Semi-annual Environmental Monitoring Report

Project No. 49329-006
December 2020

BAN: Second City Region Development Project

Semi-Annual Environmental Monitoring Report

Project Number: 49329-006
Loan Number: L3808/3809
December 2020

BAN: Second City Region Development Project (CRDP-2)

Period: July - December 2020

Prepared by Local Government Engineering Department, the People's Republic of Bangladesh

This report has been submitted to ADB by the Local Government Engineering Department, the People's Republic of Bangladesh, and is made publicly available in accordance public communication policy (2011).

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I. Introduction

The City Region Development Project aimed at enhancing growth potential and improving environmental and economic sustainability of the target city regions through effective regional urban planning. The target city regions of the Project are Dhaka City Region and Khulna City Region. The Project supported the development of key urban infrastructure, focusing on urban environment and local economic development. The Project also supported the Government in its efforts to improve regional and urban planning, and to strengthen municipal management and the capacity for effective and sustainable urban development.

The Local Government Engineering Department (LGED) is the executing agency of the Project under the Ministry of Local Government, Rural Development and Cooperatives. Sub-projects are implemented by the project Implementing Units (PIUs). The PIUs are: Gazipur City Corporation, Khulna City Corporation, and the Pourashavas' as well as Executive Engineer's Office of LGED under the Project. Project Management and Co-ordination Unit (PMCU), based at the LGED Headquarters, is responsible for the overall management, co-ordination and implementation of the Project.

Scope of Monitoring Report: The scope of this report is to summarize and analyze the performance of the environmental works of the contracted subprojects, and to verify the environmental requirements that are specified in the contract documents are adequately address

Reporting Period: 1st July to 31st December 2020

Purpose of Monitoring: the purpose of monitoring is to ensure that environmental requirements specified in the contract documents are adequately performed

Environmental Category of Subprojects: The CRDP-2 is classified as category B (as per ADB Safeguard Policy Statement (SPS), 2009) with respect to environment; therefore, subprojects are considered Category B. The Department of Environment (DOE) has granted an Environmental Clearance Certificate to the CRDP that applies to all subprojects with the exception of those in the Red Category (water treatment plants and distribution line laying/relaying/extensions, landfills, and bus and truck terminals), by means of a letter No. DOE/ Clearance/5194/2013/ (clearance Certificate Number 53)/issue Date 10/02/2019 (**Appendix 2**). As the period of validity of the obtained environmental clearance certificate (ECC) from DOE for the Second CRDP has been expired, an application renewal has been filed by PMCU vide LGED memo 46.02.0000.913.99.001.18-1006; dated 07/12/2020 (**Appendix 3**), and expecting to get the approval of the ECC renewal application very soon.

Utilization of Consultancy Services: For the implementation of the EMP for the subprojects construction, appropriate mitigation measures were undertaken to avoid, minimize, and mitigate adverse environmental impacts. In order to execute the necessary mitigation measures and to undertake monitoring activities, four categories of consultants under the Project were engaged, and these are (1) Preparation, Design and Supervision (PDS) Consultants, (2) Second Preparation, Design and Supervision (PDS-2) Consultants, (3) Institutional Capacity and Community Development (ICCD) Consultants and (4) Individual Consultants.. The PDS Consultant team is now fully in place. The procurement process for PDS-2 is in progress, and ICCD consultant has already been deployed.

Monitoring and Reporting: Monitoring of mitigation measures during construction is the responsibility of the PIU supported by the PMCU Environment Officer and PDSC Environmental Specialist. The PMCU and PIU undertake site inspections to verify compliance with the EMP. The contractor is responsible for carrying out the day-to-day implementation of the SEMP (Site Specific Environmental Management Plan). The contractor will submit monthly reports to the PIU with jurisdiction over the subproject sites. PMCU shall prepare quarterly progress reports from the results of PIUs independent monitoring or inspection activities. PMCU shall accomplish semi-annual environmental monitoring report (SEMRs) with the help of the PDS Environmental Specialist, which shall be submitted to ADB for review and disclosure on ADB website.

Overall Project and Subproject Progress and Status: In readiness thirteen packages, there are 46 roads amounting 175.115 Kilometer (Km), 30 Drains amounting 42.13 Km, 15 Bridges having span 388 mete(m), 46 Culverts having Span 230.86 m and 8 Water control Structures. It may be noted that up to December 2020, total 11.112 Km of Reinforced Cement Concrete (RCC) Road, 2.820 Km of Box Drain, 12.066 Km of Pipe Drain and 8 Box Culverts have been completed. Initial Environmental Examinations (IEEs) for all subprojects under the readiness thirteen packages with their respective EMP template have been prepared considering all possible impacts due to implementation activities and their mitigation measures.

Gender Equity: In order to ensuring safe and comfortable mobility of women, elderly persons, children and specially able people, around 19 km of walkways has been provided in dense settlements areas out of 172 km designed roads of 13 readiness Packages despite the constraint of land availability

II. Compliance Status with National Statutory Requirements

The DOE-issued Environmental Clearance Certificate to all subprojects with the exception of Red Category subprojects. As the period of validity of the obtained environmental clearance certificate (ECC) from DOE for the Second CRDP has been expired, an application of renewal has been filed by PMCU vide LGED memo memo 46.02.0000.913.99.001.18-1006; dated 07/12/2020 (Appendix 3), and expecting to get the approval of the ECC renewal application very soon. All requirements of the Department of Environment related to environmental clearance/renewal are being met, and DOE does not require monitoring and reporting for CRDP-2 subprojects.

Status on relevant GOB Permits: The subproject improvement works will not involve any potential tree removal since the subproject schemes will be constructed within the right of way (RoW). Thus, no permission is to be obtained from the forest department. If any electric pole stands on the RoW require shifting, the electricity department does the shift themselves if applied to with the required amount of fees. However, the details of acquiring permits and NOC have been discussed in subproject respective DDR reports.

III. Compliance Status with Environmental Loan Covenants

The covenants to the loan agreement with ADB requires that subprojects are designed, constructed, operated, and maintained in accordance with Borrower's Environmental Conservation Rule 1997, ADB's Safeguard Policy Statements (SPS, 2009) and EARF prepared for the Project and agreed between the Borrower and ADB. Other covenants written into the loan agreement related to disclosure, grievance redress and environmental safeguards and their status of compliances are described in a table of the main document (**Table 2**)

IV. Compliance Status with the Environmental Management Plan

A. Environmental Safeguard Framework:

The Environmental Assessment and Review Framework (EARF) were prepared during the PPTA, which establishes the basis for environmental review for the CRDP. Under the PPTA, Draft Environmental Management Plans (EMPs) were prepared for sample subprojects as part of the IEE reports. EMPs and supporting criteria inclusive of environmental specifications for inclusion in construction contract tender documents provide the basis for monitoring compliance with the EARF.

B. Initial Environmental Examination (IEE):

Initial Environmental Examinations (IEEs) of 15 (fifteen) sub-projects have been prepared, and concurrence on the IEEs of the development partners have already been obtained. Package-wise IEE Documentation status has been presented in the **Table 4.**

C. Subproject Environmental Monitoring:

The system for environmental monitoring consists of observations using a checklist for comparison with contractor performance that reflects the requirements of the construction specifications. The checklist is shown in **Appendix 1**. As a part of the monitoring program, field visits were undertaken in the recent months. Field Monitoring was conducted at site of GCC W-01/ W-02 on 09/12/2020 and Savar W-01/02/03 and Savar Pour W-01/02 on 17/12/2020.
For the sake of briefness, 2 (two) sample filled-in EMP compliance monitoring checklist have been appended at the end of this report to verify the status of EMP compliances at construction site. Field monitoring findings have been précised in a table appended at the back of this report. As regards the overall compliance with EMP, field observation and environmental performance demonstrate more or less satisfactory status of implementation.

V. Approach and Methodology for Environmental Monitoring of the Project

A. Environmental Performance:

Environmental monitoring occurs at the subproject level by observing performance during the construction phase. Environmental specifications reflect general construction requirements identified in the subproject environmental management plans (EMPs). A provisional sum to cover environmental mitigation is included in the bid price where needed; though costs for implementing the general requirements of the environmental specification are considered the responsibility of the contractor and are part of the overall bid price.

B. Environmental Training / Capacity Building

Capacity building is aimed at orientation and training of PIU staff in ADB's safeguards policy and management. Training is conducted by the Environment Specialists and covers integration of environmental considerations into project implementation and procedures for monitoring and reporting. Details of the orientation and training have been provided under the heading - Institutional and community capacities strengthened, Consultation Workshop "Drainage Master Plan", Orientation Workshop, Contract Management Meeting and Information Exchange Meeting (4 consultation workshops at Pourashava level, an orientation

workshop at Narayanganj LGED, 2 Contact Management Meetings- one at Dhaka LGED and the other at Narayanganj LGED). List of the participants of these programmes are provided in **Appendix 5.**

Environmental and social issues discussed in consultation/focus group discussions meetings covered the following:

- Discussed the uniqueness of the CRDP-2 project that has new construction as well as rehabilitation works belonging to various sectors viz. road and drainage improvement and solid waste management, city beautification, etc.
- Explained the need of safeguard documents and implementation of safeguard measures in the project in light of the loan covenants, GOB and ADB requirements...
- Discussed the safeguard issues related with various stages of the project and explain the relationship of safeguard issues and project cycles.
- Discussed the various social issues in the participating *Pourashavas* by safeguard team during implementation of the various Sub-projects. Mitigation measures suggested and implemented in various city corporation/*Pourashavas* was also discussed.
- Specific issues of safeguard measures discussed included issues of the Design Stage and Construction stage.

