

Semi-Annual Environmental Monitoring Report

Project No. 44213-016 and 44213-017

15 June 2017 (Revised 17 August 2017)

Loan No. 3047 and 3320-BAN (COL): Secondary Education Sector Investment Program (SESIP Tranche 1&2)

Prepared by the Ministry of Education for the Asian Development Bank.

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**CURRENCY
EQUIVALENTS**

(As of June 2017)

Currency unit	–	Taka (Tk)
Tk1.00	=	\$0.012677
\$1.00	=	Tk78.88

ABBREVIATIONS

ADB	Asian Development Bank
DDR	Due Diligence Report
DFID	Department of International Development of the United Kingdom
DOE	Department of Environment
DPP	Development Project Performa
DSHE	Directorate of Secondary and Higher Education
EAR	Environmental Assessment Report
EARF	Environmental Review and Assessment Framework
ECC	Environment Clearance Certificate
ECR	Environmental Conservation Rules
EED	Education Engineering Department
EHS	Environment, Health and Safety
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EMR	Environmental Monitoring Report
ES	Environmental Specialist
GOB	Government of Bangladesh
IEE	Initial Environmental Examination
LGD	Local Government Division
NGO	Non-Government Organization
O&M	Operation and Maintenance
OHSP	Occupation Health and Safety Plan
PIU	Project Implementation Unit
REA	Rapid Environmental Assessment
PMU	Project Management Unit
SESIP	Secondary Education Sector Investment Program
SIEE	Summary Initial Environmental Examination
SPS	Safeguard Policy Statement
SPSU	Sector Program Support Unit
TOR	Terms of Reference
PPME	Project Performance Monitoring and Evaluation
PPP	Public Private Partnership
PW3 STD	Standard Tender Document PW3
RoW	Right of Way

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1. Introduction

A. Project Background

The Secondary Education Sector Investment Program (SESIP) was approved by Asian Development Bank's Board on 27 September 2013, and the Periodic Financing Request 1 (Tranche 1) for \$90 million (2013–2017) was approved by the ADB President on 21 October 2013. SESIP supports secondary education in Bangladesh over 10 years, using a multitranche financing facility (2013–2022). SESIP will support the implementation of key reforms envisaged in the National Education Policy, 2010 in a phased manner. SESIP will also adopt a sector-wide approach that supports a government-led common secondary education program framework with enhanced harmonization of ADB and other development partner's assistance. The Ministry of Education (MoE) is the executing agency and the Directorate of Secondary and Higher Education (DSHE) is the implementing agency. Strengthened fiduciary oversight arrangement and management is one of the key features of the program.

Secondary Education Sector Investment Program will support the implementation of key reforms envisaged in the National Education Policy (2010) in a phased manner. The program will support for upgrading the physical facilities and equipment of government secondary, upazila education offices, including school infrastructure development – construction and renovation of school buildings, including science labs, and Madrasah Teaching Training Institute and upgrading Directorate of Secondary and Higher Education (DSHE) building. Support will include renovation of classrooms, libraries, laboratories, storage, and provision of furniture and teaching aids, where necessary.

2. Physical Progress of Project Activities

A. Project Key Result Areas

SESIP has three key result areas: (i) enhanced quality and relevance of secondary education, (ii) more equitable access and better retention, and (iii) strengthened secondary education management and governance. In the second part (access and better retention) the strengthening activities supporting a continuation of civil works and the structural reforms of an integrated and unified secondary education system will be taken up. (FAM 2013)

B. Physical Infrastructure Development

Based on needs assessment and agreed criteria, the program will support construction of school buildings and repair and maintenance of existing schools. Facilities will support enhanced use of information and communication technology for pedagogy, and include construction/renovation for ICT Learning Centers (formerly School Information Hubs), construction of upazila education offices, and provision of safe drinking water, sanitation, and drainage facilities. Major infrastructure of the program is school buildings which will be built on already acquired areas and there is no such structure on ecologically sensitive areas or any of nature reserve. One district education office will be constructed on government land on the property of the Bandarban Govt. Girls' High School. Planning and design section of Education Engineering Department (EED) is responsible for environmental issues of the program

C. School Infrastructure Improvement

a. *The SESIP Civil Works Program and Environmental Implications*

While the focus of SESIP is mostly on institutional aspects in the secondary education sector, some civil works (building of structures and associated components) is planned, according to the 5-year infrastructure development plan. This will include:

- developing school information hubs (640 schools);
- extra classrooms for pre-vocational and vocational courses;
- 385 new upazila education offices;
- vertical extensions and outfitting for training venues in 64 District Education Offices (DEOs);
- upgrading of 100 priority schools/madrasahs;
- new DSHE building construction; and,
- construction of the Bandarban DEO.

The environmental implications of the proposed civil works are expected to be minimal, and manageable, with the following characteristics:

- **ICT equipment** within existing schools (mostly within existing building footprints, therefore innocuous in terms of environment).
- **Extended buildings** (vertical, for the most part); therefore within existing building footprints; mostly innocuous in terms of environment; perhaps just increases in service demand (water, electricity, waste production); options for solar power (positive).
- **New buildings:** in **existing urban or town areas** (minimal environmental sensitivities); or possibly “**green**” **field** construction (**higher risk of environmental vulnerabilities**, depending on location); increase in local service demands; good options for climate proofing and use of solar power (positive).
- **Construction processes** will need mitigation measures and “best practices” (reduce noise, emissions, waste, excessive water consumption, local disruptions, etc.).
- Main environmental sensitivities relate to locations in **coastal areas** (cyclone and flood risk), **forested areas**, and **sloped areas** (CHT).
- Potential issues related to **drinking water quality** in some locations (salinity, arsenic, etc.).

Most of the potential environmental issues associated with SESIP civil works will pertain to construction practices. As noted in the EMP contract guidance document, the mitigation measures for construction practices will have to be monitored and reported accordingly.

3. Program Status (as of June 2017)

a. Sub-Projects Civil Works plan Under SESIP

Table 1: Details of Program Input- Civil Works

SN	Items	Unit	Original DPP (Tranche-1)		Additional Provision (Tranche-2)		Original DPP (Tranche-1)				Additional Provision (Tranche-2)				RDPP (Total Of Tranche-1 and tranche-2)						
							Cost			Total	Cost				Cost						
			GOB	PA		GOB	PA		GOB		PA										
				RPA			RPA				RPA										
				Through GOB	SP ACC		DPA	Through GOB			SP ACC	DPA			Total	Through GOB	SP ACC		DPA	Total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	Renovation of Class Room or ICT Learning Center*	CW	640	5	0		3,200				3,200						3,200				3,200
2	Renovation of 100 Schools**	CW	100	50	100	25	5,000				5,000	2,500				2,500.00	7,500				7,500
3	Plantation of Tree	CW	100	0.1	0		5				5						5				5
4	Arsenic and other test	CW	100	0	0		2				2						2				2
5	Renovation of EMIS Data Center	CW	1	50	0		50				50						50				50
6	Refurbishment of BEDU Office	CW	0		1	40						40.01				40.01	40				40.01
7	Class room Extension- Vertical/ Horizontal for Pre-Vocational and Vocational Program	CW	0		640	74						47,923				47,923	47,923				47,923
8	Thana Education offices	CW	0		25	98						2,449				2,449	2,449				2,449
	Construction of bandorbon District Education Office (DEO)	CW	0		1	365						365				365	365				365
10	Vertical extension of District Education Office (DEO)	CW	0		60	149						8,938				8,938	8,938				8,938
11	NAEM Hostel Vertical Extension (Third Floor)	CW	0		1	564						564				564	564				564
12	NAEM Classroom Refurbishment	CW	0		1	70						70				70	70				70
13	Total		941		829		8,257				8,257	62,851				62,851	71,108				71,108

Note: * School information Hub has been re-named as ICT Learning center ** In original DPP under Tranche 1 the unit cost for each school was Tk. 50.00 lacs but as the unit cost is insufficient so in Tranche 2 unit cost Increased by Tk. 47.00 lac. So the total cost stands Tk. 97.00 (50.00+47.00) lac. In this case the number of schools will remain same (100 Schools). Items 7, 8, 9, and 10 under process of approval. Signed: Assistant Chief, Ministry of Education Page: 176 Source: DPP

b. 100 School Infrastructure Extension/ Refurbishment sub-projects

The building blocks and extension of classes are not well planned. Most schools does not have site plans for actual area of the schools. No thoughts have been given in positioning the building blocks and extension. These could have been made more user friendly and leaving sufficient area of the school for other activities. Though each sub-project (school) has small civil works but in total 100 schools development project involved big volume of construction activity. Moreover, school environment should get priority in construction for ventilation, seating comfortability, sanitation like separate toilets for boys and girls and other extracurricular activity area. Some schools have constructed 'full class room blocks' that involve more civil works. Discomfort of the children during construction (dumping the construction materials and godown inside schools) can be avoided if the supervising engineers could implement EMP by the contractor. The progress report of the selected 100 schools shows partial compliance (mostly comes from 'construction good practice') of the EMP referred by EARF.

Table 2: Summary of compilation of subproject of 100 School extensions

Total Educational Institutional Number			Tender Approved Total Educational Institution Number	Total Approved Tender Price Tk. Crore	Improvements				
					Complete				
					0%	0-50	51-75%	75-95%	100%
100	66(new building)	34(vert. extension)	100	66.36	7	4	30	41	18

100% complete	18
0%	4
Running	71
Work Order being Processed	0
Call for tender being processed	7
Activity has not taken for land related Problem	0
Total School	100

Source EED dated 30.05.2017,

4. Scope of Monitoring Report

A. 5-Year Infrastructure Development Plan

While the focus of SESIP is mostly on institutional aspects in the secondary education sector, some civil works (building of structures and associated components) is planned, according to the 5-year infrastructure development plan. This will include: developing school ICT learning center (640 schools); extra classrooms for pre-vocational and vocational courses; vertical extensions and outfitting for training venues in 60 District Education Offices (DEOs); upgrading of 100 priority schools/madrasahs; new DSHE building construction drawing and design; and, construction of the Bandarban DEO.

However DPP shows there are more civil works involved under Tranche 1 and Tranche 2. The civil constructions of those are awaiting government approval (ANNEX 12 'Details of programs-Civil Works' page 176, DPP [table 1]). These are Class room extension of Pre-vocational, and vocational, Thana education offices, and Vertical Extension of District education offices etc. According to DPP (page 176) estimated cost for the civil works awaiting approval are about BDT 5631 Million

B. Major Tasks

The major tasks for the environmental monitoring in construction stage include:

- Field monitoring on contractor's environmental mitigation measure performance
- Guidance to Contractor's personnel on environmental monitoring aspect, in the field practice;
- Recommend to Education Engineering Department (EED) to implement all EMP as stated in EARF/ IEE report and other environmental safeguards in construction contract documents; and
- Instruct Education Engineering Department (EED) to take an action to mitigate or rectify on other issues that find out.

C. Monitoring Requirements

SIEE requires the Project annual EMR to be prepared by the borrower in order to evaluate and assess overall project activities to ensure the effective implementation of the EMP. Implementation of the EMP is normally: (i) a condition of project approval issued by the approving authority; (ii) a condition incorporated into the bidding documents, project construction contracts, and operation and maintenance contracts; and (iii) a covenant in the ADB loan agreement.

D. Reporting Period (Frequency of Submission as per EARF)

In compliance with the loan covenant, semestral (Semi-Annual) environmental monitoring report is essential. This report describes the status of implementation and compliance of the EMP to satisfy the environmental safeguard requirements of ADB and GoB as well as to fulfill the requirements mentioned in the loan document. This report also describes the environmental mitigation related any corrective and preventative actions with respect to each subproject for the period ending May 2016. Semi-Annual submission will be required to submit on 15 June 2017. The next report is due on 15 December 2017.

5. Status of Progress**A. The Sub-Projects****a. Sub-project Description**

Additional class rooms are constructed to reduce overcrowding in the class rooms. These are basically of two types, new building or vertical extension. The architectural plan of the vertical extension is determined by the architectural plan of the existing buildings. In such case, capacity assessment of the foundation of the existing building is extremely important to find out the feasibility of a vertical extension. It is to be noted that in most of the cases, design of the existing buildings are not available. Hence field examinations remain the only available option to determine such suitability. The agency responsible for construction of such class rooms should apply their professional judgment after following all acceptable testing procedures in determining such capacity. It should also be kept in mind that the schools are not only buildings but they are a combination of many items such as a playground which offer learning opportunities. So either new building or vertical extensions are being constructed. Out of 100 selected schools class room added with 66 new building and 34 are added with floor by vertical extension.

B. Subproject Implementation

640 ICT-Learning centers civil works completed (90%), Extension of 100 school building is about 50% and infrastructure improvement of hostel and class rooms at NAEM in average 75%.

Table 3: Subproject progress and Status (as of January – June 2016)

SN	Sub-project Name	Design	Pre-construction	Construction	Operational phase	Progress of Works (%complete)
1	Paindong High School	complete	complete	In progress	Yet to start	80%
2	Baharchara Ratnapur High School	complete	complete	complete	In progress	100%
3	Shah Bohumukhi High School	complete	complete	In progress	Yet to start	90%
4	Dighinala Model Girls' High School	complete	complete	In progress	Yet to start	90%
5	Char Sahavi Kari High School	complete	complete	In progress	Yet to start	95%
6	Naser High School	complete	complete	In progress	Yet to start	90%
7	Gobindopur High School	complete	complete	In progress	Yet to start	55%
8	Char Meher Azizia High School	complete	complete	In progress	Yet to start	90%
9	Char Kalkini Adarsha High School	complete	complete	In progress	Yet to start	90%
10	Matabar Nagar Darusunnah Alim Madrashah	complete	complete	In progress	Yet to start	80%
11	Tarua Girls' High School	complete	complete	In progress	Yet to start	95%
12	Majlishpur High School	complete	complete	In progress	Yet to start	95%
13	Gowtam Para Ghatara Banga Bondhu High School	complete	complete	In progress	Yet to start	95%
14	Aharanda Mohiuddin Nagar High School	complete	complete	In progress	Yet to start	95%
15	Jiroin Bohumukhi High School	complete	complete	In progress	Yet to start	95%
16	Shimpur High School	complete	complete	In progress	Yet to start	95%
17	Kachait Islamia Dakhil Madrasha	complete	complete	In progress	Yet to start	95%
18	Hnilla High School, Teknaf, Cox's Bazar.	complete	complete	In progress	Yet to start	95%
19	Lama Adarsha Girls High School, Lama, Bandarban.	complete	complete	In progress	Yet to start	85%
20	Jolurmukh Adarsha High School	complete	complete	In progress	Yet to start	10%(site is under water)
21	Chatibahar Junior High School	complete	complete	In progress	Yet to start	25%
22	Rahamatabad Darussunnah Alim Madrashah	complete	complete	In progress	Yet to start	20%
23	Banigaon SESDP Model High School	complete	complete	In progress	Yet to start	25%
24	bhadeswar Nasir Uddin High School & College	complete	complete	In progress	Yet to start	10%(site is under water)
25	Gobindochandra Girl's High School	complete	complete	In progress	Yet to start	20%
26	Kamrakhai Joynagar Dakhil Madrashah	complete	complete	In progress	Yet to start	30%
27	Alongi Model High School	complete	complete	In progress	Yet to start	10%
28	Kolagaon Karimpur High School	complete	complete	complete	In progress	100%
29	Shoulory SESDP Model High School	complete	complete	In progress	Yet to start	65%
30	Muradpur SESDP Model High School	complete	complete	In progress	Yet to start	65%
31	Mograpara H.G.G.S. Smiriti Biddyaton	complete	complete	In progress	Yet to start	70%
32	A.V.J.M. Govt. Girls' High School	-	-	-	-	-
33	Tetuljhara High School	complete	complete	In progress	Yet to start	90%
34	Gazirchat Madinatul Ulum Islamia Alim Madrasha	complete	complete	In progress	Yet to start	90%
35	Jhitka Anandamohon High School	complete	complete	In progress	Yet to start	90%
36	Tuitai Girls' High School					Tender in Process
37	Hatirdia Shahadat Ali ADarsha High School	complete	complete	In progress	Yet to start	30%
38	Purba Baghaikandi SESDP	complete	complete	In progress	Yet to start	95%

