GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
MINISTRY OF WATER RESOURCES

BANGLADESH WATER DEVELOPMENT BOARD

COASTAL EMBANKMENT IMPROVEMENT PROJECT PHASE-I (CEIP-I)

Financed by World Bank with
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Third Annual Environmental Audit Report

for 01 January – 31 December 2018

Prepared by
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in association with BETS Consulting Services, Ltd.
Third Party M&E Consultants for Overall Project Implementation
(CONTRACT PACKAGE NO.CEIP-1/ C2/S3)

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Acronyms

BWDB	Bangladesh Water Development Board
CC	Concrete Cement
CEGIS	Center for Environmental and Geographical Information Services
CEIP-1	Coastal Embankment Improvement Project Phase-1
C-ESMP	Contractor Environmental and Social Management Plan
CHWE	First Engineering Bureau of Henan Water Conservancy
CICO	Chongqing International Construction Corporation
CRTS	Consultancy for Research and Testing Services
CSE	Construction Supervision Engineer
DDCS & PMSC	Detailed Design and Construction Supervision and Project Management Support Consultant
DPM	Deputy Project Manager
DRE	Deputy Resident Engineer
DS	Drainage Sluice
DTL	Deputy Team Leader
EHS	Environmental Health and Safety
EMP	Environmental Mitigation Plan
ES	Environmental Specialist
ESMF	Environmental and Social Management Framework
FGD	Focus Group Discussion
FS	Flushing Sluice
GoB	Government of Bangladesh
GPS	Global Positioning System
HHs	Households
IPOE	Independent Panel of Experts
JD	Job Description
KUET	Khulna University of Engineering and Technology
M&E	Monitoring and Evaluation
MTR	Mid-Term Review
NCR	Non-Compliance Register
PM	Project Manager
PMU	Project Management Unit
PPE	Personal Protective Equipment
PSC	Project Steering Committee
QC	Quality Control
R/S	River Side
RE	Resident Engineer
SECU	Social, Environmental and Communications Unit
SES	Senior Environmental Specialist
ToR	Terms of Reference
WATSAN	Water and Sanitation
WB	World Bank
WQAP	Water Quality Assurance Plan
XEN	Executive Engineer

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1. Introduction

1.1 Background

The Coastal Embankment Improvement Project – Phase 1 (CEIP-1) is a 7-year $400 million project being implemented by the Bangladesh Water Development Board in partnership with the World Bank and the Pilot Programme for Climate Resilience of the Climate Investment Fund. The Project started in 2013 and will close in 2020. It covers 17 polders in three packages of 4, 6 and 7 polders respectively. The Detailed Design and Construction Supervision Consultants (DDCS&PMSC) commenced their design work for the first of three packages in January 2015 and the Package 01 Contractor commenced services on 26 January 2016. The Package 02 Contractor's contract was signed on March 2017 and work was commenced on 12 July 2017. The Third Party M&E Consultants joined the project on 01 November 2015. This third Annual Environmental Audit covering the period January – December 2018 was conducted by the M&E Consultants from January to 04 February 2019.

Institutional arrangements of CEIP-1 for safeguarding the environment include:

1. Project Management Unit, with its Social and Environmental Coordination Unit, who are responsible for oversight and guidance on environmental matters as well as coordination with GoB agencies. PMU also reports to BWDB, the Project Steering Committee (PSC) and the World Bank.

2. DDCS&PMS Consultants who are responsible for developing the EIAs and EMPs consistent with World Bank and GoB guidelines and ensuring the EMPs are implemented satisfactorily. These Consultants review and approve the Contractor's EAPs and monitor their implementation on an ongoing basis. The DDCS&PMS Consultants develop the bidding documents and make sure that the Contract and its specifications include the necessary clauses and elements governing environmental safeguards.

3. Civil Works Contractors who must develop and implement polder- and site-specific Environmental Action Plans in the case of Package 01 and Contractor Environmental and Social Management Plans known as C-ESMP in the case of Package 02.

4. World Bank reviews and provides comments and no objection to the various safeguard documents.

5. Community participation, consultation and feedback through the EIA process and Grievance Redress Mechanism.

6. Third Party M&E Consultants who perform environmental audits and monitor and evaluate the project overall. Specifically, with respect to environmental safeguards, the M&E Consultants review and comment on environmental documents prepared under CEIP, spot

check compliance, report their findings and prepare recommendations. The M&E Consultants report to the PSC and their contract is administered by the Project Director.

Each polder has its own EIA which includes an EMP which is meant to ensure that the environmental and social management practices are integrated in the design, construction, operation and maintenance of the polder.

Among others, the specific objectives of the EIA are to:

- Comply with national regulatory and WB policy framework (further discussed later on in the document),
- Determine and describe the existing environmental and social setting of the Project Area (the project area defined as is defined as the entire area inside the polder, project influence area outside the polder i.e. the embankment, borrow pits and spoil disposal are if located outside the polder and access route to the polder),
- Identify and assess the potential environmental and social impacts of the project, including health and safety issues,
- Identify mitigation measures to minimize the negative impacts and enhancement measures to enhance the positive impacts; and
- Detail an Environmental Monitoring Plan which also defines mitigation measures.

As is the case for the EIAs and EMPs, each polder is also to have an Environmental Action Plan (EAP) for package 1 and Contractor Environmental and Social Management Plan (C-ESMP) for package 2 which is prepared by the Contractors. The EAP of package 1 and C-ESMP of package 2 are to operationalize the EMP for which the Contractor is responsible. These Plans detail in a site-specific manner the mitigation and environmental compliance requirements and provide a monitoring plan outlining the protocols, frequency of monitoring, person(s) responsible, etc.

1.2 Audit Objective

The overall objective of the Annual Environmental Audit of CEIP-1 is to assess the extent to which the plans for safeguarding the environment are in place, are being implemented and are effective based on the institutional and contractual arrangements applicable to the Project.

1.3 Scope of the Audit

In summary, the audit examined: (1) the status of preparation of required safeguards documents; (2) whether the systems, tools and protocols are in place for environmental monitoring; (3) staff and funding resources; and (4) compliance with WB safeguards, including consultation, communication, grievance mechanisms and disclosure, and country legal framework.

The audit covered the Contractor, the DDCS&PMSC and Project Management Unit (BWDB- Social and Environmental Coordination Unit).

Fieldwork was centered on the four polders of Package 01 (Polders 32, 33, 35/1 and 35/3) and five of the six polders (works ran in those polders only) of Package 02, but the audit examined CEIP-1 overall whenever appropriate. It is forward-looking to draw lessons and make recommendations on areas of improvement for Package 01 and 2 which also give guidance for broader application to Package 03, similar projects or a future phase of CEIP.

Specifically, the audit assessed:

- Status of EMP and EAP/C-ESMP implementation and any constraints to implementation
- Status of implementation of the recommendations/ findings of the first and second Annual Environmental Audits those were conducted by Third Party M&E Consultants
- Status of the implementation of the recommendations/ agreed actions of the WB environmental missions of February 2018
- Status of the implementation of the recommendations/ agreed actions of Bi-Annual Environmental Monitoring Report of July 2018
- Whether the project involves labor influx and the sufficiency of mitigating measures. The rapid migration to and settlement of workers and followers in the project area is called labor influx, and under certain conditions, it can affect project areas negatively in terms of public infrastructure, utilities, housing, sustainable resource management and social dynamics.
- Extent to which the Environmental Monitoring Plans and environmental mitigation measures outlined in the EIAs are being followed and whether they are effective.
- Existence and quality of monitoring tools, formats and protocols.
- Processes and procedures for compliance monitoring.
- Degree to which qualified staff resources are in place.
- Necessary environmental testing equipment is in place or hired when needed.
- Staff awareness and training.
- Identify constraints if any in ensuring compliance to the measures outlined in the EMP.
- Review the GRM functioning in the polder areas and check and analyze the Grievances related to environmental safeguards in the polder areas
- Review the accident records in the work sites and examine the magnitude of the accidents and how those were addressed by the contractor
- Look forward to anticipating whether any of the CEIP-1 activities may have negative impact or not on the Sundarbans mangrove forest

The Environmental Audit presents findings and observations followed by a section on conclusions and recommendations aimed at improving the effective implementation of environmental safeguards.

1.4 Methodology

The M&E Consultants have undertaken a review of documents, reports, site records, any test results, conducted interviews in offices and in the field, and made direct observations during a one and half week period and then wrote up their findings. Specific work sites, which were visited on a given polder were selected randomly for the most part, but in all cases without advance notice to the Contractors and DDSC&PMSC.

Document Review: Existing base documents were reviewed such as the Environmental and Social Management Framework, EIAs, EMPs, Contractor EAPs and C-ESMPs, EHS Assessment report, guidelines, standard procedure manuals, contractor's contract of Package 01 and Package 02, contractors' Emergency preparedness plan, and World Bank Aide Memoires corresponding to the period covered by this audit were reviewed with respect to environmental aspects. The Twice monthly Environmental inspection reports of both contractors, Monthly Progress Reports of DDSC&PMSC, and Bi-Annual Environmental Monitoring Reports were also reviewed.

Key Informant Interviews and FGDs: PMU and DDCS&PMSC environmental personnel were interviewed at DDSC&PMSC's Dhaka office and Package 01 and Package 02 field offices. Contractors' and DDSCS &PMS Consultant's staff also were interviewed in their Khulna office, Bhandaria, Patuakhali and at the polder level in each of the 4 polders of Package 01 and 5 polders of package 02 during the period of January 12-19, 2019. FGDs were conducted with local communities in polder areas and workers in all visited sites were also interviewed during the audit team's field visits to gain an understanding of how well the project is implementing EMPs.

Site Records: Test results were reviewed. Non-compliance report (NCR) logs, NCR clearance records and procedures were examined in site offices and major construction work sites.

Direct observation: Level of compliance with the EMP/EAP/C-ESMP and practices of the Project and Contractor staff was observed in the field. Demonstration of water sample collection procedure by Package 01 Contractor staff were observed to understand the level of skill and knowledge and whether the technique is appropriate.

Some of the embankment construction worksites and drainage/flushing sluice gate sites, CC block manufacturing plants, river protection works were visited in different polders of Package 01 and Package 02 (details in Section 2.7.2) to examine field level application of the environmental safeguards on a sampling basis. The team also visited the campsites, site offices and main offices of both Contractors and DDCS&PMSC to discuss systems, strength of the environment staff and documents.

1.5. Team Composition and Duration

The audit was accomplished by the Environmental Team Environmental Specialist–National (A.K.M. Rezaul Haque Khan) of the Third Party M&E Consultants with the support of the Team Leader (Mr. Jan T. Twarowski), Deputy Team Leader (Md. Mahidur Rahman Khan) and Field Data Collector/ M&E Officer (Md. Safiqul Islam). The audit was conducted within a short timeline through fieldwork for 8 days in Package 01 and 02 polder areas and several days of meetings and document/file reviews in Dhaka, followed by a couple of weeks of report writing in Dhaka.

2. Audit Findings

This section summarizes the audit findings focusing on:

- existence of appropriate base documents;
- systems- tools, formats, institutional arrangements, protocols, quality assurance;
- environmental staff resources;
- staff awareness and training;
- necessary equipment and arrangements for environmental monitoring testing; and
- actual implementation/ practice level.

2.1 Existence and appropriateness of base documents

Existing base documents or reports were reviewed such as EIAs and EMPs, Contractor EAPs/ESMPs, Quality Assurance Plan, Contract/Bidding documents.

2.1.1 EIA and EMP

According to Environmental Conservation Rules (ECR) 1997 of DoE, the project is categorized as "Red", requiring that EIA and RAP have to be submitted for obtaining and Environmental Clearance Certificate (ECC). The ECC was obtained and thus the Project has complied with the regulatory requirement. According to WB safeguard policy, the Project is classified as Category "A" involving significant environmental adverse impact. To satisfy compliance of GoB and WB, CEIP-1 has already prepared EIAs for each of the four polders of Package 01 and six polders of Package 02 and these contain polder-specific EMPs. These EIAs have been approved by WB and CEIP-1 and have spelled out the required actions needed comply with Government regulations and WB safeguards. The preparation of the EIAs for the 7 Polders of Package 03 is almost in shape to be finalized. All the 7 EIA reports (for polders 14/1, 15, 16, 17/1, 17/2, 23 and 34/3) were reviewed and adjusted by DDCS&PMSC to respond to the World Bank's comments of first review. World Bank has come up with the comments of second review. DDCS & PMS Consultant has been addressing the comments with the assistance of PMU and 3rd Party M&E Consultant. Hence, those will be submitted to WB

through PMU. The submission of all of these final draft EIAs to WB is planned to be done by January 2019. The validity of ECC for Package 01 and Package 02 lapsed since their expiration on 07 October 2016 and 01 March 2018 respectively. Hence, the PMU of CEIP-1 applied for renewal of ECC and DoE finally issued ECC for 10 Polders of Package 01 and Package 02 on 05 November 2018 (copy attached as Annex 4.4). The ECCs are now valid until 04 November 2019.

From the review of the draft EIA of Package 03, it was felt the EIA of the Package 03 has been improved. The audit team feels that the Package 03 EIAs have incorporated the analysis of National Water Act 2013, National River Commission Act 2013 and the Participatory Water Management Guidelines 2014, which were not covered in the EIAs of Packages 01 and 02, though they are mentioned in Package 02. Furthermore, the issues and concerns raised by local people during consultations have been incorporated.

From the first Annual Environmental Audit and second Annual Environmental Audit, it was felt that the EIAs are too voluminous and EIA authors could look for scope to lessen the volume of the EIAs covering all required sections with adequate information. It was suggested as a possible approach, long sections of descriptive information may be considered to be annexed, making the main body of the document more focused. This recommendation remains in place as the Package 03 EIAs have not been streamlined as suggested.

2.1.2 Environmental Action Plans (EAP) of Contractor for Package 01

The EAPs are the polder-specific living documents of the contractor which translate into concrete, site-specific and time-bound actions how the environmental and EHS issues of the EMPs will be addressed.

The four polders' specific EAPs are living documents; they have been updated three times. The latest 3rd revised version of EAPs were updated during the period that audit covered. The EAPs polder-specific Environmental Action Plans (EAPs) for the four polders of Package 01 have been submitted by the Contractor to DDSC&PMSC, and DDSC&PMSC also shared those with PMU and M&E Consultants. Subsequently, they were submitted to WB and WB has accepted all four polder-specific EAPs. From the review of the updated EAPs, the audit team found the EAPs in improved stage compared to prior version of those. However, the audit found some of the monitoring (testing) frequencies given in the EAPs are over commitments and may not be achievable (e.g. the EMP specified that air quality would be monitored half-yearly, but the EAPs indicate Monthly, EMP says noise level will be monitored weekly while EAPs say daily, EMP mentioned test for surface water should be yearly in dry season but EAPs mentions monthly, EMP mentioned test for drinking water should be half-yearly but EAPs mentions monthly). The audit team recommends the contractor to

revisit the EAPs thoroughly to make it consistent with the EMP and practically useable as a comprehensive guide for staff and laborers.

2.1.3 Environmental and Social Management Plan (C-ESMP) of Package 02 Contractor

In Package 02, we use the term C-ESMP which is analogous to the EAP of Package 01. The C-ESMPs are also polder-specific living documents of the contractor which translate how the environmental, EHS and social issues of the EMPs are to be addressed in the way of actionable plans.

Initially, the C-ESMPs for the six polders of Package 02 were provisionally approved by the DDSC&PMSC with the obligation that they will update these with detailed layouts and other necessary elements by December 2017, once the specific campsites are known. The Contractor for Package 02 has indeed submitted six updated C-ESMPs for the six polders of Package 02 to DDSC&PMSC in December 2017. The DDSC&PMSC has also shared these with PMU and Third Party M&E Consultants who reviewed these documents and provided their comments. Subsequently, the C-ESMPs were reviewed by the World Bank who shared their comments. The comments of WB on the C-ESMPs are being addressed by the Contractor Package 02 with the assistance of DDCS&PMS Consultants.

As part of the audit, the Third Party M&E Consultants reviewed the C-ESMPs. The last audit found the C-ESMPs lacked steps to address the EHS issues of CC block manufacturing plants and recommended these be included. The updated C-ESMP is now compliant in this respect. During the last audit, it was also recommended that the layout of major construction sites, camps with the C-ESMPs, a few layouts (typical layout of base camp, layout of fuel storage) should be included with the C-ESMPs. A layout with the caption of “Layout plan for waste management” has been included with the documents but the layout is for latrines. At this stage of CEIP, the base camp and worksites are defined, so it is recommended to include the specific layout with the C-ESMPs. Moreover, in monitoring of air quality, noise level, surface water and drinking water, it was revealed there are inconsistency between the C-ESMPs and CEIP’s EMPs for the monitoring frequencies to monitor the environmental parameters in CEIP working areas. The following deviations were found comparing to the C-ESMPs and CEIP’s EMPs:

Table 1: Comparison in monitoring frequency between CEIP's EMMPs and Contractor’s C-ESMP

Monitoring item	C-ESMP	EMP	Remarks
Monitoring of Air Quality	Yearly	Half yearly	The C-ESMPs are inconsistent with Project’s EMPs

Monitoring item	C-ESMP	EMP	Remarks
Monitoring of Noise Quality	Monthly	Weekly	The C-ESMPs are inconsistent with Project's EMPs
Monitoring of Drinking Water Quality	Quarterly	Yearly	The C-EMPS mentioned to do it quarterly. Once this is spelled out in the document it becomes a commitment. Still, the contractor should consider this carefully. Of course, doing the monitoring on a quarterly basis will be superior to yearly.
Surface water	No	Yearly (during dry season)	C-ES.MP does not cover monitoring of surface water but EMP required it.

There is inconsistency between the ESMPs and the EMPs. As was the case for Package 01, the site-specific layout of the major construction sites/ worksites of Package 02 have not yet been incorporated with the documents, etc. The audit recommends the Contractor of Package 02 revisit the C-ESMPs to ensure they thoroughly cover the EMP requirements and make them an effective guide for full compliance with environmental safeguards.

2.1.4 EHS Risk Assessment of Package 01 and Package 02 Contractors

As part of the audit, the EHS Risk Assessment reports of the both contractors of CEIP were reviewed. The audit revealed that the risk assessments were mostly focused on the activities of CC block manufacturing plants, sluices and barges. It was found the risk assessment covers many issues but still there are a few gaps which could be addressed. The audit found discussion on various national relevant laws/ policies, but the C-ESMP does not cover Environmental Conservation Rules (ECR), 1997 which is the basis of the environmental requirement of the various projects in Bangladesh, and which also provides a step-wise guideline to fulfil the environmental requirements as per law. The risk assessed for air quality addressed only dust creation; other aspects could be accounted (e.g. emissions from plants, vehicles). The assessment did not cover any risk those could cause health problem for workers and environmental pollution to environment because of poor drinking water and sanitation facilities. It is recommended that both the contractors address the above-mentioned gaps in their EHS Risk Assessment reports.

2.1.5 Contract document of Package 01 and Package 02 and Implications for Package 03

The audit found that contracts of Package 01 and Package 02 covered the EMP's clauses partially. Penalty clauses suggested in the EMPs have not been incorporated into the contracts of Package 01 and Package 02. The Contractors' contractual obligations in general and specifically (around 20 items) covers mostly matters of Environmental Health and Safety (EHS). It is notable that the Package 02 contract document is comprised of more elaborated environmental-measures budget lines than the contract of Package 01. The bid documents and contract for Package 03 should give emphasis and care to ensure all the required clauses are incorporated to fully address the relevant elements of the EMPs including the penalty clauses of the EMPs.

2.1.6 Quality Assurance Plan V1.0- August 2016

Audit team reviewed the quality assurance plan of the DDCS & PMS Consultants, and found that it is the same version that was reviewed during the audit of last two audits. The findings are same as previous audits and those are: The document covers the quality assurance for all aspects of the activities of CEIP-1. This document covered two sub-sections related to environmental issues – (1) the major tasks to be done by Environmental Specialist of DDCS&PMS of CEIP-1 and (2) Health and Safety (mostly focused on how Health and Safety Personnel will ensure compliance on health and safety issues of the project). It was adequate in these two respects, but could be strengthened in its statement of how EMP compliance will be monitored and achieved.

2.2 Systems- Tools, formats, institutional arrangements, protocols, and quality assurance

This section covers the audit findings on Environmental Monitoring tools and guidelines, twice-monthly environmental and field visit reports, and Contractors' Emergency Response Plan.

2.2.1 Environmental monitoring tools and guidelines

Contractor has been following the monitoring checklist, which is annexed to the Contractors' EAPs and C-ESMPs as a set of monitoring tools. There are no separate guidelines to ensure compliance with the EMP. DDCS&PMSC and PMU environmental personnel have also been monitoring the implementation of EMP through the indicators of the monitoring checklist that has become part of the EAPs and C-ESMPs. The monitoring has been carried out using these tools which are known as the "Twice-Monthly Environmental Inspection Checklist". Along with the PMU and DDSC&PMSC, the M&E Consultants monitor the environmental compliances with the tools of EAPs, C-ESMPs and EMPs.

2.2.2 Twice- monthly environmental inspection report and field reports

2.2.2.1. Package 01

The Contractor has been submitting twice-monthly environmental reports to DDCS&PMSC since November, 2016. As a part of the 3rd Annual Audit, the reports of January through December 2018 were reviewed. It was found that the Contractor has been submitting reports using the monitoring checklist formats of the EAP and providing remarks for any notable findings. These reports also include an annex presenting photographs on findings. For a given reporting period, a sampling of sites is covered reflecting the visits made by the concerned EHS officer of the Contractor.

The Environmental Specialist of DDSC&PMSC conducts field visits and he shares the field findings after completion of the field visits with the DDSC&PMSC field level staffs and contractor staffs taking note of the deadline for addressing the non-compliance by the contractor. He prepares field visit reports and brings these reports with him during next field visit to see the status of compliances. This is a good approach. The field report of the Environmental Specialist is also shared with the Contractor senior management and PMU as well for gearing up the next course of action.

2.2.2.2. Package 02

Contractor for Package 02 has not been submitting the twice-monthly environmental inspection reports. Only a few checklists during the year (2018) were found to be filled out. The level of monitoring should be increased by the Contractor and the checklists should be completed routinely. It is recommended that Contractor of Package 02 conducts monitoring with the checklist twice a month and submits the filled checklists/ reports twice per month to DDCS&PMS Consultant. As the Contractor did not carry out environmental monitoring and fill the checklists for twelve months (only a few checklists), the audit team could not analyse and interpret compliance versus non-compliance as we have done in Package 01.

As for Package 01, the Environmental Specialist of DDSC&PMSC also conducted field visits for Package 02 and he shares the field findings after completion of the field visits with the DDSC&PMSC field level staff and contractor staff taking note of the deadlines for addressing the non-compliance by the contractor. He prepares field visit reports for Package 02 and brings these reports with him during next field visit to see the status of compliances. This is a good approach. The field report of the Environmental Specialist is also shared with the Contractor senior management and PMU as well for gearing up the next course of action.

2.2.3 Compliance Performance

From the audit, it was found that compliance registers have been maintained by the contractors of Package 01 and Package 02 in the worksites. In the register, the good environmental practices for a specific site and the items that need to improve are recorded by the visiting environmental staff along with a deadline. However, no "Non Compliance Report" or “Non-Compliance Register” was found to exist or to be maintained by Contractors and DDSC&PMSC. “Non-Compliance Registers" should be kept by the Contractors for every worksite. The issues related to any non-compliance should be mitigated and once the issues are resolved, the items should be noted as complied in the "Non-Compliance Register" by the Contractors, DDCS&PMSC and PMU. The remaining issues should be mitigated as soon as possible and reported to DDCS&PMSC on a routine basis. The record should be tracked in a way that it could be understandable how many of the compliances raised, resolved and pending.

The audit team has reviewed the twice-monthly Environmental Inspection Reports (so-called Twice-monthly Environmental Inspection Checklist) of Package 01, and compiled the compliance status as elaborated in the following tables and Annexes 4.7 and 4.8. Table 3 comprises the elements and sub-elements considered by the contractors for the purpose of environmental inspections. Table 04 gives a comparison on compliances and non-compliances for the whole year and also the last quarter of 2018. The observations from Table 04 are:

- Based on the data garnered from the Twice-Monthly Environmental Inspection reports, Package 01 considered 31 different elements for inspection and an improved compliance level was observed for most of these elements. From the analysis of compliance and non-compliance of the entire year 2018 it was revealed that 17 elements were 100% compliant for the full year while 18 elements were 100% compliant in the fourth quarter. Thus, compliance level is improving modestly by this measure.
- 27 out of 31 different elements inspected were equally or more compliant in the fourth quarter of 2018 compared to the full year compliance level. Compliance is also notably improving by this measure.
- In cases of construction/renovation camps, demolishing sluices, re-excavation works, borrow material, solid waste management, waste water, Deployment of Environment and Safety Supervisor, Complaints and Environmental Incidents and training the compliance levels are shown below in respective order:
    - for the full year: 92%, 96%, 33%, 81%, 63%, 29%, 0%, 91% and 0%
    - for 4th Qtr alone: 100%, 97%, 100%, 86%, 69%, 39%, 100%, 93% and 100%.

  These comparisons show that the compliance level has improved in the last quarter of the year, though it is clear there is room for further improvement – especially in waste water and solid waste management.

- A few problem areas remain in the case of Temporary Facilities Decommissioning, Construction and also re-sectioning of embankments. The level of non-compliance for these two elements in the all year was 0% and 50.9% respectively. For the same elements, the level of non-compliance only for the fourth quarter of the 2018 was 100% and 52.9% respectively which reveals an increase in non-compliance for these elements in the last quarter of the reporting year.