C. Consideration of Climate Change Effects in CRDP-2

A rapid assessment for the climate change effects in terms of a) Climate Adaptation Assessment (climate proofing) and b) Climate change reduction assessment (Emission Saving) from projects are being considered in the planning and design of the sub-project. Design Implementation and the construction materials used therein is expected to reduce substantial reduction to Greenhouse Gas Emissions. In connection to the above context, it is worthwhile to point out that Solid Waste Management (SWM) shall reduce emission of 22092-ton CO2 (carbon dioxide) /year. (*Ref: Waste Concern Consultant, Design Consultant of the proposed Solid waste Management subproject at Khulna City Corporation)*

VI. Monitoring of Environmental Impacts on Project Surroundings (Ambient Air, Water Quality and Noise Levels)

As per IEE report and SEMR Template (provided as Appendix in IEE Report), the environmental monitoring parameters shall include ambient air, water (both surface- & ground-water) and noise level. For the briefness, all the laboratory test reports for ambient air, water quality and noise level are not included in this report. In the **Appendix 6**, only the test results of 4 subprojects as sample is included..

Analytical results and analysis of the ambient air, water quality and noise levels:

Air quality: The results of air quality parameters including the time average of each standard are presented in **Table 11.** It is found, by comparing with the standard limit set by the DOE, that values for SPM, PM 2.5 and PM 10 are within permissible limits. The gaseous pollutant such as CO remain well within permissible limit, but Sox and NOx have recorded somewhat higher values at three locations along the subproject alignment. The higher NOx and SOx values in selected subproject sites may be due to fossil fuel combustion emissions from the traffic from trucks and vehicles from adjoining highway roads.

Surface Water: The indicated surface water test results are presented in the **Tables 12a.** The test results show that the levels of pH, DO, BOD, 20^{o}C (5 days) levels and total Coliform count of collected surface water samples are within the standard set by ECR-97(Schedule 3A), and the parameters COD, Fe, Mn, As, NO^{3}-N,and Chloride are also found to be within acceptable the limits as per ECR standards, 1997 (Schedule 10)

Ground Water: The indicated surface water test results are presented in the **Tables 12b.** As per documented results, the tested parameters pH, DO, BOD, 20^{o}C (5 days), As, chloride, Fe and TDS values agrees well with the set standard of ECR, 1997. Further, on the basis of BOD levels (Banerji, 1997 & Biney, 1982), it may be mentioned that all the groundwater samples fall under the category unpolluted (BOD < 4 mg/l). DO values of groundwater samples are more or less within the DoE's standard limit. The Mn concentration at 4 groundwater sources was found to exceed the permissible limit. The shallower depths of source tubewells may explain the probable reason to this.(Ref: the Article "*Occurrence of manganese in groundwater of Bangladesh and its implications on safe water supply*" [Journal Civil Engineering (IEB), 38(2) (210) 121-128].. NO3-N concentration in the groundwater sample of GCC/W-02 was found to contain twice the amount of the permissible limit. There is no known reason could be found to this irregularity. Most likely the analytical error is the probable reason to the said irregularity.

Noise level: The current noise levels along the proposed subproject sites have been measured during day (8am – 9am, 12am – 1pm & 6pm – 7pm) time to identify existing noise level in the subproject area and results are given in the **Table 13.** According to the result of noise level, it is observed that the measured levels of noise at subproject sites (mixed areas-used as residential, commercial and industrial purposes) are more or less within the standard limit set by DoE and Bangladesh Noise Pollution (Control) Rules, 2006. AS per WHO Guidelines, human tolerance limit for comfortable hearing is at noise level 75 dBA. Considering this value, it appears that the proposed subproject sites are free from noise disturbances at present.

VII. Grievance Redress Mechanism

The GRM provides redress for grievance arising from resettlement, compensation and environmental impact during subproject implementation. Other aspects of the GRM are being progressively complied with. The Grievance Redress Committees (GRC) have been formed on June 07, 2020 vide memo no.46.068.005.00.00.018.2020-455 in local governments where subprojects are under construction. This Office order in Bangla (**Appendix 4**) outlines the composition and capacity of GRC to address project-related issues/complaints. Prepared Sample grievance redress form for the project has been included in the **Appendix 7**. The measures undertaken to publicize the GRM among the local people reside in the project area are as follows:

- The contact numbers of key personnel of project Safeguard Team (consists personnel from PMCU, PIU and Consultants) who are assigned to safeguarding project issues, will be posted in the project areas and at PMCU and PIU notice boards.
- All grievances will be documented, with full information of the affected person, in a register. The register will kept/available at the project site.
- The project signboards shall contain the necessary contact information (i.e. email address, contact number, etc) of the nodal person responsible for assisting grievance readdressing for the project
- The GRM among the local people are discussed at the focal group discussion meeting

VIII. Complaints Received during Subproject Implementation

No formal complaints were received from the community or from any individual of the community during the reporting period at the construction site. However, it is to note that in almost all the monitored sites, there were instances of informal complaints that are related to dust pollution at the construction-site adjacent built-up areas.

IX. Summary of Key Issues and Remedial Actions

No formal written complaints were received from the community or from any individual of the community at the construction site. However, in almost all the monitored sites, there were instances of unceremonious/casual complaints lodged by the people of the locality with respect to poor initiative in suppressing dust pollution by spraying plentiful water on dry surfaces of construction sites. Taking into consideration the community's concern with dust generation, a non-compliance report (NCR) for concerned site was served to the contractor's site engineer/supervisor to rectify the flaws of environmental management, and subsequent follow-up actions against CAR after stipulated time have demonstrated rectification of the dust pollution issue.

X. Conclusions and Recommendations

Environmental mitigation measures related to subprojects are being implemented in line with the Environmental Safeguard Framework; by and large performance is generally fair. Contractors are required to mitigate environmental adverse impacts, and monitoring is being conducted by the environmental specialists and PIU staff. Where mitigation measures are lacking, contractors are urged to progressively improve their performance. The GRM has been outlined for being implementation with GRCs formed at local level.

The Environmental Specialist has all along been striving to impress upon the contractors about the urgency of compliance of environmental safeguard requirements. Environmental specialist will continue to work with PIUs and contractors to pursue improvement in the areas of set out at Para 50 above.

As regards the time bound corrective action plan (CAP) for further improvement, the followings are the recommendations:

- Ensure strict supervision and regular thorough monitoring and control to ensuring quality and timely implementation of urban infrastructure improvement works (*Throughout the construction period*)
- Make it mandatory for the construction workforce to using PPE when at work (T*hroughout the construction period*)
- Construct proper barricade/safety barrier around excavated sites to avoid accident/injury (*At the time of work around the excavated section*)
- Ensure proper arrangements for water spraying periodically at construction sites during g construction to suppress dust pollution (*Throughout the construction period*)
- Stockpiles of construction materials, specially sands, brick chips and stone chips are to be covered with polyethylene sheets to avoid being airborne (T*hroughout the construction period*)
- Provide key information and create awareness among community people about project intervention (*Before commencement of intervention work*)

- Site facilities to be established at a safe distance from communities (*Before commencement of intervention work*)
- Contractor to prepare and implement Traffic Management Plan (TMP) to confirm minimal hindrance to local communities and commuters (*Throughout the construction period*)
- Proper arrangements of firefighting equipment at workforce camp and site office (T*hroughout the construction period*)
- Ensure strong measures to minimizing the potential risk of COVID-19 infection among the field workforce so that construction work can continue safely (T*hroughout the construction period*)
- Prepare Hand washing and social distancing posters and to be displayed at work sites and labor camps *(Throughout construction period during COVID-19 calamity)*
- Provide regular information about the risk of COVID-19 using official sources, such as national Health Organizations and WHO *(Throughout construction period during COVID-19 calamity)*
- Periodic meetings to be held between the construction representative/s and local elite to avoid possible social conflict/disruption (T*hroughout the construction period*)

I. INTRODUCTION

A. Purpose of the Report

1. ***Loan effectiveness and PDS inception.*** ADB Loan was effective from 19 November 2019. PDS incepted from 4 July 2017. Implementation consultants joined the project in the beginning of 2020. Safeguard specialist was hired directly by the PMCU towards the beginning of 2019.

2. The Local Government Engineering Department (LGED) is the executing agency of the Project under the Ministry of Local Government, Rural Development and Cooperatives. Sub-projects are implemented by the project Implementing Units (PIUs). The PIUs are: Gazipur City Corporation, Khulna City Corporation, and the Pourashavas' as well as Executive Engineer's Office of LGED under the Project. Project Management and Co-ordination Unit (PMCU), based at the LGED Headquarters, is responsible for the overall management, co-ordination and implementation of the Project.

3. The ADB's Safeguard Policy Statement (SPS 2009) in respect to information disclosure related to project safeguard documentation, where it has been stated that the borrower/client will submit semi-annual monitoring reports during construction for projects/subprojects likely to have significant adverse environmental and social and resettlement impacts, "

4. This semi-annual report compiles environmental monitoring results to comply with the spirit of ADB policy to "enhance stakeholders' trust in and ability to engage with ADB, and thereby increase the development impact *of projects+" in which disclosure of safeguard monitoring is a prominent aspect.