SN	Sub-project Name	Design	Pre-construction	Construction	Operational phase	Progress of Works (%complete)
	Model High School					
39	Gilaswar Girl's Daklil Madrasha	complete	complete	In progress	Yet to start	55%
40	Singhasree Union High School & College	complete	complete	In progress	Yet to start	80%
41	Shahid Nagar High School	complete	complete	complete	In progress	100%
42	ST. ANDREWS HIGH SCHOOL	complete	complete	complete	complete	100%
43	Guroi Adarsha Junior School	complete	complete	In progress	Yet to start	10%
44	Ghagra Abdul Gani High School	complete	complete	In progress	Yet to start	10%
45	Gopalashrom BC High School	Complete				Tendered
46	Uttor Goragaon Sobuj Niketon Lower Secondary School	Complete				Tendered
47	Birishiri Union Lower Seceodary School	Complete				Tendered
48	Konapara Adarsha Lower Seceodary School	Complete				Tendered
49	Hatkholia SESDP Model School	complete				Tendered
50	Kamaler Barti Bangalpara (K.B.) Model High School	complete	complete	complete	In progress	100%
51	Bathuar Kanda Adrerasha Junir Secondary School	complete	complete	complete	In progress	100%
52	Shalepur Amin Kharhat Junior High School	complete	complete	In progress	Yet to start	65%
53	Char Shalepur A. High Khaner Hat J. High School	complete	complete	In progress	Yet to start	45%
54	Daulatdia Model High School	complete	complete	complete	complete	100%
55	Mostafapur Bahumukhi High School	complete	complete	In progress		40%
56	Kodalpur Secondary School	complete	complete	In progress		95%
57	Bashbaria Jhanjhania Secondary School	complete	complete	In progress	Yet to start	85%
58	Kotalipara Shahana Rashid Girls' High School	complete	complete	In progress	Yet to start	85%
59	Dighalia Adarsha Secondary School	complete	complete	In progress	Yet to start	85%
60	W S M Secondary Girls' School	complete	complete	In progress	Yet to start	90%
61	Nathullabad High School	complete	complete	In progress	Yet to start	95%
62	Laxmi Bestin Adarsha High School & Char Gongga Ideal Junior School	complete	complete	In progress	Yet to start	50%
63	Sultanabad dakhil Madrasha	complete	complete	In progress	Yet to start	50%
64	Tepua Ahmodia dakil Madrasha	complete	complete	In progress	Yet to start	85%
65	Gouriconna Nawab Salimullah Secondary School	complete	complete	In progress	Yet to start	65%
66	Nishchintpur Sikderbazar SESDP School	complete	complete	In progress	Yet to start	30%
67	Dakkhin Gunari High School	complete	complete	In progress	Yet to start	70%
68	Koyra modinabad dakhil madrasha	complete	complete	In progress	Yet to start	55%
69	Gadaipur Jeher Ali High School	complete	complete	In progress	Yet to start	60%
70	Rajganj Secondary School	complete	complete	complete	complete	100%
71	Morrelgonj KG High School	complete	complete	complete	In progress	100%
72	Dakkhin Rajapur Dakhil Madrasah & Eatimkhana	complete	complete	In progress	Yet to start	80%
73	Sonapur High School	complete	complete			Delay for Remote area
74	Jagannathkathi Secondary School	complete	complete	complete	complete	100%
75	Dhulia Secondary School	complete	complete	complete	In progress	100%
76	Badanpur Adarsha Secondary School	complete	complete	In progress	Yet to start	95%

SN	Sub-project Name	Design	Pre-construction	Construction	Operational phase	Progress of Works (%complete)
77	Poradaha Secondary School	complete	complete	In progress	Yet to start	80%
78	RBGM High School	complete	complete	In progress	Yet to start	85%
79	Hasadaha Bohumukhi Secondary School	complete	complete	complete	complete	100%
80	Jamira High School	complete	complete	complete	In progress	100%
81	Chotrajit High School	complete	complete	complete	complete	100%
82	Raigaon High School	complete	complete	In progress	In progress	100%
83	Tilokpur high School	complete	complete	In progress	Yet to start	92%
84	Chaluabari lower Secondary School	complete	In progress	Yet to start	Yet to start	5%
85	Bishomdanga girls' high School	complete	complete	complete	In progress	100%
86	Shotibari Girls' High School	complete	complete	complete	complete	100%
87	Najimabad BL High School	complete	complete	In progress	Yet to start	85%
88	Harinathpur SESDP Model School	complete	complete	In progress	Yet to start	60%
89	Miapur dakil madrasha	complete	complete	In progress	Yet to start	65%
90	Zonail ML High School	complete	complete	In progress	Yet to start	60%
91	Char Newaji BL High School	complete	complete	complete	complete	100%
92	Prannath Patikapara Adarsha School	complete	complete	In progress	Yet to start	95%
93	Mukundapur Senior Fazil Madrasha	complete	complete	In progress	Yet to start	65%
94	Cheradangi High School	complete	complete	complete	In progress	100%
95	Tengonmari Bohumukhi High School	complete	complete	In progress	Yet to start	95%
96	Sakowa Jamil Atunnesa Fazil Madrasha	complete	complete	complete	In progress	100%
97	Jadurani Girls' high School	complete	complete	In progress	Yet to start	95%
99	MAGRA PALS UNION HIGH SCHOOL	complete	complete	In progress	Yet to start	99%
100	NAEM Hostel building (3 Floors)	complete	complete	In progress	Yet to start	75%
101	Banderban DEO office	complete				Tendered

C. Environmental Safeguard Measures

This report has been prepared based on observations made during field inspections, random performance checks, reviewing records and document, and consultation with relevant stakeholders such as affected persons, beneficiaries, School Management Committee(SMC), local Education administration etc. As a part of the project management support, EED under Directorate of Secondary and Higher Education (DSHE) provides inputs on intermittent basis to monitor compliances with environmental safeguards to ensure that the project is implemented with due concern for environmental safeguards according to the ADB's Safeguard Policy Statement 2009, specifically to ensure that these issues are adequately addressed to the requirements of ADB.

As full implementation of the IEE procedure of the project, the Environmental Focal person of construction Supervision Engineers of EED have two main roles as following:

- Supervise the monitoring of implementing mitigation measure of the contractor during the construction stage
- Submission of the Environmental Monitoring Report (EMR) to SESIP and ADB.

The environmental monitoring report is to follow up the contractor's implementation on environmental mitigation measure in construction stage as stated in EMP and other environmental safeguards in construction contract documents. Guidance and instruction will be prepared to help ensure that the contractor will follow the required environmental mitigation measure as stated in IEE report and construction contract documents as agreed between the Asian Development Bank and the Government of Bangladesh as a condition of the SESIP program loan.

Environmental screening for 16 out of 100 selected schools for refurbishment, construction of Banderban DEO and NAEM (hostel extension) has been done by REA. IEE has been prepared for DEO, Banderban Alongi High School and UEO, Patharghata. The subprojects under category 'C' were monitored through environmental and construction best practice Checklist as shown in annex 5,6 and 7. The implementation of EMP has been included in the bid documents for Banderban DEO and 5 Schools as shown in the table below.

D. Table of safeguard instruments available

Table 4: Safeguard Instrument available at Sub-projects.

Name of the Sub-project	REA Status of the sub-project		EMR data source		Remarks
	Prepared	Categorization	Imp. of EMP	Checklist Annex: 5,6,7 ¹	
1. Alongi Model High School	√	'B'	√	√	IEE prepared
2. Kolagaon Karimpur High School	√	'C'	Not required	√	IEE/EMP not required
3. Gopalashrom BC High School	√	'C'	Not required	√	Tender process under
4. Uttor Goragaon Sobuj Niketon Lower Secondary School	√	'C'	Not required	√	Tender process under
5. Birishiri Union Lower Seceodary School	√	'C'	Not required	√	Tender process under
6. Konapara Adarsha Lower Seceodary School	√	'C'	Not required	√	Tender process under
7. Hatkhola SESDP Model School	√	'C'	Not required	√	Tender process under
8. Bashbaria Jhanjhanian Secondary School	√	'C'	Not required	√	IEE/EMP not required
9. Kotalipara Shahana Rashid Girls' High School	√	'C'	Not required	√	IEE/EMP not required
10. Gadaipur Jehar Ali High School	√	'C'	Not required	√	IEE/EMP not required
11. Rajganj Secondary School	√	'C'	Not required	√	IEE/EMP not required
12. Raigaon High School	√	'C'	Not required	√	IEE/EMP not required
13. Tilokpur high School	√	'C'	Not required	√	IEE/EMP not required
14. Chaluabari lower Secondary School	√	'C'	Not required	√	IEE/EMP not required
15. Mukundapur Senior Fazil Madrasha	√	'C'	Not required	√	IEE/EMP not required
16. NAEM Hostel building (3 Floors)	√	'B'	√	√	IEE not prepared
17. Banderban DEO office	√	'B'	√	√	IEE prepared

6. Environmental Monitoring

A. Qualitative and Quantitative Monitoring Data

Safeguard is an issue addressed not only with increasing sureness by those responsible for keeping children and learners safe, but one felt keenly by those most vulnerable to harm and neglect.

In order to ascertain whether environmental management system is functioning properly, it is necessary to include a program to monitor. The environmental management plan will include an

¹ **Note:** a. Annex 5: EA Infrastructure Compliance Checklist (For Supervising Engineer), B. Annex 6: Contractor's Compliance Checklist, C. Annex7: Environmental Compliance Monitoring Report (ADB Format). Checklist is being used for all the Sub-Projects as a part of environmental and construction best practice. (see annexure part of the EMR)

environmental monitoring procedure based on an environmental review study of the program of the Directorate of Secondary and Higher Education.

The environmental management plan will focus on the implementation of mitigation measures during project construction period and inside school management. The project implementation will be carried out under the overall supervision of the Education Engineering Department.

The project falls under “B” category according to ADB Safeguard Policy Statement, 2009 and “Orange B” category in accordance with the Bangladesh Environment Conservation Act 1995 and Environment Conservation Rules 1997. All subprojects require an EMP; but extension of school building / infrastructure development subprojects has minimal impacts. During the course of project implementation, monitoring of compliance and safeguard issues related to environmental matters are not undertaken by the implementing agencies, with EED to ensure that the project is implemented with due concern for environmental safeguards and specifically to ensure that these issues are adequately addressed to the requirements of ADB.

The environmental monitoring requirements are presented in the ‘SESIP Civil Construction Environment Management and Monitoring Compliance, Annex 1. The table contains the scope of monitoring; time and frequency; the outputs required and implementing and supervising agencies and compliances during the reporting period.

Planning and undertaking a Sampling Program is another monitoring requirement to determine compliance of the sub-project works.

The cost of sampling during construction can be the responsibility of contractor under the guidance of Environmental focal person. This cost could be part of cost for implementation of EMP. But during operational period this should be taken up by DSHE or coordinate with agency like Directorate of Public Health, Water Development Board, LGED etc to minimize the cost.

The implementation and monitoring plan of EMP was not include it as the part of the bid document. Construction contractor did not submit EMP and sampling plan to EED.

a. *Water Supply and Sanitation:*

Project in addition to the extension of the class rooms has included and emphasized on the proper toilets for the children. The school could organize to help achieve and maintain adequate water supply, sanitation and hygiene in schools. The stakeholder can play their roles for maintaining proper hygiene in the schools.

B. *Environmental Monitoring Database*

All secondary schools equipped with ICT facilities (ICT lab, multimedia classrooms, digital contents, and library) that are effectively used. E-learning modules of Bangla, English, mathematics, science, and other relevant subjects are developed and used in at least 18,000 schools. The project will strengthen and harmonized operations and sets of education databases between BANBEIS and the DSHE EMIS. All teachers and education managers trained to operate upgraded school-based EMIS.

School environment data can also be reported in EMIS. Preparation of Semi-Annual Environmental Safeguard Report as required under ADB loan covenant and for GOB can be helpful. Environmental Safeguard Expert is now working with EMIS so that one ‘module’ can be developed for environmental management database. .

a. *Subproject based field data*

Summary of sub-project (Monitoring checklist) for 11 visited Schools

Table 5: Compliance and Non-compliance Issues Monitoring at the School Environment

SN	Concern Issue	Recommended Measures	Implementation/Compliances:		Remedial Measures
			Yes	No	
1.	Seating arrangement	Seating arrangement should be comfortable	3	9	Increase classroom and size
2.	First Aid facilities	First Aid facilities should be available in the schools	4	8	Advised to keep first aid box in school
3.	Firefighting	Firefighting equipment should be available in the schools	0	12	Contractor's supply
4.	Pure Drinking Water	Pure drinking water (Arsenic free) should be provided	12	0	As reported by head teacher no test result available
5.	Electricity	Electricity, fan, and light should be available in the schools; energy efficient light and fan should be used	12	0	Interrupted electric supply causing suffering to the student
6.	Disposal of Waste	Waste disposal bins should be in place in the classrooms and also at the school central	9	3	Bins are being used
7.	Smoking	Schools and classrooms should be marked up as a "no smoking zone"	12	0	None allowed to smoke in the school premises
8.	Sanitation facilities	Sanitation facilities (washroom, urinal etc.) should be ensured in the schools; provision of water closet and flushing system in toilet and bathroom; fixing of hand basins; and cleanliness.	8	4	Wash room, sanitary latrine construction part of civil works
9.	Ventilation	Provision of adequate ventilation in the classroom of the schools	12	0	New building has wide open window for ventilation and light
10.	Management of lab chemical waste	Chemical wastes from the laboratory should strictly be discharged to the designated concrete covered pit by the school authority so that surrounding environment is not polluted; a waste management plan should be prepared by the school authority and be strictly followed	4	8	School is taking care to dispose appropriately
11.	Domestic Sewage	Domestic sewage from the classroom shall be subject to suitable treatment prior to	3	9	Deposited in a identified location for

SN	Concern Issue	Recommended Measures	Implementation/Compliances:		Remedial Measures
			Yes	No	
		discharge to the environment; under no circumstances, untreated wastes will be discharged into the environment			disposal
12	Praying Rooms	Separate praying rooms for men and women should be ensured in the schools	12	0	All schools maintain the room
13.	Gender equity	Gender equity should be followed during admission	12	0	Many schools girls exceed boys

Table 6: Compliance and Non-compliance Issues Monitoring at the School Environment for Construction Site

Sl. No.	Concern issue	Recommended measures	Implementation/ Compliances: Yes/No	Remedial Measures
1.	Toilet and ablution facilities	Ensure that adequate toilet and ablution facilities are provided at the construction site	Yes(12)	Contractor make facility at construction site
2.	Environment Officer	Contractor should appoint an Environment Officer to monitor the issues recommended in the mitigation measures to make the project environment-friendly	No(0)	Contractor will appoint environmental officer

Table 7: EA (Supervising Engineer) Infrastructure Compliance and Non-compliance Issues Monitoring

Issues		Yes	No
1.	Is there assigned official at the EED will be responsible for overall environmental compliance.	0	12
2.	Is Assistant Engineer of EED will be responsible for subproject specific environmental compliance and relevant reporting in EED	12	0
3.	The Program Director, in consultation with ESE, has finalize the EMP.	12	0
4.	Subprojects funded under the program have environmental clearance.	11	1
5.	Adequate sanitation facilities has been developed for the teachers and students with regular cleaning and routine maintenance	9	3
6.	The toilets for girls and boys shall be separate with privacy and water facility.	11	1
7.	Is the design harmonize with local surroundings, including landscaping and	11	1
8.	planning for other uses for all additionally created spaces, proper ventilation, and lighting	12	0
9.	In Chittagong Hill Tracts for preservation of the surrounding ecosystems around the school building avoid hill cutting and destruction of ecosystem for civil works.	0	0
10.	Is Design and construction of school building in the vulnerable coastal areas has considered 'climate proofing design' (e.g. raising of plinth level for flood, increase strength of building to resist cyclone and storm surge, avoid river bank erosion, etc	0	0

11. Is there public and community consultation with special emphasis on students/teachers in designing the infrastructure.	12	0
12. Are Students and Teachers informed in advance of the construction schedules and the timing of necessary interruption of public utilities?	12	
13. Contractor allowed use classroom and school premises/playing ground to stack construction materials.	8	4
14. EED and DSHE have clearance required from government or local government agencies/committees, for construction.	12	0
15. All areas and infrastructure affected is restored to their original condition, specially sidewalks, green street dividers, green- belt/fence, gardens, sidewalk trees, utilities, and side streets impacted by traffic diversion	11	1
16. Annual water quality monitoring done to ensure safe drinking water facilities to the students and teachers.	0	12
17. Is there plan for Rain water harvesting, pond sand filters, etc. in coastal areas due to salinity intrusion	1	5
18. Sanitation facilities for the teachers and students and mechanism for regular cleaning and routine maintenance.	10	2
19. Plan for solid waste management and energy-efficient options solar lighting of school building.	0	12

Table 8: Compliance and Non-compliance Issues Monitoring for the Contractors

Provisions/ Compliances	Yes	No
1. Provision of adequate healthcare facilities (first aid) within construction sites;	11	1
2. Training of all construction workers in basic safety; sanitation and healthcare issues; specific hazards of their work; personal protection equipment for workers,	0	12
3. Such as safety boots, helmets, gloves, protective clothing, goggles and ear protection;	7	5
4. Clean drinking water for all workers;	12	0
5. Safe access across the construction areas;	12	0
6. Arrangement for water spray at the construction area throughout the construction time;	9	3
7. Ensure that no child labor will be deployed;	12	0
8. Lab wastes will be disposed properly with adopting an appropriate disposal facilities;	5	7
9. Keep work areas clean and tidy; and	7	4
10. Ensure that there is adequate provision of correctly marked waste containers made available at convenient locations for the disposal of wastes.	0	12

The frequency of submission of the Environmental Monitoring Report is defined in the loan agreement that the borrower will prepare semi-annual environmental (safeguard) monitoring reports, which will report the progress of implementation of the EMP and compliance issues and observations, with recommended corrective actions, if any.

7. Environmental Management Plan Implementation

A. Institutional Arrangement

The EMP defined as desired outcomes and actions to address the identified impacts and risks, and meet applicable requirements as measurable events to the extent possible. The EMP also discussed

the measures for information disclosure, the grievance redress mechanism, and the process for continued consultation with and participation of affected people during project implementation.

