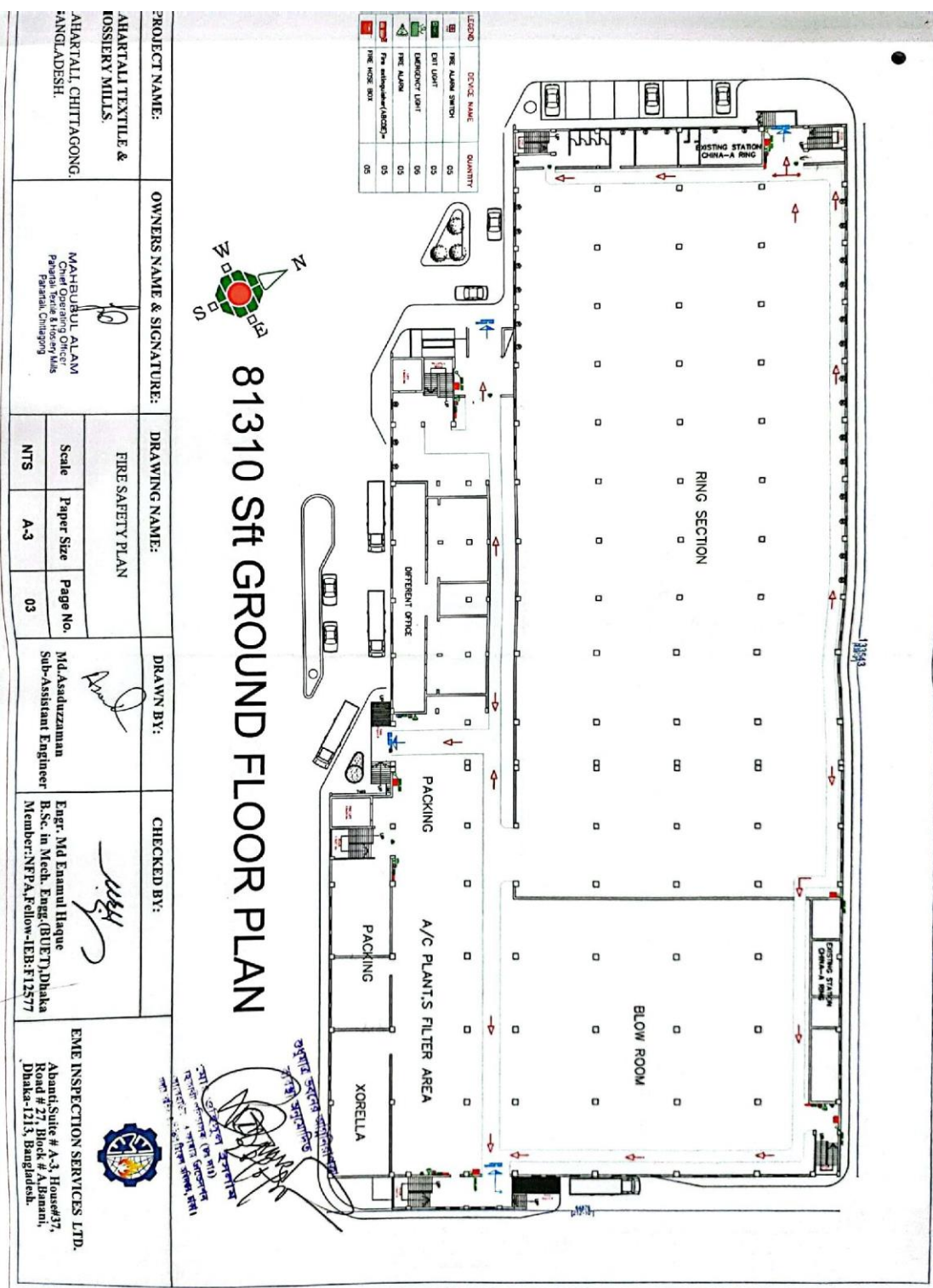
মোঃ এফিজুল ইসলাম
সহকারী পরিচালক(চট্টগ্রাম)
ওয়ারহাউজ ও ফায়ার প্রিভেনশন
ফোন-৯৫৫৫৫৫৫(ফ্যাক্স-৯১৭)

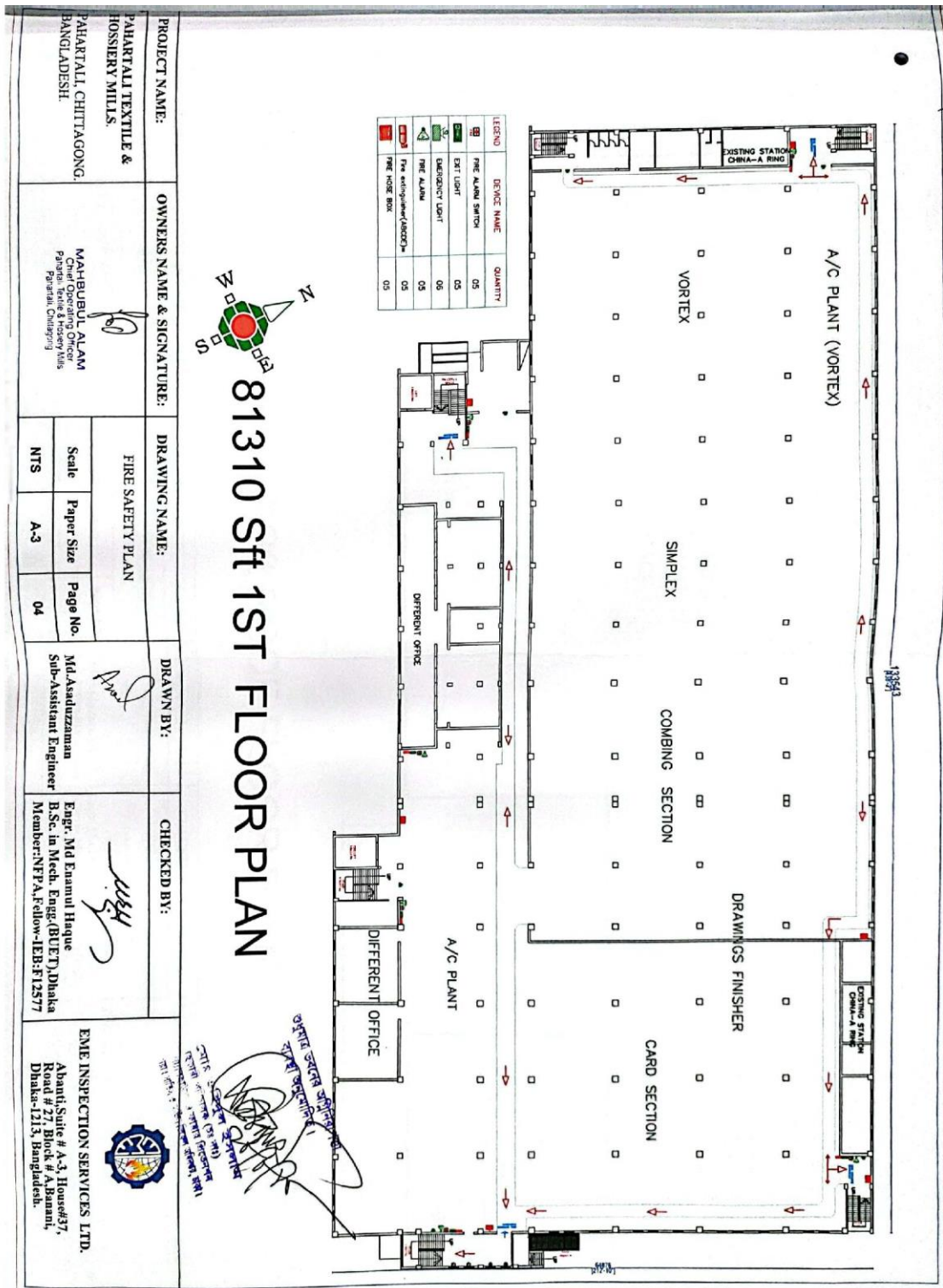


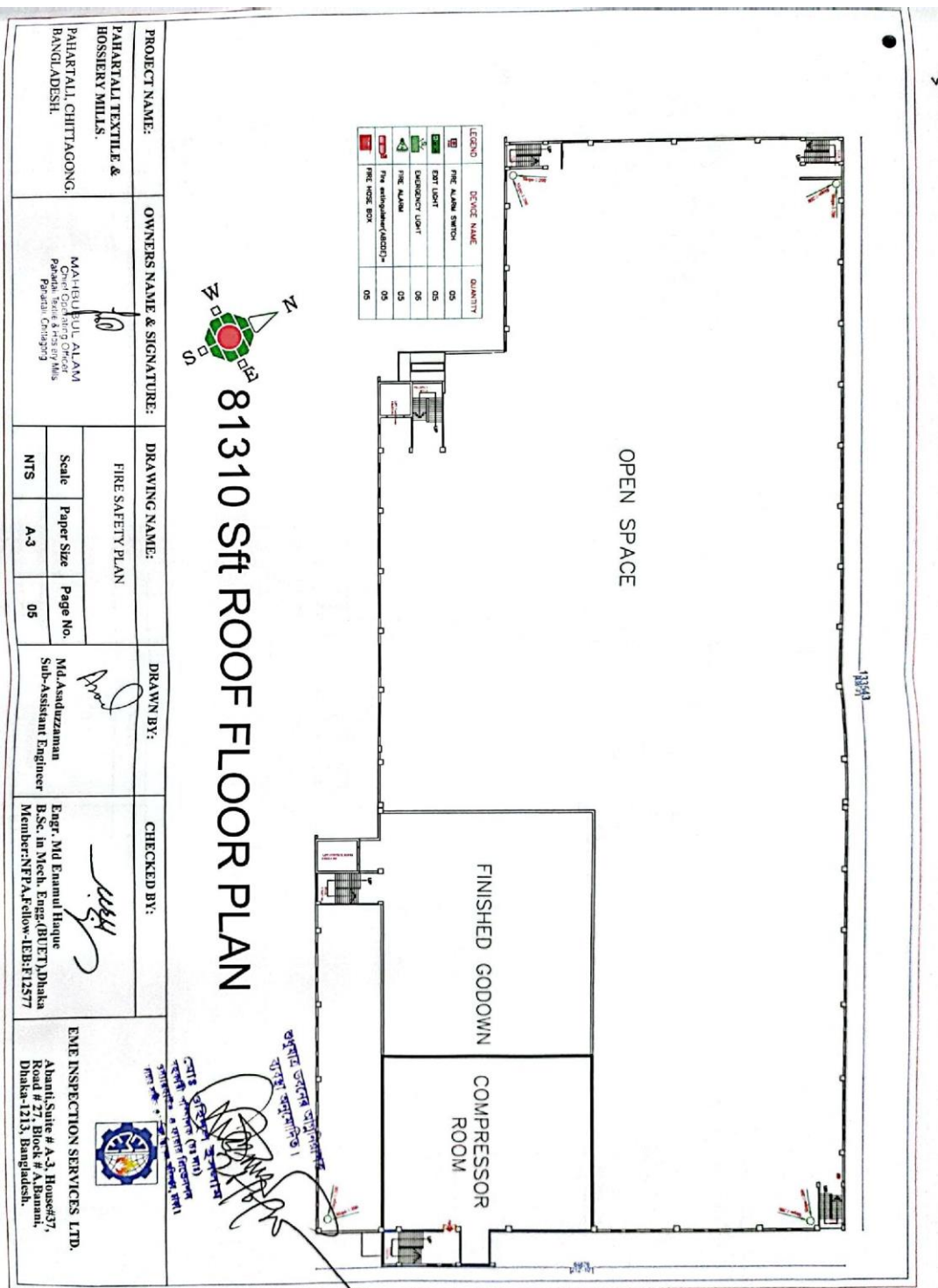
CT NAME: TALIT TEXTILE & RY MILLS. TALIT, CHITTAGONG, BANGLADESH.		OWNERS NAME & SIGNATURE:  MAHJUBUL ALAM Pahartali Textile & Hosiery Mills Pahartali, Chittagong		DRAWING NAME: GOOGLE MAP FOR PAHARTALI TEXTILE & HOSEIERY MILLS.			DRAWN BY:  Md. Asaduzzaman Sub-Assistant Engineer		CHECKED BY:  Engr. Md Enamul Haque B.Sc. in Mech. Engrg. (BUET), Dhaka Member: NFP A, Fellow-IEB: F12577		EME INSPECTION SERVICES LTD.  Abant, Suite # A-3, House#37, Road # 27, Block # A, Baran, Dhaka-1213, Bangladesh.	
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PROJECT NAME: PAHARTALI TEXTILE & HOSEIERY MILLS, BANGLADESH.

OWNERS NAME & SIGNATURE: MAHJUBUL ALAM
Chief Operating Officer
Pahartali Textile & Hosiery Mills
Pahartali, Chittagong.

DRAWING NAME: FIRE SAFETY PLAN

DRAWN BY: Md. Asaduzzaman
Sub-Assistant Engineer

CHECKED BY: Engr. Md. Enamul Haque
B.Sc. in Mech. Engrg. (BUT), Dhaka
Member: NFPA, Fellow: IEB, F12577

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Road # 27, Block # A, Banani,
Dhaka-1213, Bangladesh.

LEGEND

LEGEND	DEVICE NAME	QUANTITY	LEGEND	DEVICE NAME	QUANTITY
①	SMOKE DETECTOR (SD)	00	②	FIRE ALARM	04
③	FIRE ALARM SOUNDER WITH SIREN (S)	00	④	FIRE ALARM (FAS)	06
⑤	FIRE ALARM SIREN	04	⑥	FIRE HOSE BOX	02
⑦	MANUAL CALL POINT	00	⑧	FIRE HOSE BOX	04
⑨	EXIT LIGHT	07	⑩	2 HOUSING FIRE RATED DOOR	02
⑪	EMERGENCY LIGHT	07	⑫	4 HOUSING FIRE RATED WALL	08

LEGEND

LEGEND	DEVICE NAME	QUANTITY	LEGEND	DEVICE NAME	QUANTITY
①	SMOKE DETECTOR (SD)	00	②	FIRE ALARM	04
③	FIRE ALARM SOUNDER WITH SIREN (S)	00	④	FIRE ALARM (FAS)	00
⑤	FIRE ALARM SIREN	04	⑥	FIRE HOSE BOX	02
⑦	MANUAL CALL POINT	00	⑧	FIRE HOSE BOX	04
⑨	EXIT LIGHT	04	⑩	2 HOUSING FIRE RATED DOOR	02
⑪	EMERGENCY LIGHT	02	⑫	4 HOUSING FIRE RATED WALL	08



PROJECT NAME: PAHARTALI TEXTILE & HOSEIERY MILLS, BANGLADESH.

OWNERS NAME & SIGNATURE: MAHABUBUL ALAM
Chief Operating Officer
Pahartali Textile & Hosiery Mills
Dhaka-1213, Bangladesh

DRAWING NAME: FIRE SAFETY PLAN

DRAWN BY: Md. Asaduzzaman
Sub-Assistant Engineer

CHECKED BY: Engr. Md. Enamul Haque
B.Sc. in Mech. Engrg (BUET), Dhaka
Member: NFPA, Fellow-IEB: F12577

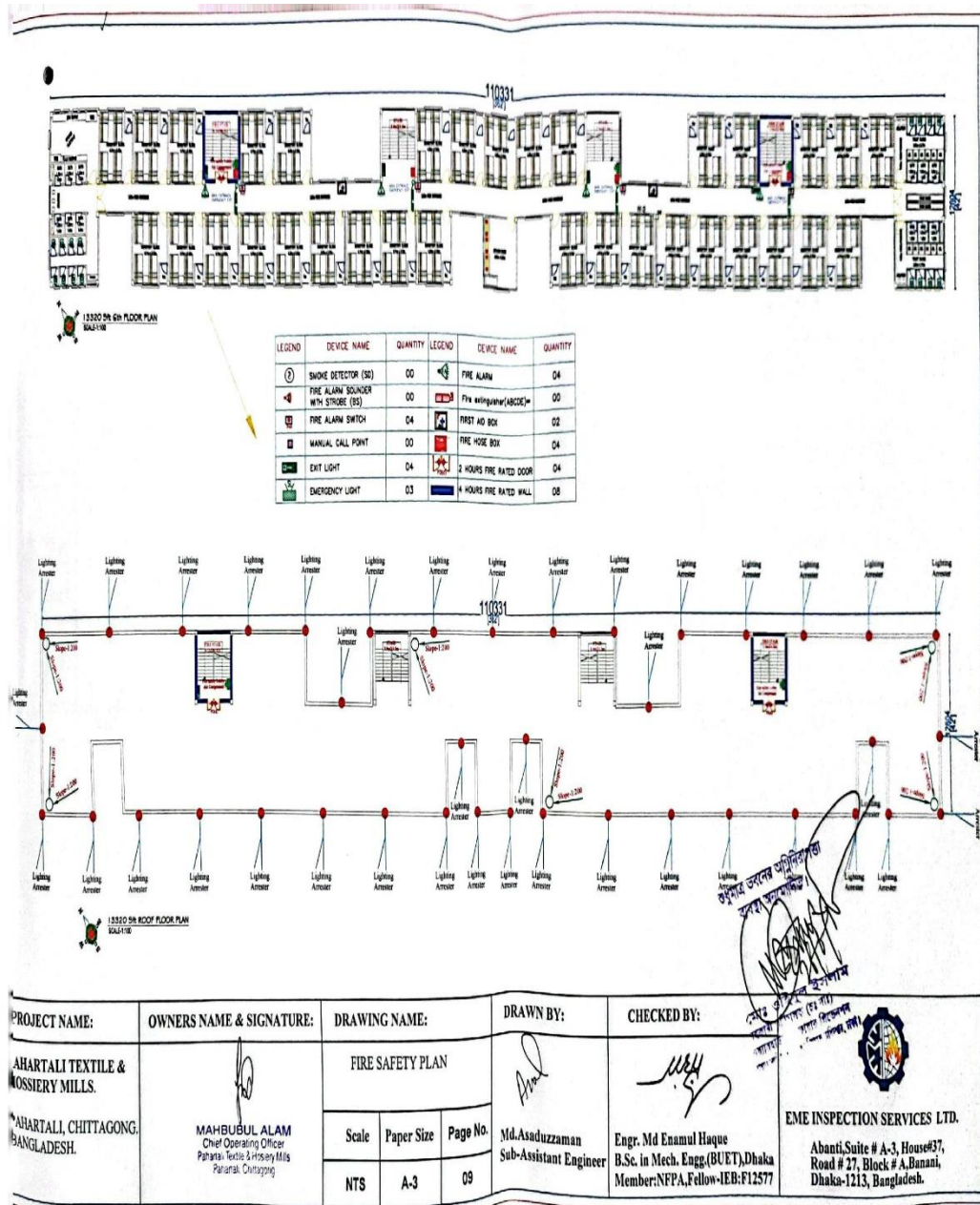
EME INSPECTION SERVICES LTD.
Abari, Suite # A-3, House#37,
Road # 27, Block # A, Baranail,
Dhaka-1213, Bangladesh.

