

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-IV

(July- December, 2020)

TABLE OF CONTENTS

Abbreviations and Acronyms		Page no.
	Executive Summary	5
1.0	Introduction	7
1.1	Background	7
1.2	PEDP4 Objectives	7
1.3	PEDP4 Components	7
1.4	Type of Sub-project	7
1.5	Purpose of the Environmental Monitoring Report	9
2.0	Implication of Policies and Compliance of Policies	9
3.0	Environmental Management Processes of PEDP4	10
3.1	Categorization of Sub-projects	10
4.0	The Sub-projects	11
4.1	Sub-project Description	11
4.2	Scope of Semi-annual Environmental Monitoring Report (SEMR)	12
5.0	Environmental Screening of sub-project	13
6.0	Environment Management Plan (EMP)	17
6.1	Existing impact on environment	18
6.2	Mitigation/Benefit Enhancement measures	19
7.0	Positive Impacts & Benefit Enhancement Measures	21
7.1	Site/Project Alternatives	21
7.2	Benefit Enhancement Measures	21
7.3	Site/Project Alternatives	21
8.0	Training/Capacity Building	22
9.0	Response on COVID-19	23
10.0	Grievance Redress Mechanism	24
11.0	Environmental Monitoring	25
11.1	Construction phase Monitoring	25
12.0	Measures undertaken to implement the EMF	28
13.0	Conclusion	28
	Appendices	29

List of Tables

- Table 1: Types of Sub-projects and intervention under PEDP4
- Table 2: Categorization of Sub-projects
- Table 3: Cumulative physical status of Sub-projects
- Table 4: School (sub-project) based on construction type
- Table-5-: School (sub-project) based on location (area)
- Table 6: Proposed Mitigation/ Benefit enhancement Measures
- Table-7: Result of construction phase monitoring
- Table 8: Summary and updated information on the SEMR of Sub-projects

APPENDIX

Appendix 1: Photograph on zoom training.

Appendix 2: Sub- project photograph of ongoing works.

Appendix 3: Filled up Environmental Screening Format

Abbreviations and Acronyms

ADB	Asian Development Bank
SEMR	Semi-annual Environmental Monitoring Report
DPE	Directorate of Primary Education
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EMF	Environmental Management Framework
GOB	Government of Bangladesh
GPS	Government Primary School
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	Upazilla Engineer
WB	The World Bank
EU	European Union
JICA	Japan International Cooperation Agency
UNICEF	United Nation International Children Emergency Fund

Executive Summary:

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 intuition of Directorate of Primary Education (DPE).The Ministry of Primary and Mass Education (MOPME) is responsible for executing the program .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) is the partner implementing agencies for need-based infrastructure development and major maintenance works.

The PEDP4 has initiated its activities to provide quality primary education which emphasize appropriate infrastructure development and maintenance to ensure child friendly environment and its effective utilisation to achieve the desired results. 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.

Cumulative status of Sub-projects:

Sl.No.	Type of Sub-project	No. of Sub-project(July-Dec.,2020)	Cumulative No. of Sub-project(July, 2018-Dec.,2020)	Type of Sub-project	Does EMP cost included in BOQ	Work Status/ % of completion
1	Additional rooms of School	2259	4830	C	EMP cost is included in BOQ	Tendering and early stage of construction
2	Construction of DD Office	-	05	C	EMP cost is included in BOQ	Do
3	Expansion of DPE Office	05	22	C	EMP cost is included in BOQ	Do
4	Expansion of PTI	15	37	C	EMP cost is included in BOQ	Do
	Total	2279	4894			

The table presented above shows the cumulative status of sub-projects on environmental management of PEDP4. The table indicates that LGED has taken a total 2279 sub-projects for construction and expansion of additional rooms including other institutional infrastructures such as PTI, DD and DPEO office during the reporting period (July'20- December'20). This SEMR has been prepared based on 2279 sub-

projects consisting 2259(99%) schools and 20(01%) other institutional infrastructures. It can be seen in the table presented above that all the sub-projects are in category "C" and cost of EMP implementation already included in BOQ and mostly are at tendering and early stage of construction.

It can be seen from the screening result that most of the sub-projects were being extended vertically and located in existing premises. Therefore, concern for 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 agricultural land was also reported.

Moreover, many positive impacts and environment enhancement are being generated due to sub-projects implementation. It is likely that there will be employment generation during the construction phase and as well as in the operation phase of project. The sub-projects will meet the demand of the need of schools/class rooms of the respective areas. The local people will get opportunities in construction activities resulting employment generation.

On the whole, monitoring the mitigation measures of environmental impacts are very important during sub-projects construction phase. But, due to COVID-19, overall physical progress of PEDP4 development activities has been seriously hampered resulted unsatisfactory physical progress than expected in the reporting period (July-December'2020). The compliance monitoring of the environmental safeguard issues during construction were conducted using a monitoring check list and observed substantially complied. Due to COVID-19, contractors and workers were advised to maintain hand hygiene, respiratory hygiene and physical distancing properly during construction of sub-projects.

1. INTRODUCTION

1.1. Background

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 intuition 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 whole country including geographically challenged areas like hilly terrain, waterlogged *haor*, and flood prone and coastal areas. The PEDP4 is supporting quality primary education through sustainable and appropriate infrastructure development, and maintenance to ensure child friendly environment and its effective utilisation to achieve the desired results.

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. The Local Government Engineering Department (LGED) and the Department of Public Health Engineering (DPHE) is the partner implementing agency for need-based infrastructure development and major maintenance.

1.2. PEDP4 Objectives:

Overall objective of the PEDP4 is to provide quality primary education for all children 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
- ii. Equitable Access and 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 1: Type of sub-projects and intervention under PEDP4

Category	Interventions
1. Need Based School Infrastructure	<ul style="list-style-type: none"> 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 e, Cox's Bazar Leadership Training Centre, PTIs & URCs	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> 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; and k. Generator room.

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 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 safeguard measures of the Sub-projects.

2. Implication of policies 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 sector 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 B' category in ECR'97.

However, 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 B' 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 contractor 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 policies 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.

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-project.

Table-5 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-2:- Categorization of Sub-projects

NO.	Types/ Interventions of Sub-projects (Details of interventions are given in chapter 3.2)	ADB Category	Environmental Documentation Required
1	Maintenance of school	C	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.	C	Require environmental screening. EMP is required as these subprojects are likely to have minimal environmental impacts.