The EMP has been prepared that includes the nature of construction work, likelihood of disruptions, impact on local amenity, dangers or risks involved, traffic management or any other relevant issue required to be addressed under each new stage of construction. Ensure that construction; do not adversely affect health, safety, amenity, traffic or the environment in the surrounding area. Detailed range of health, safety, traffic management and amenity issues consider broader obligations including recycling, waste management and environmental initiatives. Requirements for Occupational Health and Safety, co-ordinate Safety measures with all stakeholders. It also considered: public safety, amenity and site security, operating hours, noise and vibration controls, air and dust management, storm water and sediment control, waste and materials re-use, traffic management, etc. Implementation of the EMP is part of the bid document and the contractor must submit their construction plan to the supervisory Consultant/ Engineer.

Measures were taken for the following: (i) site stabilization, erosion, and runoff; (ii) dust and noise suppression; (iii) management of traffic and utilities; and (iv) worker safety. Good health and hygiene practices at work and measures to prevent work accidents are achieved through an OHSP, which included emergency plans, personnel basic training, and first aid provisions.

An environmental assessment and review procedure has been prepared to facilitate compliance of SESIP infrastructure with the environmental requirements of the Government and ADB. International Environmental Expert in PMU's prepares a full environmental assessment report on selected subprojects, including public consultation and an environmental monitoring plan with specific mitigation measures, institutional arrangements for implementation

The EED, through its Sector Program Support Unit, is responsible to implement the overall EMP. However, during the construction stage, the contractors are responsible to mitigate all environmental impacts related with the construction activities. In this context, the EMP has not been included into the Bidding Documents of the construction packages to serve as a condition of contract for adopting the Environmental Code of Practices by the prospective contractor(s). However, the bidding documents of the construction package for the District Education Office at Bandorbon, has now been included EMP, the contractors are responsible to mitigate all environmental impacts related with the construction activities. The Construction Supervision Consultant or Environmental safeguard Expert (ESE) is to supervise the implementation of the EMP by the contractor(s).

The Planning Cell of EED will be responsible for the design, construction, and maintenance of the infrastructure of the project. The project proponent has deployed one Environmental Safeguard Expert (focal person) for environment who will lead the environmental activities and implementation of the EMP. The Assistant Engineer at Regional Office will carry out environmental screening of all "subprojects" and prepare an EMP for each project activities or "subproject". The zonal Executive Engineer will review the screening report and EMP through field visits. If an IEE is required, it will be the responsibility of the Executive Engineer of EED. The Monitoring Officer deployed by this project will be responsible for supervision and monitoring of environmental mitigation activities. The Chief Engineer at Headquarters will ensure quality control and reporting at the regional level. The environmental focal point from EED (may request support from Bangladesh Resident Mission's Environment Officer, if required) will prepare training materials; conduct training for staff/school teachers/students; prepare screening, IEE report, and site-specific EMP on sample basis; review a certain percentage of the EMPs; and prepare the Annual Environmental Monitoring Reports of the project and submit annually². [EARF 2013]. These activities are taken over by ESE in coordination with EED.

² ADB has requested semi-annual reports.

B. Environmental Management Plan

Environmental Management Plan (EMP) following EARF has been prepared and include the nature of construction work, likelihood of disruptions, impact on local amenity, dangers or risks involved, traffic management, or any other relevant issue required to be addressed under each new stage of construction. Ensure that construction do not adversely affect health, safety, amenity, traffic, or the environment in the surrounding area. Detailed range of health, safety, traffic management, and amenity issues consider broader obligations including recycling, waste management, and environmental initiatives. Requirements for Occupational Health and Safety are to co-ordinate Safety measures with all stakeholders, public safety, amenity and site security; operating hours; noise and vibration controls; air and dust Management; storm water and sediment control; waste and materials re-use; Traffic Management; etc. Implementation of the EMP was to be part of the bid document and the contractor to submit their construction plan to the supervisory engineer.

The program management unit (PMU) in the Secondary Education Sector Investment Program (SESIP) and Education Engineering Department (EED) under the Ministry of Education are responsible for monitoring and enforcement during construction. Technical and institutional mitigation measures were to be incorporated into the detailed design of the project. Planning, functional, institutional, and procedural measures are to be included in the selection criteria, tender documents, and the OHSP. Mitigation measures related to construction work must be specified in the contract with the contractor. The DOE should to oversee environmental compliance and environmental monitoring. ADB review missions were to assess environmental compliance.

Measures are to be taken for the following: (i) site stabilization, erosion, and runoff; (ii) dust and noise suppression; (iii) management of traffic and utilities; and (iv) safety of the workers. Good health, hygiene practices at work, and preventive measures for work accidents; were to be achieved through an OHSP, which should include emergency plans, personnel basic training, and first aid provisions.

Table 9: Potential Environmental Impact and Mitigation Measures

Category	Potential Environmental Impact/Issue	Possible Mitigation Measures
Occupational health, safety, and hygiene	Occupational Health and Safety	<ul style="list-style-type: none"> Implement suitable safety standards for all workers and site visitors Provide personal protection equipment for workers, such as safety boots, helmets, gloves, protective clothing, goggles, and ear protection Provide adequate healthcare (first aid) and safety facilities within construction sites Arrange safe drinking water and sanitation facilities for the labors Arrange water spray throughout the construction time Follow standard norms for toilet
Solid and hazardous waste management	Spreading of waste, pungent smell, deterioration of aesthetics, used batteries, laboratory chemicals disposed haphazardly	<ul style="list-style-type: none"> Introduce proper solid waste management system in schools with segregation of waste and its proper disposal Raise awareness on solid waste management with waste minimization, recovery, and recycling Ensure safe disposal of hazardous waste Ensure that adequate toilet and ablution facilities are provided for the duration of the contract
Drainage management	Drainage congestion/water logging, spread of vector born diseases	<ul style="list-style-type: none"> Consider the drainage system of the whole area in subproject design Maintain cross-drainage at all times during construction Prevent all solid and liquid wastes entering waterways by collecting solid waste and wastewater from brick, concrete Integrate drainage facilities with water supply options and sanitary latrine facilities in planning and design
Stone crushing	Dust and noise pollution	<ul style="list-style-type: none"> Spray water during dry season and in windy conditions Immediate compaction after construction of base course Cover the stockpiles of fine materials in construction yard Plan the work schedule of noise creating activities in consultation of local community Employ best available work practices on-site to minimize occupational noise levels
Soil Erosion	Soil erosion during construction	Careful arrangement to stop soil erosion by adopting proper protection measure before starting earthworks
Road blockage	Blocking of roads/access/approach	<ul style="list-style-type: none"> Construction materials and machinery should not be placed in a manner that blocks any roads, paths or local accesses Unloading of construction materials should be carried in a manner and time so as to avoid blockage of roads/paths/access Waste should not be placed on the roads
Water Pollution	Water pollution from construction activities	<ul style="list-style-type: none"> Prohibit direct disposal of solid and liquid wastage into nearby bodies of water Spoil Management Plan should be implemented by the contractor
Use of wood as construction/cooking materials	Deforestation	<ul style="list-style-type: none"> Minimize use of wood for construction Use local materials as much as possible Innovations shall be integrated in design for making schools more child and environment- friendly Contractor shall supply kerosene or liquefied petroleum gas at camps and restrict cooking and heating in firewood

Category	Potential Environmental Impact/Issue	Possible Mitigation Measures
Proper ventilation	Day lighting and ventilation system	<ul style="list-style-type: none"> Adequate windows in proper direction in consultation with students and teachers Provision for adequate ventilation in the classrooms and office
Ensure safe drinking water	Arsenic, iron, and salinity contamination in drinking water	<ul style="list-style-type: none"> Identify unions and upazilas based on DSHE survey where shallow or deep tube-wells are feasible Analyze local surrounding arsenic test results and recommend for tube-wells or not Adopt rain water harvesting, pond sand filter, and piped water supply in salinity intrusion areas After installation of tube-wells, presence of arsenic in the drinking water will be tested and be used only if it satisfies the Bangladesh standard
Water and sanitation	Selection of appropriate location for water source and sanitary latrine	<ul style="list-style-type: none"> Discuss with medical authority to ensure selected schools have drinking water and proper sanitation A minimum distance of 15m should be maintained between a tube-well and a latrine to prevent contamination of water resources; in case of shallow shrouded hand tube-wells, this distance should be 20m as horizontal filters are used in this type of tube-wells
Separate toilets for male and females	Adolescent girls may face serious problem due to lack of separate toilet facility	<ul style="list-style-type: none"> Provide separate toilets at adequate distance between male and females Water supply should be available in the toilets One latrine should be designed for about 30 persons
Extreme climate events and disasters ⁴	Extreme climate (e.g. cyclone, storm surge), natural disasters (e.g. earthquake, etc.), and fire	<ul style="list-style-type: none"> Adoption of appropriate adaptation and disaster risk reduction strategy, emergency preparedness and recovery, training/orientation program for health service workers on climate change, disaster and earthquake, etc. Schools located in the cyclone and earthquake prone areas should be designed and constructed in such a way that it is disaster and earthquake resilient or 'climate-proof' Create awareness about natural calamities and extreme climate to students, teachers and parents Provide fire safety management training and mock drill Ensure emergency equipments and facilities like fire extinguisher/water hose, first aid

This impact is not project-related, rather it is location specific. However, appropriate adaptation (e.g. rising of plinth of school building in high flood areas, appropriate building materials for cyclone prone areas, etc.) and preparedness measures (e.g. training, mock drill etc.) will be adopted.

The Table 10 below shows the Compliance Status at different Phases, responsibility, monitoring executor and compliance status.

Table 10: SESIP Compliance Status at different Phases

S.N.	Indicators of Monitoring	Method of Monitoring	Monitoring frequency	Responsibility	Compliance Status	Remedial measures
A. Pre-construction Phase Monitoring						
1	Printing, publication, and distribution of EARF to all stakeholders including translation of the	Direct observation	Once	SPSU/D SHE	Complied	Needs further printing during orientation and training

S.N.	Indicators of Monitoring	Method of Monitoring	Monitoring frequency	Responsibility	Compliance Status	Remedial measures
2	Recruitment of part-time environmental consultant for the project	Review of appointment letter	Once	SPSU/D SHE	Complied	Engagement need to be continued till the civil works completion
3	Incorporation of EARF in subprojects	Review of documents	Once	SPSU/D SHE	Partially Complied	Enforcement of EMP implementation
4	Disaster prone area (landslide, flood, drought area) and climate risk (cyclone and storm surge) screening done	Review of documents	Once	EED	Partially Complied	Resilient building will be constructed to face the challenges
5	Incorporation of EMP in design and tender document	Direct observation	Once	SPSU/DSHE /EED	Complied	6 subproject have included EMP in bid document. 12 subproject contractor were issued with EMP compliance format
B. Construction Phase Monitoring						
1.	Drinking water quality	<ul style="list-style-type: none"> Sampling, lab testing and comparison with generic standards For arsenic/iron/salinity, testing follow country specific and/or WHO recommended protocols 	Annual	Note: SPSU shall coordinate with DPHE, NGO, INGOs working in water & sanitation sectors	Partially Complied	Sampled at the start of the project. Annual water quality will be done with arrangement with DPHE
2.	Transportation of construction materials in covered condition and safe loading and unloading of construction materials	Contractor/Direct Observation	Regular during construction	EED/Contractor	Complied	Access to site for carrying materials to be planned
3.	Water sprinkling in dusty construction area and access roads	Contractor/Direct Observation	Every Day	EED/Contractor	Complied	Sprinkling water is mandatory
4.	Stockpiling of excavated materials	Contractor/Direct Observation	Everyday	EED/Contractor	Partially Complied	Need to cover stockpiled materials
5.	Reuse of excavated materials	Contractor/Direct Observation	Everyday	EED/Contractor	Partially Complied	Certain possible location
6.	Solid waste segregation disposal	Contractor/Direct Observation	Everyday	EED/Contractor	Partially Complied	Separate bin are used

S.N.	Indicators of Monitoring	Method of Monitoring	Monitoring frequency	Responsibility	Compliance Status	Remedial measures
7.	Clearing of vegetation/trees	Contractor /Direct Observation	During construction once in 3 months	EED/Contractor	Complied	Mukundapur madrasah had to cut one tree with permission from appropriate authority
8.	Noise and dust pollution	Contractor / Direct Observation	Regular during construction	EED/Contractor	Complied	Avoid night time working and during class. Sprinkling water
9.	Occupational health and safety, use of safety gears	Direct Observation	Once a month	EED/Contractor	Partially Complied	Some subproject found to be without PPE
10.	Safety of workers, students, and teachers	Record of injury	Once a week	EED/Contractor	Partially Complied	Make arrangement so that none in the school is hurt
11.	Water logging and spread of vector born diseases	Direct Observation	Once a week	EED/Contractor	Complied	Proper drainage and washing made
C. Operation Phase Monitoring						
1.	Preparation of monitoring reports	Records/Documents	Monthly	EED	Complied	Jan and June 2017 EMR submitted
2.	Drinking water quality, arsenic testing, and mitigation; adequate natural light, air, and ventilation	Samples taken from different points, source delivery points; laboratory testing; interview with students	Annual	EED/SMC	Partially Complied	Sampled at the start of the project. Annual water quality will be done with arrangement with DPHE
3.	Solid waste and lab waste management system	Records of waste collected and managed	Bi-annual	EED/SMC	Partially Complied	Organized disposal
4.	Rainwater harvesting	Observation	Annual	EED	No available data	Not popular in the affected schools
5.	Solar power for schools	Observation	Annual	EED	Program dropped	
7.	Number of orientation and training	Number of orientation and trainings conducted	Regular	EED/SMC	Once in January 2015 for 15 participants	More training are planned for 150 participants
10.	Impact audit	Compliance with EARF	Annual	EED	Complied	EMR reflects the audit as per EARF

DPHE = Department of Public Health Engineering, DSHE = Directorate of Secondary and Higher Education, EARF = Environmental Assessment and Review Framework, EED = Education Engineering Department, EMP = environmental management plan, INGO = international nongovernmental organization, NGO = nongovernment organization, SPSU = Sector Program Support Unit, WHO = World Health Organization.: Source: ADB.

Partially complied: The complete monitoring data are not available from supervising engineer, contractor, head teacher etc.

a. Fielding of an Environmental Safeguard Expert

The purpose of the Environmental Safeguard Expert (ESE) assigned for 5 months is to (i) review the environmental assessment report (EARs); (ii) implement environmental mitigation measures and monitoring program for upgrading the physical facilities and equipment of government secondary, upazila education offices, including school infrastructure development – construction and renovation of school buildings, including science labs, and Madrasah Teaching Training Institute and upgrading Directorate of Secondary and Higher Education (DSHE) during design, construction and operation; (iii) inspect and ensure compliance with the mitigation measures proposed in the EARF/ EARs and IEEs for all components or subprojects funded by the Project; and (iv) provide additional necessary trainings to focal persons in the project for preparing Environmental Monitoring Report (EMR).

C. Compliance of Safeguard Covenants of ADB Loan**a. Safeguard Requirements of the Government of Bangladesh**

The main provisions for environmental protection and pollution control in Bangladesh are contained in the Environmental Conservation Act, 1995 and Environmental Conservation Rules (ECR), 1997. Under the ECR, projects are classified as 'Green', 'Orange A', 'Orange B', and 'Red' to determine the level of environmental assessment required. It should be noted that they may obtain an initial site clearance on the basis of an IEE report, and subsequently submit an EIA report for obtaining an ECC along with other necessary papers, such as feasibility study reports and no objections from local authorities.

Construction of multi-storied buildings is considered as 'Orange B' category in ECR, 1997. However, there is no fixed definition of a multi-storied building. In addition to the ECR, there are a number of other policies, plans, and strategies which deal with the water sector, agricultural development, natural resource management, coastal area, protected area, disaster management, and climate change.

The National Building Code, 2006 and National Labor Act, 2006 have defined certain measures to ensure proper safety and work environment as well as the compensation measures to the laborers. By national law, in order to be compensated, contractors must follow and comply with these safety provisions and compensation arrangements. The implementing agency must ensure that the appropriate occupational health and safety provisions have been included in the bidding documents and are being implemented by contractor. The water quality needs to be monitored periodically to ensure that the supplied water is safe for drinking.

b. Safeguard Requirements of the Asian Development Bank

ADB's Safeguard Policy Statement (SPS) include operational policies that seek to avoid, minimize, or mitigate adverse environmental and social impacts, including protecting the rights of those likely to be affected or marginalized by the development process. ADB's SPS set out the policy objectives, scope and triggers, and principles for three key safeguard areas: (i) environmental safeguard (ii) involuntary resettlement safeguards, and (iii) Indigenous Peoples safeguards.. All three safeguard policies involve a structured process of impact assessment, planning, and mitigation to address the adverse effects of projects throughout the project cycle. The safeguard policies require that impacts are identified and assessed early in the project cycle; plans to avoid, minimize, mitigate, or compensate for the potential adverse impacts are developed and implemented; and affected people are informed and consulted during project preparation and implementation. A basic principle of the three existing safeguard policies is that implementation of the provisions of the policies is the responsibility of the borrower/client. Borrowers/clients are required to undertake social and environmental assessments,

carry out consultations with affected people and communities, prepare and implement safeguard plans, monitor the implementation of these plans, and prepare and submit monitoring reports.

