GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

Ministry of Local Government, Rural Development and Cooperatives Local Government Division Local Government Engineering Department



Fourth Primary Education Development Program (PEDP4) Semi-annual Environmental Monitoring Report-VIII

(Jan.-June, 2023)

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Abbreviations:

EMF	Environmental Management Framework	
GPS	Government Primary School	
EIA	Environmental Impact Assessment	
DPE	Directorate of Primary Education	
ECC	Environmental Clearance Certificate	
EMP	Environmental Management Plan	
GOB	Government of Bangladesh	
SEMR	Semi-annual Environmental Monitoring Report	
IEE	Initial Environmental Examination	
LGED	Local Government Engineering Department	
MoPME	Ministry of Primary and Mass Education	
PEIMS	Primary Education Infrastructure Management System	
PEDP4	Fourth Primary Education Development Program	
SAE	Sub-Assistant Engineer	
SE	Superintending Engineer	
SMC	School Management Committee	
UE	Upazila Engineer	
WB	The World Bank	
EU	European Union	
JICA	Japan International Cooperation Agency	
UNICEF	United Nation International Children Emergency Fund	
BoQ	Bill of Quantity	
ADB	Asian Development Bank	
URC	Upazila Resources Center	

Executive Summary:

The purpose of Semi-annual Environmental Monitoring Report (SEMR) is to present the status of safeguard measures taken to mitigate the environmental impacts arisen due to construction of sub-projects under PEDP4. The Fourth Primary Education Development Program (PEDP4) is supporting quality, inclusive and equitable education in Bangladesh through enhancing of teaching-learning and providing additional physical facilities for schools and others intuitions of Directorate of Primary Education (DPE). The PEDP4 has initiated its activities to provide quality, inclusive and equitable primary education which emphasizes appropriate infrastructure development and maintenance to ensure child friendly environment and its effective utilisation to achieve the desired goal. The Ministry of Primary and Mass Education (MOPME) is responsible for executing the program through different sub-projects. The Directorate of Primary Education (DPE) acts as the implementing agency. The Local Government Engineering Department (LGED) and the Department of Public Health Engineering (DPHE) are the partners and implementing agencies for major maintenance works and need-based construction works of the program.

Cumulative status of the Sub-projects: (Table-1)

Sl. No.	Type of Sub- project	No. of Sub- projects (Jan June., 2023)	Cumulative No. of Sub- projects (July,2018- June, 2023)	Type of Sub- project	EMP cost incorporated/ omitted in BoQ	Work Status/ % of completion
1	Additional room construction of School	968	9008	Orange	EMP cost is incorporated in BoQ	Tendering and different stages of construction
2	Expansion and construction of DD Office		01	Orange	EMP cost is incorporated in BoQ	Do
3	Expansion and construction of DPEO Office	03	16	Orange	EMP cost is incorporated in BoQ	Do
4	Expansion of PTI	20	37	Orange	EMP cost is incorporated in BoQ	Do
5	Teachers' rooms	3157	3157	Orange	EMP cost is incorporated in BoQ	Do
6	URC (Upazila Resources Center)	13	13	Orange	EMP cost is incorporated in BoQ	Do
	Total	4161	12232			

The above-mentioned table demonstrates the cumulative status of sub-projects on environmental management and conservation of PEDP4. The table indicates that LGED have taken total 4161 sub-projects for expansion and construction of additional rooms including other institutional infrastructures such as PTI, URC, DD and DPEO offices during the reporting period (Jan.- June, 2023). This SEMR has been prepared based on 4161 sub-projects consisting of 3157 (75.87%) teachers' rooms, 968 (23.27%) schools, 13(0.31%) URCs, and 23 (0.55%) other institutional infrastructures. The table presented above indicates that all the sub-projects are in category "Orange" and cost of EMP implementation already included in BoQ. It can be seen from the screening result that most of the sub-projects are being extended vertically and located in prevailing grounds.

Overall physical progress of PEDP4 development activities has not been achieved as planned in many cases during the reporting period (Jan.-June'2023) due to political instability, and price hike of essentialities and construction materials in the country. The compliance monitoring of the environmental safeguard issues during construction were conducted using a monitoring check list and observed substantially complied. It is noted that contractors and workers maintained healthy environment, sanitation, hygiene, and attired with aprons, gumboots, masks, helmets, and goggles during the construction and pre-construction period of all the sub-projects.

Other than, concern for environmental degradation like land use, earth work for foundation and top soil loss was minimal. In addition of that none of the sub-projects were located in any ecologically protected area and no possibility of negative impact on wetland was also observed. Furthermore, no loss of forest and agricultural land were also reported. Furthermore, many positive impacts and environment enhancement are being generated due to sub-projects implementation. The local people are getting involvements in construction activities resulting employment generation. It is likely that there will be employment generation during the operation phase of sub-projects. The sub-projects are fulfilling the demand of additional rooms of schools and other institutional demands. Monitoring the mitigation measures of environmental impacts are very important during sub-projects construction and pre-construction phases.

1. INTRODUCTION

1.1. Background

The PEDP4 is supporting quality primary education through sustainable and appropriate infrastructure development, and maintenance to ensure child and environment friendly education institutions, and its effective utilisation to achieve the desired goals. The Local Government Engineering Department (LGED) and the Department of Public Health Engineering (DPHE) are the partners and implementing agencies for need-based infrastructure development and major maintenance of the project. The Ministry of Primary and Mass Education (MOPME) is responsible for executing the program and the Directorate of Primary Education (DPE) is the implementing agency of PEDP4. The Fourth Primary Education Development Program (PEDP4) is supporting quality. inclusive and equitable education in Bangladesh through enhancing of teaching-learning methods, and providing additional physical facilities for schools and others intuitions of Directorate of Primary Education (DPE). The Fourth Primary Education Development Program (PEDP4) is financed by the Government of Bangladesh and five Development Partners (DPs) such as ADB, WB, JICA, EU & UNICEF. The PEDP4 interventions were designed to cover entire country including geographically challenged areas like hilly terrains, seismic zones, coastal areas, waterlogged haor, saline, drought, and flood prone areas.

1.2. PEDP4 Objectives:

The overall objectives of the PEDP4 are to provide quality primary education for all children/students of the country from pre-primary up to grade 5 through an efficient, inclusive and equitable education system.

1.3. PEDP4 Component

The PEDP4 has 3 components

- i. Quality education
- ii. Equitable Access and Inclusive Participation
- iii. Management, Governance and Financing.

1.4. Type of Sub-projects

Types of subprojects considered under PEDP4 are as follows:

- (i) Need-based school infrastructure
- (ii) Primary education field office buildings including DPE HQ, DD Office, DPEO Office, UEO/TEO Office, Cox's Bazar Leadership Training Centre, PTIs & URCs
- (iii) Office buildings of other institute under MOPME and National Academy for Primary Education (NAPE)

Table 2: Type of sub-projects and intervention under PEDP4

Category	Interventions
1. Need Based School Infrastructure	 a. Additional classrooms; b. Additional teacher rooms; c. Head Teacher rooms; d. Additional WASH Blocks; e. Safe water sources for drinking; f. Boundary wall; g. Playing items/accessories; i. Maintenance
2. Primary Education Field Office buildings including DPE HQ, Cox's Bazar Leadership Training Centre, PTIs & URCs	 a. Construction and expansion of DPE HQ including a mosque; b. Vertical extension of DPE central warehouse, c. Expansion/new construction of DD offices; d. Expansion/new construction of DPEO offices; e. Construction and expansion of leadership training center at Cox's Bazar; f. Expansion/new construction UEO offices; g. Expansion/new construction of URCs; h. PTI infrastructure development.
3. National academy for primary education (NAPE)	a. Land development; b. Boundary wall & gate; c. Trainees' dormitory building; d. Renovation of DG's quarter; e. A multi-storied officers' quarter; f. Guest house renovation; g. DTW & Water Supply Lines; h. Internal roads, walkways and circular jogging track; i. Drainage system; j. Walkway k. Generator room l. Roof gardening m. Mini orchard in front of NAPE building

1.5 Purpose of the Environmental Monitoring Report (EMR)

The purpose of the Environmental Monitoring Report (EMR) is to present the status of safeguard measures to mitigate the environmental impacts arisen due to construction works of Sub-projects. The EMR is all about the implementation and monitoring the progress of EMP or environmental safeguard due diligence. More specifically, the EMR provides the updates on the progress of various environmental issues and safeguard measures of the Sub-projects.

2. 2.1 Implication and compliance of the polices

The relevant policies and legislations emphasize the importance of environmental consideration in the program planning and implementation to promote sustainable development. These provide the general guidelines to integrate environmental issues with different sectors of projects and programs. The ECR `97 (with amendments later) is the main legislation in Bangladesh. ECR `97 defined different sectors (industries and projects) as 'Green', 'Orange-A', 'Orange-B' and 'Red' categories, without considering the extent and types of interventions. Construction of multi-storied buildings is considered as the 'Orange A' and 'Orange B' category in ECR'97. Recently, Categories of environmental pollution levels have been changed as Green, Yellow, Orange, and Red, instead of 'Green', 'Orange-A', 'Orange-B' and 'Red' categories.