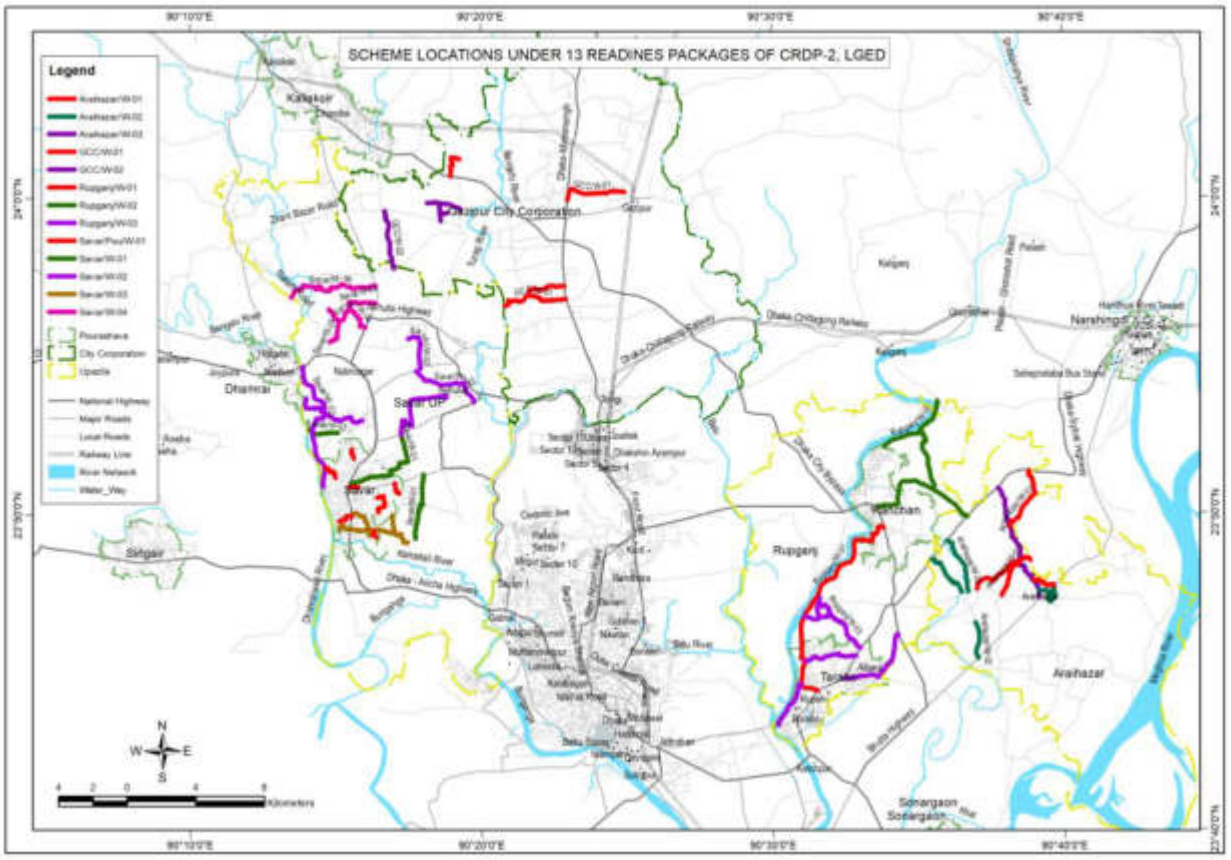
Scope of Monitoring Report: The scope of this report is to summarize and analyze the performance of the environmental works of the contracted subprojects, and to verify the environmental requirements that are specified in the contract documents are adequately address

Reporting Period: 1st July to 31st December 2020

Purpose of Monitoring: the purpose of monitoring is to ensure that environmental requirements specified in the contract documents are adequately performed,

Project Location: The Project location map showing all contract packages are presented here below

Project location map showing all contract packages



Progress status on implementation of Environmental management activities: The Progress status on implementation of environmental management activities including environmental monitoring reports along with sampling and testing of environmental parameters are shown in the table below:

Sl.no	Environmental Management Activities	Progress Status
.1	Preparation of Initial Environmental Examination (IEE)	17 (seventeen IEE Reports have been prepared
2.	Renewal of Environmental Clearance Certificate (ECC)	ECC renewal application has been filed to DoE vide LGED memo 46.02.0000.913.99.001.18-1006, dated 07/12/2020
3	Field monitoring to check EMP compliance at construction sites	Undertake field visit for monitoring EMP compliance at least once in every month
4.	Capacity Development: - Community capacity strengthening - Orientation workshop and information exchange meeting for PIU staff, contractors and concerned others - Contract management meeting to review progress of contracted civil works	- 4 consultation workshops on ''Drainage Master Plan'' held at pourashava level - 2 orientation workshop and information exchange meetings held at LGED Hall room of Dhaka & Narayanganj - 2 Contract management meeting held at LGED Hall room of Dhaka & Narayanganj

5	Monitoring of ambient Air, Water (surface & ground water Quality And Noise Levels) - Sample collection - Analysis and analytical results	 - Sample collected from 7 (seven) selected subproject sites (Savar/w-03, Savar pour/W-01, GCC/W-01&02,Rupganj/W-02&03 and Araihazar/W-02 - Analysis of the selected environmental parameters have been completed and their analytical results have been discussed and presented inside the report
6	Monitoring Reporting a) Monthly Progress Report b) Quarterly Progress Report c) Semi-annual Environmental Monitoring Report	The followings are the output of Monitoring reports (for period July-Dec., 2020): a) 6 nos. monthly progress reports b) 2 nos. Quarterly Progress reports c) 1 no. Semi-annual Environmental reports

B. Environmental Category of subprojects

5. The project CRDP-2 is classified as category B for environmental safeguards as per ADB Safeguard Policy Statement (SPS), 2009, consequently the subprojects under the project are considered Category B. No category A type of works as per ADB SPS, 2009 are anticipated. As per environmental assessment and review framework (EARF) and subproject selection criteria (Appendix 1, CRDP-2 / QPR No.1 March 2020) no subprojects classified as category A per ADB SPS, 2009 will be considered for implementation under the project.

6. Requirements of the Government of Bangladesh are set out in the Environmental Conservation Act and Rules (1995 and 1997), which classifies subprojects as Green, Orange A and B and Red Categories. Accordingly, DOE issued an Environmental Clearance Certificate for Second CRDP subprojects (up through Orange B) involving construction and rehabilitation of roads and associated drainage subprojects in Dhaka region by means of a letter No. DOE/ Clearance/5194/2013/ (clearance Certificate Number 53)/issue Date 10/02/2019 (**Appendix 2**). Construction and Rehabilitation of Roads and associated drainage improvements of targeted subproject packages are categorized as Orange B category subprojects, and are exempt from further review requirements under DOE rules. As the period of validity of the obtained environmental clearance certificate (ECC) from DOE for the Second CRDP has been expired, an application renewal has been filed by PMCU vide LGED memo 46.02.0000.913.99.001.18-1006; dated 07/12/2020 (**Appendix 3**), and expecting to get the approval of the ECC renewal application very soon.

c. Utilization of Consultancy Services

7. There are four categories of consultants under the Project. These are: (1) Preparation, Design and Supervision (PDS) Consultants, (2) Second Preparation, Design and Supervision (PDS-2) Consultants, (3) Institutional Capacity and Community Development (ICCD) Consultants and (4) Individual Consultants.. The PDS Consultant team is now fully in place. The procurement process for PDS-2 is in progress, and ICCD

consultant has already been deployed**.** The composition of the project safeguards Team is outlined below:

Project Safeguards Team

Name	Designation/Office	Email Address	Contact	Roles
1. PMU Md. Shahabul Islam	Sr. Assistant Engineer, LGED, Dhaka	Shahabul@lged.gov.bd	+8801714225344	Liaise with the various Government agencies on environmental and other regulatory matters pertaining to implementation of the subprojects;
2. PIUs a) Md. Abdul Aziz Sikder (Dhaka PIU)	Assistant Engineer, LGED, Dhaka	ae.dhaka@lged.govt.bd	+8801758999111	Liaise with the Contractors and Consultants on the implementation of the Environmental management measures proposed in the IEE/EMP; including the implementation of the environmental monitoring plan outlined in the IEE.
b)Mala Begum (Narayanganj PIU)	Assistant. Engineer, LGED, Narayanganj	ae.narayanganj@lged.gov.bd	+8801712623112	
c) Mohammad Alam Miah (Savar Pourashava PIU)	Assistant Engineer, Savar Pourashava, Savar	Alammiah327@ gmail.com	+8801712507060	
d)Mydul Islam (GCC PIU)	Assistant Engineer, Gazipur City Corporation	mydul islam80@gmail.com	+8801612104080	
3. Consultants Dr. Md,Nurul Islam	Environmental Specialist	nuruldhaka24@gmail.com	+8801760602194	Assist PMCU in ensuring compliance of Second CRDP and its subprojects with all relevant national laws; Interact with the sector specialists and integrate environmentally sound practices into the detailed design of project components; oversees all environmental safeguard issues

D. Overall Project Description and Objectives

8. The Second City Region Development Project (CRDP-2) is the second phase of impact-oriented urban development program using the integrated city region approach to improve spatial and inter-sectoral connectivity as means for accelerating broad-based economic growth. In the City Region Development Project (CRDP), the city region concept is operationalized to include a major city (like Dhaka or Khulna) with its surrounding municipalities and non-municipal urban centers. The experience of CRDP and project preparation activities of CRDP-2 points to the necessity of broadening the spatial coverage

of the city region concept to include rural-to-urban connectivity in addition to urban-to-peri-urban linkages as such areas are naturally interlinked and warrant immediate intervention to enhance connectivity.