ADB Environmental Screening				
Category	Category 'A'	Category 'B'	Category 'C'	Category FI
Description	The project is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works	The project has potential adverse environmental impacts on human populations or environmentally important areas—including wetlands, forests, grasslands, and other natural habitats—are less adverse than those of Category 'A' projects. These impacts are site-specific; few if any of them are irreversible; and in most cases mitigation measures can be designed more readily than for Category 'A' projects.	The project is likely to have minimal or no adverse environmental impacts	A project is classified as category FI if it involves the investment of ADB funds to, or through, a financial intermediary.
EA Requirements	For a Category 'A' project, an Environmental Impact assessment (EIA) is required	An Initial Environment Examination (IEE) is required	No environmental assessment is required although environmental implications need to be reviewed	All FIs will ensure that their investment are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list.

All projects funded by ADB must comply with ADB's Safeguard Policy Statement (SPS), 2009 and Operational Manual F1, 2010. The purpose of the SPS is to establish an environmental review process to ensure that projects undertaken as part of programs funded under ADB's loans are environmentally sustainable and sound, are designed to operate in compliance with applicable regulatory requirements, and are not likely to cause significant environmental, health, or safety hazards.

The proposed program has been categorized as 'Category B' from an environmental point of view and an IEE, along with EMP, are required to be prepared and disclosed. The assessment will be carried out to ensure that the potential adverse environmental impacts are appropriately addressed in line with ADB's SPS, 2009. The following IEE of the program were (Table 8) prepared to meet the requirements of ADB and DOE.

Table 11: Status of IEE/ EMP and Guidelines of Sub-projects Implementation.

Documents	Sub-Projects	Location
Initial Environmental Examination	Upzila Education office	Patharghata, Borguna, Bangladesh
Initial Environmental Examination	Model High School	Elongi, Chatak, Bangladesh
Initial Environmental Examination	Disrtic Education office	Bandorban, Bangladesh
Guidance for Incorporation of EMP Requirements into Contracts for SESIP Civil Works	100 School Subprojects	100 selected locations
Guidance for Monitoring and Reporting of Environmental Safeguards for Civil Works - SESIP and ADB	100 School Subprojects	100 selected locations

Updating of EARF 2013	Updated in May 2017	
IEE for haor School	Prepared in May 2017	

c. Compliance with Loan Covenants

i. Tranche 1 Loan Covenant:

Table 12: Compliance with Loan Covenants (Tranche 1)

Item	Description	Due Date	Status / Remarks
Schedule 5, Para. No. 1	Implementation Arrangements The Borrower, MOE and DSHE shall ensure that the Project is implemented in accordance with the detailed arrangements set forth in the FAM. Any subsequent change to the FAM shall become effective only after approval of such change by the Borrower and ADB. In the event of any discrepancy between the FAM and this Loan Agreement, the provisions of this Loan Agreement shall prevail.		Complied.
Schedule 5, Para. No. 2	The Borrower, MOE and DSHE shall implement, manage, coordinate and monitor the Project in accordance with its objectives, responsibilities, funding mechanism, fiduciary requirements including those outlined in the PFM Action Plan and other program management arrangements as set out in the EARF, RF, SECPF and GAP.		Complied.
Schedule 5, Para. No. 3	Borrower's contribution to the Investment Program The Borrower shall provide its contribution to the Investment Program in a timely manner.		Complied.
Schedule 5, Para. No. 4	Staffing The Borrower, MOE and DSHE shall ensure that the provision of reorganizing existing staff and additional staff as agreed between ADB and the Borrower are completed on a timely basis, including: (a) fully staffing the sector program support unit by December 2013, (b) adding all new positions created under the Investment Program, as reflected in the Borrower's approved development project proforma (DPP) and FAM, shall be added under the revenue budget, and (c) completion of all staff reorganization by no later than 12 months after Effective Date.	Differentiated Target Dates	Staffing of SPSU was completed in March 2014. All other staffing arrangements has also been completed. Issue of transferring to revenue budget not yet due.
Schedule 5, Para. No. 5	PPMIS and Project Website Within 3 months of Effective Date, MOE shall create, and thereafter, maintain and regularly update, (a) a project and procurement management information system ("PPMIS") and (b) a comprehensive Program website. The Program website shall disclose information about all material matters relating to the Program and its implementation, including details about each package (for which Sector Program Support Unit at DSHE shall maintain separate records), and achievement of DLIs. In relation to procurement, the website shall include information on (i) package number and name, (ii) location of the school, (iii) estimated cost, (iv) financing agency, (v) date of issue of invitation for bids, (vi) date and time of submission and opening of bids, (vii) bid opening location, (viii) bid opening committee, (ix) bid opening statement, (x) names of bidders that purchased the bidding documents, (xi) names of bidders that submitted bids, (xii) names of the bid evaluation committee, (xiii) name of the approving authority, (xiv) name, designation and telephone number of officer in charge for implementation, (xv) name of the successful bidder, (xvi) contract amount, (xvii) date of start, and (xviii) scheduled date of completion.		PPMIS and project website launched in March 2015 http://sesip.gov.bd/
Schedule	Environment		

Item	Description	Due Date	Status / Remarks
5, Para. No. 6	The Borrower shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in the Safeguards Monitoring Report to be provided to ADB.		Complied. Also, 20 officials from EED and SPSU staff were trained on safeguard compliance in February 2015. EARF/IEE being implemented
Schedule 5, Para. No. 7	Small Ethnic Community People The Borrower shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to small ethnic community people; (b) the Small Ethnic Community People Safeguards Impact; and (c) all measures and requirements set forth in the SECPP, and any corrective or preventative actions (i) set forth in the Safeguards Monitoring Report to be provided to ADB, or (ii) subsequently agreed between ADB and the Borrower.		Complied
Schedule 5, Para. No. 8	Involuntary Resettlement The Borrower shall ensure that the Project does not have any Involuntary Resettlement Safeguards impact under SPS. In the event that the Project does have any such impact, the Borrower shall take all steps required to ensure that the Project complies with the applicable laws and regulations of the Borrower, any RP and with SPS.		Complied.
Schedule 5, Para. No. 9	Human and Financial Resources to Implement Safeguards Requirements The Borrower shall make available necessary budgetary and human resources to fully implement the EMP, any RP and the SECPP.		Complied.
Schedule 5, Para. No. 10	Safeguards – Related Provisions in Bidding Documents and Works Contracts The Borrower shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures relevant to the contractor set forth in the IEE, the EMP, any RP and SECPP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set forth in the safeguards monitoring report; (b) make available a budget for all such environmental and social measures; (c) provide the Borrower with a written notice of any unanticipated environmental, resettlement or small ethnic community peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, any RP and SECPP; (d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and (e) reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.		Complied. Bidding documents & work contract include safeguards (implementation of EMP)
Schedule	Safeguards Monitoring and Reporting		

Item	Description	Due Date	Status / Remarks
5, Para. No. 11	<p>The Borrower shall do the following or cause MOE to do the following:</p> <p>(a) submit semiannual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;</p> <p>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, any RP and SECPP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan;</p> <p>(c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP, any RP or SECPP promptly after becoming aware of the breach; and</p> <p>(d) in respect of implementation of any compliance with Involuntary Resettlement Safeguards and Indigenous Peoples Safeguards.</p>		Safeguard Compliance Report submitted in January 2017.
Schedule 5, Para. No. 12	<p>Prohibited List of Investments</p> <p>The Borrower shall ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.</p>		Complied.
Schedule 5, Para. No. 13	<p>Labor Standards</p> <p>The Borrower shall ensure that (a) civil works contractors comply with all applicable labor laws and regulations, do not allow employment of child labor for construction and maintenance activities, encourage the employment of the poor, particularly women, and provide appropriate facilities for women and children in construction campsites; (b) people directly affected by the Project are given priority to be employed by the Project; (c) contractors do not differentiate wages between men and women for work of equal value; and (d) specific clauses ensuring these will be included in bidding documents.</p>		Complied.
Schedule 5, Para. No. 14	<p>Health</p> <p>The Borrower shall ensure that contractors provide adequately for the health and safety of construction workers and further ensure that bidding documents include measures on how contractors will address this, including information and awareness raising activities for construction workers on sexually transmitted diseases, HIV/AIDS, and human trafficking.</p>		Complied.
Schedule 5, Para. No. 15	<p>Governance and Anticorruption</p> <p>The Borrower, MOE and DSHE shall (a) comply with ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practice relating to the Project; and (b) cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation.</p>		Complied.
Schedule 5, Para. No. 16	<p>The Borrower and MOE shall ensure that the anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of the executing and implementing agencies and all contractors, suppliers, consultants, and other service providers as they relate to the Project.</p>		Complied.

Item	Description	Due Date	Status / Remarks
Schedule 5, Para. No. 17	The Borrower and MOE shall ensure that detailed information on project implementation, including those maintained in PPMIS, is made readily available to the public through the MOE website and Government's bulletin boards. This shall include all relevant information and documents relating to procurement as outlined in paragraph 5 above.		Complied.
Schedule 5, Para. No. 18	Gender Action Plan The Borrower shall ensure that the Gender Action Plan is effectively implemented including all the specific targets outlined in the GAP.		Complied.

Source: SESIP (Dated 12 Jan, 2017)

ii. Tranche 2 Loan Covenants:

Table 13: Compliance with Loan Covenants (Tranche 2)

Item	Description	Due Date	Status / Remarks
Schedule 5, Para. No. 1	Implementation Arrangements The Borrower, MOE and DSHE shall ensure that the Project is implemented in accordance with the detailed arrangements set forth in the FAM. Any subsequent change to the FAM shall become effective only after approval of such change by the Borrower and ADB. In the event of any discrepancy between the FAM and this Loan Agreement, the provisions of this Loan Agreement shall prevail.		Complied.
Schedule 5, Para. No. 2	The Borrower, MOE and DSHE shall implement, manage, coordinate and monitor the Project in accordance with its objectives, responsibilities, funding mechanism, fiduciary requirements including those outlined in the PFM Action Plan and other program management arrangements as set out in the EARF, RF, TMECPPF and GAP.		Complied.
Schedule 5, Para. No. 3	Borrower's contribution to the Investment Program The Borrower shall provide its contribution to the Investment Program in a timely manner.		Complied.
Schedule 5, Para. No. 4	Staffing The Borrower, MOE and DSHE shall ensure that the reorganized staff and provision of additional staff for the Investment Program as agreed between ADB and the Borrower, including full staffing for the sector program support unit in [MOE/DSHE], will be maintained for the duration of the Investment Program.		Complied.

Item	Description	Due Date	Status / Remarks
Schedule 5, Para. No. 5	<p>PPMIS and Investment Program Website</p> <p>MOE shall maintain and regularly update the project and procurement management information system ("PPMIS") established for the Investment Program and a comprehensive Investment Program website. The Investment Program website shall disclose information about all material matters relating to the Investment Program and its implementation, including details about each package (for which Sector Program Support Unit at DSHE shall maintain separate records), and achievement of DLIs. In relation to procurement, the website shall include information on</p> <ul style="list-style-type: none"> (a) package number and name, (b) location of the school, (c) estimated cost, (d) financing agency, (e) date of issue of invitation for bids, (f) date and time of submission and opening of bids, (g) bid opening location, (h) bid opening committee, (i) bid opening statement, (j) names of bidders that submitted bids, (k) name of the approving authority, (l) name, designation and telephone number of officer in charge for implementation, (m) name of the successful bidder, (n) contract amount, (o) date of start, and (p) Scheduled date of completion. 		<p>PPMIS developed that provides the agreed information.</p> <p>http://sesip.gov.bd/</p>
Schedule 5, Para. No. 6	<p>Environment</p> <p>The Borrower shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in the Safeguards Monitoring Reports to be provided to ADB.</p>		Complied.
Schedule 5, Para. No. 7	<p>Tribes, Minor Races, Ethnic Sects and Community Peoples</p> <p>The Borrower shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to tribes, minor races, ethnic sects and community peoples; (b) the Tribes, Minor Races, Ethnic Sects and Community Peoples Safeguards impact; and (c) all measures and requirements set forth in the TMECPP, and any corrective or preventative actions (i) set forth in the Safeguards Monitoring Report to be provided to ADB, or (ii) subsequently agreed between ADB and the Borrower.</p>		Complied.
Schedule 5, Para. No. 8	<p>Involuntary Resettlement</p> <p>The Borrower shall ensure that the Project does not have any land acquisition or involuntary resettlement impact under SPS. In the event that the Project does have any such impact, the Borrower shall take all steps required to ensure that the Project complies with the applicable laws and regulations of the Borrower, the RF, any RP and with</p>		Complied.

Item	Description	Due Date	Status / Remarks
	SPS.		
Schedule 5, Para. No. 9	Human and Financial Resources to Implement Safeguards Requirements The Borrower shall make available necessary budgetary and human resources to fully implement the EMP, any RP and the TMECPP.		Complied.
Schedule 5, Para. No. 10	Safeguards – Related Provisions in Bidding Documents and Works Contracts The Borrower shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures relevant to the contractor set forth in the IEE, the EMP, any RP and TMECPP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set forth in the safeguards monitoring report; (b) make available a budget for all such environmental and social measures; (c) provide the Borrower with a written notice of any unanticipated environmental, resettlement or tribes, minor races, ethnic sects and community peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, any RP and TMECPP; (d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and (e) reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.		Complied.
Schedule 5, Para. No. 11	Safeguards Monitoring and Reporting The Borrower shall do the following or cause MOE to do the following: (a) submit semiannual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission; (b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, any RP and TMECPP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; (c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP, any RP or TMECPP promptly after becoming aware of the breach; and (d) in respect of implementation of any compliance with Involuntary Resettlement Safeguards and Tribes, Minor		Complied.

Item	Description	Due Date	Status / Remarks
	Races, Ethnic Sects and Community Peoples Safeguards.		
Schedule 5, Para. No. 12	Prohibited List of Investments The Borrower shall ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.		Complied.
Schedule 5, Para. No. 13	Labor Standards The Borrower shall ensure that (a) civil works contractors comply with all applicable labor laws and regulations, do not allow employment of child labor for construction and maintenance activities, encourage the employment of the poor, particularly women, and provide appropriate facilities for women and children in construction campsites; (b) people directly affected by the Project are given priority to be employed by the Project; (c) contractors do not differentiate wages between men and women for work of equal value; and (d) specific clauses ensuring these will be included in bidding documents.		Complied.
Schedule 5, Para. No. 14	Health The Borrower shall ensure that contractors provide adequately for the health and safety of construction workers and further ensure that bidding documents include measures on how contractors will address this, including information and awareness raising activities for construction workers on sexually transmitted diseases, HIV/AIDS, and human trafficking.		Complied.
Schedule 5, Para. No. 15	Governance and Anticorruption The Borrower, MOE and DSHE shall (a) comply with ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practice relating to the Project; and (b) cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation.		Complied.
Schedule 5, Para. No. 16	The Borrower and MOE shall ensure that the anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of the executing and implementing agencies and all contractors, suppliers, consultants, and other service providers as they relate to the Project.		Complied.
Schedule 5, Para. No. 17	The Borrower and MOE shall ensure that detailed information on Project implementation, including those maintained in PPMIS, is made readily available to the public through the MOE website and Government's bulletin boards. This shall include all relevant information and documents relating to procurement as outlined in paragraph 5 above.		A website developed for the program http://sesip.gov.bd/ That included PPMIS. Necessary information are being uploaded in the website.
Schedule 5, Para. No. 18	Gender Action Plan The Borrower shall ensure that the Gender Action Plan is effectively implemented including all the specific targets outlined in the GAP.		Complied.