Table 2: Elements Comprising the Compliance Inspection Checklist

Elements	Sub-elements
Construction Camps	Obtaining approval
	Erection of signboard in Bangla and English with project details
	Install accommodation facilities for workers
	Drainage channels installation
	Supply of safe drinking water
	Supply of adequate sanitation
	Solid fencing and demarcation to prevent villagers from entering the premises
Fuel storage areas	Install hardstand and secondary containment
	Firefighting equipment installation
	Sand and shovel close-by
	Regular checks on physical condition
Access road construction	Obtaining approval
	Construction of culverts if needed
Temporary Facilities Decommissioning	Agreeing with local authorities on demolition
	Review of Environmental liabilities
	Waste removal
	General re-instatement of site
	Re-vegetation implementation
	Close-out check
Construction and Demolishing of drainage sluices, flushing sluices and inlets	Demolishing debris of sluices and inlets will be disposed of at a site approved by the Engineer.
	Before starting the construction activities of drainage sluices ring bundh and diversion channel will be installed in order to work in dry conditions.
	No waste water from concrete mixing will be disposed of directly to the surface water.
	Steel sheet pile driving will not be done at night.
	The work area will be demarcated clearly.
	Signals will be installed to indicate the entry and exits of vehicles and movement of construction equipment in the work area.
	Prior to every monsoon season all the temporary and permanent drainage structures under construction will be made free from debris.
Construction and re-sectioning of embankments	Pavement (if present) will be removed and disposed of at the premises of BWDB
	All works will be demarcated clearly.
	Signals will be installed to indicate the entry and exits of vehicles and movement of construction
	The contractor shall manage the top soil(15)cm during earth work activities

Elements	Sub-elements
The bank and slope protection works	Spilling of earth material in surface water will be avoided.
	Turfing will be applied to prevent erosion
	Proper drainage provision will be kept to avoid formation of rain cuts due to surface run off.
Re-excavation works	Spoil plan (volume to be excavated; disposal site to be used; quality of excavated material; applicability of excavated material) to be developed for approval by Engineer.
	Unnecessary re-suspension will be avoided by selection of suitable dredging equipment.
	Temporarily deposition of excavated material will be away from the channel edge to limit damage to streamside and stream habitats.
	Return water will be conveyed through siltation chambers to avoid high loads of fines to be discharged on surface water.
	Where applicable biotechnical Engineering, for example, geo textile, may be used to help stabilize the material.
	Smothering of important flora and habitats will be avoided.
Construction of the closure Dam	N/A
Manufacture of pre-cast CC blocks	Workers will be equipped with proper PPE.
	Signals will be installed to indicate the entry and exits and movement of vehicles construction in the work area.
	Manufacturing will not take place at night.
	Stacks with sand will be covered or wetted.
Borrow Material	Agreeing on borrow area
	Document borrow area
	Perform soil analyses on borrow materials when contamination is expected
	Prevention of erosion/dust forming
	Borrow area excavation complying with distance from the embankment as per the technical specification
	No-Tress pass line fixed with bamboo poles
Hard Rock Revetment	N/A
Occupational Health and Safety	Development of Health and Safety plan including emergency procedures
	Train all staff in health and safety
	Provision of HIV, including STI(Sexually Transmitted Infections) information, education and communication
	Provision of PPE and ensuring their use
	Provision and use of life jacket during visiting campsite/worksite by boat
	Installation of first aid facilities at work site and camps with adequate stock
	Provide sanitation facilities where needed
	Provision of safe drinking water to work force (tube-well water, bottled water or pond water)
	Proper signaling of work areas
Public Health and	Notification of the public adjacent to the construction areas

Elements	Sub-elements
Safety	Installation of dedicated pathways for pedestrians
	Proper signaling of work areas
	Limitation of construction vehicles at public roads during peak hours.
	The temporary traffic detours in settlement areas will be kept free of dust by frequent application of water
	Construction activities will be undertaken according to during daylight working hours between the hours of 07:00-17:00 on week days
Water Supply	Providing construction camps with portable water either through installing tubewells (hand pump, shallow and deep tubewell), pond Sand Filter (PSF) or supplying safe bottled water
	Ensuring the location plan of tubewells (used for supplying potable water) that these are not sited near any sanitation facilities as to avoid water pollution
	Maintaining the distance of a tubewell/surface water resource from a soak pit at minimum 15 m
	Maintaining the drainage from the tubewell diverting into the drainage system of the camp area
	Providing separate tubewells for the use of women.
Sanitation	Providing suitable sanitation facilities for the workforce
	Ensuring the location plan of the latrine at least 50 m away from the accommodation facility
	Providing separate latrines for the use of women
	Installing treatment facilities (i.e. septic tank, soak pits etc.) for the sewerage of toilet and camp site wastes.
	Arranging disposal of wastewater from washrooms, kitchens, s, etc. via the camp area's drainage system
Solid Waste Management	Ensuring collection and disposal of solid wastes within the construction camps and work areas
	Taking measure to collect and store inorganic wastes in a safe place within the household and organic wastes cleared on daily basis to waste collector.
	Establish measures for Waste collection, transportation and disposal systems at approved disposal sites.
	Disposal of construction and demolition waste.
Waste water	Installation of decanter boxes for washing buckets and cement mixers
	Installation of proper filtering elements.
	Carrying out periodic checks and clean-ups for the decanter box.
	Prioritize reuse of aggregates and water from the decanter box.
	Ensure safe disposal of liquid wastes generated at camp site.
Air	Regular maintenance of vehicles
	Covering or wetting of dusty materials
	Dust suppression by wetting surfaces
	Impose speed limits
	Re-vegetate bare surfaces soonest
Noise	Notify nearby population prior to any typical noise events

Elements	Sub-elements
	Ensure construction activities do not generate unacceptably high level of noise
	Restrict working to daylight hours
	Locate noisy equipment / facilities away from sensitive receptors
Water and Hydrology	Preventing waste, soil, etc. entering in the water system by waste collection, re-vegetation and dust suppression etc.
	Insure proper drainage of working areas e.g. perimeters lines must be provided with open shallow drains
Flora and Fauna	Agreeing with local authorities on tree felling.
	Document trees / area of trees.
	Avoid/prevent un-necessary tree vegetation cutting and clearing.
	Re-vegetate disturbed construction and ancillary site surfaces.
	Prevent disturbance of animals
	Ensuring sufficient free flow in the construction work for fish migration
Monitoring of Air Quality	Performance of air quality tests at selected sensitive sites for parameters SPM 2.5/10, SOx, NOx and CO during working hours
Monitoring of Noise Quality	Monitoring of noise level (dB) at selected sensitive sites during working hours
Monitoring of Soil Quality	Performance of soil quality tests at selected sites (borrow areas, spill sites) for parameters as organic matter, N, P, K, pH, Salinity, S and Zn.
Monitoring of Surface Water Quality	Performance of analyses on surface water (river, khal, beel and pond) for: pH, TDS, DO, BOD, EC/Salinity and Turbidity.
Monitoring of Drinking Water Quality	Performance of analyses on drinking water for: arsenic, iron, chloride and total faecal coliform bacteria.
Deployment of Environment and Safety Supervisor	Employ one full-time Environment and Safety Supervisor for compliance monitoring of EMP
Complaints and Environmental Incidents	Grievance Redress Mechanism will be established.
	Complaints received from the public or other stakeholders will be registered and recorded and be brought to the attention of the Site Engineer.
	All environmental incidents occurring on the site will be recorded and be brought to the attention of the Site Engineer.
	Action will be taken within 7 working days.
Reporting and Documentation	The following records will be kept at site: - Environmental Monitoring Results - Contractors self-assessment record/results - Register of non-compliance - Register of corrective actions - Monthly Environmental Reports
Training	Environmental training on EMP will be arranged for Construction Field supervisors and Environment & Safety Supervisors.
Industrial wastes	Proper disposal records listing nature of wastes

Table 3: Summary Status of Compliance and Non-Compliance and comparison between whole year and Quarter 4 in 2018, Contractor- 01

S.N	Inspected Sites	No. of Compliance in a Year	No. of Non-Compliance in a Year	%of Compliance in a Year	% of Non-Compliance in a Year	No. of Compliance in Q4	No. of Non-Compliance in Q4	%of Compliance in Q4	% of Non-Compliance in Q4
1	Construction Camps	576	48	92	7.69	168	0	100.00	0.00
2	Fuel storage areas	384	0	100	0.00	96	0	100.00	0.00
3	Access road construction	120	0	100	0.00	30	0	100.00	0.00
4	Temporary Facilities Decommissioning	144	0	100	0.00	0	0	0.00	100.00
5	Construction/Demolishing of drainage sluices, flushing sluices and inlets	687	30	96	4.18	186	6	96.88	3.13
6	Construction and re-sectioning of embankments	168	174	49	50.88	60	66	47.62	52.38
7	The bank and slope protection works	60	0	100	0.00	24	0	100.00	0.00
8	Re-excavation works	24	48	33	66.67	24	0	100.00	0.00
9	Construction of the closure Dam	0	0	0	100.00	0	0	0.00	100.00
10	Manufacture of pre-cast CC blocks	288	0	100	0.00	96	0	100.00	0.00
11	Borrow Material	312	72	81	18.75	108	18	85.71	14.29
12	Hard Rock Revetment	0	0	NA	NA	0	0	NA	NA
13	Occupational Health and Safety	432	0	100	0.00	156	0	100.00	0.00
14	Public Health and Safety	432	0	100	0.00	144	0	100.00	0.00
15	Water Supply	96	0	100	0.00	30	0	100.00	0.00
16	Sanitation	216	0	100	0.00	78	0	100.00	0.00
17	Solid Waste Management	170	100	63	37.04	54	24	69.23	30.77
18	Waste water	96	240	29	71.43	42	66	38.89	61.11
19	Air	336	0	100	0.00	108	0	100.00	0.00
20	Noise	288	0	100	0.00	96	0	100.00	0.00
21	Water and Hydrology	72	72	50	50.00	24	24	50.00	50.00
22	Flora and Fauna	216	72	75	25.00	72	24	75.00	25.00
23	Monitoring of Air Quality	72	0	100	0.00	24	0	100.00	0.00
24	Monitoring of Noise Quality	72	0	100	0.00	24	0	100.00	0.00
25	Monitoring of Soil Quality	72	0	100	0.00	24	0	100.00	0.00
26	Monitoring of Surface Water Quality	72	0	100	0.00	24	0	100.00	0.00
27	Monitoring of Drinking Water Quality	72	0	100	0.00	24	0	100.00	0.00
28	Deployment of Env't & Safety Supervisor	0	0	0	100.00	6	0	100.00	0.00
29	Complaints, Environmental Incidents	240	24	91	9.09	84	6	93.33	6.67
30	Reporting and Documentation	360	0	100	0.00	120	0	100.00	0.00
31	Training	0	0	0	100.00	6	0	100.00	0.00

2.2.4 Tracking of number of trees by species needed to cut for CEIP-1

Third Party M&E Consultants requested DDSC&PMSC to send the data base if their sub-contractor KMC maintains one for the number of trees by species. No response was received from DDSC&PMSC. Therefore, the M&E Consultants don't know if this is being tracked or not. If the data has not been maintained it will be difficult to define the mitigation measures as certain species require replacement and others do not and certain species enjoy special protection. It is recommended these records be maintained if not already being done. The finding of the first and second annual environmental audits was the same.

2.2.5 Grievance Redress Mechanism

Several social and environmental issues may arise during implementation stages of the Project. Following are some of the environmental issues that could be subjected to grievances from the affected people, concerned public, construction workers and civil society members:

- Soil, water, dust, noise and air pollution from construction related activities;
- Traffic movement and congestion;
- Lack of adequate safety at the construction areas and approach roads;
- Lack of water and sanitation facilities at the construction sites/camps;
- Waste disposal;
- Conflicts among construction workers and with local community;
- Disturbances to flora and fauna;
- Failure to comply with standards or contractual obligations.

Of course the GRM will also entertain concerns about matters of resettlement and land acquisition including livelihood restoration.

In order to facilitate the resolution of affected people's concerns, complaints, and grievances about the social and environmental performance of the project, a Grievance Redress Mechanism (GRM) has been established which aims to provide a time bound and transparent mechanism to voice and resolve social and environmental concerns. CEIP-1 has designed the GRM and the PMU, with the assistance of the DDSC&PMSC's team, has been putting it in place. The grievance mechanism has been scaled to the risks and adverse impacts of the project. It has addressed affected people's concerns and complaints promptly, it is designed to use an understandable and transparent process that is gender responsive, culturally appropriate, and readily accessible to all segments of the affected people at no cost and without retribution. The mechanism does not impede access to the country's judicial or administrative

remedies. The affected people were appropriately informed about the detailed mechanism by a Bengali-language brochure. The GRM Process is depicted in Figure 1.

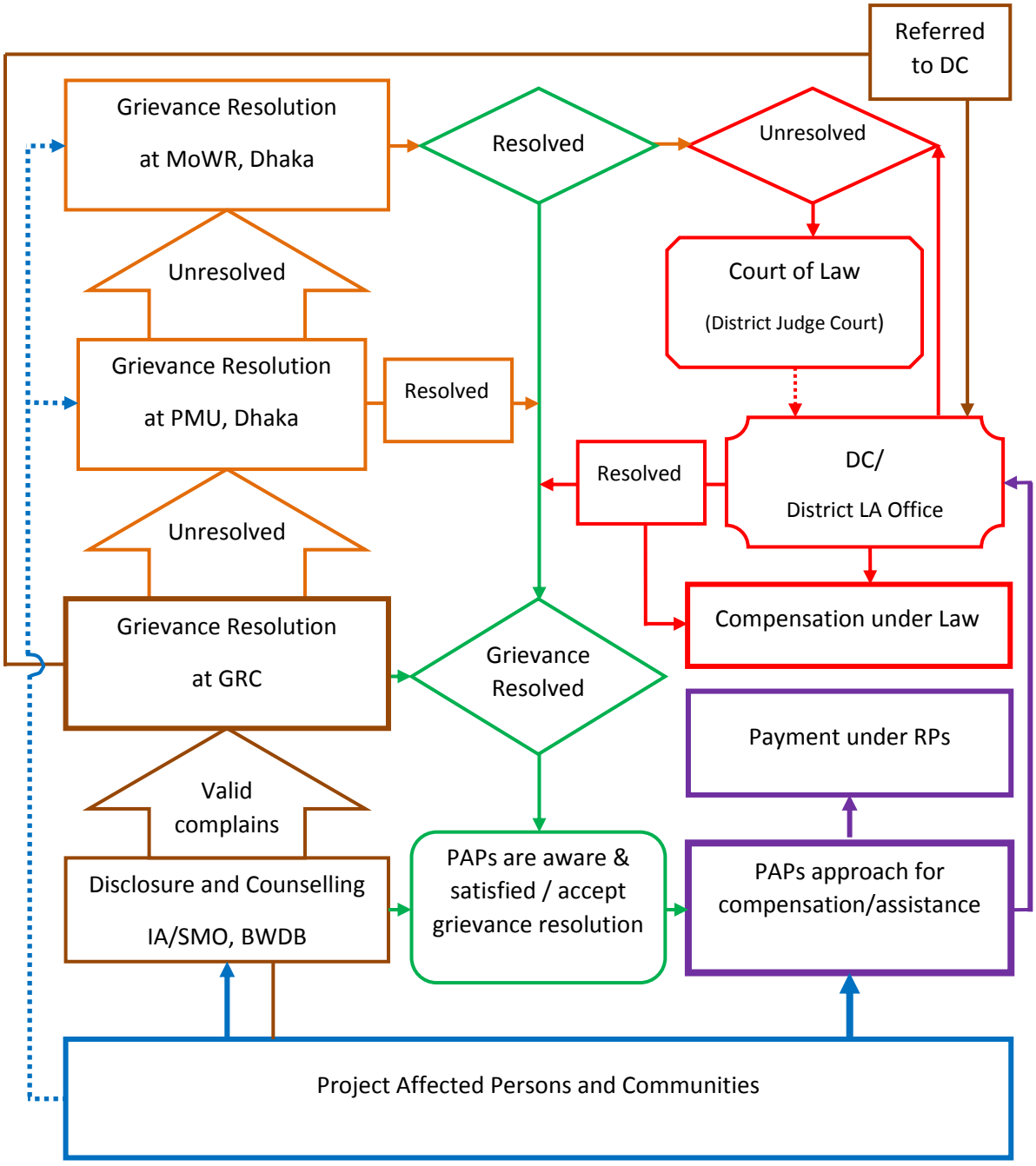


Figure 1: GRM Process Flow Chart

The Project Management Unit (PMU) and Project Implementation Organizations (PIOs) are making the public aware of the GRM through public awareness campaigns by its Resettlement Action Plan (RAP) implementing Team. The contact phone number of the respective PIOs and the PMU is serving as a

hotline for complaints and have been publicized through the media and placed on notice boards outside their offices and at construction sites. The project information brochure including information on the GRM is being widely disseminated throughout the embankment by the RAP implementing team and PIOs. Grievances can be filed in writing to any member of the Committee.

One GRC has been formed for each Union with union level representation to ensure easy accessibility by the project affected persons and communities as comprised below:

Membership of GRC

1. Executive Engineer (BWDB Division Office) : Convener
2. Representative of the RAP Implementing NGO : Member -Secretary
3. Local UP Member / Ward Council Member : Member
4. Teacher from Local Educational Institution (nominated by Upazila Administration) : Member
5. Representative from Local Women's Group : Member
6. Representative from the PAP Group : Member

2.2.5.1. Grievance Redress Mechanism (GRM) for Package-01

There are 15 Grievance Redress Committees (GRC) at local level for Package 01 out of 15 GRCs required. These GRCs have been formed earlier at each Union of all Polders under Package 01 with the representatives of BWDB, Union Parishad, educational institute, PAPs and DDCS&PMS Consultants. The Project's stated target is to try to resolve all cases within four weeks from the date of GRC receiving the complaint and trying to resolve the cases locally.

A total number of 147 complaints/grievances have been received up to December 2018 by GRC. Among those, 24 cases have been resolved at the entry level, 114 cases have been resolved through investigation and formal hearing by GRC and pending grievances to be resolved. However, 9 grievances have been newly lodged.

Table 4: Summary of Disposition of Grievances

Sl.No.	District	Polder No.	Total Complaints/Cases	Resolved by field investigation	Resolved by GRC	Pending with GRC	Newly lodged Grievances
1	Khulna	32	43	9	29	0	05
2	Khulna	33	14	8	6	0	0
3	Bagerhat	35/1	25	3	19	0	3
4	Bagerhat	35/3	65	4	60	0	1
Total			147	24	114	0	9

Source: MPR, December 2018, DDCS&PMS Consultants

Though awareness raising of the GRM covers both social and environmental concerns, no grievance has been registered specific to environmental issues till now. The environmental hazards caused during construction are being minimized and are localized which local people generally tolerate as they consider that the project will provide many benefits to them. Consultant has instructed the Contractor to avoid and/or mitigate even the minor and localized pollution.

2.2.5.2. Grievance Redress Mechanism (GRM) for Package-02

Union-wise GRCs have been established between August and October 2017 in the Package 02 Polders (39/2C, 40/2, 41/1, 43/2C, 47/2 and 48). Table-12 lists the 21 GRCs for Package 02 polder-wise.

Table 5: Polder-wise Date of Establishment and Location of Grievance Redress Committees of Package 02

Sl. No.	Polder Name	Number of Committees	Location	Date of Formation
1.	39/2C	9	Bhandaria Pourosova, Bhandaria Pirojpur	05/10/2017
2.			1 No. Vitabaria Union, Bhandaria Pirojpur	05/10/2017
3.			2 No. Nadmullah Shialkathi Union, Bhandaria, Pirojpur	05/10/2017
4.			3 No. Telikhali Union, Bhandaria, Pirojpur	05/10/2017
5.			4 No. Ekri Union, Bhandaria, Pirojpur	05/10/2017
6.			5 No. Dhawa Union, Bhandaria, Pirojpur	05/10/2017
7.			2 No. Dhanisafa Union, Mothbaria, Pirojpur	05/10/2017
8.			3 No. Mirukhali Union, Mothbaria, Pirojpur	05/10/2017
9.			1 No. Chechri Rampur, Union, Mothbaria, Pirojpur	05/10/2017
10.	40/2	3	Pathorghata Pourasova, Pathorghata Barguna	30/08/2017
11.			Charduani Union, Pathorghata Barguna	30/08/2017
12.			4 No. Pathorghata Union, Pathorghata, Barguna	30/08/2017
13.	41/1	3	Barguna Pourosova, Barguna	30/08/2017
14.			5 No. Aila Patakata Union, Barguna	30/08/2017
15.			6 No. Burir Char Union, Barguna	30/08/2017
16.	43/2C	2	Amkhola Union, Golachipa, Patuakhali	27/08/2017
17.			Golkhali Union, Golachipa, Patuakhali	27/08/2017
18.	47/2	1	Dalbu Gonj Union, Kolapara, Patuakhali	07/09/2017
19.	48	3	Kuakata Pourosova, Patuakhali	07/09/2017
20.			Dhulashar Union, Kolapara, Patuakhali	07/09/2017
21.			Lotachapli Union, Kolapara, Patuakhali	07/09/2017

No records were found on the grievances in case of Package 02 which that has been maintained by Package 01.

It is recommended to maintain grievance records for Package 02 as well. The audit recommends that both of the contractors set a complaint box at a place of every worksites which is accessible to local people so that they can drop complaints if they have regarding (EHS) for the works.

2.2.6 Monitoring Testing results

2.2.5.1. Package 01

The audit team reviewed the testing results which was carried out by the contractor during the audit period. The findings are as follows:

Drinking water

Audit team reviewed the results of test for surface water (28 number of samples tested) and drinking water (10 number of samples tested) conducted by contractor through CRTS of KUET. The Audit found that Global Positioning System (GPS) coordinates have not been taken for the place of sample collected for test of drinking water parameters and for the collected surface water samples rather keeping the chainage location with the result sheets. Audit recommends to take GPS location for all the samples.

The test results for drinking water were within permissible limits for Arsenic (actual results were 0.00 mg/l), Iron, Chloride, total coliform and fecal coliform bacteria.

Surface water

For surface water, of the 28 samples were drawn, all the samples were within permissible range for the measured parameters (pH, Turbidity, TDS, Chloride, EC, DO, BOD) except for the electrical conductivity of 4 samples taken found exceeding the limit. These were above the limit for irrigation water which is 2250 micro-mhos/cm. The actual values obtained in these four samples ranged from 3279 to 4301. As mentioned, pH, DO and BOD were within acceptable limits for fisheries and irrigation for all the samples. Audit recommends contractor to conduct analysis on N03-N for surface, ground water and soil as routine part of monitoring; this is not been covered by current tests.

Soil

In total 26 soil samples were collected (6 samples for P-32, 6 samples from P-33, 8 samples form P-35/1 and 6 samples from P-35/3) for laboratory analysis. The samples were collected from 0-15 centimeters representing the valuable productive agricultural surface soil. They were tested in the laboratory for parameters like pH, Chloride (Cl-), Organic matter, Nitrogen, Phosphorus, Potassium, Sulphur and Zinc and the results were compared with permissible limit of Bangladesh Agricultural Research Council (BARC).

It is observed that all the soil samples have no limitation for parameters pH, Chloride (Cl-), Organic matter, Sulphur and Zinc. However, 8 soils samples have very low content of Nitrogen, 11 soils have very low content of Phosphorus and 9 soils have very low content of Potassium (cumulative). Thus, they require additional application of chemical fertilizers for general agricultural crop growth.

Contractor's activities for construction have no likely relationship to this lower NPK content of the soil. The Contractor is requested not to create any cause of polluting the soil quality by improper disposal of waste or spillage of hazardous oil/chemicals or damaging the soil quality during construction activities.

Air Quality

In total 18 air quality tests have been performed (4 tests in P-32, 4 tests in P-33, 6 tests in P-35/1 and 4 tests in Polder 35/3). The parameters measured for air pollution were PM10, PM2.5, SO2, NOX and CO. According to the test results it is observed that the content status of SO2, NOX and CO range from moderate to good for all the samples. However, the contents of both PM10 and PM2.5 have been found higher in 2 samples and 7 samples have PM2.5 content exceeding the permissible limit causing health concern.

Contractor is requested to supply quality masks to workers and motivate the workers to put on their masks while working (holding of regular tool box talk will also help in this connection).

2.2.5.2. Package 02

Package 02

The Contractor of Package 02 was requested to share the results of environmental monitoring testing they conducted. They were able to share only test result of two drinking water samples. The review of the audit revealed that all the parameters are within permissible limits. It is highly recommended that Contractor 02 carry out other required environmental monitoring testing as per the frequency spelled out in the EMPs of CEIP-1.

2.2.7 Contractor's Emergency Response Plan

2.2.7.1 Package 01

The Contractor has prepared its emergency response plan to ensure the implementation of the occupation health, safety standards of the Project and as stipulated in the company's environment, occupation health and safety policy. These standards aim to form a safe, healthy, civilized, clean and tidy cultural environment in the entire Project, and to continuously improve the management level of engineering construction. It is designed to guide rapid response to the potential EHS emergencies (natural and accidental) that might occur due to project activities or natural disasters. At the same time, it will minimize the damage and loss to the personnel, local inhabitants and the company. This plan cites emergency resources, emergency plans in case of accidents, prevention of causalities, emergency

response procedures and site emergency and rescue procedures for fire emergency, height falls, mechanical injury, lifting damage, and electric shock accident, emergency measures for a collapse accident, traffic accident and heat stroke. It also covers environmental management and control measures for dust control, noise control, solid waste control, control of water and air pollution. The plan also reveals how the Contractor will improve its emergency rescue ability and strengthening safety education of project staffs. The Audit Team finds that the plan is a helpful document, which will reduce the EHS risks. On the other hand, the Team also recommends that the Contractor facilitate training for its staff on the emergency response plan so that they are conversant with its contents.

2.2.7.2. Package 02

The Contractor 02 has also prepared its emergency plan and from the audit it is found comprehensive and good document to face a wide variety of emergency situations. The Team also recommends that the Contractor facilitate training for its staff on the emergency plan so that they are conversant with its contents.

2.3 Environmental staff resources

For implementation, supervision and monitoring of EMP compliance, the following staff resources have been deployed.

Table 6: Environmental, Health and Safety Personnel

SI	Name and the position of the relevant staff	Hired Date	Current Status	Roles	Reason for not being hired	Expected hiring date
	Contractor of Package 01					
1	Jia Kai Quality Control and Environment, Health and Safety Officer-in-Charge	15.11.2015	Working continuously till now	Monitor EHS for all 4 Polders and oversee all EHS related staff and activities	NA	NA
2	Ren Gaofei Environment, Health and Safety in-charge	11.11.2016	Working continuously till now	In-charge all EHS related activities for all 4 Polders	NA	NA
4	Faysal Ahmed Taj EHS officer, Khulna head office.	02.04.2018	Working continuously till now	Monitor EHS in all 4 Polders	NA	NA
5	Song Kunpeng EHS engineer	In Audit Reporting period	Working continuously till now	Maintains EHS standard at Polder 32	NA	NA
6	Yeasin Mollek Local EHS officer	In Audit Reporting period	Working continuously till now	Maintains EHS standard at Polder 32	NA	NA

SI	Name and the position of the relevant staff	Hired Date	Current Status	Roles	Reason for not being hired	Expected hiring date
7	Xue Senpeng EHS engineer	In Audit Reporting period	Working continuously till now	Maintains EHS standard at Polder 33	NA	NA
8	Prodip Sana Local EHS officer	In Audit Reporting period	Working continuously till now	Maintains EHS standard at Polder 33	NA	NA
9	Li Bo EHS engineer	In Audit Reporting period	Working continuously till now	Maintains EHS standard at Polder 35/1	NA	NA
10	Masud Rana Local EHS officer	In Audit Reporting period	Working continuously till now	Maintains EHS standard at Polder 35/1	NA	NA
11	Wang zhiqiqng EHS Engineer	In Audit Reporting period	Working continuously till now	Maintains EHS standard at Polder 35/3	NA	NA
12	Hassan Mahmud Local EHS officer	In Audit Reporting period	Working continuously till now	Maintains EHS standard at Polder 35/3	NA	NA
	Contractor of Package-2					
1	**Mr. Tang Qiang** Environment, Health and Safety Officer-in-Charge	In Audit Reporting period	Intermittent	Maintains EHS standard at Polder 39/2C cast yard	NA	NA
2	Md. Taher EHS Officer	-	Working continuously till now	Maintains EHS standard at Polder 39/2C cast yard	NA	NA
3	Mr. Fang Zheng Construction quality Control and Environment, Health and Safety Officer-in-Charge	-	Presently in Intermittent	Maintains EHS standard at Polder 40/2	NA	NA
4	Md. Azahar EHS Officer	-	Working continuously till now	Maintains EHS standard at Polder 41/1	NA	NA
5	Mr. Teimur EHS Officer		Working continuously till now	Maintains EHS standard at Polder 40/2 casting yard	NA	NA
	DDSC &PMS Consultant					
1	Anders Malgrem Hansen, Environmental Specialist	17.02.2015	Working intermittently	Reviews and prepares EIA reports and other environmental documents	NA	NA
2	Dr. S.M.A. Rashid Environmental Specialist	22.02.2015	Working Intermittently	Reviews and prepares EIA reports	NA	NA

Sl	Name and the position of the relevant staff	Hired Date	Current Status	Roles	Reason for not being hired	Expected hiring date
3	Abu Bakr Siddique Environmental Specialist	01.03.2016	Working Intermittently (Currently)	Prepares and reviews environmental documents, imparts Env. training and conducts environ-mental monitoring.	NA	NA
4	Henk Blok, Environmental Specialist	21.03.2016	Working intermittently	Prepares env'tal training materials, imparts environ-mental training, moni-tors environmental quality and reviews environmental reports & documents	NA	NA
	Third Party M&E Consultants					
1	A. K. M. Rezaul Haque Khan National Environmental Specialist	January 12, 2017	Working intermittently as input is intermittent	Review and prepare documents, monitor processes and evaluate impacts CEIP-1	NA	NA
2	Dr. Abu Murshid International Environmental Specialist	November 10, 2015	Working intermittently as input is intermittent	Provide senior level guidance for review and preparation of documents, monitor processes and evaluate impacts CEIP-1	NA	NA
	Independent Panel of Experts (IPoE)					
1	Dr. Ainun Nishat IPoE for Environment, Water Management and Polder Expert	23 March 2015.	Consultant in place from 23 March 2015 through 31 Dec 2017. Contract completed.	All packages. Periodic review of EMF/EIA/EMP implementation difficulties and advice to make the implementation more effective.	Contract completed	NA
2	Dr. Hafiza Khatun IPoE, Social Expert	August 2017	Consultant in place since August 2017.	All packages. Periodic review of SMRPF, RAP, livelihoods, social mobilization implementation difficulties and advice to make the implementation more effective.	NA	NA

SI	Name and the position of the relevant staff	Hired Date	Current Status	Roles	Reason for not being hired	Expected hiring date
	Project Management Unit (PMU)					
1	Dr. Ashadul Alam PMU Sr. Environmental Specialist – national	13 Apr, 2015	Vacant. Dr. Ashad's contract completed 19 June 2018; did not renew. New EOIs received 06 Dec 2018.	All packages Provide senior level guidance for review and preparation of documents, monitor processes and evaluate impacts CEIP-1	Recruitment in process	March 2019
2	Mr. Mustafizur Rahman PMU Sr. Social Specialist	August 7, 2017	Consultant in place since 07 August 2017	All packages. Supervise and monitor SMRPF, RAP, LAP, livelihoods, social mobilization implementation	NA	NA
3	Mr. Akbar Hossain PMU Sr. Forestry Specialist	August 3, 2017	Consultant in place since 03 August 2017	All packages. Guide, advise and monitor the implementation of the foreshore and social forestry aspects	NA	NA
4	Mr. Zahir Uddin PMU Social Specialist/ Economist (field)	July 20, 2017	Consultant in place since 20 July 2017	All packages. Monitor at field level RAP, LAP, livelihoods, social mobilization implementation	NA	NA
5	Dr. Md. Towhidul Islam PMU Environmental Specialist (field)	October 30, 2017	Consultant in place since 30 October 2017	All packages. Monitor at field level EMF/EIA/EMP implementation	NA	NA
6	Kamal Salehin Communication Officer	July 01, 2018	Working continuously till now	To set up two-way channels of communication with major stakeholder groups to enhance overall effectiveness of CEIP-1. This will include advocacy, knowledge dissemination and outreach.	NA	NA

2.4 Necessary equipment and arrangements for environmental monitoring and testing

The Audit Team offered the Package 01 Contractor the opportunity to demonstrate their sample collection techniques for the testing and demonstration was conducted by the contractor staff. The audit found the sample collection procedure in good manner. The Contractor conducted the monitoring test by sending the sample collected by themselves and sent to Consultancy for Research and Testing Services (CRTS) by the Contractor and the actual tests were being conducted by CRTS of KUET. The next set of monitoring test will be carried out by the CRTS and contractor is recommended to do sample collection by the person who will be responsible to conduct the tests.

The Package 02 Contractor has also conducted tests in the same lab.