NO.	Types/ Interventions of Sub-projects (Details of interventions are given in chapter 3.2)	ADB Category	Environmental Documentation Required
3	Construction of new school and Office buildings more than 6 storied (if any).	B	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, teacher room, head teacher room and other infrastructures. Under PEDP4, 40000 additional rooms for class & teacher and 10500 rooms for head teacher 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 construction/expansion 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 remain 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 assessment of the foundation of the existing building is assessed to find out the feasibility of a vertical extension. In case of horizontal extension, the placement of the new infrastructure is 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.

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

In PEDP4, forty thousand additional rooms and ten thousand five hundred head teacher rooms including others institutional infrastructures to be constructed under need based infrastructure sub- component.

Cumulative status of Sub-projects:

Sl. No.	Type of Sub-project	No. of Sub-project(July-Dec.,2020)	Cumulative No. of Sub-project(July, 2018-Dec.,2020)	Type of Sub-project	Does EMP cost included in BOQ	Work Status/ % of completion
1	Additional rooms of School	2259	4830	C	EMP cost is included in BOQ	Tendering and early stage of construction
2	Construction of DD Office	-	05	C	EMP cost is included in BOQ	Do
3	Expansion of DPE Office	05	22	C	EMP cost is included in BOQ	Do
4	Expansion of PTI	15	37	C	EMP cost is included in BOQ	Do
	Total	2279	4894			

The table presented above shows the cumulative status of sub-projects on environmental management of PEDP4. The table indicates that LGED had taken a total 2279 sub-projects for construction and expansion of additional rooms including other institutional infrastructures such as PTI, DD and DPEO office during the reporting period (July'20- December'20). This EMR has been prepared based on 2279 sub-projects consisting 2259(99%) schools and 20(01%) other institutional infrastructures. Additionally, the above table presents that all the sub-projects are in category "C" and cost of EMP implementation already included in BOQ and mostly are at tendering and early stage 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 HQ 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 2279 sub-projects were screened for construction and expansion of additional rooms including other institutional infrastructures during the reporting period. The sub-projects include 2259 schools and 20 institutional infrastructures such as PTI, DD and DPEO office etc.

5.2.1 School Sub-projects screened:

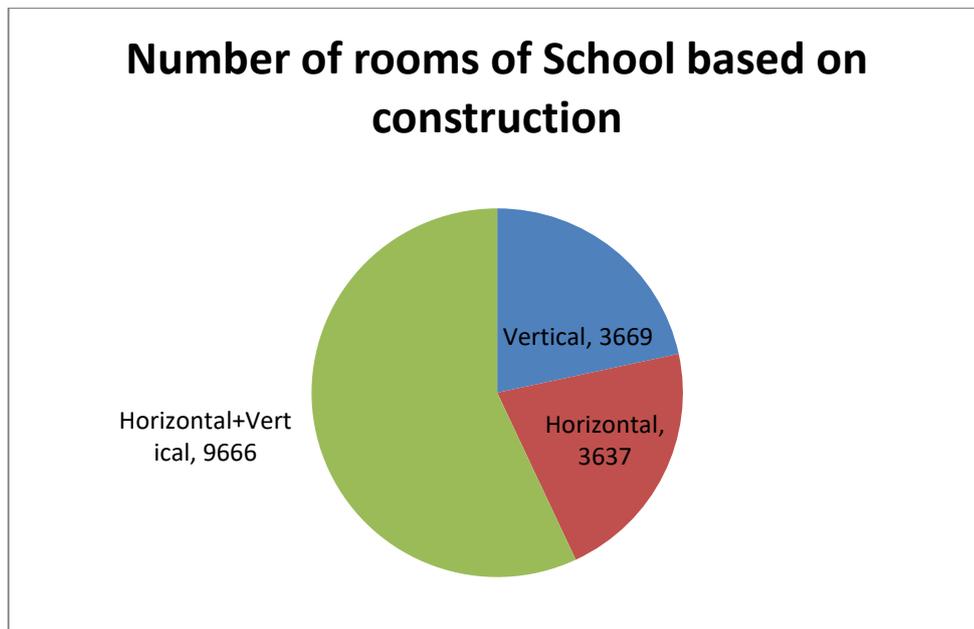
It can be seen in the table: 1, presented below a total 2259 schools was screened for construction of 7456 additional rooms during the reporting period (July-Dec., 2020). Similarly, a cumulative 4830 schools having 16972 rooms were screened at the end of the reporting period (July, 18-Dec.20).

A) Type of School (Sub-projects) based on construction :

Table-1, Type of School (Sub-projects) based on construction

Sl.No.	School Type based on construction	No. of School(July-Dec.,20) No (Room)	Cumulative No. of School(July,2018-Dec.,2020) No(Room)
1.	Vertical	02(08)	889(3669)
2.	Horizontal	1061(1886)	1621(3637)
3.	Horizontal + Vertical	1196(5562)	2320(9666)
	Total	2259(7456)	4830(16972)

Fig: 1; Type of School (Sub-projects) based on construction



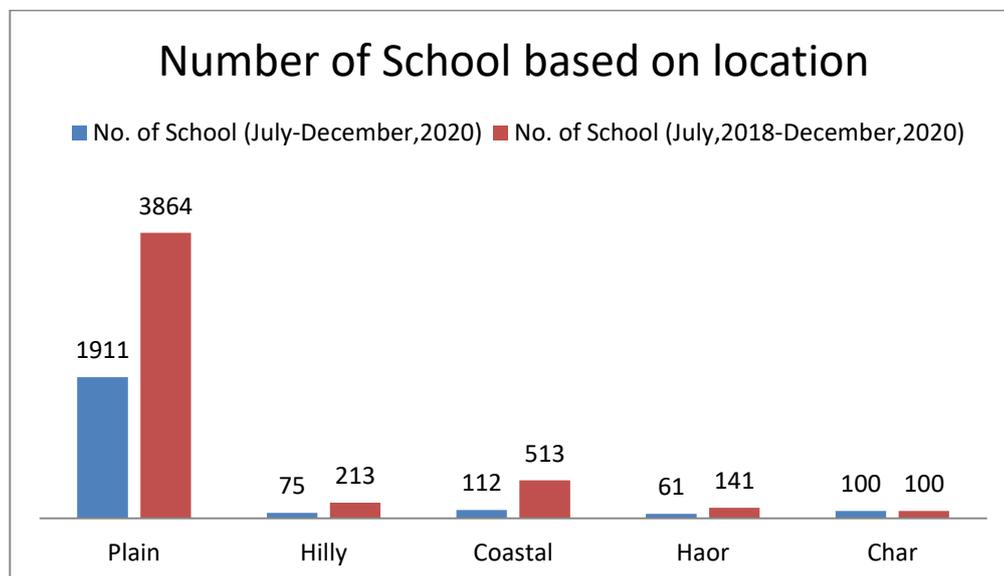
B) Type of School (Sub-projects) based on location:

Sl.No.	School Type based on location	No. of School(July-Dec.,2020) No (Room)	Cumulative No. of School(July,2018-Dec.,2020) No(Room)
1	Plain	1911	3864
2	Hilly	75	213
3	Coastal	112	512
4	Haor	61	141
5	Char	100	100
		2259	4830

Table-2, Type of School (Sub-projects) based on location

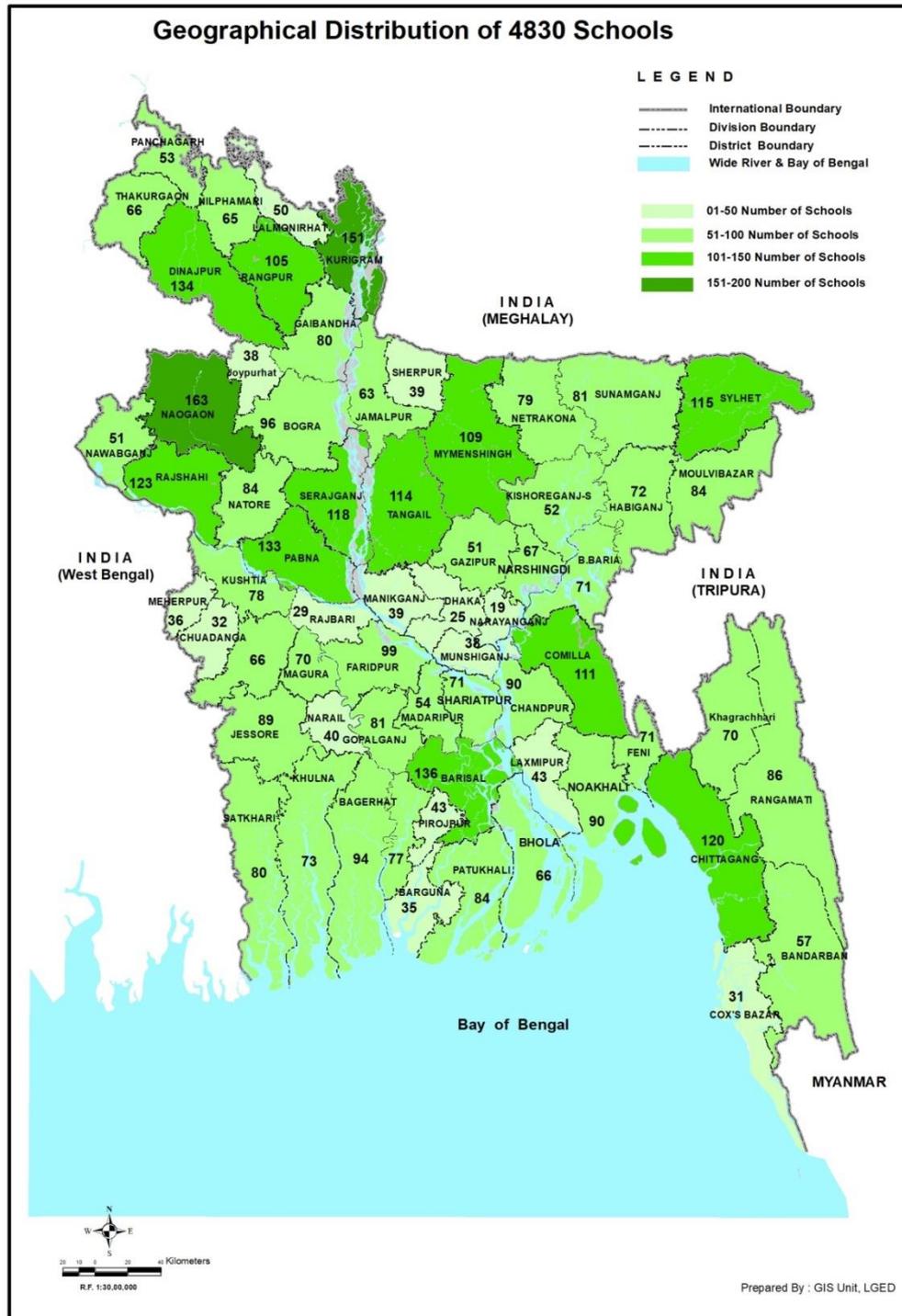
The Fig:2; presented below shows a cumulative 4830 schools having 3864 in plain , 213 in Hilly , 512 in Coastal , 141 80 in Haor and remain 100 in Char area were screened at the end of the reporting period (July,18-Dec.2020). Overall, the number of schools in plain area was 80% of total schools screened.

Fig: 2; Type of School (Sub-projects) based on location:



C) Geographical distribution of School:

The district wise geographical distribution of 4830 schools undertaken for construction is presented in a map given below:



5.2.2. Cumulative status of Sub-projects:

In PEDP4, forty thousand additional rooms and ten thousand five hundred head teacher rooms including others institutional infrastructures to be constructed under need based infrastructure sub- component.

Cumulative status of Sub-projects:

Sl. No.	Type of Sub-project	No. of Sub-project(July-Dec.,2020)	Cumulative No. of Sub-project(July, 2018-Dec.,2020)	Type of Sub-project	Does EMP cost included in BOQ	Work Status/ % of completion
1	Additional rooms of School	2259	4830	C	EMP cost is included in BOQ	Tendering and early stage of construction
2	Construction of DD Office	-	05	C	EMP cost is included in BOQ	Do
3	Expansion of DPE Office	05	22	C	EMP cost is included in BOQ	Do
4	Expansion of PTI	15	37	C	EMP cost is included in BOQ	Do
	Total	2279	4894			

The table presented above shows the cumulative status of sub-projects on environmental management of PEDP4. The table indicates that LGED has taken a total 2279 sub-projects for construction and expansion of additional rooms including other institutional infrastructures such as PTI, DD and DPEO office during the reporting period (July'20- December'20). This EMR has been prepared based on 2279 sub-projects consisting 2259(99%) schools and 20(01%) other institutional infrastructures. Additionally, the above table presents that all the sub-projects are in category "C" and cost of EMP implementation already included in BOQ and mostly are at tendering and early stage of construction.