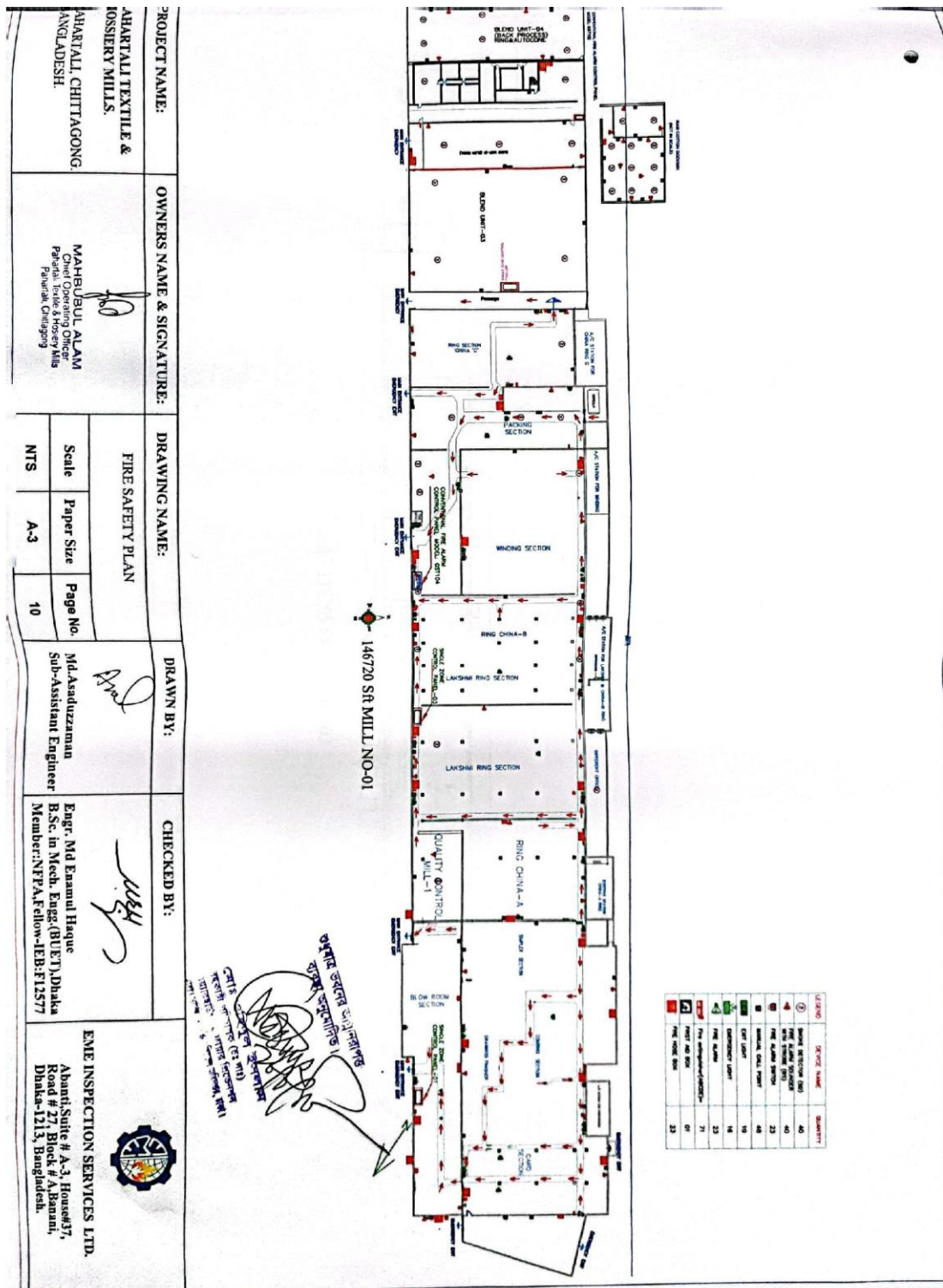
LEGEND

LEGEND	DEVICE NAME	QUANTITY	LEGEND	DEVICE NAME	QUANTITY
①	SMOKE DETECTOR (SD)	00	②	FIRE ALARM	04
②	MANUAL CALL POINT	04	③	FIRE ALARM SWITCH (AS)	00
③	EXIT LIGHT	04	④	FIRE HOSE BOX	02
④	EMERGENCY LIGHT	03	⑤	2 HOURS FIRE RATED DOOR	02
			⑥	4 HOURS FIRE RATED WALL	08

LEGEND

LEGEND	DEVICE NAME	QUANTITY	LEGEND	DEVICE NAME	QUANTITY
①	SMOKE DETECTOR (SD)	00	②	FIRE ALARM	04
②	MANUAL CALL POINT	04	③	FIRE ALARM SWITCH (AS)	00
③	EXIT LIGHT	04	④	FIRE HOSE BOX	02
④	EMERGENCY LIGHT	03	⑤	2 HOURS FIRE RATED DOOR	02
			⑥	4 HOURS FIRE RATED WALL	08

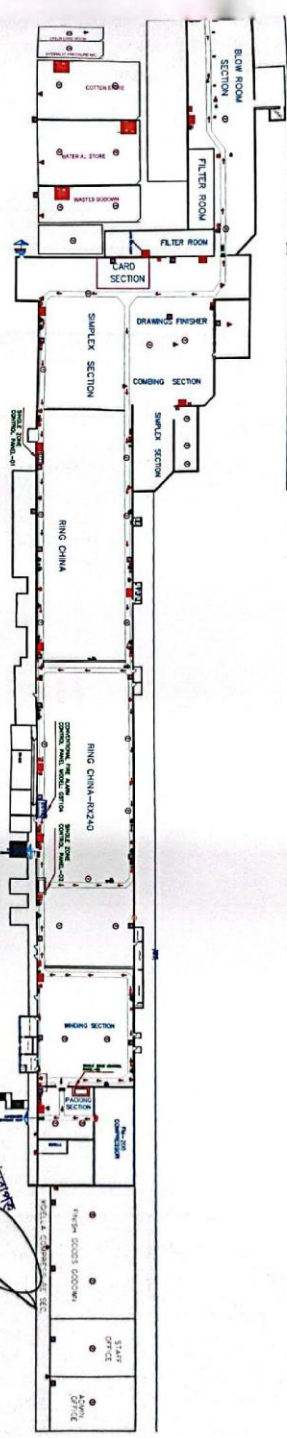




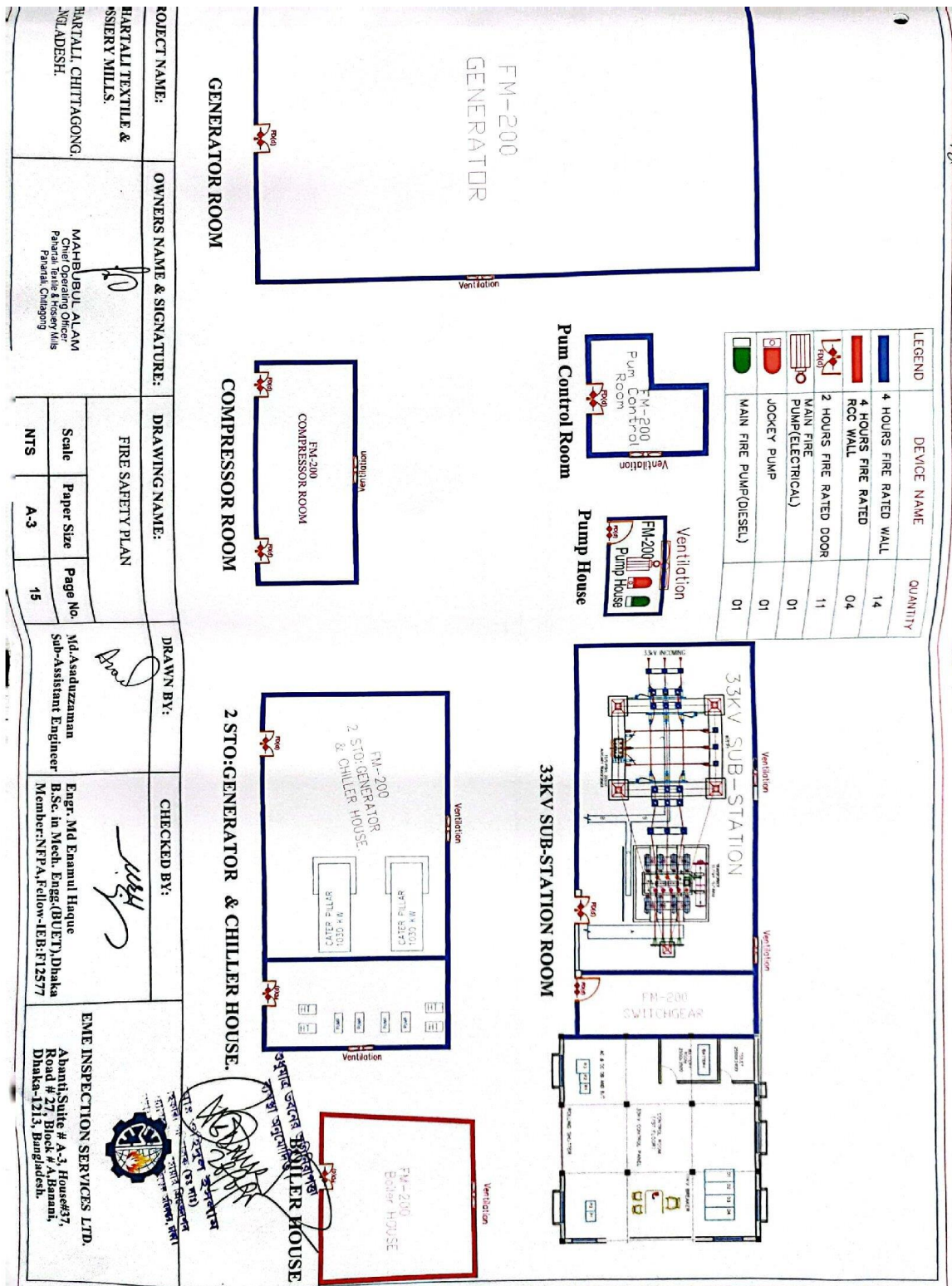


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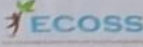
PROJECT NAME: MAHABUL ALAM TEXTILE & HOSIERY MILLS, PABNA, CHITTAGONG, BANGLADESH.		OWNERS NAME & SIGNATURE:  MAHABUL ALAM Chief Operating Officer Pabna Textile Mills		DRAWING NAME: FIRE SAFETY PLAN		DRAWN BY:  Md. Asaduzzaman Sub-Assistant Engineer		CHECKED BY:  Engr. Md. Enamul Haque B.Sc. in Mech. Engrg. (BUET), Dhaka Member: NPPA, Fellow: IEB, F12577		EME INSPECTION SERVICES LTD. Apartment # A-3, House # 17, Road # 22, Block # A, Baranah, Dhaka-1213, Bangladesh.	
 130255 SR MILL NO-02											

Sl. No.	DEVICE NAME	QUANTITY
01	Smoke Detector (SD)	38
02	Fire Alarm Sounder	27
03	Fire Alarm Switch	19
04	Manual Call Point	28
05	Exit Light	07
06	Emergency Light	12
07	Fire Alarm	19
08	Fire extinguisher (ABC)	03
09	First Aid Box	01
10	Fire Hose Box	13



Appendix XI Attendance List





Environmental and Social Impact Assessment (ESIA) Consultation Form Sign Sheet for Pahartali Textile and Hosiery Mills (PTHM)

Sl No	Name	Designation	Contact Number
1.	ମୋ: ଆନନ୍ଦ	ଲେବର	
2.	ମୋ: ମହମ୍ମଦ	ଲେବର	
3.	ମୋ: ବାବୁ	ଲେବର	
4.	ସରକାରୀ	ଆମାଲ୍‌ଟି	
5.	ବିନୟ	ଲେବର	
6.	ମହମ୍ମଦ ଆମିନ	ଲେବର	
7.	ବିନୟ ଆମିନ	ଲେବର	
8.	ଆମିନ ଆମିନ	ଲେବର	
9.	ଆମିନ ଆମିନ	ଲେବର	
10.	ଆମିନ	ଲେବର	
11.	ଆମିନ	ଲେବର	
12.	ଆମିନ	ଆମାଲ୍‌ଟି	
13.	ଆମିନ	ଲେବର	
14.	ଆମିନ	ଲେବର	
15.	ଆମିନ	ଲେବର	
16.	ଆମିନ	ଲେବର	
17.	ଆମିନ	ଲେବର	
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			

Date: 03/02/2024
Place: Construction site of PTHM
Time: 12.00 PM — 1.00 PM



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ECOSS

**Environmental and Social Impact Assessment (ESIA) Consultation Form Sign
Sheet for Pahartali Textile and Hosiery Mills (PTHM)**

SI No	Name	Designation	Contact Number
1.	মোহাম্মদ মাহমুদ আলী	অসিস্টেণ্ট	
2.	মোহাম্মদ আলী	(লাভার)	
3.	মোহাম্মদ আলী	অসিস্টেণ্ট	
4.	মোহাম্মদ আলী	অসিস্টেণ্ট	
5.	মোহাম্মদ আলী	অসিস্টেণ্ট	
6.	মোহাম্মদ আলী	(লাভার)	
7.	মোহাম্মদ আলী	অসিস্টেণ্ট	
8.	মোহাম্মদ আলী	অসিস্টেণ্ট	
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			

Date : 03/02/2024

Place : Existing PTHM operation site

Time : 2.30 PM - 3.30 PM .



Appendix XII: Sample 'Grievance Form' of PTHM Project

Grievance Form			
Grievance reference number (to be completed by Project):			
Contact details (may be submitted anonymously)	Name (s):		
	Address:		
	Telephone:		
	Email:		
How would you prefer to be contacted (check one)	By mail/post: ☐	By phone: ☐	By email ☐
Preferred language	☐ Bangla	☐ English	
Provide details of your grievance. Please describe the problem, who it happened to, when and where it happened, how many times, etc. Describe in as much detail as possible.			
What is your suggested resolution for the grievance, if you have one? Is there something you would like PTHM or another party/person to do to solve the problem?			
How have you submitted this form to the project?	Website ☐	Email ☐	By hand ☐
	In person ☐	By telephone ☐	Other (specify) ☐
Who filled out this form (If not the person named above)?	Name and contact details:		
Signature			
Name of PTHM official assigned responsibility			
Resolved or referred to GRC1?	☐ Resolved	☐ Referred	If referred, date:
Resolved referred to GRC2?	☐ Resolved	☐ Referred	If referred, date:
Completion			
Final resolution (briefly describe)			
	Short description	Accepted? (Y/N)	Acknowledgement signature
1st proposed solution			
2nd proposed solution			
3rd proposed solution			



Appendix XIII: Existing Grievance handling procedure

PAHARTALI TEXTILE & HOSIERY MILLS ISPAHANI

অভিযোগ প্রদান ও সমাধান নীতিমালা

GRIEVANCE HANDLING PROCEDURE

পাহাড়তলী টেক্সটাইল এন্ড হোসিয়ারী মিলস তার কর্মরত শ্রমিক-কর্মচারীদের সমস্যা বিধানে সচেষ্ট। ফ্যাক্টরী সমূহে একটি কার্যকর অভিযোগ পেশ পদ্ধতি বিদ্যমান রয়েছে যাতে করে একজন তার অসন্তুষ্টি, অসন্তোষ, ব্যক্তিগত, গোপনীয় কোন অভিযোগ সর্বোচ্চ কর্তৃপক্ষের নিকট উপস্থাপন করতে পারে। এছাড়াও কোম্পানীর অব্যাহত উন্নতির জন্য এবং উৎপাদনের লক্ষ্যমাত্রা অর্জন ও সামগ্রিক উৎপাদনশীলতা বৃদ্ধির লক্ষ্যে কর্মক্ষেত্রে সকল শ্রমিক/কর্মচারীদের পরামর্শ এবং অণুযোগ থাকলে তা যথার্থভাবে বিবেচনা করার জন্য পাহাড়তলী টেক্সটাইল এন্ড হোসিয়ারী মিলস দৃঢ় প্রতিশ্রুতিবদ্ধ।

পাহাড়তলী টেক্সটাইল এন্ড হোসিয়ারী মিলস এর সকল শ্রমিক ও কর্তৃপক্ষের মধ্যে সৌহার্দ্যপূর্ণ ও আন্তরিক সম্পর্ক বজায় রাখা এবং শ্রমিক ও ব্যবস্থাপনা স্বার্থ সংরক্ষনের জন্য এই নীতিটি প্রণয়ন করা হয়েছে। এ নীতি কার্যকর করতে কোম্পানী বাংলাদেশ শ্রম আইন ২০০৬ এর ৩৩ ধারা অনুসরণ করে।

পাহাড়তলী টেক্সটাইল এন্ড হোসিয়ারী মিলস এর সকল শ্রেনীর শ্রমিক-কর্মচারীদের যাবতীয় অভিযোগ ও সমস্যাগুলি কর্তৃপক্ষকে জানানো এবং তাদের সকল মনোঃ কষ্ট/ দুঃখ-দুর্দশা দূর করা বা সমস্যা-সমাধান করাই Grievance Procedure বা অভিযোগ প্রদান ও সমাধান পদ্ধতির উদ্দেশ্য।

এ Grievance Procedure বা অভিযোগ প্রদান ও সমাধান পদ্ধতিটি পাহাড়তলী টেক্সটাইল এন্ড হোসিয়ারী মিলস এর সকল সেকশনের জন্য প্রযোজ্য হবে। এ পদ্ধতিটি কার্যকর করার দায়-দায়িত্ব পাহাড়তলী টেক্সটাইল এন্ড হোসিয়ারী মিলস এর সংশ্লিষ্ট সকল কর্মচারী ও কর্মকর্তা বৃন্দের।

কোম্পানীর চীফ অপারেটিং অফিসার, সিঃ ম্যানেজার (প্রশাসন, মানব সম্পদ ও কমপ্লায়েন্স) কে অভিযোগ প্রদান ও সমাধান নীতিমালা বাস্তবায়নের জন্য দায়িত্ব প্রদান করেছেন।

স্বাক্ষর

চীফ অপারেটিং অফিসার

তারিখ

১৪.০৬.২০২৩

দিন/মাস/বছর



(কোম্পানী সিল)

Reviewed On 01.03.2023

Continued...

PAHARTALI TEXTILE & HOSIERY MILLS ISPAHANI

সংগঠন (Organization)

অভিযোগ প্রদান ও সমাধান নীতিমালা বাস্তবায়নের মাধ্যমে লক্ষ্যমাত্রা অর্জনের জন্য নিম্নোক্ত ব্যক্তিবর্গের সমন্বয়ে একটি “সংগঠন” তৈরী করা হয়েছে।

পরিচালনায়	:	সিঃ ম্যানেজার (প্রশাসন, মানব সম্পদ ও কমপ্লায়েন্স)
ব্যবস্থাপনায়	:	সিঃ নির্বাহী (শ্রম ও কল্যাণ)
তত্ত্বাবধানে	:	ওয়েলফেয়ার অফিসার এ্যাডমিন অফিসার
সহযোগিতায়	:	উৎপাদন ব্যবস্থাপক সেকশন ইনচার্জ সুপারভাইজার অংশগ্রহণকারী কমিটির সদস্য

অভিযোগ প্রদান ও সমাধান নীতিমালা বাস্তবায়নে গঠিত সংগঠনে দায়িত্বপ্রাপ্ত ব্যক্তিবর্গকে তাদের শিক্ষা প্রশিক্ষণ অভিজ্ঞতা অনুযায়ী নিম্নোক্তভাবে দায়িত্ব প্রদান করা হয়েছে এবং প্রত্যেককে তাদের দায়িত্ব বিষয়ে অবগত করা হয়েছে

সংগঠন	পদবী	পলিসি বাস্তবায়নে দায়িত্ব ও কার্যাবলী
পরিচালনায়	সিঃ ম্যানেজার (প্রশাসন ও মানবসম্পদ)	লিখিত, মৌখিক, ব্যক্তিগত, গোপনীয় কোন অভিযোগের সমাধানের জন্য সংশ্লিষ্ট ব্যক্তিবর্গকে দায়িত্ব প্রদান, সংগঠনের দায়িত্বপ্রাপ্ত সকলের দায়িত্ব ও কার্যক্রম পর্যবেক্ষণ।
ব্যবস্থাপনায়	সিঃ নির্বাহী (শ্রম ও কল্যাণ)	প্রতিষ্ঠানে কর্মরত হেল্পার, অপারেটর, সুপারভাইজার, ইনচার্জ ব্যবস্থাপক পর্যন্ত পদবীধারী ব্যক্তিদের বিরুদ্ধে অভিযোগ প্রমাণিত হলে যে কোন শাস্তিমূলক ব্যবস্থা গ্রহণ এবং এর উর্ধ্বতন পদবীধারী ব্যক্তিদের বিরুদ্ধে অভিযোগ প্রমাণিত হলে সিঃ ম্যানেজার (প্রশাসন)/ চীফ অপারেটিং অফিসার মহোদয়ের সাথে আলোচনা সাপেক্ষে ব্যবস্থা গ্রহণ করার অধিকার সংরক্ষণ করেন।
তত্ত্বাবধানে	ওয়েলফেয়ার অফিসার, এ্যাডমিন অফিসার	ফ্লোর থেকে প্রাপ্ত অভিযোগ তাত্ক্ষণিক সমাধান, প্রয়োজনে উর্ধ্বতন কর্তৃপক্ষের সহায়তা গ্রহণ, কর্তৃপক্ষ কর্তৃক গৃহীত সিদ্ধান্ত সকলকে জ্ঞাত করণ, সমস্যা লিপিবদ্ধকরণ, অভিযোগ সাপেক্ষ নোটিশ প্রদান, কর্মীদেরকে অভিযোগ প্রদানে উৎসাহিত করণ, বিভিন্ন প্রকার প্রশিক্ষণ ও সভার আয়োজন করণ ইত্যাদি। কর্মী ও প্রশাসনের মধ্যে সংলাপের ব্যবস্থাকরণ, সিবিএ'র কমিটি সদস্যদের সাথে আলোচনা করণ, কর্মী ও প্রশাসনের মধ্যে সমন্বয় রাখা ইত্যাদি।
সহযোগিতায়	উপ মহাব্যবস্থাপক (উৎপাদন)	হেল্পার, অপারেটর, সুপারভাইজার, ইনচার্জদের কাছ থেকে অভিযোগ এলে ব্যবস্থা নেওয়া, নিষ্পত্তি না হলে উর্ধ্বতনের সহায়তা গ্রহণ।
	সেকশন ইনচার্জ	হেল্পার, অপারেটর, সুপারভাইজার ও তার অধিনস্তদের কাছ থেকে অভিযোগ এলে ব্যবস্থা নেওয়া, নিষ্পত্তি না হলে উর্ধ্বতনের সহায়তা গ্রহণ।
	লাইন সুপারভাইজার	হেল্পার, অপারেটর ও তার অধিনস্তদের কাছ থেকে অভিযোগ এলে ব্যবস্থা নেওয়া, নিষ্পত্তি না হলে উর্ধ্বতনের সহায়তা গ্রহণ।
	সিবিএ কমিটির সদস্য	সিবিএ কমিটির একজন সদস্য হেল্পার ও অপারেটরের কাছ থেকে গৃহীত অভিযোগ পরিচালক পর্যন্ত যে কোন ব্যক্তিকে জানাতে পারে কিংবা পরবর্তী মিটিংয়েও এ বিষয়ে প্রস্থাবনা উত্থাপন করতে পারে।
	টেলিফোনের মাধ্যমে	শ্রমিক-কর্মচারী বিশেষ প্রয়োজনে সরাসরি হটলাইন/ টেলিফোনের মাধ্যমে তার কোন সমস্যা বা অভিযোগ উপ মহাব্যবস্থাপক (উৎপাদন) /সিঃ ম্যানেজার(প্রশাসন)/ কমপ্লায়েন্স অফিসার/ ওয়েলফেয়ার অফিসার/এইচ আর অফিসারকে জানাতে পারে। বিষয়ের গুরুত্ব বুঝে সংশ্লিষ্ট টেলিফোন গ্রাহক সমস্যার সমাধান করবেন অথবা উর্ধ্বতনের সহযোগিতায় সমাধান করে উক্ত অভিযোগকারীকে জানিয়ে দিবে।

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PAHARTALI TEXTILE & HOSIERY MILLS ISPAHANI

নীতিমালা বাস্তবায়নে সময় ও কার্যক্রম : (Routines & Procedures)

১।	সিবিএ মিটিং	:	প্রতি তিন মাসে একবার
২।	মৌখিক অভিযোগ	:	প্রতিদিন

কার্যপ্রণালীঃ

মৌখিক/লিখিত অভিযোগঃ

কোন শ্রমিক তার পরিচিতি গোপন/প্রকাশ করে তার অভিযোগ/পরামর্শ সম্পর্কে মৌখিক/লিখিতভাবে নিম্নোক্ত ধাপে সমাধান পেতে পারেঃ