Though there is no fixed definition of a multi-storied high rise building. In practice, building more than 10 storied within Dhaka City (as per Building Construction Rules of RAJUK) and building more than 6-storied building outside Dhaka city is considered as 'Orange' category. It is likely that the primary schools outside Dhaka city will not be more than 6- storied building and as such, no environmental clearance will be required. However, if new construction more than 6-storied building is considered such as the NAPE dormitory building, Initial Environmental Examination (IEE) and Environmental Management Plan (EMP) would be required to get the environmental clearance from the Department of Environment (DOE) as per ECR'97. In addition, the Environmental Management Framework (EMF) would need to be submitted to the Department of Environment (DOE) for their review and concurrence. The Bangladesh National Building Code (BNBC) and Bangladesh Labor Act (BLA) underscore certain measures to ensure proper safety and work environment as well as the compensation measures to the laborers. By national law, contractors must follow these safety provisions and compensation arrangements. The implementing agency must ensure that the appropriate occupational health and safety provisions by incorporating in the bidding documents and are being implemented by the contractors properly. Many primary schools in disaster prone areas are also used as cyclone/flood shelters for the community. If the school will be considered as shelter, the concerned District Committee should be consulted about its location and other information. The compliance of polices to be ensured in sub-project implementation so that neither the need based infrastructure at schools/institutions nor the environment is compromised through the program intervention.

2.2 Implication and Compliance of the ADB Loan Covenants:

The compliance status to ADB loan covenants relevant to environmental safeguards are listed as below:

Table:-3 Compliance with ADB Loan Covenants

Sl. No. as per loan		Program Specific Covenants	Compliance	Remarks
agreen	nent		Status	
Schedule	10	To ensure that all program	Complied	Semi-Annual environmental
-4		actions in the area of		and social
		environmental and social		safeguards are implemented
		safeguards are		based on revised
		implemented in a timely and		EMF/SMF.
		efficient manner		
	11(a)	To ensure that no construction	Complied	Through the comprehensive
		or rehabilitation		screening it was
		works involve significant		confirmed that no adverse
		adverse environmental		environmental
		impacts that may be classified		impact as related to category A
		as category A under		under the SPS
		the SPS through screening.		was found.
Schedule	11(b)	To ensure that the	Complied	The applicable laws, regulations
-4		preparation, design,		and
		construction, implementation,		guidelines related to the H&S
		operation,		and
		decommissioning of all		Environmental safeguard were
		activities under the		strictly
		program comply with all		adhered.
		applicable laws,		
		regulations and guidelines		
		related to health and		
		safety, environmental		
		safeguard.		
	12	To ensure that the program	Complied	No resettlement risks were
		does not involve any		involved since the
		resettlement risks.		construction of wash blocks and
				water sources
				were conducted in the location
				owned by the
				primary schools.
	13	To ensure that the program	Complied	No negative risks or impacts on
		does not involve any		tribes or
		negative risks or impacts on		minor races, ethnic sects and
		tribes or minor races,		communities
	1		1	

	ethnic sects and communities.	were reported through the
		comprehensive
		environmental and social
		safeguard screening.

3. Environmental Management Process of PEDP4

To avoid negative environmental impacts and enhance environmental outcomes of the activities implemented under individual "subprojects", ADB's Safeguard Policy Statement (2009) is triggered for PEDP4.

The Environmental Management Processes of PEDP4 are as follows:

- (i) Categorization of the sub-projects;
- (ii) Environmental Screening (Checklist) and preparation of EMP of the sub-projects;
- (iii) Initial Environmental Examination (IEE).

3.1 Categorization of Sub-projects

In general, the environmental categorization identifies what level of environmental assessment is needed for the sub-projects under PEDP4. Considering the large numbers of the "sub-projects", the PEDP4 proposes a flexible approach for the environmental documentation for different types of the sub-projects.

Table-4 provides a guideline for categorization of "sub-projects" that will determine the level of environmental assessment to be required for the PEDP4 sub-projects.

Table-4: Categorization of Sub-projects:

NO.	Types/ Interventions of Sub-projects	Govt. Category	Environmental Documentation Required
1	Maintenance of school	Green	No environmental screening required as these subprojects are likely to have no negative environmental impacts.

2	Vertical and horizontal expansion for new classrooms / reconstruction of school and office buildings/water supply (tube wells (deep tube wells)/sanitary latrines/WASH Blocks facilities etc.	Yellow	Require environmental screening. EMP is required as these subprojects are likely to have minimal environmental impacts.
3	Construction of new school and Office buildings more than 6 storied (if any).	Orange	Require an IEE as these subprojects are likely to have potential environmental impacts. Environmental clearance from DOE is required.

4.0. The Sub-projects:

4.1. Sub-project description:

Need-based Infrastructure Development has been incorporated in PEDP4 as Program component named Access and Participation to improve the quality of physical learning and working environment through the construction of additional classrooms, teachers' rooms, head teachers' rooms and other infrastructures. Under PEDP4, 40000 additional rooms for students & teachers and 10500 rooms for head teachers have been targeted for construction. Beside this, 8 Divisional Deputy Director (DD) office, 64 District Primary Education Office (DPEO), 365 Upazila Education Office (UEO), Thana Education Office (TEO), 285 Upazila Resource Centre (URC), 67 Primary Training Institute (PTI) and Dormitory building of National Academy for Primary Education (NAPE) are also planned for expansion and construction under PEDP4 through LGED.

Need based additional class rooms are being constructed to reduce overcrowding in the class room of a school. These are basically of two types vertical extension, horizontal extension and remaining are combination of both. The architectural plan of the vertical extension is determined considering the existing plan of a building following PEDP4 Planning Guideline. In such case, capacity assessments of the foundation of the existing buildings are assessed to find out the feasibility of a vertical extension. In case of horizontal extension, the placements of the new infrastructures are very important to maintain a good school environment considering land scarcity in a densely populated country like Bangladesh. It is noted that the schools are not only buildings but these are associated in many items such as a playground including playing devices which offer better learning opportunities. So it is highly recommended that the possibility of vertical extension should be explored at first so that, land can be made available for playground. Only if that seems to be unfeasible, a horizontal extension can be considered in this case.

4.2. Scope of Semi-annual Environmental Monitoring Report (SEMR):

In PEDP4, forty thousand additional rooms and ten thousand five hundred head teachers' rooms including other institutional infrastructures are planned for construction under need based infrastructure sub- component.

Cumulative status of Sub-projects: (Table-5)

Sl. No.	Type of Sub- project	No. of Sub- projects (Jan June., 2023)	Cumulative No. of Sub- projects (July,2018- June, 2023)	Type of Sub- project	EMP cost incorporated/ omitted in BoQ	Work Status/ % of completion
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The table presented above shows the cumulative status of sub-projects on environmental management of PEDP4. The table indicates that LGED had taken total 4161 sub-projects for construction and expansion of additional rooms including other institutional infrastructures such as PTI, URC, DD and DPEO offices during the reporting period (Jan.'23- June'23). This SEMR has been prepared based on 4161 sub-projects consisting of 3157 (75.87%) teachers' rooms, 968 (23.27%) schools, 13(0.31%) URCs, and 23 (0.55%) other institutional infrastructures. Additionally, the above table presents that all the sub-projects are in category "Orange" and cost of EMP implementation already included in BoQ and mostly are at tendering, implementing, and different stages of construction.

5.0 Environmental Screening of Sub-projects:

5.1. Methodology for assessing environmental impacts:

The following methodology has been followed for assessing the environmental impacts of the sub-projects". The District & Upazila Offices of LGED are responsible for inspection and reviewing the existing facilities to fill up the screening format along with preparation of environment management plan (EMP) and its implementation. In particular, the Upazila Sub-Assistant Engineer or Upazila Assistant Engineer/ Assistant Engineer conducted the screening process for preparation sub-project specific EMP. The District Executive Engineer/Upazila Engineer reviewed the screening report and EMP through field visit. In addition of that, District Executive Engineer/Upazila Engineer is also responsible for supervision and monitoring of environmental mitigation activities at district/upazila level during construction phase. Additionally, the engineers working at regional and divisional offices of LGED are responsible to monitor the environmental mitigation or enhancement measures during construction phase. Furthermore, the engineers /officers of Primary Education Infrastructure Management Unit (PEIMU) of LGED HO will also monitor and supervise the environmental mitigation measures at field level. Moreover, Environmental Specialist working at PEIMU is providing assistance in the field of capacity enhancement processes and also providing support in implementing the environmental and social safeguard frameworks of PEDP4.

5.2. Sub-projects screened:

A total 4161 sub-projects were screened for construction and expansion of additional rooms including other institutional infrastructures during the current reporting period. The sub-projects include 3157 teachers' rooms, 968 schools, 13 URCs (Upazila Resources Centers) and 23 institutional infrastructures such as PTI, and DPEO offices etc.

5.2.1 Sub-projects screened for Schools:

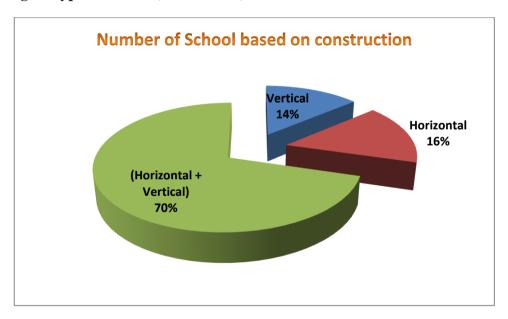
Here, in the table: 5, presented below a cumulative total 9008 schools were screened for construction of 37963 additional rooms during the reporting period (July, 2018-June, 2023).

A) Type of School (Cumulative) based on construction:

Table-6: Type of School (Cumulative) based on construction

	School Type based	No. of School (July, 2018-June, 2023)
Sl. No.	on construction	(No of Room)
1.	Vertical	1275 (5255)
2.	Horizontal	1822(5957)
3.	(Horizontal + Vertical)	5911 (26751)
	Total	9008 (37963)

Fig: 1 Type of School (Cumulative) based on school construction



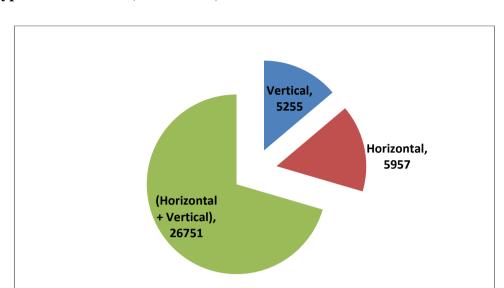


Fig: 2 Type of Classrooms (Cumulative) based on construction

B) Type of School (Cumulative) based on location:

The table presented below shows that 9008 schools having 7982 in plain, 232 in Hilly, 521 in Coastal belt, 69 in Haor and remain 204 in Char area were screened at the end of the reporting period (July, 2018 –June, 2023). Overall, the number of schools in plain area was 88.61 % of total schools screened.