2.5 Staff awareness and training

The Package 01 Contractor has conducted a robust program of monthly environmental training during the January-December 2018 period. More than 8,500 participants (staff and workers) were trained, allowing for double-counting wherein one person may have been trained more than once as would be the case for refresher training or training in additional topics. Please see table below for the breakdown:

Table 7: Number of Package 01 Participants (Staff and Workers) Receiving Environmental Training During 2018

Polder No	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	2018 Total
32	219	218	277	228	178	219	0	0	0	236	178	197	1,950
33	256	241	202	226	227	204	0	0	0	239	224	172	1,991
35/1	272	278	270	230	284	284	0	0	0	271	312	326	2,527
35/3	303	299	303	222	255	241	0	0	0	268	255	251	2,397
Total	1,050	1,036	1,052	906	944	948	0	0	0	1,014	969	946	8,865

Interviewing the Contractor 01 EHS staff revealed that, considering the minimum activities, no training was conducted during July-September 2018.

The Contractor of Package 02 also reportedly conducted a robust training program, but the Contractor was not able to share any of the training reports though these were requested by the audit team. It is recommended the Contractor prepare and preserve the training reports on a monthly basis.

The following major topics have been discussed during the training sessions.

- Environmental Management in the CEIP-1
- Environmental Health and Safety
- Environmental Monitoring
- Reporting

A training for the Environmental key personnel and mid to senior level other members of Contractor staff was conducted in Contractor 01's Khulna office on 30 April 2018 regarding EHS by Mr. Abu Bakr Siddique, Env. Specialist, DDCS&PMS Consultant and Dr. Towhidul Islam, Environmental Specialist (Field), PMU, BWDB jointly.

During the period of 23-25 March 2018, three training events were conducted by Abu Bakr Siddique, Env. Specialist, DDCS&PMSC, Dr. Ashadul Alam, Sr. Env. Specialist, PMU, BWDB and Dr. Towhidul Islam, Env. Specialist (Field), PMU, BWDB in Package 02 areas for the polder level environmental and other concern personnel. The details of the training are mentioned in the following table:

Table 17: Environmental Training Conducted by DDSC &PMS Consultants and PMU for Contractor Package-2

No. of Events	No. of trainees	Location
1	20	Polder 39/2C
1	14	Polder 40/1 and 40/2
1	7	Polder 47/2and 48
Total: **3**	Total: **41**	

In the training session, the following issues were discussed:

- The workers should use all required PPE like helmet, musk, hand gloves, safety boot, glass, visible jacket, life jacket (during crossing river) etc. The Contractor has to supply the PPE and workers have to use them for their safety.
- Conduct of regular tool box talk with the workers for enhancement of workers' awareness on EHS safety.
- Provision of safe water and supply of required medicine to be made by the Contractor for the use by the workers during work.
- Monitoring and recording of noise levels of high noise areas and provision of noise barriers and required locations.
- Introduction of rotational works for the workers of high of high noise area (especially in the CC block manufacturing yards) to limit the effect of high noise.
- Construction and maintenance of suitable secondary container (with minimum 110% capacity)

for storage of hazardous fuel and chemical materials.

- Establishment of impervious/concrete pavement with collection sump/ditch at the refueling areas with spill kit/absorbent mat.
- Establishment of temporary industrial waste storage with impervious/concrete pavement at required work sites, especially at the CC block manufacturing plants.
- Take all required arrangement for traffic management including deployment of guard; maintaining separate facility for movement of fork lifters.
- Provision of signboards/signage at required location for provision of information and maintaining safety for workers, local population and avoiding of potential accident.
- Maintaining various documents like EIA/EMP, EAP, layout plan and other construction related document at major worksite along with Bangla/Chinese translation.

2.6 Funding resources

As part of the implementation of EMP approximately BDT 6 crore (about $750,000) is earmarked for each Package W-01 and Package W-02, though many more items for environmental monitoring and mitigation are included in Package W-02. Expenditures are being incurred for:

- Emergency works for breach of embankment and damaged structures;
- Crop compensation to the direct loser, land owner/share croppers of construction site/ damaged due to dredge spoils;
- Waste disposal arrangement at construction site;
- Water quality monitoring;
- Air and noise quality monitoring analysis;
- Soil and water salinity monitoring cost;
- Conservation and stocking of threatened fish species;
- Management of soil health by replacing back in agricultural land;
- Reducing erosion through proper compaction, turfing;
- Afforestation along the dyke side to reduce erosion and threat of climatic events.

For Package 01, an amount of Tk. 47,525,800 up to IPC 14 have been paid under the provisional sum BoQ item for EMP out of a maximum budget of Tk. 60,200,000. Works consists of minor earthworks, compaction and positioning of geo-bags (175 kg). Other items of EMP components are also in various stages of utilization.

For Package 02, works (mainly emergency works) have been undertaken that draw on the EMP provisional sum of Tk. 64,364,491.

2.7 Actual implementation/ practice level

2.7.1 Review of achievement status of Action Items from the Aide Memoires, status of compliance of the recommendations of Second Audit of Third Party M&E Consultants and Bi-Annual Environmental Monitoring Report

The following tables represent the achievement status of specific action items raised in Aide Memories of World Bank missions (24 Feb-01 Mar 2018 in Package 01 areas) during the audit period:

Table 8: High Priority Remedial Actions CC Block plants

	Proposed Actions	Responsi-bility	Timeline	Compliance Status	Remarks
1	100% PPEs at CC block production area	Contractor	Continuous	Partial	Need to improve the level of use of PPE
2	Noise- (1) monitor noise level at closest houses from the CC block sites, (2) Regular hearing test for workers	Contractor	Continuous	Being complied	
3	Noise - (3) Introduce rotational works to limit the time spent at production area (4) monitor noise level outside of high noise area and consider additional noise barrier (5) report noise monitoring data in MPRs	Contractor/ PMU/DDCS &PMSC Consultants	Mar 30, 2018 (then continuous)	Complied where applicable	Rotational works and introducing barriers were complied. Need to follow up and improve over the time as continuous basis
4	Temporary industrial waste storage area should be established. Surface should be impervious such as concrete pavement and collection sump/ditch should be provided.	Contractor	Mar 30, 2018	Complied	Need continuous follow up and efforts
5	Hazardous material storage shed should be built at each site	Contractor	Mar 15, 2018	Complied	Need continuous follow up and efforts

	Proposed Actions	Responsi-bility	Timeline	Compliance Status	Remarks
6	Works involving potential soil/groundwater contamination must be undertaken on impervious ground with collection sump/ditch or bund.	Contractor	Mar 15, 2018 (then continuous)	Complied	Complied where applicable (e.g. base of generator, workshop areas)
7	Impervious surface such as concrete pavement with collection sump/ditch should be provided at refueling area. E.g. Polder 35/1 and 32	Contractor	Mar 15, 2018 (then continuous)	Complied	
8	Spill kit/absorbent mat should be provided to catch any spilled fuels at the location where potential spill involves.	Contractor	Mar 15, 2018	Being complied	
9	Aboveground storage tank used for diesel oil storage should be replaced with certified tank at Polder 32	Contractor	Mar 30, 2018	Improved	
10	Receive Material Safety Data Sheet (MSDS) from supplier of hazardous substance, e.g. diesel oil, lubricant and place it beside containers/storages.	Contractor	Mar 30, 2018	Partial	Need to comply for all polders

Table 9: High Priority Remedial Actions for construction works

	Proposed Actions	Responsibility	Timeline	Status	Remarks
11	Marking of forklift area and workers standing area at barge.	Contractor	Every barge	Not complied	Status based only on the single visit at one barge site (river bank protection work sites at Polder 32 during audit)
12	Noise- (1) monitor noise level at settlements when they are close to construction site and (2) provide noise barrier if necessary	Contractor	Continuous	Complied at WB visited site	This should be complied with at other applicable sites

	Proposed Actions	Responsibility	Timeline	Status	Remarks
13	Provide clear demarcation/fence to clarify the project area and control the unauthorized access to the project site. Sign to prevent unauthorized entry should be placed. If fishing community exists around the project sites, no fishing zone should be placed for safety.	Contractor	Continuous	No such applicable sites visited. However, most of the visited sites found with required precautionary messages.	Need to consider where applicable
14	Oil & Chemicals – provide secondary containment and spill kits where oils/chemicals are used. Oil & chemical storage areas should be established at a work site. Display signs.	Contractor	Every site	Complied	
15	Traffic management at construction site where any works outside the demarcated areas are involved. E.g. temporary closure of a part of road, deployment of guard etc.	Contractor	Mar 15, 2018	Complied	Need continuous follow up and efforts
16	Check site plan and equipment used at each construction site prior to start of civil works and review if necessary EHS tools are provided and if any special attention/mitigations required. e.g. noise monitoring at community.	Contractor (EHS manager)	Mar 15, 2018 (then continuous)	Being complied	

Table 10: Agreed Actions to improve EHS management System

	Proposed Actions	Responsibility	Agreed Timeline	Status	Remarks
17	Formalize EHS committee of CEIP and hold monthly meeting	PMU/DDCS&PMSC Consultants	Mar 15, 2018	Complied (partial)	The meetings should be held regularly for both Packages

	Proposed Actions	Responsibility	Agreed Timeline	Status	Remarks
18	To share with WB draft C-ESMPs Incorporating our comments provided earlier and our findings in this mission	Contractor	Mar 31, 2018	Complied	
19	Finalize revision and translate the revised C-ESMPs and place at every work site	Contractor	Apr 31, 2018	Partial	Under process;
20	Appointment of qualified EHS managers for each polder and conduct toolbox talk everyday	Contractor	Apr 31, 2018	Being complied	
21	To share with WB EHS risk/impact assessment and to develop EHS management plan for each Polder including CC block plants and other sites	Contractor (external consultant)	Mar 31, 2018	Complied	Finalizing stage as of 31 Dec 2018
22	Finalize revision and translate EHS assessment and management plan	Contractor	Apr 31, 2018	To be complied	
23	EHS Training for management and EHS managers (Class and at the site)	PMU/DDCS&PMSC Consultants	Mar 31, 2018	Complied	
24	Ensure implementation of all the actions	PD	Continuous	Continuous	

Table 11: Status of recommendations of Second Annual Environmental Audit

SI	Proposed Actions	Responsibility	Status	Remarks
1	Contractors of both packages should follow the findings and recommendations of this audit and even consider the recommendations for the other package where applicable	Contractor	Partial	To be continued

SI	Proposed Actions	Responsibility	Status	Remarks
2	The audit report should be shared with the Contractors, Consultants, relevant sub-Consultants, and PMU staff.	Contractor	Complied	
3	Records of noise level readings should be kept by both contractors	Contractor	Complied	
4	Water Quality Assurance Plan (WQAP) for drinking water supplied for the workers should be developed and implemented. The WQAP plan will define the quality monitoring frequency, system and protocols with response in case of the water quality found not within applicable standards.	Contractor	Not complied	Need to comply this
5	The team recommends that the environmental monitoring testing should be done by the both contractors for noise, air, water and soil by defining the sites to be followed by the same location over the project duration to see the impacts/ changes	Contractor	Partial	All the mentioned parameters have not been tested
6	The twice-monthly inspection should cover all the types of works as it was observed to emphasize less on some of the sites like borrow pits, excavation and re-excavation of the canal.	Contractor	Partial	Need to improve the compliance level
7	Waste management systems need to be improved, the recyclable wastes should be kept and sent to scrap shop after a certain interval. Records on wastes should be kept	Contractor	Improved	
8	The practice of using PPE should be enhanced	Contractor	Partial	Need to improve the compliance level
9	The forklift and CC plant Safety Procedure Manual should be in place in the relevant worksites	Contractor	Complied	
10	The PMU with the help of DDSC & PMSC need to identify the issues and stakeholders/ agencies need to take part to implement the EMP, enhance coordination and sign MoU with them	PMU and DDCS&PMS Consultant	Partial	MoU signed with department Forest of GoB ; Need to sign MoU with other agencies

SI	Proposed Actions	Responsibility	Status	Remarks
11	Both of the contractors of CEIP-1 are recommended to arrange exchange visit for learning and scale up in their Packages	Contractor	Not complied	
12	EAPs and C-ESMPs should be continually improved and should address the current audit findings. Bengali and Chinese versions should be kept at worksites, along with the English versions.	PMU	Under process	
13	EAPs and C-ESMPs should be continually improved and should address the current audit findings. Bengali and Chinese versions should be kept at worksites, along with the English versions.	Contractor	Partial	Contractor 01 complied fully; Contractor 02 is under process to be fully complied
14	Some of the recommendations and findings of last year's audit still remain relevant and the audit recommends to follow those along with the findings of this audit	Contractors	partial	

The Audit revealed that the Bi-Annual Environmental Monitoring Report has not included a section on recommendations. It is crucial to improve the level of environmental compliances. It is recommended to add a chapter on recommendations with the said reports.

2.7.2 Polder-specific field observations

Package 01

Polder 32 and 33

The audit team audited the practice level of EMP implementation with the works of CC block manufacturing plant, slope protection works, DS11, DS10, Nalian Closure Dam and selected sites of completed embankment of Polder 32, and DS06 and FS06 of Polder 33. The audit team found as follows:

- Required PPE was available, including pictorial signage) in the Rupsha CC block manufacturing plant of Polder 32. There were also wall-mounted fire extinguishers with protection boxes and safety signage, wall mounted Safety Operating Procedure Manuals for Forklift, designated industrial waste storage areas with proper demarcation, in the Rupsha CC block manufacturing plant of Polder 32. There was improved waste management system for the leftover materials

with the plant. The fuel storage is improved, and was with adequate information. There were flagmen in the gate of the CC plant area. But the audit team did not find flagman inside the CC plant yard where the forklifts run frequently, and the audit team recommend to ensure flagman for forklifts. The latrines used by the workers found not hygienic and the finding of the second audit was also same. It is highly recommended that the contractor ensures hygienic latrine for the workers. In the office of CC block manufacturing plant, the documents and records which were found: English, Chinese and Bengali version of EAP for Polder 32, Environmental Monitoring register, English and Bengali version of EIA of Polder 32, Project's EMF, Noise monitoring record and accident register. There was no separated pedestrians' passage and forklift way inside the yard. It is recommended to ensure it with demarcation.

- In the Pankhali CC block manufacturing yard 1, there were first aid box, fire extinguishers, waste management system, fencing with yard and drinking water for the workers. The fuel storage area found in good condition with secondary containment and adequate information of the fuel storage. As good numbers of forklifts have to be operated in the yard, separated pedestrians/ workers passages and forklifts ways should be ensured which was not found. It is recommended to ensure separated forklifts and pedestrians' ways with demarcation. The forklift drivers found not using earplug though the forklifts generate mentionable level of noise. It is recommended that all forklift drivers wear earplug while operating the forklifts. The latrines used by the local workers found very unhygienic. It is recommended to ensure hygienic latrines for the local workers. Considering the areas of the yard, the number of fire extinguishers found not adequate. It is recommended to ensure adequate numbers of fire extinguishers in the yard premises.

- In the Pankhali CC block manufacturing yard 2, it was found that workers are using PPE, there were adequate safety signage, symbols, fire extinguishers, waste bins, drinking water for the workers. There was also no separate pedestrians' passage and forklift ways inside the yard. It is recommended to ensure separated forklifts and pedestrians' ways with demarcation. The latrines used by the local workers also found unhygienic, and the contractor is recommended to ensure hygienic latrines for the local workers. The wastes water containing cement generated form the CC plant found reached to nearby the paddy field, and it is recommended to ensure that any of such waste water is not going to any of nearby land or water bodies.

- In work site of river protection work at Chainage 21+0.215 Km of Polder 32, it was found that the works being continued in good manner. The workers found using PPE but there are only few

observations considering EHS issue which need to be considered are there should be visual signboard with the verge, a flagman should be also there to control the movement of forklifts and the workers should use adequate earplugs and earmuffs to be protected from the exposure of noise.

- From the visit at DS11 Polder 32, it was found that generator is set up on an impermeable base, drinking water for the workers, fire extinguisher and first aid box were at the work sites. From the visit it was revealed that toolbox talk on EHS issues happen for the workers regularly. There was also pedestrians' alternative roads with proper demarcation and signage. Electric wire found on the ground in worksite which should be overhead. The fencing existed around the site found not adequate (with tapes) which could be of bamboo made. Construction materials including metal items found kept in open place which should be kept in designated place with proper demarcation. A discussion with a nearby household of the worksites revealed that the household can face homestead erosion once the structure will be functioning. The household expected that contractor will provide some CC block to avoid erosion. The discussion with the contractor also revealed that they will provide CC block to address the issue. The latrines being used by the workers found in bad condition and it was found that latrine pit has spillage to the nearby agricultural land. It is recommended to improve the latrines being use by the worker and it should be ensured that no spillage with the latrines pit happens. A household (HH)is close the worksites and from the discussion with the HH it was revealed that they have noise exposure from the work. There was a fencing around the HH but it is not sufficient to act as a noise barrier. It is recommended that the fencing is improved in such a way that it works well as a noise barrier for the HH.

- From the visit of DS10 of Polder 32, there were found first aid box with emergency doctor's number, fire extinguisher, supply of drinking water for the workers and adequate signages, safety messages and proper demarcation with pedestrians' alternative road. The generator found kept on impermeable platform. Environmental monitoring register found in worksites. The fencing used around the work site was with tape which should be improved. Electric wire found on the ground which must be overhead. The latrine being used by the local workers found very unhygienic which should be improved.

- From the visit at the Nalian Closure Dam site, it was found that there is no signboard or any signage and demarcation. It should be ensured that adequate safety signage, signboard and demarcation exist in the worksite.

- In the work site of DS06 under Polder 33, there were adequate signage, safety symbols, drinking water, fire extinguisher and first aid box. The generator found kept on impermeable platform. There was also pedestrians' alternative road with proper demarcation and messages. The toilet used by the workers found good. The electric wires found on the ground which should be overhead. The construction materials (e.g. rod) and demolished debris of the structure found kept in open place nearby the community. These should be kept in designated places with proper demarcation.

- In worksite of FS06 under Polder 33, there were adequate signage, safety symbols, drinking water, fire extinguisher, first aid box, bins, designated waste dumping place. The generator found kept on impermeable platform. Environmental monitoring register found at worksite. The latrine used by the workers found with no water seal. As per Department of Public Health Engineering (DPHE) of Bangladesh Government, latrine without water seal falls under the category of unhygienic latrine. It is recommended that all latrines provisioned for the worksites have water seal.

Polder 35/1

The site visited in Polder 35/1 areas are Tafalbari CC block manufacturing yard, DS11, FS18 and completed embankment works. The findings from the visited sites are:

- At Tafalbari CC block manufacturing yard, there were adequate signboard, different signage related to EHS, speed limit, supply of drinking water, first aid box, and adequate number of fire extinguishers. EHS monitoring register and accident register found at the site office which have been updated regularly. The documents kept at the site office are EIA of Polder 35/1 both the English and Bengali version. The EAP for the same Polder in English, Bengali and Chinese versions were also found at the site office. The noise monitoring record was not found at the site office. It is recommended to do noise monitoring which will also consider monitoring of noise at nearby communities. If it is found exceeding the limit, then the mitigation measures should be taken. The monitoring record should be updated and kept at site office. At the welding area, it was found that industrial wastes GO begs kept at designated places. The door of the electric board at welding area found opened which should be closed. The welding are found at better condition compare to the period of last audit and WB mission. The yard premises provisioned rain water harvesting system for drinking purpose which can be effective at rainy season. The cc block manufacturing plant had wall mounted CC block plant safety operating rules with the plant. There was operating room for the operator of the CC block manufacturing

plant. The plant found considering EHS issues in its set up and operations. There were separated waste collection bins both for the recyclable and non-recyclable wasted and a dumping point. The forklift drivers found reluctant to use PPE and considering the noise level generated by the forklift, it is recommended that all the forklift drivers will use PPE (e.g. earplug). The latrines used by the workers at the yard premises found septic tank with spillages to nearby ditch where duck was swimming. During the last audit there was also spillage with the latrines. It us recommended that all such latrines are with good septic tanks, and it should be ensured that no spillage occur from the tanks to nearby environment. Such septic tank should also have gas pipe over it. The fuel storage areas found improved and having paved floor under the collection point. The fuel storage area is equipped with fire extinguisher and there is separate store room to store the empty drums. Another set of latrines were being constructed during the audit. A water connection from a nearby pond to close of the latrine site was observed. The audit recommends to raise the dyke of the pond such a way that the water cannot come out and reach at least 10 meters near to the latrines' pit. During the visit, the EHS in charge of contractor demonstrated water sample collection method and the audit found the procedure that was followed is correct.

- At the work site of DS11, there were adequate safety signage, symbols, signboard, first aid box, bamboo fencing around the work site, pedestrians' alternative roads, fire extinguisher, drinking water for the workers. The workers found using required PPE. There were environmental monitoring register and accident register at the worksite. There were 3 different bins for different wastes at the worksite. It was found rod and wood kept in open place which should be in demarcated/ closed area. The latrines for the workers found having open pit behind which should be closed.

- At the work site of DS11, there were adequate safety signage, symbols, signboard, first aid box, bamboo fencing around the work site, pedestrians' alternative roads, fire extinguisher, drinking water for the workers. The workers found using required PPE. There was environmental monitoring register at the worksite. The latrine used by the workers found good. The generator was on the paved floor which avoid soil contamination by oil. Discussion with the nearby HH revealed that HH is a bit exposed to continuous noise generated from the work site (from the generator most) which can be mitigated by taking measures. It is recommended to ensure a noise barrier to reduce the disturbance of the HH.

- Completed embankment section from 40+00 km to 41+00 Km was visited. It was found the embankment is well completed with turfing works and the rehabilitated embankment has made the lives of the people of the area smother. The discussion with farmers revealed their agricultural activists have become easier than before and it has become more convenient to carry the agricultural products easily over the embankment but transportation of their agricultural products was challenging for them. Interviewing an auto rickshaw driver explored that there was no smooth transport movement in this area, but now he is driving auto rickshaw and the improved embankment has opened scope for him to earn, and this has improved the transportation facilities for the people of area as well.

Polder 35/3

The visited sites in the polder 35/3 areas are Daratana CC block manufacturing yard, Completed embankment works, FS05 and FS06. The findings of the visited sites are as follows:

- In Daratana CC block manufacturing yard, there were required signboard, safety and warning messages with symbol, safety operating rules for automated CC block manufacturing plant, signage of speed limit, safety fencing, fire extinguishers, safe drinking water and sanitation facilities for the workers. There decanting box for the effluent of the plant and it was a moveable fencing around the pit of leftover materials of the plant. The fuel storage area found with all safety measures (e.g. warning messages, wall mounted fire extinguisher, well managed secondary containment). The workers of the plant found using PPE but a few of the workers working in high noise area found not using earplug and earmuffs. All of such workers should use earplug and earmuffs. The generator room and electric supply station in the plant were found highly protected. The place of industrial wastes found kept open which required to be protected with fencing. Metal items and industrial wastes found kept in open place in the yard which should be kept in designated place. The speed limit signage in the yard found not adequate, and it is recommended to place adequate signage of speed limit. As forklift runs inside the yard frequently, it is recommended to ensure separate /demarcated forklift running and walkways for the workers and others. In the store room, it was found that the GO bags and diesel oil driven machine are together and there was no fire extinguisher around the store room. It is recommend to ensure that fire extinguisher is present with store room and GO bags are not kept with oil driven machine. The records/ documents found in the plant premises are noise level records, accident records, English and Chinese version of EAP, EIA and EMF. Households residing adjacent to the plant yard were interviewed to know if they are disturbed by the noise

generated from the plant operation. The contractor provided fencing as noise barrier last year which worked well as noise barrier. From the discussion it was revealed that the fencing has been damaged and it is not working fully as noise barrier. In this circumstances, it is required to repair/ improve the fencing and the contractor is recommend to improve the noise barrier.

- In the worksite of FS06, there were fencing/ demarcation, pedestrians' alternative roads, safety symbols and signage, speed limit signage, fire extinguishers, first aid box and EHS monitoring register. There were also bins for wastes and designated waste dumping pit with proper demarcation. The generator found kept on paved base. Workers found using PPE but there was no harness belt with the workers and there was no harness belt at worksite. It is recommended to ensure harness belt for the workers. Latrine used by the workers at worksite found very unhygienic and the pit of the latrine found open (just covered with a movable tin sheet). It is recommend to ensure a hygienic latrine with a safer septic tank. Electric wire found on the ground which must be overhead. It was found oil spillage to the soil/ land around worksite from the maintenance of machineries. To avoid oil spillage to the land, it is recommended to do such maintenance works on an impermeable ground (e.g. paved).

- Visited FS06 was a completed structures which was found functioning. With the discussion with the famers harvesting the paddy, it was revealed this structure has become beneficial to them, and they can now avail fresh water for their irrigation purpose which keeps good rules for a better agriculture.

- In Embankment (chainage 17+00 Km), it was found the section of the embankment is completed and the section found having grasses along the slopes of both side of the embankment.

Package 02

Polder 39/2C

The sites visited in Polder 39/2C were the Nadmulla Site office and CC block manufacturing plant yard, DS-12, and Telekhali CC block manufacturing yard. The findings from the audit are:

- At the site office of Nadmulla, there were EHS monitoring register, EIA of English and Bengali versions, C-ESMP of English, Bengali a Chinese versions (but not the updated versions- need to replace with updated versions), updated accident register, record of noise level results, records of waste disposed with method used to dispose and quantity, records of toolbox talk. The

records of hearing test also found preserved at the site office and the results of the tests revealed that there is no abnormality in haring of any workers. It was observed that there are separate waste collection bins for recyclable and non-recyclable wastes. There is also marked assembly point for any emergency situation in the site office premises. It was also observed adequate numbers of fire extinguishers in the site. There was first aid box with required items at the site office. The contractor has covered the site office and CC block manufacturing yard under CCTV surveillance which is good for the security of the workers, staffs and the assets as well. There were first aid box with required items and supply of drinking for the workers in the CC block manufacturing yard premises. There is a resting house for the workers which has been used by the workers for resting, taking food and praying purpose. Construction materials like iron rods found kept in open yard which should be kept at designated place.

- Also at Nadmulla, at the workshop areas of the CC yard, the floor found paved but there is chance of contamination to the nearby ground if spillage of oil occurs. It is recommended to build a concrete bundh around the floor of the workshop. The electric board at the workshop found opened which should be closed. The welding materials at workshop found not organized well. During the visit the manufacturing plant was not running. The setup and waste management with the CC block manufacturing plant found well. The contractor has constructed well drainage system inside the yard with some pits at the edges of the drain and the water of the pits being used for dust suppression inside the yard. Though the yard has well drainage system, it was found that there is no drainage system to the river side and if rains runoff from the yard will fall to river which may deteriorate the water quality of the river.

- In Nadmulla, the use of PPE by the workers who were involved with loading of berge with CC block was found not to be satisfactory. Such workers should ensure use of earplugs and safety boots. A group of workers deployed by subcontractor was found unloading sands from boats but they were not found using PPE. The workers who are either of contractor or subcontractor involved in CEIP's works need to use required PPE. The latrines used by the workers found in good condition except the septic tanks were found without gas pipes and it is recommended to set gas pipes over the septic tanks. From the discussion with the contractor staffs, it was revealed that toolbox on EHS issue with the workers held every day before the workers starts to work. There are community HH around the worksites and it is recommended to measure the noise level at the nearby HHs during the CC plant operating time and if the monitoring finds noise level exist the limit then the contractor is recommended to take proper mitigation measure (e.g. noise barrier around the HH). Though EHS monitoring is maintained (the visits

observation and recommendation is kept), it is recommended to keep track of compliance with completion date with register.

- Visited DS12 found almost finished and bit work required to complete the work. The structure found kept with demarcation and this is within the boundary of the Nadmulla CC block manufacturing yard. There was no EHS issues to address in the area currently.

- At the Telekhali CC block manufacturing yard, there were first aid box, fire extinguishers, drinking water supply, required signboard, safety and warning messages with symbol, speed limit signage and security fencing around the yard. It was revealed that water is sprinkled to control the dust inside the yard. The drainage system with the yard found not adequate and it is recommended to follow the recommendations made for the Nadmulla CC block manufacturing yard. It was found that worker collecting the falling leftover CC block manufacturing materials under the conveyor belt when the plant was running. It is recommended to do the job when the plant is stopped. There were safety, signages with the plant and the waste management system with the plant found good. There were demarcated areas for the forklift to run. There is operating room with the plant for the operator. The workers associated with the plant found using earplug which is not sufficient for exposure of high level of nose generated from the plant. The audit recommends that such workers use earmuffs along with the earplug. Contractor of Package 01 has placed a safety operating rules for automated CC block manufacturing plant with each of the automated CC block manufacturing plants. Contractor of Package 02 is recommended to place such rules with each of the automated CC block manufacturing plant. Toolbox talk practice is also regular at the site.

- It is a required condition latrines be constructed at least 10 m away from any of the water sources.

Polder 40/2

The site visited in Polder 40/2 areas are Gohorpur camp office and CC block manufacturing yard, DS02, DS04, DS05, FS10 and embankment works. The audit finding from the visited sites are as follows:

- At the Gohorpur camp office, there were C-ESMP of Polder 40/2, EHS risk assessment report, EHS monitoring register, records of toolbox talk, record on waste disposal with dumping method and quantity. Visit found wall mounted fire extinguishers, first aid box and good latrines with septic tanks at the camp office. The workers found using required PPE. Fuel at camp found kept in designated place but some empty drums of fuel found kept in open place which should be

kept in designated place. Metal (iron) rod found kept in open space in the CC block manufacturing plant (manual) yard which should be kept at designated place. Empty cement begs found kept in open place which should be kept at designated place. Fire extinguishers at the yard premises found not adequate which should be increased. The latrines being used by the local workers found very unhygienic which should be improved as soon as possible.