১. ১ম পর্যায় :

- ক) সুপারভাইজার/সেকশন ইনচার্জ/সেকশন হেড/ উপ মহাব্যবস্থাপক (উৎপাদন)/ সিবিএ কমিটির সদস্যকে ফ্লোরের যে কোন সময়সার প্রাথমিক পর্যায়ে একজন অভিযোগকারী তার অভিযোগ বা পরামর্শ জানাবে।
- খ) সুপারভাইজার/সেকশন ইনচার্জ/সেকশন হেড/ উপ মহাব্যবস্থাপক (উৎপাদন)/ সিবিএ কমিটির সদস্যগণ প্রাপ্ত অভিযোগ/ পরামর্শের গঠনমূলক সমাধান দিবেন অথবা উর্ধ্বতনের পরামর্শ নিয়ে সময়সার সমাধান করবেন।

২. ২য় পর্যায় :

- ক) ফ্লোর থেকে অভিযোগের যথাযথ সমাধান না পেলে বা ফ্লোরের কোন দায়িত্বশীল ব্যক্তির বিরুদ্ধে অভিযোগ থাকলে এইচ আর অফিসার/ওয়েলফেয়ার অফিসারের/কমপ্রায়েন্স অফিসারের নিকট যাওয়া যাবে
- খ) এইচ আর অফিসার/ওয়েলফেয়ার অফিসারের/কমপ্রায়েন্স অফিসার প্রাপ্ত অভিযোগ/পরামর্শের গঠনমূলক সমাধান দিবেন অথবা উর্ধ্বতনের পরামর্শ নিয়ে সময়সার সমাধান করবেন।

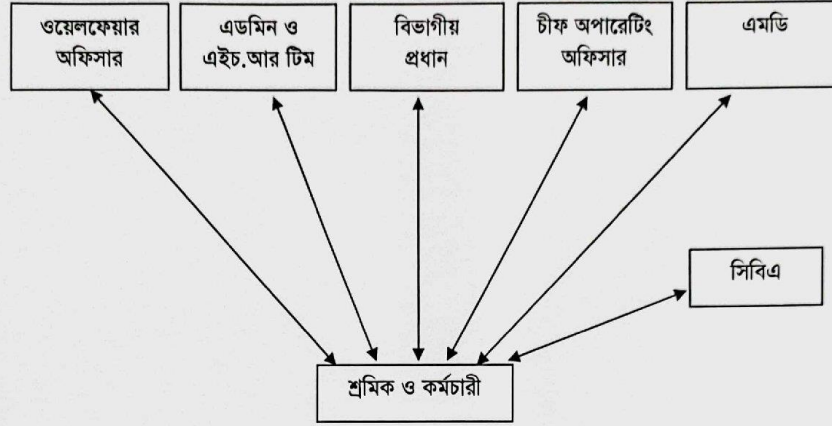
৩. ৩য় পর্যায় বা চূড়ান্ত পর্যায় :

- ক) ফ্লোরের দায়িত্বপ্রাপ্ত ব্যক্তিদের সমাধান মনঃপূত না হলে কিংবা এইচআর, ওয়েলফেয়ার অফিসার, কমপ্রায়েন্স অফিসারের বিরুদ্ধে কোন অভিযোগ থাকলে ম্যানেজার (প্রশাসন ও মানব সম্পদ)/চীফ অপারেটিং অফিসার/ব্যবস্থাপনা পরিচালক মহোদয়ের নিকট যাওয়া যাবে।
 - খ) ম্যানেজার (প্রশাসন ও মানব সম্পদ)/ চীফ অপারেটিং অফিসার /ব্যবস্থাপনা পরিচালক মহোদয় অভিযোগের বিষয়ে গুরুত্ব অনুসারে তদন্ত করণ/মৌখিক জিজ্ঞাসাবাদ/সভার আয়োজন করার নির্দেশ দেন।
 - গ) অভিযোগ যাচাই-বাছাই সাপেক্ষে অভিযুক্ত ব্যক্তির বিরুদ্ধে ব্যবস্থা নেন এবং অভিযোগকারীকে জানিয়ে দেন।
৪. ফোনের মাধ্যমে : ৭৫১৩৩৮, ৭৫০১৪৭ নম্বরগুলোতে ফোনের মাধ্যমে একজন অভিযোগকারী তার পরামর্শ, মতামত ও অভিযোগ জানাতে পারে।
৫. উপরোক্ত প্রক্রিয়ায় প্রাপ্ত অভিযোগ ও অভিযোগের সমাধান, পরামর্শ, অভিমত, মতামত, প্রস্তাবনা, মন্তব্য ইত্যাদিসহ ওয়েলফেয়ার অফিসার রেজিস্টারে লিপিবদ্ধ করেন।

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PAHARTALI TEXTILE & HOSIERY MILLS ISPAHANI

Grievance বা অভিযোগ প্রবাহ চিত্র (Flow Chart)



অভিযোগ/পরামর্শ বক্স :

- কোন শ্রমিক কর্মচারী ইচ্ছা করলে তার পরিচয় গোপন রেখে তার অভিযোগ/পরামর্শ লিখিত আকারে দিতে পারে।
- প্রাপ্ত লিখিত অভিযোগ বা পরামর্শ সমূহ সিং ম্যানেজার (প্রশাসন) এর মাধ্যমে চীফ অপারেটিং অফিসার/ব্যবস্থাপনা পরিচালক মহোদয়ের সম্মুখে উপস্থাপন করা হয়। উক্ত তারিখে কোন কারণে প্রতিষ্ঠান বন্ধ থাকলে পরবর্তী কার্যদিবসে দেখা হয়।
- চীফ অপারেটিং অফিসার মহোদয় অভিযোগের বিষয়ে গুরুত্ব অনুসারে তদন্ত করণ/মৌখিক জিজ্ঞাসাবাদ/সভার আয়োজন করার নির্দেশ দেন।
- সিং ম্যানেজার (প্রশাসন) বা ওয়েলফেয়ার অফিসার সংশ্লিষ্ট অভিযুক্ত ব্যক্তিকে জিজ্ঞাসাবাদ করে প্রকৃত দোষী বের করতে সচেষ্ট হন, প্রয়োজনে তদন্ত কমিটির মাধ্যমে যাচাই বাছাই করেন।
- দোষী প্রমাণিত হলে অভিযুক্ত ব্যক্তির বিরুদ্ধে আইনগত শাস্তিমূলক ব্যবস্থা গ্রহণ করা হয় অথবা তাকে স্বসম্মানে কাজ করতে পাঠানো হয়।

প্রচার ও বাস্তবায়ন : (Communication & Implementation)

পলিসির মূল ৫টি বিষয় (মৌখিক/লিখিত অভিযোগ) এর প্রশাসন বিভাগ মিলের মধ্যম শ্রেণীর কর্মকর্তাদেরকে প্রশিক্ষণ প্রদান করেন এবং ওয়েলফেয়ার অফিসারগণ কর্মীদেরকে প্রশিক্ষণ প্রদান করেন।

উপসংহারঃ

পাহাড়তলী টেক্সটাইল এন্ড হোসিয়ারী মিলস তার প্রতিটি ফ্যাক্টরী/স্থাপনায় কর্মরত কর্মকর্তা ও শ্রমিক-কর্মচারীদের জন্য নিরাপদ কর্ম পরিবেশ নিশ্চিত করতে বদ্ধপরিকর। মানবাধিকার ও শ্রম আইন এবং রীতি-নীতির সঠিক প্রয়োগ/বাস্তবায়নে কর্তৃপক্ষ সচেষ্ট। এ “অভিযোগ প্রদান ও সমাধান নীতিমালা” সকল স্তরের শ্রমিক-কর্মচারীদের তাদের অধিকার সম্বন্ধে সচেতন করে তোলার পাশাপাশি বিভিন্ন দায়িত্বপ্রাপ্ত কর্মকর্তা ও ষ্টাফদের প্রয়োজনীয় দিক-নির্দেশনাও প্রদান করবে যা শ্রমিক এবং মালিক উভয়ের স্বার্থ রক্ষাসহ উৎপাদন নিশ্চিত করার আইনগত রূপরেখা হিসেবে কাজ করবে। কর্মস্থলে সৃষ্ট ও সুন্দর ব্যবস্থাপনা এবং উহার যথাযথ প্রয়োগের মাধ্যমে দেশ-বিদেশে অন্যদের জন্য অনুকরণীয় একটি মডেল হিসেবে প্রতিষ্ঠিত করার জন্য সংশ্লিষ্ট সকলকে আন্তরিকতা ও সততার তসাথে দায়িত্ব পালন করতে হবে।

স্বাক্ষর

চীফ অপারেটিং অফিসার

তারিখ

০৪.০৬.২০২০

দিন/মাস/বছর



(কোম্পানী সিল)



Appendix XIV: E Code of Conduct covering the GBV/SEA/SHA related risks

Introduction: The PTHM is committed ensuring a working environment which minimizes any negative impacts on the local environment, communities, and its workers. The company also strongly commits to creating and maintaining an environment in which Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) have no place, and where they will not be tolerated by any employee, sub-contractor, supplier, associate, or representative of the company.

The purpose of this Code of Conduct is to

- Create a common understanding of what constitutes sexual exploitation and abuse, and sexual harassment.
- Create a shared commitment to standard behaviours and guidelines for company employees to prevent, report, and respond to SEA and SH, and
- Create understanding that breach of this code of conduct will result in disciplinary action.

Definitions

Sexual Exploitation and Abuse (SEA)¹

is defined as any actual or attempted abuse of a position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another

Sexual Abuse: "The actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions."

Sexual Harassment² : Unwelcome sexual advances, request for sexual favors, and other verbal or physical conduct of sexual nature.

Sexual Harassment versus SEA³

SEA occurs against a beneficiary or member of the community Sexual harassment occurs between personnel/staff of an organization or company and involves any unwelcome sexual advance or unwanted verbal or physical conduct of a sexual nature. The distinction between the two is important so that agency policies and staff trainings can include specific instruction on the procedures to report each.

Consent is the choice behind a person's voluntary decision to do something. Consent for any sexual activity must be freely given, ok to withdraw, made with as much knowledge as possible, and specific to the situation. If agreement is obtained using threats, lies, coercion, or exploitation of power imbalance, it is not consent. Under this Code of Conduct consent cannot be given by anyone under the age of 18, regardless of the age of majority or age of consent locally Mistaken belief regarding the age of the child is not a Défense.

¹ As defined in the UN Secretary's bulletin - Special Measures for protection from sexual exploitation and abuse October 9, 2003 ST/SGB/2003/13

² Inter-Agency Standing Committee Protection against Sexual Exploitation and Abuse (PSEA): Inter agency cooperation in community-based complaint mechanism, Global standard Operating Procedures. May 2016

³ IBID

There is no consent when agreement is obtained through:

- the use of threats, force or other forms of coercion, deception, or misrepresentation abduction, fraud, manipulation,
- the use of a threat to withhold a benefit to which the person is already entitled, or
- a promise is made to the person to provide a benefit.

While all forms of violence against a community resident or a co-worker are forbidden, this code of conduct is particularly concerned with the prevention and reporting of sexual exploitation and abuse (SEA) and sexual harassment which constitute gross misconduct, are grounds for termination or other consequences related to employment and employment status:

(1) Examples of sexual exploitation and abuse include, but are not limited to:

- A project worker tells women in the community that he can get them jobs related to the work site (cooking and cleaning) in exchange for sex.
- A worker that is connecting electricity input to households says that he can connect women headed households to the grid in exchange for sex.
- A project worker gets drunk after being paid and rapes a local woman.
- A project worker denies passage of a woman through the site that he is working on unless she performs a sexual favour.
- A manager tells a woman applying for a job that he will only hire her if she has sex with him.
- A worker begins a friendship with a 17-year-old girl who walks to and from school on the road where project related work is taking place. He gives her rides to school. He tells her that he loves her They have sex.

(2) Examples of sexual harassment in a work context include, but are not limited to:

- Male staff comment on female staffs' appearances (both positive and negative) and sexual desirability.
- When a female staff member complains about comments male staff are making about her appearance, they say she is "asking for it" because of how she dresses
- A male manager touches a female staff members buttocks when he passes her at work
- A male staff member tells a female staff member he will get her a raise if she sends him naked photographs of herself.

Individual signed commitment (to be translated in a language understood by the person signing):

I..... acknowledge that sexual exploitation and abuse (SEA) and sexual harassment, are prohibited. As an (employee/contractor) of (contracted agency/sub contracted agency) in (country), I acknowledge that SEA and SH activities on the work site. the work site surroundings, at workers' camps, or the surrounding community constitute a violation of this Code of Conduct. I understand SEA and SH activities are grounds for sanctions, penalties or potential termination of employment Prosecution of those who commit SEA and SH may be pursued if appropriate. Understand my roles and responsibilities to prevent and potentially report SEA and SHA issues. I understand that any action



inconsistent with this Individual Code of Conduct or failure to act mandated by this Individual Code of Conduct may result in disciplinary action and may affect my ongoing employment.

Signature:

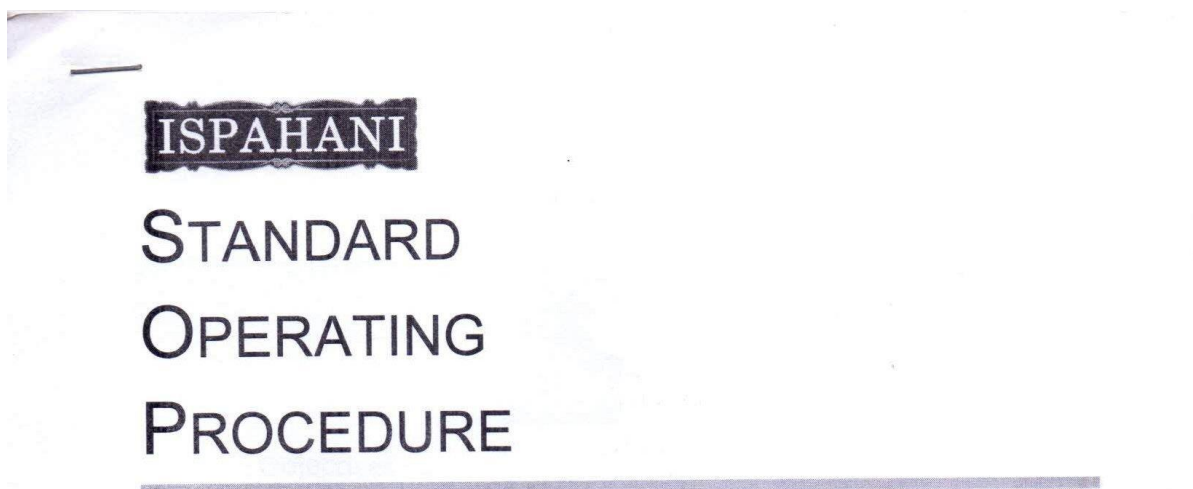
Printed Name

Title:

Date:



Appendix XV Existing Waste Handling Procedure



Title : SOP For Yarn Process Waste

Concern Name : Pahartali Textile & Hosiery Mills

	Name	Designation	Signature	Date
Author	Ahsanul Abedin Chowdhury	Manager(Marketing)		30 June 2016
Reviewed By	Shawkat Sadek	Sr. Manager (P&A)		30 June 2016
Authorised By	Mahbubul Alam	Chief Operating Officer		30 June 2016

Effective Date	28 th June 2016
Review Date	30 th June 2016

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04	Responsibilities & Authorities	
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07	AT a Glance (Selling Procedure)	

ISPAHANI

Policy:

All unusable process wastage generates in yarn production process to be sold in the local market.

Objective:

This objective is to define wastage sale management in a way that confirms proper benefit for the company as well as prevent the negative impact on environment. This SOP will focus on the efforts of the responsible persons and would help to understand the correct procedure in connection with sale of process waste.

Scope:

The saleable wastage generates in production process to be sold to interested Wastage Buyers in the market and the management in its own discretion will nominate the specific buyers to procure wastage from PTHM. There will be individual signed agreement between the management and the party for buying and selling Wastage for a specific period.

The Management will reserve the rights to change the sales arrangement and procedure in accordance with the best industrial practices of market and industry standards.

Responsibilities and Authorities:

The Chief Operating Officer of PTHM will be prime responsible for ensuring the following:

- Ensure the best price of the wastage.
- Allot the quantity for each buyer as per available stock and production.
- Ensure on time selling of saleable wastage.
- Co-ordination of total waste sale management.



Selling Procedure:

- Obtain current price information from the local market
- Based on the current market price the sale price will be negotiated with the nominated buyers
- Sanction wastage quantity for sale against each order
- Advise to Marketing department to issue allotment order to the buyers
- Marketing department control, monitor and coordinate the sales as per allotment on confirmation from Accounts department about deposit of total sale amount in PTHM account.
- PTHM store department takes steps to deliver the total wastage quantity as per instruction from the Marketing department.

Responsibilities of the buyers:

- The selected buyer should have a legal entity as per government and local law.
- The buyer will be obliged to take out the sold quantity within the advised period.
- The wastage item should not be dumped or disposed affecting the environment.



Appendix XVI Existing Solid Waste Disposal Agreement



খথ ২৬৮০০১০

পাহাড়তলী টেক্সটাইল এন্ড হোসিয়ারী মিলস্‌ এবং সুতা উৎপাদন প্রক্রিয়ায় মিলের সকল জ্র্যাপ (যেমন- স্টীল ওয়্যার, এম.এস.জ্র্যাপ, বেলিং ছপস, প্লাস্টিক, পলিথিন রাবার, ইলেক্ট্রিকেল আইটেম, বর্জ্য তেল, কাঠ ইত্যাদি) ক্রয় বিক্রয় সংক্রান্ত চুক্তিপত্র।

শওকত সাদেক, উপ-মহাব্যবস্থাপক (পার্সনাল ও প্রশাসন), পাহাড়তলী টেক্সটাইল এন্ড হোসিয়ারী মিলস্‌ (এম.এম. ইস্পাহানী লিমিটেড এর একটি প্রতিষ্ঠান), পাহাড়তলী, চট্টগ্রাম।

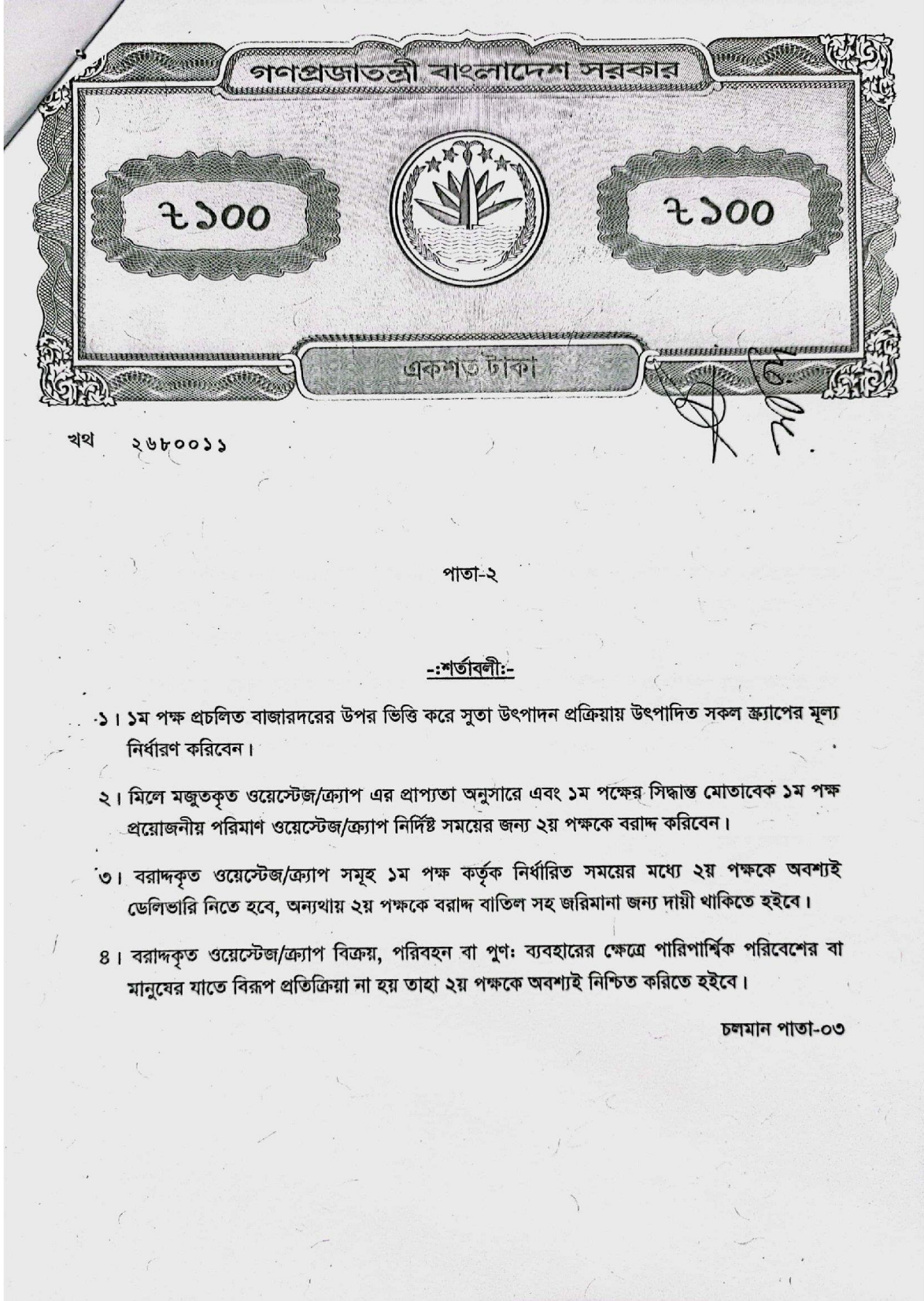
১ম পক্ষ।

মেসার্স কালু শাহ্‌ এক্সটারপ্রাইজ, প্রোপাইটর- মোঃ ফরিদ, ঠিকানা- সিডিএ মার্কেট রেল গেইট, কালি বাড়ীর মোড়, পাহাড়তলী, চট্টগ্রাম।