9. The objective of the Project is to improve the mobility, Climate Resilience and solid waste management in the Project areas within the Dhaka and Khulna city regions. The outputs of the Project will include: Output 1: Urban infrastructure in project areas of Dhaka and Khulna regions improved and made climate-resilient; Output 2: Institutional and Community Development

E. Description of Subprojects

10. Activities of Output -1: Urban infrastructure in project areas improved and made climate-resilient

I. Improvement of Roads in Dhaka City Region:
- Improvement of road:312 km
- Construction of bridges/culverts:1714m
- Construction of drain: 91km

II. Improvement of Drainage in Pourashavas:
- Construction of drain:62km
- Improvement of road:45 km
- Re-excavation/dredging of Khal/Canal: 20 km
- Slope Protection: 10 km
- Improvement of Bus Terminal: 1 no.

III. Solid waste management:
- Composting plant and associated facilities constructed and operational in KCC: 1no.

11. Activities of Output -2: Institutional and community capacities strengthened

- Future priority urban investments of at least $100 million identified and detailed engineering design reports prepared by LGED;
- Detailed feasibility study including gender, social and environmental assessment and engineering design for integrated waste management facilities in KCC prepared;
- Drainage master plans for 13 pourashavas prepared or updated;
- O&M plans including annual budget allocation for all subprojects prepared by all project pourashavas and city corporations with LGED support;
- 50 staff (including 15 female staff) of project pourashavas and city corporations report enhanced knowledge on integrated urban planning, sustainable service delivery, and O&M of urban infrastructure; and
- May be awareness raising of 200,000 people (at least 50% women) covered under awareness campaigns on reducing, reusing, and recycling solid waste In KCC and 80% report increased awareness.

12. Project Locations**:** Dhaka City Region and Khulna City Region. The Project Area includes the following:

<u>Dhaka city region</u>:

City Corporation:	Gazipur City Corporation
Pourashavas:	Savar, Dhamrai, Narsingdi, Kanchon, Kaliakoir, Singair, Sonargaon, Tarabo and Manikganj
Upazila:	Savar, Araihazar and Rupganj

Khulna city region:

City Corporation: Khulna City Corporation
Pourashavas: Nowapara, Mongla, Chalna, Jhikargacha and Jashore

13. Implementation Period of the Project: i) Date of Commencement: January 2019 and ii) Date of Completion: June 2024

14. **Improvement of Roads in Dhaka City Region:**

(i) Gazipur City Corporation (GCC): There are 2 packages for civil works in GCC. Physical progress is 28%.
(ii) LGED-Narayanganj (Rupganj Upazila): There are 3 packages for civil works in Rupganjupazila under Narayanganj District., Physical progress is 5%.
(iii) LGED-Narayanganj (Araihazar Upazila): There are 3 packages for civil works in Araihazarupazila under Narayanganj District, Physical progress is 27%.
(iv) LGED-Dhaka (Savar Upazila): There are 3 packages for civil works in Savar upazila under Dhaka District, Physical progress is 12%.
(v) Savar Pourashava: There is only 1 package for civil works in SavarPourashava., Physical progress is 41%.

15. **Improvement of Drainage in Pourashavas:** Preparation of drainage master plan for Pourashava under the project area is in progress.

16. **Solid waste management:** Preparation of Detailed feasibility study including gender, social and environmental assessment and engineering design for integrated waste management facilities in KCC is in progress.

F. Personnel Responsible for Environmental Monitoring

17. Monitoring of mitigation measures during construction are the responsibility of the PIU Environmental Management Officer, supported by the PMCU Environmental Specialists. The monitoring system involves a Monitoring Checklist (**Appendix-1**), which reflects the requirements of the EMP and Special Conditions. The checklist is filled in quarterly by the PIU and PMCU Environmental Specialists.

G. Subproject Implementation Progress and Status

18. The overall subproject implementation progress and status is displayed in the **Table** 1 below.

Table 1: Subproject progress and status (up to December 2020)

Gazipur City Corporation (GCC):

Package No.	Description	Quantity Of Road(km)	Contract Amount (Lakh Tk.)	Contract Signing Date	Contractor	Completion Time	Physical Progress up to December 2020
1	2	3	4	5	6	7	8
W-01	Construction Of Road And Drain At Gazipur City Corporation	12.53	7,693.93	18 November 2019	RAB-RC (Pvt.) Ltd & Hossain Construction (Pvt.) Ltd.	500 days	18.77%
W-02	Construction Of Road And Drain At Gazipur City Corporation	7.24	3,780.00	13 November 2019	RAB-RC (Pvt.) Ltd & Hossain Construction (Pvt.) Ltd.	500 days	45.82%
Total		**19.77**	**114,73.93**				27.69%

RupganjUpazila:

Package No.	Description	Quantity Of Road(km)	Contract Amount (Lakh Tk.)	Contract Signing Date	Contractor	Completion Time	Physical Progress up to December 2020
1	2	3	4	5	6	7	8
W-01	Construction Of Road And Drain Under Rupganj Upazila	13.78	14300.00	31 August 2020	JV NDE-TBL	12-feb-22	1.62%
W-02	Construction Of Road And Drain Under Rupganj Upazila	15.89	5,477.66	27 October, 2019	JV of NCEL-PDL	22-Mar-2021	7.7%
W-03	Construction Of Road And Drain Under Rupganj Upazila	18.77	3,970.05	22 January, 2029	JV of NCEL-PDL	19- June-2021	12.41%
Total		**48.43**	**23,747.71**				4.80%

AraihazarUpazila:

Package No.	Description	Quantity Of Road(km)	Contract Amount (Lakh Tk.)	Contract Signing Date	Contractor	Completion Time	Progress up Physical Progress up to December 2020
1	2	3	4	5	6	7	8
W-01	Construction Of Road And Drain Under Araihazar Upazila	13.56	2,361.02	15 September, 2019	MEC Engineers & Construction Ltd.	5-feb-2021	39.67%
W-02	Construction Of Road And Drain Under Araihazar Upazila	12.17	3,965.11	27 October, 2019	JV of NCEL-PDL	24 Mar-2021	39.49%
W-03	Construction Of Road ,Bridge and Culvert Under Araihazar Upazila	13.50	3199.00	10 November, 2020	Rezvi Construction-MD.Eunus Al mamun-KK Enterprise-JV	25 Mar,2022	1.0%

Total		39.23	9,525.13				**26.61%**

SavarUpazila:

Package No.	Description	Quantity Of Road(km)	Contract Amount (Lakh Tk.)	Contract Signing Date	Contractor	Completion Time	Physical Progress up to December 2020
1	2	3	4	5	6	7	8
W-01	Construction Of Road ,drain And Bridge -Culvert Under Savar Upazila	12.06	4046.725	8 November, 2020	M. M. Builders & Engineers Ltd-Fast Build JV	23 Mar-22	0%
W-03	Construction Of Road And Drain Under Savar Upazila	9.98	4,761.46	04 November, 2019	Modern Structures Ltd.	12 mar-21	20.10%
W-04	Construction Of Road And Drain Under Savar Upazila	13.29	3,081.64	16 March, 2020	M. M. Builders & Engineers Ltd-Fast Build JV	5-July-21	14.30%
Total		35.33	7843.10				11.75%

SavarPourashava:

Package No.	Description	Quantity Of Road(km)	Contract Amount (Lakh Tk.)	Contract Signing Date	Contractor	Completion Time	Physical Progress up to December 2020
1	2	3	4	5	6	7	8
W-01	Construction of road and drain under Savar Pourashava	6.11	3515.42	10 February, 2020	Toma Shikder JV	8-july-21	33.69%
Total		**6.11**	**3515.42**				33.69%

H. Overall Scenario Of Subproject Implementation

19. Contract has been signed for 12 (Twelve) Packages amounting contract value Taka=60152.00 lac. Overall Physical Progress achieved is 16.12 % while time elapsed for project is 22%. Overall payment made against civil work is Taka= 7994.155 lac resulting financial progress 13.24 %.

20. In readiness thirteen packages, there are 46 roads amounting 175.115 Kilometer (Km), 30 Drains amounting 42.13 Km, 15 Bridges having span 388 mete(m), 46 Culverts having Span 230.86 m and 8 Water control Structures. It may be noted that up to December 2020, total 11.112 Km of Reinforced Cement Concrete (RCC) Road, 2.820 Km of Box Drain, 12.066 Km of Pipe Drain and 8 Box Culverts have been completed.

I. Gender Equity

21. The project is ensuring safe and comfortable mobility of women, elderly persons, children and specially able people in designing and constructing the subprojects under it. Around 19 km of walkways has been provided in dense settlements areas out of 172 km designed roads of 13 readiness Packages despite the constraint of land availability. Road Safety Signs for all pedestrians are considered in all road design. Provision of separate women toilets and separate changing room is there for women are also considered in the design of Solid Waste Management (SWM) plant in KCC. Gender Action Plan is being followed regular basis. Initiative will be taken to ensure women's effective participation in project planning, implementation, monitoring and evaluation. Presentation on the progress of Gender Action Plan was made at the information exchange meeting on 28th November,2020.

II. COMPLIANCE STATUS WITH NATIONAL STATUTORY ENVIRONMENTAL REQUIREMENTS

22. The DOE-issued Environmental Clearance Certificate (**Appendix 2**) referred to in Sec. I.B covered all subprojects with the exception of Red Category subprojects, and attached no special conditions therewith.

23. As the period of validity of the obtained environmental clearance certificate (ECC) from DOE for the Second CRDP has been expired, an application of renewal has been filed by PMCU vide LGED memo memo 46.02.0000.913.99.001.18-1006; dated 07/12/2020 (**Appendix 3**), and expecting to get the approval of the ECC renewal application very soon.