- From the visit at DS02, first aid box, signboard, safety signage and messages were found at worksite. There was supply of safe drinking water for the workers at the worksites. There were pedestrians' alternative roads with the worksite. The workers found using required PPE. Fencing around the worksite was not adequate (by tape) a better fencing (at least made of bamboo) is recommended for such worksites. Electric wires found on the ground which must be overhead. The door of electric board found opened which is recommended to keep always closed. The generator found on poly-ethylene to avoid spillage to soil. Nevertheless, a bit spillage on the soil was found to have happened. It is recommended to set the generator on a paved floor. Fire extinguisher was not found at the work site and it is highly recommended to ensure fire extinguishers at each of such worksites. The latrines being used by the local workers found in very bad condition and unhygienic. It is recommended to improve the latrine as soon as possible.

- At the worksite of the DS04 and DS05, it was revealed that the work is just at beginning stage. Audit found first aid box and supply of drinking water for the workers. There were no adequate signboard, signage and messages at the worksites. The fencing used around the worksite is of tape. It is recommended to ensure adequate visibility (e.g. signboard, messages, signage) and fencing at the worksite.

- Audit found the work of FS09 is at beginning stage. There was signage on the diversion road for pedestrians (pedestrians' alternative road). But there was no any other signage, message and signboard at the worksite. It is recommended to ensure adequate signboard, signage and messages at the worksite. The fencing (tape) used around the worksite is not adequate and it is recommended to improve the fencing (made of bamboo).

- Embankment works at Chainage 12+0.600 km were audited. The borrow pits of the soil collected for the embankment found demarcated. It was revealed some of the borrow pits are very close (even within 1-2 m) to the toe of the embankment to the river side. It is recommended to stop this practice and maintain safe distance between borrow pit and toe of the embankment. Only a few small signage found at the work sites. It is recommended to use

adequate and visible signage and signboard at such work sites.

Polder 41/1

The work sites audited in Polder 41/1 are Burirchar camp office and CC block manufacturing yard, FS03, DS05, DS08 and embankment works. The following findings were revealed from the audit:

- The following documents were found at the camp office: C-ESMP of Polder 41/1, EHS risk assessment report, EHS monitoring register, records of toolbox talk, accident report and record on waste disposal with dumping method and quantity. There were wall-mounted fire extinguishers at the camp office premises. First aid box and supply of drinking water were adequate at the work sites. The workshop area at the yard was found to be well demarcated and the workers were found to be using required PPE. The materials (metal rod) found kept in designated place with proper demarcation. There was well drainage system around the camp office and the CC block manufacturing (manual plant) yard. The audit found that contractor sprinkles water to control the dust inside the yard.

- At the worksite of FS03, there were drinking water for the worker and fencing with tape around the worksite. The fencing should be improved. Generator found kept on a paved floor. The workers found using PPE. There was no first aid box and fire extinguisher at the worksite which should be ensured in such every worksite. The toilet used by the workers found very unhygienic. The latrine used by the workers should be improved. The electric wires found on the ground which must be overhead.

- During the audit at worksite of DS05, work was not running. The work site found having signage and signboard. There were EHS monitoring register at the site. There were fencing with tape around the worksite which needed to be with bamboos at least. There were no fire extinguisher and first aid box at the worksite which should be at the worksite.

- At the worksite of DS08, there were signboard and signage. The generator found kept on paved floor. There was no fire extinguisher, first aid box at the worksite. The fencing used at the worksite found not adequate and that was with tape. This should be improved. The electric wires found on the ground which should be overhead. The door of the electric board found opened that should be closed. The latrine used by the workers found unhygienic which should be improved.

- From the audit at embankment work around 8+0.318 km it was revealed that there are a few borrow pit areas which are very close to the toe of the embankment. With the advice of the DDCS&PMS Consultant, the contractor has stopped this practice and they have planned to refill the borrow pit with soil from where soil was collected. The discussion with the local people revealed that they are facing minor problem for the embankment works, but excess generation of dusts from the construction vehicles of CEIP creating problem for them. The contractor has water tanker and it is recommended to spray water over the embankment adequately.

Polder 47/2

The worksites visited in Polder 47/2 are DS01, DS02, FS06, Ramjanpur Camp Office and CC block manufacturing plat (manual), embankment work. The findings from the visited sites are mentioned as follows:

- At the DS01, there was pedestrians' alternative roads. Workers found working without PPE and they were with sandal shoes instead of safety boot. There was fencing with tape which is not adequate and improved (bamboo fencing) fencing should be ensured in such work site. There was no signage, safety and precaution message and signboard at the worksites which should be ensured at the worksite. Electric wire found on the ground which must be overhead. There was no supply drinking water and latrines for the workers, no fire extinguisher and first aid box at the worksite. It is recommended to ensure these items at the worksites.

- At the DS02, there was pedestrians' alternative roads. Workers found using only helmet and a few of workers found working wearing lungi (a traditional Bangladeshi dress) which should not be allowed. There was fencing with tape which is not adequate and improved (bamboo fencing) fencing should be ensured in such work site. There was no signage, safety and precaution message and signboard at the worksites which should be ensured at the worksite. Electric wire found on the ground which must be overhead. There was no supply drinking water, fire extinguisher and first aid box at the worksite. It is recommended to ensure these items at the worksites.

- During the audit at Polder 47/2 it was found that FS06 is almost completed work where no EHS issues to be considered presently.

- Embankment work around chainage 12 km was visited where it was found grasses along with the slope of both sides of the embankment.

- At Ramjanpur CC block manufacturing (manual plant) yard, there were adequate safety and precautionary signage including signboard, fire extinguishers, first aid box, drinking water and latrine for the workers. The workers found using required PPE. There was drainage system around the yard which should be ensured to stop runoff falling to the river. At the site office, there were noise monitoring records, records of toolbox talk, previous version of C-ESMP which should be replace with the updated version and Bengali and Chinese versions of the C-ESMP should be kept along with the English version. There were also EHS assessment report and the EHS monitoring register at the site office.

Polder 48

The audited site in Polder 48 areas are FS03, DS01, DS3/2, Alipur Camp Office and CC block manufacturing plant yard and CC block manufacturing point 03. The findings from the visited sites are as follows:

- At the worksite of FS03, there were only a few signage and there was no visible signboard and precautionary messages. There was fencing but with tape which is not adequate. There was no fire extinguisher, first aid box, supply of drinking water and latrines for the workers at the worksite. Electric wires found on the ground which should be overhead. On the diversion/ pedestrians' alternative road, a big excavator of the site was being operated and local transport (auto rickshaw, motor bikes were running across that road near the excavator and there was no signalman for the excavator and local vehicles. There must be a flagman for such situation.

- At DS01 worksite, there were safety signage. There was no fencing, fire extinguisher, first aid box, supply of drinking water and latrines for the workers at the worksite. Electric wires found on the ground which should be overhead. Electric board at the worksite also found opened. Children found moving near the worksite and this could pose great threat to them as the areas are not protected and there were electric wires and open electric board.

- At the worksite of DS3/2, there were only a few signage and there was no visible signboard and precautionary messages. There was fencing but with tape which is not adequate. There was no fire extinguisher, first aid box, supply of drinking water and latrines for the workers at the worksite. Electric wires found on the ground which should be overhead.

- At Alipur camp office and CC block manufacturing plan yard, there were EHS risk assessment report, previous version of C-ESMP (should be replace with updated one), accident register, EHS monitoring register at the site office. The camp and the yard found under surveillance of CCTV

camera which is good practice. Some of construction materials found kept in open place which needed to keep in designated places. There was no adequate drainage system in the yard premises and it is recommended to ensure a good drainage system so that the runoff water cannot fall to the nearby river. The septic tanks of the latrine found with no gas pipes and gas pipes should be fixed over the septic tank of the latrine.

- At the CC block manufacturing (manual) point 3, there was no signage and signboard, bins and fencing. The latrines provisioned for the workers found unhygienic. Considering that the site is on the Kuakata beach, the contractor should be vigilant and ensure fencing around the worksite, needed to provide hygienic larine for the workers and provide adequate numbers of bins. The collected wastes should be taken to the designated dumping areas which will not be around beach and it should ensure that no waste is being dumped to the sea.

Sundarbans

During the audit, there was no active work site near Sundarbans which could have adverse impacts on the Sundarbans.

2.8 Labor influx

In most of the work sites and camp sites, there is a limited influx of labor. The laborers are predominantly from the vicinity and they prefer to return to their homes after finishing their works. In a few work sites, sleeping facilities have been put in place for a few laborers. They are reasonably furnished with cooking facility and toilets.

2.9 Constraints to implement EMP

From the discussion with different staffs of contractor and DDSC&PMSC, the major constraints to implement the EMP is the habits of the workers not to practice the EHS. Traditionally they are not used to practice the EHS things, so they seemed to be reluctant. But the practice level has been improving day by day by the awareness raising initiatives (e.g. training, on jobs instructions, tool box talks etc.). Another constraint that was revealed by the audit is a smaller number of environmental personnel to supervise and monitor the EHS issues to be implemented by the contractors. In this situation, Sr. Environmental Specialist position at PMU is vacant, the International Environmental Specialists of DDCS&PMS Consultants have not been mobilized for long time. The National Environmental Specialists of DDCS&PMS Consultants and Third Party M&E Consultants are working intermittently because of the shortage allocation of man months.

The EMPs of the project outlined the institutional arrangement to implement the environmental mitigation measures. In line with that these suggested BWDB to coordinate with relevant stakeholders such as PAPs, BIWTA, WMOs, FD, DoF, DoE, DAE, BADC, SRDI, LGED, BEDC DC DLS, LGI and NGOs. Coordination with all the stakeholders and agencies should be done by the PD, CEIP-1 and the particular member of the PMU of BWDB. To do so the project has its steering committee consists of persons from different agencies. From the audit point of view, the coordination through the steering committee should be enhanced. Moreover, the EMPs also suggested for signing of MoU with agencies for sharing particular information and for implementing particular tasks specified in the EMPs. Till to audit covering period, the MoU has been signed with Bangladesh Forest Department for the implementation of CEIP-1's afforestation program. The project has environmental issues e.g. for using the pesticides by the project beneficiaries farmers may be increased. The IPM program need to be taken for the farmers in the project. To do so, the DAE should be involved with tasks. There are fish migration issues with the project activities and relating to this, the DoF (Department of fisheries) could be involved with some tasks. The PAPs livelihood might be affected and project should think about livelihood restoration program and CEIP-1 also need to be concerned that livelihood restoration program should not be environmental unfriendly. So, the audit recommends the PMU with the help of DDSC &PMSC identify the issues and the relevant agencies/ stakeholders for EMP implementation and sign MoU with them.

3. Conclusions and recommendations

The audit was conducted as per the TOR. It found some level of progress in environmental compliance implementation. It also found some areas which need to be improved. The audit recommends as follows:

1. Contractors of both packages should follow the findings and recommendations of this audit.
2. The DDCS&PMS Consultants and PMU should consider the recommendations for the upcoming Package 03 where applicable.
3. The audit report should be shared with the Contractors, Consultants, relevant sub-Consultants, and PMU staff.
4. The EHS monitoring registers those have been maintained in the worksites should also track the compliance with their status with dates. Maintaining a table would be an effective tool to give

an impression on compliance and non-compliance. It is also recommended that MPR of DDCS&PMS Consultant include the compliance and non-compliance status.

5. Most of the latrines being used by the workers at work site were found to be unhygienic, with no water seals and some of them found close to nearby water bodies. It is highly recommended that both the Contractors ensure hygienic latrines for the workers, ensure water seal with each of them and it should be also ensured that latrines are not installed within 10-meter range with nearby water bodies or drinking water sources.

6. Along with other Polders, it is recommended that the Contractor of Package 02 concentrate on complying EHS issues at Polder 47/2 and 48 for which the audit found poor EHS practices.

7. Contractor of the Package 02 is recommended to prepare Polder wise monthly report on EHS training with dates, number of participants and name of topics and preserve the reports.

8. The Contractor 02 was found keeping good records on toolbox talk which has not been followed by the Contractor of Package 01. It is recommended that the Contractor of Package 01 follow this practice and they can also follow the simple format that has been adopted by the Contractor of Package 02.

9. The Contractor of Package 02 should carry out the testing with defined frequencies for all the required environmental parameters and should preserve the testing results.

10. It is recommended that the Contractor of Package 02 carry out environmental monitoring by the Bi-monthly environmental inspection Checklist and submit the report to DDSC & PMS Consultants twice a month. This practice has been carried out by the Contractor of Package 01 regularly.

11. Contractor's EAPs and C-ESMPs should be improved continuously as those are living documents. The monitoring frequencies spelled out in the EAPs and C-ESMPs should be consistent with the monitoring frequencies defined with the CEIP-1's EMPs

12. A Water Quality Assurance Plan (WQAP) for drinking water supplied for the workers should be developed and implemented which was also recommended by second Annual Environmental Audit. The WQAP plan will define the quality monitoring frequency, system and protocols with response in case of the water quality found not within applicable standards.

13. The team recommends that the environmental monitoring testing should be done by the both contractors for noise, air, water and soil by defining the sites to be followed by the same location over the project duration to see the impacts/ changes.

14. The twice-monthly inspection should cover all the types of works as it was observed to emphasize less on some of the sites like borrow pits, excavation and re-excavation of the canal.

15. The practice of using PPE should be enhanced.

16. The forklift and CC plant Safety Procedure Manual should be in place in the relevant worksites of Package 02. This practice has been adopted by the Contractor of Package 01.

17. The PMU with the help of DDSC & PMSC need to identify the issues and stakeholders/ agencies need to take part to implement the EMP, enhance coordination and sign MoU with them.

18. Both of the contractors of CEIP-1 are recommended to arrange exchange visit for learning and scale up of practices for improvement environmental compliance in their Packages.

19. Some of the recommendations and findings of last year's audit still remain relevant and the audit recommends to follow those along with the findings of this audit.

4. Annexes

4.1 Terms of Reference

Third Annual Environmental Audit of CEIP-1 Project

Background:

The Coastal Embankment Improvement Project – Phase 1 (CEIP-1) is a 7-year $400 million project being implemented by the Bangladesh Water Development Board in partnership with the World Bank and the Pilot Programme for Climate Resilience of the Climate Investment Fund. The Project started in 2013 and will close in 2020. It covers 17 polders in three packages of 4, 6 and 7 polders respectively. The Detailed Design and Construction Supervision Consultants (DDCS&PMSC) commenced their design work for the first of three packages in January 2015 and the Package 01 Contractor commenced services on 26 January 2016. The Package 02 Contractor's contract was signed on March 2017 and work was commenced on 12 July 2017. The Third Party M&E Consultants joined the project on 01 November 2015. After working with CEIP-1 for about one year, the Third Party M&E Consultants carried out the first Annual Environmental Audit during January 01- February 06, 2017 covering the reporting period January through December 2016. Hence, second Annual Environmental Audit covering January- December 2017 was carried out during 10 January- 07 February 2018. This TOR is for the third Annual Environmental Audit covering the period January – December 2018, due to commence about second week of January 2019.

Institutional arrangements of CEIP-1 for safeguarding the environment include:

1. Project Management Unit, with its Social and Environmental Coordination Unit, who are responsible for oversight and guidance on environmental matters as well as coordination with GoB agencies. PMU also reports to BWDB, the Project Steering Committee (PSC) and the World Bank.

2. DDCS&PMS Consultants who are responsible for developing the EIAs and EMPs consistent with World Bank and GoB guidelines and ensuring the EMPs are implemented satisfactorily. These Consultants review and approve the Contractor's EAPs and monitor their implementation on an ongoing basis. The DDCS&PMS Consultants develop the bidding documents and make sure that the Contract and its specifications include the necessary clauses and elements governing environmental safeguards.

3. Civil Works Contractors who must develop and implement polder- and site-specific Environmental Action Plans in the case of Package 01 and Contractor Environmental and Social Management Plans known as C-ESMP in the case of Package 02.

4. World Bank reviews and provides comments and no objection to the various safeguard documents.

5. Community participation, consultation and feedback through the EIA process and Grievance Redress Mechanism.

6. Third Party M&E Consultants who perform environmental audits and monitor and evaluate the project overall. Specifically, with respect to environmental safeguards, the M&E Consultants review and comment on environmental documents prepared under CEIP, spot check compliance, report their findings and prepare recommendations. The M&E Consultants report to the PSC and their contract is administered by the Project Director.

Each polder has its own EIA which includes an EMP which is meant to ensure that the environmental and social management practices are integrated in the design, construction, operation and maintenance of the polder.

Among others, the specific objectives of the EIA are to:

- Comply with national regulatory and WB policy framework (further discussed later on in the document),
- Determine and describe the existing environmental and social setting of the Project Area (the project area defined as is defined as the entire area inside the polder, project influence area outside the polder i.e. the embankment, borrow pits and spoil disposal are if located outside the polder and access route to the polder),
- Identify and assess the potential environmental and social impacts of the project, including health and safety issues,
- Identify mitigation measures to minimize the negative impacts and enhancement measures to enhance the positive impacts; and
- Detail an Environmental Monitoring Plan which also defines mitigation measures.

As is the case for the EIAs and EMPs, each polder is also to have an Environmental Action Plan (EAP) for package 1 and Contractor Environmental and Social Management Plan (C-ESMP) for package 2 which is prepared by the Contractors. The EAP of package 1 and C-ESMP of package 2 are to operationalize the EMP for which the Contractor is responsible. These Plans detail in a site-specific manner the mitigation and environmental compliance requirements and provide a monitoring plan outlining the protocols, frequency of monitoring, person(s) responsible, etc.

Audit Objective:

The overall objective of the third Annual Environmental Audit of CEIP-1 is to assess the extent to which these Plans for safeguarding the environment are in place and their adequacy with respect to coverage and content, the extent to which they are being implemented and whether they are effective considering the institutional and contractual arrangements applicable to the Project.

Scope of the Audit:

In summary, the audit will examine: (1) the status of preparation of required safeguards documents; (2) whether the systems, tools and protocols are in place for effective environmental monitoring; (3) institutional arrangements, staff and funding resources; and (4) compliance with WB safeguards, including consultation, communication, grievance mechanisms and disclosure, and country legal framework.

The audit will cover the Contractors for Package 01 and Package 02, the DDCS&PMSC and Project Management Unit (Social and Environmental Coordination Unit).

Field work will be centered on the polders of Package 01 and Package 02, but the audit will examine CEIP-1 overall whenever appropriate. It will be forward-looking to draw lessons and make recommendations on areas of improvement for Package 01 and Package 02 which will also give guidance for broader application to similar projects or future phase of CEIP.

Specifically, the audit will assess:

- Status of EMP and EAP/C-ESMP implementation
- Status of implementation of the recommendations/ findings of the second Annual Environmental Audit that was conducted by Third Party M&E Consultants
- Status of the implementation of the recommendations/ agreed actions of the WB environmental missions of February 2018
- Status of the implementation of the recommendations/ agreed actions of Bi-Annual Environmental Monitoring Report of July 2018
- Whether the project involves labor influx and the sufficiency of mitigating measures. The rapid migration to and settlement of workers and followers in the project area is called labor influx, and under certain conditions, it can affect project areas negatively in terms of public infrastructure, utilities, housing, sustainable resource management and social dynamics
- Extent to which the Environmental Monitoring Plans and environmental mitigation measures outlined in the EIAs are being followed and whether they are effective
- Existence and quality of monitoring tools, formats and protocols
- Processes and procedures for compliance monitoring
- Degree to which qualified staff resources are in place
- Necessary environmental testing equipment is in place or hired when needed
- Staff awareness and training

- Identify constraints if any in ensuring compliance to the measures outlined in the EMP
- Review the GRM functioning in the polder areas and check and analyse the Grievances related to environmental safeguards in the polder areas
- Review the accidents records in the work sites and examine the magnitude of the accidents and how those were addressed by the contractor
- Look forward to anticipating either any of the CEIP-1 activities may have negative impact or not have on the mangrove forest Sundarbans.

The Environmental Audit will present findings and observations followed by a section on conclusions and recommendations aimed at improving the effective implementation of environmental safeguards. It will aim to identify not only direct causes of any issues, but also the root causes.

The Environmental Audit will examine documents and lab test results records, undertake field observation on compliance status and require field staff to demonstrate their knowledge of Environmental Measurements of soil, water, salinity, biological, physical, and chemical sampling techniques. Also reliability of any lab testing will be carried out randomly. The Contractor and DDCS&PMS Consultants will be informed of the scope of the Environmental Audit in advance but will not be informed in advance as to which particular work sites will be visited. Both Contractor staff capability and Construction Supervision team staff capability in the area of environmental safeguards will be assessed.

Methodology:

The M&E Consultants will undertake a review of documents, reports, site records and lab results, conduct interviews in offices and in the field, and make direct observations during one to two weeks period and then write up their findings. Specific work sites to be visited on a given polder will be selected randomly without advance notice to the Contractor and DDSC&PMSC.

Document Review: Existing base documents or reports will be reviewed such as the Environmental and Social Management Framework, EIAs, EMPs, Contractor EAPs and ESMP, works contract, consultant contract, guidelines, standard procedure manuals, etc. World Bank Aide Memoires corresponding to the period will also be reviewed with respect to environmental aspects.

The Monthly Progress Reports and Bi-Annual Environmental Monitoring Report will also be reviewed. Contracts' bi-monthly environmental inspection checklists corresponding to the period will also be reviewed.

Key Informant Interviews: PMU, DDCS&PMSC, Contractor staff and beneficiaries will be interviewed. Perspectives of communities living near the works, workers, and others will be obtained on how well the project is implementing EMPs.

Site Records: Test results for air quality, water quality, soil quality, pH, salinity, etc. will be reviewed. Non-compliance report logs, NCR clearance records and procedures will be examined.

Direct observation: Level of compliance with the EMP/EAP/ESMP and practices of project and Contractor staff will be observed in the field. Demonstration of water and soil quality, pH, salinity, biological, chemical and physical sampling technique, etc. by Contractor staff may be requested to observe the level of skill and knowledge and whether the technique is appropriate.

Three to four embankment construction worksites and 3-4 drainage/flushing sluice gate sites per polder sites and 2-3 of the CC block manufacturing sites per package will be visited to examine field level application of the environmental safeguards on a random sampling basis. On the other hand, the audit team will conduct a visit a purposively selected worksite nearby the Sundarbans periphery to assume the impact of CEIP-1 on Sundarbans if there is any. The team will also visit the campsites, site offices and main offices of both Contractor and DDCS&PMSC to discuss systems, strength of the environment staff and documents.

Team Composition and Duration:

The audit will be accomplished by the Environmental Team Environmental Specialist–National (A.K.M. Rezaul Haque Khan) of the Third Party M&E Consultants with the support of the Team Leader (Mr. Jan T. Twarowski), Deputy Team Leader (Md. Mahidur Rahman Khan) and Field Data Collector/ M&E Officer (Md. Safiqul Islam). The audit will be conducted within a short timeline through fieldwork for one to two weeks in Package 01 and 02 polder areas and several days of meetings and document/file reviews in Dhaka, followed by a couple of weeks of report writing in Dhaka.

4.2 Field visit plan for the audit

Field visit plan for third Annual Environmental Audit

3rd Party M&E Consultants

CEIP-1

Team members of the Field Visit: A. K.M. Rezaul Haque Khan (National ES), Md. Safiqul Islam (DC/ M&E Officer)

SI	Activity	Time	Date	Remarks
1	Travel from Dhaka to Khulna	Morning flight	**12-01-2019**	
2	Meet with XEN, DDSC&PMSC, Contractor-01 Khulna office team	11:00 am-11:30 am	12-01-2019	
3	Review environmental records/ documents of Contractor 01	11:45 am-1:15 pm	12-01-2019	At office of contractor 1
4	Travel and audit the activities in **35/3** areas	1:15 -5:30 pm	12-01-2019	Night Stay in Khulna
5	Travel and audit the activities in **Polder 32 and 33 areas**	8:00 am-6:00 pm	**13-01-2019**	Night Stay in Khulna
6	Travel and audit the activities in **Polder 35/1 areas**	8:00 am-6:00 pm	**14-01-2019**	Night Stay in Khulna
7	Travel from Khulna to **Package 02** areas	7:30 am-11:30 am	**15-01-2019**	
8	Meet with XEN, DDSC&PMSC and Contractor-02 office team and review related records/ documents	11:30-12:30 pm	15-01-2019	
9	Travel and audit the activities in **Polder 39/2C areas**	01:00 -6.30 pm	15-01-2019	Night Stay in Barguna
10	Travel and audit the activities in **Polder 40/2 areas**	8:00 am-6:00 pm	**16-01-2019**	Night stay in Barguna
11	Travel and audit the activities in **Polder 41/1 areas**	8:00 am-6:00 pm	**17-01-2019**	Night stay in Kuakata
11	Travel and audit the activities in **Polder 47/2 and 48** areas	8:00 am-6:00 pm	**18-01-2019**	Night stay in Kuakata

SI	Activity	Time	Date	Remarks
12	Travel back to Dhaka from Barisal Airport	Late morning flight	**19-01-2019**	**Team returns to Dhaka**

Note: The responsible person who collect the sample for environmental testing are requested to demonstrate sample collection when team will be visiting in the field.

4.3 Some of the persons met during the audit

SI	Name	Position	Organization	Location	Cell Number
1	Mr. Asraful Alam	XEN	BWDB	Khulna	01732435998
2	Dr. Md. Towhidul Islam	ES	BWDB	Khulna	01911493918
3	Engr. A.K.M. Sayeed Uddin	DRE	DDCS&PMS	Khulna	01919432163
4	Mr. Mohammad Ali Jinnah	QCS	DDCS	Khulna	01711193518
5	Mr. Ren Gaofei	EHS in charge	CHWE Contractor	Khulna	01761931689
6	Mr. Wei Lei	Engineering Manager	CHWE Contractor	Khulna	01725772045
7	Mr. Taj	HSE Officer	CHWE Contractor	Khulna	01937231284
8	Mr. Zhiqiang Wang	DPM	CHWE Contractor	Daratana	01760841989
9	Mr. Liuzhanzing	Manager	CHWE Contractor	Daratana	01752126828
10	Mr. Liu	EHS Manager	CHWE Contractor	Rupsha	01728082634
11	Md. Kuddus Mollah	Lab Technician	DDCS	Rupsha	01752132413
12	Mr. Song Kun Peng	EHS	CHWE Contractor	Dacope	01765408454
13	Md. Eyasin Mollik	EHS	CHWE Contractor	Dacope	01741396662
14	Mr. Sajol Biswas	Translator	CHWE Contractor	Nalian Closure Dam	01931677275
15	Md. Samsul Alam	Field Engineer	DDCS	Gunari	01714786945
16	Mr. Prodip Sana	EHS Officer	CHWE Contractor	Ramnagar	01670653506
17	Mr. Li Bo	EHS Engineer	CHWE Contractor	Tafalbari	01643727853
18	Md. Masud Rana	Lab Technician	CHWE Contractor	Tafalbari	01792094033
19	Mr. Shyamol Kumar Dutta	CSE	DDSC & PMSC	Polder 35/1	01732708192
20	Mr. Hou Shi Xim	Site Manager	CHWE Contractor	Pollimongal	01939230494
21	Md. Taher	EHS Officer	CICO Contractor	Bhandaria	01712003561
22	Mr. Ghiasuddin Ahmad	CSE	DDSC & PMSC	Polder 40/2&41/1	01711171011
23	Md. Taimur Islam	Engineer	CICO	Pathargatha	01703074756
24	Md. Shohel Rana	Field Engineer	DDCS	Pathargatha	01734968367
25	Mr. Zhang Cheng	Polder Manager-48	CICO	Kuakata	01709151585
26	Md. Didarul Alam	CSE	CICO	Polder 47/2&48	01712540050
27	Md. Shamim Ahmed	Field Engineer	DDCS	Kuakata	01970910691
28	Mr. Yong Dong	Polder Manager	CICO	Barguna	01732963256
29	Mr. Chen Haibo	Safety Engineer	CICO	Barguna	01645649486
30	Md. Azhar	Safety Assistant	CICO	Barguna	01797181079
31	Md. Abdullah Al Mamun	Field Engineer	DDCS	Barguna	01758680088
32	Mr. Tang Qiang	Officer	CICO	Bhandaria	0170951642
33	Mr. Ma Zemou	Polder Manager-	CICO	Bhandaria	01783497669

		39/2C			
34	Mr. Richard Mann	RE	DDSC & PMSC	Patuakhali	01973752322
35	Mr. Mohammad Ali	DRE	DDSC & PMSC	Patuakhali	01711320432
36	Md. Sadequl Islam	CSE	DDSC & PMSC	Polder 39/2C	01706947667
37	Mr. Wu Weiwen	DPM	CICO	Patuakhali	-

4.4 Renewed/ issued ECC of Package 01 and Package 02

Government of the People's Republic of Bangladesh
Department of Environment
Head Office, Paribesh Bhaban
E-16 Agargaon, Dhaka-1207
www.doe.gov.bd

Memo No: DOE/Clearance/5196/2013/1035 Date: 05/11/2018

Subject: Environmental Clearance for Polders 32, 33, 35/1 & 35/3 at Khulna Division under Package-1 and Polders 39/2C, 40/2, 41/1, 43/2C, 47/2 & 48 at Barisal Division under Package-2 of Coastal Embankment Improvement Project, Phase-1 (CEIP-1).