২য় পক্ষ।

অদ্য ০৯/০৩/২০২৩ ইং তারিখ রোজ বৃহস্পতিবার পাহাড়তলী টেক্সটাইল এন্ড হোসিয়ারী মিলস্‌ এর সুতা উৎপাদন প্রক্রিয়ায় সকল জ্র্যাপ সমূহ প্রথম পক্ষ কর্তৃক বিক্রয় সংক্রান্ত চুক্তিপত্র দ্বিতীয় পক্ষের সহিত নিম্নলিখিত শর্ত স্বাপেক্ষে সম্পাদিত হয়।

চলমান পাতা-০২

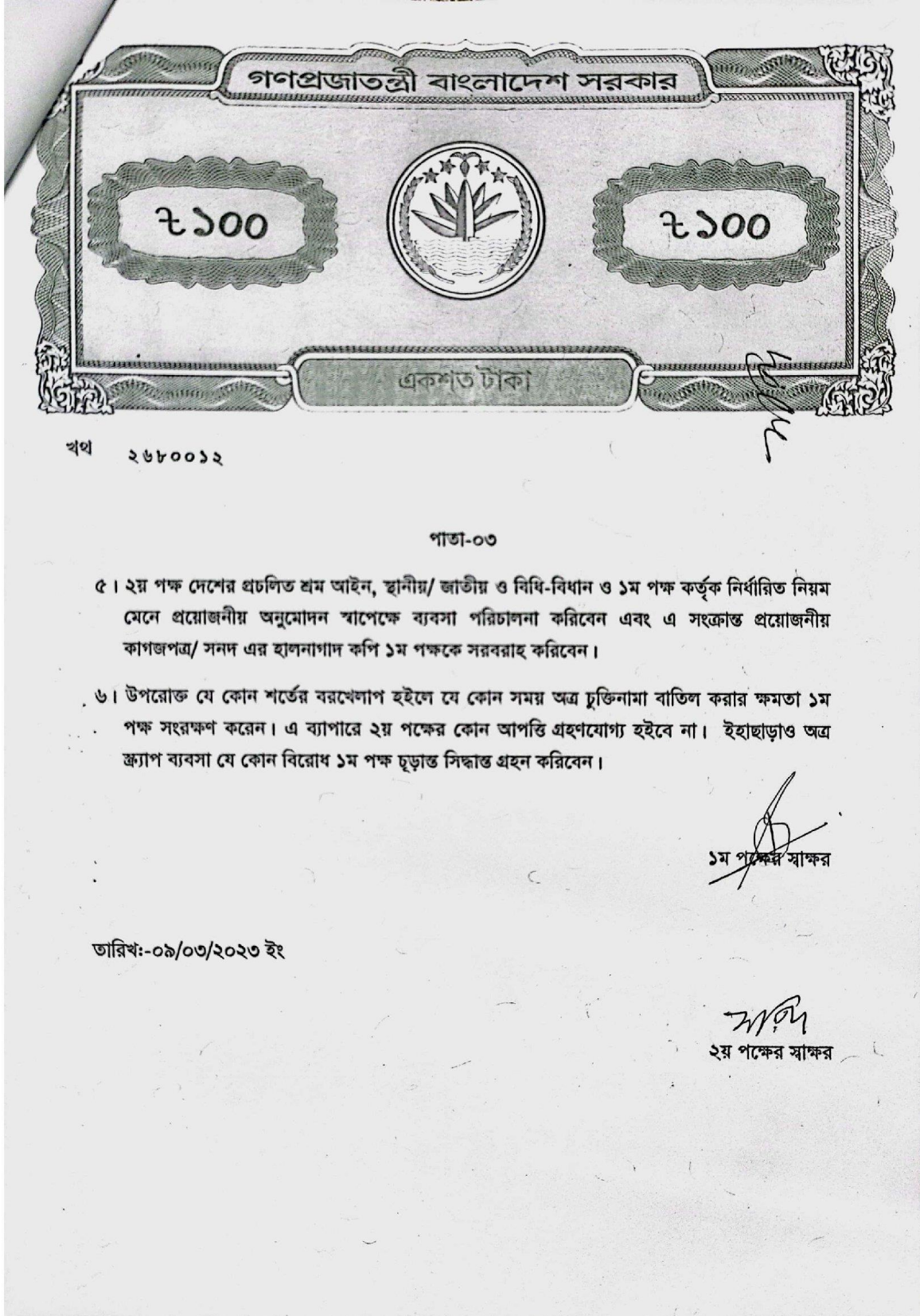


পাতা-২

শর্তাবলী:-

- ১। ১ম পক্ষ প্রচলিত বাজারদরের উপর ভিত্তি করে সুতা উৎপাদন প্রক্রিয়ায় উৎপাদিত সকল জ্যাপের মূল্য নির্ধারণ করিবেন।
- ২। মিলে মজুতকৃত ওয়েস্টেজ/ক্র্যাপ এর প্রাপ্যতা অনুসারে এবং ১ম পক্ষের সিদ্ধান্ত মোতাবেক ১ম পক্ষ প্রয়োজনীয় পরিমাণ ওয়েস্টেজ/ক্র্যাপ নির্দিষ্ট সময়ের জন্য ২য় পক্ষকে বরাদ্দ করিবেন।
- ৩। বরাদ্দকৃত ওয়েস্টেজ/ক্র্যাপ সমূহ ১ম পক্ষ কর্তৃক নির্ধারিত সময়ের মধ্যে ২য় পক্ষকে অবশ্যই ডেলিভারি নিতে হবে, অন্যথায় ২য় পক্ষকে বরাদ্দ বাতিল সহ জরিমানা জন্য দায়ী থাকিতে হইবে।
- ৪। বরাদ্দকৃত ওয়েস্টেজ/ক্র্যাপ বিক্রয়, পরিবহন বা পুণ: ব্যবহারের ক্ষেত্রে পারিপার্শ্বিক পরিবেশের বা মানুষের যাতে বিরূপ প্রতিক্রিয়া না হয় তাহা ২য় পক্ষকে অবশ্যই নিশ্চিত করিতে হইবে।

চলমান পাতা-০৩



খণ্ড ২৬৮০০১২

পাতা-০৩

৫। ২য় পক্ষ দেশের প্রচলিত শ্রম আইন, স্থানীয়/ জাতীয় ও বিধি-বিধান ও ১ম পক্ষ কর্তৃক নির্ধারিত নিয়ম মেনে প্রয়োজনীয় অনুমোদন স্বাক্ষরে ব্যবসা পরিচালনা করিবেন এবং এ সংক্রান্ত প্রয়োজনীয় কাগজপত্র/ সনদ এর হালনাগাদ কপি ১ম পক্ষকে সরবরাহ করিবেন।

৬। উপরোক্ত যে কোন শর্তের বরখোলাপ হইলে যে কোন সময় অত্র চুক্তিনামা বাতিল করার ক্ষমতা ১ম পক্ষ সংরক্ষণ করেন। এ ব্যাপারে ২য় পক্ষের কোন আপত্তি গ্রহণযোগ্য হইবে না। ইহাছাড়াও অত্র জ্ঞাপ ব্যবসা যে কোন বিরোধ ১ম পক্ষ চূড়ান্ত সিদ্ধান্ত গ্রহন করিবেন।

১ম পক্ষের স্বাক্ষর

তারিখ:-০৯/০৩/২০২৩ ইং

২য় পক্ষের স্বাক্ষর



Appendix XVII Existing Medical Waste Disposal Agreement



চট্টগ্রাম সেবা সংস্থা

চট্টগ্রাম অফিস : দুদু প্রাসিও (১ম তলা), ১০৫৯, ও, আর, নিজাম রোড, গোলপাহাড়
মেহেন্দীবাগ, চট্টগ্রাম। মোবাইল : ০১৭৫৫-৬৮৬১৬৩, ০১৭৩৪-০৯৯০২১
০১৭৩-৬৮৬১৬৩

চুক্তি নং: ০১২৪/১৭

তারিখ : ২০.২.১৭

সমঝোতার চুক্তি

চট্টগ্রাম সেবা সংস্থা চট্টগ্রাম সিটি কর্পোরেশনের সকল সরকারী/বেসরকারী হাসপাতাল, ডায়াগনোস্টিক সেন্টার ও ক্লিনিকগুলি হইতে দৈনিক বর্জ্য অপসারণের কার্যাদেশ পায়ে।

কার্যাদেশ নং- ৯৭/পবি/সিক তারিখ - ২৪/০২/২০১৫

পরম করুণাময় আল্লাহর নাম স্মরণ করে উভয় পক্ষ আলোচনা সাপেক্ষে,

অদ্য ০১/০২/১৭ হইতে ০১/০২/১৭

থেকে বর্জ্য/আবর্জনা সংগ্রহের কাজ আরম্ভ করা হইবে। উক্ত কাজের সমঝোতা চুক্তিতে উভয় পক্ষ স্বাক্ষর করিলাম।

১ম পক্ষ : চট্টগ্রাম সেবা সংস্থা।

প্রতিনিধির নাম : মোঃ ইমদাদুল হক

২য় পক্ষ :

প্রতিষ্ঠানের নাম : ইমদাদুল হক ডায়াগনোস্টিক সেন্টার লিমিটেড

প্রতিনিধির নাম : মোঃ মোকিমুল হক

ঠিকানা : ইমদাদুল হক ডায়াগনোস্টিক সেন্টার লিমিটেড, চট্টগ্রাম

মোবাইল : ০১৭৩-৬৮৬১৬৩ ই-মেইল :

আমাদের প্রতিষ্ঠানের বর্জ্য সংগ্রহ ও পরিবহনের জন্য উক্ত সংস্থাকে চট্টগ্রাম সিটি কর্পোরেশনের হাসপাতাল বর্জ্য ব্যবস্থাপনা কমিটির ধার্যকৃত সার্ভিস চার্জ তালিকা অনুযায়ী মাসিক ২০০০/= (দুই হাজার)

টাকা চেক অথবা নগদ টাকার মাধ্যমে প্রদান করিব।

১ম পক্ষ স্বাক্ষর
চট্টগ্রাম সেবা সংস্থা
(হাসপাতাল বর্জ্য ব্যবস্থাপনা)
চট্টগ্রাম সিটি কর্পোরেশন কর্তৃক অনুমোদিত

২য় পক্ষ স্বাক্ষর
Jaber (Personnel & Admin)
Pahartali Textile & Hosiery Mills
Pahartali, Chittagong

Appendix XVIII License for Deep Tube well from CWASA

WASA চট্টগ্রাম পানি সরবরাহ ও পয়ঃপ্রণালী কর্তৃপক্ষ
Chittagong Water Supply & Sewerage Authority
Wasa Office Building, Dampara, Chittagong, Bangladesh.

ভীর নলকূপের লাইসেন্স

লাইসেন্স নম্বর : ২২২০
নলকূপের ব্যাস : ৬"
লাইসেন্সের ধরণ : স্থানাবাসিক
মেয়াদ (নাবায়নযোগ্য) : ২০০৬-২০০৭
নলকূপের অবস্থান : জানাব সাংহুরুল আলম

লাইসেন্স গ্রহীতা প্রতিষ্ঠান/মালিকের নাম : জানাব সাংহুরুল আলম
বর্তমান ঠিকানা : পাহাড়তলী টেক্সটাইল ও হোসিয়ারি মিলস
স্থায়ী ঠিকানা : পাহাড়তলী টেক্সটাইল ও হোসিয়ারি মিলস
লাইসেন্স গ্রহীতার পত্র নং : ২২২০/২০০৬
এর আবেদনকারী লাইসেন্স ফি বাবদ মোট (অংকে) : ২,২০০০০০ (কথায়) দুই হাজার দুইশত টাকা
তারিখ : ০২/১২/০৬ এর মাধ্যমে পরিশোধ হওয়ার সরকার প্রদত্ত ক্ষমতাবলে
এবং কর্তৃপক্ষের অনুমোদনক্রমে উপরোক্ত প্রতিষ্ঠান/ব্যক্তিকে স্বত্বাবহূপনায় বর্ণিত
গভীর নলকূপের মাধ্যমে পানি উত্তোলন করে আবাসিক/ অনাবাসিক/ বাণিজ্যিক/
ইন্ডাস্ট্রিয়াল/কমিউনিটি প্রয়োজনে ব্যবহারে অনুমতি দেওয়া হইল।
কর্তৃপক্ষের অনুমতি ব্যতীত নলকূপের ব্যাস, অবস্থান, পানি ব্যবহারের ধরণ এবং মালিকানা
পরিবর্তন করা যাইবে না। মেয়াদ উত্তীর্ণ হওয়ার পূর্বেই লাইসেন্স নবায়ন করিতে হইবে।
প্রধান রাজস্ব কর্মকর্তা
চট্টগ্রাম ওয়াসা, চট্টগ্রাম।
লাইসেন্স ইস্যুর তারিখ :

নবায়ন-

১/১০/২০১০ সনের নবায়ন ফি বাবদ জনতা ব্যাংক, ওয়াসা শাখার রশিদ
নং ৬০০০৩ তারিখ ২০/১২/০৯ মূল টাকা : (অংকে) = ২,৬৭,০০০
(কথায়) দুই লাখ সাতাত্তর হাজার পঞ্চাশ টাকা প্রদান করা হয় অত্র লাইসেন্সটি
২৬/২/২০১০ তারিখ পর্যন্ত নবায়ন করা হইল।

আবেদনপত্র বর্ণিত তথ্যের ভিত্তিতে এই লাইসেন্স ইস্যু
করা হইল। পরবর্তীতে নবায়ন ফি প্রদান করিলে নলকূপের
ইউজ-অনাবাসিকের ইলেক্ট্রিক বা অন্য কোন প্রকার
অফিসিয়াল সীল
প্রদান রাজস্ব কর্মকর্তা
চট্টগ্রাম ওয়াসা, চট্টগ্রাম।

নবায়ন-

১/১০/২০১০ সনের নবায়ন ফি বাবদ জনতা ব্যাংক, ওয়াসা শাখার রশিদ
নং ২৫৭৭৭ তারিখ ২০/১২/০৯ মূল টাকা : (অংকে) = ২,৬৭,০০০
(কথায়) দুই লাখ সাতাত্তর হাজার পঞ্চাশ টাকা প্রদান করা হয় অত্র লাইসেন্সটি
২৬/২/২০১০ তারিখ পর্যন্ত নবায়ন করা হইল।

অফিসিয়াল সীল

প্রদান রাজস্ব কর্মকর্তা
চট্টগ্রাম ওয়াসা, চট্টগ্রাম।



চট্টগ্রাম পানি সরবরাহ ও গর্ষণপ্রণালী কর্তৃপক্ষ
Chittagong Water Supply & Sewerage Authority
Wasa office Building, Dampara, Chittagong, Bangladesh

গভীর নলকূপের লাইসেন্স



লাইসেন্স নম্বর : ৩৮০৬
নলকূপের ব্যাস : ৪"
লাইসেন্সের ধরণ : অনাবাসিক
পানি সংযোগের হিসাব নম্বর, যদি থাকে : ৩০০২৬২
জাতীয় পরিচয় পত্র নম্বর : X
ফোন/মোবাইল :
মেয়াদ (নবায়নযোগ্য) : ২০২৭-২০২৮

লাইসেন্স গ্রহীতা প্রতিষ্ঠান/ব্যক্তির নাম : **ডাঃ মোঃ হাবিবুল আলম**
বর্তমান ঠিকানা : **পাটালি টেক্সটাইল হোসিয়ারি মিল, চট্টগ্রাম**
স্থায়ী ঠিকানা : **পাটালি টেক্সটাইল হোসিয়ারি মিল, চট্টগ্রাম**
লাইসেন্স পত্র নং : **৩৮০৬/২০২৭**
এর আবেদনমূলে লাইসেন্স ফি বাবদ মোট (অংকে) : **২,৪০,০০০/-**
(কথায়) **দুই লাখ চব্বিশ হাজার** টকা জনতা ব্যাংক, ওয়াশা শাখার
রশিদ নং : **২৪৩০৮** তারিখ : **৩০/০৮/২০২৭** এর মাধ্যমে পরিশোধ
হওয়ার সরকারি প্রদত্ত কর্মতাবলে এবং কর্তৃপক্ষের অনুমোদনক্রমে উপরোক্ত ঠিকানা/ব্যক্তিকে স্বব্যবস্থাপনায় বর্ণিত গভীর নলকূপের মাধ্যমে পানি উত্তোলন করে
অবৈধ/অনাবাসিক প্রয়োজনে ব্যবহারের অনুমতি দেওয়া হইল।
কর্তৃপক্ষের অনুমতি ব্যতিত নলকূপের ব্যাস, অবস্থান, পানি ব্যবহারের ধরণ এবং মালিকানা
পরিবর্তন করা যাইবে না। মেয়াদ উত্তীর্ণ হওয়ার পূর্বেই লাইসেন্স নবায়ন করিতে হইবে।

প্রধান রাজস্ব কর্মকর্তা
চট্টগ্রাম ওয়াশা, চট্টগ্রাম।

নবায়ন -

১। **২০২৬-২০২৭** সনের নবায়ন ফি বাবদ জনতা ব্যাংক, ওয়াশা শাখার
রশিদ নং : **২৪৩০৮** তারিখ : **২০/০৮/২০২৭** মূলে টাকা : **৬৭,৫০০/-**
(কথায়) **একাত্তর হাজার পাঁচশত** টকা পরিশোধ
করায় অত্র লাইসেন্সটি **২৮/৮/২০২৭** তারিখ পর্যন্ত নবায়ন করা হইল।

প্রধান রাজস্ব কর্মকর্তা
চট্টগ্রাম ওয়াশা, চট্টগ্রাম।

নবায়ন -

১। **২০২০-২০২১** সনের নবায়ন ফি বাবদ জনতা ব্যাংক, ওয়াশা শাখার
রশিদ নং : **২৪৩০৮** তারিখ : **২৮/৮/২০২০** মূলে টাকা : **৬৭,৫০০/-**
(কথায়) **একাত্তর হাজার পাঁচশত** টকা পরিশোধ
করায় অত্র লাইসেন্সটি **২৮/৮/২০২০** তারিখ পর্যন্ত নবায়ন করা হইল।

প্রধান রাজস্ব কর্মকর্তা
চট্টগ্রাম ওয়াশা, চট্টগ্রাম।



ISPAHANI

ECOSS
Environmental Conservation and Social Sustainability

নবায়ন -

2028-2028 সনের নবায়ন ফি বাবদ জনতা ব্যাংক, ওয়াশা শাখার
রশিদ নং 20280207/2028 তারিখ 29/12/28 মূল টাকা : ৳ ৬৭,০০০/-
(কথায়) সাপ্তাহিক বিজ্ঞান পরিশোধ
করায় অত্র লাইসেন্সটি 29/12/2028 পর্যন্ত নবায়ন করা হইল।
প্রধান রাজস্ব কর্মকর্তা
চট্টগ্রাম ওয়াশা, চট্টগ্রাম।

নবায়ন -

১।..... সনের নবায়ন ফি বাবদ জনতা ব্যাংক, ওয়াশা শাখার
রশিদ নং..... তারিখ..... মূল টাকা : অথেকে.....
(কথায়)..... পরিশোধ
করায় অত্র লাইসেন্সটি..... তারিখ পর্যন্ত নবায়ন করা হইল।
প্রধান রাজস্ব কর্মকর্তা
চট্টগ্রাম ওয়াশা, চট্টগ্রাম।

নবায়ন -

১।..... সনের নবায়ন ফি বাবদ জনতা ব্যাংক, ওয়াশা শাখার
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(কথায়)..... পরিশোধ
করায় অত্র লাইসেন্সটি..... তারিখ পর্যন্ত নবায়ন করা হইল।
প্রধান রাজস্ব কর্মকর্তা
চট্টগ্রাম ওয়াশা, চট্টগ্রাম।

নবায়ন -

১।..... সনের নবায়ন ফি বাবদ জনতা ব্যাংক, ওয়াশা শাখার
রশিদ নং..... তারিখ..... মূল টাকা : অথেকে.....
(কথায়)..... পরিশোধ
করায় অত্র লাইসেন্সটি..... তারিখ পর্যন্ত নবায়ন করা হইল।
প্রধান রাজস্ব কর্মকর্তা
চট্টগ্রাম ওয়াশা, চট্টগ্রাম।

CS CamScanner

Appendix XIX Tree Plantation Plan

The proposed project involves the involvement of a yarn manufacturing unit. The establishment of the facility will attract foreign buyers. Local people and businessmen will also be enthused about setting up shops and small markets due to the establishment of the industry.

As an enhancement plan, it is proposed that the management authority should develop a thick green belt all around the project site, proper storm water drainage, and a rainwater harvesting system to harvest rainwater and use it to meet daily water demand and reduce pressure on groundwater resources.

Tree Plantation Plan

Objectives:

The main objectives of the tree plantation plan are

- Enhance the aesthetic appeal of the factory surroundings.
- Offset carbon emissions and improve air quality.
- Contribute to local biodiversity conservation.
- Engage employees and the local community in environmental initiatives.

Location:

The entrance as well as empty spaces can be used for plantation. Moreover, sidewalks and sides of the production area can be used. Furthermore, the guest house and dormitory can also be used for tree plantation. The spaces will be benefited from shade, windbreaks, or aesthetic enhancement.

Species Selection:

The selection of species will be such that are native to the region, well-suited to local soil and climate conditions, and provide ecological benefits. Some suitable species for Bangladesh include:

- Mango (*Mangifera indica*): Provides shade and fruit.
- Neem (*Azadirachta indica*): Known for its medicinal properties.
- Bamboo (Various species): Fast-growing and versatile.
- Jackfruit (*Artocarpus heterophyllus*): Large, shade-providing tree with edible fruit.