24. ***Status on relevant GOB Permits:*** The subproject improvement works will not involve any potential tree removal since the subproject schemes will be constructed within the right of way. Thus, no permission is to be obtained from the forest department. since our construction is to be carried out on government property, we shall not be required any NOCs related to land and property; also, NOCs related to other line departments are not required, the only such event in which an NOC related to line departments may be required, is an event in which we would have to shift any electric pole. However, such a measure (NOC) is not necessary as the electricity department does the shift themselves if applied to with the required amount of fees. However, the details of acquiring permits and NOC have been discussed in subproject respective DDR reports.

25. All requirements of the Department of Environment related to environmental clearance/renewal are being met and DOE does not require monitoring and reporting for CRDP-2 subprojects. There is no other regulation of the Government of Bangladesh related to environmental management applicable to CRDP-2.

III. COMPLIANCE STATUS WITH ENVIRONMENTAL LOAN COVENANTS

26. The covenants to the loan agreement with ADB requires that subprojects are designed, constructed, operated, and maintained in accordance with Borrower's Environmental Conservation Rule 1997, ADB's Safeguard Policy Statements (2009) and EARF prepared for the Project and agreed between the Borrower and ADB. Other covenants written into the loan agreement related to disclosure, grievance redress and environmental safeguards are listed in **Table 2,** and the status of compliance is described in the table.

Table 2: Compliance Status with Environmental Loan Covenants

COVENANTS	Reference in the Loan/Grant Agreement	Status of Compliance (As of March 2020)
Particular Covenants:		
Environment 1. *Schedule 5. Para. 7,* The Borrower shall ensure or cause LGED and Project Implementing Agencies to ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project, each Subproject and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	**Schedule 5 to the Ordinary Operations Loan Agreement**	**Complied with**. All requirements describe in Schedule 5. Para. 7 with regard to all applicable laws and regulations concerning overall environmental safeguards and environmental safeguards monitoring are being satisfactorily met
Human and Financial Resources to implement safeguards Requirement 2. *Schedule 5. Para. 11.* The borrower shall make available or caused LGED and the project implementing agencies to make available necessary budgetary and human resources to fully implement the EMPs and the RPs.		**Complied with** (Sufficient funds are being allocated in the project costs for hiring consultants, and to fully implement the environmental safeguards, EMPs and RPs)

Safeguards - Related Provisions in Bidding Documents and Works Contracts 3. *Schedule 5. Para. 12.* The Borrower shall ensure or cause LGED and the Project Implementing Agencies to ensure that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures relevant to the contractor set forth in the IEEs, the EMPs, and the RPs (to the extent they concern impacts on affected (b) make available a budget for all such environmental and social measures; (c) provide the Borrower with a written notice of any unanticipated environmental or resettlement risks or impacts that arise during (d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; (e) reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	**Schedule 5 to the Ordinary Operations Loan Agreement**	**Complied with**. All requirements set forth in Schedule 5. Para. 12 with regard to safeguards related provision in Bidding Documents and Works Contracts are being adequately met
Safeguards Monitoring and Reporting 4. *Schedule 5. Para. 13.* The Borrower shall cause LGED to do the following: (a) submit semiannual safeguard Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission ; (b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEEs, the EMPs or the RPs promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and (c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMPs promptly after becoming aware of the breach	**Schedule 5 to the Ordinary Operations Loan Agreement**	**Being complied with**. All requirements lay down in Schedule 5. Para. 13 with regard to safeguards Monitoring and Reporting are being met satisfactorily

COVENANTS	Reference in the Loan/Grant Agreement	Status of Compliance (As of March 2020)
Labor Standards, Health and Safety 5. *Schedule 5. Para. 15.* The Borrower shall ensure or cause LGED and the Project Implementing Agencies to ensure that the core labor standards and the Borrower's applicable laws and regulations are complied with during Project implementation. The Borrower shall ensure that LGED and the Project Implementing Agencies include specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (a) comply with the Borrower's applicable labor law and regulations and incorporate applicable workplace occupational safety norms; (b) do not use child labor; (c) do not discriminate workers in respect of employment and occupation; (d) do not use forced labor;(e) allow freedom of association and effectively recognize the right to collective bargaining; and (f) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area, particularly women.	**Schedule 5 to the Ordinary Operations Loan Agreement**	**Complied with**. All requirements lay down in Schedule 5. Para. 15 with regard to Labor Standards, Health and Safety are being met satisfactorily

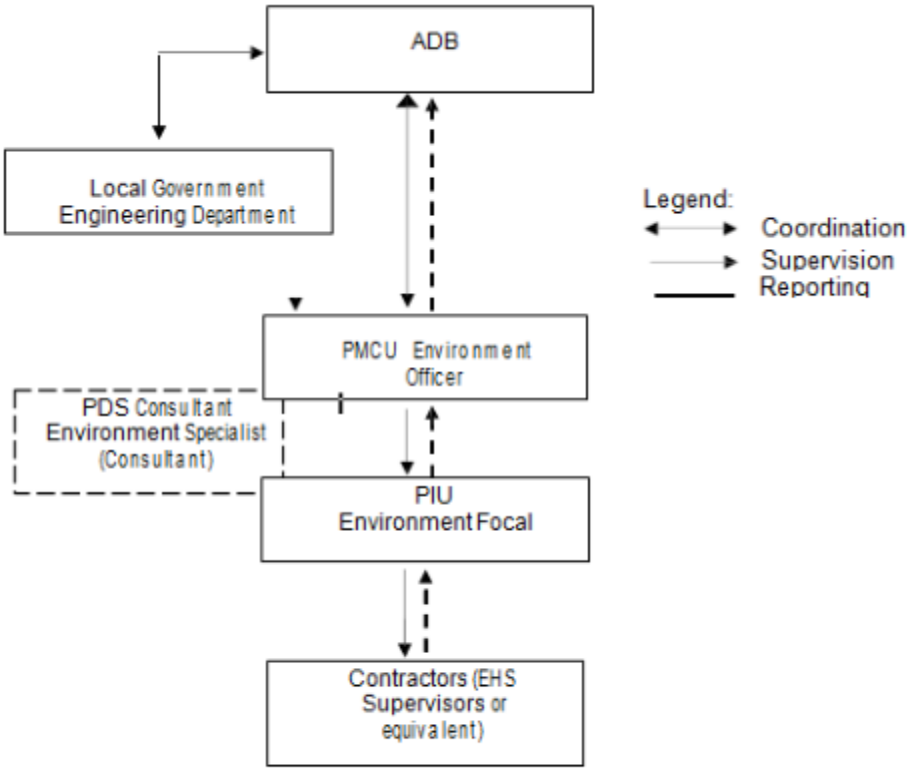
IV. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT PLAN

A. Environmental Safeguard Framework

27. The Environmental Assessment and Review Framework (EARF) has been developed in accordance with ADB SPS, 2009 and Government of Bangladesh environmental laws and regulations to guide subproject selection, screening and categorization, environmental assessment, and preparation and implementation of safeguard plans of subprojects and to facilitate compliance with the requirements specified in ADB SPS, 2009. The EARF (i) describes the proposed subprojects including safeguards criteria that are to be used in selecting subprojects and/or components; (ii) explains the general anticipated environmental impacts of the subprojects; (iii) specifies the requirements in subproject screening and categorization, assessment, and planning; (iv) arrangements for meaningful consultation with affected person and other stakeholders and information disclosure requirements; (v) PMCU capacity to implement national laws and ADB's requirements and needs for capacity building; (vi) specifies implementation procedures and institutional arrangements; (vii) specifies monitoring and reporting requirements; and (viii) describes the respective responsibilities of PMCU, PIUs, and ADB in relation to the preparation, implementation, and progress review of environment safeguards compliance of the project. The EARF will be reviewed regularly and, if necessary, updated during implementation when (i) new types of unanticipated impacts are identified requiring review of applicability and relevance, and/or (ii) when there is any change in legal and regulatory framework. None of the provisions of EARF will be relaxed or lowered in the subsequent revisions and updates. The most important compliance requirements are:

(i) compliance with the exclusion and subproject selection criteria;
(ii) meeting meaningful consultation and disclosure requirements;
(iii) ADB approval of IEE prior to invitation of bids; and
(iv) obtaining all necessary regulatory clearances and approvals prior to award of contract

28. The IEEs, which include the environmental management plans (EMPs) will be prepared for each subproject in accordance with ADB SPS, 2009 and EARF. The IEEs will also include environmental compliance audit of existing facilities that will be rehabilitated or expanded under the project, and due diligence of associated facilities as defined in ADB SPS, 2009. The IEEs will form part of the bid and contract document. No works can commence until final IEEs are approved by ADB, and if required, will be further updated for ADB's review during the implementation. In the event of unanticipated impact and/or any design change and/or non- compliance during project implementation, the IEE will be updated to include (i) assessment of the unanticipated impact and corresponding mitigation measures, and/or (ii) information on the design change and assessment of associated environmental impacts, if any, and/or (iii) corrective actions, associated cost and schedule; respectively. All IEEs will be disclosed on ADB, executing, and implementing agencies websites. Environmental Safeguard Implementation Arrangement is shown in the following figure.



ADB = Asian Development Bank, EHS = environmental, health and safety, PDS = preparation, design, and supervision, PIU = project implementation unit, PMCU = project management coordination unit.
Source: ADB.