Source: SESIP (Dated 12 Jan, 2017)

d. Observation on Jan 2017 EMR by ADB

The first ever Environmental (Safeguard) Monitoring Report was submitted on January 2017. The EMR has followed the guidelines as in EARF 2013. The ADB while accepting the EMR has the following observation and comments. The observation and comments are organised to show the compliances and action needed. This has been presented in the following table:

Table 14: Compliances of observation by ADB on EMR Jan 2017

Comments on 1 st EMR for SESIP (L-3320)	Compliances	Action Needed
1. The EMR has incorporated project background, physical progress of subproject activities, status of subproject implementation progress, and the context and scope of EMR including requirement of monitoring of EMP implementation very precisely.	We continue to do that with new information come in	
2. The report has provided overall compliance status of various indicators of SESIP in table 4 of the report. However the compliance status reports are not substantiated with the monitoring outcomes or reference of any information, data or reports.	The compliance status reports will be substantiated with the monitoring outcomes or reference of any information, data or reports	Civil works complied with necessary field inspection and photograph. We are contacting people responsible for other the task in SESIP. Field visit will continue for better Compliance.
3. We appreciate that the report has provided compliance status of ADB loan covenants in table 6. However it is also required to refer the relevant safeguard related documents and outcomes, results and activities through which covenants are being complied with.	Environmental Safeguard Expert has undertaken several field visit and gave compliance report as per annex C. Several photograph included to understand field condition.	Data will be compiled to refer the relevant safeguard related documents and outcomes, results and activities through which covenants are being complied with.
4. As reported in the EMR, Environmental Management Plan (EMP) was not prepared and included with the bid documents of any subprojects, and the construction contractor did not submit their monitoring plan and there was no sampling and monitoring and data collection by the contractor. As per Clause 6 (Conditions of Contract) of loan agreement, the borrower shall not award any Works contract which involves environmental impacts until the MoE has incorporated the relevant provisions from the EMP into the Works contract. Therefore, we strongly recommend EA to take necessary initiative to include EMP requirements and specifications with appropriate terms and conditions in the remaining bid documents as well as contracts to be awarded.	The bid document for District Education Office at Bandorban has recently been prepared for construction. Environmental management and monitoring plan now part of bid document. Contractor has been asked to submit 'Contractor's EMP' for review and approval	Bid document of all the sub-project to follow the process. All bid documents need to be reviewed by the Environmental Safeguard Expert to make sure that compliance with loan covenant are implemented.
5. The table 9 of the EMR included some items of focus and actions to be taken up by PMU and EED. We recommend that the next report would provide a status on the implementation of those proposed items of focus and recommended actions.	The compliance of the table 9 of the EMR has been presented in REPORT, Table 14.	Further recommendation has been made in REPORT those are needed to be taken with previous ones.
6. Annex 1 – Table 10: The table 10 has provided civil monitoring matrix with compliance status without referring to any specific subprojects/ packages and	About 11 selected schools and NAEM extension has been visited by Environmental Safeguard Expert and documented in Annex C. [EMR,	This monitoring needs extensive field visit by Environmental Safeguard Expert, SESIP (Focal

Comments on 1 st EMR for SESIP (L-3320)	Compliances	Action Needed
outcomes, results and activities through which compliance status has been concluded. In the next report, please make sure that monitoring matrix refers specific activities or subprojects. An explanation need to be provided for partial compliance of all mitigation measures listed in the table.	June 2017]	person) and EED supervising officer. The reporting by supervising engineer, contractor and SMC to be documented by Zonal Assistant Engineer for Focal person.
7. Annex 1 - Table 11: Civil works procurement package: Instead of attaching the complete list of procurement packages, please include the packages that require construction or reconstruction. We would require reporting on the implementation progress of EMP for all large civil works (schools) that have started construction work as noted in Table 11 in the next EMR. Please note that renovation of class room for ICT may be excluded from regular EM reporting.	This is taken care of. At this moment there is no large civil works. The NAEM hostel a bit larger civil works. However District Education Office at Bandorbon will be a larger CW.	This need collaboration with EED. SESIP has requested to discuss with the Chief Engineer so that Environmental Safeguard Expert can get more involved in the SESIP civil works and review the bid documents for EMP implementation.
8. Annex 2: May not need to include implementation progress subprojects on ICT learning (Table 12)	Can be dropped as suggested.	
9. Annex 3: A detailed progress monitoring using the prescribed table need to be submitted.	Detail progress in EMP implementation and monitoring has been done for 11 schools visited by ESE	Need collaboration with EED's for coordination the field supervisor to continue a self monitoring process which can be checked by the ESE sporadically.
10. Annex 4: Pictures are very helpful to understand on the ground situation. We suggest PMU to follow up with the contractors and incorporate safeguard clauses in the bidding documents. Also, PMU needs to consider organizing safeguards orientation session for the contractors to ensure PPE compliance.	More pictures available for all the schools checked by ESE	Chief Engineer may be requested to include the 'implementation of EMP' in the bid documents. This has already started with Bandorbon DEO construction
11. Annex 5 & 6: We strongly recommend filling out the two infrastructure compliance checklists for each sub-project and attaching as an annex C in the next EMR.	The annex 5, 6, 7 are supplied to the school level official and contractor for the reports. At least 11 schools have compliance report on those Annexure C.	It is part of EARF. Extensive field check will be needed by the environmental focal person for proper semi-annual EMR.
There is no inclusion of subproject wise filling up of checklist as per suggested environmental compliances monitoring report format for school environment and for the construction site. It is expected that the EA would initiate for filling up those subproject specific formats and prepare the next EMR according to the guidelines provided for same.	Annex 5, 6 and 7 are the formats which are filled during the visited schools. Sub-project area checklist for all schools is under compilation.	The EMP implementation needs institutional arrangement as suggested to set up Environmental Unit (EU) within EED. Training of 150 persons as reported being abandoned as there will be no infrastructure financing Tranche 3 by ADB. It does not exclude the responsibility of SESIP to prepare EMR t for DOE (GOB)
12. Annex 7: Is it subproject specific reporting? In Table 1, remedial measures and explanation for partial or non-compliance need to be mentioned.	The annex 7 is supplied to the school level official and contractor for the reports	Compliance depends on the self reporting of SMC and ESE's field verification.
13. Environmental Specialist (ES) has been appointed in December, 2016.	Focal person on Environment need to be available throughout the	Need to expedite with more field checks. ESE's term will

Comments on 1 st EMR for SESIP (L-3320)	Compliances	Action Needed
It is expected that the ES will help streamlining the field monitoring on the implementation progress of subprojects EMP.	construction period. The civil construction is expected to be at peak during May till December 2017	expire by June 30, 2017. Supervision and field checks by ESE will be needed until December 2017. Another semi-annual EMR will be due on 15 December 2017.
14 As per loan agreement between the GoB and ADB, we expect semiannual reports: (i) by June 15 and (ii) December 15 to be submitted to ADB on the progress of environmental safeguards compliance. We request PMU to prepare the next report incorporating above comments and submit to ADB by June 15, 2017. Please do let us know if you have any questions.	Semi-annual EMR will be submitted by 15 June 2017. More civil works for UEO, DEO Vocational school extension (to the tune of BDT 5631 Million) is expected under Tranche 1 & 2 immediately on approval.	We are seeking approval from Ministry of Education to create Environmental Unit (EU) within EED headed by one Superintendent Engineer, EED and other supporting staff. Civil works progressed only 50% during June 2016-May 2017 in 12 months. EED need to complete rest of civil works for the 100 selected schools by December 2017.. The support of an Environmental Safeguard Expert will be necessary in monitoring. Civil works construction. Another Semi-annual environmental Monitoring Report is due on 15 December 2017.

D. Action Plan for Safeguard Monitoring

The action plan for safeguard monitoring depends on the creation of Environmental Unit under EED. The Implementation plan in the EARF explains very clearly that Supervising Engineer are to be focal person at field level. The formatted data/information will be collected by the EED officers engaged in the construction supervision, contractor undertaking civil works and Head teacher responsible for day to day operation of the school and safety of the children.

Table 15: ACTION PLAN FOR SAFEGUARD MONITORING (July 2017-Dec 2018)

SN	Months (July-Dec 2017, Jan-Dec 2018)	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
	Identified Works	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Creation of Environmental Unit in EED																		
2	Rapid Environmental Assessment (REA)																		
3	Environmental Management Plan (EMP)																		
4	IEE/EMP for identified sub-project																		
5	Orientation/ training																		
6	Contractors EMP																		
	<i>a. Preparation of CEMP</i>																		
	<i>b. Appointing Environment Officer</i>																		
9	School Hygiene and Environmental Parameters																		
	<i>a. Annual Water Quality Testing (TW)</i>																		
	<i>b. Sanitation Facilities (toilet, hand washing, urinals)</i>																		
	<i>c. Noise Pollution</i>																		
	<i>d. Soil Pollution</i>																		
10	Environmental Safeguard Monitoring Report (EMR)																		

E. Site Inspections and Audits

On behalf of the SPSU, the environmental safeguard expert visited NAEM Sub-project and holds one consultation meeting with supervising engineer, Contractor and NAEM officials. The supervising engineer was informed the requirements to the implementation of EMP and submitting of monitoring report to the EED. The contractor was informed about the requirement of implementation of EMP. However, the contractor was not aware of such compliance and this was not formed part of bid documents. The NAEM official expressed their satisfaction about the work, supervising engineer informed about the format for reporting. The list of attendee and the photographs appended.

Following the same process about 11 schools undergoing vertical/horizontal extension and adding better sanitation arrangements like separate toilets for boys and girls were inspected by the ESE. He has made field trip reports and displayed photographs showing construction environment. Moreover consultations were made with teachers, student, supervising engineer, contractor, SMC etc. List of subproject under visitation is in the following table:

Table 16: List of subproject visit

Name of the Sub-project visited	Physical Inspection	Stakeholder SMC consultation	EMP implementation Supervising Engineer	EMP implementation Contractor
1. Alongi Model High School	√	√	√	√
2. Kolagaon Karimpur High School	√	√	√	√
3. Bashbaria Jhanjhania Secondary School	√	√	√	√
4. Kotalipara Shahana Rashid Girls' High School	√	√	√	√
5. Gadaipur Jeher Ali High School	√	√	√	√
6. Rajganj Secondary School	√	√	√	√
7. Raigaon High School	√	√	√	√
8. Tilokpur high School	√	√	√	√
9. Chaluabari lower Secondary School	√	√	√	√
10. NAEM Hostel building (3 Floors)	√	√	√	√
11. Mukundapur Madrasah	√	√	√	√

a. Records on Disclosure of Monitoring Information

The first EMR prepared in January 2017 has been disclosed to the ADB and SESIP. However, EED has been well aware through this EMR what kind of monitoring are required and to be documented for disclosure. EED is undertaking measures to comply with the ADB reporting requirements, and produce the necessary records for reporting purposes. This comprehensive monitoring plan is under preparation and will be disclosed by 15th June 2017. To-date IEE reports were prepared for the following sub-projects for disclosure and approval:

Table 17: IEE Prepared

Sub-Projects	Location
Upazila Education office	Patharghata, Borguna, Bangladesh
Model High School	Elongi, Chatak, Bangladesh
District Education office	Bandorban, Bangladesh
New Secondary School	Dharmapasha, Sunamganj.

F. Updating of EARF 2013 for Tranche 3 has been submitted to ADB

a. Capacity Development

Capacity on environmental management needs to be strengthened at all levels of the EA including DSHE, EED, PIU/SESIP. SESIP will implement capacity building measures through training, exposure visit to ideal schools in major divisions. Following capacity development training has been recommended in EARF Detailed Capacity Building Program will be developed by SESIP as per need for EARF implementation and capacity building program to EED/DSHE (training, research, and development). SESIP will organize training for EED Engineers and Contractors with support from resource person for Training on construction of resilient school buildings.

8. Recommendation and Conclusion

A. Key Issues and Recommendations made in January 2017 EMR

The key issues and measures recommended are (i) securing ECC from DOE, (ii) recruitment Environmental Specialist (ES) (environmental focal person).

Civil works contracts and procurement was undertaken by the PMU's and by engineers of the EED and the PIUs. The performance of the EED was likewise less than satisfactory owing to (i) keep the PMU /PIU ignorant about the implementation of EMP as part of bid documents; (ii) EED's lack of knowledge of the requirements for preparation of "good-for-construction" drawings; (iii) the EED's lack of active supervision of works in progress; (iv) inadequate assurance that construction materials met the required construction standards; and (v) lack of engineer approval of sample material used, both before and after the execution of works (all these are part of EMP).

a. Summarized Issues

Limited Environmental mitigation measures related to subprojects are being implemented. Formal documentation for each of the sub-projects are under process. Environmental review through use of IEEs and EIAs is done in conjunction with subproject design. But this has limitation because civil works executed by EED as 'Deposit Works/sub-contractor' of SESIP's civil works program. SESIP has a significant barrier over the construction of civil works and EED does not care for mitigation measure for such small works. EED does not have setup for environmental monitoring. After prolonged discussion and several meeting between SESIP and EED it was agreed to create one Environmental Unit (EU) with counterpart Superintending Engineer. But that is too long way to go as it requires approval of Ministry of Education. Moreover, ADB will not be involved in civil works in Tranche 3. Under the circumstances the recommendation given in the EMR January 2017 may not be addressed. For capacity development in SESIP, SPSU, EED the proposed training program for 150 persons has been dropped at the instance of ADB's abandoning civil works in Tranche 3. Where mitigation measures are lacking, contractors are urged to improve their performance. The GRM is in the process of being implemented with Committees formed at local level. No grievance has been received by the committee in any of the sub-project.

b. Status on Issues and Recommendations of January 2017 EMR and its compliances

Table 18: Issues and Recommendations for PMU, EED and their Rationale

Issues/Work Activity		Recommendations	Rationale	Compliances After EMR Jan.2017
1	EMP design is delayed	EMP is delayed for 'civil construction' which is a small portion of project activity.	The civil construction is occurring for individual sub-projects like extension of school building. EMP will identify the mitigation measure if required and will guide the monitoring.	Measures is being taken for works like District Education Office at Bandorbon, CHT

Issues/Work Activity		Recommendations	Rationale	Compliances After EMR Jan.2017
2	Annual EMRs were delayed during SESIP	Delayed civil construction. Operation of school has its monitoring procedure according to TOR	PMU should engage ES as focal person to supervise repair maintenance and the operation of schools and reporting on regular basis.	Submission of semi-annual environmental, monitoring Report started in January 2017. This will be submitted in June 2017. Next one will be due in December 2017
3	Environmental Clearance Certificate	Application required from SESIP for ECC. The DOE, will require IEE/ SIEE and present EMR to accompany the application	ECC is mandatory for foreign aided projects. Civil works (construction) and operation of schools needs ECC from DoE. IEE/ SIEE and present EMR will cover EMP of SESIP to obtain the ECC.	ECC requirements is still a confusion as none of the school building refurbishment is category B. However we need to submit the EARF and EMR to know as what's going on in the project
4	Appointing ES under SESIP	ES will supervise the implementation of EMP and preparation EMR for DOE, ADB etc.	Environmental Focal Person requirement could not met by EED and SESIP did not took proper step to appoint. This focal person is to overview environmental issues of the project. Separate TOR for ES is in the EARF of SESIP.	Present Environmental Safeguard Expert will be until June 2017 unless there is a contract variation to continue till December 2017. TOR of Drawing and Design Expert (SD-38) can be modified to include preparation of EMR and recruit Civil Engineer with working experience in Environment
5.	Develop and provide training to the staff of the executing agency, Contractors and the Consultant	Environmental safeguard Expert organize and conduct the training as recommended in EARF	(i) the requirements of the EMP including specific environmental mitigation measures and monitoring activities to be implemented and (ii) the roles and responsibilities of all parties	The training program for 150 persons has been dropped as ADB will not be involved in Civil Works in Tranche 3. However the civil works will continue under T-1 & T-2 and training should not be abandoned.
	EMIS and SSQS Upgrading	The EMIS and SSQS database may be upgraded to accommodate the information collected during monitoring particularly of school environment	It can save the cost in developing separate database for Environmental Monitoring System (EMS)	The EMIS consultant has been requested to develop a module to accommodate Environmental data base.

c. In the light of above Further Recommendation on institutional aspect and coordination are being given below

- 1) All sub-projects should have Rapid Environmental Examination (REA) by the Supervising Engineer for taking decision by Executive Engineer if it needed IEE preparation.
- 2) Regular focal person should be placed to monitor the preparation of IEE/EMP, Implementation of EMP for Semi-Annual Environmental (safeguard) Monitoring Report for the project. School environment to be monitored for wellbeing and safety of the school children.
- 3) Till the available of the environmental focal person from DSHE and creation of Environmental Unit ADB should support with an Environmental Safeguard Specialist.
- 4) Creation of EU in EED should be guaranteed by the Ministry of Education. Superintendent Engineer Design/Planning will lead with an ESE counterpart.
- 5) The Supervising Engineer (Annex-5), Contractor (Annex-6), SMC/ Head Teacher (Annex-7) should use format for reporting on regular basis so that Semi-Annual Environmental Report can be submitted in time.
- 6) Regular training program should be conducted for all Supervising Engineer, some contractor's focal person and SMC/Head Teacher (min 150 recommended) for the project. Regular review needed for the capacity development of EU/EED in implementing EMP.

- 7) Consultation (FGD) and Coordination among EED (responsible for civil works), Education Board (responsible for approval based on school environment), BANBEIS (responsible for database development) and programs like SESIP, SEQAEP and other ongoing relevant projects in the area are highly required should be mentioned in the TOR of ESE.
- 8) Field checking for implementation of EMP could only cover 10% of the sub-projects which is very low. The ESE should ensure that 30-40% sub-projects is inspected and field report and stakeholder consultation are available in Environmental Monitoring Reporting.
- 9) The physical/construction of sub-project (100 selected schools) progress is only 50% in first year (June 2016-June 2017). Another 50% progress need to be made in next 6 months (July 2017-December 2017). The monitoring need to be more intensive to record the real time data for EMR. The next EMR is due in December 2017. Moreover another chunk of work BDT 5631 Million awaiting approval and may start any time.
- 10) TOR of Drawing and Design Expert (SD-38) can be modified to include preparation of EMR and recruit Civil Engineer with working experience in Environment by adding the task of preparation of 'Semi-annual Environmental Monitoring'. This position has input of 12 months. However the position can be changed to 'Drawing, Design, and Safeguard Expert' with qualification of B.Sc. Civil Engineering and working experience in Environment.

d. Capacity Building in the following area:

1. Civil works progressed only 50% during June 2016-May 2017 ie in 12 months. EED need to complete balance of civil works for the 100 selected schools by December 2017. The peak of civil construction activity will be in the next 6 months. The support of an Environmental Safeguard Expert will be necessary for monitoring the EMP implementation in civil works and finalizing the Semi-annual Environmental Monitoring Report due on 15 December 2017.
2. Review of bid documents and procurement packages undertaken by EED if Environmental Management Plan is inclusive.
3. Prepare Rapid Environmental Assessment (REA) for each sub-project for categorization if it requires any IEE. As per EARF 2013, this should have done by the supervising engineer.
4. Contractor's EMP will be reviewed and advise if the deficiencies are noted
5. Support to improve the implementation procedure adopted by the supervising engineer, contractor and Headteacher (school environment).
6. Review the tendering procedure in the light of ADB's master e-tender bidding.
7. Support and guidance the civil works were undertaken by EED on regular basis for SESIP for Tranche1 and Tranche 2.
8. Interaction and cooperation with SESIP, SPSU, EED and other organization related to sub-project civil works.
9. Orientation training at field level (supervising engineers, contractors and head Teachers) should be taken up to understand the 'self' reporting for safeguard monitoring. Training Details are shown in Annex-8.
10. Preparations of semi-annual environmental safeguard Monitoring Reporting. These are due on 15th June 2017 and 15th December 2017.

e. Training and Induction

All personnel including staff, employees and any contractors will undertake appropriate training prior to construction to ensure they are aware of their on-site responsibilities in respect to all environmental issues. This will be achieved through the implementation of on-site induction and specific training programs designed to ensure that all on-site personnel are competent and aware of any environmental management procedures relevant to their activities.