Responsibilities:

The responsibilities associated with the tree plantation plan will be divided among the factory management as well as employees. Moreover, the local community will also be encouraged to participate in it. The overall responsibilities are provided below.

Factory Management:

- Oversee the implementation of the tree plantation plan.
- Allocate resources and ensure coordination with relevant stakeholders.

**Employees:**

- Participate in tree planting activities.
- Support maintenance efforts, such as watering and weeding.

Local Community:

- Encourage community involvement in tree planting events.

Maintenance Arrangements:

For the maintenance and for seeking of the trees and vegetation the following will be adopted.

- Watering: Designate a schedule for regular watering, especially during the dry season
- Weeding: Establish a routine for weeding to ensure the healthy growth of planted trees.
- Monitoring: Assign personnel to monitor the health of the trees and address any issues promptly.

Budget Estimate:

An estimated budget for the tree plantation initiative, including costs for tree saplings procurement, soil preparation and fertilization, watering equipment and outreach and awareness programs. An Estimation cost of 2 lakh has been allocated for tree plantation.

Timeline:

For the tree plantation it can be covered over a period of three to six months which will be accumulated over the construction period. Moreover, some tree plantation can be done in the operation period as well.

Reporting and Evaluation:

Regular reporting on the progress of the tree plantation plan, including the survival rate of planted trees and any challenges faced will be made. PTHM. is committed to the successful implementation of the tree plantation plan and looks forward to the positive environmental impact it will bring to the local community.

Appendix XX Emergency Response Plan

The initial response to an incident is a critical step in the overall emergency response. Like all other industries, PTHM must have adequate measures against accidents or incidents to meet the emergency. The purpose of having an Emergency Response Plan (ERP) is to:

- ❖ Assist personnel in determining the appropriate response to emergencies.
- ❖ Provide personnel with established procedures and guidelines.
- ❖ Notify the appropriate Emergency Response Team personnel and regulatory/ Govt. agencies.
- ❖ Manage public and media relations.
- ❖ Notify the next-of-kin of accident victims.
- ❖ Promote inter-departmental communications to ensure a “Companywide” Co-ordinated emergency response.
- ❖ Minimize the effects that disruptive events can have on company operations by reducing recovery times and costs.
- ❖ Respond to immediate requirements to safeguard the subtending environment and community.

Generally, the initial response is guided by three priorities ranked in importance these priorities are:

- 1) People
- 2) Property
- 3) Environment

Emergency Response Procedures will identify who does what and when in the event of an emergency. Responsibility for who is in charge and their coordination of emergency actions shall be identified. Nature of Emergency & Hazardous Situations may be of any or all of the following categories:

I. Emergency

- ❖ Fire
- ❖ Explosion
- ❖ Medical Emergency
- ❖ Fuel Spill
- ❖ Failure Of Sewerage System

II. Natural Disasters

- ❖ Flood Earthquake/Cyclone
- ❖ Storm
- ❖ Cloud Burst Lightning

III. External Factors

- ❖ Food poisoning/water poisoning
- ❖ Sabotage
- ❖ War

Reporting Incidents and Accidents

All accidents and near-miss incidents shall be investigated to determine what caused the problem and what action is required to prevent a recurrence. Employees required to perform investigations shall be trained in accident investigation techniques. The incident/accident investigation should be a fact-finding exercise rather than fault-finding. The investigations will focus on the collection of evidence to find out the “root cause” of the incident. The recommendations of the investigation report are implemented in phases.

Approaches to Emergency Response

For this project, emergency response systems should be in place to deal with dangerous goods uncontrolled releases of dust, natural calamities, fires burn, and injuries. There are to be trained emergency response teams, specific contingency plans, and incidence-specific equipment packages in place to cope with these types of emergencies. In case of an emergency, an incident occurs, immediate action must be taken to mitigate the impacts.

To minimize the possibility of injury to the responders and others emergency responders must follow a specific sequence of actions as stepped out in the preceding paragraphs

Emergency Response Team

An emergency response team has been established to strategically coordinate the response to any emergency promptly following the emergency response steps mentioned above. A tentative Emergency Response team, communication flow, and the responsibilities are described below:

Table : Responsibilities of the Emergency Response Team

Function	Responsibilities
Central Emergency Response Team	❖ Overall led and coordinated the emergency response and liaised with officers from government agencies like fire service, DoE, etc.
Fire Fighting Team	❖ Prompt response during fire emergency to extinguish the fire ❖ Maintain communication with the local fire service office ❖ Regular inspection of firefighting equipment ❖ Conduct a regular fire drill ❖ Support training department to conduct training on fire emergency
First Aid Team	❖ provide first aid within the facility to all persons when required ❖ undertake quarterly checks of first aid kit including disposing of expired items in a safe manner ❖ A response along with the firefighting and rescue team during an emergency ❖ assist with any incident investigations and unresolved issues related to health and safety ❖ Maintain liaison with a nearby hospital
Rescue Team	❖ Rescuing and protecting people in the event of emergencies ❖ Conduct regular drills on rescue activity ❖ Support training department to provide general rescue knowledge on the employee
Security Team	❖ Ensure all personnel understands individual and collective responsibilities for safety and security. ❖ Liaise with the local security authority ❖ Monitor the operational environment concerning the increased level of threat and advise the management.



Function	Responsibilities
	❖ Ensure all interested personnel is kept advised of changes and threats to the security of project staff, assets, and operations.

Summary of Potential Risk and Prevention Measures

Potential emergency and environmental risks that can be poised from the project activity and corresponding preventive and response measures are summarized below:



Table: Potential Emergency & Environmental Risk Situation Identification

S/I	Potential Emergency Situation	Significant Impact	Preventive Measures	Responding Measures
01	Fire	❖ Injured or death of an employee ❖ Destruction of Property ❖ Burn of industry & Machine.	❖ Establish and maintain a fire response team ❖ Fire drill every month ❖ Firefighting equipment where required ❖ Emergency evacuation plan ❖ The aisle mark & Exit door must be identified ❖ An auto circuit breaker in every electrical point ❖ Preserve Telephone & Mobile no. of fire stations, Hospitals, Ambulance service ❖ First aid box with necessary medicine kept on project floor ❖ Provide appropriate training for firefighting teams	❖ Responding nearest fire station ❖ Fight fire to control ❖ Rescue the trapped employee ❖ Provide first aid to the injured employee ❖ Call ambulance & contact with nearest hospitals for treatment of the injured employee ❖ A report of the accident will be produced
02	Generator Explosion	▪ Injured or death of an employee ▪ Destroy of Property ▪ Cause of fire ▪ Burn of Industry & Machine ▪ Hearing disorder due to excessive sound	❖ Installation, repair, and maintenance should always be following the manufacturer's instructions and recommendations. ❖ Exhaust systems must be properly installed, adequate ventilation must be provided to ensure unobstructed flow of cooling and ventilating air, and emissions must be directed away from inhabited zones. ❖ Wear hearing protection appropriate for the noise levels and type of noise ❖ Provide appropriate training for Generator operator ❖ The equipment must be regularly inspected and defective or damaged parts must be replaced promptly. ❖ A fire extinguisher should be readily available in the generator room. ❖ Exposure of fire in close vicinity to the generator is strongly prohibited ❖ Provide appropriate training for Generator operator	❖ Shut off the power supply ❖ Alert employee explaining the situation ❖ If fire try to control ❖ Rescue the trapped employee ❖ Provide first aid to the injured employee ❖ Call ambulance & contact with nearest hospitals for treatment of the injured employee ❖ A report of the accident will be produced

S/I	Potential Emergency Situation	Significant Impact	Preventive Measures	Responding Measures
03	Transport Accident	❖ Injured or death of an employee ❖ Loss of wealth	❖ Aware to prevent an accident ❖ Provide necessary training to company drivers on safe driving ❖ Post security with red plug during In & Out time ❖ If possible, build a speed breaker on the road	❖ Provide first aid to the injured employee and create a report ❖ Call ambulance & contact with nearest hospitals for treatment of the injured employee
04	Electrical Short Circuit	❖ Injured & death of an employee ❖ Cause of fire ❖ Burn of Garments & Machines ❖ Destroy of Property	❖ Check the electrical wire, switch connections ❖ Use appropriate wire, and a conductor to bear the load ❖ Inspect all circuit breakers periodically to confirm all are ok. ❖ Use appropriate electric wear & switches ❖ Provide appropriate	❖ Shut off the power supply ❖ Alert employee explaining the situation ❖ If fire try to control ❖ Rescue the trapped employee ❖ Provide first aid to the injured employee ❖ Call ambulance & contact with nearest hospitals for treatment of the injured employee ❖ A report of the accident will be produced
05	Leakage	❖ leaks result in injury & illness ❖ Cause of fire ❖ Causing damage to property	❖ Put gas detectors in factory areas ❖ Inspect gas line to find out the leakage regularly ❖ Use proper PPE during work with a gaseous substance ❖ Proper necessary training to detect & repair gas leaks to the respective employee ❖ First aid box with necessary medicine kept in the chemical store ❖ Preserve Telephone & Mobile no. of Hospitals & Ambulance service.	❖ Rescue the trapped employee ❖ Provide first aid to the injured employee ❖ Inform nearest fire station ❖ Fight fire to control ❖ Call ambulance & contact with nearest hospitals for treatment of the injured employee
		❖ Damage of property	❖ Get updated weather reports & disseminate accordingly ❖ Factory based flood preparedness activities	❖ Evacuation of employee ❖ Recovery of dead

S/I	Potential Emergency Situation	Significant Impact	Preventive Measures	Responding Measures
06	Flood	❖ Endanger to lives of the employee ❖ Water bond contagious diseases ❖ Breakdown of all utilities ❖ Disruption of production	❖ Evacuation plan during the disaster ❖ Emergency health & utility management plan ❖ Training & awareness program at the factory level ❖ Preserve Telephone & Mobile no. of Hospitals & Ambulance service. ❖ A first aid box with necessary medicine should be kept on the factory floor. ❖ Networking of local NGOs working in the area of disaster management.	- bodies and their disposal ❖ Medical care for the injured ❖ Temporary supply of food and drinking water ❖ Restore supplies at the factory level ❖ Call ambulance & contact the nearest Hospital
07	Earth Quake	❖ Smash up of factory building ❖ Injured & death of an employee ❖ Cause of fire due gas leakage & electric short circuit ❖ Breakdown of all utilities ❖ Disruption of production	❖ Construction building following buildings 'codes, guidelines, manuals, and by-laws ❖ Incorporating earthquake-resistant features in factory buildings ❖ Making all utilities like water supply systems, communication networks, electricity lines, etc. earthquake-proof. ❖ Creating alternative arrangements to reduce damages to infrastructure facilities. ❖ Getting employees involved in the process of disaster mitigation through education and awareness. ❖ Emergency evacuation plan ❖ Preserve Telephone & Mobile no. of Hospitals & Ambulance service. ❖ A first aid box with necessary medicine should be kept on the factory floor.	❖ Maintenance of law and order, prevention of trespassing, looting, etc. ❖ Evacuation of employee ❖ Recovery of dead bodies and their disposal ❖ Medical care for the injured ❖ Supply of food and drinking water. ❖ Restoring transport routes ❖ Cordoning off severely damaged structures that are liable to collapse during aftershocks. ❖ Inform nearest fire station ❖ A report of the accident will be produced
08	Cyclone	❖ Injury & death of an employee ❖ Damage to a building structure ❖ Breakdown of all utilities	❖ Preserve Telephone & Mobile no. of Hospitals & Ambulance service. ❖ First aid box with necessary medicine kept on the factory floor. ❖ Networking of local NGOs working in the area of	❖ Evacuation of employee ❖ Recovery of dead bodies and their disposal ❖ Medical care for the injured ❖ Temporary supply of food and drinking water



S/I	Potential Emergency Situation	Significant Impact	Preventive Measures	Responding Measures
	/Strom	❖ Disruption of production	disaster management.	❖ Restore supplies at factory level ❖ Call ambulance & contact with nearest Fire service



Appendix XXI Traffic Management Plan (TMP) for the Operation Phase of PTHM

The Traffic Management Plan (TMP) for the operation phase of Pahartali Textile Mills (PTM) is designed to ensure the safe, efficient, and smooth movement of vehicles, pedestrians, and other road users within and around the mill premises. This TMP addresses the management of 10 covered vans and 21 cars/microbuses that are actively involved in operations, ensuring compliance with safety and regulatory requirements. During the operation phase, increase in vehicular traffic in the area may result in:

- Possible traffic congestion of Zakir Hossain road;
- Occasional experience of delays on the Zakir Hossain roads;
- Pedestrians and cyclists using the roads around the project area may face accidents on the Zakir Hossain roads;
- There will be an increase of exhaust emission from vehicles, which will pollute local atmospheric air.

About 3 nos. of Trucks/hour will have their movement which will cause similar level of traffic movement effect. The Zakir Hossain road is very wide about 15 m. Further PTHM have their own parking place, so no congestion on Zakir Hossain road was observed. Moreover, the internal roads facility of the project site is very satisfactory and well planned. There is no traffic jam around the existing project area, but it can be increased during the operation of the proposed project.

1.1 Purpose of the Traffic Management Plan

The purpose of the TMP is to provide a structured approach to managing traffic during the operational phase of PTM. Key objectives include:

- **Accident Prevention:** Mitigate the risk of accidents involving workers, visitors, and vehicle operators through designated routes, speed limits, and safety signage.
- **Efficient Traffic Flow:** Streamline the movement of covered vans, cars, and microbuses to minimize delays, congestion, and conflicts within the premises.
- **Compliance:** Adhere to local traffic laws, including the Motor Vehicles Ordinance 1983 and the BRTA Act 2018.
- **Emergency Preparedness:** Ensure the unhindered movement of emergency vehicles within the site at all times.
- **Clear Communication:** Facilitate easy understanding of traffic protocols for all stakeholders, including drivers, employees, and visitors.

1.2 Vehicle and Driver Management

- **Vehicle Maintenance:** All vehicles must be regularly inspected and maintained to ensure good mechanical condition. Operators will conduct daily pre-operation checks.



- Designated Drivers: Only licensed and trained drivers are allowed to operate vehicles on-site. PTM will organize periodic training sessions to educate drivers on site-specific traffic rules and safety practices.
- Parking and Loading Zones: Dedicated areas for parking and loading/unloading activities will be clearly demarcated to avoid congestion and ensure safety.
- Vehicle Monitoring: PTM will maintain a logbook system to monitor the entry, exit, and operational schedule of all vehicles.

1.3 Traffic Rules

To ensure operational safety, the following traffic rules will be strictly enforced:

- Speed Limit: A speed limit of 15 km/h will be maintained within the premises to prevent accidents.
- Access Controls: Vehicles must have valid entry passes. Unauthorized vehicles are prohibited from entering the mill premises.
- Designated Routes: All vehicles must adhere to designated routes within the site. One-way systems will be implemented where necessary.
- Pedestrian Priority: Pedestrian walkways will be clearly marked, and vehicles must yield to pedestrians at crossings.

1.4 Signage

- Temporary and Permanent Signage: Durable, weather-resistant signs will be strategically placed at key locations, such as entrances, loading zones, pedestrian crossings, and intersections.
- Directional Signage: Clear directional signs will guide drivers to designated parking, loading zones, and exits.
- Safety Warnings: Hazard signs, speed limit signs, and "No Entry" signs will be installed as needed.

1.5 Site Security

- Perimeter Control: The PTM premises will remain secured with a boundary fence and a single entry/exit point.
- Access Control: Entry gates will be manned by security personnel 24/7 to monitor vehicle and pedestrian access.
- CCTV Surveillance: Security cameras will be installed at critical points, including parking areas, entry gates, and loading zones.

1.6 Traffic Flow Management

- Operational Schedule: A staggered schedule for the movement of covered vans and cars/microbuses will be implemented to avoid congestion during peak hours.



- **Traffic Coordination:** A traffic coordinator will be assigned to oversee vehicle movements during high-traffic periods, such as loading/unloading operations.

1.7 Emergency Response Plan

- **Emergency Vehicle Access:** Dedicated emergency lanes will be maintained to ensure quick access for fire trucks, ambulances, and other emergency vehicles.
- **Incident Reporting:** A protocol will be in place for reporting and responding to on-site traffic incidents, including collisions or vehicle breakdowns.
- **Periodic Drills:** Regular emergency response drills will be conducted to ensure preparedness among drivers, workers, and security staff.

1.8 Monitoring and Review

- **Incident Analysis:** All reported incidents, near misses, and hazards will be logged, analyzed, and reviewed to identify patterns and improve the TMP.
- **Periodic Updates:** The TMP will be reviewed quarterly to incorporate feedback and address any emerging traffic management challenges.
- **Stakeholder Engagement:** Regular meetings with drivers, employees, and security personnel will ensure continuous improvement and compliance with the TMP.

Conclusion

The TMP for the operation phase of PTM provides a robust framework for ensuring traffic safety, efficient vehicle movement, and compliance with regulatory requirements. By fostering a culture of safety and accountability, PTHM aims to minimize risks, maintain operational efficiency, and uphold its commitment to worker and public safety.



PAHARTALI TEXTILE & HOSIERY MILLS

TRANSPORT "IN" AND "OUT" TIMINGS

1017

Date: 20/11/2019

Name of Entry Gate: A-Gate

Sl. No.	Vehicle No.	"Out" Time	"IN" Time	Name of Gate "In" or "Out"	Signature of Duty Guard	Remarks
1	26.2226	06.20	09.00	A-Gate	White	
2	22.0220	09.02	02.00	A-Gate	White	
3	28-2096	09-50	09-55	A-Gate	Gold	
4	28-0249	05-08	05.12	A-Gate	Gold	
5	20-2886	05-08	—	D-Gate	Gold	
6	22.2262	09.29	09.00	A-Gate	White	
7	28.0682	—	02.20	D-Gate	White	
8	28.2606	—	02.25	D-Gate	White	
9	28.0622	20-00	09.00	A-Gate	White	
10	28.0620	—	09.00	D-Gate	White	
11	28-2082	20.28	20.00	D-Gate	Gold	
12	22.8002	20.89	28-26	A-Gate	White	
13	26.2226	20.00	—	D-Gate	White	
14	22.7882	20.00	22.00	A-Gate	White	
15	26.0626	22.20	22.22	A-Gate	White	
16	28.2096	22.09	26.26	A-Gate	White	
17	22.0220	22.20	—	D-Gate	White	
18	22-0222	22-00	—	D-Gate	Gold	
19	28-2052	—	26.00	D-Gate	Gold	
20	28-2096	28-08	28-28	A-Gate	Gold	
21	26-0626	29-00	22-28	A-Gate	Haidar	
22	28-2606	29-00	22-28	A-Gate	Haidar	
23	28-2052	22-28	—	D-Gate	Haidar	
24	28-0682	22-00	26-00	A-Gate	Haidar	
25	28-0249	26-26	26-20	A-Gate	Haidar	
26	26-2226	29-08	—	D-Gate	Haidar	
27	22-9882	—	29-28	D-Gate	Haidar	
28	28-0620	22-28	22-28	A-Gate	Haidar	



PAHARTALI TEXTILE & HOSIERY MILLS
TRANSPORT "IN" AND "OUT" TIMINGS

1015

Date : 18.11.24...

Name of Entry Gate : A-Gate

Sl. No.	Vehicle No.	"Out" Time	"IN" Time	Name of Gate "In" or "Out"	Signature of Duty Guard	Remarks
1	22, 8202	09.04	02.06	A-Gate	Wahid	✓
2	28, 2096	09.00	06.00	A-Gate	Wahid	✓
3	28, 0249	09.04	05.20	A-Gate	Wahid	
4	26, 2006	06.00	—	D-Gate	Wahid	
5	28, 2062	—	02.00	D-Gate	Wahid	
6	26, 2006	09.58	—	D-Gate	Wahid	
7	28-2606	—	02.30	D-Gate	Sad	
8	26-0626	22.00	02.26	A-Gate	Sad	
9	28, 0489	09.12	09.18	A-Gate	Wahid	
10	28, 0402	24.06	09.22	A-Gate	Wahid	
11	22.0262	20.06	—	D-Gate	Wahid	
12	22-9882	20.29	28.22	A-Gate	Sad	
13	28-0682	20.69	22.00	A-Gate	Sad	
14	22.8202	22.00	22.60	A-Gate	Wahid	
15	28-2062	—	22.69	D-Gate	Sad	
16	28.0600	22.82	26.20	A-Gate	Wahid	
17	22-0262	22.00	28.66	A-Gate	Sad	
18	26-2006	22.00	26.20	A-Gate	Sad	
19	28, 2062	22.20	—	D-Gate	Wahid	
20	28, 0400	28.00	22.05	A-Gate	Wahid	
21	26-2006	28.80	—	D-Gate	Haidan	
22	28-2096	20.10	28.29	A-Gate	Haidan	
23	28-2062	20.26	20.82	A-Gate	Haidan	
24	28-0682	20.82	24.00	A-Gate	Haidan	
25	22-0222	20.00	22.80	A-Gate	Haidan	
26	22-9882	24.20	26.80	A-Gate	Haidan	✓
27	28-0682	—	26.00	B-Gate	Wahid	
28	26.0626	26.00	—	D-Gate	Wahid	



SL	Name	Vehicle Type	Allotted to	Designation	Driver
1	CM-GHA-11-5131	SUV	Mr. Mahbubul Alam	COO (PTHM)	KISHAN SAHA
2	CM-GA-14-2076	Car	Mr.Kumar Arindam Mitra	GM (Maintenance)	RATAN KUMAR NATH
3	CM-GA-14-0267	Car	Mr. Md. Abdul Malek	GM (Production)	MD SHOHEL
4	CM-GA-14-2303	Car	Mr. Shawkat Sadek,	DGM (P & A)	ABDUL MALEQUE
5	CM-GA-14-0649	Car	Mr.Badsha Nura Alam	DGM (Utility)	MD. BABUL
6	CM-GA-14-0650	Car	Mr. Sultan Ahmed	DGM (E & E)	MD SHAHID ULLAH
7	CM-GA-14-0651	Car	Mr. Md. Monirul Islam,	Sr.manager (Medical)	RAHUL DAS
8	CM-GA-14-1082	Car	Mr. Aziz Ahmed Chy	Chief of Security (Sr. Manager Level)	ALI AKBAR SHOHEL
9	CM-GA-14-1639	Car	Mr. Sheikh Aminur Rahman	Sr.manager (QC)	MD ROBIUL ISLAM
10	CM-GA-11-0613	Car	Mr. Ahsanul Abedin Chy	Manager (Marketing)	MD. MUKTER HOSSAIN
11	CM-CHA-51-2895	Micro Bus (New)	Pool		MD.EMRAN
12	CM-CAA-71-0544	Ambulance	Pool		MD JASHIM UDDIN
13	CM-CHA-51-2954	Micro Bus (Esquire)	Pool		MD JASHIM UDDIN
14	CM-CHA-51-0915	Micro Bus (Noah)	Pool		MD. ABDULLAH
15	CM-AU-11-0912	Cover Van	Pool		MD. HASAN
16	CM-GA-12-4502	Car	Pool		MD. ABDULLAH



SL	Name	Vehicle Type	Allotted to	Designation	Driver
17	CM-GA-12-4576	Car	Pool		SHAFI ULLAH
18	CM-GA-12-7449	Car	Pool		SHAFI ULLAH
19	CM-GA-13-2553	Car	Pool		MD. EMRAN
20	CM-GA-13-0726	Car	Pool		KISHAN SAHA
21	CM-HA-19-1716	Motor Cycle	Security Department		



Appendix XXII Safety and Health Policy of PTHM

SAFETY & HEALTH POLICY

Policy No: PTL-SP-PN-07

**PAHARTALI TEXTILE & HOSIERY MILLS
(A UNIT OF M M ISPAHANI LIMITED)
PAHARTALI, CHATTOGRAM**

Reviewed On: 12/06/2024



SAFETY & HEALTH PROGRAM

PAHARTALI TEXTILE & HOSIERY MILLS

Safety Policy

Pahartali Textile & Hosiery Mills places a high value on the safety of its employees. It is committed to providing a safe workplace for all employees and has developed this program for injury prevention to involve management, supervisors and employees in identifying and eliminating hazards that may happen during our work process.