Ref: Your application dated 11/02/2018, 19/08/2018 & 28/10/2018.

Dear Sir,

Please refer to your letter of 16/02/2017 on the captioned subject, I have the pleasure to convey the approval of Environmental Clearance as well as Environmental Impact Assessment (EIA) report for Polders 32, 33, 35/1 & 35/3 at Khulna Division under Package-1 and Polders 39/2C, 40/2, 41/1, 43/2C, 47/2 & 48 at Barisal Division under Package-2 of Coastal Embankment Improvement Project, Phase-1 (CEIP-1).

A copy of the said Environmental Clearance Certificate is attached herewith for your kind information and necessary action at your end.

Yours Sincerely,

05.11.2018
(Syed Nazmul Ahsan)
Director (Environment Clearance)
Phone # 02-8181673

Chief Engineer & Project Director
Project Management Unit
Coastal Embankment Improvement Project, Phase - 1 (CEIP-1)
Bangladesh Water Development Board (BWDB)
House # 15, Road # 24
Gulshan -2, Dhaka-1212.

Copy Forwarded to :

1) PS to the Secretary, Ministry of Environment, Forest & Climate Change, Bangladesh Secretariat, Dhaka.
2) Director, Department of Environment, Barishal Divisional Office, Barishal.
3) Director, Department of Environment, Khulna Divisional Office, Khulna.
4) Officer In-charge, Department of Environment, Bagerhat District Office, Bagerhat
5) Assistant Director, Office of the Director General, Department of Environment, Head Office, Dhaka.

Government of the People's Republic of Bangladesh
Department of Environment
Head Office, E-16 Agargaon
Dhaka-1207
www.gov.doe.bd

Environmental Clearance Certificate

Section 12 of the Environment Conservation Act, 1995 (Amended 2010)

Clearance Certificate Number: 1035

File number: DOE/Clearance/5196/2013

Clearance Certificate Issue Date: 05 /11/2018

Renewal date not later than: 04 /11/2019

A. Clearance Certificate Type

Environmental Clearance Certificate

B. Clearance Certificate Holder

Chief Engineer & Project Director
Project Management Unit
Coastal Embankment Improvement Project, Phase - 1 (CEIP-1)
Bangladesh Water Development Board (BWDB)
House # 15, Road # 24
Gulshan -2, Dhaka-1212.

C. Premises to which this Clearance Certificate Applies

- Polder 32 in Dacope upzila under Khulna District.
- Polder 33 in Dacope upzila under Khulna District.
- Polder 35/1 in Bagerhat District.
- Polder 35/3 in Rampal & Bagerhat Sadar upzila under Bagerhat District.
- Polder 39/2C at Bhandaria & Mathbaria Upazila under Pirozpur District.
- Polder 40/2 at Patharghata Upazila under Barguna District.
- Polder 41/1 at Sadar Upazila under Barguna District.
- Polder 43/2C at Galachipa Upazila under Patuakhali District.
- Polder 47/2 at Kalapara Upazila under Patuakhali District.
- Polder 48 at Kalapara Upazila under Patuakhali District.

D. Activities for which this Clearance Certificate Authorizes and Regulates

- Re-sectioning of embankment Construction of embankment with design crest level
- Re-excavation of drainage/ outfall Channels
- Slope/ Bank protection of embankment
- Construction /Retirement of embankment
- Construction /Repairing of dyke

- Construction (Replacing)/ Repairment / Demolishment of Drainage Sluice
- Construction (Replacing)/Repairment/Demolishment of Flushing Sluice/inlets.
- Bank Revetment
- Construction/ Repairing/ Demolition of flushing inlets
- Construction of flood wall
- Land Acquisition
- Afforestation

E. Terms and Conditions for Environmental Clearance Certificate

1. **Limit Condition for Discharges to Air and Water**: The Environmental Clearance Certificate must comply with schedule 2 and 10, rule 12 of the Environment Conservation Rules, 1997 (Annex-I & II).

2. **Noise Limit**: The Environmental Clearance Certificate must comply with the Noise Pollution (Control) Rules, 2006

In case of non-coverage of ECR 1997, the World Bank Environment, Health and Safety Guideline shall be adhered to.

3. **Operating Conditions:**

3.1 Activities must be carried out in a competent manner. This includes:
(a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
(b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

3.2 All plants and equipments installed at the premises or used in connection with the Environmental Clearance activity:
(a) must be maintained in a proper and efficient condition; and
(b) must be operated in a proper and efficient manner.

3.3 Construction works shall be restricted to day time hours so as to avoid/mitigate the disturbance of local lives as well as implementation schedules of the works shall be notified in advance to nearby residents.

3.4 Storage area for chemicals and other construction materials shall be carefully selected to avoid disturbance of the natural drainage. To avoid soil contamination at labour camp and work-site chemical, cement and petroleum derivatives shall be handled cautiously.

3.5 Sufficient number of culverts, bridges, sluice and other drainage/inlet facilities shall be installed properly to ensure sufficient cross drainage capacity.

3.6 During site preparation, piling work, construction/re-construction of land embankments, regulators, approach roads and temporary access roads, top soil shall be kept aside and shall be restored after completion of the said activities.

3.7 The open areas that are grasslands can be used for construction but with appropriate safeguards to maintain material and dump sites from contaminating river waters.

3.8 This shall be ensured that soil is not obtained from agricultural land and it should be obtained nearby river/khal/beel areas, which are free of invasive plants. The construction equipment and vehicles shall be cleaned regularly.

3.9 Re-vegetation and replanting shall be undertaken if rehabilitation works involve extensive vegetation clearance.

3.10 Vegetation clearance shall be minimizing at the construction phase as to minimize soil erosion. Soils for embankments shall be properly tested and compacted to ensure stability.

3.11 Soil erosion caused by removal of vegetative cover and excavated loose soil shall be checked by adequate protective works and plantation with local vegetation as soon as possible; loose soil shall be covered and stored away from the edge of the river/water body.

3.12 Proper construction practices shall be followed that minimize loss of habitats and fish breeding, feeding and nursery sites.

3.13 Necessary steps shall be taken to protect flooding of local areas due to restricted flow at the project sites.

3.14 Proper and adequate sanitation facilities shall be ensured in labor camps throughout the proposed project period.

3.15 In order to control noise pollution, vehicles & equipment shall be maintained regularly; working during sensitive hours and locating machinery close to sensitive receptor shall be avoided.

3.16 No solid waste can be burnt in the project area. An environment friendly solid waste management should be in place during whole the period of the project in the field.

3.17 Proper and adequate on-site precautionary measures and safety measures shall be ensured so that no habitat of any flora and fauna would be demolished or destructed.

3.18 Any heritage site, ecological critical area and other environmentally and/or religious sensitive places shall be avoided during project construction phase.

3.19 To control dust vehicles and equipment to be used for this project shall be maintained properly, water trucks shall be used, stockpiles to be located away from sensitive receptors and vehicle speed limits shall be enforced.

3.20 Resettlement plan should be properly implemented and people should be adequately compensated, where necessary.

3.21 Climate Change effects and maximum storm surge height shall have to consider at the design phase.

3.22 Construction material should be properly disposed off after the construction work is over.

3.23 Appropriate permission would be required to obtain from the forest department in favor of cutting/felling of any plant/tree/sapling forested by any individual or government before doing such type of activity.

3.24 The mitigation measures described in the EIA report along with the emergency response plan shall strictly be implemented and kept functioning on a continuous basis.

4.1 Monitoring and Recording Conditions:

4.1.1 The results of any monitoring required to be conducted by this Clearance Certificate must be recorded.

4.1.2 The following records must be kept in respect of any samples required to be collected for the purposes of this Clearance Certificate:
(a) the date(s) on which the sample was taken;
(b) the time(s) at which the sample was collected;
(c) the point at which the sample was taken; and
(d) the name of the person who collected the sample.

4.2 Requirement to Monitor Concentration of Pollutants Discharged

For each monitoring, the Clearance Certificate holder must monitor (by sampling and obtaining results by analysis) the following parameter: water flow, water quality, air quality, noise, the surrounding areas for spread of invasive species, the changes in aquatic habitats before, during and after construction, fish catch during and after construction.

5. **Reporting Conditions:** Environmental Monitoring Reports shall be made available simultaneously to Head quarter and Barishal and Khulna Divisional office of the Department of Environment on a quarterly basis during the whole period of the project.

6. **Notification of environmental harm:** The Clearance Certificate holder or its employees must notify the Department of Environment of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident.

F. **RECORDING OF POLLUTION CONTROL:**

The certificate holder must keep a legible record of all complaints made to the certificate holder or any employee or agent of the certificate holder in relation to pollution arising from any activity to which this Environmental Certificate applies. The record must include details of the following:

(a) the date and time complaint;
(b) the method by which the complaint was made;
(c) any personal details of the complaint which were provided by the complaint or, if no such details were provided, a note to that effect;
(d) the nature of the complaint;
(e) the action taken by the certificate holder in relation to the complaint, including any follow-up contact with the complaint; and
(f) if no action was taken by the certificate holder, the reasons why no action was taken.

The record of a complaint must be kept for at least 4 (four) years after the complaint was made. The record must be produced to any authorized officer of the DOE who asks to see them.

G. **VALIDITY OF THE CLEARANCE CERTIFICATE:**

This Environmental Clearance is valid for one year from the date of issuance and the Project authority shall apply for renewal to the Head Office of DOE in Dhaka with a copy to Barishal and Khulna Divisional Office of DOE at least 30 (thirty) days ahead of expiry.

H. This Environmental Clearance shall render void the earlier clearance given separately for Barishal Division (Memo No. DoE/Clearance/5196/2013/140 Date: 02.03.2017) and Khulna Division (Memo No. DoE/Clearance/5196/2013/501 Date: 08.10.2015).

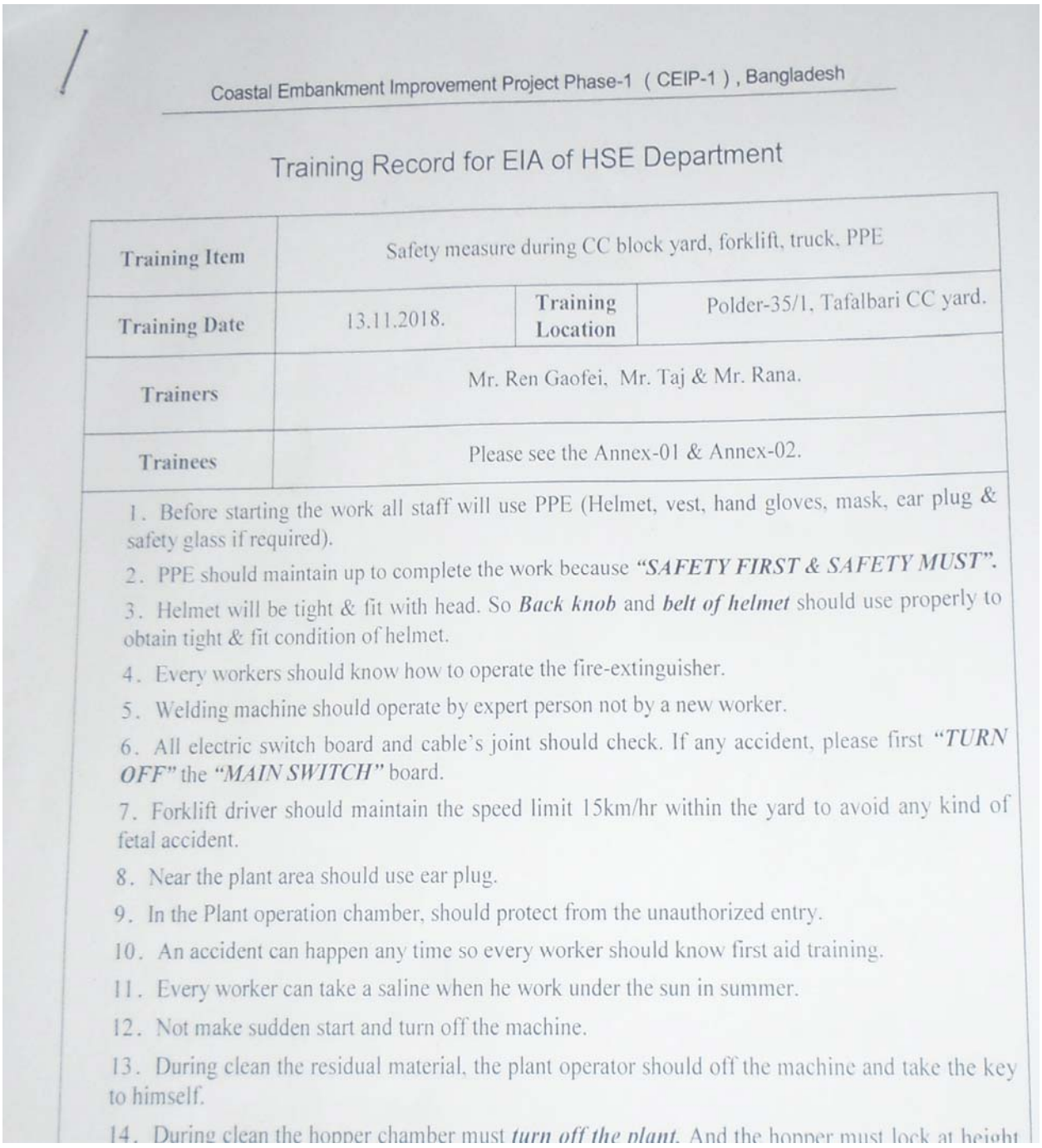
Violation of any of the above conditions shall render this clearance void.

This Environmental Clearance Certificate has been issued with the approval of the appropriate authority.

05.11.2018

(Syed Nazmul Ahsan)
Director (Environment Clearance)
Phone # 02-8181673

4.5 A sample of the records/ attendance sheets of training kept by the Contractors



Coastal Embankment Improvement Project Phase-1 (CEIP-1), Bangladesh

Training Record for EIA of HSE Department

Training Item	Safety measure during CC block yard, forklift, truck, PPE		
Training Date	13.11.2018.	**Training Location**	Polder-35/1, Tafalbari CC yard.
Trainers	Mr. Ren Gaofei, Mr. Taj & Mr. Rana.		
Trainees	Please see the Annex-01 & Annex-02.		

1. Before starting the work all staff will use PPE (Helmet, vest, hand gloves, mask, ear plug & safety glass if required).
2. PPE should maintain up to complete the work because ***"SAFETY FIRST & SAFETY MUST".***
3. Helmet will be tight & fit with head. So ***Back knob*** and ***belt of helmet*** should use properly to obtain tight & fit condition of helmet.
4. Every workers should know how to operate the fire-extinguisher.
5. Welding machine should operate by expert person not by a new worker.
6. All electric switch board and cable's joint should check. If any accident, please first ***"TURN OFF"*** the ***"MAIN SWITCH"*** board.
7. Forklift driver should maintain the speed limit 15km/hr within the yard to avoid any kind of fetal accident.
8. Near the plant area should use ear plug.
9. In the Plant operation chamber, should protect from the unauthorized entry.
10. An accident can happen any time so every worker should know first aid training.
11. Every worker can take a saline when he work under the sun in summer.
12. Not make sudden start and turn off the machine.
13. During clean the residual material, the plant operator should off the machine and take the key to himself.
14. During clean the hopper chamber must ***turn off the plant.*** And the hopper must lock at height

Annex 1-List of Participants

Sl No.	Name	Position	Signature
01			
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			
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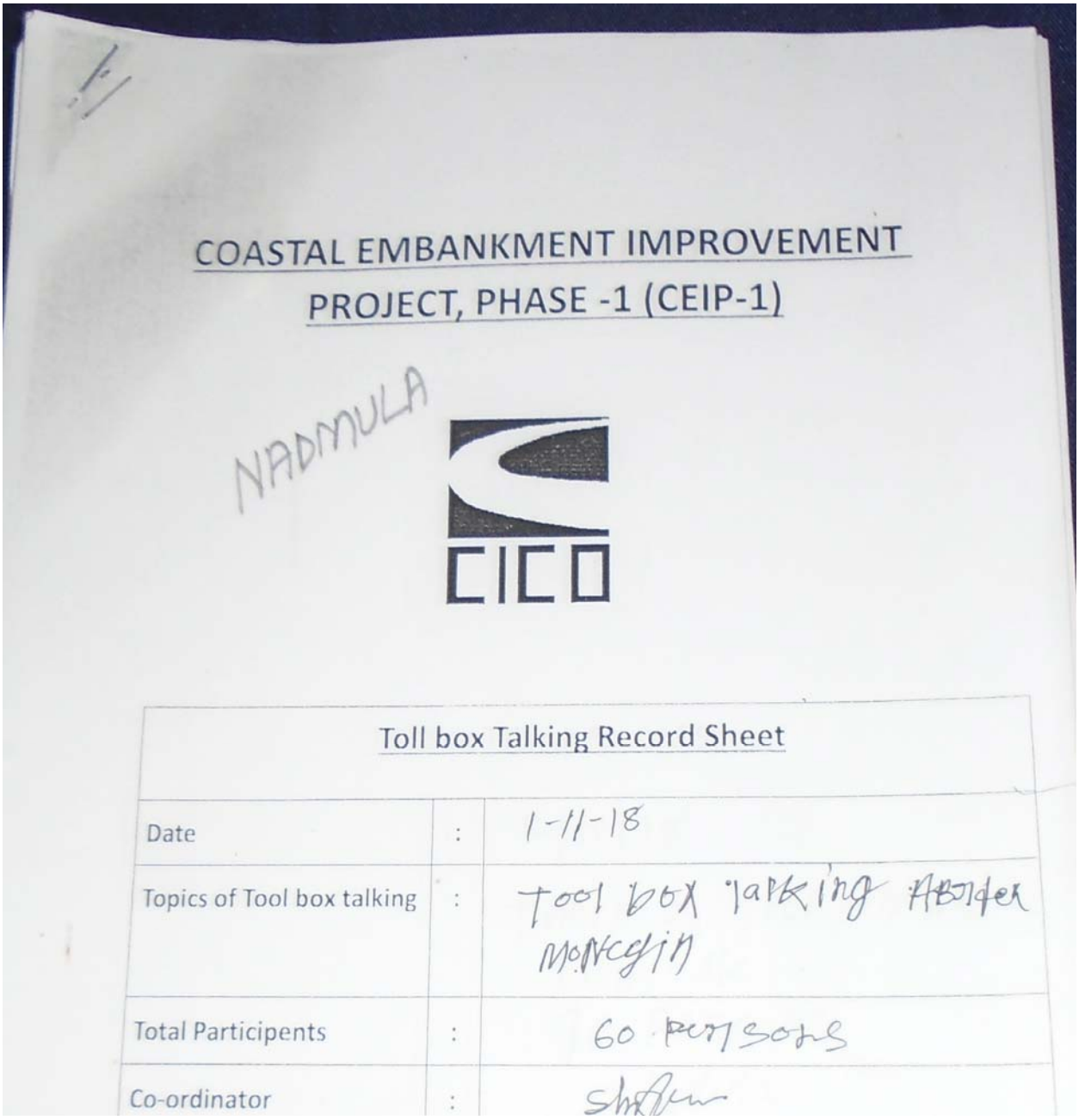

COASTAL EMBANKMENT IMPROVEMENT PROJECT, PHASE -1 (CEIP-1)

NADMULA

CICO

Toll box Talking Record Sheet

Date	:	1-11-18
Topics of Tool box talking	:	Tool box talking About Monsoon
Total Participents	:	60 persons
Co-ordinator	:	

4.6 Detailed Training Report of Contractor 02 covering January-December, 2018

Summary of training for month of January, 2018

Month	Polder	Date	Location	No of trainees	Training Item
January 2018	P-39/2c	05.01.2018	Main camp	15	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			DS-12	10	PPE, excavation, welding and generator
			Manual CC block yard	20	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise
		10.01.2018	Main camp	15	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			DS-12	8	PPE, excavation, welding and generator
			CC block yard	22	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise
		16.01.2018	Main camp	12	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			DS-12	11	PPE, excavation, welding and generator
			CC block yard	21	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise
		26.01.2018	Main camp	13	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			DS-12	9	PPE, excavation, welding and generator
			Manual CC block yard	24	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise
		04.01.2018	Main camp	16	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	13	PPE, excavation, welding and generator, Heavy truck
			Manual CC block yard	25	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
			Main camp	11	Fuel storage, kitchen's firing, sanitation, use

Month	Polder	Date	Location	No of trainees	Training Item
					of fire extinguisher and generator
		11.01.2018	FS-4/1	16	PPE, excavation, welding and generator, Heavy truck
			Manual block yard	28	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		22.01.2018	Main camp	12	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	12	PPE, excavation, welding and generator, Heavy truck
			Manual CC block yard	25	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		30.01.2018	Main camp	15	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	12	PPE, excavation, welding and generator, Heavy truck
	P-40/2		Manual CC block yard	24	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
			Main camp	8	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	22	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader

Month	Polder	Date	Location	No of trainees	Training Item
	P-41/1	03.01.2018			
		09.01.2018	Main camp	10	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			cc block yard	25	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
		18.01.2018	Main camp	16	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	22	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
		27.01.2018	Main camp	12	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	24	PPE, concrete casting, forklift, use of fire extinguisher, electricity, generator, Loader
	p-47/2	04.01.2018	Main camp	10	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	24	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 7+300	10	Excavator and excavation, PPE, backfilling
		12.01.2018	Main camp	9	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	23	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 7+380	9	Excavator and excavation, PPE, backfilling
			Main camp	11	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block	23	PPE, concrete casting, cc block plant,

Month	Polder	Date	Location	No of trainees	Training Item
		19.01.2018	yard		forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 7+450	7	Excavator and excavation, PPE, backfilling
		24.01.2018	Main camp	10	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	24	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 7+600	10	Excavator and excavation, PPE, backfilling
		29.01.2018	Main camp	11	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	20	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 7+640	8	Excavator and excavation, PPE, backfilling
		04.01.2018	Main camp	12	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	25	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	16	PPE, excavation, welding and generator, Heavy truck
		12.01.2018	Main camp	10	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	23	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	16	PPE, excavation, welding and generator,

Month	Polder	Date	Location	No of trainees	Training Item
	P-48				Heavy truck
		20.01.2018	Main camp	11	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	24	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	22	PPE, excavation, welding and generator, Heavy truck
		26.01.2018	Main camp	10	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual block yard	24	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	24	PPE, excavation, welding and generator, Heavy truck

Summary of training for month of February, 2018

Month	Polder	Date	Location	No of trainees	Training Item
	P-39/2C	01.02.2018	Main camp	16	PPE,Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging
			DS-12	12	RCC work, sand driving ,PPE, excavation, welding and generator
			Automated CC block yard	22	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
		09.02.2018	Main camp	16	PPE,Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging
			DS-12	12	RCC work, sand driving ,PPE, excavation, welding and generator
			Automated CC block yard	23	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
		19.02.2018	Main camp	11	PPE,Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging
			DS-12	22	RCC work, sand driving ,PPE, excavation, welding and generator
			Atomated CC block yard	25	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
		26.02.2018	Main camp	20	PPE,Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging
			DS-12	13	RCC work, sand driving ,PPE, excavation, welding and generator
			Automated CC	26	PPE, concrete casting, cc block plant, forklift,

Month	Polder	Date	Location	No of trainees	Training Item
February 2018			block yard		use of fire extinguisher, electricity, generator, Loader
	P-40/2	03.02.2018	Main camp	12	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	10	PPE, excavation, welding and generator, Heavy truck
			Manual CC block yard	22	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		10.02.2018	Main camp	17	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	16	PPE, excavation, welding and generator, Heavy truck
			Manual CC block yard	25	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		18.02.2018	Main camp	12	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	10	PPE, excavation, welding and generator, Heavy truck
			Manual CC block yard	24	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		28.02.2018	Main camp	18	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	12	PPE, excavation, welding and generator, Heavy truck
			Manual CC block yard	26	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety

Month	Polder	Date	Location	No of trainees	Training Item
	P-41/1	04.02.2018	Main camp	12	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual CC block yard	22	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
		12.02.2018	Main camp	18	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual CC block yard	25	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
		20.02.2018	Main camp	14	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual CC block yard	26	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
		28.02.2018	Main camp	13	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual CC block yard	20	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
		03.02.2018	Main camp	12	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Automed CC block yard	21	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment	13	Excavator and excavation, PPE, backfilling,

Month	Polder	Date	Location	No of trainees	Training Item
			section km 7+700		compaction
		10.02.2018	Main camp	10	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	24	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 7+800	15	Excavator and excavation, PPE, field density, compaction
	P-47/2	20.02.2018	Main camp	11	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	26	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 8+000	11	Excavator and excavation, PPE, field density, compaction
		27.02.2018	Main camp	14	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	28	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 8+200	13	Excavator and excavation, PPE, field density, compaction
		02.02.2018	Main camp	14	Concrete casting, RCC work, PPE, welding, electricity
			Manual CC block yard	22	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	19	PPE, excavation, sand driving, welding and generator, Heavy truck
			Main camp	14	Concrete casting, RCC work, PPE, welding, electricity

Month	Polder	Date	Location	No of trainees	Training Item
	P-48	12.02.2018	Automated block yard	28	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	20	PPE, excavation, sand driving, welding and generator, Heavy truck
		19.02.2018	Main camp	12	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			cc block yard	26	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	14	PPE, excavation, sand driving, welding and generator, Heavy truck
		25.02.2018	Main camp	12	Concrete casting, RCC work, PPE, welding, electricity
			Manual CC block yard	20	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	15	PPE, excavation, sand driving, welding and generator, Heavy truck

Summary of training for month of March, 2018

Month	Polder	Date	Location	No of trainees	Training Item
March, 2018	P-39/2C	02.03.2018	Main camp	14	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	11	RCC work, sand driving ,PPE, excavation, welding and generator
			Automated CC block yard	22	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
		09.03.2018	Main camp	17	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	15	RCC work, sand driving ,PPE, excavation, welding and generator
			Automated block yard	26	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
		16.03.2018	Main camp	12	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	14	RCC work, sand driving ,concrete casting, PPE, excavation, welding and generator
			Automated block yard	23	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Main camp	16	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication

Month	Polder	Date	Location	No of trainees	Training Item
		26.03.2018	DS-12	17	RCC work, concrete casting, PPE, excavation, welding and generator
			Automated block yard	25	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
	P-40/2	05.03.2018	Main camp	14	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	8	PPE, excavation, welding and generator, Heavy truck
			Manual block yard	24	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		12.03.2018	Main camp	16	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	12	PPE, excavation, welding and generator, Heavy truck
			Manual block yard	26	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		18.03.2018	Main camp	13	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	12	PPE, excavation, welding and generator, Heavy truck
			Manual CC block yard	22	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		25.03.2018	Main camp	10	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	6	PPE, excavation, welding and generator, Heavy truck
			Manual CC block yard	26	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise,

Month	Polder	Date	Location	No of trainees	Training Item
					Loader safety
	P-41/1		Main camp	14	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual CC block yard	25	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	12	PPE, excavation, generator, Heavy Equipment
		09.03.2018	Main camp	17	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual CC block yard	26	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	15	PPE, excavation, generator, Heavy Equipment
		22.03.2018	Main camp	14	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual CC block yard	25	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	13	PPE, excavation, generator, Heavy Equipment
		29.03.2018	Main camp	14	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual CC block yard	24	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	16	PPE, excavation, generator, Heavy Equipment
			Main camp	15	Concrete casting, bricks construction, RCC work, PPE, welding, electricity

Month	Polder	Date	Location	No of trainees	Training Item
	p-47/2	05.03.2018	Manual CC block yard	24	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 8+400	16	Excavator and excavation, PPE, field density, compaction
		12.03.2018	Main camp	12	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	21	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 8+700	10	Excavator and excavation, PPE, field density, compaction
		18.03.2018	Main camp	16	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	21	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 8+920	16	Excavator and excavation, PPE, field density, compaction
		28.03.2018	Main camp	8	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	26	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 9+450	14	Excavator and excavation, PPE, field density, compaction
			Main camp	17	Concrete casting, bricks construction, RCC work, PPE, welding, electricity

Month	Polder	Date	Location	No of trainees	Training Item
	P-48	02.03.2018	Manual CC block yard	24	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	18	PPE, excavation, Concrete casting, welding and generator, Heavy truck
		12.03.2018	Main camp	15	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	22	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	16	PPE, excavation, Concrete casting, welding and generator, Heavy truck
		20.03.2018	Main camp	12	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	20	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	16	PPE, excavation, Concrete casting, welding and generator, Heavy truck
		30.03.2018	Main camp	12	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	21	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	20	PPE, excavation, Concrete casting, welding and generator, Heavy truck

Summary of training for month of April, 2018

Month	Polder	Date	Location	No of trainees	Training Item
April, 2018	P-39/2C	03.04.2018	Main camp	16	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	15	Formwork and Concrete casting ,PPE, excavation, welding and generator, heavy equipment safety
			Automated CC block yard	24	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
		09.04.2018	Main camp	10	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	13	Formwork and Concrete casting ,PPE, excavation, welding and generator, heavy equipment safety
			Automated CC block yard	28	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
		17.04.2018	Main camp	17	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	12	Formwork and Concrete casting ,PPE, excavation, welding and generator, heavy equipment safety
			cc block yard	29	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader

Month	Polder	Date	Location	No of trainees	Training Item
April, 2018		25.04.2018	Main camp	12	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	13	Formwork and Concrete casting ,PPE, excavation, welding and generator, heavy equipment safety
			Automated CC block yard	28	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader truck
	P-40/2	02.04.2018	Main camp	14	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	13	PPE, excavation, formwork and concrete casting, welding and generator, Heavy truck
			Manual CC block yard	25	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		11.04.2018	Main camp	10	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	17	PPE, excavation, formwork and concrete casting, welding and generator, Heavy truck
			Manual CC block yard	28	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		20.04.2018	Main camp	15	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	12	PPE, excavation, formwork and concrete casting, welding and generator, Heavy truck
			Manual CC block yard	25	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise,

Month	Polder	Date	Location	No of trainees	Training Item
					Loader safety
		27.04.2018	Main camp	16	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			FS-4/1	14	PPE, excavation, formwork and concrete casting, welding and generator, Heavy truck
			Manual CC block yard	26	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		04.04.2018	Main camp	12	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			Manual CC block yard	22	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	14	PPE, excavation, Sand pile driving, concrete casting, generator, Heavy Equipment
		13.04.2018	Main camp	10	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual CC block yard	29	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	14	PPE, excavation, Sand pile driving, concrete casting, generator, Heavy Equipment
		19.04.2018	Main camp	16	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual CC block yard	27	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	13	PPE, excavation, Sand pile driving, concrete casting, generator, Heavy Equipment
			Main camp	16	Concrete casting, bricks construction, steel

Month	Polder	Date	Location	No of trainees	Training Item
April, 2018	P-41/1	25.04.2018			fabrication, RCC work, PPE, welding, electricity
			Manual CC block yard	25	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	14	PPE, excavation, Sand pile driving, concrete casting, generator, Heavy Equipment
	p-47/2	04.04.2018	Main camp	12	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			cc block yard	26	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 10+020	20	Excavator and excavation, PPE, water content test, field density, compaction
		10.04.2018	Main camp	14	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			Manual CC block yard	26	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 12+600	18	Excavator and excavation, PPE, water content test, field density, compaction
		18.04.2018	Main camp	13	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			Manual CC block yard	24	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 13+250	15	Excavator and excavation, PPE, water content test, field density, compaction

Month	Polder	Date	Location	No of trainees	Training Item
April, 2018		26.04.2018	Main camp	11	PPE,Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			Manual CC block yard	24	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 14+900	13	Excavator and excavation, PPE, water content test, field density, compaction
		03.04.2018	Main camp	15	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	24	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	16	PPE, excavation, formwork and concrete casting, welding and generator, Heavy equipment safety
		11.04.2018	Main camp	13	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	21	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	17	PPE, excavation, formwork and concrete casting, welding and generator, Heavy equipment safety
	P-48	18.04.2018	Main camp	13	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	25	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	16	PPE, excavation, formwork and concrete casting, welding and generator, Heavy equipment safety

Month	Polder	Date	Location	No of trainees	Training Item
			Main camp	17	Concrete casting, bricks construction, RCC work, PPE, welding, electricity
			Manual CC block yard	22	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
		27.04.2018	FS-4	18	PPE, excavation, formwork and concrete casting, welding and generator, Heavy equipment safety

Summary of training for month of May, 2018

Month	Polder	Date	Location	No of trainees	Training Item
May, 2018	P-39/2C	03.05.2018	Main camp	11	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	19	Formwork and Concrete casting ,PPE, excavation, welding and generator, heavy equipment safety
			Automated CC block yard	27	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
		10.05.2018	Main camp	12	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	16	Formwork and Concrete casting ,PPE, excavation, welding and generator, heavy equipment safety
			Automated CC block yard	25	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Main camp	12	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar

Month	Polder	Date	Location	No of trainees	Training Item
					fabrication
			DS-12	15	Formwork and Concrete casting ,PPE, excavation, welding and generator, heavy equipment safety
		17.05.2018	Automated CC block yard	27	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Main camp	13	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	16	Formwork and Concrete casting ,PPE, excavation, welding and generator, heavy equipment safety
		25.05.2018	Automated CC block yard	28	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
	P-40/2		Main camp	14	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, steel bar fabrication
			FS-4/1	16	PPE, excavation, formwork remove and concrete curing, generator, Heavy truck
May, 2018		04.05.2018	Manual CC block yard	26	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
			Main camp	11	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, steel bar fabrication
		09.05.2018	FS-4/1	15	PPE, excavation, formwork remove and concrete curing, generator, Heavy truck
			Manual CC block yard	24	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise,

Month	Polder	Date	Location	No of trainees	Training Item
					Loader safety
		18.05.2018	Main camp	13	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, steel bar fabrication
			FS-4/1	17	PPE, excavation, formwork remove and concrete curing, generator, Heavy truck
			Manual CC block yard	29	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		28.05.2018	Main camp	10	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, steel bar fabrication
			FS-4/1	15	PPE, excavation, formwork remove and concrete curing, generator, Heavy truck
			Manual CC block yard	24	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		02.05.2018	Main camp	10	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual block yard	29	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	14	PPE, excavation, formwork removal, concrete curing, generator, Heavy Equipment
		09.05.2018	Main camp	10	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual CC block yard	29	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	14	PPE, excavation, formwork removal, concrete curing, generator, Heavy

Month	Polder	Date	Location	No of trainees	Training Item
May, 2018	P-41/1				Equipment
		18.05.2018	Main camp	10	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual CC block yard	29	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	14	PPE, excavation, formwork removal, concrete curing, generator, Heavy Equipment
		30.05.2018	Main camp	10	Concrete casting, bricks construction, steel fabrication, RCC work, PPE, welding, electricity
			Manual block yard	29	PPE, cc block yard, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	14	PPE, excavation, formwork removal, concrete curing, generator, Heavy Equipment
		03.05.2018	Main camp	14	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			Manual CC block yard	25	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 8+400	17	Excavator and excavation, PPE, water content test, dressing and turfing
			Main camp	10	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			Manual CC block yard	20	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader

Month	Polder	Date	Location	No of trainees	Training Item
May, 2018	p-47/2	11.05.2018	Embankment section km 9+200	14	Excavator and excavation, PPE, water content test, dressing and turfing
		21.05.2018	Main camp	12	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			Manual CC block yard	22	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 10+000	16	Excavator and excavation, PPE, water content test, dressing and turfing
		31.05.2018	Main camp	13	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			Manual CC block yard	25	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 10+300	17	Excavator and excavation, PPE, water content test, dressing and turfing
	P-48	04.05.2018	Main camp	15	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			cc block yard	20	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	16	PPE, excavation, formwork, concrete casting and curing, welding and generator, Heavy equipment safety
			Main camp	16	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity

Month	Polder	Date	Location	No of trainees	Training Item
		14.05.2018	Manual CC block yard	24	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	13	PPE, excavation, formwork, concrete casting and curing, welding and generator, Heavy equipment safety
		22.05.2018	Main camp	16	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			Manual CC block yard	22	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	17	PPE, excavation, formwork, concrete casting and curing, welding and generator, Heavy equipment safety
		29.05.2018	Main camp	16	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			Manual block yard	21	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-4	12	PPE, excavation, formwork, concrete casting and curing, welding and generator, Heavy equipment safety

Summary of training for month of June, 2018

Month	Polder	Date	Location	No of trainees	Training Item
	P-39/2C	01.06.2018	Main camp	15	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	16	Formwork, Concrete casting and curing, PPE, welding and generator, heavy equipment safety
			CC block yard	25	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
		11.06.2018	Main camp	11	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	12	Formwork, Concrete casting and curing, PPE, welding and generator, heavy equipment safety
			CC block yard	23	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
		20.06.2018	Main camp	14	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	13	Formwork, Concrete casting and curing, PPE, welding and generator, heavy equipment safety
			cc block yard	27	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader

Month	Polder	Date	Location	No of trainees	Training Item
June, 2018		27.06.2018	Main camp	12	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, water discharging, steel bar fabrication
			DS-12	14	Formwork, Concrete casting and curing, PPE, welding and generator, heavy equipment safety
			CC block yard	26	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
		06.06.2018	Main camp	12	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, steel bar fabrication
			FS-4/1	14	PPE, excavation, formwork remove and concrete curing, generator, Heavy truck
			cc block yard	20	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		13.06.2018	Main camp	12	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, steel bar fabrication
			FS-4/1	11	PPE, excavation, formwork remove and concrete curing, generator, Heavy truck
			cc block yard	21	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
		22.06.2018	Main camp	13	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, steel bar fabrication
			FS-4/1	12	PPE, excavation, formwork remove and concrete curing, generator, Heavy truck
			cc block yard	22	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise,

Month	Polder	Date	Location	No of trainees	Training Item
	P-40/2				Loader safety
		28.06.2018	Main camp	11	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, steel bar fabrication
			FS-4/1	15	PPE, excavation, formwork remove and concrete curing, generator, Heavy truck
			CC block yard	23	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, Loader safety
	P-41/1	04.06.2018	Main camp	10	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, electricity, steel bar fabrication
			CC block yard	24	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	14	PPE, excavation, formwork removal, concrete curing, generator, Heavy Equipment
		12.06.2018	Main camp	12	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, Loader
			CC block yard	21	PPE, excavation, formwork removal, concrete curing, generator, Heavy Equipment
			FS-8	14	PPE, excavation, formwork removal, concrete curing, generator, Heavy Equipment
		21.06.2018	Main camp	12	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, electricity, steel bar fabrication
			CC block yard	21	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	13	PPE, excavation, formwork removal, concrete curing, generator, Heavy

Month	Polder	Date	Location	No of trainees	Training Item
June, 2018					Equipment
		29.06.2018	Main camp	12	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, electricity, steel bar fabrication
			cc block yard	25	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, Loader
			FS-8	12	PPE, excavation, formwork removal, concrete curing, generator, Heavy Equipment
	p-47/2	05.06.2018	Main camp	14	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			cc block yard	20	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 12+120	15	Excavator and excavation, PPE, water content test, dressing and turfing
		13.06.2018	Main camp	14	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			cc block yard	23	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 13+000	14	Excavator and excavation, PPE, water content test, dressing and turfing
			Main camp	10	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			cc block yard	20	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader

Month	Polder	Date	Location	No of trainees	Training Item
		19.06.2018	Embankment section km 14+300	15	Excavator and excavation, PPE, water content test, dressing and turfing
		26.06.2018	Main camp	10	PPE, Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator, welding, electricity
			Manual CC block yard	20	PPE, concrete casting, cc block plant, forklift, use of fire extinguisher, electricity, generator, Loader
			Embankment section km 15+060	18	Excavator and excavation, PPE, water content test, dressing and turfing
	P-48	06.06.2018	Main camp	14	PPE, Fuel storage, sanitation, use of fire extinguisher and generator
			Manual CC block yard	24	PPE, cc block plant, forklift, use of fire extinguisher, electricity, Loader
			FS-4	12	PPE, formwork, concrete casting and curing, welding, Heavy equipment
		14.06.2018	Main camp	14	PPE, Fuel storage, sanitation, use of fire extinguisher and generator
			Manual CC block yard	20	PPE, cc block plant, forklift, use of fire extinguisher, electricity, Loader
			FS-4	13	PPE, formwork, concrete casting and curing, welding, Heavy equipment
		22.06.2018	Main camp	14	PPE, Fuel storage, sanitation, use of fire extinguisher and generator
			cc block yard	21	PPE, cc block plant, forklift, use of fire extinguisher, electricity, Loader
			FS-4	13	PPE, formwork, concrete casting and curing, welding, Heavy equipment
			Main camp	17	PPE, Fuel storage, sanitation, use of fire extinguisher and generator

Month	Polder	Date	Location	No of trainees	Training Item
June, 2018		29.06.2018	Manual CC block yard	25	PPE, cc block plant, forklift, use of fire extinguisher, electricity, Loader
			FS-4	14	PPE, formwork, concrete casting and curing, welding, Heavy equipment

Summary of training for month of October, 2018

Month	Polder	Date	Location	No of trainees	Training Item
October, 2018	P-32	03.10.2018	Main camp	24	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			DS-11	21	RCC work, Concrete casting ,PPE, excavation, welding and generator
			DS-10	18	PPE, dewatering, use of fire extinguisher, electricity and generator
			Embankment section km 08+000	11	Excavator and excavation, PPE
		09.10.2018	DS-11	18	PPE, excavation, welding, use of fire extinguisher, and generator
			Rupsha cc yard	09	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			Main camp	17	Use of fire extinguisher, PPE, material storage area
			Embankment section km 08+000	08	Excavator and excavation, PPE
		13.10.2018	D-10	23	Slope protection work , PPE, generator, use of fire-extinguisher
			Pankhali cc yard	20	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			DS-11	12	CC block work, PPE, generator, use of fire-extinguisher
		22.10.2018	Pankhali cc yard	22	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			D-10	15	PPE, generator, use of fire-extinguisher
			DS-10	18	PPE, generator, use of fire-extinguisher, Rcc work.

Month	Polder	Date	Location	No of trainees	Training Item
October, 2018	P-33	05.10.2018	Dacope Embankment section	11	Excavator and excavation, PPE
			FS-05	17	Rod cutting and bending, PPE, excavation, welding and generator
			Mongla cc yard	29	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
		09.10.2018	Mongla cc yard	30	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			DS-06	21	RCC work, , PPE, rod bending, electricity and welding
			FS-08	15	PPE, rod bending, electricity, use of fire extinguisher, welding
		16.10.2018	Kalinogor slope section	18	Excavator and excavation, PPE
			FS-06	15	Height work, Rod cutting and bending, generator, electricity and use of fire extinguisher
			FS-05	18	RCC work, Height work, Rod cutting and bending, generator, electricity and use of fire extinguisher
		25.10.2018	DS-06	17	Road bending, Height work, generator, electricity and use of fire extinguisher
			FS-08	16	RCC work ,Height work, generator, electricity and use of fire extinguisher
			Mongla cc yard	32	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
	P-35/1	02.10.2018	DS-06	12	Concrete casting, Height work, RCC work, PPE, welding, electricity
			Tafalbari cc	29	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity,

Month	Polder	Date	Location	No of trainees	Training Item
October, 2018	P-35/1	02.10.2018	yard		generator, noise, bulldozer
			DS-11	19	Concrete casting, Height work, RCC work, PPE, welding, electricity
			Embankment section km 23+000	06	Excavator and excavation, PPE
		12.10.2018	Tafalbari cc yard	35	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			FS-18	14	Height work, RCC work, PPE, welding, electricity
			FS-19	14	Potential sliding, Height work, RCC work, PPE, welding, electricity
			DS-15	13	Concrete casting, Height work, RCC work, PPE, welding, electricity
			Embankment section km 19+500	05	Excavator and excavation, PPE
		14.10.2018	Tafalbari cc yard	36	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			DS-14	16	Sand piling, Height work, RCC work, PPE, welding, electricity
			DS-13	18	Sand piling, Height work, RCC work, PPE, welding, electricity
		27.10.2018	Tafalbari cc yard	29	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			DS-11	12	Sand piling, Height work, RCC work, PPE, welding, electricity
			FS-22	13	Sand piling, Height work, RCC work, PPE, welding, electricity
	p-35/3	04.10.2018	FS-19	17	Concrete casting, Height work, RCC work, PPE, welding, electricity
			Daratana cc	29	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity,

Month	Polder	Date	Location	No of trainees	Training Item
October, 2018	P-35/3		yard		generator, noise, bulldozer
			FS-01	18	Concrete casting, Height work, RCC work, PPE, welding, electricity
			Khagraghat cc yard	26	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator,
		11.10.2018	Daratana cc yard	28	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			FS-05	15	Height work, PPE, welding, electricity
			Khagraghat cc yard	21	Potential sliding, PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator
			FS-14	20	Concrete casting, Height work, RCC work, PPE, welding, electricity
		23.10.2018	Daratana cc yard	12	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			FS-01	14	Height work, RCC work, PPE, welding, electricity
			FS-14	11	Height work, RCC work, PPE, welding, electricity
		28.10.2018	Daratana cc yard	10	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			FS-05	16	Height work, RCC work, PPE, welding, electricity
			Khagraghat cc yard	12	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator
			FS-01	19	Concrete casting, Height work, RCC work, PPE, welding, electricity

Summary of training for month of November, 2018

Month	Polder	Date	Location	No of trainees	Training Item
November, 2018	P-32	01.11.2018	Main camp	19	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			DS-10	10	Rod bending and cutting ,PPE, excavation, welding and generator, sand piling
			DS-11	17	Rod bending and cutting ,PPE, excavation, welding and generator, sand piling
			Embankment section km 08+000	03	Excavator and excavation, PPE
		06.11.2018	D-10	18	PPE, excavation, welding, use of fire extinguisher, and generator
			Rupsha cc yard	09	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			Main camp	10	Use of fire extinguisher, PPE, material storage area
			DS-10	02	Rod bending and cutting ,PPE, excavation, welding and generator, sand piling
		15.11.2018	DS-11	13	Rod bending and cutting ,PPE, excavation, welding and generator, sand piling
			Rupsha cc yard	20	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			DS-11	12	Rod bending and cutting ,PPE, excavation, welding and generator, sand piling
		27.11.2018	Pankhali cc yard	22	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			D-10	10	RCC work, PPE, generator, use of fire-extinguisher

Month	Polder	Date	Location	No of trainees	Training Item
November, 2018	P-35/1	06.11.2018	FS-05	12	Concrete casting, Height work, RCC work, PPE, welding, electricity
			Tafalbari cc yard	29	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
		04.11.2018	Daratana cc yard	14	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			FS-18	20	Concrete casting, Height work, RCC work, PPE, welding, electricity
			FS-01	20	Concrete casting, Height work, RCC work, PPE, welding, electricity
			FS-19	10	Excavator and excavation, PPE
			Khagraghat cc yard	26	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			Tafalbari cc yard	35	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			DS-13	16	Height work, RCC work, PPE, welding, electricity
			Daratana cc yard	21	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			FS-22	14	Potential sliding, Height work, RCC work, PPE, welding, electricity
		09.11.2018	FS-05	17	Height work, PPE, welding, electricity, sand piling
			DS-15	13	Concrete casting, Height work, RCC work, PPE, welding, electricity
		13.11.2018	Khagraghat cc yard	17	Potential sliding, PPE, automatic cc plant, forklift, use of fire
			Embankment section km 29+000	17	Excavator and excavation, PPE
			FS-14	12	extinguisher, electricity, generator
		22.11.2018	Tafalbari cc yard	36	Concrete casting, Height work, RCC work, PPE, welding, electricity
			Daratana cc yard	25	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			FS-18	16	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
		18.11.2018	FS-05	10	Sand piling, Height work, RCC work, PPE, welding, electricity
			FS-19	18	Height work, RCC work, PPE, welding, electricity
			FS-14	12	Sand piling, Height work, RCC work, PPE, welding, electricity
		30.11.2018	Tafalbari cc yard	28	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
		29.11.2018	Daratana cc yard	24	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			DS-14	15	Sand piling, Height work, RCC work, PPE, welding, electricity
			FS-01	18	Height work, RCC work, PPE, welding, electricity
			DS-13	13	Sand piling, Height work, RCC work, PPE, welding, electricity
			Khagraghat cc yard	21	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator
			FS-22	12	Sand piling, Height work, RCC work, PPE, welding, electricity
			FS-14	11	Concrete casting, Height work, RCC work, PPE, welding, electricity

Summary of training for month of December, 2018

Month	Polder	Date	Location	No of trainees	Training Item
December,2018	P-32	01.12.2018	Main camp	20	Fuel storage, kitchen's firing, sanitation, use of fire extinguisher and generator
			D-10	21	Height work, PPE, welding, electricity, sand piling
			Pankhali cc yard	17	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
		09.12.2018	DS-11	13	Height work, PPE, welding, electricity, sand piling
			Pankhali cc yard	18	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			DS-10	09	Height work, PPE, welding, electricity, sand piling
			Pankhali cc yard	10	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
		21.12.2018	Pankhali cc yard	12	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			DS-11	13	Height work, PPE, welding, electricity, sand piling
			Pankhali cc yard	20	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
		28.12.2018	Rupsha cc yard	12	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			DS-10	22	Height work, PPE, welding, electricity, sand piling

Month	Polder	Date	Location	No of trainees	Training Item
December,2018			Main camp	10	Kitchen's firing, sanitation, use of fire extinguisher.
	P-33	02.12.2018	Dacope Embankment section	11	Excavator and excavation, PPE
			DS-06	21	Rod cutting and bending, PPE, excavation, welding and generator. block placing
			Mongla cc yard	16	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
		10.12.2018	FS-05	25	Height work, PPE, welding, electricity, sand piling
			Main camp	07	kitchen's firing, sanitation, use of fire extinguisher
			FS-08	15	PPE, rod bending, electricity, use of fire extinguisher, welding. block placing
		21.12.2018	Mongla cc yard	15	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			DS-06	09	Height work, Rod cutting and bending, generator, electricity and use of fire extinguisher. block placing
			Mongla cc yard	08	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
		28.12.2018	FS-08	18	Height work, PPE, welding, electricity, sand piling
			FS-05	15	Height work, PPE, welding, electricity, sand piling
			FS-06	12	Height work, PPE, welding, electricity, sand piling
				32	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer

Month	Polder	Date	Location	No of trainees	Training Item
December,2018	P-35/1		FS-14	07	Sand piling, welding, work, RCC work, PPE, welding, electricity
			Tafalbari cc yard	22	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
	p-35/3	03.12.2018	FS-01	20	Concrete casting, Height work, RCC work, PPE, welding, electricity
			Daratana cc yard	13	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
		05.12.2018	DS-11	29	Concrete casting, Height work, RCC work, PPE, welding, electricity. Block placing
			FS-05	08	Concrete casting, Height work, RCC work, PPE, welding, electricity
			Tafalbari cc yard	19	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			Khagraghat cc yard	28	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator
			DS-13	15	Concrete casting, Height work, RCC work, PPE, welding, electricity. Block placing
			Daratana cc yard	15	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
		11.12.2018	Tafalbari cc yard	35	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			FS-01	21	Height work, PPE, welding, electricity, sand piling
			Tafalbari cc yard	17	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			Khagraghat cc yard	16	Potential sliding, PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator
		13.12.2018	Tafalbari cc yard	21	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			FS-14	16	Concrete casting, Height work, RCC work, PPE, welding, electricity
			Daratana cc yard	28	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			FS-18	10	Height work, PPE, welding, electricity, sand piling
		15.12.2018	Tafalbari cc yard	06	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			FS-05	11	Height work, RCC work, PPE, welding, electricity
		17.12.2018	Main camp	10	kitchen's firing, sanitation, use of fire extinguisher
			Tafalbari cc yard	40	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
		25.12.2018	Daratana cc yard	22	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			FS-19	12	Height work, PPE, welding, electricity, sand piling
			FS-05	12	Height work, RCC work, PPE, welding, electricity
			FS-22	12	Height work, PPE, welding, electricity, sand piling
			Khagraghat cc yard	19	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator
			Tafalbari cc yard	21	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
		29.12.2018	Tafalbari cc yard	12	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			Daratana cc yard	12	PPE, automatic cc plant, forklift, use of fire extinguisher, electricity, generator, noise, bulldozer
			DS-14	14	Concrete casting, Height work, RCC work, PPE, welding, electricity. Block placing

Month	Polder	Date	Location	No of trainees	Training Item
		27.12.2018			

4.7 Sample of correspondence of EHS issue from DDSC&PMSC and Contractors

Coastal Embankment Improvement Project, Phase-1 (CEIP-1)
CEIP-1 Project Office, Road 18, House 36, Flat D-1, Block J, Banani, Dhaka 1213, Bangladesh

Return address: Postbus 151, 6500 AD, Nijmegen, The Netherlands

HASKONINGDHV NEDERLAND B.V.
WATER
Jonkerbosplein 52
Postbus 151
Nijmegen 6500 AD
The Netherlands
+31 (024) 328 42 84 Telephone

To
Mr. LI Guofang
Acting Project Manager
Chongqing International Construction Corporation
House:18/B, Apt: F-1, Rd:48
Gulshan-2, Dhaka-1212
Bangladesh

Your reference	:	None
Our reference	:	RDCOR_BC5883-100_L001753_DJK_MIP
Direct line	:	0172-1645-120
E-mail	:	dick.kevelam@rhdhv.com
Date	:	24 October 2018
Enclosure(s)	:	The test report of water quality analysis
Subject	:	**Conduct of Laboratory testing of drinking water in work sites in Polders of Package-2**

Dear Mr. LI Guofang,

I bring it to your kind information that we have received the laboratory analytical results of 13 nos. of drinking water sources located in the camp sites and the work sites in 5 Polders (Polder 39/2, Polder 40/2, Polder 41/1, Polder 47/2 and Polder 48) of Package-2, submitted as response to our letter (ref. RDCOR_BC5883-100_L001671_DJK_MIP dated 06 September, 2018) for Environment, Health and Safety (EHS) requirement.

Testing of water were carried out for 5 parameters (Chloride, total iron, arsenic, total coliform and faecal coliform) required for ascertaining suitability for safe drinking water. It is observed that out of total 13 water samples, 6 samples contain total Coliform ranging from 3-20 nos. per 100 ml. of water, but the normal standard for drinking water should not contain any Coliform and thus they are unsafe for drinking purpose.

Under the circumstances, you are requested hereby to stop provision of drinking water from those 6 locations for the workers and arrange alternative sources for supply of safe drinking water in the concerned locations.

It is also imperative to conduct the laboratory analytical test of drinking water sources to be arranged in future for the same parameters (as discussed with you).

The issues need immediate attention and action.

With Best regards,

Derk Jan (Dick) Kevelam
Team Leader, CEIP-1
Detailed Design Construction Supervision and Project Management Support

A company of Royal HaskoningDHV
Member Ningenieurs

1/2

Copy to:

1) Mr. Md. Habibur Rahman, Project Director, PMU, CEIP-1, BWDB, Gulshan-2, Dhaka-1212
2) Mr. Md. Habibur Rahman, Deputy Team Leader, DDCS & PMS Consultants, Banani, Dhaka
3) Mr. Mohammad Ali, DRE-2, CEIP-1, DDCS & PMS Consultants, Patuakhali
4) Mr. Richard David Mann, Resident Engineer, DDCS & PMS Consultants, CEIP-1
5) Mr. Abu Bakr Siddique, Environmental Specialist, DDCS & PMS Consultants, Banani, Dhaka
6) Office copy.

重庆对外建设（集团）有限公司
CHONGQING INTERNATIONAL CONSTRUCTION CORPORATION
Phone: +880 1917264485 Email: cicobangladesh@gmail.com
Address: F1, House#18/B, Road#48, Dhaka-1212, Bangladesh

Ref No. CICO-BWDB/CEIP-1, W-02/357 Date: 18 December, 2018

To:
Mr. Derk Jan Kevelam
Team Leader DDCS & PMS Consultant
Coastal Embankment Improvement Project
House # 36, Road # 18, Block-J, Banani
Dhaka-1212

RE: Rehabilitation /Reconstruction and Upgrading of Polder 39/2C, 40/2, 41/1, 43/2C, 47/2 and 48 under Coastal Embankment Improvement Project Phase-1 (CEIP-I); Contract Package No.: CEIP-I, W-02

Subject: Submission of Environment, Health and Safety (EHS) Risk Assessment Report under Package-2, CEIP-1

Dear Mr. Dick,

In response to your letter with reference number RDCOR_BC5883-100_L001800_DJK_MIP, the EHS Risk Assessment Reports for 6 Polders have been attachment to this letter. Please check and inform us if anything needs to be amended.

Yours sincerely,

Li Guofang
Acting Project Manager
CICO, CEIP-1, W2

DHI
Coastal Embankment Improvement Project, Phase-I
(CEIP-I)
Receiving Date 19/12/18
Reg. No. 1810
File Ref 902
CC file
Action by T.L
CC to DTL
→ Siddique

Copy to:
1) Mr. Abu Bakr Siddique, Environmental Specialist, CEIP-1, DDCS&PMS Consultants, Dhaka

Royal HaskoningDHV
Enhancing Society together

DevCon

IWM

DHI

Coastal Embankment Improvement Project, Phase-1 (CEIP-1)

CEIP-1 Project Office, Road 16, House 36, Flat D-1, Block J, Banani, Dhaka 1213, Bangladesh

Return address: Postbus 151, 6500 AD, Nijmegen, The Netherlands

HASKONINGDHV NEDERLAND B.V.

WATER

Jonkerbosplein 52
Postbus 151
Nijmegen 6500 AD
The Netherlands
+31 (024) 328 42 84 Telephon

To
Mr. Yang Dong
Acting Project Manager
The First Engineering Bureau
Of Henan Water Conservancy
House# 411, Road# 04
Sonadanga R/A (2nd Phase),
Khulna-9100, Bangladesh.

Your reference	:	None
Our reference	:	RDCOR_BC5883-100_L001802_DJK_MIP
Direct line	:	0172-1645-120
E-mail	:	dick.kevelam@rhdhv.com
Date	:	20 November 2018
Enclosure(s)	:	Soft copy of Finalized version of EAP (Polders 32, 33, 35/1 and 35/3)
Subject	:	**Translation of Reviewed Environmental Action Plan (EAP) for 4 Polders under Package-1, CEIP-1**

Dear Mr. Yang Dong,

You are requested hereby to carry out translation of the EAPs, finalized by incorporation of World bank comments (for 4 Polders of Package-1) into Chinese and Bangla as per requirement of the world Bank.

As it is known to you, the translated copies of EAP have to be maintained at the major work sites of all Polders under Package-1. The translation work to be completed by 20th December, 2018.