All staff and contractors working on site will be inducted into an environmental management program as

a condition of site entry. The induction process covers all details of the EARF, IEE, EIA, EMP and EMR. as relevant to the attendees' role and activities on the site.

i. Environmental and Social Issues Discussed in Training Programme

The orientation–cum–training programme for SESIP will cover the following:

- Explain the need of safeguard documents and implementation of safeguard measures in the project in light of the loan covenants, GOB and ADB requirements...
- Discuss the safeguard issues related with various stages of the project and also presented some case study related to the SESIP to explain the relationship of safeguard issues and project cycles.
- Discuss the various social issues and school environmental in the participating *Schools* observed/reported by safeguard team during implementation of the various Sub-projects. Mitigation measures suggested and implemented in various school was also discussed.

Table 19: 2 day Training Schedule

Day 1	
10:00-10:15 am	Introduction/protocols.
10:15-10:20 am	Overview of training program; purpose and scope.
10:20-11:30 am	Concept of Environmental Safeguards; ADB SPS, frame for environmental safeguards, EIA requirements.
11:30-11:45 am	Tea Break.
11:45 am- 1:00 pm	REA (screening) and IEE/EIA processes and requirements; realistic focus on most vulnerable environmental components as they relate to SESIP civil works.
1:00-2:00 pm	Lunch break.
2:10-2:30 pm	Public consultation requirements.
2:30-3:15 pm	EMP requirements; mitigating impacts; practical considerations.
3:15-3:30 pm	Tea Break.
3:30-4:00 pm	Incorporation of EMP requirements into civil works contracts; specific actions and proper responsibility centers for impact management.
4:00-4:30 pm	Environmental management opportunities associated with buildings in Bangladesh (water conservation, waste management, drainage, lighting, air circulation, insulation, energy conservation, disaster-proofing, "green" spaces, recreational areas).
4:30-4:50 pm	Monitoring environmental safeguard performance in SESIP; who is accountable for what?
4:50-5:00 pm	Wrap-up, comments, required follow-up.
Day 2	
10:00-10:15 am	Introduction/protocols.
10:15-11:30 am	Environmental Conservation Rules 1997 (ECR 1997)
11:30-11:45 am	Tea Break.
11:45 am- 1:00 pm	Rules and Regulation of ADB, GoB
1:00-2:00 pm	Lunch Break.
2:10-3:30 pm	Team Project/Assessment
3:30-3:45 pm	Tea Break.
3:45-4:45 pm	Overview of Environmental Safeguard
4:45-5:00 pm	Ending of Training

Table 20: Selection of Participants for each of 25 participants (Group)

SN	Designation	Nos. of Person
1	Executive Engineer, EED	01
2	Assistant Engineer, EED	02
3	Sub-assistant Engineers, EED	12
4	Contractors, Sub-project	05
5	Head Teacher, Sub-project	05
	Total	25

Table 21: SESIP Format for Training Proposal

SN	Training Name	Attending Officials	Duration	Date of Training	Venue	Residential	Trainer	Proposed By
1	Environmental Safeguard training	1. Executive Engineer 01 2. Assistant Engineer 02 3. Sub-assistant Engineers 12 4. Contractors 05 of EED 5. Head Teacher 05, Total: 25 Persons	02 Days	4-5 October	NAEM, Dhaka	Residential	1. Environmental Safeguard Expert. 2. DoE: Local Director/Deputy Director. 3. ADB, BRM: a. Ms. Farhat Chowdhury, SPO (Env.). b. Mr. Shahjahan, Rtd. ADG (DoE).	TL, SESIP.
2	Environmental Safeguard training	1. Executive Engineer 01 2. Assistant Engineer 02 3. Sub-assistant Engineers 12 4. Contractors 05 of EED 5. Head Teacher 05, Total: 25 Persons	02 Days	11-12 October	Zonal Director, Chittagong	Residential	1. Environmental Safeguard Expert. 2. DoE: Local Director/Deputy Director. 3. ADB, BRM: a. Ms. Farhat Chowdhury, SPO (Env.). b. Mr. Shahjahan, Rtd. ADG (DoE).	TL, SESIP.
3	Environmental Safeguard training	1. Executive Engineer 01 2. Assistant Engineer 02 3. Sub-assistant Engineers 12 4. Contractors 05 of EED 5. Head Teacher 05, Total: 25 Persons	02 Days	18-19 October	Zonal Director, Jessore	Residential	1. Environmental Safeguard Expert. 2. DoE: Local Director/Deputy Director. 3. ADB, BRM: a. Ms. Farhat Chowdhury, SPO (Env.). b. Mr. Shahjahan, Rtd. ADG (DoE).	TL, SESIP.
4	Environmental Safeguard training	1. Executive Engineer 01 2. Assistant Engineer 02 3. Sub-assistant Engineers 12 4. Contractors 05 of EED 5. Head Teacher 05, Total: 25 Persons	02 Days	25-26 October	Zonal Director, Sylhet	Residential	1. Environmental Safeguard Expert. 2. DoE: Local Director/Deputy Director. 3. ADB, BRM: a. Ms. Farhat Chowdhury, SPO (Env.). b. Mr. Shahjahan, Rtd. ADG (DoE).	TL, SESIP.

Annex-1: SESIP Civil Construction Environment Management and Monitoring Compliances

Civil Works Monitoring Matrix

Activity	Environmental Impact	Mitigation Measure	Responsibility	Monitoring Agency	Compliance Status
During Construction Phase					
1) Employment of child labor in the construction activities	The Environmental and Social Safeguard Policies of the DOE/ADB prohibits all kinds of child labor (lower than 14 years) and personnel engagement in construction works of the projects	Child labor shall not be employed	Contractor	PD/EED	Complied
2) Use of PPE (e.g. ear protection gear, mask, gloves, goggles, safety shoes, helmet, etc.) is compulsory in order to ensure health and safety of the working labors at the project construction site	May cause serious injury to the workers at construction side	Immediate supply of PPE like ear protection gear, mask, gloves, goggles, safety shoes, helmet, etc. to all the laborers working at site and impose them to use to avoid any casualty	Contractor	PD/EED	Partially Complied
3) Dumping of spoil materials to the river bed	Environmental degradation of the river, flow of river also disturbed; people living near the river will face a problem due to the river pollution caused by the construction works	Dumping of spoil material to the river should not be permitted; no activity should be allowed to undertake that can affect the river/stream flow; dumped material in river should be cleared	Contractor	PD/EED	Partially Complied
4) Firefighting equipment at the camp, offices, and sites	The absence of firefighting equipment may cause serious hazards like life loss, blasting due to fire, resident house demolished, etc.	Immediate placement of firefighting equipment and training or demonstration of firefighting equipment use among the officials, engineers, labors at the site, school, and at the camp so that in case of any emergency they can utilize this equipment	Contractor	PD/EED	Partially Complied

Activity	Environmental Impact	Mitigation Measure	Responsibility	Monitoring Agency	Compliance Status
5) Transport and equipment movement	Excessive dust pollution to the surrounding environment of the camp and sound pollution due to transport movement in the camp	Equipment meeting environmental standard in respect of sound should be used in the construction area	Contractor	PD/EED	Partially Complied
6) Solid waste at the camp site and also in the schools	Air and soil pollution in the camp and schools	Human generated solid wastes may be controlled through motivation. Organize proper collection and transportation of all solid waste. Install proper solid waste disposal system at the camp, site, and at the schools.	Contractor	PD/EED	Partially Complied
7) Tree plantation at the camp and offices	Positive impacts on the environment	Tree plantation in the schools, camp, and offices should be implemented	Contractor	PD/EED	Partially Complied
8) Construction workers related impact at the camp and construction sites	Unhygienic and littered environment around the camp, exposure to hazards, transmission of diseases among workers, and water-borne diseases to workers	The local workers should be oriented to hygienic disposal of solid waste and hazardous materials; proper handling methods, setup warning signs (label and signals) at appropriate locations of the camp	Contractor	PD/EED	Partially Complied
		Pure drinking water facilities should be provided so that there will be no epidemic outbreak in the construction area			Complied
9) Management of excavated and or spoil materials	It has adverse impacts on the environment if not managed properly	The excavated materials should be safely disposed so as to avoid landslides and loss of forests and agricultural land	Contractor	PD/EED	Partially Complied
10) Absence of environmental officer of the contractor at the construction sites	In the absence of environmental officer, contractor's activities will not be as environment-friendly	Immediate placement of environmental officer	Contractor	PD/EED	Not Complied
Operation Phase					
11) School Environment	Seating arrangement	Seating arrangement should be comfortable	Head Master	Upazila Education	Complied

Activity	Environmental Impact	Mitigation Measure	Responsibility	Monitoring Agency	Compliance Status
	Interval time	Interval time should be within the tolerable time limit in the classes of the schools	--as above--	--as above--	Complied
	Waste disposal	Waste disposal should be in place in the school's rooms and also at the school centrally	--as above--	--as above--	Parially Complied
	Chemical wastes from science lab	Ensure proper and adequate provision of disposal of chemical wastes from laboratory to prevent hazards	--as above--	--as above--	Partially Complied
	Classrooms	Environment-friendly classrooms should be ensured	--as above--	--as above--	Complied
	Maintain ratio	Teacher and student ratio should be maintained	--as above--	--as above--	Partially Complied
	Gender equity	Gender equity should be followed during the admission	--as above--	--as above--	Partially Complied
	In the absence of First Aid facilities, treatment problems may occur	First Aid facilities should be available in the schools	--as above--	--as above--	Complied
	In the absence of firefighting equipment, fire hazards may occur	Firefighting equipment should be available in the schools	--as above--	--as above--	Partially Complied
	If drinking water is not pure, diarrhea may occur	Pure drinking water (Arsenic, iron, salinity free) should be provided	--as above--	--as above--	Complied
	Absence of electricity, lighting, fan, etc.	i. Electricity, fan, light should be available in the schools ii. Energy efficiency light, fan can be used	--as above--	--as above--	Complied
	Ascertain clean environment by disposal of wastes	Ensure that there is the adequate provision of correctly marked waste containers made available at convenient locations for the disposal of wastes	--as above--	--as above--	Partially Complied
	Smoking	School and classroom should be marked up as a "no smoking zone"	--as above--	--as above--	Complied

Activity	Environmental Impact	Mitigation Measure	Responsibility	Monitoring Agency	Compliance Status
	Inadequate sanitation facilities will create hygienic problem	i. Sanitation facilities (wash room, urinal etc.) and provision of water closet and flushing system in the toilet and bathroom, fixing of hand basins, and cleanliness should be ensured in the schools ii. Separate washroom for boys and girls clearly marked up	--as above--	--as above--	Complied
	Suffocation problem if improper ventilation	Provision of adequate ventilation in the classrooms	--as above--	--as above--	Complied
12) Management of lab chemical waste	Degradation of surrounding environment/health hazards due to chemical wastes, air, and soil pollution	i. Chemical wastes from the laboratory should strictly be discharged to the designated concrete covered pit by the school authority so that surrounding environment will not be polluted ii. A waste management plan should be prepared by the school authority and be strictly followed	--as above--	--as above--	Not Complied

ADB = Asian Development Bank, DOE = Department of Environment, DSHE = Directorate of Secondary and Higher Education, EED = Education Engineering Department, PD = Project Director, PPE = personal protective equipment.
Source: Asian Development Bank

Annex-2: Compliance Monitoring Actions for a Civil Works Project Bandarban DEO

Project Activity	Mitigation Activity	Monitoring Action and Frequency	Monitoring Responsibility*	Estimated Monitoring Cost
Pre-construction and Construction Phases of Bandarban DEO.				
Permanent land acquisition.	<ul style="list-style-type: none"> • Re-route the path from the center of the work site to the perimeter near the District Council campus wall (north side of plot). • Loss of visual aesthetics will be temporary (approximately 2 years); tree and shrub planting in the buffer area around the DEO will create a visual "positive", and will provide new habitat for birds and small mammals. 	<ul style="list-style-type: none"> • Visual check during construction of re-aligned path, and on completion. • Pre-planting check on appropriate locations and species; visual observations during planting; final visual check on completion of planting; then, ongoing maintenance. 	<ul style="list-style-type: none"> • DSHE and District Council. • DSHE and District Council. 	<ul style="list-style-type: none"> • Within routine DSHE oversight activities; no additional cost.** • Within routine DSHE oversight activities; no additional cost.
Land clearing and cuts (at work site).	<ul style="list-style-type: none"> • Flat work site with perimeter drainage ditch that is directed to a sedimentation pond and check dams, before going down a vegetated slope; gabion rock revetment at southwest corner of site. • All sediment piles to be covered (on site and also trucks); slow vehicle speeds on site; regular water sprinkling during dry season. • Mufflers on all equipment; slow vehicle speeds on site. • Worker safety briefing; PPEs for all workers; safety nets; organized work site; completely fenced off to avoid public access; signage to indicate unsafe areas. 	<ul style="list-style-type: none"> • Visual check on plan and location of various structures, prior to installation; monthly visual checks on effectiveness of drainage scheme and revetment; water quality samples (2, for dissolved oxygen, suspended solids, and nitrogen) at edge of lake (once in dry season and once in monsoon). • Just visual checks on effectiveness of dust controls and vehicle emissions (monthly); air quality sampling should not be necessary, given expected low volume of activity. • As above. • Visual checks on work site safety and signage (monthly). 	<ul style="list-style-type: none"> • DSHE. • DSHE. • DSHE. • DSHE. 	<ul style="list-style-type: none"> • Water quality; sample collection and analysis, 250,000 tk (over 2 years); other visual checks within routine tasks. • Within routine DSHE oversight activities; no additional cost. • Within routine DSHE oversight activities; no additional cost. • Within routine DSHE oversight activities; no additional cost.

Project Activity	Mitigation Activity	Monitoring Action and Frequency	Monitoring Responsibility*	Estimated Monitoring Cost
				additional cost.
Influx of workers (exact number unknown).	<ul style="list-style-type: none"> • Temporary toilets or septic tanks for sewage containment (as far away from lake as possible); solid waste management system on site. • As above, for worker safety. 	<ul style="list-style-type: none"> • Visual checks on sewage and solid waste management on-site (monthly); water quality sampling noted above to apply here. • Visual checks on work site safety and signage (monthly). 	<ul style="list-style-type: none"> • DSHE. • DSHE. 	<ul style="list-style-type: none"> • Within routine DSHE oversight activities; no additional cost. • Within routine DSHE oversight activities; no additional cost.
Construction equipment mobilized.	<ul style="list-style-type: none"> • Sediment and dust controls as noted above; tire washing protocol for vehicles leaving the site; noise controls, as noted above. • Worker safety protocols, as noted above; organized work site. • A traffic management person, with appropriate signage, to control construction vehicle access to the highway. 	<ul style="list-style-type: none"> • Just visual checks on effectiveness of dust controls and vehicle emissions (monthly), as described above. • Visual checks on work site safety and signage (monthly). • Visual checks (monthly). 	<ul style="list-style-type: none"> • DSHE. • DSHE. • DSHE. 	<ul style="list-style-type: none"> • Within routine DSHE oversight activities; no additional cost. • Within routine DSHE oversight activities; no additional cost. • Within routine DSHE oversight activities; no additional cost.
Fuel storage.	<ul style="list-style-type: none"> • All fuel stored in a sealed, bermed, and covered area away from busy parts of the construction site; appropriate signage regarding safety issues and protocol for fuel transfers. 	<ul style="list-style-type: none"> • Visual checks (monthly). 	<ul style="list-style-type: none"> • DSHE. 	<ul style="list-style-type: none"> • Within routine DSHE oversight activities; no additional cost.
Operation Phase of Bandarban DEO.				
• Vehicle and pedestrian traffic adjacent to DEO.	<ul style="list-style-type: none"> • Keep DEO parking area away from the campus entrance road; appropriate signage at junction. 	<ul style="list-style-type: none"> • No specific monitoring required; manage parking and traffic according to prevailing conditions. 	<ul style="list-style-type: none"> • DSHE. 	-
• More consumables generated by building operation.	<ul style="list-style-type: none"> • Proper solid waste management for the DEO, including sorting of recyclables and compostable materials. 	<ul style="list-style-type: none"> • Routine observations and awareness of how the solid waste system is operating; assign someone in the DEO with this responsibility (e.g., building caretaker). 	<ul style="list-style-type: none"> • DSHE. 	<ul style="list-style-type: none"> • Within routine DSHE oversight activities; no additional cost.