Figure 1: Environmental Safeguard Implementation Arrangement

B. Initial Environmental Examination (IEE)

29. Initial Environmental Examinations (IEEs) of 15 (fifteen) sub-projects have been prepared, and concurrence on the IEEs of the development partners have already been obtained. The status of the IEEs up to November 2020 is shown in **Table 3**.

Table 3: Status of IEEs for Subprojects of different packages

Sl. No.	Name of City Corporation / Pourashava/Upazila	Status of IEEs as of November 2020	Remarks
1	Gazipur City Corporation: GCC (W-01)	Completed	Approved by ADB
2	Gazipur City Corporation: GCC (W-02)	Completed	Approved by ADB
3	AraihazarUpazila: Araihazar (W-01)	Completed	Approved by ADB
4	AraihazarUpazila: Araihazar (W-02)	Completed	Approved by ADB
5	AraihazarUpazila: Araihazar (W-03)	Completed	Approved by ADB
6	SavarUpazila: Savar (W-01)	Completed	Approved by ADB
7	SavarUpazila: Savar (W-02)	Completed	Approved by ADB
8	SavarUpazila: Savar (W-03)	Completed	Approved by ADB
9	SavarUpazila: Savar (W-04)	Completed	Approved by ADB
10	RupganjUpazila: Rupganj (W-01)	Completed	Approved by ADB
11	RupganjUpazila: Rupganj (W-01)	Completed	Approved by ADB
12	RupganjUpazila: Rupganj (W-01)	Completed	Approved by ADB
13	SavarPourashava: SavarPourashava (W-01)	Completed	Approved by ADB
14	*Solid waste management*: Composting plant and associated facilities constructed and operational in Khulna City Corporation	Completed	Approved by ADB
15	ManikganjPourashava: Manikganj Drainage Subproject	Completed	Approved by ADB

Table 4: Package-wise IEE Documentation Status

Package Number	Final IEE based on Detailed Design			Site-specific EMP (or Construction EMP) approved by Project Director? (Yes/No)	Remarks
	Not yet due (detailed design not yet completed)	Disclosed on project website (provide Link)	Final IEE provided to Contractor/s (Yes/No)		
Gazipur City Corporation: GCC (W-01)	Detailed Design Complete	Cleared by ADB, disclosed on **http://oldweb.lged.gov.bd/ProjectLibrary.aspx?projectID=867**	Yes	Yes	All statutory clearance/s, no-objection certificates, permit/s, etc. have been obtained prior to award of contract/s. (Refer **Appendix 2** : all Environmental clearance obtained)
Gazipur City Corporation: GCC (W-02)	Detailed Design Complete	As above	Yes	Yes	
AraihazarUpazila: Araihazar (W-01)	Detailed design Complete	As above	Yes	Yes	
AraihazarUpazila: Araihazar (W-02)	Detailed design Complete	As above	Yes	Yes	
AraihazarUpazila: Araihazar (W-03)	Detailed design Complete	As above	Yes	Yes	
SavarUpazila: Savar (W-01)	Detailed design Complete	As above	Yes	Yes	
SavarUpazila: Savar (W-02)	Detailed design Complete	As above	Yes	Yes	
SavarUpazila: Savar (W-03)	Detailed design Complete	As above	Yes	Yes	
SavarUpazila: Savar (W-04)	Detailed design Complete	As above	Yes	Yes	
RupganjUpazila: Rupganj (W-01)	Detailed design Complete	As above	Yes	Yes	
RupganjUpazila: Rupganj (W-02)	Detailed design Complete	As above	Yes	Yes	
RupganjUpazila: Rupganj (W-01)	Detailed design Complete	As above	Yes	Yes	
SavarPourashava: SavarPourashava (W-01)	Detailed design Complete	As above	Yes	Yes	
Solid waste management: Composting plant and associated facilities constructed and operational in Khulna City Corporation	Detailed design yet to Complete	Not yet	Not yet	Not yet	
ManikganjPourashava: Manikganj Drainage Subproject	Detailed design yet to Complete	Cleared by ADB, disclosed on **http://oldweb.lged.gov.bd/ProjectLibrary.aspx?projectID=867**	Not yet contracted	N ot yet	

Table 5: Package-wise Contractor/s' Nodal Persons for Environmental Safeguards

Package Name	Contractor	Nodal Person	Email Address	Contact Number
Araihazar W-01	MEC Engineers & Construction Ltd	Md. Rezaul Karim	Mecltd64@gmail.com	+8801753579385
Araihazar W-02	JV of NCEL-PDL	Shaikh Shahanur Alam	pdl11@hip.prangroup.com	+8801704130188
Araihazar W-03	Rezvi Construction-Md. Eunus Al Mamun-KK Enterprise JV Mamun	Md. Saiful Islam Khan	Saiful Khan9381@gmail.com	+8801741589747
Rupganj W01	JV NDE-TBL	Faruk Ahmed	Lged-01@ndebd.com.bd	+8801729052571
Rupgonj W-02	JV of NCEL-PDL	Md. Sultan Mahmud	pdl293@prangroup.com	+8801704130201
Rupgonj W-03	JV of NCEL-PDL	Md. Masud	pdl292@prangroup.com	+8801704130291
GCC W-01	RAB-RC(pvt) Ltd & HossainConstruction (Pvt) Ltd	Md. Atik Hasan	Atikhasan0073@gmail.com	+8801313122865
GCC W-02	RAB-RC(pvt) Ltd & HossainConstruction (Pvt) Ltd	Md. Azad Sarwar	Azadsarwar538@gmail.com	+8801716173306
Savar W-01	MM Builders & Engineers Ltd-Fast Build JV	Sheikh Abu Zafor	Engrsheikhabuzafor289@gmail.com	+8801732124935
Savar W-03	Modern Structure Ltd.	Md.Altaf Hossain	Mahmae12 @gmail.com	+8801719608136
Savar W-04	M.M Builders & Engineers Ltd-Fast Build JV	Sonjoy Kumer debnath	sonjoyqm@gmail.com	+8801742555760
Savar Poura W-01	Toma Shikder JV	Md. Hasan Hiru	Mdhasanheru444@gmail.com	

Table 6: Summary of Environmental Monitoring Activities (for the Reporting Period)

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
Design Phase						
For the sake of brevity, the list of impact due to subproject design is not included here (EMP Table provided in the IEE Report may be consulted)	For the sake of brevity, mitigation measures against the identified impacts due to the subproject are not listed here (EMP Table may be consulted)	Impacts, issues, concerns and mitigation measures during the design phase are illustrated in Sec. V of the corresponding Subproject IEE Report.	The system for environmental monitoring consists of observations using a checklist for comparison with design performance that reflects the requirements of the construction specifications.	Monitoring was conducted at the design section of the office before making field visit	Before making field visit at site of GCC W-01/ W-02 on 09/12/2020 and Savar W-01/02/03 and Savar Pour W-01/02 on 17/12/2020	Dr. Md. Nurul Islam (Environ.l Consultant), Md. Samsuzzaman (Social Consult) and Md Abdullah AlFaruk (C0mmunity Dev Consultant)
Construction Phase						

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
For the sake of brevity, the list of impact due to subproject construction is not included here (EMP Table provided in the IEE Report may be consulted) ***For further detail, the table below may be seen***	For the sake of brevity, mitigation measures against the identified impacts due to the subproject construction are not listed here (EMP Table may be consulted) ***For further detail, the table below may be seen***	Impacts, issues, concerns and mitigation measures during the construction phase are illustrated in Sec. V of the corresponding Subproject IEE Report may be consulted. Subproject activities are not large enough to produce any significant impact on the physical resources (air quality, noise level and surface & ground water quality of the subprojects). Dept. of soil, water & environment of Dhaka University has been engaged to undertake the environmental quality tests of above parameters. These test results and their interpretation has been in the Sec. VI	The system for environmental monitoring consists of observations using a checklist for comparison with construction performance that reflects the requirements of the construction specifications.	Monitoring was conducted at the subproject construction sites and its surroundings	Field Monitoring was conducted at site of GCC W-01/ W-02 on 09/12/2020 and Savar W-01/02/03 and Savar Pour W-01/02 on 17/12/2020. For the sake of briefness, 2 (two)sample filled-in EMP compliance monitoring checklist have been appended at the end of this report to verify the status of EMP compliances at construction site Field monitoring findings have been précised in a table appended at the back of this report.	Dr. Md. Nurul Islam (Environ.l Consultant), Md. Samsuzzaman (Social Consult) and Md Abdullah AlFaruk (C0mmunity Dev Consultant)
Operational Phase						

Impacts (List from IEE)	Mitigation Measures (List from IEE)
Design phase	
Road accidents	Ensure to include in the design the following: (i) road signages in critical areas or curves, (ii) speed limiters such as humps, (iii) barricades or similar structures in accident-prone areas, and (iv) pedestrian crossing lanes, among others.
Disruption of utility services;	• Avoid alignments that will run over trees and utilities such as electric poles, etc. • Avoid placing alignment near heritage buildings and religious structures
Impacts to qualities of ambient air, surface water, groundwater, and land.	• Ensure all bid and contract documents prepared and finalized have copy of the IEE as attachment
Inappropriate location for construction camps will impact the general welfare and health and safety of the workers	• Identify construction camp sites that are strategically located relative to the work sites. • Ensure these camp sites can be easily provided with the basic amenities for the workers.
Construction phase	