Table-7 Type of School (Cumulative) based on location/topography

Sl.No	School Type based on location	No. of School (July,2018 – June, 2023) No (School)
1	Normal (Plain)	7982
2	Hilly	232
3	Coastal	521
4	Char (River bed)	204
5	Haor	69
	Total	9008

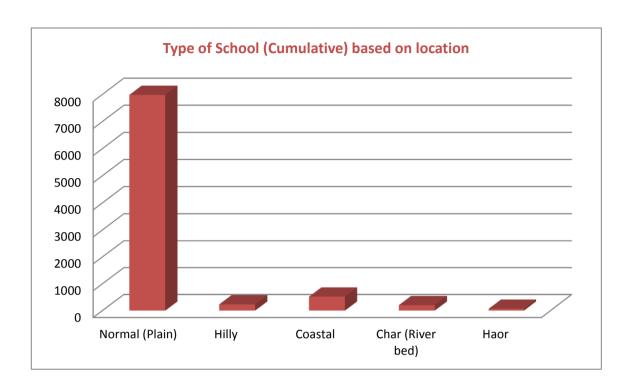
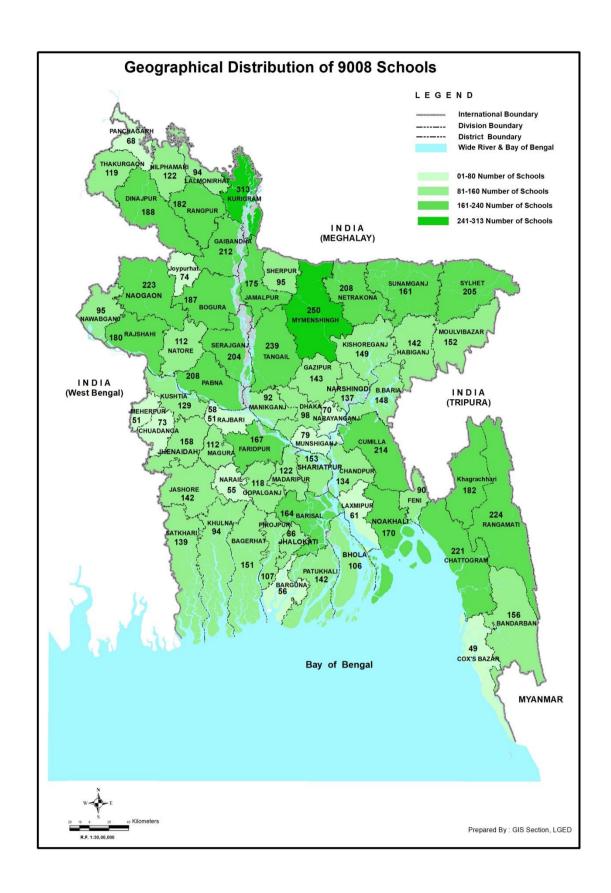


Fig-3: Type of School (Cumulative) based on locations/topography:

C) Geographical distribution of School:

The district wise geographical distribution of 9008 schools undertaken for construction is presented in a map given below:



6.0 Environmental Management Plan (EMP):

Environmental Management Plan (EMP) is a key tool to assess the environmental monitoring and degradation of PEDP. Environmental impacts are prominently visible in the construction phase of school building and other construction phases. At this stage appropriate mitigation measures are being taken to reduce the adversely environmental impact. In the context of a sub-project, Environmental Management Plan is concerned with the implementation of the measures necessary to minimize or offset adverse impacts and to enhance beneficial impacts. Unless the mitigation and benefit enhancement measures identified in the Site Specified Initial Environmental Examination (SSIEE) are fully implemented, the prime function of SSIEE cannot be achieved. Thus the objectives of the EMP for the present project is:

- (i) Mitigation measures to reduce or eliminate negative impacts
- (ii) Enhancement measures to maximize positive impacts
- (iii) Monitoring the identified indicators.

6.1 Existing Impacts on Environment:

A substantial number of sub-projects are being extended vertically over existing structure. Therefore, concern for land use and top soil loss is minimal and it is likely that the environmental concern is also minimal. However, in case of horizontal extension proper care is taken to maximize the benefit of use of this scarce land specially to maintain the good physical environment of campus. Moreover, it is appeared from the environmental screening report that none of the sub-projects are located in any ecologically protected area and no possibility of negative impact on wetland was also observed. Similarly, no loss of agricultural and forest land were also reported during the current reporting period.

The others existing impacts are elaborated below:

Air Pollution: Normally, air quality is generally affected by dust generation from construction sites. Dust generates from material stockpiles and access roads. Such pollution is also a function of weather conditions, in dry season nuisance is more; during rainy season, dust nuisance reduces. Mitigation measures were taken to cover the construction materials (sand and aggregates etc.) properly and sprinkling of water over material stockpiles as and when required.

Noise Pollution: Noise pollution is normally due to some construction-related activities, operation of equipment and generators. Noise will impact project workers, nearby residents and wildlife (specially birds, snakes etc.). Mitigation measures were taken to cast the major items such as foundation and slabs during week end and earplug are being provided to workers where required.

Occupational Health and Safety: Construction activities may pose health and safety risks to the construction workers and nearby residents leading to severe injuries and

deaths in extreme cases or a major accident. A lack of first aid facilities and health care facilities in the immediate vicinity would aggravate the health conditions of the victims. Lack of water and sanitation facilities at construction sites inconveniences construction workers and affect their personal hygiene. Therefore, adequate safe drinking water and hygienic sanitation facilities were provided by the concerned contractors. In addition to, First aid box equipped with antiseptic liquid, savlon, oral saline, cotton and sanitizer items etc. were kept at the work site. Similarly, Personal Protective Equipment (PPE) such as apron, gumboot, face mask, helmet, ear plug and hand gloves etc. were provided and used during construction.

Location of the sub-projects: All the sub-projects i.e. schools are located within the existing school campus and no negative impact due to sub-projects location on the existing environment was observed.

WASH block and Water Pollution: Water pollution is an important factor both construction and operational phase. During construction water is polluted highly and gathers at the construction site. In the operational phase toilet and wash room are often used by the students and teachers those pollute water highly. Moreover water logging in the school premises may be breeding ground of mosquitoes and other insects. In mitigating the water pollution, construction equipment should not be washed in the water bodies.

Employment Generation/Income: During construction, a considerable numbers of workers (both male & female) are being engaged required for the construction works. Conflict between male & female may be arisen if women workers are deprived. Proper wages to be ensure for construction workers, particularly for women labors.

Arsenic and Other Parameters: The major environmental concern for the installation of new tube-well is to ensure safe drinking water provision to the users. All these water parameters should be tested at least once a year and based on the result, proper action should be taken.

Loss of Top Soils: Lower school premises always need earth filling up. More often than not contractor collect soil from nearby agricultural fields. Top soil contains mineral and organic matter. Contractors are advised to collect earth filling soil from non-agricultural field for the schools of PEDP.

Disruption of Biodiversity and Ecosystem: Biodiversity and Ecosystem might be hampered for the construction work of newly established schools. For earth cutting worm and insect's loss their habitants and their ecology may be damaged. Birds and insects loss their habitants for cutting trees in the place where school will be established. So, PEDP considered the issues of biodiversity and ecosystem when new school established in the project area. Contractors of PEDP were advised to establish new schools where trees were thin or in the place where no trees existed in the proposed site.

6.2. Mitigation/Benefit Enhancement Measures:

The mitigation and benefit enhancement measures have been taken at the sub-projects level which is presented underline considering environmental issues of the sub-projects:

Table-8: Mitigation/ benefit enhancement measures have been done properly those are given below:

Environmental Issues/Impacts	Mitigation/Enhancement Measures
Dust pollution	Dust controlled by covering construction materials and spraying water manually have been done where dust blows as and when required.
Noise pollution	Construction activities have been carried out in day time. Casting of major parts such as slab and foundation were done during weekend.
Location and disruption of earth surface	Disruptions of earth surface have been kept minimal for smooth implementation of work at construction site.
Waste management	Wastes collection bins have been provided for organic wastes in one bin & inorganic wastes in another bin at the source and dumped properly
Wash Block	Wash block were provided for the workers, teachers and students. Toilets for male and female students were separated.
Tree Plantation	Trees were planted in proper place around the boundary of school campus. Indigenous plants were got priority for plantation.
Drainage congestion	Adequate drainage facilities have been provided in campus and construction camp for minimizing water logging.
Employment generation/income	Local poor and affected persons were engaged in sub- project works and contractors were encouraged to engage women workers. Also contractors are encouraged to pay proper wage to workers. In the hilly area indigenous people were got priority to engage construction works.
Occupational Health Safety(OHS)	Project workers were provided PPE, First Aid Box, face mask, quality drinking water, hygienic toilets and WASH facility.
Worker accident	Warning signs have been set up and helmet, apron and gumboots provided for the workers. Necessary medicines are kept in the aid box.
Environmental risks	Standard planning and designs were ensured by LGED.