Project Activity	Mitigation Activity	Monitoring Action and Frequency	Monitoring Responsibility*	Estimated Monitoring Cost
• Increased demand on local services.	• Implementation of “green” technologies, including rainwater harvesting, water conservation measures, use of passive lighting, zone controls for electricity, and use of solar panels.	• Routine observations and awareness of how the various technologies are performing; maintaining a log on effectiveness and cost savings would be very useful.	• DSHE.	• Within routine DSHE oversight activities; no additional cost.
Incremental Cost of Compliance Monitoring (beyond the cost of routine visual checks).			250,000 tk	

* The building contractor should be examining all site conditions and operations, specifically the required mitigation measures, on a daily basis, and putting in corrective measures, as needed, with monthly reporting to DSHE; this report should also include any fuel spills and work site accidents and how they were handled.

** There may be some minor operational costs, such as local transportation, depending on how routine DSHE tasks are budgeted on an annual basis.

Source: Guidance for Monitoring and Reporting of Environmental Safeguards for Civil Works - February 2015: SESIP)

Annex-3: Field Visit Report and Photographs

Report on field visit in the selected schools under SESIP.

Duration: February 7-10, 2017

Objective:

1. Inspect the Contractors' construction equipment, safety of the works, property, personnel, and general public; and the recommendations of the EMP,
2. Supervise and monitor the implementation of EMP for Civil works under SESIP.
3. Data collection through field checks for Semi-Annual Environmental Monitoring Report in ADB format.
4. Orientation on EMP implementation for Supervising Engineer and Contractor at field level.
5. Compliance and non-compliance status of school environment (sanitation, toilet, safe drinking water etc)

Program:

1. Orientation on the Implementation of Environmental Management Plan for civil works for Supervising Engineers at the respective offices. (Jessore, Sathkhira and Gopalganj).
2. Visit to the schools selected' by SESIP for extension and improvement:
 - a. Rajgonj Secondary School, Monirampur under Jessore EED zone.
 - b. Godaipur Jeher Ali Secondary School, Ashashuni under Sthkhira EED zone.
 - c. Bashbaria Jhanjhania Secondary School, Tungipara, under Gopalganj EED zone.
 - d. Kotalipara Shahana Rashid Girls high School, Kotalipara, under Gopalganj EED zone

Orientation / training for EMP implementation:

All the supervising engineers and contractors (Assistant Engineer, sub-assistant engineers, contractors etc.) were given orientation about the requirements and necessity to comply with the implementation of Environment Management Plan. The results will be produced in Semi-annual Environmental Monitoring Report. The EED officials were given the copy of EARF and other ADB format to continue to collect data/information as self-reporting for the EMR.

Observations on the visit of Schools:

Rajgonj Secondary School, Monirampur:

1. The school is very close to central market place of Monirampur and possess about 10 acres of land as reported by head master
2. The school premises are disturbed due to weekly (2 days) shift in shops.
3. The school premises are used by outsider for many reasons like parking rented car as reported by head master.
4. School premises is affected by drainage congestion during wet period
5. Present accommodation for student classes are about 9 rooms part of which used for administrative purpose like head master's office, teachers' lounge and admission office as reported by head master
6. Present extension made both horizontal and adding floors on the one story building.
7. The oldest class room are tin shed which need demolition

8. The civil works as approved under SESIP is complete and contractor engaged in clean up the site.
9. Works are apparently satisfactory
10. The extended part has added about 300 sft of sanitation area (toilets and wash room) in each floor. The toilets are separate for boys and girls.
11. Limited numbers of toilet are presently available for 900 students as reported by head master. The unimproved part of the building needs some addition in maintenance but could not been done.
12. The school does not have signage's to recognize the space and rooms.
13. The scientific instruments and equipment could not be installed and be used for want of space.
14. Both supervising engineer and contractor reported that they followed 'best construction practice' it emphasis on workers safety. However they are not aware about the 'implementation of EMP and its reporting.
15. School does not have firefighting equipment.
16. No first aid box is available
17. No marked waste container visible in the school premises.
18. School has its own mosque.

Recommendation:

1. Sufficient information has given to the supervising engineers and the contractor and they will be able to monitor based on checklist provided in the format of ADB. The future EMR will be done based on actual field data.
2. Head Master and SMC has been informed the compliance and non-compliance issues of school environment. The school authority will be able to fill out the format for the EMR
3. Supervising engineers given the copy of Annex: 5,6 and 7 from EMR (January 2017) as required under EARF and reporting accordingly expected.
4. School authority with the help of EED should prepare one site plan showing the school area, location of present infrastructure, internal road if any, playground and other activity space. This will help in drawing a Master Plan for the school.
5. Apart from SESIP program other funds are available for the school and unplanned construction may create chaotic situation if Master Plan is not drawn.
6. School should have boundary wall to protect the property of the school and ensure safety of the students.
7. Drainage congestion need to be removed as more infrastructure in the premise is expected.
8. Toilets are to be cleaned regularly but there are serious shortage of manpower. Alternative way to be developed.

Godaipur Jeher Ali Secondary School, Ashashuni:

The school is located about 100 km from Jessore airport and about 45 km from the district head quarter Sathkhira. It is a remote area in the southern coastal area of Bangladesh.

Observation:

This school is located in one of the remotest part of the country. So it is encouraging that education or the children have penetrated such a remote place.

1. The school is on small parcel of land and expecting some more land in adjacent area.
2. The school has about 500 students and 12 teachers accommodating in one 3 roomed tin shed and another 3 room pucca building.
3. The foundation of the building is not strong as such new building is under construction on another land in school premises
4. The new building funded by SESIP has planned too close to the road and students classes likely to be disturbed.
5. Contractor using part of the school building as labor shed and also using the facility like toilet etc.
6. The progress is about 50% and roof is ready for casting for the building
7. Sinage for the construction is absent except one printed cloth hang around the building.
8. PPE are not available for the workers.
9. However contractor was warned about it.

Recommendation:

1. Orientation and discussion conducted with supervising engineers, contractors, school authority and papers related to checklist was hands over to all concern.
2. All the responsible person will submit the report regularly so that the next EMR will have more field level information
3. Sufficient information has given to the supervising engineers and the contractor and they will be able to monitor based on checklist provided in the format of ADB. The future EMR will be done based on actual field data.
4. Head Master and SMC has been informed the compliance and non-compliance issues of school environment. The school authority will be able to fill out the format for the EMR
5. Supervising engineers given the copy of Annex: 5,6 and 7 from EMR (January 2017) as required under EARF and reporting accordingly expected.
6. School authority with the help of EED should prepare one site plan showing the school area, location of present infrastructure, internal road if any; play ground and other activity space. This will help in drawing a Master Plan for the school.
7. Apart from SESIP program other funds are available for the school and unplanned construction may create chaotic situation if Master Plan is not drawn.
8. School should have boundary wall to protect the property of the school and ensure safety of the students.
9. Drainage congestion needs to be removed as more infrastructures in the premise are expected.
10. Toilets are to be cleaned regularly but there is serious shortage of manpower. Alternative way to be developed.



Figure 1: School entrance for Bashbaria Janjania School with 600 students



Figure 2: Construction steel rods are being handled without any protective gear at Bashbaria Janjania School



Figure 3: Construction materials scattered all over school premises at Tungipara



Figure 4: Pulling steel rods to the roof without any safety gear Bashbaria Janjania School



Figure 5: Entrance to the higher floors (old) School building



Figure 6: Discussion with Head master, SMC and supervising Engineers at Bashbaria Janjania School



Figure 10: Workers involved in rod binding without PPE



Figure 11: School students participating public consultatio at Rajgonj, Monirampur



Figure 12: Newly built stairs in school building at rajgonj, Monirampur

Field Visit Report, 7-10 March

Chaluabari Lower Secondary High School

1. The present School has completely been washed away and now this School of Sariakandi shifted to a comparatively less vulnerable place from river erosion. Though the area as a whole are low-lying flood plains of the river Jamuna.
2. The present area of the School is about Decimal. Out of the total area 15 decimal (6500 sft) lands has been raised above flood level for building. The area of building will be 3000 sft.
3. Present accommodation for the student classes is only one Tin Shade with an area approximately 2000 sft. This is quite insufficient for accommodate 200 student presently enrolled.
4. This School is 25 km from Bogra and 4 km from Sariakandi town.
5. One public consultation was held (Photo Shown) with teacher, students, guardians, elite of the area and SMC (School Managing Committee). The requirement of a School and building is a prime necessity for the children of the area. The work of the building need to be completed before monsoon starts (preferably by 30 June, 2017).
6. The access road to the School premises is earthen one and narrow. Difficulties are anticipated in transporting building materials to the site during monsoon. However, local people are ready to accept the challenges and help out to build the School building in time.
7. Tender is completed and selection of contractor has been made. Now it required soil test that can be done on receiving permission from EED for construction activity.

Recommendation:

1. Immediate action needed to start the construction work.
2. Student has no place to study as such School is most required.
3. Proper study needs to avoid drainage congestion of the School area.
4. School authority assured that neighboring land of the School could be expanded to increase the area. It could be increased by 100 decimal from present area.
5. The area has Iron problem so is with the School tube well, though the water available at a shallow depth of 50-60 ft.



Figure 13: Present Tinshed School at Chaluabari, Sariakandi



Figure 14: One Girl Student Participating in Consultation

Raigaon High School

1. Established in 1946 and now the student enrollments about 800.
2. The School has both general and vocational education.
3. The School computer lab equipped by Sheikh Rasel ICT Program and having about 8 laptops.
4. Computer trainer are not available, 2/3 teachers claimed that they can prepare presentation in multimedia system.
5. Though a big School with numbers of students but the space has limitation. The common rooms, off class seating in the premises are not available.
6. No cafeteria for the children and had to carry food and eat inside classroom or open field of the School.
7. Consultation with teachers is made about the problem and opportunity for the School.
8. Some part of the building is in depilated conditions. It needs replacement.

Recommendation:

1. Construction need to clean up the School premises for the convenience of the student movement.
2. Space not available for extracurricular activities like games, debate etc. Girl students are more confused to participate in any activities.
3. The training machine like sewing. Lathe, electric boards are very old. It needs equipment for basic vocational training.
4. Student counseling is an important part of student's mental development. No such counseling support is present in the School. This has influence on physical environment of the School.
5. Facility of bicycle stands are needed to expanded as many student including girls are cycling to School.
6. Debating should be encouraged among the teacher and student so that education system and its improvement can be discussed and recommendations are made.



Figure 15: Raigaon High School Premises



Figure 16: Consultation With Teacher



Figure 17: New Building and Area of Raigaon School

Tilokpur High School

1. School area is about 4.3 acre of which one pond occupies 1.05 acre.
2. Built up area is 31.838 decimal equivalents to 13920 sft.
3. The water body inside the School premises has better aesthetic view.
4. Try to prevent eroding of the banks of the pond but failed and need reconstruction.
5. Extended building is about to complete and contractor need to clean up the area.
6. Student/Teacher demand for cafeteria inside the School that help better food and place to sit prevent taking food inside classrooms.
7. Supervising Engineer, Contractor and Head Master need to fill out form delivered to them, necessary for Environmental Monitoring Report.

Observation:

1. School is spacious and have 1135 student and it has its reputation in the area.
2. Student attending class as far as 5 km from the School, a lot of the boys and also girls using bicycle for transportation.
3. Cafeteria is needed for students and Teachers.
4. Seating arrangement can be made along the reconstructed bank of the pond.
5. Student likes to involve in extra-curricular activities like games (football, Basketball, Cricket etc) but there is no initiative or leadership from the School. Girl student are also interested in indoor and outdoor games.
6. Debating club is suggested to form. It increases the speaking ability of the students.
7. There were a good number of students and teachers participated in the consultation and raised voice for the facilities in the School.



Figure 18: Tilokpur High School Extension



Figure 19: New Type of Toilet at Tilokpur High School



Figure 20: Teachers Participation in Consultation Meeting



Figure 21: Student Speaking in Consultation Meeting

Mukundapur Senior Fazil Madrasa

1. The building is still to go for roof shuttering (casting).
2. The part of the land where building is constructed had to fall number if trees. The permission from Forest Department has delayed the construction work.
3. Still one tree within building plan need to cut off for porch construction. The authority waiting for the approval for Forest department.
4. There are about 800 students of which 50% are girl student.

Observation:

1. Serious problem with the sanitation for boys and girls.
2. Toilet are much less than requirement and unclean.
3. Massive planning needed to implement number of toilet for Boys, Girls and Teachers.
4. School has resources of 40 Bighas of cultivable land earning approximately 2 lacs per year.



Figure 22: New Construction at Mukundapur Senior Fazil Madrasa



Figure 23: Construction Materials In front of the Academic Building



Figure 24: Cement Godown Inside School Building



Figure 25: Consultation at Mukundapur Senior Fazil Madrasa

Cheradangi High School

1. The School has 7.2 acres of land and spacious. However the student strength is about 1300.
2. Building is well placed and spacious.
3. The addition of building is complete. It added 3 rooms in ground floor, one room in 1st floor and additional room at central building for ICT lab.
4. The construction look good and area is clean.
5. School premises could assemble more than 1000 student every School day morning.
6. Own football playground adjacent to School.



Figure 26: Cheradangi High School Building Construction

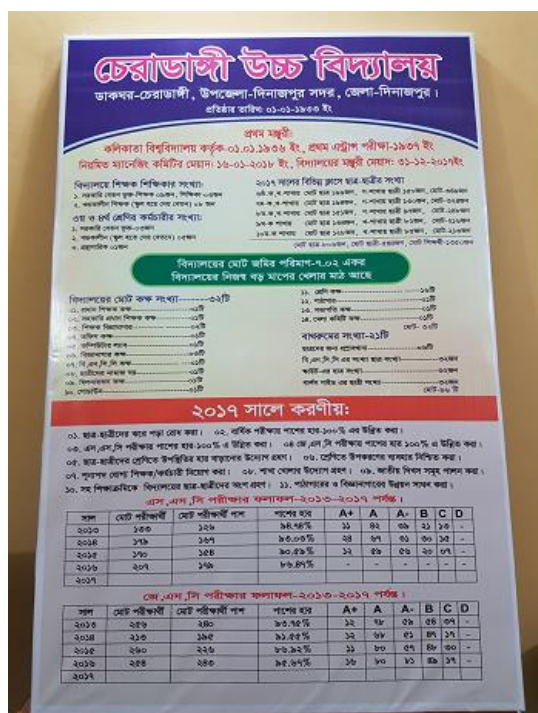


Figure 27: Cheradangi High School Information

Field Visit Report, 18-21 March

Visit to Haor Area:

Observation:

1. The area is in the most North-East part of Bangladesh and number of important Haor is located.
2. The people of the area suffer from lack of infrastructure like road communication, silted rivers and wave erosion on the isolated village from waves created when it is windy.
3. Govt. has different plan for the marginal people of the area mainly depends on agriculture and fishing.
4. People are too poor to own land for agriculture and many of the fishing area Jalmahal are under the domination of influential people.
5. Literacy and Educational rate is lower compared to other non-haor areas and that of national average.
6. Raising land for construction of infrastructure like School and other community building and road will be very expensive.
7. Haor Infrastructure and Livelihood Improvement Project (HILIP) are undertaken by several organizations like LGED, BWDB, Fisheries Department and other local bodies.
8. The main rivers and khals in the Haor are being protected by BWDB with low/submersible embankment. These embankments flooded at high water but can protect Boro crops in early and flash flood.
9. IWM and CEGIS organization are supporting with study and design of needed infrastructure.
10. Integrated development of Haor area shall be realized as coordination among the executive agencies disclosed above lacks in coordination.

11. Construction of School in Haor area as earmarked in the south Bangshikunda needs raising land, protection from waves and erosion and access to the School coming from far area.
12. It is reported that Bangshikunda south union and ward no. 8 does not have any High School around 4/5 km from the School.

Recommendation:

1. The Haor Area School deserves attention as these are underserved area and Govt. has already committed with social and economic development of the area.
2. HILIP though being executed by LGED and BWDB but coordination needed to enhance. Integrated planning is necessary. Unless integrated planning is done it would be difficult to get benefits out of project.
3. School so construction will need to rise above maximum flood level. The School cannot be constructed in isolation as this cannot be protected from high waves and likely to be washed anyways.
4. The team working for construction School should feed sufficient space adjacent or within village. So that School can be protected along with neighboring village.
5. Local people and administration should be entrusted to paid suitable location which can be protected from flood and having dry period and monsoon period access (road) for students.
6. Location of School should be inspected by group of expert (from most disciplines LGED, BWDB, EED and local administration) before finalization.
7. EED can construct the School building at a suitable location but LGED and BWDB should assured that they can help in protecting "Raised Land" from waves and create access (road) to the School.
8. EED/DSHE cannot arrange the cost for protection of the School land from waves even cannot construct access (road) for the students. This will be the limitation for EED.
9. Locations are explored out at Dharmapasha Upazilla Bangshikunda South Union and another in Shalla upazilla in Habibpur Union. The Shalla upazila still not connected by road from district town of Sunamganj.
10. Carrying materials will be great challenge for contractor. Most material to be carried from outside of the area except soils.