With Kind Regard,

Derk Jan (Dick) Kevelam
Team Leader, CEIP-1
Detailed Design Construction Supervision and Project Management Support

Copy to:

1) Mr. Md. Habibur Rahman, Project Director, PMU, CEIP-1, BWDB, Gulshan-2, Dhaka
2) Mr. Md, Habibur Rahman, Deputy Team Leader, DDCS & PMS Consultants, Banani, Dhaka
3) Mr. AKM Sayeed Uddin, Deputy Resident Engineer, CEIP-1, DDCS & PMS Consultants, Khulna
4) Mr. Abu Bakr Siddique, Environmental Specialist, DDCS & PMS Consultants, Banani, Dhaka
5) Office copy.

4.8 Summary Environmental Compliance / Non-Compliance Report: Package 01

Environmental Issues	Types of Compliance, Non Compliance Repeating Non Compliance	Total no. of compliance in package 01 for the year	Total no. of non-compliance in package 01 for the year	Total no. of repeating non-compliance in package 01 for the year
Construction Camps	Obtaining approval	96	0	0
	Erection of signboard in Bangla and English with project details	96	0	0
	Install accommodation facilities for workers	72	24	0
	Drainage channels installation	96	0	0
	Supply of safe drinking water	72	24	0
	Supply of adequate sanitation	72	0	0
	Solid fencing and demarcation to prevent villagers from entering the premises	72	0	0
Fuel storage areas	Install hardstand and secondary containment	96	0	0
	Firefighting equipment installation	96	0	0
	Sand and shovel close-by	96	0	0
	Regular checks on physical condition	96	0	0
Access road construction	Obtaining approval	96	0	0
	Construction of culverts if needed	24	0	0
Temporary Facilities Decommissioning	Agreeing with local authorities on demolition	24	0	0
	Review of Environmental liabilities	24	0	0
	Waste removal	24	0	0
	General re-instatement of site	24	0	0
	Revegetation implementation	24	0	0
	Close-out check	24	0	0
Construction and Demolishing of drainage sluices, flushing sluices and inlets	Demolishing debris of sluices and inlets will be disposed of at a site approved by the Engineer.	168	24	0
	Before starting the construction activities of drainage sluices ring bundh and diversion channel will be installed in order to work in dry conditions.	95	0	0
	Disposal of excess soil will be done with no objection from DoE and local authority.	64	6	0
	No waste water from concrete mixing will be disposed of directly to the surface water.	72	0	0
	Steel sheet pile driving will not be done at night.	72	0	0
	The work area will be demarcated clearly.	72	0	0

Environmental Issues	Types of Compliance, Non Compliance Repeating Non Compliance	Total no. of compliance in package 01 for the year	Total no. of non-compliance in package 01 for the year	Total no. of repeating non-compliance in package 01 for the year
	Signals will be installed to indicate the entry and exits of vehicles and movement of construction equipment in the work area.	72	0	0
	Prior to every monsoon season all the temporary and permanent drainage structures under construction will be made free from debris.	72	0	0
Construction and re-sectioning of embankments	Pavement(if present)will be removed and disposed of at the premises of BWDB	0	12	0
	Top soil from areas of earth works will not be used for construction works. The top soil (from surface to 15 cm depth) will be removed and preserved for later use of replacing after construction in rehabilitation.	24	42	0
	Disposal of excess soil will be done at site with no objection from DoE and local authority.	12	54	0
	All works will be demarcated clearly.	66	0	0
	Signals will be installed to indicate the entry and exits of vehicles and movement of construction	66	24	0
	The contractor shall manage the top soil(15)cm during earth work activities	0	42	0
The bank and slope protection works	Spilling of earth material in surface water will be avoided.	0	0	0
	Turing will be applied to prevent erosion	30	0	0
	Proper drainage provision will be kept to avoid formation of rain cuts due to surface run off.	30	0	0
Re-excavation works	Spoil plan (volume to be dredged; disposal site to be used; quality of dredged material; applicability of dredged material) to be developed for approval by Engineer.	24	48	0
	Unnecessary resuspension will be avoided by selection of suitable dredging equipment.	0	0	0
	Temporarily deposition of dredged material will be away from the channel edge to limit damage to streamside and stream habitats.	0	0	0
	Return water will be conveyed through siltation chambers to avoid high loads of fines to be discharged on surface water.	0	0	0
	Where applicable biotechnical Engineering, for example, geo textile, may be used to help stabilize the material.	0	0	0
	Smothering of important flora and habitats will be avoided.	0	0	0
Construction of the closure Dam	N/A	0	0	0

Environmental Issues	Types of Compliance, Non Compliance Repeating Non Compliance	Total no. of compliance in package 01 for the year	Total no. of non-compliance in package 01 for the year	Total no. of repeating non-compliance in package 01 for the year
Manufacture of pre-cast CC blocks	Workers will be equipped with proper PPE.	72	0	0
	Signals will be installed to indicate the entry and exits and movement of vehicles construction in the work area.	72	0	0
	Manufacturing will not take place at night.	72	0	0
	Stacks with sand will be covered or wetted.	72	0	0
Borrow Material	Agreeing on borrow area	72	0	0
	Document borrow area	0	72	0
	Perform soil analyses on borrow materials when contamination is expected	72	0	0
	Prevention of erosion/dust forming	72	0	0
	Borrow area excavation complying with distance from the embankment as per the technical specification	72	0	0
	No-Tress pass line fixed with bamboo poles	24	0	0
Hard Rock Revetment	N/A	0	0	0
Occupational Health and Safety	Development of Health and Safety plan including emergency procedures	72	0	0
	Train all staff in health and safety	72	0	0
	Provision of HIV, including STI(Sexually Transmitted Infections) information, education and communication	0	0	0
	Provision of PPE and ensuring their use	72	0	0
	Provision and use of life jacket during visiting campsite/worksite by boat	48	0	0
	Installation of first aid facilities at work site and camps with adequate stock	48	0	0
	Provide sanitation facilities where needed	48	0	0
	Provision of safe drinking water to work force (tube-well water, bottled water or pond water)	48	0	0
	Proper signaling of work areas	24	0	0
Public Health and Safety	Notification of the public adjacent to the construction areas	72	0	0
	Installation of dedicated pathways for pedestrians	72	0	0
	Proper signaling of work areas	72	0	0
	Limitation of construction vehicles at public roads during peak hours.	72	0	0

Environmental Issues	Types of Compliance, Non Compliance Repeating Non Compliance	Total no. of compliance in package 01 for the year	Total no. of non-compliance in package 01 for the year	Total no. of repeating non-compliance in package 01 for the year
	The temporary traffic detours in settlement areas will be kept free of dust by frequent application of water	72	0	0
	Construction activities will be undertaken according to during daylight working hours between the hours of 07:00-17:00 on week days	72	0	0
Water Supply	Providing construction camps with portable water either through installing tubewells (hand pump, shallow and deep tubeweel), pond Sand Filter (PSE) or supplying safe bottled water	72	0	0
	Ensuring the location plan of tubewells (used for supplying potable water) that these are not sited near any sanitation facilities as to avoid water pollution	0	0	0
	Maintaining the distance of a tubewell/surface water resource from a soak pit at minimum 15 m	24	0	0
	Maintaining the drainage from the tubewell diverting into the drainage system of the camp area	0	0	0
	Providing separate tubewells for the use of women.	0	0	0
Sanitation	Providing suitable sanitation facilities for the workforce	72	0	0
	Ensuring the location plan of the latrine at least 50 m away from the accommodation facility	0	0	0
	Providing separate latrines for the use of women	72	0	0
	Installing treatment facilities (i.e. septic tank, soak pits etc.) for the sewerage of toilet and camp site wastes.	72	0	0
	Arranging disposal of wastewater from washrooms, kitchens, s, etc. via the camp area's drainage system	0	0	0
Solid Waste Management	Ensuring collection and disposal of solid wastes within the construction camps and work areas	72	0	0
	Taking measure to collect and store inorganic wastes in a safe place within the household and organic wastes cleared on daily basis to waste collector.	48	24	0
	Establish measures for Waste collection, transportation and disposal systems at approved disposal sites.	24	30	0
	Disposal of construction and demolition waste.	26	46	0
Waste water	Installation of decanter boxes for washing buckets and cement mixers	24	48	0
	Installation of proper filtering elements.	0	48	0

Environmental Issues	Types of Compliance, Non Compliance Repeating Non Compliance	Total no. of compliance in package 01 for the year	Total no. of non-compliance in package 01 for the year	Total no. of repeating non-compliance in package 01 for the year
	Carrying out periodic checks and clean-ups for the decanter box.	24	48	0
	Prioritize reuse of aggregates and water from the decanter box.	24	48	0
	Ensure safe disposal of liquid wastes generated at camp site.	24	48	0
Air	Regular maintenance of vehicles	72	0	0
	Covering or wetting of dusty materials	72	0	0
	Dust suppression by wetting surfaces	72	0	0
	Impose speed limits	72	0	0
	Revegetate bare surfaces soonest	48	0	0
Noise	Notify nearby population prior to any typical noise events	72	0	0
	Ensure construction activities do not generate unacceptably high level of noise	72	0	0
	Restrict working to daylight hours	72	0	0
	Locate noisy equipment / facilities away from sensitive receptors	72	0	0
Water and Hydrology	Preventing waste, soil, etc. entering in the water system by waste collection, revegetation and dust suppression etc.	72	0	0
	Insure proper drainage of working areas e.g. perimeters lines must be provided with open shallow drains	0	72	0
Flora and Fauna	Agreeing with local authorities on tree felling.	72	0	0
	Document trees / area of trees.	0	72	0
	Avoid/prevent un-necessary tree vegetation cutting and clearing.	0	0	0
	Revegetate disturbed construction and ancillary site surfaces.	0	0	0
	Prevent disturbance of animals	72	0	0
	Ensuring sufficient free flow in the construction work for fish migration	72	0	0
Monitoring of Air Quality	Performance of air quality tests at selected sensitive sites for parameters SPM 2.5/10, SOx, NOx and CO during working hours	72	0	0
Monitoring of Noise Quality	Monitoring of noise level (dB) at selected sensitive sites during working hours	72	0	0

Environmental Issues	Types of Compliance, Non Compliance Repeating Non Compliance	Total no. of compliance in package 01 for the year	Total no. of non-compliance in package 01 for the year	Total no. of repeating non-compliance in package 01 for the year
Monitoring of Soil Quality	Performance of soil quality tests at selected sites (borrow areas, spill sites) for parameters as organic matter, N, P, K, pH, Salinity, S and Zn.	72	0	0
Monitoring of Surface Water Quality	Performance of analyses on surface water (river, khal, beel and pond) for: pH, TDS, DO, BOD, EC/Salinity and Turbidity.	72	0	0
Monitoring of Drinking Water Quality	Performance of analyses on drinking water for: arsenic, iron, chloride and total faecal coliform bacteria.	72	0	0
Deployment of Environment and Safety Supervisor	Employ one full-time Environment and Safety Supervisor for compliance monitoring of EMP	0	0	0
Complaints and Environmental Incidents	Grievance Redress Mechanism will be established.	48	24	0
	Complaints received from the public or other stakeholders will be registered and recorded and be brought to the attention of the Site Engineer.	72	0	0
	All environmental incidents occurring on the site will be recorded and be brought to the attention of the Site Engineer.	72	0	0
	Action will be taken within 7 working days.	48	0	0
Reporting and Documentation	The following records will be kept at site: - Environmental Monitoring Results - Contractors self-assessment record/results - Register of non-compliance - Register of corrective actions - Monthly Environmental Reports	360	0	0
Training	Environmental training on EMP will be arranged for Construction Field supervisors and Environment & Safety Supervisors.	0	0	0

4.9 Detailed Polder-wise Compliance and Non-Compliance Report for Package 01

Package 01

Polder 32:Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
Construction Camps	Obtaining approval	6	6	6	6	24					0					
	Erection of signboard in Bangla and English with project details	6	6	6	6	24					0					
	Install accommodation facilities for workers	6	6	6	6	24					0					
	Drainage channels installation	6	6	6	6	24					0					
	Supply of safe drinking water	6	6	6	6	24					0					
	Supply of adequate sanitation	6	6	6	6	24					0					
	Solid fencing and demarcation to prevent villagers from entering the premises	6	6	6	6	24					0					
Fuel storage areas	Install hardstand and secondary containment	6	6	6	6	24					0					
	Firefighting equipment installation	6	6	6	6	24					0					
	Sand and shovel close-by	6	6	6	6	24					0					
	Regular checks on physical condition	6	6	6	6	24					0					
Access road construction	Obtaining approval	6	6	6	6	24					0					

Polder 32:Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Construction of culverts if needed	6	6	6	6	24					0					
Temporary Facilities Decommissioning	Agreeing with local authorities on demolition					0					0					
	Review of Environmental liabilities	1				1					0					
	Waste removal	1				1					0					
	General re-instatement of site	1				1					0					
	Revegetation implementation	1				1					0					
	Close-out check					0					0					
Construction and Demolishing of drainage sluices, flushing sluices and inlets	Demolishing debris of sluices and inlets will be disposed of at a site approved by the Engineer.	6	6	6	6	24					0					
	Before starting the construction activities of drainage sluices ring bundh and diversion channel will be installed in order to work in dry conditions.	6	6	6	6	24					0					
	Disposal of excess soil will be done with no objection from DoE and local authority.	6	6	6	6	24					0					
	No waste water from concrete mixing will be disposed of directly to the surface water.	6	6	6	6	24					0					

Polder 32:Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Steel sheet pile driving will not be done at night.	6	6	6	6	24					0					
	The work area will be demarcated clearly.	6	6	6	6	24					0					
	Signals will be installed to indicate the entry and exits of vehicles and movement of construction equipment in the work area.	6	6	6	6	24					0					
	Prior to every monsoon season all the temporary and permanent drainage structures under construction will be made free from debris.	6	6	6	6	24					0					
Construction and re-sectioning of embankments	Pavement(if present)will be removed and disposed of at the premises of BWDB					0					0					
	Top soil from areas of earth works will not be used for construction works. The top soil (from surface to 15 cm depth) will be removed and preserved for later use of replacing after construction in rehabilitation.					0	6	6	6	6	24					
	Disposal of excess soil will be done at site with no objection from DoE and local authority.					0	6	6	6	6	24					

Polder 32:Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	All works will be demarcated clearly.	6	6	6	6	24					0					
	Signals will be installed to indicate the entry and exits of vehicles and movement of construction	6	6	6	6	24					0					
	The contractor shall manage the top soil(15)cm during earth work activities					0	6	6	6	6	24					
The bank and slope protection works	Spilling of earth material in surface water will be avoided.					0					0					
	Turfing will be applied to prevent erosion	6	6	6	6	24					0					
	Proper drainage provision will be kept to avoid formation of rain cuts due to surface run off.	6	6	6	6	24					0					
Re-excavation works	Spoil plan (volume to be dredged; disposal site to be used; quality of dredged material; applicability of dredged material) to be developed for approval by Engineer.	6	6	6	6	24					0					
	Unnecessary resuspension will be avoided by selection of suitable dredging equipment.					0					0					
	Temporary deposition of dredged material will be away from the channel edge to limit damage to streamside and stream habitats.					0					0					

Polder 32:Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	
	Return water will be conveyed through siltation chambers to avoid high loads of fines to be discharged on surface water.					0					0						
	Where applicable biotechnical Engineering, for example, geo textile, may be used to help stabilize the material.					0					0						
	Smothering of important flora and habitats will be avoided.					0					0						
Construction of the closure Dam	N/A					0					0						
Manufacture of pre-cast CC blocks	Workers will be equipped with proper PPE.	6	6	6	6	24					0						
	Signals will be installed to indicate the entry and exits and movement of vehicles construction in the work area.	6	6	6	6	24					0						
	Manufacturing will not take place at night.	6	6	6	6	24					0						
	Stacks with sand will be covered or wetted.	6	6	6	6	24					0						
Borrow Material	Agreeing on borrow area	6	6	6	6	24					0						
	Document borrow area					0	2				2						

Polder 32:Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Perform soil analyses on borrow materials when contamination is expected	6	6	6	6	24					0					
	Prevention of erosion/dust forming	6	6	6	6	24					0					
	Borrow area excavation complying with distance from the embankment as per the technical specification	6	6	6	6	24					0					
	No-Tress pass line fixed with bamboo poles	6	6	6	6	24					0					
Hard Rock Revetment	N/A					0					0					
Occupational Health and Safety	Development of Health and Safety plan including emergency procedures	6	6	6	6	24					0					
	Train all staff in health and safety	6	6	6	6	24					0					
	Provision of HIV, including STI(Sexually Transmitted Infections) information, education and communication	6	6	6	6	24					0					
	Provision of PPE and ensuring their use	6	6	6	6	24					0					
	Provision and use of life jacket during visiting campsite/worksite by boat	6	6	6	6	24					0					

Polder 32:Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Installation of first aid facilities at work site and camps with adequate stock	6	6	6	6	24					0					
	Provide sanitation facilities where needed	6	6	6	6	24					0					
	Provision of safe drinking water to work force (tube-well water, bottled water or pond water)	6	6	6	6	24					0					
	Proper signaling of work areas					0					0					
Public Health and Safety	Notification of the public adjacent to the construction areas	6	6	6	6	24					0					
	Installation of dedicated pathways for pedestrians	6	6	6	6	24					0					
	Proper signaling of work areas	6	6	6	6	24					0					
	Limitation of construction vehicles at public roads during peak hours.	6	6	6	6	24					0					
	The temporary traffic detours in settlement areas will be kept free of dust by frequent application of water	6	6	6	6	24					0					
	Construction activities will be undertaken according to during daylight working hours between the hours of 07:00-17:00 on week days	6	6	6	6	24					0					

Polder 32:Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
Water Supply	Providing construction camps with portable water either through installing tubewells (hand pump, shallow and deep tubewell), pond Sand Filter (PSF) or supplying safe bottled water	6	6	6	6	24					0					
	Ensuring the location plan of tubewells (used for supplying potable water) that these are not sited near any sanitation facilities as to avoid water pollution					0					0					
	Maintaining the distance of a tubewell/ surface water resource from a soak pit at minimum 15 m					0					0					
	Maintaining the drainage from the tubewell diverting into the drainage system of the camp area					0					0					
	Providing separate tubewells for the use of women.					0					0					
Sanitation	Providing suitable sanitation facilities for the workforce	6	6	6	6	24					0					
	Ensuring the location plan of the latrine at least 50 m away from the accommodation facility	6	6	6	6	24					0					
	Providing separate latrines for the use of women	6	6	6	6	24					0					

Polder 32:Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Installing treatment facilities (i.e. septic tank, soak pits etc.) for the sewerage of toilet and camp site wastes.	6	6	6	6	24					0					
	Arranging disposal of wastewater from washrooms, kitchens, s, etc. via the camp area's drainage system					0					0					
Solid Waste Management	Ensuring collection and disposal of solid wastes within the construction camps and work areas	6	6	6	6	24					0					
	Taking measure to collect and store inorganic wastes in a safe place within the household and organic wastes cleared on daily basis to waste collector.	6	6	6	6	24					0					
	Establish measures for Waste collection, transportation and disposal systems at approved disposal sites.	6	4			10	6	6	4		16					
	Disposal of construction and demolition waste.	6	6			12	6	6	4		16					
Waste water	Installation of decanter boxes for washing buckets and cement mixers	6	6	6	6	24					0					
	Installation of proper filtering elements.					0	6	6	6	6	24					

Polder 32:Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Carrying out periodic checks and clean-ups for the decanter box.	6	6	6	6	24	6	6	6		18					
	Prioritize reuse of aggregates and water from the decanter box.					0					0					
	Ensure safe disposal of liquid wastes generated at camp site.	6	6	6	6	24					0					
Air	Regular maintenance of vehicles	6	6	6	6	24					0					
	Covering or wetting of dusty materials	6	6	6	6	24					0					
	Dust suppression by wetting surfaces	6	6	6	6	24					0					
	Impose speed limits	6	6	6	6	24					0					
	Revegetate bare surfaces soonest					0					0					
Noise	Notify nearby population prior to any typical noise events	6	6	6	6	24					0					
	Ensure construction activities do not generate unacceptably high level of noise	6	6	6	6	24					0					
	Restrict working to daylight hours	6	6	6	6	24					0					
	Locate noisy equipment / facilities away from sensitive receptors	6	6	6	6	24					0					
Water and Hydrology	Preventing waste, soil, etc. entering in the water system by waste collection, revegetation and dust suppression etc.	6	6	6	6	24					0					

Polder 32:Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Insure proper drainage of working areas e.g. perimeters lines must be provided with open shallow drains					0	6	6	6	6	24					
Flora and Fauna	Agreeing with local authorities on tree felling.	6	6	6	6	24					0					
	Document trees / area of trees.					0	6	6	6	6	24					
	Avoid/prevent un-necessary tree vegetation cutting and clearing.					0					0					
	Revegetate disturbed construction and ancillary site surfaces.					0					0					
	Prevent disturbance of animals	6	6	6	6	24					0					
	Ensuring sufficient free flow in the construction work for fish migration	6	6	6	6	24					0					
Monitoring of Air Quality	Performance of air quality tests at selected sensitive sites for parameters SPM 2.5/10, SOx, NOx and CO during working hours	6	6	6	6	24					0					
Monitoring of Noise Quality	Monitoring of noise level (dB) at selected sensitive sites during working hours	6	6	6	6	24					0					
Monitoring of Soil Quality	Performance of soil quality tests at selected sites (borrow areas, spill sites) for parameters as organic matter, N, P, K, pH, Salinity, S and Zn.	6	6	6	6	24					0					

Polder 32:Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
Monitoring of Surface Water Quality	Performance of analyses on surface water (river, khal, beel and pond) for: pH, TDS, DO, BOD, EC/Salinity and Turbidity.	6	6	6	6	24					0					
Monitoring of Drinking Water Quality	Performance of analyses on drinking water for: arsenic, iron, chloride and total faecal coliform bacteria.	6	6	6	6	24					0					
Deployment of Environment and Safety Supervisor	Employ one full-time Environment and Safety Supervisor for compliance monitoring of EMP	6	6	6	6	24					0					
Complaints and Environmental Incidents	Grievance Redress Mechanism will be established.	6	6	6	6	24					0					
	Complaints received from the public or other stakeholders will be registered and recorded and be brought to the attention of the Site Engineer.	6	6	6	6	24					0					
	All environmental incidents occurring on the site will be recorded and be brought to the attention of the Site Engineer.	6	6	6	6	24					0					
	Action will be taken within 7 working days.	6	6	6	6	24					0					
Reporting and Documentation	The following records will be kept at site: - Environmental Monitoring Results	30	30	30	30	120					0					

Polder 32:Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	- Contractors self-assessment record/results - Register of non-compliance - Register of corrective actions - Monthly Environmental Reports															
Training	Environmental training on EMP will be arranged for Construction Field supervisors and Environment & Safety Supervisors.	5	6	6	6	23					0					

Polder 33: Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
Construction Camps	Obtaining approval	6	6	6	6	24					0					
	Erection of signboard in Bangla and English with project details	6	6	6	6	24					0					
	Install accommodation facilities for workers	6	6	6	6	24					0					
	Drainage channels installation	6	6	6	6	24					0					
	Supply of safe drinking water	6	6	6	6	24					0					
	Supply of adequate sanitation	6	6	6	6	24					0					
	Solid fencing and demarcation to prevent villagers from entering the premises	6	6	6	6	24					0					
Fuel storage areas	Install hardstand and secondary containment	6	6	6	6	24					0					
	Firefighting equipment installation	6	6	6	6	24					0					
	Sand and shovel close-by	6	6	6	6	24					0					
	Regular checks on physical condition	6	6	6	6	24					0					
Access road construction	Obtaining approval	6	6	6	6	24					0					
	Construction of culverts if needed					0					0					
Temporary Facilities	Agreeing with local authorities on demolition					0					0					

Polder 33: Environmental Compliance Report																	
		No. of compliance					No. of non-compliance					No. of non- Compliance repeating				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
Decommissioning	Review of Environmental liabilities					0					0					
	Waste removal					0					0					
	General re-instatement of site					0					0					
	Revegetation implementation					0					0					
	Close-out check					0					0					
Construction and Demolishing of drainage sluices, flushing sluices and inlets	Demolishing debris of sluices and inlets will be disposed of at a site approved by the Engineer.					0	6	6	6	6	24					
	Before starting the construction activities of drainage sluices ring bundh and diversion channel will be installed in order to work in dry conditions.	6	6	6	6	24					0					
	Disposal of excess soil will be done with no objection from DoE and local authority.	6	4	6	6	22					0					
	No waste water from concrete mixing will be disposed of directly to the surface water.	6	6	6	6	24					0					
	Steel sheet pile driving will not be done at night.	6	6	6	6	24					0					
	The work area will be demarcated clearly.	6	6	6	6	24					0					

Polder 33: Environmental Compliance Report																	
		No. of compliance					No. of non-compliance					No. of non- Compliance repeating				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Signals will be installed to indicate the entry and exits of vehicles and movement of construction equipment in the work area.	6	6	6	6	24					0					
	Prior to every monsoon season all the temporary and permanent drainage structures under construction will be made free from debris.	6	6	6	6	24					0					
Construction and re-sectioning of embankments	Pavement (if present) will be removed and disposed of at the premises of BWDB					0					0					
	Top soil from areas of earth works will not be used for construction works. The top soil (from surface to 15 cm depth) will be removed and preserved for later use of replacing after construction in rehabilitation.					0	6	6	6	6	24					
	Disposal of excess soil will be done at site with no objection from DoE and local authority.					0	6	6	6	6	24					
	All works will be demarcated clearly.	6	6	6	6	24					0					
	Signals will be installed to indicate the entry and exits	6	6	6	6	24	6	6	6	6	24					

Polder 33: Environmental Compliance Report																	
		No. of compliance					No. of non-compliance					No. of non- Compliance repeating				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	of vehicles and movement of construction															
	The contractor shall manage the top soil(15)cm during earth work activities					0					0					
The bank and slope protection works	Spilling of earth material in surface water will be avoided.					0					0					
	Turfing will be applied to prevent erosion	6	6	6	6	24					0					
	Proper drainage provision will be kept to avoid formation of rain cuts due to surface run off.	6	6	6	6	24					0					
Re-excavation works	Spoil plan (volume to be dredged; disposal site to be used; quality of dredged material; applicability of dredged material) to be developed for approval by Engineer.	6	6	6	6	24					0					
	Unnecessary resuspension will be avoided by selection of suitable dredging equipment.					0					0					
	Temporary deposition of dredged material will be away from the channel edge to limit damage to streamside and stream					0					0					

Polder 33: Environmental Compliance Report																	
		No. of compliance					No. of non-compliance					No. of non- Compliance repeating				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	habitats.															
	Return water will be conveyed through siltation chambers to avoid high loads of fines to be discharged on surface water.					0					0					
	Where applicable biotechnical Engineering, for example, geo textile, may be used to help stabilize the material.					0					0					
	Smothering of important flora and habitats will be avoided.					0					0					
Construction of the closure Dam	N/A					0					0					
Manufacture of pre-cast CC blocks	Workers will be equipped with proper PPE.	6	6	6	6	24					0					
	Signals will be installed to indicate the entry and exits and movement of vehicles construction in the work area.	6	6	6	6	24					0					
	Manufacturing will not take place at night.	6	6	6	6	24					0					
	Stocks of sand will be covered or wetted.	6	6	6	6	24					0					
Borrow Material	Agreeing on borrow area	6	6	6	6	24					0					
	Document borrow area					0	6	6	6	6	24					

Polder 33: Environmental Compliance Report																	
		No. of compliance					No. of non-compliance					No. of non- Compliance repeating				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Perform soil analyses on borrow materials when contamination is expected	6	6	6	6	24					0					
	Prevention of erosion/dust forming	6	6	6	6	24					0					
	Borrow area excavation complying with distance from the embankment as per the technical specification	6	6	6	6	24					0					
	No-Tress pass line fixed with bamboo poles					0					0					
Hard Rock Revetment	N/A					0					0					
Occupational Health and Safety	Development of Health and Safety plan including emergency procedures	6	6	6	6	24					0					
	Train all staff in health and safety	6	6	6	6	24					0					
	Provision of HIV, including STI(Sexually Transmitted Infections) information, education and communication					0					0					
	Provision of PPE and ensuring their use	6	6	6	6	24					0					
	Provision and use of life jacket during visiting campsite/worksite by boat					0					0					
	Installation of first aid	6	6	6	6	24					0					

Polder 33: Environmental Compliance Report																	
		No. of compliance					No. of non-compliance					No. of non- Compliance repeating				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	facilities at work site and camps with adequate stock															
	Provide sanitation facilities where needed	6	6	6	6	24					0					
	Provision of safe drinking water to work force (tube-well water, bottled water or pond water)	6	6	6	6	24					0					
	Proper signaling of work areas	6	6	6	6	24					0					
Public Health and Safety	Notification of the public adjacent to the construction areas	6	6	6	6	24					0					
	Installation of dedicated pathways for pedestrians	6	6	6	6	24					0					
	Proper signaling of work areas	6	6	6	6	24					0					
	Limitation of construction vehicles at public roads during peak hours.	6	6	6	6	24					0					
	The temporary traffic detours in settlement areas will be kept free of dust by frequent application of water	6	6	6	6	24					0					
	Construction activities will be undertaken according to during daylight working hours between the hours of 07:00-17:00 on week days	6	6	6	6	24					0					