It is the basic safety policy of this company that no task is so important that an employee must violate a safety rule or take a risk of injury or illness in order to get the job done.

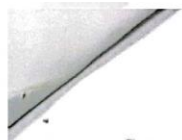
- Employees are required to comply with all company safety rules and are encouraged to actively participate in identifying ways to make our company a safer place to work.

The Health & Safety committee will be responsible for the safety of their employees and as a part of their duties must check the workplace for unsafe conditions, watch employees for unsafe actions and take prompt action to eliminate any hazards.

Management will do its part by devoting the resources necessary to form a safety committee composed of management and staffs. We will develop a system for identifying and correcting hazards. We will plan for foreseeable emergencies. We will provide initial and ongoing training for employees and supervisors. And, we will establish a disciplinary policy to ensure that company safety policies are followed.

Safety is a team effort – Let us all work together to keep this workplace safe and healthy.



**Supervisor's Responsibilities :**

1. To ensure that each employee you supervise has received an initial orientation before beginning work.
2. To ensure that each employee you supervise is competent or receives training on safe operation of equipment or tasks before starting work on that equipment or project.
3. To ensure that each employee receives required personal protective equipment (PPE) before starting work on a project requiring PPE.
4. To do a daily walk-around safety-check of the work area. Promptly correct any hazards you find.
5. To observe the employees you supervise working. Promptly correct any unsafe behavior. Provide training and take corrective action as necessary.
6. To set a good example for employees by following safety rules and attending required training.
7. To investigate all incidents in your area and report your findings to management.
8. To talk to management about changes to work practices or equipment that will improve employee safety.

Employees' Responsibilities

1. To follow safety rules described in this program, OSHA safety standards and training you receive.
2. To report unsafe conditions or actions to immediate supervisor or safety committee representative promptly.
3. To report all injuries to immediate supervisor promptly regardless of how serious.
4. To report all near-miss incidents to immediate supervisor promptly.
5. To use always personal protective equipment (PPE) in good working condition where it is required.
6. Not to remove or defeat any safety device or safeguard provided for employee protection.
7. To encourage co-workers by your words and example to use safe work practices on the job.
8. To make suggestions to supervisor, safety committee representative or management about changes you believe will improve employee safety.



Safety Committee:

A safety committee to be formed to help employees and management to work together to identify safety problems, develop solutions, review incident reports and evaluate the effectiveness of our safety program. The committee would be made up of management-designated representatives and two employee-elected representatives each from the office, factory and outside sales divisions of our company.

Hazard Recognition:

The supervisor will:

- * Investigate a serious injury or illness using procedures in the "Incident Investigation".
- * Complete an "Incident Investigation Report" form.
- * Give the "Employee's Report" and the "Incident Investigation Report" to the Chairman of the Health & Safety Committee.
- * Enter a recordable incident within seven days after the company becomes aware of it.
- * Make available any new injury reports and investigations to the safety committee before the scheduled meeting of the safety committee for review.

The safety committee will review the log for trends and may decide to conduct a separate investigation of any incident.

Incident Investigation:

When a supervisor becomes aware of an employee injury where the injury was not serious enough to warrant a team investigation as described above, the supervisor will write an "Incident Investigation Report" to accompany the "Employee's Injury/Illness Report Form" and forward them to the Chairman of Health & Safety Committee.

Whenever there is an incident that did not but could have resulted in serious injury to an employee (a near-miss), the incident will be investigated by the supervisor or a team depending on the seriousness of the injury that would have occurred. The "Incident Investigation Report" form will be used to investigate the near-miss. The form will be clearly marked to indicate that it was a near miss and that no actual injury occurred.

Safety Inspection Procedures

Annual Site Survey – Once a year an inspection team made up to members of the safety committee will do a wall-to-wall walk through inspection of the entire worksite. They will write down any safety hazards or potential hazards they find. The results of this inspection will be used to eliminate or control obvious hazards, target specific work areas for more intensive investigation, assist in revising the checklists used during regular monthly safety inspections and as part of the annual review of the effectiveness of our accident prevention program.





Hazard Prevention and Control

Eliminating Workplace Hazards

Pahartali Textile & Hosiery Mills is committed to eliminating or controlling workplace hazards that could cause injury or illness to our employees. We will meet the requirements of state safety standards where there are specific rules about a hazard or potential hazard in our workplace. Whenever possible we will design our facilities and equipment to eliminate employee exposure to hazards. Where these engineering controls are not possible, we will write work rules that effectively prevent employee exposure to the hazard. When the above methods of control are not possible or are not fully effective we will require employees to use personal protective equipment (PPE) such as safety glasses, hearing protection, foot protection etc.

Basic Safety Rules

The following basic safety rules have been established to help make our company a safe and efficient place to work. These rules are in addition to safety rules that must be followed when doing particular jobs or operating certain equipment. Those rules are listed elsewhere in this program. Failure to comply with these rules will result in disciplinary action.

- * Never do anything that is unsafe in order to get the job done. If a job is unsafe, report it to your supervisor or safety committee representative. We will find a safer way to do that job.
- * Do not remove or disable any safety device.
- * Keep guards in place at all times on operating machinery.
- * Never operate a piece of equipment unless you have been trained and are authorized.
- * Use your personal protective equipment whenever it is required.
- * Obey all safety warning signs.
- * Loose clothing, jewelry and hair longer than shoulder length shall not be worn around moving machinery.
- * Working under the influence of alcohol or illegal drugs or using them at work is prohibited.
- * Do not bring firebox, smoking instruments, firearms or explosives onto company property.
- * Smoking is only permitted outside the building away from any entry or ventilation intake.
- * Do not allow scraps to accumulate where they will become a hazard. Good housekeeping helps prevent injuries.

The End





Appendix XXIII Certificates and Audit Documentation

GOTS Scope Certificate (USB TEX-7797-GOTS-2405)

USB Certification Denetim, Gozetim ve Belgelendirme Hizmetleri A.S.
Ismet Kaptan Mah. Hurriyet Bulv. No: 4/1 Kavala Plaza
K: 2 D: 23 Cankaya – Konak - Izmir / Turkey
www.usbcertification.com Tel: 0090.232.446 4416

SCOPE CERTIFICATE

Scope Certificate Number USB TEX-7797-GOTS-2405

USB Certification Denetim, Gozetim ve Belgelendirme Hizmetleri A.S.
certifies that

PAHARTALI TEXTILE & HOSIERY MILLS

License Number USB 007797

Ispahani Complex, North Pahartali, Akbar Shah
Chattogram, 4202
Chattogram - Bangladesh

has been audited and found to be in conformity with the

Global Organic Textile Standard (GOTS) Version 7.0

Product categories as mentioned below (and further specified in the product appendix) conform
with this standard:

Greige yarns (PC0030), Dyed yarns (PC0029)

Process categories carried out under responsibility of the above mention company for the certified
products cover:

Spinning (PR0027)

*The processes marked with an asterisk may be carried out by subcontractors.

This certificate is valid until: **2025-05-17**

Place and Date of Issue

Izmir, 2024-05-18

Electronically
Signed

Evrin BICAK

Certification Body



Standard Logo



Certification Body Accredited by: IOAS ; Accreditation Number: 112

This scope certificate provides no proof that any goods delivered by its holder are GOTS certified. Proof of GOTS certification of goods delivered is
provided by a valid transaction certificate (TC) covering them.

The issuing body may withdraw this certificate before it expires if the declared conformity is no longer guaranteed.
For directions on how to authenticate this certificate, please visit GOTS' web page 'Approved Certification Bodies'.



This electronically issued document is the valid original version.

License number USB 007797

No: UOF-TEX-EN-4400 Rev. Date:2024.01.01 Rev:31

www.usbcertification.com

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OCS Scope Certificate (USB-00022848-OCS-2405)

USB Certification Denetim, Gozetim ve Belgelendirme Hizmetleri A.S.
Ismet Kaptan Mah. Hurriyet Bulv. No: 4/1 Kavala Plaza
K: 2 D: 23 Cankaya – Konak - Izmir / Turkey
www.usbcertification.com Tel: 0090.232.446 4416

SCOPE CERTIFICATE

Scope Certificate Number USB-00022848-OCS-2405
Scope Certificate Version Number USB-00022848-OCS-2405

USB Certification Denetim, Gozetim ve Belgelendirme Hizmetleri A.S.
certifies that

PAHARTALI TEXTILE & HOSIERY MILLS

Textile Exchange-ID (TE-ID):TE-00022848

USB Certification Client Number: USB 007797

Ispahani Complex, North Pahartali, Akbar Shah
Chattogram, 4202
Chattogram - Bangladesh

has been audited and found to be in conformity with the

Organic Content Standard (OCS) V3.0

Product categories mentioned below (and further specified in the product appendix) conform with
the standard(s):

Greige yarns (PC0030), Dyed yarns (PC0029)

Process categories carried out under responsibility of the above mentioned organization for the
certified products cover:

Spinning (PR0027)

*The processes marked with an asterisk may be carried out by subcontractors.

This certificate is valid until: **2025-05-17**

Audit criteria: Organic Content Standard V3.0 ; Content Claim Standard V3.1 ; Textile Exchange Standards
Claims Policy V1.3

Place and Date of Issue (YYYY-MM-DD)

Izmir, 2024-05-18

Last Updated : 2024-05-18

Electronically
Signed

Evrin BICAK

Certification Body



Standard



Certification Body Licensed by: Textile Exchange ; Licensing Code: CB-USB
Certification Body Accredited by: IOAS ; Accreditation Number: 112
Inspection Body: USB Certification Denetim, Gozetim ve Belgelendirme Hizmetleri A.S.

This scope certificate provides no proof that any goods delivered by its holder are OCS certified. Proof of OCS certification of goods delivered is provided
by a valid transaction certificate (TC) or equivalent covering them.
The issuing body may withdraw this certificate before it expires if the declared conformity is no longer guaranteed.
To authenticate this certificate, please visit www.TextileExchange.org/Certificates.



This electronically issued document is the valid original version.

TE-ID TE-00022848

No: UOF-TEX-EN-4400 First Issue Date: 2021.01.18 Rev. Date:2024.01.01 Rev:31

www.usbcertification.com

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Cotton made in Africa (CmiA) Certificate



COTTON
MADE IN
AFRICA

Certificate of Registration

No.: Y – 550/2024

We herewith register

Pahartali Textile & Hosiery Mills Ltd.
Zakir Hossain Road, Chattogram- 4202
Bangladesh

as official supplier of "Cotton made in Africa" **Mass Balance** yarns produced in compliance with the Chain of Custody Guidelines issued by the Aid by Trade Foundation. Herewith it is given permission to sell yarns **via SCOT** Tracking System to/for **licensed** CmiA brands/retail partners.

This Registration is valid until: **30.11.2025 ***

Tina Stridde
Managing Director
Aid by Trade Foundation

Christian Barthel
Managing Director
Atakora Fördergesellschaft GmbH

*Final validity of each CmiA-certificate available online:
<https://cottonmadeinafrica.org/wp-content/uploads/Spinning-Mills-Fabric-Producers-CmiA.xlsx>



U.S. Cotton Trust Protocol Membership Certificate



U.S. COTTON
TRUST PROTOCOL®
Trust in a smarter cotton future

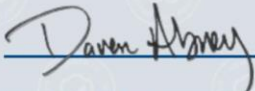
CERTIFICATE OF MEMBERSHIP

This certificate attests that

Pahartali Textile & Hosiery Mills

is an official member of the U.S. Cotton Trust Protocol®.

U.S. Cotton Trust Protocol® membership enables mills and manufacturers to access the tools to support brands and retailers, to source more sustainable cotton, and gain enhanced transparency through the entire supply chain.


Daren Abney, Executive Director, U.S. Cotton Trust Protocol®



Trust Protocol Membership ID:
4YPQ78RJ

Issue Date:
2024-08-01

Expiration Date:
2025-07-31

Member Since:
2021-02-04



Third-Party Sustainability Audit Report (GOTS, OCS, GRS & RCS Standards)

 USB CERTIFICATION UPGRADE • SUSTAIN • BENEFIT	Audit Report General
--	---------------------------------------

USB AR-TEX-13476 (Genel)

1. About The Company	
Company Name	PAHARTALI TEXTILE & HOSIERY MILLS
Registration No	USB 007797
Legal Representative	Mirza Salman Ispahani
Related Person	Shawkat Sadek
Address	Ispahani Complex, North Pahartali, Akbar Shah Chattogram
2. About The Audit	
Unit	PAHARTALI TEXTILE & HOSIERY MILLS Ispahani Complex, North Pahartali, Akbar Shah, Chattogram, Bangladesh Audit Responsible: Shawkat Sadek; DGM (Personnel & Admin) - +8801819386163 - pthm_admin@ispahanibd.com
Certification Program	GOTS (V7), OCS (V3), RCS (V2), GRS (V4)
Audit Date	2024-04-21 - 2024-04-22
3. Audit team	
	Md. Omar SARIF +880 1325065204 omarsarif@usbcertification.com
4. Verification	
Is the title of the company correct?	YES
Is the company's address correct?	YES
Is the number of employees of the firm correct?	YES
Is the unit type correct?	YES
Are the relevant person and authorized person on the company card correct?	YES
If there are nonconformities from the previous audit, have they been checked?	N/A
No NC was raised in the previous audit.	
Does the company claim to recycle its process waste?	N/A

No: UCL-TEX-EN-5030
Revision No: 00

First Release Date: 26.07.2021
Revision date: 00.00.0000

www.usbcertification.com

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Appendix XXIV Greenhouse Gas Monitoring Result

Greenhouse Gas (GHG)

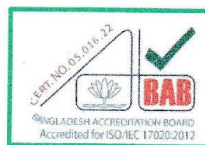
Pahartoli Textiles Limited

Ispahani Complex, North Pahartali, Akbar Shah, Chattogram-4202, Bangladesh.



Report Prepared by: Greentech Inspection Ltd.

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Greentech



Date of Submission: January 12, 2025

GIL-01



1.0 Overview

The GHG inventory estimates the GHG emission as CO₂ emitted by **Pahartoli Textiles Limited** from its utility sector. This factory is Textile industries situated at Ispahani Complex, North Pahartali, Akbar Shah, Chattogram-4202, Bangladesh. This inventory is prepared as per the request of factory management as the factory is interested to qualify its annual CO₂ emission which will helps them to incorporate carbon cost in decision making as well as to identify cost saving opportunities.

2.0 Scope & Boundaries

The annual GHG emission is estimated is following scopes:

- Scope 1: The Direct emission from Stationary combustion sources are considered here. Stationary combustion sources are given below:

Name of Unit	Types of Fuel Used
☐ Generator, Boiler	Gas
☐ Electricity	Purchased Electricity

- Scope 2: Indirect Emission from purchased electricity.
- Scope 3: Corporate Value Chain (if any)

Organizational Boundary: Total CO₂ emission is considered for the utility sector **Pahartoli Textiles Limited** as the factory identify that utility is the main and major source of their GHG Emission. In this inventory Scope 2 is not considered as no data has been obtained from the supply chain of the factory.

In this Inventory 3 Greenhouse gases emission are considered and these are CO₂, CH₄, and N₂O. The Total GHG emission is considered for total natural gas in this factory and total electricity used by the factory in last one year. Fuel properties data (Net Calorific Value, Density) are unavailable at the factory, so some assumptions are done to estimate fuel properties.

3.0 Reporting Period

The annual GHG Inventory is prepared for the year of January, 2024 to December, 2024 by collecting data. The data were collected on January 11, 2025.

Corporate office:

Greentech Inspection Ltd., Maisha Tower, 5B, 131 Gabtoli, Mazar Road, Mirpur, Dhaka-1216, Bangladesh.
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4.0 Methodology

The GHG inventory has prepared in accordance with **"2006 IPCC Guidelines for National Greenhouse Gas Inventories for Stationary Combustion (Volume2_Energy_Chapter 2)"**. The emission of Greenhouse gases is calculated by applying **Tier 1 approach** following IPCC 2006 guidelines.

5.0 Data Management

Serial No:	Month	Gas Consumption (m ³)	Electricity Consumption (KWH)
01	January, 2024	1595532.65	1194,255
02	February, 2024	1768029	13896
03	March, 2024	1881488	-
04	April, 2024	1266045	549000
05	May, 2024	1973527	396000
06	June, 204	1247530	1082853
07	July, 2024	1542351	1059147
08	August, 2024	1770986	576801
09	September, 2024	1815382	663759
10	October, 2024	1728903	1376955
11	November, 2024	1543252	1177929
12	December, 2024	1585804	804357
Total Energy Consumption (January, 2024 to December, 2024)		19718829.65	8894952

Energy Consumption Data of January, 2024 to December, 2024.

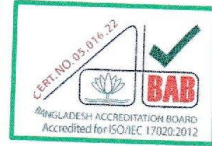
Corporate office:

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Certificate Number: GIL/VER/GHG/25/1089

Gas Emission:

- In Case of Gas:

CO ₂ Emission	For Gas Consumption of 19718829.65 Kg /year CO ₂ Emission is = 37169.205 ton/year (Note: Gas density is estimated to be 0.65 kg/m ³ , NCV of NG as per IPCC 2006 V2, table 1.2 is 48 Tj / Gg which is equivalent to 48 MJ/kg)
CH ₄ Emission	CH ₄ Emission is 662.55267624 Kg CH₄ / year Now CH ₄ Emission is Equivalent to Carbon-dioxide CO ₂ e (using GWP 21 is = 0.66255267624 ton CO₂ /year.
N ₂ O Emission	N ₂ O Emission is 66.255267623999998 Kg N₂O / Year Now N ₂ O Emission in Equivalent Carbon-dioxide (using CO ₂ e) using GWP 310 is e = 0.066255267624 ton CO₂ /year.
Total CO ₂ e Emission	37205.314 ton CO₂ / year

Indirect Emission:

- In Case of Electricity:

Total CO ₂ e Emission	For Electricity Consumption of 8894952 KWH / year CO ₂ Emission is = 5115.632 ton/year MWH = 5.115632 ton CO₂ / year
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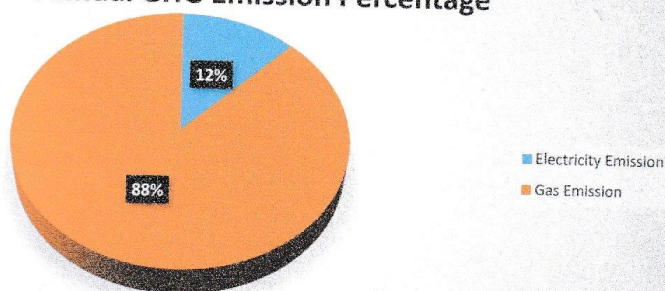
Certificate Number: GIL/VER/GHG/25/1089

TOTAL GHG EMISSION = CO₂e from Gas + CO₂e emission from Electricity consumption
= (37205.314 + 5115.632) ton CO₂ / year.

= 42320.946 ton CO₂ / Year

Graphical Representation of results:

Annual GHG Emission Percentage



Comment:

From the GHG Inventory it has been observed that about 12% CO₂e is emitted by indirect emission (Purchased Electricity) & CO₂e emission from direct emission 88% from Gas is negligible. It is also found that the emission of CH₄ & N₂O is negligible comparing with CO₂ emission.

Prepared By:



Farhana Farzun Nahar
Deputy Quality Manager



Checked & Approved By:



Shabbir Ahmed
(QM) & Managing Director

Corporate office:
 Greentech Inspection Ltd., Maisha Tower, 5B, 131 Gabtoli, Mazar Road, Mirpur, Dhaka-1216, Bangladesh.
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Appendix XXV Evidence of Existing Training Practice in PTHM

Pahartoli Textiles limited.
(A Unit of M. M. Ispahani Limited)
CHITTAGRAM

Date : JANUARY 2025.