6.0 Environmental Management Plan (EMP):

Environmental Management Plan (EMP) is an important tool to assess the environmental degradation of PEDP. Environmental impacts are prominently visible in the construction phase of school building and other construction phase. 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 would be:

- (i) mitigation measures to reduce or eliminate negative impacts
- (ii) enhancement measures to maximize positive impacts
- (iii) monitoring the identified indicator.

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 appeared from the 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 land was also reported.

The others existing impacts are elaborated in the underline:

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.

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 stockpile as and when required.

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.

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.

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.

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.

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 at all.

6.2. Mitigation/Benefit Enhancement Measures:

The typical mitigation and benefit enhancement measures to be followed at the sub-projects level are presented underline considering environmental issues of the sub-projects:

Table-6, Proposed mitigation/ benefit enhancement measures

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

Additional Mitigation Measures:

The following mitigation measures are suggested to be taken care against the environmental concerns during the construction phase. Such as:

- a. In case of demolition of any existing building, great care should be taken to avoid any accident. All precaution in this regard shall be undertaken by the sub-project proponent;
- b. Temporary accommodation for the work forces near the site area with adequate provision of water supply for drinking, bathing and washing purposes shall be ensured;

- c. Sufficient latrines to be constructed so as not to pose a health hazard;
- d. Safety goggles of accepted standard should be used who are engaged in drilling, cutting, welding and all such other works which cause hazard to the eye;
- e. Helmet shall be worn by the workmen and other personnel during work;
- f. Toxic materials are barred to be used in the construction such as lead based paints, asbestos etc;
- g. Building materials that may potentially threaten the environment are discouraged;
- h. Fencing should be provided around the construction site;
- i. Traffic congestion should be minimized by adopting proper planning. Timing schedule for arrival of construction materials can be adjusted so that interruption with the public utility services is minimal;
- j. Dust and particulate materials causing nuisances to surrounding areas would be kept minimal by careful handling of cement and breaking khoa by labor instead of the khoa breaking machine;
- k. Undesirable noise should be avoided by confining the source of noises. The khoa breaking machine should be avoided and manual breaking should be adopted. In no case such machine should be allowed to operate at night;

Furthermore, to avoid any accidental risk proper precaution should be taken up. Medical First Aid Box should be kept at the site for any injury and transport should be made instantaneously available to take the patient to the hospital in case of major accidents.

7.0 Positive impact/environment enhancement

7.1. Positive impact:

There will be employment generation during the construction phase and as well as in the operation phase of project. The sub-projects would meet the demand of the need of schools/class rooms of the respective areas.

7.2. Benefit Enhancement Measures to be taken:

Although the sub-project proponent deserves the right to employ the best workers, the local people should get preference in such cases which would generate opportunities for employment of the local people. 30% women will be employed in construction work of the sub- project 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 with SMC, community leader, Key Informant, DPE officials and LGED engineer regarding the sub-project site shifting in new sites crucial. But, the sub-projects under reporting did not encounter any of the vulnerabilities. Therefore, site alternatives were not required.

8. Training /Capacity building:

Training on environmental management, mitigation and monitoring is very essential for the engineers /officials of LGED and contractors for proper implementation of Environmental Management Plan(EMP) of PEDP4. LGED already arranged orientation courses on environment and social safeguard issues for district and upazila level officers of LGED and DPE held during September 2019 in the regional level. In those courses approximately 1200 engineers /official of LGED and about 575 officials from DPE were participated.

Due to COVID-19, no physical training courses were possible to arrange, but following refresher course consisting six batches was conducted on environmental screening, identification of environmental concerns , mitigation measures and monitoring of mitigation measures for 533 Upazila Engineers(UEs) and Sub-Assistant Engineers (SAEs) using Zoom platform during August-September2020 (photograph are annexed-1).

Schedule of Refresher Course on Environmental Issues under PEDP4

SL	Date	Zoom ID	Area (Region) of Participants	Participants
1	17/08/2020	84802950588	(Chattogram, Dhaka, Khulna, Pabna)	100 UEs
2	17/08/2020	88273725153	(Dinajpur, Barisal, Patuakhali, Mymensingh)	85 UEs
3	18/08/2020	86140568256	(Cumilla, Rangamati, Sylhet)	97 UEs

SL	Date	Zoom ID	Area (Region) of Participants	Participants
4	19/08/2020	84570782148	(Noakhali, Narayangonj, Jessore, Rajshahi)	70 UEs
5	20/08/2020	85270617968	(Rangpur, Kushtia, Faridpur, Madaripur, Bogura)	96 UEs
6	03/09/2020	84370257297	Left out Participants who did not able to participate due to technical problems (network/electricity)	85 UEs/ SAEs
				Total 533

9.0 Response on COVID- 19:

The whole reporting period (July-December'2020) went through pandemic situation of Covid-19. Though the situation was not favorable for running the activities of construction of school building, works went on regular basis with quality. LGED directed all concerned to take proper measures to prevent the pandemic and contractors workers were advised to keep proper health hygiene by wearing face mask, hand washing and maintaining physical distances at the work sites

The following preventive measures were taken during the reporting period to protect the pandemic situation of covid-19:

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 were used face mask supplied from PEDP when they were in construction works of school building.

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 PEDP4 supplied hand sanitizer for construction workers and contractors. PEDP4 also advised the workers to wash their hand with soap before starting any work or eating something.

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 PEDP4 advised the workers and contractors to maintain physical distances.

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.

10.0 Grievance Redress Mechanism (GRM)

The Grievance Redress Mechanism (GRM) promotes social accountability and facilitating the programme / 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. Thus 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 schools and institutions 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 and/female) and members of 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 resides, 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.

Furthermore, the Primary Education Infrastructure Management Unit (PEIMU) of LGED designs its computer database software with such a special feature where complaints, problems and issues that arise out from project implementation are maintained and attended with follow up until resolution to problems or complaints are attained. The PEIMU keep eyes always on media news relating to civil works under PEDP4. Usually, PEIMU receives written complaints from contractors, public representatives, local people, individuals, community groups and inspection

teams. Depending on the nature of grievances and complaints, LGED acts immediately for taking proper measure.