Trenching and excavation, run-off from stockpiled materials and chemical contamination from fuels and lubricants may result to silt-laden runoff during rainfall, which may cause siltation and reduction in the quality of adjacent bodies of water.	• Reuse excess spoils and materials • Disposal site in designated areas. • Earthworks during dry season • Stockyards at least 300m away from watercourses. • Fuel and other petroleum products stored at storage areas away from water drainage and protected by impermeable lining and bunded 110%. • Take precautions to minimize the overuse of water • Prevent wastewater into water sources. • Ensure safe water diversion. • No obstruction in flowing water.
Work at the dry season and transporting construction materials may increase dust, carbon, monoxide, sulfur oxides, particulate matter, nitrous oxides, and hydrocarbons in air environment	• Use of physical controls, sprays, covers, compaction, screening, enclosure, windbreakers, binders and road surfacing • Cover delivery trucks during transport. • Construction vehicle's speed limited to 30kph. • Use of vehicles with government registration and complying with Bangladesh vehicle emission standards. • Prohibition of open burning of solid waste. • Minimize stockpile height.
Temporary increase in noise level and vibrations by excavation equipment, and the transportation of materials, equipment and people.	• Prepare work schedule with community consultation and local administration • Overtime work restricted • Use of low noise generating equipment. • Minimize drop heights • No use of horns unless necessary • Use modern vehicles and machinery with low noise emissions • Maintain low noise levels • Warning signs in noise hazard areas. Require workers to wear ear plugs while in these areas. • Identify vibration risk to nearby structures. Take caution working in such areas.
Potential cutting of trees along road alignments	• Tree cutting will be avoided, or minimized if total avoidance is not possible, for this subproject. • In case of unavoidable tree cutting, replacement of 10 trees per tree cut and follow the LGED tree plantation program to implement this measure (see **Appendix 7** for the LGED Manual).
Potential road closures due to construction activities. Hauling of construction materials and operation of equipment on-site can cause traffic problems	• Implement the Traffic Management Plan • Prepare suitable transportation routes • Safe passage for vehicles and pedestrians • Schedule material deliveries on low traffic hours. • Erect and maintain barricades if required • Inform through display board about nature, duration of construction and contact for complaints • Complete the work quickly in nearby institution, place of worship, business, hospitals, and schools. • Consult with business and institutions for work schedules.

	• Restore damaged properties and utilities
Construction works will impede the access of residents and business in limited cases. Construction works will raise danger to community people	• Restrict work force in designated areas. • Identify stockyard areas in consultation with local administration • Work on private land requires written permission of landowners. • Prefer small mechanical excavator for trenching • Prohibit alcohol and drugs on site • Prevent excessive noise; • Code of conduct for workers includes restricting workers in designated areas, no open defecation, no littering, no firewood collection, no fire except designated places, no trespassing, no residence at construction sites, and no obligation to potentially dangerous work • Follow international best practices on community health and safety such as those in Section 4.3 of World Bank Environmental Health and Safety (EHS) Guidelines on Construction and Decommissioning Activities • Maintain a complaint logbook in workers camp and take action promptly of complaints
There is invariably a safety risk when construction works such as excavation and earthmoving are conducted in urban areas. Workers need to be mindful of the occupational hazards, which can arise from working at height and excavation works.	• Comply with Bangladesh Labor Act 2006. • Follow international best practices on occupational health and safety such as those in Section 4.2 of World Bank EHS Guidelines on Construction and Decommissioning Activities. • Train all site personnel on environmental health and safety • Exclude public from worksites • Provide personal protective equipment to workers and ensure their effective usage • Document procedures to be followed for site activities. • Maintain accident reports and records. • Make first aid kits readily available. • Maintain hygienic accommodation in work camps. • Ensure uncontaminated water for drinking, cooking and washing. • Ensure clean eating areas. • Ensure sanitation facilities are readily available. • Provide medical insurance coverage for workers. • Provide orientation for guest visitors. • Ensure that visitors do not enter hazard areas unescorted. • Require workers to wear high visibility clothes. • Ensure moving equipment is outfitted with audible backup alarms. • Chemical and material storage areas need to be marked clearly. • Hearing protection equipment enforced in noisy environment.

Table 7: Overall Compliance with CEMP/ EMP

No.	Sub-Project Name	EMP/ CEMP Part of Contract Documents (Y/N)	CEMP/ EMP Being Implemented (Y/N)	Status of Implementation (Excellent/ Satisfactory/ Partially Satisfactory/ Below Satisfactory)	Action Proposed and Additional Measures Required
	GCC W-01 GCC W-02 Savar W-01 Svar 02 Savar03 Savar Pour W-01 Savar Pour W-02	Yes	Yes	Implementation of subproject works is progressing amid COVID-19. Under this crisis, field observation and environmental performance demonstrate more or less satisfactory status of implementation. 2 sample filled-in EMP compliance monitoring checklist has been appended at the end of this report to verify the status of EMP compliances at construction site	Proposed actions and additional measures needed for the smooth implementation of the subproject have been discussed in the field with the concerned engineering and other staff while making routine field visit at construction site

V. APPROACH AND METHODOLOGY FOR ENVIRONMENTAL MONITORING OF THE PROJECT

A. Environmental Performance

30. Environmental monitoring occurs at the subproject level by observing performance during the construction phase. Environmental specifications reflect general construction requirements identified in the subproject environmental management plans (EMPs). A provisional sum to cover environmental mitigation is included in the bid price where needed; though costs for implementing the general requirements of the environmental specification are considered the responsibility of the contractor and are part of the overall bid price.

B. Subproject Environmental Monitoring

31. The system for environmental monitoring consists of observations using a checklist for recording the EMP Compliance status with contractor performance that reflects the requirements of the construction specifications. The standard EMP Checklist is displayed in **Appendix 1**. The environmental specialist conducts field visits during the reporting period, complete the checklist for active subproject contracts, discusses the results with the site supervision engineer, and then document the subproject EMP compliance status. It is worth pointing out that the recorded compliance status yielded yes to the compliances with the site-specific EMP of all subproject.

C. Capacity Building

32. Capacity building is aimed at orientation and training of PIU staff in ADB's safeguards policy and management. Training is conducted by the Environment Specialists and covers integration of environmental considerations into project implementation and procedures for monitoring and reporting. Details of the orientation and training have been provided under the heading - Institutional and community capacities strengthened, Orientation Workshop & Consultation Workshop on "Drainage Master Plan".

Institutional and community capacities strengthened:

Consultation Workshop on "Drainage Master Plan".

33. A number of 4 Consultation Workshops was held at Pourashavas of Mongla on 11th, Jessore on 12th, Tarabo on 28th October2020 and Kanchan Pourashava 18th November 2020 with the Community and Stakeholders of the Pourashava on the "Drainage Master Plan" prepared for the Pourashava. The Objective of this process is to disseminate information about Drainage Master Plan and obtain recommendation and participation of stakeholders in the planning process. The specific objectives were to (i) Evaluate the present situation of drainage system and identify the drawback and (ii) Find a way forward to address the identified issues through the planning process. Finally, Drainage Master Plans were approved the by the concerned Honorable Mayors on behalf of the participants. Total 198 Participants attended in Consultation Workshops of which 53 were female (26.8%). Details of these are provided in the **Table 8** here below:

Table 8: Details Public Consultation and FGD

Name of Pourashava	Date of Consultation	Participants		Total Participants	Female Participant (%)
		Male	Female		
Mongla	11/10/2020	84	11	95	11.6
Jessore	12/10/2020	21	13	34	38
Tarabo	28/10/2020	13	16	29	55
Kanchan	18/11/2020	17	13	40	32.5
Total		**135**	**53**	**198**	**26.8**

Consultation workshop on Drainage Master Plan at Kanchan Pourashava (18/11/2020)

Consultation workshop on Drainage Master Plan at Mongla Pourashava (11/10/2020)

Consultation workshop on Drainage Master Plan at Jessore Pourashava (12/10/2020)

	
Consultation workshop on Drainage Master Plan at Tarabo Pourashava (28/10/2020*)*	

Orientation Workshop and Information Exchange Meeting

34. An Orientation Workshop was held in Narayanganj on 10th September. The objective of this workshop was to share experience and information, and to provide detailed guidance to all staff of Project Implementation Unit (PIU), Contractors and concerned others on issues related to implementation with particular emphasis on contractual and safeguards issues. The objective also included highlighting specific responsibilities and activities of staff under PIU LGED, contractor and Preparation, Design and Supervision Consultants (PDS).

35. In addition, two Contract Management Meetings (CMM) were held – one in Dhaka LGED HQ on 28th December and the other one in Narayanganj District LGED Office on 29th December 2020. The purpose of the CMM is to review progress of concerned civil work packages to adopt remedial measures to complete all works in time with required quality.

36. Further, an Information Exchange Meeting (IEM) in the form of orientation and training was undertaken on 28th November 2020 at LGED Head Quarter(HQ). The purpose of the orientation was to update our PDS Field Officers (3 Municipal Engineers & 28 Field Engineers) in implementing the integration of environmental considerations and good construction practice in the contracted subproject works. The overall objective of IEM was to bring all stakeholders to common understanding to plan and implement all works in time with required quality.

The participant lists: The lists of the participants attended the meeting, training and consultation workshop carried out during reporting period are provided in Appendix 5

	
Orientation Workshop held at Narayanganj LGED Hall Room on 10th September 2020	**Information Exchange Meeting held at Dhaka LGED HQ on 28th Novenber 2020**

Environmental and social issues discussed in consultation/focus group discussions meetings

36. The orientation-cum-training programme conducted for city corporation, upazilas and pourashavas covered the following:

- Discussed the uniqueness of the CRDP-2 project that has new construction as well as rehabilitation works belonging to various sectors viz. road and drainage improvement and solid waste management, city beautification, etc.
- Explained the need of safeguard documents and implementation of safeguard measures in the project in light of the loan covenants, GOB and ADB requirements...
- Discussed the safeguard issues related with various stages of the project and explain the relationship of safeguard issues and project cycles.
- Discussed the various social issues in the participating Pourashavas *by* safeguard team during implementation of the various Sub-projects. Mitigation

measures suggested and implemented in various city corporation/*Pourashavas* was also discussed.