Additional Mitigation Measures Taken during the reporting period:

Mitigation measures were taken care against the environmental concerns during the construction phases are shown below. These are:

- a. Temporary accommodation for the work forces near the site area with adequate provision of water supply for drinking, bathing and washing purposes were ensured
- b. In case of demolition of any existing building, great care was taken to avoid any accident. All precautions in this regard are taken by the sub-project proponent
- c. Sufficient latrines were constructed so as not to pose a health hazard
- d. Safety goggles of accepted standard were used who are engaged in drilling, cutting, welding and all such other works which cause hazard to the eyes
- e. Helmets were worn by the workmen and other personnel during work
- f. Toxic materials were barred in the construction such as lead based paints, asbestos etc.
- g. Building materials those potentially threaten the environment were discouraged
- h. Fencing was provided around the construction site
- i. Traffic congestion was minimized by adopting proper planning. Timing schedule for arrival of construction materials adjusted so that interruption with the public utility services is minimal
- j. Dust and particulate materials causing nuisances to surrounding areas were kept minimal by careful handling of cement and breaking *khoa* by labor instead of the *khoa* breaking machine
- k. Undesirable noise was avoided by confining the source of noises. The *khoa* breaking machine should be avoided and manual breaking was adopted. Nevertheless such machine was not allowed to operate at night

In addition to avoid any accidental risk proper precaution measures were taken up. Medical First Aid Boxes were kept at the site for any injury and transports were made instantly available to take the patient to the nearby hospital in case of major mishaps.

7.0 Positive impacts/environment enhancement:

7.1. Positive impact:

During construction phase a substantial number of employments have been generated and similarly a good number of employments will be generated during the operation phase of sub-projects under implementation. The sub-projects are also meeting the demand of additional rooms of the respective institutions.

7.2. Benefit Enhancement Measures to be taken:

Although the sub-project proponent deserves the right to employ the best workers, the local people are getting preference in such cases which would generate opportunities for employment of the local people. Women have been employed in construction works of the sub- projects of school and other infrastructural development under PEDP4.

7.3. Site/Project Alternatives:

Site alternatives are required when the proposed site vulnerable to river erosion, coastal erosion and erosion in the Haor region due natural calamities. In those cases, consultation among SMC, community leader, Key Informant, DPHE, DPE officials and LGED engineer regarding the sub-project site shifting have been carried-out.

8.0 Response on COVID- 19:

Though the COVID- 19 is not severe during the reporting period, the LGED instruct the Engineers and staff to follow the rules of COVID 19 and the protection measures as well. The following preventive measures were taken during the reporting period (Jan.-June'2023) to protect the pandemic situation of covid-19:

Hand Hygiene:

Men use hand when they work something or anything, and hands are often used to grab or touch other organ of human body. Even to eat something men use their hands. So, to disinfect the hands contractors supplied hand sanitizer for construction workers and supervisors. Construction workers and supervisors are washing their hand with soap before starting any works or eating something.

Respiratory hygiene:

Corona virus may transmit through respiration and it is one of the main causes to spread covid-19. As a protection measure construction workers used face musk supplied from contractors when they were in construction works of school building and other institutions.

Covid-19 Awareness & Risk Management:

Contractors were instructed to aware the construction workers on Covid-19 risks and aware the workers to get rid of it. LGED supervising staffs are providing awareness briefing on Covid-19 crisis and safety measures to contractors supervising staff and workers during the inspection the sub-projects works.

Regular Environmental Cleaning:

To remove dirt, debris from used materials regular environmental cleaning was done at the regular basis in the construction sites. Disinfectants were used in indoor workplaces in the daily basis. In outdoor workplaces disinfectants were sprayed at the regular basis.

Physical Distancing:

Physical distancing is also one of the main causes to transmit covid-19. If men contact with others corona virus may transmit. From the point of view construction workers and supervisors have been maintaining physical distances.

9.0 Grievance Redress Mechanism (GRM) during the reporting period:

During the reporting period, LGED received only 37 general and major complains. Among them 03 complains are solved with the intervention of field level officials and SMC. And 25 complains are under investigation. Grave complains are lodged for twenty four schools. These are in investigation level. LGED already instructed the concerned Upazila Engineers to take proper measures and report accordingly.

Other than, LGED scans the daily newspapers regularly through a team, if any adverse news publishes related to the PEDP4; LGED starts inquiry and takes onward action based on the inquiry report. In addition to these, 20 complains are found from the daily newspapers, these are also under investigation. LGED does not use any specified form for this purposes. The Grievance Redress Mechanism (GRM) enhances social accountability and facilitating the program/project to be responsive to its beneficiary communities and/or stakeholders. It is noted that PEDP4 has no provision for land acquisition; subject to availability of existing land, additional classrooms and other infrastructures are being built. Hence, the issue of resettlement does not arise under PEDP4. It can be mentioned also that LGED starts its activities after receiving approved list of schools for construction of additional rooms from MoPME through DPE. Having list in hand, LGED checks land documents to verify on spot and avoid land related problems at the master plan preparation stage.

Moreover, PEDP4 requires preparing a master plan for each such-project school and institution through a Master Plan Preparation Committee (MPPC) which is formed of headmaster of the school, SMC representative, representatives from the stakeholders such as Public Health Engineering and DPE, local representatives (UP members male or female) and members of existing and neighbouring community. These members of the committee participate in survey and site selection for each new building construction. Also stakeholders are sought for their presence during layout of the new building. In hilly areas where ethnic minority reside, they become part of the MPPC committee and deal with traditional conflict and resolution if the need arises. Local community consultation ensures that their interests are secured for the construction of the new building in their locality.

Table-9 Grievance Redress Mechanism (GRM) as general during the reporting period:

Complaint or affected person	Location and date of Complaint	Description of Grievance/Complaint	Timeline	Complaint Status	Time-bound Corrective Actions taken by PMU
PTI Instructor	Rajshahi and Sylhet Date:19.03.2023	Lifts are not suitable for using, Complaint didn't come yet from field level	26 th April, 2023	Complied	02
Headmaster	Fenchuganj, Sylhet Date: 16.04.2023	Contractor is engaged with the irregularities, and later found guilty to recruitments process, the contractors were kept in black list, and later Ministry was known the incident.	5 th June, 2023	Complied	00
Local people	Sunamgonj Date: 06.03.2023	Allegation for tendering of workshop, from SE, it is known that the allegation is baseless.	16 th April, 2023	Complied	01
Local people	Taltoli, Borguna Date: 03.04.2023	Excess bill was provided to the workers. SE was enquiring the allegation, and it is still unresolved	15 th June, 2023	Complied	00
SMC	Hatia, Noakhali Date: 04.04.2023	Rod was not set up according to the schedule, it is still in hanging	5 th June, 2023	Complied	00
Local people	Vanga, Faridpur Date: 07.03.2023	With the allegation of local people construction works of Mia Para GPS were holding unless the case was withdrawn. SE (R) was responsible to investigate the allegation. The allegation was baseless	6 th April, 2023	Complied	00

Table-10 Grievance Redress Mechanism (GRM) as major during the reporting period:

Complaint or affected	Location and date of	Description of Grievance/Complaint	Timeline	Complaint Status	Time-bound Corrective
person	Complaint				Actions taken by PMU
Headmaster	Chirirbandar,	Without constructing boundary	8 th May,	Complied	0
	Dinajpur	wall, bills were raised up. After	2023		
	Date:14.03.23	examining the allegation it was			
		found that the construction			
		works had been completed			
SMC	Badargonj,	It was complained that footing	13 th June,	Complied	0
	Rangpur	was less than the standard	2023		
	Date:	structure. Examination is going			
	10.05.23	on under divisional phase.			
SMC	Fakirhat,	The contractors were stopped the	22 June,	Complied	0
	Bagerhat	construction works for a long	2023		
	Date:	time. After examining the			
	05.06.23	allegation the contractor was			
		debarred.			

Moreover, twenty school building problems have been highlighted so far regarding the infrastructure problems of primary schools and published in various newspapers from January to June, 2023.

In light of the said report, letters and newspaper reports have been sent from LGED (PEDP4) to the concerned Upazila Engineers in respect of twenty schools, for taking appropriate actions.

In this regard, the Upazila Engineers have been instructed to verify the current condition of the school and send a full report of what needs to be done to the LGED (PEDP4) headquarters. Further action will be taken in the light of the Upazila Engineer's report.

10.0 Environmental Monitoring

10.1 Construction phase Monitoring

Environmental monitoring of small scale constructions of the additional class rooms and other infrastructure is very important to identify the site specific potential environmental impacts and its mitigation and enhancement measures in the proposed existing school during the construction phase. In general, the following indicators and the related mitigation measures were monitored during construction stage: (i) Sanitary toilets and pure drinking water both for male and female workers; (ii) First aid box and safety of workers; (iii) stacking of materials at safe place, (iv) surface water pollution; (v) dust and noise pollution; (vi) child labor, vii) engagement of local people; viii) drainage network, (ix) cutting of trees etc. A web-based Primary Education Infrastructure Management System (PEIMS) of PEDP4 has been developed to record the environmental mitigation measures and monitoring data along with the infrastructure development

management information. The construction phase monitoring was conducted using a check list and a result of monitoring of 6024 schools is presented below. It is observed that most of the parameters were followed and complied substantially but till the reporting period some of the Upazila Engineers did not fill the check list and uploaded in the PEIMS software. Therefore, LGED has already instructed the concerned Upazila Engineers to fill up the check list properly and uploaded in the PEIMS software without flop and also UEs are asked to take appropriate measures so that contractors should comply the environmental safeguard issues properly.

Environmental Specialist of PEDP4, LGED monitors the environmental impact and EMP in every month in the field level school with checklists whether the activities are going on environment friendly or not, during the construction period. Through the visit he had a meeting with the Upazila Engineer, contractor, headmaster of the relevant school and members of the SMC committee. Different types of environmental and social impacts, EMP, labor issues, hygiene, and sanitation of the students and teachers are discussed elaborately.