During the reporting period, PEIMU received ten complains, out of which seven were related to procurement and remain three were related to poor workmanship of construction works. PEIMU already started inquiry and asked the Superintending Engineers / Executive Engineers to send their report conducting investigation. Legal and administrative actions will be taken against staff and/or contractors if found guilty or fail to correct the defects.

11.0 Environmental Monitoring

11.1 Construction phase Monitoring

During the construction phase, 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 campus.

In general, the following indicators and the related mitigation measures will be 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 result of monitoring 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 already instructed the concerned Upazila Engineers to fill up the check list properly and uploaded in the PEIMS software without fail and also UEs are asked to take appropriate measures so that contractors should comply the environmental safeguard issues properly who are still lagged behind.

Table7: Result of construction phase monitoring

Sl. No.	Description of Parameters	Nos. followed	Nos. Not filled –up the check list &Not followed	Remark
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.	2121	434	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.
2.	The contractor will ensure supply of pure drinking water to the workers during the time of construction.	2091	468	In many cases water are collected from nearby sources by the contractors for construction work. UEs have been asked to install tube well.
3.	The contractor will keep a first aid box at the site for any accident.	2080	483	Upazila Engineers have been asked to ensure keeping the first aid box at the work sites immediately.
4.	The contractor will take necessary precaution for the safety of his workers and also for the safety of the pedestrians.	2072	495	UEs have been instructed to take proper action immediately
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.	2072	499	UEs have been asked to take measures for stacking materials properly.
6.	The contractor will not engage any child labor in the work.	1993	582	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.	2022	577	UEs have been instructed to take proper action through contractor not to pollute surface water.
8.	The contractor will try to minimize sound pollution. If such sound producing activity becomes unavoidable, it should	2064	519	UEs have been advised to cast the major items in the

Sl. No.	Description of Parameters	Nos. followed	Nos. Not filled –up the check list &Not followed	Remark
	be matched with the local condition so that the adverse impact can be kept minimal.			weekend.
10.	The contractor will not hamper the drainage network of the area by any of their activity.	2007	580	UEs have been asked to take proper measure to solve drainage congestion if any without fail.
11.	The contractor will not cut or damage any tree in and around the project area without the permission of the supervising authority.	2004	587	UEs have been instructed not to cut tree without observing existing rules and procedures.
12.	The contractor will take every initiative to reduce dust emission during the construction work i.e. sprinkling of water on the dust etc.	2055	540	UEs have been asked to take proper measures for sprinkling of water on the dust properly

Table 8: Summary and Updated information on the EMR of Sub-project

Monitoring Criteria	Progress Reporting			Status/Remarks
	(July-Dec,2020)/(Current Report-III)	(Jul, 2018-June,2020)/(Previous Report-I&II)	Cumulative Progress	
No. of Contract Awarded including EMP	1682	862	2544	Early stage of construction
NO. of Contract that Incorporated Environmental Clauses	1682	862	2544	Environmental Clauses have been incorporated in all contracts.
No. of trees cut down	-	-	-	Early stage of construction
No. of trees planted	-	-	-	Do
Budget used for OHS	-	-	-	Do
No. of School for which water logging problem solved.	-	-	-	Do

12. Measures undertaken to implement the EMF:

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

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 compliance checking, facilitation, coordination and ensuring dissemination, orientations and capacity building activities.

Planning and designs of sub-projects are being developed/ensured following the Bangladesh National Building Code (BNBC).

13. Conclusion

It is noted that all the sub-projects are in category “C” and cost of EMP implementation already included in BOQ and mostly are at tendering and early stage of construction. Furthermore, a substantial number of sub-projects are being extended vertically and located in existing premises. Therefore, concern for land use, earth work 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 wetland was also observed.

Moreover, many positive impacts and environment enhancement are being generated due to sub-projects implementation. It is likely that there will be employment generation during the construction phase and as well as in the operation phase of project. The sub-projects will meet the demand of the need of schools/class rooms of the respective areas. The local people is getting opportunities in construction activities resulting employment generation.

Overall physical progress of PEDP4 development activities has been seriously hampered due to Covid-19 and resulted unsatisfactory physical progress than expected in the reporting period (July-December’2020). The compliance monitoring of the environmental safeguard issues during construction were conducted using a monitoring check list and observed substantially complied. Due to COVID-19, contractors and workers were advised to maintain hand hygiene, respiratory hygiene and physical distancing properly during construction of sub-projects.

Appendices

Appendix 1: Photograph on zoom training

Zoom Training of EM & SSM under PEDP4.



Inaugural by Superintending Engineer (Education) Mr. Wahidur Rahman.



Presented by Executive Engineer, Md. Mahbub Alam (PEIMU)

Appendix 2:
Sub- project photograph of ongoing works.

PEDP-4এর আওতায় নির্মিতব্য নগর দারোয়ানী সরকারী প্রাথমিক বিদ্যালয়ের স্থিরচিত্র
উপজেলা : নীলফামারী সদর, জেলা : নীলফামারী



PEDP-4এর আওতায় নির্মিতব্য ব্রহ্মত্র পারণোপালপুর সরকারী প্রাথমিক বিদ্যালয়ের স্থিরচিত্র
উপজেলা : বড়াইগ্রাম, জেলা : নাটোর।



PEDP-4 এর আওতায় নির্মিতব্য দক্ষিণ চওড়া সবুজপাড়া সরকারী প্রাথমিক বিদ্যালয়ের স্থির চিত্র (First Aid Box সহ।)
 উপজেলা : নীলফামারী সদর, জেলা : নীলফামারী।



PEDP-4 এর আওতায় নির্মিতব্য সিংদই সরকারী প্রাথমিক বিদ্যালয়ের স্থির চিত্র (First Aid Box সহ।)
 উপজেলা : নীলফামারী সদর, জেলা : নীলফামারী।



Appendix 3:
Filled up Environmental Screening Format

Appendix- 1.4:

ENVIRONMENTAL SCREENING FOR EXTENSION/RECONSTRUCTION OF SCHOOL & OFFICE BUILDINGS

Project Name: Fourth Primary Education Development Program (PEDP4)

Date of Screening: 28-06-2020

Category of component based on environmental regulations of the Government of Bangladesh:

Name of School : Sukar Chari G.P.S
 District : Rangamati
 Upazila : Sadar
 Union : Sapchari
 Village : Sukar Chari
 Type of Subproject : PEDP-4 (Construction of Additional Class Room)
 Major Activities of the Subproject:

Screening Questions	Yes	No	Impact Scale (-6~0~+6)	If "Yes", Please Provide Remarks
A. Subproject Siting Is				
Is the subproject area adjacent to or within any of the following environmentally sensitive areas?		NO		
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), threatened, or endangered species of flora and/or fauna or their habitat?		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		
Negative effects on surface water quality, quantities or flow?		NO		
Block any road/access/approach?		NO		
Will there be any long-term impacts on local hydrology?		NO		

Giko Dewan
 Giko Dewan
 Sub-Astt. Engineer
 LGED, Sadar Upazila
 Rangamati Hill District

Foyjur Razzak
 Foyjur Razzak
 Upazila Engineer
 LGED, Rangamati Sadar
 Rangamati Hill District

Screening Questions	Yes	No	Impact Scale (-6-0-+6)	If "Yes", Please Provide Remarks
Is adequate water supply to school available?	Yes		4	
Increased noise due to day-to-day construction activities?	Yes		-3	Mitigate by the change of working procedure
Is there any dust / air pollution during construction phase?	Yes		-3	Mitigate by sprinkling water
Will there be waste generation when construction works are going on?	Yes		-2	Mitigated to kept in the pit
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?	Yes		-2	Mitigated by safety measurement
D. Potential Positive Environmental Impacts.				
Improved sanitation and personal hygiene.	Yes		4	Toilet constructed by DPHE
Enhanced quality of school environment.	Yes		5	construction of additional class room.
Employment generation for local people during construction period.	Yes		5	local workers shall be engaged in the construction work.
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 ?	Yes		6	As per DOE(ECA & ECR 97), Category Orange A & ADB, Category- C.
Will project enhance quality of education?	Yes		5	construction of additional class room will increase quality
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: Giko Dewan

Designation: SAE Sadar Upazila

Filled and signed by LGED/DPHE Assistant Engineer: _____

Name: _____

Date: _____

Reviewed and signed by LGED/DPHE Executive Engineer: _____

Name: _____

Date: _____

Giko Dewan
Sub-Asst. Engineer
LGED, Sadar Upazila
Rangamati Hill District

Foyjur Razzak
Upazila Engineer
LGED, Rangamati Sadar
Rangamati Hill District.

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
1. Noise Pollution	Mitigated by changing of working procedure	contractor	UE/SAE
2. Air Pollution	By sprinkling water	~	~
3. Occupational health	Taking safety measure	~	~

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	By regular cleaning	DPE staff	DPE

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
Noise Pollution	Physical	Project site	at the time of construction period	contractor	UE/SAE

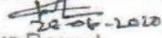
Note: The above Table Should be filled with the help of Table 5 of the EMF Report.

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

Environmental Issues/Impacts to be Monitored	Monitoring Indicators	Location	Frequency	Implementation by	Monitoring by
waste management	Physical	school campus	Regular	DPE staff	DPE

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


Giko Dewan
Sub-Asst. Engineer
LGED, Sadar Upazila
Rangamati Hill District


Foyjur Razzak
Upazila Engineer
LGED, Rangamati Sadar
Rangamati Hill District

Appendix- 1.4:

ENVIRONMENTAL SCREENING FOR EXTENSION/RECONSTRUCTION OF SCHOOL & OFFICE BUILDINGS

Project Name: Fourth Primary Education Development Program (PEDP4)

Date of Screening: 18-06-2020

Category of component based on environmental regulations of the Government of Bangladesh:

Name of School : Niantola Govt. Primary School
 District : Mymensingh
 Upazila : Mymensingh Sadar
 Union : Aostadhar
 Village : Ward No. 04, Niantola
 Type of Subproject : Construction of additional class room

Major Activities of the Subproject:

Screening Questions	Yes	No	Impact Scale (-6-0-+6)	If "Yes", Please Provide Remarks
A. Subproject Siting Is				
Is the subproject area adjacent to or within any of the following environmentally sensitive areas?		No		
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), threatened, or endangered species of flora and/or fauna or their habitat?		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		
Negative effects on surface water quality, quantities or flow?		No		
Block any road/access/approach?		No		
Will there be any long-term impacts on local hydrology?		No		

মোঃ নজরুল ইসলাম
 সার্ভেয়ার
 এলজিইডি
 সদর, ময়মনসিংহ।

মোঃ শাহনেওয়াজ
 উপজেলা প্রকৌশলী
 সদর, ময়মনসিংহ।

Screening Questions	Yes	No	Impact Scale (-6~0~+6)	If "Yes", Please Provide Remarks
Is adequate water supply to school available?		No		
Increased noise due to day-to-day construction activities?	Yes		-3	Mitigated by the change of working procedure.
Is there any dust / air pollution during construction phase?	Yes		-3	Mitigated by sprinkling water.
Will there be waste generation when construction works are going on?	Yes		-2	Mitigated to kept in the pit.
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?	Yes		-2	Mitigated by safety measure.
D. Potential Positive Environmental Impacts.				
Improved sanitation and personal hygiene.	Yes		4	Constructed, Add. toilet by DPHE.
Enhanced quality of school environment.	Yes		5	Constructed Add. class room.
Employment generation for local people during construction period.	Yes		5	Local people shall be provided of construction work.
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 ?	Yes		6	As per DOE(ECA & ECR 97), Category Orange A & ADB, Category- C.
Will project enhance quality of education?	Yes		6	To constructed additional class room.
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: Md. Nazrul Islam

Designation: Surveyor, LGED, Sadar, My mersingh.

Filled and signed by LGED/DPHE Assistant Engineer: _____

Name: Md. Shahenaz, Upatila Engineer, LGED, Sadar, My mersingh

Date: 18-06-2020

Reviewed and signed by LGED/DPHE Executive Engineer: _____

Name: Md. Nur Hossain Bhuiyan, Executive Engineer, LGED, My mersingh.