Figure 28: Consultation with LGED Engineer at Sunamganj



Figure 29: Consultation with Water Development Board Engineer at Sunamganj



Figure 30: Consultation with HILIP at Sunamganj

Alongi Model High School, Chatak, Sunamganj:

Observation:

1. Our IEE report is available for the Alongi Model High School which was done by in 2015 by John Carter.
2. Present two storied building is in the bad shape due to collapse of ground floor pavement.
3. The structure of the building is at affected though they claimed the construction on the newly deposited soil/filled earth.
4. The area is isolated and difficult to transport building materials easily.
5. Present construction for vertical extension just started the work. The program is near to zero. It is anticipated that if reasonable steps are not taken to transport required alteration the work way resume incomplete.
6. The supervising engineer and Govt. contractor were appraised of the necessity of implementation of environmental management plan format for the mitigation plan and its compliance reports handed over to Supervising Engineer and Contractor to report on monthly basis.
7. Old building floor, toilets are in bad condition. Some of the latrine does not have doors.
8. Pipe water is not available as water cannot be pumped for lack of electricity in School building and required pump.
9. Head Master and Supervising Engineer were apprised of the ADB form for reporting School environment where seating arrangement comfort, drinking water quality, first aid box and sanitation are extremely important. The form need to be filled out every month and send to SESIP for preparation of semi-annual monitoring report.

Recommendation:

1. The number of student compared to the facility and its extension will be comfortable. Present student strengths is 237 (Girls 100 and Boys 77).
2. Reason for less number of boys as they left School for earning/working for family. Some try to be foreign labor in different countries.
3. 30% girl student compared to 10% boy student may be reason boys not encourage to come to School. Boys have options to working anywhere it is available, but girls has limitation in their movement for any work outside the village. These are social stigma.
4. Social imbalance is out to create as girls becoming more educated than boys. Social study and Social work can remove this kind of stigma.
5. The area is sparsely populated. The students are coming from far area. But the communication is difficult when rainy season start and when flood recedes. The roads are unworkable and boat cannot comply.
6. School environment need to be improved with better sanitation (latrine), more convenient communication for students basically for girls.



Figure 31: Connecting Road Condition of Alongi High School



Figure 32: Morning Assembly time at Alongi High School



Figure 33: Construction of Alongi High School Building (Vertical Extension)



Figure 34: Construction of Alongi High School Building (Vertical Extension)



Figure 35: Construction of Alongi High School Building (Vertical Extension)



Figure 36: Construction of Alongi High School Building (Vertical Extension)



Figure 37: Classroom Used as Go down of Construction Materials



Figure 38: Classroom Used as Accommodation Camp of Construction Labor.



Figure 39: Construction Materials at School Playground



Figure 40: Collapse of Ground Floor Pavement



Figure 41: Consultation with female Teacher about Girl Students Sanitation



Figure 42: No door for Latrine at Alongi High School



Figure 43: Consultation with Students at Alongi High School, Chatak, Sunamganj.

Kolagaon Karimpur High School:

Observation:

1. The School established by the peoples of two village Kolagaon and Karimpur.
2. The total area of the School is about 1.5 acres of land with 7 academic building among which 4 of the building is tin shed.
3. It is a coeducational School with different sections of boys and girls.
4. Total students of the School is 2112, among which 873 are boys and 1239 are girls.
5. The ratio of the girl students is higher than the boys.
6. Boys used to work for the family earning. So the ratio of School going students of boys is lower than the girls.
7. Total classroom is 28 (including 6 rooms of extension construction of building by the SESIP).
8. There are 37 teachers, 22 male teacher and 15 female teacher. But only 17 teachers are enlisted for MPO (13 male, 4 female).
9. Sanitation quality of the School and new building is good.
10. There are 4 tea garden near the School area. Many students' parents work in the garden.
11. Some tribal student read in the School.
12. There is some problems with septic tank.

Recommendation:

1. ICT lab and new computer/laptop needed for the students and teacher.
2. First aid kits are needed for the students.
3. Need to construct new septic tank for the extension building.
4. Some stairways needed for the students to go to the new building as it is built in respectively low level from the main campus.
5. Social imbalance is out to create as girls becoming more educated than boys. Social study and Social work can remove this kind of stigma.



Figure 44: Construction of Kolagaon-Karimpur High School Building (Vertical Extension)



Figure 45: Signage for Sanitary Latrine for Girls' Students.



Figure 46: Consultation with Headmaster, Kolagaon-Karimpur High School, EED Engineer and Contractor.



Figure 47: Consultation Meeting with teachers at Kolagaon-Karimpur High School.



Figure 48: Women teachers presence in Consultation Meeting at Kolagaon-Karimpur High School

Sample Environmental Data of Sub Project.

Sub Project Name: Kotalipara Shahana Rashid Girls 'High School, Gopalganj

Project Name: Secondary Education Sector Investment Program

Date of Screening:

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

Name of School: Kotalipara Shahana Rashid Girls 'High School, Kotalipara, Gopalganj.

District: Gopalganj.

Upazila: Kotalipara

Union: Ghaghar

Village: Ghagharkanda

Annex-4: Rapid Environmental Assessment Checklist

SCREENING QUESTIONS	Yes	No	Impact Scale 1=lowest 6=highest	If "Yes", please provide REMARKS
Subproject Sitting is the subproject area adjacent to or within any of the following environmentally sensitive areas?				
Protected Area		√		
Wetland		√		
Unstable slope, landslide, erosion area		√		
Disaster prone area (e.g. flood, cyclone, storm surge)	√		1	Low lying area. Affected by flood when there is high flood
Potential Environmental Impacts Will the subproject cause.....?				
Loss of agricultural/forest land?		√		
Negative effects on rare, (vulnerable), 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 logging?	√			Only during high flood
Negative effects on surface water quality, quantities or flow?		√		
Block any road/access/approach?	√		1	Only during high flood
Will there be any long term impacts on local hydrology?		√		
Is adequate water supply to school available?	√		1	Water can't be pumped due non-availability of electricity.
Increased noise due to day-to-day construction activities?		√		
Other Potential Impacts will the subproject cause.....?				

Degradation or disturbance of historical or culturally important sites (mosque, Graveyards, monuments etc.)?		√		
Health risks to labors involved in Activities?				
Potential Positive Environmental Impacts				
Improved sanitation and personal hygiene	√		1	
Enhanced quality of school environment	√		2	
Environmental assessment category as per GOB				
What is the environment assessment category (DDR or IEE) as per ECA 97 and ECR97 of GOB and ADB's SPS?			Category 'C'	Indicate if an environmental due diligence is adequate or an IEE level assessment is required.
Will project enhance quality of Education?		√		

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.
Source: Asian Development Bank.

Score Total:

Type of environmental Assessment to be undertaken: C

Annex-5: EA Infrastructure Compliance Checklist (by Supervising Engineer)

Issues	Yes	No
1. Is there assigned official at the EED will be responsible for overall environmental compliance.		√
2. Is Assistant Engineer of EED will be responsible for subproject specific environmental compliance and relevant reporting in EED		√
3. The Program Director, in consultation with DOE, has finalize the EMP.		√
4. Subprojects funded under the program have environmental clearance from the DOE.		√
5. Adequate sanitation facilities has been developed for the teachers and students with regular cleaning and routine maintenance	√	
6. The toilets for girls and boys shall be separate with privacy and water facility.	√	
7. Is the design harmonize with local surroundings, including landscaping and	√	
8. planning for other uses for all additionally created spaces, proper ventilation, and lighting	√	
9. In Chittagong Hill Tracts for preservation of the surrounding ecosystems around the school building avoid hill cutting and destruction of ecosystem for civil works.		√
10. Is Design and construction of school building in the vulnerable coastal areas has considered 'climate proofing design' (e.g. raising of plinth level for flood, increase strength of building to resist cyclone and storm surge, avoid river bank erosion, etc		√
11. Is there public and community consultation with special emphasis on students/teachers in designing the infrastructure.	√	
12. Are Students and Teachers informed in advance of the construction schedules and the timing of necessary interruption of public utilities?	√	
13. Contractor allowed use classroom and school premises/playing ground to stack construction materials.		√
14. EED and DSHE have clearance required from government or local government agencies/committees, for construction.	√	
15. All areas and infrastructure affected is restored to their original condition, specially sidewalks, green street dividers, green- belt/fence, gardens, sidewalk trees, utilities, and side streets impacted by traffic diversion	√	
16. Annual water quality monitoring done to ensure safe drinking water facilities to the students and teachers.		√
17. Is there plan for Rain water harvesting, pond sand filters, etc. in coastal areas due to salinity intrusion		√
18. Sanitation facilities for the teachers and students and mechanism for regular cleaning and routine maintenance.	√	
19. Plan for solid waste management and energy-efficient options solar lighting of school building.		√

Annex-6: Contractors Compliance Checklist

Provisions/ Compliances	Yes	No
1. Provision of adequate healthcare facilities (first aid) within construction sites;	√	
2. Training of all construction workers in basic safety; sanitation and healthcare issues; specific hazards of their work; personal protection equipment for workers,		√
3. Such as safety boots, helmets, gloves, protective clothing, goggles and ear protection;		√
4. Clean drinking water for all workers;	√	
5. Safe access across the construction areas;	√	
6. Arrangement for water spray at the construction area throughout the construction time;	√	
7. Ensure that no child labor will be deployed;	√	
8. Lab wastes will be disposed properly with adopting an appropriate disposal facilities;		√
9. Keep work areas clean and tidy; and		
10. Ensure that there is adequate provision of correctly marked waste containers made available at convenient locations for the disposal of wastes.		√

Annex-7: Environmental Compliance Monitoring Report (ADB Format)

Compliance and Non-compliance Issues Monitoring at the School Environment

SN	Concern issue	Recommended measures	Implementation/Compliance: Yes/No	Remedial Measures
1.	Seating arrangement	Seating arrangement should be comfortable	No	Increase classroom
2.	First Aid facilities	First Aid facilities should be available in the schools	No	Advised to keep the box
3.	Firefighting	Firefighting equipment should be available in the schools	No	Contractor to supply
4.	Pure Drinking Water	Pure drinking water (Arsenic free) should be provided	Yes	
5.	Electricity	Electricity, fan, and light should be available in the schools; energy efficient light and fan should be used	Yes	
6.	Disposal of Waste	Waste disposal bins should be in place in the classrooms and also at the school central	Yes	
7.	Smoking	Schools and classrooms should be marked up as a "no smoking zone"	Yes	
8.	Sanitation facilities	Sanitation facilities (washroom, urinal etc.) should be ensured in the schools; provision of water closet and flushing system in toilet and bathroom; fixing of hand basins; and cleanliness.	Yes	
9.	Ventilation	Provision of adequate ventilation in the classroom of the schools	Yes	
10.	Management of lab chemical waste	Chemical wastes from the laboratory should strictly be discharged to the designated concrete covered pit by the school authority so that surrounding environment is not polluted; a waste management plan should be prepared by the school authority and be strictly followed	Yes	
11.	Domestic Sewage	Domestic sewage from the classroom shall be subject to suitable treatment prior to discharge to the environment; under no circumstances, untreated wastes will be discharged into the environment	Yes	
12.	Praying Rooms	Separate praying rooms for men and women should be ensured in the schools	Yes	
13.	Gender equity	Gender equity should be followed during admission	Yes	

Compliance and Non-compliance Issues Monitoring at the School Environment for Construction Site

Sl. No.	Concern issue	Recommended measures	Implementation/Compliance: Yes/No	Remedial Measures
1.	Toilet and ablution facilities	Ensure that adequate toilet and ablution facilities are provided at the construction site	Yes	Enhancing sanitation facilities

2.	Environment Officer	Contractor should appoint an Environment Officer to monitor the issues recommended in the mitigation measures to make the project environment-friendly	Yes	Engagement of Environmental Officer
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Annex-8: Tentative Training Program for Supervising Engineer, Contractors, Head Teacher and SMC.

Table An-22: 2day Training Schedule

Day 1	
10:00-10:15 am	Introduction/protocols.
10:15-10:20 am	Overview of training program; purpose and scope.
10:20-11:30 am	Concept of Environmental Safeguards; ADB SPS, frame for environmental safeguards, EIA requirements.
11:30-11:45 am	Tea Break.
11:45 am- 1:00 pm	REA (screening) and IEE/EIA processes and requirements; realistic focus on most vulnerable environmental components as they relate to SESIP civil works.
1:00-2:00 pm	Lunch break.
2:10-2:30 pm	Public consultation requirements.
2:30-3:15 pm	EMP requirements; mitigating impacts; practical considerations.
3:15-3:30 pm	Tea Break.
3:30-4:00 pm	Incorporation of EMP requirements into civil works contracts; specific actions and proper responsibility centers for impact management.
4:00-4:30 pm	Environmental management opportunities associated with buildings in Bangladesh (water conservation, waste management, drainage, lighting, air circulation, insulation, energy conservation, disaster-proofing, "green" spaces, recreational areas).
4:30-4:50 pm	Monitoring environmental safeguard performance in SESIP; who is accountable for what?
4:50-5:00 pm	Wrap-up, comments, required follow-up.
Day 2	
10:00-10:15 am	Introduction/protocols.
10:15-11:30 am	Environmental Conservation Rules 1997 (ECR 1997)
11:30-11:45 am	Tea Break.
11:45 am- 1:00 pm	Rules and Regulation of ADB, GoB
1:00-2:00 pm	Lunch Break.
2:10-3:30 pm	Team Project/Assessment
3:30-3:45 pm	Tea Break.
3:45-4:45 pm	Overview of Environmental Safeguard
4:45-5:00 pm	Ending of Training

Table An-23: Selection of Participants for each of 25 participants

SN	Designation	Nos. of Person
1	Executive Engineer, EED	01
2	Assistant Engineer, EED	02
3	Sub-assistant Engineers, EED	12
4	Contractors, Sub-project	05
5	Head Teacher, Sub-project	05
	Total	25

Table An-24: SESIP Format for Training Proposal

SN	Training Name	Attending Officials	Duration	Date of Training	Venue	Residential	Trainer	Proposed By
1	Environmental Safeguard training	6. Executive Engineer 01 7. Assistant Engineer 02 8. Sub-assistant Engineers 12 9. Contractors 05 of EED 10. Head Teacher 05, Total: 25 Persons	02 Days	4-5 October	NAEM, Dhaka	Residential	1. Environmental Safeguard Expert. 2. DoE: Local Director/Deputy Director. 3. ADB, BRM: a. Ms. Farhat Chowdhury, SPO (Env.). b. Mr. Shahjahan, Rtd. ADG (DoE).	TL, SESIP.
2	Environmental Safeguard training	6. Executive Engineer 01 7. Assistant Engineer 02 8. Sub-assistant Engineers 12 9. Contractors 05 of EED 10. Head Teacher 05, Total: 25 Persons	02 Days	11-12 October	Zonal Director, Chittagong	Residential	1. Environmental Safeguard Expert. 2. DoE: Local Director/Deputy Director. 3. ADB, BRM: a. Ms. Farhat Chowdhury, SPO (Env.). b. Mr. Shahjahan, Rtd. ADG (DoE).	TL, SESIP.
3	Environmental Safeguard training	6. Executive Engineer 01 7. Assistant Engineer 02 8. Sub-assistant Engineers 12 9. Contractors 05 of EED 10. Head Teacher 05, Total: 25 Persons	02 Days	18-19 October	Zonal Director, Jessore	Residential	1. Environmental Safeguard Expert. 2. DoE: Local Director/Deputy Director. 3. ADB, BRM: a. Ms. Farhat Chowdhury, SPO (Env.). b. Mr. Shahjahan, Rtd. ADG (DoE).	TL, SESIP.
4	Environmental Safeguard training	6. Executive Engineer 01 7. Assistant Engineer 02 8. Sub-assistant Engineers 12 9. Contractors 05 of EED 10. Head Teacher 05, Total: 25 Persons	02 Days	25-26 October	Zonal Director, Sylhet	Residential	1. Environmental Safeguard Expert. 2. DoE: Local Director/Deputy Director. 3. ADB, BRM: a. Ms. Farhat Chowdhury, SPO (Env.). b. Mr. Shahjahan, Rtd. ADG (DoE).	TL, SESIP.

Table An-25: Cost Estimation at each training location

SN	Expenditure/Description	Quantity	Unit	Total Expenditure	AIT 10%	Net Honorium (4-5)
	1	2	3	4	5	6
1	Honorium/ Remuneration					
1.1	Honorium for Chief guest	1	3000	3000	300	2700
1.2	Honorium for Special guest	1	2500	2500	250	2250
1.3	Honorium for President	1	2500	2500	250	2250
1.4	Honorium for Resource Person	4	3000	12000	1200	10800
1.5	Honorium for Rapporteur	1	1500	1500	150	1350
1.6	Honorium for Announcer	1	1500	1500	150	1350
1.7	Honorium for Coordinator	1	2000	2000	200	1800
1.8	Honorium for Participants	25	1200	30000		30000
1.9	Honorium for Support Service	3	500	1500		1500
2	Others					
2.1	Venue rent and Management		20000	20000	2000	18000
14	Bag, file, diary, pen etc	30	300	9000	900	8100
15	Refreshment/ Lunch	45	940	42300	4230	38070
Total			118170			
Grand total for 6 Venues			7,09,020			
Total: Seven lacs nine thousands and twenty only						