Table: Summary of the monitoring visits of Environmental Specialist during the reporting period.

Table 11: Visit the subprojects of PEDP 4 during the reporting period

Sl.No.	Name of the subprojects	District	Upazila	Date of Monitoring
1.	Khashnaogaon	Naogaon	Naogaon	21.05.23
	Government Primary		Sadar	
	School			
2.	Anandanagar Government	Naogaon	Naogaon	21.05.23
	Primary School		Sadar	
3.	Erulia Government Primary	Bogura	Bogura	23.05.23
	School		Sadar	
4.	Thanthania Government	Bogura	Bogura	23.05.23
	Primary School		Sadar	
5.	A.Kader Chowdhury	Barishal	Barishal	19.06.23
	Government Primary School		Sadar	
6.	Bishasherhat Government	Barishal	Barishal	19.06.23
	Primary School		Sadar	
7.	Dhakhin Sakokhati	Barishal	Gouranadi	20.06.23
	Government Primary School			
8.	No. 4 Dhakaail Government	Barishal	Gouranadi	20.06.23
	Primary School			



Picture: Environmental Specialist was inspecting construction works at Erulia GPS in Bogra Sadar, Bogra.



Picture: Environmental Specialist and Upazila Engineer jointly inspecting construction works at Thanthania GPS in Bogra Sadar, Bogra.

Table 12: Result of construction phase monitoring

Sl. No.	Categories of potential environmental issues	Followed (PEIMS monitoring software and physical verification)	Not followed	Remarks/ Possible mitigation measures with specific time
1.	The contractor will stack materials systematically in a safe place so that pedestrians do not fall in troubles/accident and do not occupy any classroom.	5919	105	UEs have been asked to take measures for stacking materials properly. Duration/Month: September,2023
2.	The contractor will ensure supply of pure drinking water to the workers during the time of construction.	5880	144	In many cases water are collected from nearby sources by the contractors for construction work. UEs have been asked to install tube well. Duration/Month: September,2023
3.	The contractor will keep a first aid box at the site for any accident.	5911	113	Upazila Engineers have been asked to ensure keeping the first aid box at the work sites immediately. Duration/Month: November,2023
4.	The contractor will take necessary precaution for the safety of his workers and also for the safety of the pedestrians.	5901	123	UEs have been instructed to take proper action immediately Duration/Month: November,2023
5.	The contractor will not cut or damage any tree in and around the project area without the permission of the supervising authority.	5923	101	UEs have been instructed not to cut tree without observing existing rules and procedures. Duration/Month: August,2023
	The contractor will erect sufficient number of temporary sanitary toilets and shelter both for male and female workers at the site with proper sanitation system.	5786	238	Upazila Engineers (UEs) have been instructed to erect required sanitary toilets at work site through concerned contractors and fill up the monitoring check list in due course. Duration/Month: October,2023
6.	The contractor will not engage any child labor in the work.	6024	-	UEs have been instructed to take appropriate measures not to engage child labor
7.	The contractor will not pollute any nearby source of surface water by any of their activities.	5957	67	UEs have been instructed to take proper action through contractor not to pollute surface water. Duration/Month: October, 2023
8.	The contractor will try to minimize	5903	121	UEs have been advised to cast the major items in the weekend.

Sl. No.	Categories of potential environmental issues	Followed (PEIMS monitoring software and physical verification)	Not followed	Remarks/ Possible mitigation measures with specific time
	sound pollution. If such sound producing activity becomes			Duration/Month: November,2023
	unavoidable, it should be matched with			
	the local condition so that the adverse impact can be kept minimal.			
9.	The contractor will not hamper the			UEs have been asked to take
	drainage network of the area by any of			proper measure to solve
	their activity.	5986	38	drainage congestion if any without fail.
				Duration/Month:
				September,2023

11. LGED's Program Implementation, Supervision and Monitoring

11.1. Implementation, Supervision & Monitoring

- 11.1.1 Regular supervision, monitoring and quality control of civil works is carried out by the Upazila and district level technical staff mainly Upazila Engineer, Upazila Assistant Engineer, Sub Assistant Engineer from Upazila and Senior Assistant Engineer from the district. Systematic supervision and monitoring is also done by the LGED Executive Engineers of the districts, 20 (twenty) Executive Engineers and Superintending Engineers (Region). Furthermore, 8 (eight) Additional Chief Engineers (Division) along with other official also provide support to field officials for smooth implementation of program activities.
- 11.1.2 In addition to, 20 (twenty) Inspection Teams are formed at the HQ headed by one Senior Engineer. In addition to their primary duties, these teams inspect PEDP4 activities at the field level and report with observations and recommendations to Chief Engineer.
- 11.1.3 Moreover, close monitoring is being carried out by the PEIMU and the Monitoring Unit of LGED, and environmental impacts by the Environmental Specialist of PEDP4. These Units have officials specifically designated with the particular task of monitoring news reports published in the National dailies and put forward their reports before the authority for taking necessary actions.

11.2 Programme Implementation Monitoring Software

Primary Education Infrastructure Management Unit (PEIMU) is currently using a web-based (database) system called PEIMS for monitoring and reporting on Programme activities. This is handy and accessible by the field staff for data entry and update on progress and status of Programme activities.

12. Consultation Meeting:

The first consultation meeting of each sub-project is being held during the preparation of master plan (a kind of site plan) which is mandatory for each sub-project. Master Plan Preparation Committee (MPPC) is responsible to prepare the plan at the field in line with the Plan and Planning Guidelines of PEDP4. For ensuring conformity and quality, PEIMU of LGED prepared a brief guidance note in Bengali in line with the Plan and Planning Guidelines, and circulated it with a sample master plan for using by the field staff. The master plans are being prepared through active participation and consultation of headmaster of concerned school, SMC representative, Upazila/Thana Education Officer, DPHE engineers and LGED Upazila Engineer and local communities.

The second consultation meeting is being held before layout of the sub-project in presence of LGED representative (Region), Upazila Engineer & his technically staff, SMC, teachers and local elite. As the volume of sub project under reporting is more than 4000 which is huge. Currently, LGED does not maintain the required information at the PEIMU level; therefore, consultation meetings mechanisms have been elaborated above. Moreover, Environment Specialist of PEDP4 joined in some consultation meetings in this period those are mentioned below:

Table-13: Consultation Meetings conducted during January-June, 2023

Package	Date of	Type of	Venue	No. of Participants		
	Consultation	Consultation		Male	Female	Total
1.	21.05.23	Physical	Naogaon Sadar	8	1	9
			Upazila			
2.	21.05.23	Physical	Naogaon Sadar	11	8	19
			Upazila			
3.	23.05.23	Physical	Bogura Sadar	6	3	9
			Upazila			
4.	23.05.23	Physical	Bogura Sadar	5	5	10
			Upazila			
5.	19.06.23	Physical	Barishal Sadar	7	10	17
			Upazila			
6.	19.06.23	Physical	Barishal Sadar	8	7	15
			Upazila			
7.	20.06.23	Physical	Gouronadi	10	1	11
			Sadar Upazila			
8.	20.06.23	Physical	Gouronadi	7	8	15
			Sadar Upazila			

Some pictures of consultation and SMC meetings in the field level are given below:



A consultation meeting was held Bogra Sadar Upazila at Bogura district



SMC meeting was held at Thanthania Gov. primary school at Bogura Sadar, Bogura



Participants in a consultation meeting at Khasnaogaon GPS in Naogaon district.



A consultation meeting was held Bishasherhat GPS at Barishal Sadar Upazila at Barishal



SMC meeting was held at Dhakail Gov. primary school at Gournadi Upazila, Barishal

Table 14: Summary and Updated information on the EMR of Sub-project

	Pr	ogress Reporting	g	
Monitoring Criteria	(Jan-June., 2023)/ (Current Report-VIII)	Previous report (July, 2018-Dec., 2022)	Cumulative Progress	Status/Remarks
No. of Contract Awarded including EMP	708	6135	6843	Different stage of construction
No. of Contract that Incorporated Environmental Clauses	635	6125	6760	Environmental Clauses have been incorporated in all contracts.
No. of trees cut down	64	1478	1542	No trees were cut down in the reporting period
No. of trees planted	2629	5238	7867	All trees are in good conditions
Budget used for OHS	-	-	-	
No. of School for which water logging problem solved.	30	71	101	Water drain out through plastic pipes

Table 15: Details of tree planation as of June, 2023

Tree plantation plan (TPP) prepared (Yes/No)	No. of trees planned to cut	Trees planned to replant as per TPP	Trees removed (as of June, 2023)	Trees planted (as of June, 2023)	Types of species planted	Plantation completion status	Survival status	Remarks
Yes	64	2629	1542	7867	Mango, cherry, elephant apple, royal poinciana, Jackfruit, Litchi, wood apple, Black berry, Citrus, Guava, Neem, Banyan tree, Arjun, Haritoki, Bohera, Amla, Chandan, Olive, Alamond, Gamari, Chaatim, Shal, Shegun	Completed	Good	

13. Measures undertaken to implement the EMF:

LGED has taken various measures to implement the EMF so that the environmental issues as are properly addressed in implementation of PEDP4 development activities. Following are the measures:

LGED issued several instructions to district Executive Engineer and Upazila Engineer for ensuring the proper implementation of EMF & SSMF so that environmental safeguard issues and social safeguard issues are being addressed in implementing the sub-projects.

In consideration of increasing workload of implementation of the EMF, LGED engaged a full-time Environmental Specialist from September'2018. The Environmental Specialist is responsible for implementation of the EMF and its provisions, including environmental monitoring, compliance checking, facilitation, coordination and ensuring dissemination, orientations and capacity building activities.