Date: 18-07-2020

Nazrul
মোঃ নাজরুল ইসলাম
সার্ভেয়ার
এপিজিইডি
সদর, ময়মনসিংহ।

Nur
মোঃ শাহনেওয়াজ
উপজেলা প্রকৌশলী
সদর, ময়মনসিংহ।

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
Noise pollution	Mitigated by the change of working procedure	Contractor	UE
Air pollution	By spray of water	Contractor	UE
Occupational health	Taking safety measure.	Contractor	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	By regular cleaning	DPE staff	DPE

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
Noise Pollution	physical	Project site	All time of construction period	Contractor	Upazila Engineer

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	Implementation by	Monitoring by
Waste Management	physical	School campus	Regular	DPE staff	DPE

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

মোঃ নাছরুল ইসলাম
স্বাক্ষরকারী
এমআইইডি
সদর, ময়মনসিংহ।

মোঃ শাহনেওয়াজ
উপজেলা প্রকৌশলী
সদর, ময়মনসিংহ।

Appendix- 1.4:

ENVIRONMENTAL SCREENING FOR EXTENSION/RECONSTRUCTION OF SCHOOL & OFFICE BUILDINGS

Project Name: Fourth Primary Education Development Program (PEDP4)

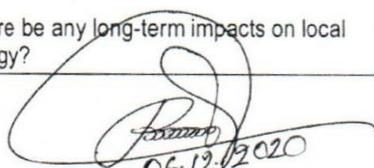
Date of Screening: 06.12.2020

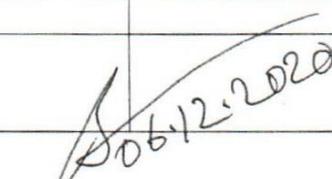
Category of component based on environmental regulations of the Government of Bangladesh:

Name of School : Lama Gaon Talekpara
 District : Sylhet
 Upazila : Sylhet Sadar
 Union : Margalgaon
 Village : Lamagaon
 Type of Subproject : Construction of additional class room.

Major Activities of the Subproject:

Screening Questions	Yes	No	Impact Scale (-6~0~+6)	If "Yes", Please Provide Remarks
A. Subproject Siting Is				
Is the subproject area adjacent to or within any of the following environmentally sensitive areas?		No		
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), threatened, or endangered species of flora and/or fauna or their habitat?		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		
Negative effects on surface water quality, quantities or flow?		No		
Block any road/access/approach?		No		
Will there be any long-term impacts on local hydrology?		No		


 06.12.2020
 Md. Palash Hossain
 Draftsman (SAE)
 LGED, Sadar, Sylhet


 06.12.2020
 মোঃ সাইফুর আহমেদ
 উপজেলা প্রকৌশলী
 এনজিইডি, সদর, সিলেট

Screening Questions	Yes	No	Impact Scale (-6~0~+6)	If "Yes", Please Provide Remarks
Is adequate water supply to school available?	Yes		5	Adequate water supply
Increased noise due to day-to-day construction activities?	Yes		-3	Mitigated by the change of working procedure.
Is there any dust / air pollution during construction phase?	Yes		-3	Mitigated by sprinkling water.
Will there be waste generation when construction works are going on?	Yes		-2	Mitigated to kept in the Pit
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?	Yes		-2	Mitigated by safety measure
D. Potential Positive Environmental Impacts.				
Improved sanitation and personal hygiene.	Yes		4	Constructed Add. Toilet by DPHE.
Enhanced quality of school environment.	Yes		5	Constructed Add. class room.
Employment generation for local people during construction period.	Yes		5	Local people shall be provided of construction work.
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 ?	Yes		6	As per DOE(ECA & ECR 97), Category Orange A & ADB, Category- C.
Will project enhance quality of education?	Yes		5	To Constructed of additional class room.
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: Md. Palash Hossain

Designation: Draftsman

Filled and signed by LGED/DPHE Assistant Engineer: _____

Name: Md. Sirajul Alam

Date: Assis. Tank Engineer

Reviewed and signed by LGED/DPHE Executive Engineer: _____

Name: Shaik Sameul Alam

Date: Executive Engineer

06/12/2020
(Md. Sirajul Alam)
Assistant Engineer
LGED, Sylhet Region
Sylhet.

06/12/2020
(শেখ সামসুল আলম)
নির্বাহী প্রকৌশলী
তত্ত্বাবধায়ক প্রকৌশলীর দপ্তর
এলজিইডি, সিলেট অঞ্চল, সিলেট।

06.12.2020
Md. Palash Hossain
Draftsman (SAE)
LGED, Sadar, Sylhet

06/12/2020
মঃ সাজ্জুল আজম
উপজেলা প্রকৌশলী
এলজিইডি, সদর, সিলেট।

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
1. Noise pollution	Mitigated by Use change of working procedure	Concern Contractor	UE
2. Air pollution	By Spring water	Do	Do
3. Occupational health	Taking safety measure	Do	Do

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	By regular cleaning	DPE staff	DPE

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
Noise Pollution	physical	Project site	All time during construction period	concerning contractor	Upazila Engineer

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	Implementation by	Monitoring by
waste management	physical	school campus	Regular	DPE staff	DPE

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


06.12.2020
Md. Palash Hossain
Draftsman (SAE)
1st Fl., Sadar, Sylhet

06.12.2020
মোঃ সাজিবুল আজম
উপজেলা প্রকৌশলী
এলজিইডি, সদর সিলেট

Appendix- 1.4:

ENVIRONMENTAL SCREENING FOR EXTENSION/RECONSTRUCTION OF SCHOOL & OFFICE BUILDINGS

Project Name: Fourth Primary Education Development Program (PEDP4)

Date of Screening: ~~December~~ / 2020

Category of component based on environmental regulations of the Government of Bangladesh:

Name of School : BAKHAR NAGAR GOVT. PRIMARY SCHOOL
 District : NARSINGDI
 Upazila : SADAR
 Union : ALOKBALI
 Village : BAKHAR NAGAR
 Type of Subproject :

Major Activities of the Subproject: Construction of Additional Class room

Screening Questions	Yes	No	Impact Scale (-6~0~+6)	If "Yes", Please Provide Remarks
A. Subproject Siting Is				
Is the subproject area adjacent to or within any of the following environmentally sensitive areas?		NO		
Protected Area		NO		
Wetland		NO		
Unstable slope, landslide, erosion area		NO		
Disaster prone area (e.g. flood, cyclone, storm surge)	yes		-3	due to Flood prone area.
B. Potential Environmental Impacts Will the subproject Cause				
Loss of agricultural/forest land?		NO		
Negative effects on rare, (vulnerable), threatened, or endangered species of flora and/or fauna or their habitat?		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		
Negative effects on surface water quality, quantities or flow?		NO		
Block any road/access/approach?		NO		
Will there be any long-term impacts on local hydrology?		NO		