To : Chief Operating Officer .

Subject : Training Schedule.

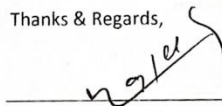
Dear Sir,

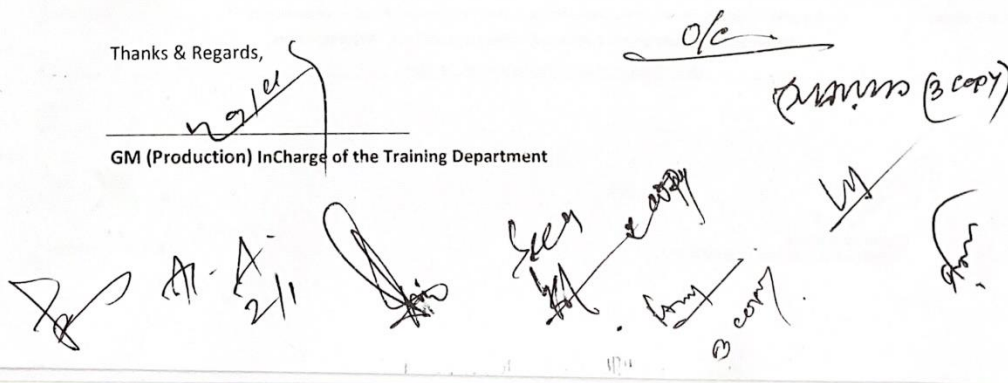
Training schedule for the month of "JANUARY-2025" has been attached herewith for your kind information. This program includes the workers designated as TENTER, R/F OPERATOR, DOFFER, AUTO CONER, VORTEX MACHINE OPERATOR, PROBATIONERY, MIXINGMAN, PACKER, CHECKER, F.C, C.C, S.C, B.C, and COPS CARRIER. Purpose of the Training program is to ensure the following issues.

The issues are:

- | | |
|---|---------------------------------------|
| ▪ Achieved Quality Production | ▪ Machines & Floor Cleaning |
| ▪ Techniques of Work | ▪ Waste Management & handling , |
| ✓ ▪ Fire Fighting & Safety Training | Material Control & Handling |
| ▪ Occupational Health & Safety | ▪ Orientation, Policy, Discrimination |
| ▪ Hygienic Work Environment | ▪ Freedom of Association |
| ▪ First aid, General Health, HIV/AIDS | ▪ Disciplinary Procedure |
| ▪ Social Awareness Training. | ▪ Abuse and Harassment , Ethical |
| ▪ Standard Operational Procedure For (GRS, RCS, GOTS & OCS) Yarn. | Training & organization behaviour. |
| ▪ Force Labour & Bonded Labour, Equity & Security. | ▪ Conservation of Water and Energy |
| ▪ Machine & Section Risk Assessment. | ▪ Importance of P.P.E. |
| | ▪ EMS Training. |
| | ▪ Compensation Management |

Thanks & Regards,

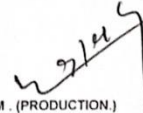

GM (Production) InCharge of the Training Department



TRAINING SCHEDULE FOR THE MONTH OF JANUARY-2025'
PAHARTOLI TEXTILES LIMITED.
CHITTARAM.

DATE	SHIFT	SCHEDULE	TIME
02/01/2025	P/B - R/B	SUBJECT: STANDARD OPERATIONAL PROCEDURE FOR G.R.S.REMEDY OF MARKET COMPLAIN. PARTICIPANTS : CONE CARRIER,PACKER,CHECKER POLY PACKER,STM OPERATOR. SPEAKER :MR.SHYFUL ISLAM (M) MR.ARUP CHOWDHURY (EXE)	10AM TO 11AM
05/01/2025	P/C - R/B	SUBJECT.OCCUPETIONAL HEALTH & SAFETY,WORKER NEGLIGENCE. PARTICIPANTS : ALL OPERATOR IN RING FRAME. SPEAKER:MR.MANIR & MR.IQBAL (A M)MR.KAMRUL (SR.EX-ADMIN) MR.JAIDUL HASAN (SR.EX)	10AM TO 11AM
07/01/2025	P/C - R/B	SUBJECT:WASTE CONTROL & WASTE MANAGEMENT PRODUCTIVITY. PARTICIPANTS : AUTO CONER & BOX CLEANER. SPKER :MR.ABUL BASHAR(D M-QC) MR.LINKON MUZUMDAR (DY,EXE) MR.MIZANUR (SUP:)	10AM TO 11AM
09/01/2025	P/C - R/B	SUBJECT: FIRST AID, GENERAL HEALTH,HIV/AIDS,MEDICAL COUNSELING . PARTICIPANTS : CONE CARRIER,PACKER,CHECKER POLY PACKER,STM OPERATOR. SPEAKER : SR.MANAGER (MEDICAL) MR.SHAFIULLAH (A.M)MEDICAL ASSISTANT.	10AM TO 11AM
12/01/2025	P/A - R/B	SUBJECT: IMPORTANCE OF "PPE" & AVOID BAD PRACTICES,NEGLIGENCE. PARTICIPANTS : ALL OPERATOR IN RING FRAME. SPEAKER : MR.SHAMBU PAUL,MR. DIN MOHAMMED (A.M) MR.RIAZMAHMOOD (SR.EXE)	10AM TO 11AM
14/01/2025	P/A - R/B	SUBJECT:PRODUCTION,PRODUCTIVITY,WORKER NEGLIGENCE. PARTICIPANTS : BACK PROCESS ALL WORKER . SPEAKER : MR.BELLAL HOSSAIN (D.M) MR.MONABBER (EXE)	10AM TO 11AM
16/01/2025	P/A - R/B	SUBJECT : FIRE FIGHTING & SAFETY TRAINING. PARTICIPANTS : AUTO CONER & BOX CLEANER. SPEAKER :Lt (rtd) M.AZIZ A CHOW(C O S MR.ALI HOSSAIN (SR.EXE) MR.MUKIM RAHMAN (JR.EXE)	10AM TO 11AM
19/01/2025	P/B - R/B	SUBJECT: A SAFE & HYGIENIC WORK ENVIRONMENT.WORKER NEGLIGENCE . PARTICIPANTS : ALL OPERATOR IN RING FRAME. SPEAKER :MR.MAHBUB ALAM (A.M) MR.NURUL ALAM (SR.EXE) MR.ABDULLAH AL KHAFI (DY.EXE)	10AM TO 11AM
21/01/2025	P/B - R/B	SUB. TECHNIQUES OF WORK,PRODUCTIVITY,WORKER NEGLIGENCE. PARTICIPANTS : AUTO CONER & BOX CLEANER. SPEAKER : MR.NAZRUL ISLAM (D.M) MR.ZAKIR HOSSAIN (DY.EXE)	10AM TO 11AM
23/01/2025	P/B - R/B	SUBJECT:FORCED & BONDED LABOUR & ETHICAL TRAINING, WORKER NEGLIGENCE. PARTICIPANTS : BACK PROCESS ALL WORKER . SPEAKER :MANAGER (ADMIN) MR.ABUL HASHEM(EXE) MR.ABUL KALAM (JR.EXE)	10AM TO 11AM
26/01/2025	P/C - R/B	SUBJECT: E.M.S TRAINING & CHEMICAL HAZZARD,& HUMIDIFICATION PLANT OPERATION. PARTICIPANTS : ALL WORKER & STAFF IN E&E AND UTILITY. SPEAKER.MR.SAIFUL ISLAM (MANAGER-UTILITY) MR.ARIF (D.M) MR.RANAJIT KUMAR (A.M)	10AM TO 11AM
28/01/2025	P/C - R/B	SUBJECT:TRAINING ON GRIEVANCE,ORGANAIZATION BEHAVIOUR,WORKER NEGLIGENCE PARTICIPANTS : BACK PROCESS ALL WORKER . SPEAKER : MR.S.M.M ANAM (A.M) MR.ARIFULISLAM (DY.EXE)	10AM TO 11AM
30/01/2025	P/C - R/B	SUB.OREINTATION (P,P,E, DECEPLINERY PROCEDURE & COMPENSATION.FREEDOM OF ASSO.,HOURS OF WORK W.RIGHTS) PARTICIPANTS : ALL PROBITIONERY WORKER & F/C,ROVING,BOBBIN CARRIER . SPEAKER : MR.HASAN & MR.SAHIDUL ISLAM (DY.EXE)	10AM TO 11AM


D.M.
(TRAINING CENTRE)


G.M. (PRODUCTION)
(INCHARGE OF TRAINING DEPARTMENT)



**PAHARTALI TEXTILE &
(A unit of M.M.
Training
Ispahani Complex**

HO
Isp
Cer
Pah

Date : 16, 01. 25

Time : 10am-11am

Section/ Departments : Auto Center & Box cleaner.

Training Subject:

Fire Fighting & Safety Training

Trainer Name & Designation :

1. Lt. (Adl) M. Aziz Shamed Chowdhury (C.O.S)
2. Mr. Ali Hassan (Asst. Secy)
3. Mr. ~~Ali~~ Mukimur Rahman (Asst. Secy)
- 4.

Prepared by :
Training Department

HOSIERY MILLS

Ispahani Limited)

Centre

Pahartali, Chattogram.

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Training Contents :
 ১. আগুন লাগলে কীভাবে মোকাফিল করা যায়।
 ২. আগুন লাগলে কীভাবে ব্রিগেড গঠন করা যায়।
 ৩. আগুন লাগলে কীভাবে ব্রিগেড গঠন করা যায়।
 ৪. আগুন লাগলে কীভাবে ব্রিগেড গঠন করা যায়।
 ৫. আগুন লাগলে কীভাবে ব্রিগেড গঠন করা যায়।

১. আগুন লাগলে কীভাবে মোকাফিল করা যায়।
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 ৪. আগুন লাগলে কীভাবে ব্রিগেড গঠন করা যায়।
 ৫. আগুন লাগলে কীভাবে ব্রিগেড গঠন করা যায়।

A. B. C. D. ও K টাইপ আগুন,

১. আগুন লাগলে A Type আগুন,

২. আগুন লাগলে B " " " " " " " "

৩. আগুন লাগলে C " " " " " " " "

৪. আগুন লাগলে D " " " " " " " "

৫. আগুন লাগলে K " " " " " " " "

৬. আগুন লাগলে " " " " " " " "

৭. আগুন লাগলে " " " " " " " "

৮. আগুন লাগলে " " " " " " " "

৯. আগুন লাগলে " " " " " " " "

১০. আগুন লাগলে " " " " " " " "

১১. আগুন লাগলে " " " " " " " "

১২. আগুন লাগলে " " " " " " " "

১৩. আগুন লাগলে " " " " " " " "

১৪. আগুন লাগলে " " " " " " " "

১৫. আগুন লাগলে " " " " " " " "

১৬. আগুন লাগলে " " " " " " " "

১৭. আগুন লাগলে " " " " " " " "

১৮. আগুন লাগলে " " " " " " " "

১৯. আগুন লাগলে " " " " " " " "

২০. আগুন লাগলে " " " " " " " "

২১. আগুন লাগলে " " " " " " " "

২২. আগুন লাগলে " " " " " " " "

২৩. আগুন লাগলে " " " " " " " "

২৪. আগুন লাগলে " " " " " " " "

২৫. আগুন লাগলে " " " " " " " "

২৬. আগুন লাগলে " " " " " " " "

২৭. আগুন লাগলে " " " " " " " "

২৮. আগুন লাগলে " " " " " " " "

২৯. আগুন লাগলে " " " " " " " "

৩০. আগুন লাগলে " " " " " " " "

আগুন লাগলে মোকাফিল করা যায়।
 group, Rescue & Evacuation group, co-ordinating party,
 Rescue party.

আগুন লাগলে Emergency door খোলা যায়।
 আগুন লাগলে Emergency door খোলা যায়।
 আগুন লাগলে Emergency door খোলা যায়।
 আগুন লাগলে Emergency door খোলা যায়।
 আগুন লাগলে Emergency door খোলা যায়।

ବିଭାଗ A/C ଡିଭିଜନ ମ୍ୟାନେଜର - ତାରିଖ 24/02/2022
ମିଳନ ନଂ 2/6, 8 ଡିଭିଜନ - P/A

କ୍ର. ସଂ.	ନାମ	P.T.M	ପଦବି	ଶିଫ୍ଟ	ନାମ
21	ସୁନିଲ କୁମାର	6080	P.H	60	ସୁନିଲ
22	ସୁନୀଲ	6068	P.H	60	ସୁନୀଲ
23	କୋଟାସି	2468	AIC	60	କୋଟାସି
24	ସୁନୀଲ	2466	AIC	60	ସୁନୀଲ
25	ସୁନୀଲ କୁମାର	6829	P.H	60	ସୁନୀଲ
26	ସୁନୀଲ	2466	AIC	60	ସୁନୀଲ
27	କୋଟାସି କୁମାର	982	AIC	60	କୋଟାସି କୁମାର
28	ସୁନୀଲ କୁମାର	28460	P.P.H	60	ସୁନୀଲ
29	କୋଟାସି	2522	AIC	60	କୋଟାସି
30	ସୁନୀଲ କୁମାର	22029	P.H	60	ସୁନୀଲ
31	ସୁନୀଲ କୁମାର	28926	P.H	60	ସୁନୀଲ
32	ସୁନୀଲ	28452	P.H	60	ସୁନୀଲ
33	ସୁନୀଲ କୁମାର	6222	P.H	60	ସୁନୀଲ
34	ସୁନୀଲ	6222	P.H	60	ସୁନୀଲ
35	ସୁନୀଲ	2280	AIC	60	ସୁନୀଲ
36	ସୁନୀଲ	2280	P.P.H	60	ସୁନୀଲ
37	ସୁନୀଲ	2666	AIC	60	ସୁନୀଲ
38	ସୁନୀଲ	2846	AIC	60	ସୁନୀଲ
39	ସୁନୀଲ କୁମାର	2999	P.H	60	ସୁନୀଲ
40	ସୁନୀଲ	2846	P.H	60	ସୁନୀଲ
41	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
42	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
43	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
44	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
45	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
46	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
47	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
48	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
49	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
50	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
51	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
52	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
53	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
54	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
55	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
56	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
57	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
58	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
59	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
60	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
61	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
62	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
63	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
64	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
65	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
66	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
67	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
68	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
69	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
70	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
71	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
72	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
73	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
74	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
75	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
76	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
77	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
78	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
79	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
80	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
81	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
82	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
83	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
84	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
85	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
86	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
87	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
88	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
89	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
90	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
91	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
92	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
93	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
94	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
95	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
96	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
97	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
98	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
99	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ
100	ସୁନୀଲ କୁମାର	2846	P.H	60	ସୁନୀଲ

ସୁନୀଲ କୁମାର



FIRE FIGHTING & SAFETY TRAINING



Pahartoli Textiles limited.
(A Unit of M. M. Isphani Limited)
CHITTAGRAM

Date : JANUARY 2025.

To : Chief Operating Officer .

Subject : Training Schedule.

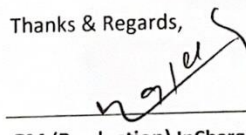
Dear Sir,

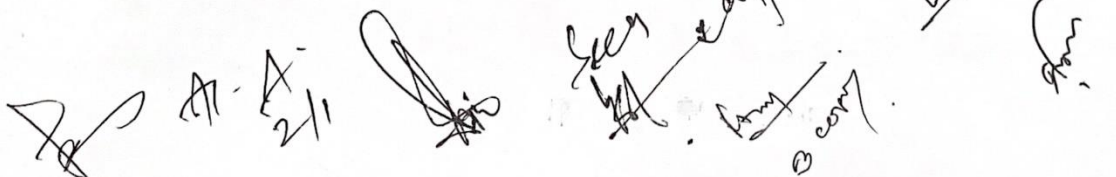
Training schedule for the month of "JANUARY-2025" has been attached herewith for your kind information. This program includes the workers designated as TENTER, R/F OPERATOR, DOFFER, AUTO CONER, VORTEX MACHINE OPERATOR, PROBATIONERY, MIXINGMAN, PACKER, CHECKER, F.C, C.C, S.C, B.C, and COPS CARRIER. Purpose of the Training program is to ensure the following issues.

The issues are:

- Achieved Quality Production
- Techniques of Work
- Fire Fighting & Safety Training
- Occupational Health & Safety
- ✓ Hygienic Work Environment
- First aid, General Health, HIV/AIDS
- Social Awareness Training.
- Standard Operational Procedure For (GRS, RCS, GOTS & OCS) Yarn.
- Force Labour & Bonded Labour, Equity & Security.
- Machine & Section Risk Assessment.
- Machines & Floor Cleaning
- Waste Management & handling , Material Control & Handling
- Orientation, Policy, Discrimination
- Freedom of Association
- Disciplinary Procedure
- Abuse and Harassment , Ethical Training & organization behaviour.
- Conservation of Water and Energy
- Importance of P.P.E.
- EMS Training.
- Compensation Management

Thanks & Regards,

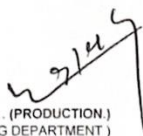

GM (Production) InCharge of the Training Department



TRAINING SCHEDULE FOR THE MONTH OF JANUARY-2025'
PAHARTOLI TEXTILES LIMITED.
CHITTARAM.

DATE	SHIFT	SCHEDULE	TIME
02/01/2025	P/B - R/B	SUBJECT: STANDARD OPERATIONAL PROCEDURE FOR G.R.S.REMEDY OF MARKET COMPLAIN. PARTICIPANTS : CONE CARRIER,PACKER,CHECKER POLY PACKER,STM OPERATOR. SPEAKER MR.SHYFUL ISLAM (M) MR ARUP CHOWDHURY (EXE)	10AM TO 11AM
05/01/2025	P/C - R/B	SUBJECT.OCCUPETIONAL HEALTH & SAFETY,WORKER NEGLIGENCE. PARTICIPANTS : ALL OPERATOR IN RING FRAME. SPEAKER.MR.MANIR & MR.IQBAL (A.M)MR.KAMRUL (SR EX-ADMIN) MR.JAIDUL HASAN (SR EX)	10AM TO 11AM
07/01/2025	P/C - R/B	SUBJECT:WASTE CONTROL & WASTE MANAGEMENT.PRODUCTIVITY. PARTICIPANTS : AUTO CONER & BOX CLEANER. SPKER : MR.ABUL BASHAR(D.M-QC) MR.LINKON MUZUMDAR (DY,EXE) MR.MIZANUR (SUP.)	10AM TO 11AM
09/01/2025	P/C - R/B	SUBJECT: FIRST AID, GENERAL HEALTH,HIV/AIDS,MEDICAL COUNSELING . PARTICIPANTS : CONE CARRIER,PACKER,CHECKER POLY PACKER,STM OPERATOR. SPEAKER : SR.MANAGER (MEDICAL) MR.SHAFIULLAH (A.M)MEDICAL ASSISTANT.	10AM TO 11AM
12/01/2025	P/A - R/B	SUBJECT: IMPORTANCE OF "PPE" & AVOID BAD PRACTICES,NEGLIGENCE. PARTICIPANTS : ALL OPERATOR IN RING FRAME. SPEAKER : MR.SHAMBU PAUL,MR .DIN MOHAMMED (A.M) MR.RIAZMAHMOOD (SR EXE)	10AM TO 11AM
14/01/2025	P/A - R/B	SUBJECT.PRODUCTION,PRODUCTIVITY,WORKER NEGLIGENCE. PARTICIPANTS : BACK PROCESS ALL WORKER . SPEAKER : MR.BELLAL HOSSAIN (D.M) MR.MONABBER (EXE)	10AM TO 11AM
16/01/2025	P/A - R/B	SUBJECT : FIRE FIGHTING & SAFETY TRAINING. PARTICIPANTS : AUTO CONER & BOX CLEANER. SPEAKER :Lt (rtd) M.AZIZ A.CHOW(C.O.S MR.ALI HOSSAIN (SR.EXE) MR.MUKIM RAHMAN (JR.EXE)	10AM TO 11AM
19/01/2025	P/B - R/B	SUBJECT: A SAFE & HYGIENIC WORK ENVIRONMENT.WORKER NEGLIGENCE . PARTICIPANTS : ALL OPERATOR IN RING FRAME. SPEAKER MR.MAHBUB ALAM (A.M) MR.NURUL ALAM (SR.EXE) MR.ABDULLAH AL.KHAFI (DY.EXE)	10AM TO 11AM
21/01/2025	P/B - R/B	SUB. TECHNIQUES OF WORK,PRODUCTIVITY,WORKER NEGLIGENCE. PARTICIPANTS : AUTO CONER & BOX CLEANER. SPEAKER : MR.NAZRUL ISLAM (D.M) MR .ZAKIR HOSSAIN (DY EXE)	10AM TO 11AM
23/01/2025	P/B - R/B	SUBJECT:FORCED & BONDED LABOUR & ETHICAL TRAINING, WORKER NEGLIGENCE. PARTICIPANTS : BACK PROCESS ALL WORKER . SPEAKER .MANAGER (ADMIN) MR.ABUL HASHEM(EXE) MR.ABUL KALAM (JR.EXE)	10AM TO 11AM
26/01/2025	P/C - R/B	SUBJECT: E.M.S TRAINING & CHEMICAL HAZZARD,& HUMIDIFICATION PLANT OPERATION. PARTICIPANTS : ALL WORKER & STAFF IN E&E AND UTILITY. SPEAKER.MR.SAIFUL ISLAM (MANAGER-UTILITY) MR.ARIF (D.M) MR.RANAJIT KUMAR (A.M)	10AM TO 11AM
28/01/2025	P/C - R/B	SUBJECT:TRAINING ON GRIEVANCE,ORGANAIZATION BEHAVIOUR,WORKER NEGLIGENCE. PARTICIPANTS : BACK PROCESS ALL WORKER . SPEAKER : MR.S.M.M ANAM (A.M) MR. ARIFULISLAM (DY.EXE)	10AM TO 11AM
30/01/2025	P/C - R/B	SUB.OREINTATION (P,P,E, DECEPLINERY PROCEDURE & COMPENSATION FREEDOM OF ASSO.,HOURS OF WORK,W.RIGHTS) PARTICIPANTS : ALL PROBITIONERY WORKER & F/C,ROVING,BOBBIN CARRIER . SPEAKER : MR.HASAN & MR.SAHIDUL ISLAM (DY EXE)	10AM TO 11AM


D.M.
(TRAINING CENTRE)


G.M. (PRODUCTION)
(INCHARGE OF TRAINING DEPARTMENT)



HOSIERY MILLS

Ispahani Limited)

Centre

Pahartali, Chattogram.