In the reporting period the Environmental Specialist visited several GPS in different districts and discussed several safeguards issues of social and environmental development with the field level official including XEN and Upazila Engineers.

The following staffs of LGED are engaged to implement the project activities of PEDP4:

Table 16: Environment and Social Safeguard personnel in PEDP-4

Name	Organization and Designation	Email Address	Contact no.	Remarks
Md. Maksalin	LGED, Executive Engineer	maksalin2267@yahoo.com	01715086363	
Md. Mahababur Rahman	LGED, Executive Engineer		01711314769	
Dr M Jahangir Alam (Rustom)	LGED, Individual Consultant (Environmental Specialist)	jarustom.phd@gmail.com	01715917537	Focal/point person
Md. Helal Uddin	LGED, System Analyst	helal1565gmail.com	01711901098	

Other than 1128 contractors and 498 Upazila Engineers are also engaged to ensure construction of sustainable school building and to safeguard environmental and social issues.

14. Conclusions:

It is a worthy sign that all of the sub-projects of the program are conducted in an environment friendly and hygienic way. All the sub-projects fell in category "Orange" and cost of EMP are already included in BoQ, and the contractors are implementing accordingly. Moreover, a substantial number of sub-projects are being extended horizontally and vertically and most of them are located in existing premises. Therefore, concern for land use, earth works for foundation and top soil loss are minimal. In addition of that, none of the sub-projects are located in any ecologically protected area and no possibility of negative impact on forest and wetland in the project area was also ensured. The compliance monitoring of the environmental safeguard issues during construction were conducted using a monitoring check list and observed substantially complied. Furthermore, contractors and workers maintained hand hygiene, respiratory hygiene and physical distancing properly during construction of sub-projects to address the Covid-19 situation. Additionally, many positive impacts and environment enhancement are being generated due to sub-projects implementation. A substantial number of employments have been generated during the construction phase and there will be a sufficient numbers of employments during the operation phase of sub-projects. The sub-projects are also fulfilled the demands of construction additional rooms of the institutions for students, teachers and officials in the fourth stage of PEDP. The local and indigenous people are also getting opportunities in construction activities resulting employment generation in the project areas.

15. Recommendations:

The following time bound corrective measures were carried out in the reporting period. In the present report (Jan.-July. 2023,), these are action plan for the reporting period (July-Dec., 2023).

Table-17 Time bound Corrective Action Plan (CAP)

GI.		bound Corrective Action 1		
Sl.no	Environmental Issues	Possible Mitigation Measures	Time to achieve	Responsibility
1.	Waste	Garbage will be collected	August, 2023	Contractor
	Management	and put in garbage bin		
2.	Reduce	Work related travel will be	September, 2023	Contractor
	work-related	reduced based on work	~ · · · · · · · · · · · · · · · · · · ·	
	travels.	load.		
3.	Dust Control	Water will be sprinkled as	September, 2023	Contractor
		and when necessary		
4.	Air Pollution	Machineries will be set up	August, 2023	Contractor
		in bland spaces and water		
		to be sprinkled as and		
		when necessary		
5.	Water Pollution	Contractor will supply pure	August, 2023	Contractor
		water and flood water	,	
		drained out		
6.	Hygiene and	Contractor will employ	August, 2023	Contractor
	proper sanitation	labor for maintaining		
		hygiene and proper		
		sanitation		
7.	Toilet	Male and female toilet to be	October, 2023	Contractor
		separated	0000001, 2020	
8.	Noise	Change of working	November, 2023	Contractor
	Pollution	procedure and timing	,	
9.	Drinking water	Contractor will ensure	October, 2023	Contractor
		supply of pure drinking	,	
		water		
10	Health safety	First Aid Box will be	October, 2023	Contractor
		placed in the working	,	
		places		
11	Personal	Contractor will supply	September, 2023	Contractor
	protection	personal protection	r · · · · · · · · · · · · · · · · · · ·	
	equipment	equipment		
12	Plantation	Plantation will be done	September, 2023	SMC and Headmaster
		where necessary.	~ · F · · · · · · · · · · · · · · · · ·	
13	Low land area	Low land area will be	November, 2023	UE and Contractor
		covered by collecting soil		
		from uncultivated area		
14	Char area	Char designed school	October, 2023	UE and Contractor
		building will be set up in	2 200001, 2020	
		Char area		
15	Hilly area	School building will be set	October, 2023	UE and Contractor
		up considering local	0010001, 2023	22 una Contractor
		ap considering local		

Sl.no	Environmental Issues	Possible Mitigation Measures	Time to achieve	Responsibility
		materials		
16.	Child labor	Child labor would not be employed	October, 2023	Contractor
17.	Covid/ pandemic situation	Hand sanitizer, face musk, maintaining distance will be retained in working hour	September, 2023	Contractor
18.	Temperature Screening of construction supervisor and workers	Thermometer will be kept at work site for screening the temperature of construction supervisor and workers	September, 2023	Contractor
19.	Raise Covid-19 related awareness	Awareness of work supervisor and workers will be raised.	November, 2023	Contractor

16. Action plan for skill development for the period of (July-December, 2023)

16.1 Side by side the regular environmental activities of PEDP4, some additional activities will be done for the next reporting period for the skill development in environmental sectors those are included in the following action plan:

Table 18: Skill development plan during construction phase monitoring on the environmental safeguard issues

Sl.no.	Issue	Recommended action/ subject	No/Batch	Venue	Time to achieve
1	Environment	Environmental screening,	25 UE	HQ	October, 2023
	Development	plantation, soil-air-water			
	Training for UE	pollution, EMF, SSMF			
	(Upazila				
	Engineers)				
2	Environment	Environmental screening,	25 UE	HQ	November,
	Development	plantation, soil-air-water			2023
	Training for UE	pollution, EMF, SSMF			
	(Upazila Engineers				
3	Meeting for	Progress of ongoing	01 meeting	HQ	July-December,
	environmental	activities for environment	for each		2023
	management team	and social safeguard	month		
		issues			

16.2 CAP Construction phase monitoring on the environmental safeguard issues

Table 19: Result of construction phase monitoring on the environmental safeguard issues

Sl. No.	Categories of potential environmental issues	Followed (PEIMS monitoring software and physical verification)	Not followed	Remarks/ Possible mitigation measures	Time to achieve	Achieved/ Not- achieved
1.	The contractor will erect sufficient number of temporary sanitary toilets and shelter both for male and female workers at the site with proper sanitation system.	4158	165	Upazila Engineers (UEs) have been instructed to erect required sanitary toilets at work site through concerned contractors and fill up the monitoring check list in due course.	May, 2023	Partially achieved
2.	The contractor will ensure supply of pure drinking water to the workers during the time of construction.	4186	137	In many cases water are collected from nearby sources by the contractors for construction work. UEs have been asked to install tube well.	January, 2023	Achieved
3.	The contractor will keep a first aid box at the site for any accident.	4219	104	Upazila Engineers have been asked to ensure keeping the first aid box at the work sites immediately.	February, 2023	Achieved
4.	The contractor will take necessary precaution for the safety of his workers and also for the safety of the pedestrians.	4175	148	UEs have been instructed to take proper action immediately	February, 2023	Achieved
5.	The contractor will stack materials systematically in a safe place so that pedestrians do not fall in troubles/ accident and do not occupy any classroom.	4119	204	UEs have been asked to take measures for stacking materials properly.	February, 2023	Achieved
6.	The contractor will not engage any child labor in the work.	4323	-	UEs have been instructed to take appropriate measures not to engage child	January, 2023	Achieved

Sl. No.	Categories of potential environmental issues	Followed (PEIMS monitoring software and physical verification)	Not followed	Remarks/ Possible mitigation measures	Time to achieve	Achieved/ Not- achieved
				labor		
7.	The contractor will not pollute at nearby source of surface water be any of their activities.	1 *	206	UEs have been instructed to take proper action through contractor not to pollute surface water.	February, 2023	Achieved
8.	The contractor will try to minimize sound pollution. If such sound producing activity becomes unavoidable, it should be matched with the local condition so that the adverse impact can be kept minimal.	4102	221	UEs have been advised to cast the major items in the weekend.	March, 2023	Partially achieved
9.	The contractor will not hamper the drainage network of the area by any of their activity.	4128	195	UEs have been asked to take proper measure to solve drainage congestion if any without fail.	April ,2023	Achieved
10.	The contractor will not cut or damage any tree in and around the project area without the permission of the supervising authority.	4114	209	UEs have been instructed not to cut tree without observing existing rules and procedures.	March, 2023	Achieved

Appendices

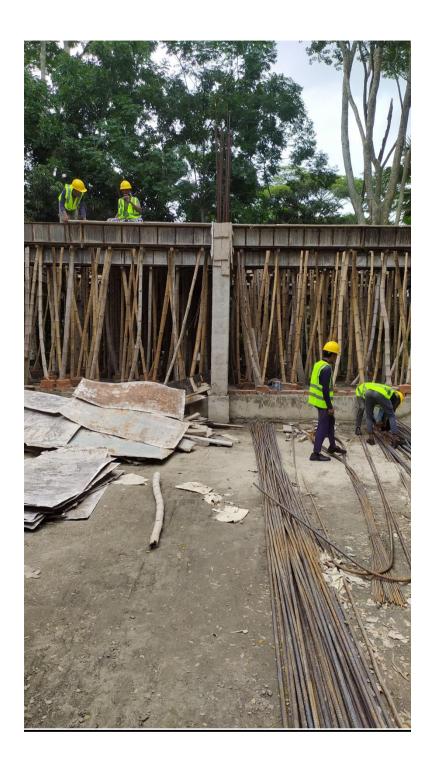
Appendix 1: Sub-project photographs of ongoing construction works
Photography of some construction works of Dhakail Govt. Primary School, Gournadi Upazila, Barishal district are given below:



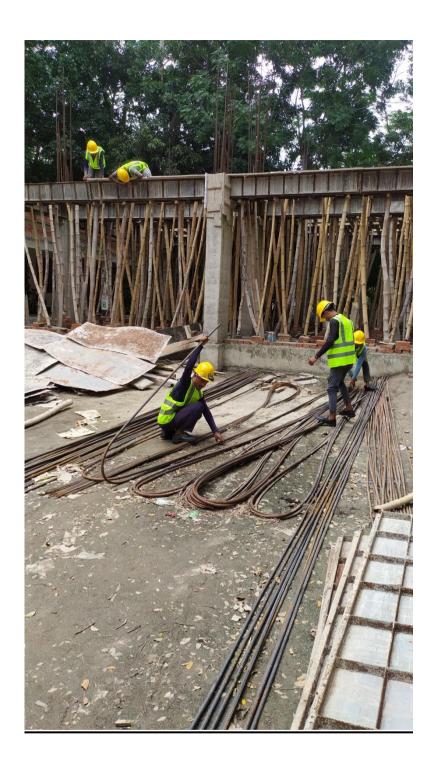












Appendix-2

Environment friendly construction works of A. Kader Chowdhury Govt. Primary School, Barishal Sadar, Barishal.

























Appendix 3: Filled up Environmental Screening Format

Appendix- 1.4:								
ENVIRONMENTAL SCREENING FOR EX	TENSION	IREC	ONSTRUCTION O	E SCHOOL & OFFICE BUILDINGS				
Project Name: Fourth Primary Education Development Program (PEDP4)								
Date of Screening: 02.04.2023								
Category of component based on enviro	Category of component based on environmental regulations of the Government of Bangladesh:							
Name of School : Are	alia	GR	5					
District : D	haka	,						
Upazila : D	ham		,					
Union : V.	W	sai						
Village : I)								
	PS							
Major Activities of the Subproject:	,, 0							
Screening Questions	Yes	No	Impact Scale (Minor-Major)	If "Yes", Please Provide Remark				
A. Subproject Siting Is								
Is the subproject area adjacent to or with any of the following environmentally sensitive areas?	in							
Protected Area		No						
Wetland		No						
Unstable slope, landslide, erosion area		No						
Disaster prone area (e.g. flood, cyclone, storm surge)		No						
B. Potential Environmental Impacts Wi the subproject Cause?	II							
Loss of agricultural/forest land?		No						
Negative effects on rare, (vulnerable), threatened, or endangered species of flora and/or fauna or their habitat?	a	No						
Negative effects on designated wetlands?		No						
Negative effects on locally important or valued ecosystems or vegetation?		NO						
Destruction of trees and vegetation?		No						
Insufficient drainage leading to water logging?		No		445				
Negative effects on surface water quality,		NO		0				
quantities or flow?								

Screening Questions	Yes	No	Impact Scale (Minor-Major)	If "Yes", Please Provide Remarks
Will there be any long-term impacts on local hydrology?		No		
Is adequate water supply to school available?	yes			
Increased noise due to day-to-day construction activities?		Ng		
Is there any dust/ air pollution during construction phase?		Ars 140	partially	precautionary measure will be taken
Will there be waste generation when construction works are going on?		No		
C. Other Potential Impacts Will the subproject cause?				
Degradation or disturbance of historical or culturally important sites (mosque, graveyards, monuments etc.)?		No		
Health risks to labors involved in activities?		No		
D. Potential Positive Environmental Impacts.				
Improved sanitation and personal hygiene.	yes	425		
Enhanced quality of school environment.	Yes			

(2)

Saleh Hesan Pramanik Upazila Engineer LGED Dhamrai Dhaka

Screening Questions	Yes	No	Impact Scale (Minor-Major)	
Employment generation for local people during construction period.	yes			
E. Environmental assessment category as per GOB				
What is the environment assessment category (DDR or IEE) as per ECA-97 and ECR 97 of GOB and ADB's SPS?	O prem	ge		As per DOE(ECA & ECR 97), Category Orange A & ADB, Category- C.
Will project enhance quality of education?	yes			
Score Total				

Notes Exact screening results will be site specific of subproject. ADB = Asian Development Bank, DDR = Due Diligence Report, ECA = Environmental Conservation Act, ECR = Environmental Conservation Rules, GOB = Government of Bangladesh, IEE = Initial Environmental Examination, SPS = Safeguard Policy Statement.

Type of Environmental Assessment to be undertaken:

amanix
le^
neer:
Engineer:
T. Varalia
Sale has a Engineer
juleh rasa Engineer Opazila GEO

APPENDIX -2: TEMPLATE FOR ENVIRONMENTAL MANAGEMENT PLAN (EMP)

Appendix-2.1: Mitigating/Enhancement Plan for Environmental Impacts (During Construction)

Environmental Issues/Impacts Requiring Mitigation	Mitigation/ Enhancement Measures	Implementation by	Supervision
Air pollution	taken	Contractor	
Water 11	()	1,	
Soil 11	11	()	

Note: The above Table Should be filled with the help of Table 2 of the EMF Report.

Appendix-2.2: Mitigating/Enhancement Plan for Environmental Impacts (During Operation)

Environmental Issues/Impacts Requiring Mitigation	Mitigation/ Enhancement Measures	Implementation by	Supervision
waste mogement	Taken	contrator	VE
3 and tation & Hygiene	Adopted	11	smc

Note: The above Table Should be filled with the help of Table 3 of the EMF Report.

Appendix-2.3: Environmental Monitoring Plan (During Construction Stage)

Environmental Issues/Impacts to be Monitored	Monitoring Indicators	Location	Frequency	Implementation by	Monitoring by
Dust	physial	Y'nı.	4-5/	noth SMC	UE
Water	11	aron	4-5/m	onth 1)	Upazilo Engino

Note. The above Table Should be filled with the help of Table 5 of the EMF Report.

Appendix-2.4: Environmental Monitoring Plan (During Operation Stage)

Environmental Issues/Impacts	Monitoring Indicators	Location	Frequency	Implementatio n by	Monitoring by
to be Monitored Water	Physical		3-4/m	outh Head moster	Upazila Engine
sationitation	, 11		5-6/11	17	1)
washroon				- FAE (32) (2)	AMS

Note: The above Table Should be filled with the help of Table 6 of the EMF Apply Pramarily Prama

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Dhamral.

Appendix- 1.4:				SCHOOL & OFFICE BUILDINGS
ENVIRONMENTAL SCREENING FOR EXTENS	ION/RI	ECON	ISTRUCTION OF	SCHOOL & OTTIOL
- Loudh Drimany Education De	evelop	ment	Program (PEDP	(4)
14 May ch 12				
Category of component based on environme	ntal re	gulati	ons of the Gove	rnment of Bangladesii.
Name of School : BMP	GP3			
Upazila : Dhar	nn	ai		
District : Dha Upazila : Dhar Union : Baisk	aKa	nde		
Village : 11				
Type of Subproject : GPS	5			
Major Activities of the Subproject:				
Screening Questions	Yes	No	Impact Scale (Minor-Major)	If "Yes", Please Provide Remark
A. Subproject Siting Is Is the subproject area adjacent to or within				
any of the following environmentally sensitive areas?				
Protected Area		No		
Wetland		NO		
Unstable slope, landslide, erosion area		No		
Disaster prone area (e.g. flood, cyclone, storm surge)		NO		
B. Potential Environmental Impacts Will the subproject Cause?				
Loss of agricultural/forest land?		No		
Negative effects on rare, (vulnerable),		No		
threatened, or endangered species of flora and/or fauna or their habitat?				
threatened, or endangered species of flora		No		
threatened, or endangered species of flora and/or fauna or their habitat?		No		
threatened, or endangered species of flora and/or fauna or their habitat? Negative effects on designated wetlands? Negative effects on locally important or				
threatened, or endangered species of flora and/or fauna or their habitat? Negative effects on designated wetlands? Negative effects on locally important or valued ecosystems or vegetation?		No		
threatened, or endangered species of flora and/or fauna or their habitat? Negative effects on designated wetlands? Negative effects on locally important or valued ecosystems or vegetation? Destruction of trees and vegetation? Insufficient drainage leading to water		No		

Screening Questions	Yes	No	(Minor-Major)	If "Yes", Please Provide Remarks
Will there be any long-term impacts on local hydrology?		No		
Is adequate water supply to school available?	yes			
Increased noise due to day-to-day construction activities?		Ид		
Is there any dust/ air pollution during construction phase?		No 715	partially	precautionary measure will be taken
Will there be waste generation when construction works are going on?		No		
C. Other Potential Impacts Will the subproject cause?				
Degradation or disturbance of historical or culturally important sites (mosque, graveyards, monuments etc.)?		No		
Health risks to labors involved in activities?		NO		
D. Potential Positive Environmental Impacts.				
Improved sanitation and personal hygiene.	yes	425		
Enhanced quality of school environment.	Yos			11.1

(2)

Saleh Hasan Pramanik Upazila Engineer LGED Dhamrai Dhaka

ESF | 3

Screening Questions	Yes	No	Impact Scale (Minor-Major)	If "Yes", Please Provide Remarks
Employment generation for local people during construction period.	yes			
E. Environmental assessment category as per GOB				
What is the environment assessment category (DDR or IEE) as per ECA-97 and ECR 97 of GOB and ADB's SPS?	0 par	ge		As per DOE(ECA & ECR 97), Category Orange A & ADB, Category- C.
Will project enhance quality of education?	425		222	
Score Total				

Notes Exact screening results will be site specific of subproject. ADB = Asian Development Bank, DDR = Due Diligence Report, ECA = Environmental Conservation Act, ECR = Environmental Conservation Rules, GOB = Government of Bangladesh, IEE = Initial Environmental Examination, SPS = Safeguard Policy Statement.