১৭
২২/১২/২০২০
মোঃ আশরাফ আলী
উপ-সহকারী প্রকৌশলী
এলজিইডি, সদর, নরসিংদী।

১৭
২২/১২/২০২০
মোঃ আশরাফ আলী
উপ-সহকারী প্রকৌশলী
সদর, নরসিংদী।

Screening Questions	Yes	No	Impact Scale (-6~0~+6)	If "Yes", Please Provide Remarks
Is adequate water supply to school available?	yes		5	adequate water supply
Increased noise due to day-to-day construction activities?	yes		-3	Mitigated by The change of working procedure.
Is there any dust / air pollution during construction phase?	yes		-3	Mitigated by sprinkling water.
Will there be waste generation when construction works are going on?	yes		-2	Mitigated to kept in the Pit.
C. Other Potential Impacts Will the subproject cause?		NO		
Degradation or disturbance of historical or culturally important sites (mosque, graveyards, monuments etc.)?		NO		
Health risks to labors involved in activities?	yes		-2	Mitigated by safety measure.
D. Potential Positive Environmental Impacts.				
Improved sanitation and personal hygiene.	yes		4	Constructed Add. toilet by DPHE.
Enhanced quality of school environment.	yes		5	Constructed Add. Class room
Employment generation for local people during construction period.	yes		5	Local people shall be provided of construction work.
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 ?	yes		6	As per DOE(ECA & ECR 97), Category Orange A & ADB, Category- C.
Will project enhance quality of education?	yes		5	To Constructed additional class room
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: Md. ASST. UPazila Engr/SAE.

Designation: _____

Filled and signed by LGED/DPHE Assistant Engineer: _____

Name: MD. TOFAZZAL HOSSAIN, UE

Date: 22.12.2020

Reviewed and signed by LGED/DPHE Executive Engineer:

Name: Executive Engineer, LAED.

Date: December/2020

22/12/2020
 মোঃ আব্দুল গাফ্ফার
 উপ-সহকারী প্রকৌশলী
 এমসিইসি, সদর, মরসিহাট।

22/12/2020
 মোহাম্মদ ভোফাজ্জল হোসেন
 উপজেলা প্রকৌশলী
 সদর, মরসিহাট।

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
1. Noise Pollution	Mitigated by interchange of workers by procedure	Concern Construction	UE
2. Air Pollution	By spraying water	"	UE
3. Deupution of health	Taking safety measure	"	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	By regular cleaning	DPE Staff	DPE

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
Noise Pollution	Physical	Project site	All time of construction period	Concern Construction	UPA 2 Engineer

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	Implementation by	Monitoring by
Waste management	Physical	School Compound	Regular	DPE Staff	DPE

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

22/12/2020
 মোঃ আব্দুল হোসেন
 উপ-সহকারী প্রকৌশলী
 এলজিইডি, সবার, মরসিহনী।

22/12/2020
 মোহাম্মদ তোফাজ্জল হোসেন
 উপজেলা প্রকৌশলী
 সবার, মরসিহনী।
 সদর, মরসিহনী।

Appendix- 1.4:

ENVIRONMENTAL SCREENING FOR EXTENSION/RECONSTRUCTION OF SCHOOL & OFFICE BUILDINGS

Project Name: Fourth Primary Education Development Program (PEDP4)

Date of Screening: 12-06-2020

Category of component based on environmental regulations of the Government of Bangladesh:

Name of School : Nimtola Govt. Primary School

District : Mymensingh

Upazila : Mymensingh Sadar

Union : Aostachar

Village : Ward No. 04, Nimtola

Type of Subproject : Construction of additional class room

Major Activities of the Subproject:

Screening Questions	Yes	No	Impact Scale (-6~0~+6)	If "Yes", Please Provide Remarks
A. Subproject Siting Is				
Is the subproject area adjacent to or within any of the following environmentally sensitive areas?		No		
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), threatened, or endangered species of flora and/or fauna or their habitat?		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		
Negative effects on surface water quality, quantities or flow?		No		
Block any road/access/approach?		No		
Will there be any long-term impacts on local hydrology?		No		

মোঃ নজরুল ইসলাম
সাভেহার
এলজিইডি
সদর, মহম্মনসিংহ।

মোঃ শাহনেওয়াজ
উপজেলা প্রকৌশলী
সদর, মহম্মনসিংহ।

Screening Questions	Yes	No	Impact Scale (-6~0~+6)	If "Yes", Please Provide Remarks
Is adequate water supply to school available?		No		
Increased noise due to day-to-day construction activities?	Yes		-3	Mitigated by the change of working procedure.
Is there any dust / air pollution during construction phase?	Yes		-3	Mitigated by sprinkling water.
Will there be waste generation when construction works are going on?	Yes		-2	Mitigated to kept in the pit.
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?	Yes		-2	Mitigated by safety measure.
D. Potential Positive Environmental Impacts.				
Improved sanitation and personal hygiene.	Yes		4	Constructed add. toilet by DPHE.
Enhanced quality of school environment.	Yes		5	Constructed add. class room.
Employment generation for local people during construction period.	Yes		5	Local people shall be provided of construction work.
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 ?	Yes		6	As per DOE(ECA & ECR 97), Category Orange A & ADB, Category- C.
Will project enhance quality of education?	Yes		6	To constructed additional class room.
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: Md. Nazrul Islam

Designation: Surveyor, LGED, Sadar, Mymensingh.

Filled and signed by LGED/DPHE Assistant Engineer: Md. Shahenaz, Upazila Engineer, LGED, Sadar, Mymensingh

Date: 12-06-2020

Reviewed and signed by LGED/DPHE Executive Engineer: Md. Nur Hossain Bhuiyan, Executive Engineer, LGED, Mymensingh.

Date: 12-06-2020

Nazrul
মোঃ নাজরুল ইসলাম
সার্ভেয়ার
এলাজিইডি
সদর, ময়মনসিংহ।

Shahenaz
মোঃ শাহনেওয়াজ
উপজেলা প্রকৌশলী
সদর, ময়মনসিংহ।

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
Noise pollution	Mitigated by the change of working procedure	concern contractor	UE
Air pollution	By spray of water	concern contractor	UE
Occupational health	Taking safety measure.	concern contractor	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	By regular cleaning	DPE staff	DPE

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
Noise Pollution	physical	Project site	All time of construction period	concern contractor	Upazila Engineer

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	Implementation by	Monitoring by
Waste Management	physical	School campus	Regular	DPE staff	DPE

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

মোঃ নূরুল ইসলাম
স্বাক্ষরকার
এমআইইডি
সদর, ময়মনসিংহ।

মোঃ শাহনেওয়াজ
উপজেলা প্রকৌশলী
সদর, ময়মনসিংহ।