Polder 33: Environmental Compliance Report																	
		No. of compliance					No. of non-compliance					No. of non- Compliance repeating				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
Water Supply	Providing construction camps with portable water either through installing tubewells (hand pump, shallow and deep tubewell), pond Sand Filter (PSF) or supplying safe bottled water	6	6	6	6	24					0					
	Ensuring the location plan of tubewells (used for supplying potable water) that these are not sited near any sanitation facilities as to avoid water pollution					0					0					
	Maintaining the distance of a tubewell/surface water resource from a soak pit at minimum 15 m					0					0					
	Maintaining the drainage from the tubewell diverting into the drainage system of the camp area					0					0					
	Providing separate tubewells for the use of women.					0					0					
Sanitation	Providing suitable sanitation facilities for the workforce	6	6	6	6	24					0					
	Ensuring the location plan of the latrine at least 50 m					0					0					

Polder 33: Environmental Compliance Report																	
		No. of compliance					No. of non-compliance					No. of non- Compliance repeating					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	away from the accommodation facility															
	Providing separate latrines for the use of women	6	6	6	6	24					0					
	Installing treatment facilities (i.e. septic tank, soak pits etc.) for the sewerage of toilet and camp site wastes.	6	6	6	6	24					0					
	Arranging disposal of wastewater from washrooms, kitchens, s, etc. via the camp area's drainage system					0					0					
Solid Waste Management	Ensuring collection and disposal of solid wastes within the construction camps and work areas	6	6	6	6	24					0					
	Taking measure to collect and store inorganic wastes in a safe place within the household and organic wastes cleared on daily basis to waste collector.	6	6	6	6	24					0					
	Establish measures for Waste collection, transportation and disposal systems at approved disposal sites.					0	6	6	6	6	24					
	Disposal of construction	2				2	4	6	6	6	22					

Polder 33: Environmental Compliance Report																	
		No. of compliance					No. of non-compliance					No. of non- Compliance repeating					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	and demolition waste.															
Waste water	Installation of decanter boxes for washing buckets and cement mixers					0	6	6	6	6	24					
	Installation of proper filtering elements.					0	6	6	6	6	24					
	Carrying out periodic checks and clean-ups for the decanter box.					0	6	6	6	6	24					
	Prioritize reuse of aggregates and water from the decanter box.					0	6	6	6	6	24					
	Ensure safe disposal of liquid wastes generated at camp site.					0	6	6	6	6	24					
Air	Regular maintenance of vehicles	6	6	6	6	24					0					
	Covering or wetting of dusty materials	6	6	6	6	24					0					
	Dust suppression by wetting surfaces	6	6	6	6	24					0					
	Impose speed limits	6	6	6	6	24					0					
	Revegetate bare surfaces soonest					0					0					
Noise	Notify nearby population prior to any typical noise events	6	6	6	6	24					0					
	Ensure construction activities do not generate unacceptably high level of	6	6	6	6	24					0					

Polder 33: Environmental Compliance Report																	
		No. of compliance					No. of non-compliance					No. of non- Compliance repeating				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	noise															
	Restrict working to daylight hours	6	6	6	6	24					0					
	Locate noisy equipment / facilities away from sensitive receptors	6	6	6	6	24					0					
Water and Hydrology	Preventing waste, soil, etc. entering in the water system by waste collection, revegetation and dust suppression etc.	6	6	6	6	24					0					
	Insure proper drainage of working areas e.g. perimeters lines must be provided with open shallow drains					0	6	6	6	6	24					
Flora and Fauna	Agreeing with local authorities on tree felling.	6	6	6	6	24					0					
	Document trees / area of trees.					0	6	6	6	6	24					
	Avoid/prevent un-necessary tree vegetation cutting and clearing.					0					0					
	Revegetate disturbed construction and ancillary site surfaces.					0					0					
	Prevent disturbance of animals	6	6	6	6	24					0					
	Ensuring sufficient free flow in the construction	6	6	6	6	24					0					

Polder 33: Environmental Compliance Report																	
		No. of compliance					No. of non-compliance					No. of non- Compliance repeating				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	work for fish migration															
Monitoring of Air Quality	Performance of air quality tests at selected sensitive sites for parameters SPM 2.5/10, SOx, NOx and CO during working hours	6	6	6	6	24					0					
Monitoring of Noise Quality	Monitoring of noise level (dB) at selected sensitive sites during working hours	6	6	6	6	24					0					
Monitoring of Soil Quality	Performance of soil quality tests at selected sites (borrow areas, spill sites) for parameters as organic matter, N, P, K, pH, Salinity, S and Zn.	6	6	6	6	24					0					
Monitoring of Surface Water Quality	Performance of analyses on surface water (river, khal, beel and pond) for: pH, TDS, DO, BOD, EC/Salinity and Turbidity.	6	6	6	6	24					0					
Monitoring of Drinking Water Quality	Performance of analyses on drinking water for: arsenic, iron, chloride and total faecal coliform bacteria.	6	6	6	6	24					0					
Deployment of Environment and Safety Supervisor	Employ one full-time Environment and Safety Supervisor for compliance monitoring of EMP					0					0					
Complaints and	Grievance Redress	6	6	6	6	24					0					

Polder 33: Environmental Compliance Report																	
		No. of compliance					No. of non-compliance					No. of non- Compliance repeating				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
Environmental Incidents	Mechanism will be established.															
	Complaints received from the public or other stakeholders will be registered and recorded and be brought to the attention of the Site Engineer.	6	6	6	6	24					0					
	All environmental incidents occurring on the site will be recorded and be brought to the attention of the Site Engineer.	6	6	6	6	24					0					
	Action will be taken within 7 working days.	6	6	6	6	24					0					
Reporting and Documentation	The following records will be kept at site: - Environmental Monitoring Results - Contractors self-assessment record/results - Register of non-compliance - Register of corrective actions - Monthly Environmental Reports	30	30	30	30	120					0					
Training	Environmental training on EMP will be arranged for					0					0					

Polder 33: Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Construction Field supervisors and Environment & Safety Supervisors.															

Polder 35/1 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
Construction Camps	Obtaining approval	6	6	6	6	24					0					
	Erection of signboard in Bangla and English with project details	6	6	6	6	24					0					
	Install accommodation facilities for workers	6	6	6	6	24					0					
	Drainage channels installation	6	6	6	6	24					0					
	Supply of safe drinking water	6	6	6	6	24					0					
	Supply of adequate sanitation	6	6	6	6	24					0					
	Solid fencing and demarcation to prevent villagers from entering the premises	6	6	6	6	24					0					
Fuel storage areas	Install hardstand and secondary containment	6	6	6	6	24					0					
	Firefighting equipment installation	6	6	6	6	24					0					
	Sand and shovel close-by	6	6	6	6	24					0					
	Regular checks on physical condition	6	6	6	6	24					0					
Access road construction	Obtaining approval	6	6	6	6	24					0					
	Construction of culverts if needed					0					0					
Temporary Facilities Decommissioning	Agreeing with local authorities on demolition					0					0					
	Review of Environmental liabilities					0					0					
	Waste removal					0					0					

Polder 35/1 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	General re-instatement of site					0					0					
	Revegetation implementation					0					0					
	Close-out check					0					0					
Construction and Demolishing of drainage sluices, flushing sluices and inlets	Demolishing debris of sluices and inlets will be disposed of at a site approved by the Engineer.	6	6	6	6	24					0					
	Before starting the construction activities of drainage sluices ring bundh and diversion channel will be installed in order to work in dry conditions.	6	6	6	6	24					0					
	Disposal of excess soil will be done with no objection from DoE and local authority.	6		6	6	18		6			6					
	No waste water from concrete mixing will be disposed of directly to the surface water.	6	6	6	6	24					0					
	Steel sheet pile driving will not be done at night.	6	6	6	6	24					0					
	The work area will be demarcated clearly.	6	6	6	6	24					0					
	Signals will be installed to indicate the entry and exits of vehicles and movement of construction equipment in the work area.	6	6	6	6	24					0					
	Prior to every monsoon season	6	6	6	6	24					0					

Polder 35/1 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	all the temporary and permanent drainage structures under construction will be made free from debris.															
	Pavement (if present) will be removed and disposed of at the premises of BWDB					0	6			6	12					
	Top soil from areas of earth works will not be used for construction works. The top soil (from surface to 15 cm depth) will be removed and preserved for later use of replacing after construction in rehabilitation.					0	6		6	6	18					
	Disposal of excess soil will be done at site with no objection from DoE and local authority.	6			6	12			6		6					
	All works will be demarcated clearly.	6		6	6	18					0					
	Signals will be installed to indicate the entry and exits of vehicles and movement of construction	6		6	6	18					0					
Construction and re-sectioning of embankments	The contractor shall manage the top soil(15)cm during earth work activities					0	6		6	6	18					
The bank and slope protection works	Spilling of earth material in surface water will be avoided.					0					0					

Polder 35/1 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Turfing will be applied to prevent erosion			6		6					0					
	Proper drainage provision will be kept to avoid formation of rain cuts due to surface run off.			6		6					0					
	Spoil plan (volume to be dredged); disposal site to be used; quality of dredged material; applicability of dredged material) to be developed for approval by Engineer.					0	6	6	6	6	24					
	Unnecessary resuspension will be avoided by selection of suitable dredging equipment.					0					0					
	Temporary deposition of dredged material will be away from the channel edge to limit damage to streamside and stream habitats.					0					0					
	Return water will be conveyed through siltation chambers to avoid high loads of fines to be discharged on surface water.					0					0					
	Where applicable biotechnical Engineering, for example, geo textile, may be used to help stabilize the material.					0					0					
Re-excavation works	Smothering of important flora					0					0					

Polder 35/1 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	and habitats will be avoided.															
Construction of the closure Dam	N/A					0					0					
Manufacture of pre-cast CC blocks	Workers will be equipped with proper PPE.	6	6	6	6	24					0					
	Signals will be installed to indicate the entry and exits and movement of vehicles construction in the work area.	6	6	6	6	24					0					
	Manufacturing will not take place at night.	6	6	6	6	24					0					
	Stacks with sand will be covered or wetted.	6	6	6	6	24					0					
Borrow Material	Agreeing on borrow area	6	6	6	6	24					0					
	Document borrow area					0	6	6	6	6	24					
	Perform soil analyses on borrow materials when contamination is expected	6	6	6	6	24					0					
	Prevention of erosion/dust forming	6	6	6	6	24					0					
	Borrow area excavation complying with distance from the embankment as per the technical specification	6	6	6	6	24					0					
	No-Tress pass line fixed with bamboo poles					0					0					
Hard Rock Revetment	N/A					0					0					

Polder 35/1 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
Occupational Health and Safety	Development of Health and Safety plan including emergency procedures	6	6	6	6	24					0					
	Train all staff in health and safety	6	6	6	6	24					0					
	Provision of HIV, including STI(Sexually Transmitted Infections) information, education and communication					0					0					
	Provision of PPE and ensuring their use	6	6	6	6	24					0					
	Provision and use of life jacket during visiting campsite/worksite by boat	6	6	6	6	24					0					
	Installation of first aid facilities at work site and camps with adequate stock					0					0					
	Provide sanitation facilities where needed					0					0					
	Provision of safe drinking water to work force (tube-well water, bottled water or pond water)					0					0					
	Proper signaling of work areas					0					0					
Public Health and Safety	Notification of the public adjacent to the construction areas	6	6	6	6	24					0					
	Installation of dedicated pathways for pedestrians	6	6	6	6	24					0					

Polder 35/1 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Proper signaling of work areas	6	6	6	6	24					0					
	Limitation of construction vehicles at public roads during peak hours.	6	6	6	6	24					0					
	The temporary traffic detours in settlement areas will be kept free of dust by frequent application of water	6	6	6	6	24					0					
	Construction activities will be undertaken according to during daylight working hours between the hours of 07:00-17:00 on week days	6	6	6	6	24					0					
	Providing construction camps with portable water either through installing tubewells (hand pump, shallow and deep tubewell), pond Sand Filter (PSE) or supplying safe bottled water	6	6	6	6	24					0					
	Ensuring the location plan of tubewells (used for supplying potable water) that these are not sited near any sanitation facilities as to avoid water pollution					0					0					
Water Supply	Maintaining the distance of a tubewell/surface water resource from a soak pit at					0					0					

Polder 35/1 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	minimum 15 m															
	Maintaining the drainage from the tubewell diverting into the drainage system of the camp area					0					0					
	Providing separate tubewells for the use of women.					0					0					
	Providing suitable sanitation facilities for the workforce	6	6	6	6	24					0					
	Ensuring the location plan of the latrine at least 50 m away from the accommodation facility					0					0					
	Providing separate latrines for the use of women	6	6	6	6	24					0					
	Installing treatment facilities (i.e. septic tank, soak pits etc.) for the sewerage of toilet and camp site wastes.	6	6	6	6	24					0					
Sanitation	Arranging disposal of wastewater from washrooms, kitchens, s, etc. via the camp area's drainage system					0					0					
	Ensuring collection and disposal of solid wastes within the construction camps and work areas	6	6	6	6	24					0					
Solid Waste Management	Taking measure to collect and store inorganic wastes in a safe					0	6	6	6	6	24					

Polder 35/1 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	place within the household and organic wastes cleared on daily basis to waste collector.															
	Establish measures for Waste collection, transportation and disposal systems at approved disposal sites.					0			6		6					
	Disposal of construction and demolition waste.					0	6	6	6	6	24					
	Installation of decanter boxes for washing buckets and cement mixers					0	6	6	6	6	24					
	Installation of proper filtering elements.					0	6	6	6	6	24					
	Carrying out periodic checks and clean-ups for the decanter box.					0	6	6	6	6	24					
	Prioritize reuse of aggregates and water from the decanter box.					0	6	6	6	6	24					
Waste water	Ensure safe disposal of liquid wastes generated at camp site.					0	6	6	6	6	24					
	Regular maintenance of vehicles	6	6	6	6	24					0					
	Covering or wetting of dusty materials	6	6	6	6	24					0					
	Dust suppression by wetting surfaces	6	6	6	6	24					0					
Air	Impose speed limits	6	6	6	6	24					0					

Polder 35/1 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Revegetate bare surfaces soonest	6	6	6	6	24					0					
	Notify nearby population prior to any typical noise events	6	6	6	6	24					0					
	Ensure construction activities do not generate unacceptably high level of noise	6	6	6	6	24					0					
	Restrict working to daylight hours	6	6	6	6	24					0					
Noise	Locate noisy equipment / facilities away from sensitive receptors	6	6	6	6	24					0					
	Preventing waste, soil, etc. entering in the water system by waste collection, revegetation and dust suppression etc.	6	6	6	6	24					0					
Water and Hydrology	Insure proper drainage of working areas e.g. perimeters lines must be provided with open shallow drains					0	6	6	6	6	24					
	Agreeing with local authorities on tree felling.	6	6	6	6	24					0					
	Document trees / area of trees.					0	6	6	6	6	24					
	Avoid/prevent un-necessary tree vegetation cutting and clearing.					0					0					
Flora and Fauna	Revegetate disturbed					0					0					

Polder 35/1 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	construction and ancillary site surfaces.															
	Prevent disturbance of animals	6	6	6	6	24					0					
	Ensuring sufficient free flow in the construction work for fish migration	6	6	6	6	24					0					
Monitoring of Air Quality	Performance of air quality tests at selected sensitive sites for parameters SPM 2.5/10, SOx, NOx and CO during working hours	6	6	6	6	24					0					
Monitoring of Noise Quality	Monitoring of noise level (dB) at selected sensitive sites during working hours	6	6	6	6	24					0					
Monitoring of Soil Quality	Performance of soil quality tests at selected sites (borrow areas, spill sites) for parameters as organic matter, N, P, K, pH, Salinity, S and Zn.	6	6	6	6	24					0					
Monitoring of Surface Water Quality	Performance of analyses on surface water (river, khal, beel and pond) for: pH, TDS, DO, BOD, EC/Salinity and Turbidity.	6	6	6	6	24					0					
Monitoring of Drinking Water Quality	Performance of analyses on drinking water for: arsenic, iron, chloride and total faecal coliform bacteria.	6	6	6	6	24					0					
Deployment of Environment and	Employ one full-time Environment and Safety					0					0					

Polder 35/1 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
Safety Supervisor	Supervisor for compliance monitoring of EMP															
Complaints and Environmental Incidents	Grievance Redress Mechanism will be established.					0	6	6	6	6	24					
	Complaints received from the public or other stakeholders will be registered and recorded and be brought to the attention of the Site Engineer.	6	6	6	6	24					0					
	All environmental incidents occurring on the site will be recorded and be brought to the attention of the Site Engineer.	6	6	6	6	24					0					
	Action will be taken within 7 working days.	6	6	6	6	24					0					
Reporting and Documentation	The following records will be kept at site: - Environmental Monitoring Results - Contractors self-assessment record/results - Register of non-compliance - Register of corrective actions - Monthly Environmental Reports	30	30	30	30	120					0					
Training	Environmental training on EMP will be arranged for Construction Field supervisors					0					0					

Polder 35/1 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	and Environment & Safety Supervisors.															

Polder 35/3 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
Construction Camps	Obtaining approval	6	6	6	6	24					0					
	Erection of signboard in Bangla and English with project details	6	6	6	6	24					0					
	Install accommodation facilities for workers	6	6	6	6	24					0					
	Drainage channels installation	6	6	6	6	24					0					
	Supply of safe drinking water	6	6	6	6	24					0					
	Supply of adequate sanitation	6	6	6	6	24					0					
	Solid fencing and demarcation to prevent villagers from entering the premises	6	6	6	6	24					0					
Fuel storage areas	Install hardstand and secondary containment	6	6	6	6	24					0					
	Firefighting equipment installation	6	6	6	6	24					0					
	Sand and shovel close-by	6	6	6	6	24					0					
	Regular checks on physical condition	6	6	6	6	24					0					
Access road construction	Obtaining approval	6	6	6	6	24					0					
	Construction of culverts if needed					0					0					
Temporary Facilities Decommissioning	Agreeing with local authorities on demolition					0					0					
	Review of Environmental liabilities					0					0					
	Waste removal					0					0					

Polder 35/3 :Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	
	General re-instatement of site					0					0						
	Revegetation implementation					0					0						
	Close-out check					0					0						
Construction and Demolishing of drainage sluices, flushing sluices and inlets	Demolishing debris of sluices and inlets will be disposed of at a site approved by the Engineer.	6	6	6	6	24					0						
	Before starting the construction activities of drainage sluices ring bundh and diversion channel will be installed in order to work in dry conditions.	6	6	6	6	24					0						
	Disposal of excess soil will be done with no objection from DoE and local authority.	6	6	6	6	24					0						
	No waste water from concrete mixing will be disposed of directly to the surface water.	6	6	6	6	24					0						
	Steel sheet pile driving will not be done at night.	6	6	6	6	24					0						
	The work area will be demarcated clearly.	6	6	6	6	24					0						
	Signals will be installed to indicate the entry and exits of vehicles and movement of construction equipment in the work area.	6	6	6	6	24					0						
	Prior to every monsoon season	6	6	6	6	24					0						

Polder 35/3 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	all the temporary and permanent drainage structures under construction will be made free from debris.															
Construction and re-sectioning of embankments	Pavement (if present) will be removed and disposed of at the premises of BWDB					0					0					
	Top soil from areas of earth works will not be used for construction works. The top soil (from surface to 15 cm depth) will be removed and preserved for later use of replacing after construction in rehabilitation.	6	6	6	6	24					0					
	Disposal of excess soil will be done at site with no objection from DoE and local authority.					0	6	6	6	6	24					
	All works will be demarcated clearly.	6	6	6	6	24					0					
	Signals will be installed to indicate the entry and exits of vehicles and movement of construction	6	6	6	6	24					0					
	The contractor shall manage the top soil(15)cm during earth work activities					0	6	6	6	6	24					
The bank and slope protection works	Spilling of earth material in surface water will be avoided.					0					0					

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Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Turfing will be applied to prevent erosion					0					0					
	Proper drainage provision will be kept to avoid formation of rain cuts due to surface run off.					0					0					
Re-excavation works	Spoil plan(volume to be dredged;disposal site to be used;quality of dredged material; applicability of dredged material) to be developed for approval by Enginner.					0	6	6	6	6	24					
	Unnecessary resuspension will be avoided by selection of suitable dredging equipment.					0					0					
	Temporarly deposition of dredged material will be away from the channel edge to limit damage to stremside and strem habitats.					0					0					
	Return water will be conveyed through siltation chambers to avoid high loads of fines to be discharged on surface water.					0					0					
	Where applicable biotechnical Engineering, for example, geo textile, may be used to help stabilize the material.					0					0					
	Smothering of important flora					0					0					

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Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	and habitats will be avoided.															
Construction of the closure Dam	N/A					0					0					
Manufacture of pre-cast CC blocks	Workers will be equipped with proper PPE.	6	6	6	6	24					0					
	Signals will be installed to indicate the entry and exits and movement of vehicles construction in the work area.	6	6	6	6	24					0					
	Manufacturing will not take place at night.	6	6	6	6	24					0					
	Stacks with sand will be covered or wetted.	6	6	6	6	24					0					
Borrow Material	Agreeing on borrow area	6	6	6	6	24					0					
	Document borrow area					0	6	6	6	6	24					
	Perform soil analyses on borrow materials when contamination is expected	6	6	6	6	24					0					
	Prevention of erosion/dust forming	6	6	6	6	24					0					
	Borrow area excavation complying with distance from the embankment as per the technical specification	6	6	6	6	24					0					
	No-Tress pass line fixed with bamboo poles	6	6	6	6	24					0					
Hard Rock Revetment	N/A					0					0					

Polder 35/3 :Environmental Compliance Report																	
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**					
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
Occupational Health and Safety	Development of Health and Safety plan including emergency procedures	6	6	6	6	24					0					
	Train all staff in health and safety	6	6	6	6	24					0					
	Provision of HIV, including STI(Sexually Transmitted Infections) information, education and communication					0					0					
	Provision of PPE and ensuring their use	6	6	6	6	24					0					
	Provision and use of life jacket during visiting campsite/worksite by boat	6	6	6	6	24					0					
	Installation of first aid facilities at work site and camps with adequate stock	6	6	6	6	24					0					
	Provide sanitation facilities where needed	6	6	6	6	24					0					
	Provision of safe drinking water to work force (tube-well water, bottled water or pond water)	6	6	6	6	24					0					
	Proper signaling of work areas					0					0					
Public Health and Safety	Notification of the public adjacent to the construction areas	6	6	6	6	24					0					
	Installation of dedicated pathways for pedestrians	6	6	6	6	24					0					
	Proper signaling of work areas	6	6	6	6	24					0					

Polder 35/3 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Limitation of construction vehicles at public roads during peak hours.	6	6	6	6	24					0					
	The temporary traffic detours in settlement areas will be kept free of dust by frequent application of water	6	6	6	6	24					0					
	Construction activities will be undertaken according to during daylight working hours between the hours of 07:00-17:00 on week days	6	6	6	6	24					0					
Water Supply	Providing construction camps with portable water either through installing tubewells (hand pump, shallow and deep tubewell), pond Sand Filter (PSE) or supplying safe bottled water	6	6	6	6	24					0					
	Ensuring the location plan of tubewells (used for supplying potable water) that these are not sited near any sanitation facilities as to avoid water pollution					0					0					
	Maintaining the distance of a tubewell/surface water resource from a soak pit at minimum 15 m	6	6	6	6	24					0					

Polder 35/3 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Maintaining the drainage from the tubewell diverting into the drainage system of the camp area					0					0					
	Providing separate tubewells for the use of women.					0					0					
Sanitation	Providing suitable sanitation facilities for the workforce	6	6	6	6	24					0					
	Ensuring the location plan of the latrine at least 50 m away from the accommodation facility					0					0					
	Providing separate latrines for the use of women	6	6	6	6	24					0					
	Installing treatment facilities (i.e. septic tank, soak pits etc.) for the sewerage of toilet and camp site wastes.	6	6	6	6	24					0					
	Arranging disposal of wastewater from washrooms, kitchens, s, etc. via the camp area's drainage system					0					0					
Solid Waste Management	Ensuring collection and disposal of solid wastes within the construction camps and work areas	6	6	6	6	24					0					
	Taking measure to collect and store inorganic wastes in a safe place within the household and	6	6	6	6	24					0					

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Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	organic wastes cleared on daily basis to waste collector.															
	Establish measures for Waste collection, transportation and disposal systems at approved disposal sites.	6	6	6	6	24					0					
	Disposal of construction and demolition waste.	6	6	6	6	24					0					
Waste water	Installation of decanter boxes for washing buckets and cement mixers	6	6	6	6	24					0					
	Installation of proper filtering elements.					0					0					
	Carrying out periodic checks and clean-ups for the decanter box.	6	6	6	6	24					0					
	Prioritize reuse of aggregates and water from the decanter box.	6	6	6	6	24					0					
	Ensure safe disposal of liquid wastes generated at camp site.	6	6	6	6	24					0					
Air	Regular maintenance of vehicles	6	6	6	6	24					0					
	Covering or wetting of dusty materials	6	6	6	6	24					0					
	Dust suppression by wetting surfaces	6	6	6	6	24					0					
	Impose speed limits	6	6	6	6	24					0					
	Revegetate bare surfaces	6	6	6	6	24					0					

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		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	soonest															
Noise	Notify nearby population prior to any typical noise events	6	6	6	6	24					0					
	Ensure construction activities do not generate unacceptably high level of noise	6	6	6	6	24					0					
	Restrict working to daylight hours	6	6	6	6	24					0					
	Locate noisy equipment / facilities away from sensitive receptors	6	6	6	6	24					0					
Water and Hydrology	Preventing waste, soil, etc. entering in the water system by waste collection, revegetation and dust suppression etc.	6	6	6	6	24					0					
	Insure proper drainage of working areas e.g. perimeters lines must be provided with open shallow drains					0	6	6	6	6	24					
Flora and Fauna	Agreeing with local authorities on tree felling.	6	6	6	6	24					0					
	Document trees / area of trees.					0	6	6	6	6	24					
	Avoid/prevent un-necessary tree vegetation cutting and clearing.					0					0					
	Revegetate disturbed construction and ancillary site surfaces.					0					0					

Polder 35/3 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
	Prevent disturbance of animals	6	6	6	6	24					0					
	Ensuring sufficient free flow in the construction work for fish migration	6	6	6	6	24					0					
Monitoring of Air Quality	Performance of air quality tests at selected sensitive sites for parameters SPM 2.5/10, SOx, NOx and CO during working hours	6	6	6	6	24					0					
Monitoring of Noise Quality	Monitoring of noise level (dB) at selected sensitive sites during working hours	6	6	6	6	24					0					
Monitoring of Soil Quality	Performance of soil quality tests at selected sites (borrow areas, spill sites) for parameters as organic matter, N, P, K, pH, Salinity, S and Zn.	6	6	6	6	24					0					
Monitoring of Surface Water Quality	Performance of analyses on surface water (river, khal, beel and pond) for: pH, TDS, DO, BOD, EC/Salinity and Turbidity.	6	6	6	6	24					0					
Monitoring of Drinking Water Quality	Performance of analyses on drinking water for: arsenic, iron, chloride and total faecal coliform bacteria.	6	6	6	6	24					0					
Deployment of Environment and Safety Supervisor	Employ one full-time Environment and Safety Supervisor for compliance monitoring of EMP					0					0					

Polder 35/3 :Environmental Compliance Report																
		No. of compliance					**No. of non-compliance**					**No. of non- Compliance repeating**				
Environmental Issues	**Types of Compliance, Non Compliance & Repeating Non Compliance**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**	**Q1**	**Q2**	**Q3**	**Q4**	**Total in a year**
Complaints and Environmental Incidents	Grievance Redress Mechanism will be established.	6	6	6	6	24					0					
	Complaints received from the public or other stakeholders will be registered and recorded and be brought to the attention of the Site Engineer.	6	6	6	6	24					0					
	All environmental incidents occurring on the site will be recorded and be brought to the attention of the Site Engineer.	6	6	6	6	24					0					
	Action will be taken within 7 working days.					0					0					
Reporting and Documentation	The following records will be kept at site: - Environmental Monitoring Results - Contractors self-assessment record/results - Register of non-compliance - Register of corrective actions - Monthly Environmental Reports	30	30	30	30	120					0					
Training	Environmental training on EMP will be arranged for Construction Field supervisors and Environment & Safety Supervisors.					0					0					

4.10 Selected Photos from the Audit

Package 01

Good Practices

Signal Man at the gate of CC block manufacturing yard

Industrial wastes at designated place

Improved fuel storage

Proper Management of waste water generated from CC block plant

Safety operation manual of CC block manufacturing plant

Separate operator room with CC block plant

First aid box at DS worksite

Diversion road with signage of speed limit

Generator on paved floor

Hygienic latrine with water seal

Pedestrian alternative road with precautionary signage at DS work site

Generator on paved floor with bundh

Designated waste dumping place

Improved fuel storage

Interviewing an auto rickshaw driver on completed embankment

First aid and drinking water supply for the workers at worksite

Bad Practices

Construction rods at open space at a CC block manufacturing yard

Spillage from septic tank of latrine to open water body

Electric wire on the ground

Poor fencing around DS work site

Construction rod on open space at a DS work site

Waste water bearing cement from CC plant to paddy field

Package 02

Good Practices

Workers in rest

Signage of diversion road at DS worksite

First aid box and drinking water for the workers

Workers with PPE

First aid box and drinking water for the workers

Waste water Decanting ponds in CC block manufacturing yard

Precautionary signage at work site

Workers with PPE

Bad Practices

Open electric board

Workers with no PPE

Poor latrine facility for the worker at DS worksite

Poor fencing around the DS work site