Type of Environmental Assessment to be undertaken:

Completed by:	Saleh	Hasan	Pramanik	-
Designation:	UPa zila	Engine	er_	
Filled and signe	ed by LGED/DPI	HE Assistant E	ngineer:	
Name:	Do			
Date:				
Reviewed and s	signed by LGED	/DPHE Execut	ive Engineer:	
Name:				
Date:				

(3)

Saleh Hasan Pramanik Upazila Engineer LGED Dhamrai Dhaka

APPENDIX -2: TEMPLATE FOR ENVIRONMENTAL MANAGEMENT PLAN (EMP)

Appendix-2.1: Mitigating/Enhancement Plan for Environmental Impacts (During Construction)

Environmental Issues/Impacts Requiring Mitigation	Mitigation/ Enhancement Measures	Implementation by	Supervision by
Ain pallution	taken	Consuctor	, VE
Water 11	taken	ч	UE
Wable management	taken	4.1	UE

Note: The above Table Should be filled with the help of Table 2 of the EMF Report.

Appendix-2.2: Mitigating/Enhancement Plan for Environmental Impacts (During Operation)

Environmental Issues/Impacts Requiring Mitigation	Mitigation/ Enhancement Measures	Implementation by	Supervision by
Waste management	Taken	Contractor	UE
Scinitation and ty	l i	11	VE
813			

Note: The above Table Should be filled with the help of Table 3 of the EMF Report.

Appendix-2.3: Environmental Monitoring Plan (During Construction Stage)

Environmental Issues/Impacts to be Monitored	Monitoring Indicators	Location	Frequency	Implementation by	Monitoring by
Dust pollubo	m Physical		2-3/m	onth contractor	VE
WAtor pollutor	physical		3-4/11	11	UE

Note: The above Table Should be filled with the help of Table 5 of the EMF Report.

Appendix-2.4: Environmental Monitoring Plan (During Operation Stage)

Environmental Issues/Impacts to be Monitored	Monitoring Indicators	Location	Frequency	Implementatio n by	Monitoring by
* Water pollus	on Physical		2-3/mon	Laborteonbac	UE
Santation &	U		3-4/200	. 11	VE

Note: The above Table Should be filled with the help of Table 6 of the EMF Report.

(4)

Saleh Hasap Pramanik Upazila Engineer LGED Dhamrai, Dhaka

A discussion meeting was held at Dhakail GPS of Gournadi Upazila under Barishal district

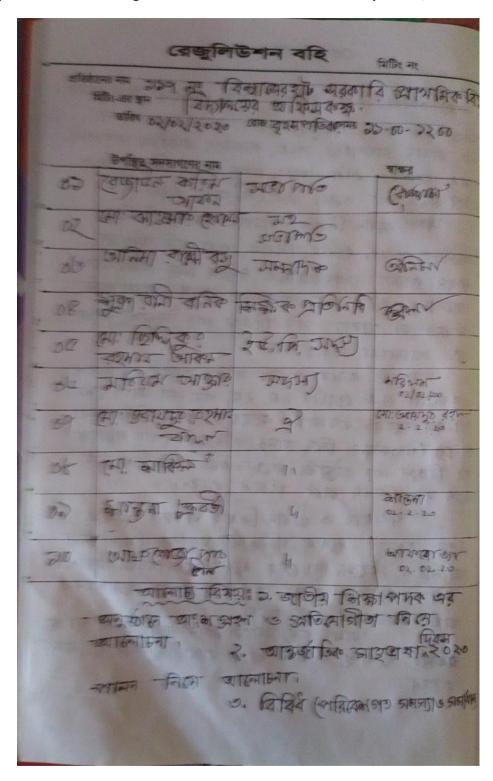
Appendix-5

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রেজুলিউশন বহি बिल्न, क्रिन्टिंग अपट तेंडा PTA अध्यादं द्यांग त्यांक सिंह क्ष 2016 किरान : MC 51180 202ms POTA अभाष 518न 65 एकान वक्षी । अने काननाग दिलाकुट अल्म मिल क्रियानएं वार्त वार्ता में में के क्रिया क्रिया क्रिया क्रिया विश्व व्यक्ति व्यक जिसक विव अस्त्री क्षिप्त क्षिणकि मणिय लामाने लामाना कल मिस्म मिरिशक बात प्राप्त कार्या है कार्य के के कि कारणा हमारे मान त्यारे वर्ष २०४१-२०१७ त्या त्या मिया मान हर कर लिकार कार्याके प्रमण विषय व्यवस्था निवास कार किन, न्या द्वाकि तार्थ व्यापा व्यापात व्यापात्मा व्यापा विषात ह अध्यान भावीं के किस विष्ठि व्यव करित कार के स्तित म्यावन । मंद्यान दिव्यक्ति अभटा य यह- अव्यक्ति व्यक्त अमन काश्नरतावाक्त खत्यात त्या क्षाकामुं प्राप्तापाक राजारी का का अधार रामारा राजारी वालाक किए विकार नाम राजन खाना है शिक्षान महमान जाना नि ह्याः लाकित अक्सानाद किएम अस्ताद्ध वार-व्यक्ति मिर्नाहित केल रूप 1 विमानएपर छिन वन किन्द्रहरू धरी एपक जनमन्त्र क्ष्यी कि लग्निय उद्याप कि तिर्धेय स्परमी पित्र प्रकृति स्व इस् । वर्षाय वाष्ट्रव्यक्षित्र भूयो कियर वैकेक मध्यो डिस्मिन तहाराज्य शिव्हान सक्तान, मेंकण उक्त महिश्व एक्षं बढ्यम् (त्रिक्रियरक्रिक क्षेत्र क्ष्यें भ्रम्म हिर्म मामिका प्राह्म विसमा द्यारिया विसम अर विस्थानन िरामिक अध्याप्त अपसे वित्या प्रमाण के इस इस किसी जाकित राधारुमा वीम विभिन्न करण प्रिक्टिश मार्थ माण्य वार्त उपमित्य । यद्वेष त्यांत्र व्याविभव्यि वर्षाम्यस्य रिकार लामान लामान कार्यात कार्यात कार्यात कार्यात कार्यात कार्य

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Appendix-6: SMC meeting was held at Bishasherhat Gov. Primary School, Barishal Sadar, Barishal



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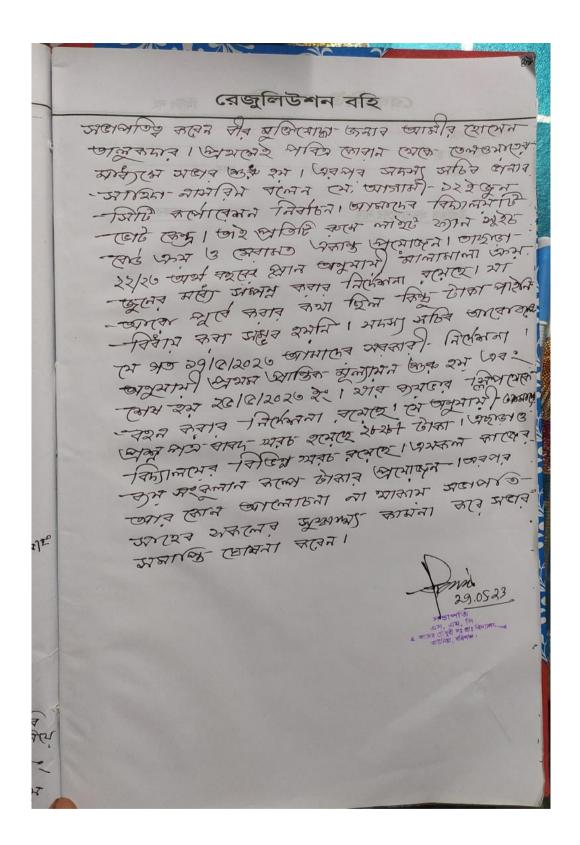
नमा ०२/०२/२०२० द्राज क्रमलि अर् विमानत्त्र व्यक्तिक्ष अर्क दल्ती सलाव वास्त्रहत क्रांट्र क्रिंस व्यक्त, सलाम विश्ल सलाव क्रम्स्त रिकाट्र क्रिंस व्यक्त, सलाम विश्ल सलाव क्रम्स्त स्राह्म क्रिंस व्यक्त, सलाम विश्ल सलाव क्रम्स्त्र क्रांट्र क्रिंस व्यक्त, सलाम विश्ल सलाव क्रम्स्त्र क्रांट्र क्रिंस व्यक्ति क्रिक्न प्यवः सलावि क्रम्स्त्र

अरीन भिक्रक, उत्तर्य जिम्मा तिन वसू, जहिं क्रिएं स्रभार्क स्कल्वं साध्य स्नामा – विनिम्न करून, किटाख जान क्रीड़ं टाला व्हाट समान करा साम क्र निस्न विभाग जालाम्न कर्टन, करा त्याम स्निये मा भारामिन जीत्नामम् यादमाव जार्याम उत्तर्मः

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Appendix-7: A discussion meeting with SMC, contractors, Upazila Engineer, and teachers with the Environmental Specialist in Barishal

	e Environmental Specialist in		
विद्यार	अवशारी अवकावि श्राश्रीयक किए		
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Appendix 8: Checklist for environmental and social activities during construction period

tivities/ items followed/non- lowed //Dust pollution ater pollution und pollution	If not-followed, the reasons	Date: 19.06.2 Responsible persons Confector	Remarks
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