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Training Contents: A Safe & Hygienic Work Environment: -

[illegible]

১৩. অসুস্থতা, ১৪. ১৫. ১৬. ১৭. ১৮. ১৯. ২০. ২১. ২২. ২৩. ২৪. ২৫. ২৬. ২৭. ২৮. ২৯. ৩০. ৩১. ৩২. ৩৩. ৩৪. ৩৫. ৩৬. ৩৭. ৩৮. ৩৯. ৪০. ৪১. ৪২. ৪৩. ৪৪. ৪৫. ৪৬. ৪৭. ৪৮. ৪৯. ৫০. ৫১. ৫২. ৫৩. ৫৪. ৫৫. ৫৬. ৫৭. ৫৮. ৫৯. ৬০. ৬১. ৬২. ৬৩. ৬৪. ৬৫. ৬৬. ৬৭. ৬৮. ৬৯. ৭০. ৭১. ৭২. ৭৩. ৭৪. ৭৫. ৭৬. ৭৭. ৭৮. ৭৯. ৮০. ৮১. ৮২. ৮৩. ৮৪. ৮৫. ৮৬. ৮৭. ৮৮. ৮৯. ৯০. ৯১. ৯২. ৯৩. ৯৪. ৯৫. ৯৬. ৯৭. ৯৮. ৯৯. ১০০.

(The above paragraph is written upside down)

Negligency! - P.P.E for car up n. Hill
car even up n. R.S.M. down up n. (water
also Attend 20 n. Roving. car. up n. up n.

ବିବେକ - ବି. ପ୍ରଧାନ
 ଫିଟିନିଂ ଆମେନିଟି
 ଫିଲ ନଂ - ୨୮୯

ତା - ୨୩.୧.୨୦୨୨
 ସ୍ଥାନ - ପ/ୱ.

୧/ ନାହିଁ କିମ୍ବା ଅନ୍ୟାନ୍ୟ	→ ୨୯୮୦	→ P/H	→ ଫେ	→ ମାଟିଆ
୨/ ଅନ୍ୟାନ୍ୟ କିମ୍ବା	→ ୨୯୮୨	→ "	→ ଫେ	→ ହୋମବୁକ୍
୩/ ଅନ୍ୟାନ୍ୟ	→ ୨୯୮୦	→ "	→ ଫେ	→ ସାମାନ୍ୟ
୪/ ଅନ୍ୟାନ୍ୟ	→ ୨୮୨୬	→ "	→ ଫେ	→ ଗିଲ
୫/ ଅନ୍ୟାନ୍ୟ	→ ୩୯୮	→ Sp:	→ ଫେ	→ ଅନ୍ୟାନ୍ୟ
୬/ ଅନ୍ୟାନ୍ୟ	→ ୨୯୮୦	→ P/H	→ ଫେ	→ ମାଟି
୭/ ଅନ୍ୟାନ୍ୟ	→ ୦୦୨୭୦	→ Sp:	→ ଫେ	→ ଅନ୍ୟାନ୍ୟ
୮/ ଅନ୍ୟାନ୍ୟ	→ ୨୦୨୮	→ "	→ ଫେ	→ ଅନ୍ୟାନ୍ୟ
୯/ ଅନ୍ୟାନ୍ୟ	→ ୨୦୨୯	→ "	→ ଫେ	→ ଅନ୍ୟାନ୍ୟ
୧୦/ ଅନ୍ୟାନ୍ୟ	→ ୨୯୮୦	→ "	→ ଫେ	→ ଅନ୍ୟାନ୍ୟ
୧୧/ ଅନ୍ୟାନ୍ୟ	→ ୦୦୩୭୭	→ P/H	→ ଫେ	→ ଅନ୍ୟାନ୍ୟ
୧୨/ ଅନ୍ୟାନ୍ୟ	→ ୦୦୮୦୮	→ "	→ ଫେ	→ ଅନ୍ୟାନ୍ୟ
୧୩/ ଅନ୍ୟାନ୍ୟ	→ ୦୦୨୮୨	→ "	→ ଫେ	→ ଅନ୍ୟାନ୍ୟ
୧୪/ ଅନ୍ୟାନ୍ୟ	→ ୦୨୨୭	→ Sp:	→ ଫେ	→ ଅନ୍ୟାନ୍ୟ
୧୫/ ଅନ୍ୟାନ୍ୟ	→ ୨୨୮୦	→ P/H	→ ଫେ	→ ଅନ୍ୟାନ୍ୟ

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07/04/2023
 கிராம- P/B

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A SAFE HYGEINIC WORK ENVIRONMENT



Pahartoli Textiles limited.
(A Unit of M. M. Ispahani Limited)
CHATTOGRAM

Date : MARCH 2025.

To : Chief Operating Officer .

Subject : Training Schedule.

Dear Sir,

Training schedule for the month of "MARCH-2025" has been attached herewith for your kind information. This program includes the workers designated as TENTER,R/F OPERATOR , DOFFER, AUTO CONER,VORTEX MACHINE OPERATOR, PROBATIONERY, MIXINGMAN, PACKER, CHECKER, F.C, C.C, S.C, B.C, and COPS CARRIER. Purpose of the Training program is to ensure the following issues.

The issues are:

- Achieved Quality Production
- Techniques of Work
- Fire Fighting & Safety Training
- Occupational Health & Safety
- Hygienic Work Environment
- First aid, General Health, HIV/AIDS
- Social Awareness Training.
- Standard Operational Procedure For (GRS,RCS, GOTS & OCS) (UNIQLO & REGEN AGRI) Yarn.
- Force Labour & Bonded Labour,Equity & Security.
- Machine & Section Risk Assesment.
- Machines & Floor Cleaning
- Waste Management & handling , Material Control & Handling
- Orientation,Policy,Discrimination
- Freedom of Association
- Disciplinary Procedure
- Abuse and Harassment ,Ethical Training & organization behaviour.
- Conservation of Water and Energy
- Importance of P.P.E.
- EMS Training.
- Ethical Training.
- Compensation Management

Thanks & Regards,

GM (Production) Incharge of the Training Department



TRAINING SCHEDULE FOR THE MONTH OF MARCH-2025'
PAHARTOLI TEXTILES LIMITED.
CHATTAGRAM.

DATE	SHIFT	SCHEDULE	TIME
02/03/2025	P/B - R/B	SUB: OREINTATION (DECEPLINERY PROCEDURE & COMPENSATION, FREEDOM OF ASSO. HOURS OF WORK, W. RIGHTS, EQUITY, BEHAVIOUR) PARTICIPANTS : ALL PROIBITIONERY WORKER & F/C, ROVING, BOBBIN CARRIER . SPEAKER : MR. ANAMUL HAQUE (SR. EXE) MR. MAHFUJUR RAHAMN (EXECUTIVE)	10AM TO 11AM
04/03/2025	P/B - R/B	SUBJECT: PRODUCTION, PRODUCTIVITY, WORKER NEGLIGENCE.. PARTICIPANTS : ALL OPERATOR IN RING FRAME. SPEAKER : MR. NAZRUL ISLAM (D.M) MR. SUMON MEAH (SR. EXE) MR. ABDULLAH AL KAFI (DY. EXE)	10AM TO 11AM
06/03/2025	P/B - R/B	SUBJECT: OCCUPETIONAL HEALTH & SAFETY, WORKER NEGLIGENCE.. PARTICIPANTS : BACK PROCESS ALL WORKER . SPEAKER : MR. MAHBUB ALAM (A.M) MR. ABUL HASHEM (EXE) MR. ABUL KALAM (JR. EXE)	10AM TO 11AM
09/03/2025	P/C - R/B	SUBJECT: SOCIAL AWARENESS, FREEDOM OF ASSOCIATION, DISCUSSION ON MARKET COMPLAIN.. PARTICIPANTS : AUTO CONER & BOX CLEANER. SPEAKER : MR. MANIR HOSSAIN (A.M) MR. LINKON MUZUMDAR (DY. EX)	10AM TO 11AM
11/03/2025	P/C - R/B	SUBJECT: PRODUCTION, PRODUCTIVITY, WORKER NEGLIGENCE.. PARTICIPANTS : ALL OPERATOR IN RING FRAME. SPEAKER : MR. S.M. ANAM (A.M) MR. JAIDUL HASAN (SR. EX) MR. IMTIAZ UDDIN (DY. EXE)	10AM TO 11AM
13/03/2025	P/C - R/B	SUBJECT: IMPORTANCE OF "PPE" & AVOID BAD PRACTICES, NEGLIGENCE.. PARTICIPANTS : BACK PROCESS ALL WORKER . SPEAKER : MR. KAMRUL (SR. EXE-AD.) MR. SUZON KANTI (EXE) MR. NURNUNABI & MR. ARIF (DY. EXE)	10AM TO 11AM
16/03/2025	P/A - R/B	SUBJECT: STANDARD OPERATIONAL PROCEDURE FOR UNIQLO & REGENAGRI.. PARTICIPANTS : BACK PROCESS ALL WORKER . SPEAKER : D.M (Q.C.A) MR. DIN MOHAMMED (A.M) MR. RIAZ MAHMOOD (SR. EXE) MR. MONABBER (EXE.)	10AM TO 11AM
18/03/2025	P/A - R/B	SUBJECT: A SAFE & HYGIENIC WORK ENVIRONMENT, WORKER NEGLIGENCE.. PARTICIPANTS : ALL OPERATOR IN RING FRAME. SPEAKER : MR. BELEL HOSEN (D.M) MR. SHAMBU PAUL (A.M) MR. SAHA ALAM (SR. EXE)	10AM TO 11AM
20/03/2025	P/A - R/B	SUBJECT: TRAINING ON GRIEVANCE, ORGANAIZATION BEHAVIOUR, WORKER NEGLIGENCE.. PARTICIPANTS : AUTO CONER & BOX CLEANER. SPEAKER : MR. ALI HOSSAIN (SR. EXE) MR. ARMAN MEAH (DY. EXE) MR. MUKIM RAHMAN (JR. EXE)	10AM TO 11AM
23/03/2025	P/B - R/B	SUBJECT: E.M.S TRAINING, SEXUAL HARASSMENT & CHEMICAL HAZZARD, & HUMIDIFICATION PLANT OPERATION.. PARTICIPANTS : ALL WORKER IN UTILITY & GENERATOR DEPARTMENT, SPEAKER : MR. M.W. RAHMAN (M-ADMIN) MR. MD. ABDULLAH (M-GENERATOR) MR. SAIFUL ISLAM (M-UTILITY)	10AM TO 11AM
25/03/2025	P/B - R/B	SUBJECT: CONSERVATION OF WATER & ENERGY, NEGLIGENCE, AVOID BAD PRACTICE.. PARTICIPANTS : AUTO CONER & BOX CLEANER. SPEAKER : MR. MUSLIM UDDIN (SR. EXE) MR. SAHANEWAZ (DY. EXE) MR. MIZANUR RAHMAN (SUP.)	10AM TO 11AM
27/03/2025	P/B - R/B	SUBJECT : FIRE FIGHTING & SAFETY TRAINING.. PARTICIPANTS : ALL PACKING WORKER & ALL FIRE FIGHTER (G/SHIFT & SHIFT) . SPEAKER : Lt (rtd) MD. AZIZ AHMED CHOWDHURY (CHIEF OF SECURITY)	10AM TO 11AM

D.M.
(TRAINING CENTRE)

G.M. (PRODUCTION)
(INCHARGE OF TRAINING DEPARTMENT)



PAHARTALI TEXTILE &
(A unit of M.M.
Training
Ispahani Complex

HOSIERY
Ispahani I
Centre
Pahartali,

Date : 6.9.25

Time : 10am TO 11am.

Section/ Departments : Back process All Worker.

Training Subject: Occupational Health & safety,
worker negligence.

Trainer Name & Designation :

1. Mr. Mahbub Alam (A-M)
2. Mr. Abul Hashem (Exe.)
3. Mr. Abul Kalam (Jr. Exe.)
- 4.

Prepared by :
Training Department

Training

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১০:০০-১১:০০
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HOSIERY MILLS

Ispahani Limited)

Centre

Pahartali, Chattogram.

125

Training Contents : (পাটালি টেক্সটাইল ও হোসিয়ারী মিলস্‌র প্রশিক্ষণ বিষয়বস্তু)

১. মেশিনের পরিচয় ও এর বিভিন্ন অংশের নাম (Machine identification and its parts)

২. মেশিনের চালনা (Machine operation)

৩. মেশিনের রক্ষণাবেক্ষণ (Machine maintenance)

৪. মেশিনের সুরক্ষা (Machine safety)

৫. মেশিনের গুণমান নিয়ন্ত্রণ (Quality control)

৬. মেশিনের পরিষ্কার (Machine cleaning)

৭. মেশিনের পরিবেশ (Machine environment)

৮. মেশিনের পরিচালনা (Machine management)

৯. মেশিনের পরিদর্শন (Machine inspection)

১০. মেশিনের পরিচালনা (Machine management)

১১. মেশিনের পরিচালনা (Machine management)

১২. মেশিনের পরিচালনা (Machine management)

১৩. মেশিনের পরিচালনা (Machine management)

১৪. মেশিনের পরিচালনা (Machine management)

১৫. মেশিনের পরিচালনা (Machine management)

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১৭. মেশিনের পরিচালনা (Machine management)

১৮. মেশিনের পরিচালনা (Machine management)

১৯. মেশিনের পরিচালনা (Machine management)

২০. মেশিনের পরিচালনা (Machine management)



বিজ্ঞান B/P

কেন্দ্র গোপনীয়
তারিখ: ২, ৬, ৮

7/21/2021
File # - P13

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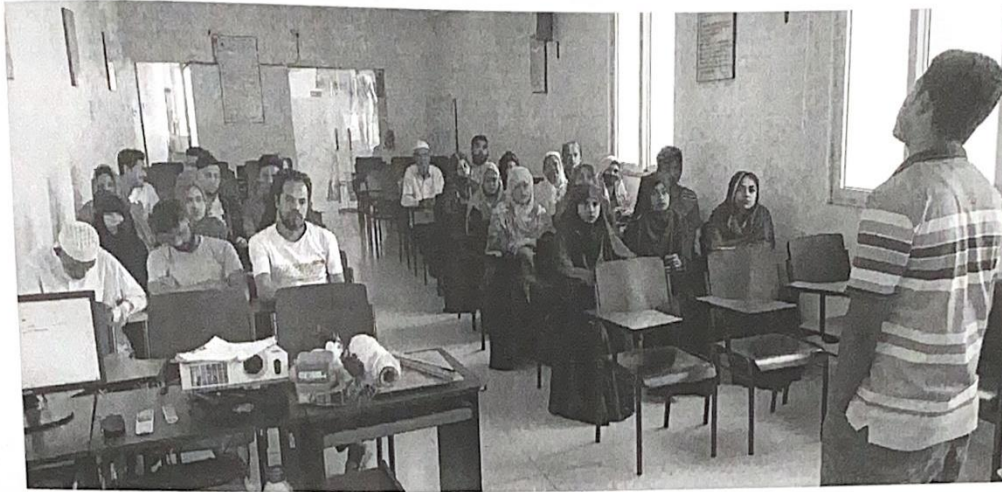
ବିଭାଗ B/P

ଫୌଜି ଡାକ୍ତରୀ
ମିଳନ ନଂ: ୨, ୬, ୮

୦୧/୧୧/୨୦୨୧
କାମ-୧୧୩

କ୍ର.ସଂ	ନାମ	P.T.M	କାର୍ଯ୍ୟ	ଫଳ	ଟିପ୍ପଣୀ
୧	ଶ୍ରୀମତୀ	୬୮୮	୧୧/୧୧	୬୦	୧୧/୧୧
୨	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୩	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୪	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୫	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୬	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୭	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୮	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୯	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୧୦	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
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୧୨	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୧୩	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୧୪	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୧୫	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
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୧୮	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
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୨୧	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
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୨୪	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୨୫	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
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୪୬	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୪୭	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୪୮	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
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୫୨	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୫୩	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
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୫୫	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୫୬	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୫୭	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୫୮	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
୫୯	ଶ୍ରୀମତୀ	୨୬୫୫	P.H	୬୦	୧୧/୧୧
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OCCUPETIONAL HEALTH & SAFTEY

**Appendix XXVI Evidence of Existing Accident/Incident
Report Practice in PTHM**

7/10/2024

INJURY REPORT Duplicate

No. 01

From : **Doctor.**
Pahartoli Textiles Limited
Ispahani Complex, North Pahartali,
Akbar Shah, Chattogram.

Date 15/01/25

Dept. Memo No. 379
Di Date 13/01/25
Received on 14/01/25

To :
Labour & Welfare Department.
P. T. L. *

Name Mrs. Masud Designation Sr. Bucklenter

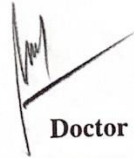
PTM 00096 Unit No. 01 Dept. Prod Shift PIA - R/B

Sustained injury in the Mill and was brought to the Dispensary on 13/01/25
at 3:15 PM

He / She ~~was removed to Hospital after necessary First Aid~~ / is being treated in our Dispensary.

The Report is as follows :-
DISCRIPTION OF INJURY : -
Injury Lt. forearm.

Nature of Injury :- Fatal / Serious / Minor.


Doctor

**INJURY REPORT****Duplicate**No. 02Date 19.01.25

From :

Doctor.Pahartoli Textiles Limited
Ispahani Complex, North Pahartali,
Akbar Shah, Chattogram.Dept. Memo No. 208Date 14/01/25Received on. 19/01/25
To, :

Labour & Welfare Department.

P.T.L.Name Md. Amir Hasan Designation Asist TechnicianPTM 01396 Unit No. 1 Dept. Utility Shift P/G/R/GSustained injury in the Mill and was brought to the Dispensary on 14/01/24at 11.25AMHe / ~~She~~ ^{Eye} was removed to ~~Hospital~~ after necessary First-Aid / is being treated in our Dispensary.

The Report is as follows :-

DISCRIPTION OF INJURY :F/B. Rt. Eye

Nature of Injury :-

Fatal / Serious / Minor.

Doctor

**INJURY REPORT****Duplicate**No. 03

From :

Doctor.Pahartoli Textiles Limited
Isphani Complex, North Pahartali,
Akbar Shah, Chattogram.Date 20/1/25.Dept. Memo No. 449Date: 18/12/24Received on 20/12/24

To, :

Labour & Welfare Department.

P. T. LName MD. Atiq Rahman Designation Assistant (Store)PTM 00221 Unit No. 1 Dept. Electric Shift P-R / ESustained injury in the Mill and was brought to the Dispensary on 14-12-24
at 9.30. AMHe / ~~She~~ was removed to Hospital after necessary First-Aid / ~~is being treated in our Dispensary.~~

The Report is as follows :-

DISCRIPTION OF INJURY :

Nature of Injury :-

Fatal / Serious / Minor.


Doctor

**INJURY REPORT****Duplicate**No. **04**

From :

Doctor.Pahartoli Textiles Limited
Ispahani Complex, North Pahartali,
Akbar Shah, Chattogram.Date **21.01.25**Dept. Memo No. **378**Date **09/01/25**Received on **12/01/25**

To, :

Labour & Welfare Department.

P.T.LName **Parvin Akter** Designation **Prod. Helper**PTM **03129** Unit No. **01** Dept. **Prod.** Shift **P/B - R/B**Sustained injury in the Mill and was brought to the Dispensary on **09.01.25**
at **12:20PM**~~He / She was removed to Hospital after necessary First Aid /~~ is being treated in our Dispensary.

The Report is as follows :-

DISCRIPTION OF INJURY :

Nature of Injury :-

Fatal / Serious / Minor.


Doctor

**INJURY REPORT****Duplicate**No. **05**Date **13.02.25**

From :

Doctor.

Pahartoli Textiles Limited

Isphani Complex, North Pahartali,

Akbar Shah, Chattogram.

Dept. Memo No. **209**Date **21/02/25**Received on **30/02/25**

To, :

Labour & Welfare Department.

P.T.LName **Md. Ibrahim** Designation **Jr. Assit. Technician**PTM **01049** Unit No. **1** Dept. **Utility** Shift **P/G - R/G**Sustained injury in the Mill and was brought to the Dispensary on **21/02/25**
at **11.30 AM**He / ~~She~~ was removed to Hospital after necessary First Aid / is being treated in our Dispensary.

The Report is as follows :-

DISCRIPTION OF INJURY :**Injury Rt. foot.**

Nature of Injury :-

Fatal / Serious / Minor.


Doctor

**INJURY REPORT****Duplicate**No. 06Date 13.02.25

From :

Doctor.Pahartoli Textiles Limited
Ispahani Complex, North Pahartali,
Bar Shah, Chattogram.Dept. Memo No. 445Date 11/02/25Received on 12/02/2529/02/2025
To, :

Labour & Welfare Department.

P. T. LName Md. Mahabub Designation Unskilled - 2PTM 03288 Unit No. 1 Dept. Utility Shift P/G - R/GSustained injury in the Mill and was brought to the Dispensary on 11/02/25
at 3:50 PMHe / ~~She~~ was removed to Hospital after necessary ~~First Aid~~ / is being treated in our Dispensary.

The Report is as follows :-

DISCRIPTION OF INJURY :Incised wound Rt. foot.

Nature of Injury :-

Fatal / Serious / Minor.


Doctor