- Specific issues of safeguard measures discussed included issues of the Design Stage and Construction stage.

Consideration of Climate Change Effects in CRDP-2

37. A rapid assessment for the climate change effects in terms of a) Climate Adaptation Assessment (climate proofing) and b) Climate change reduction assessment (Emission Saving) from projects are being considered in the planning and design of the sub-project. Design Implementation and the construction materials used therein is expected to reduce substantial reduction to Greenhouse Gas Emissions. In connection to the above context, it is worthwhile to point out that Solid Waste Management (SWM) shall reduce emission of 22092-tonCO2(carbondioxide)/year. (*Ref: Waste Concern Consultant, Design Consultant of the proposed Solid waste Management subproject at Khulna City Corporation)*

VI. MONITORING OF ENVIRONMENTAL IMPACTS ON PROJECT SURROUNDINGS (AMBIENT AIR, WATER QUALITY AND NOISE LEVELS)

38. In the case of the CRDP-2 subprojects development, environmental impacts during construction phase will not be severe because:

(i) Most of the component works are relatively small and involve straight forward construction, so impacts will be mainly localized and not greatly significant;

(ii) Most of the predicted impacts are associated with the construction process, and are produced because of the invasive nature of excavation activities and earth movements; and

(iii) Being located in the built-up area of the rural and urban areas, will not cause direct impact on biodiversity values.

Identified general condition of surroundings at the project site	**Action taken**
(a)Though not severe, noted prominent dust generation at the subproject construction site and in its surrounding areas	The contractor was found to manage this dust pollution by i) taking excavation and construction activities segment-wise i.e 100m - 200m per segment and ii) spraying water intermittently over the dust generating loose soil surfaces.
(b)No muddy water was found to escaping site boundaries or any muddy tracks could be seen at road adjacent areas.	Requires no special attention
(c)No noticeable erosion and sedimentation issue encountered at construction site	Requires no special attention
(d) Secured stockyard was found to exist.	Appended Photographs and EMP compliance monitoring sample checklists at the end of this report may be seen for overall appraisal of environmental safeguard compliances - items (d) to (j)
e) Noticed more or less proper stocking and management of construction materials.	
(f) Noticed adequate provision of sanitation and water supply facilities at labor camp/site office.	
(g) Noticed installation of safety barrier/barricade alongside the vertical cut and excavation of the road under improvement,	
(h) Noticed installation of regulatory safety /warning signs and signals at the construction sites to avoid risk of accident, and signalman was found to controlling the traffic	
(i) Noticed installation of diversions/dedicated pathways for pedestrians.	
(j) Noticed erection/installation signboard with subproject contract details.	
(k)Subprojects construction activities are reported to undertake within the stipulated time space of 8.00 am to 6.00 pm.	

As per IEE report and SEMR Template (provided as Appendix in the IEE Report), the environmental monitoring parameters shall include ambient air, water (both surface- & ground-water) and noise level.

39. As per IEE report and SEMR Template (provided as Appendix in IEE Report) and agreed upon with ADB, the environmental monitoring parameters shall include ambient air, water (both surface- & ground-water) and noise level. According to contract document, at the start of the construction, subproject contractors are required to conduct the environmental quality tests for ambient air, surface- & ground-water quality and noise levels of subproject surroundings for assessing the baseline environmental quality of the subproject surrounding areas. With the progress of the construction works of the subproject, the environmental quality will require to be tested two further times (one at the middle and the other at the end of the construction period). These tested results will then be compared with the baseline data in order to assess the impact of construction works on project surroundings (ambient air, water quality and noise level). For the purpose of environmental baseline data, sampling and analysis of the required environmental parameters of 7 (seven) subprojects has been done so far. The details of sampling date and location are provided in the **Table 10** here under:

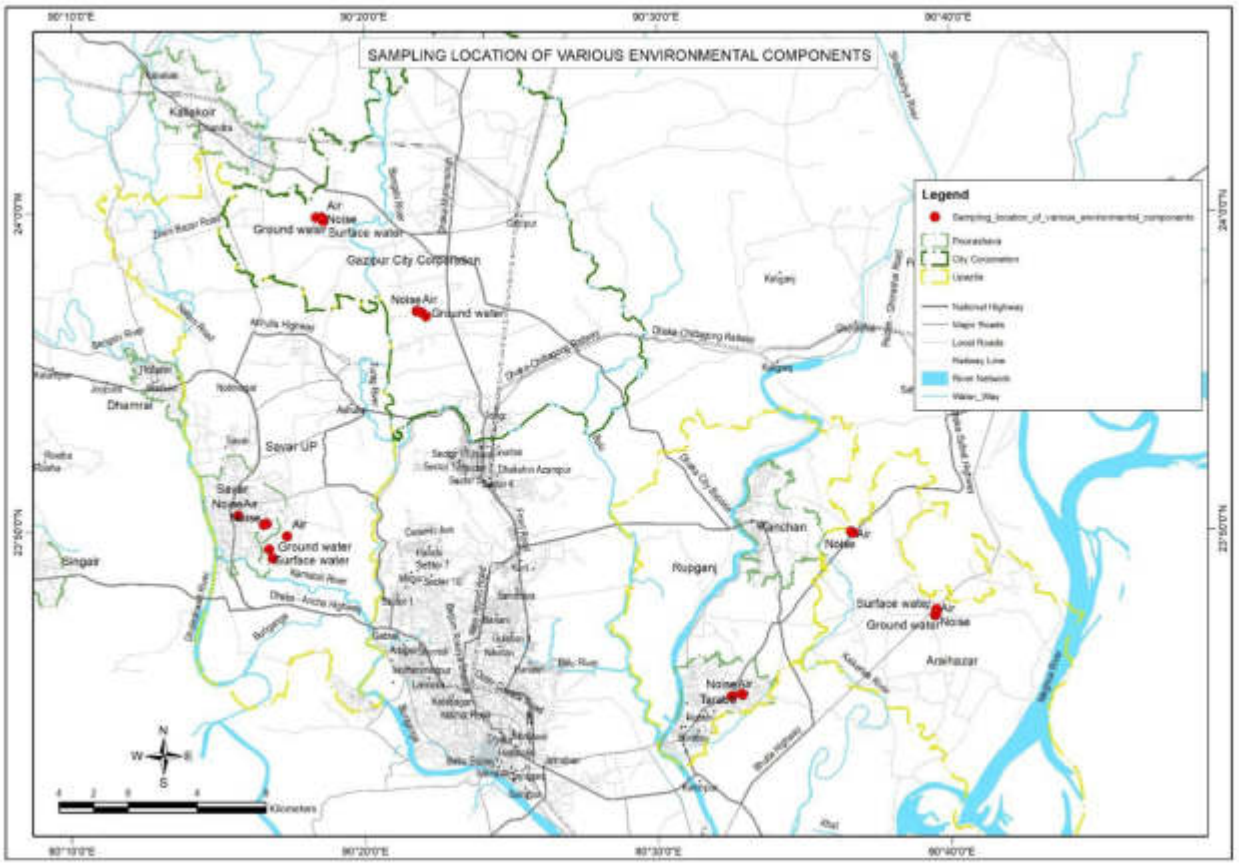
Table 9: Sampling Date and Location of various environmental components of subproject Roads

Subproject Road and Name of the Package	**Date & Sampling Locations (Coordinates) of various Environmental Quality Test**				
	Air	**Noise**	**Soil**	**Surface water**	**Ground water**
Bongaon UP Road **(Savar/W-03)**	(19/09/2020) 23°50'30.36"N 90°15'40.12"E	(19/09/2020) 23°50'30.36"N 90°15'39.72"E	(19/09/2020) 23°49'26.95"N 90°16'43.48"E	(19/09/2020) 23°49'27.46"N 90°16'43.81"E	(19/09/2020) 23°49'10.08"N 90°16'50.86"E
Rajashan Sufia Bekary to Gashmohol Bridge Road **(Savar Poura/W-01)**	(20/09/2020) 23°49'51.65"N 90°17'20.13"E	(20/09/2020) 23°50'15.65"N 90°16'38.33"E	(20/09/2020) 23°50'15.36"N 90°16'38.48"E	(20/09/2020) 23°50'14.01"N 90°16'32.51"E	(20/09/2020) 23°50'16.35"N 90°16'37.63"E
IUT to Icharkandi Road **(GCC/W-01)**	23/09/2020) 23°56'55.12"N 90°21'47.32"E	23/09/2020) 23°56'54.77"N 90°21'46.92"E	23/09/2020) 23°56'45.67"N 90°22'6.03"E	23/09/2020) 23°56'52.25"N 90°21'57.34"E	23/09/2020) 23°56'45.67"N 90°22'6.03"E
Jarun road and East Enayetpur Road **(GCC/W-02)**	(24/09/20) 23°59'52.18"N 90°18'32.42"E	(24/09/20) 23°59'51.29"N 90°18'32.42"E	(24/09/20) 23°59'49.62"N 90°18'34.17"E	(24/09/20) 23°59'45.13"N 90°18'35.89"E	(24/09/20) 23°59'52.46"N 90°18'21.04"E
Kanchan GC-Sorankhali bazar Chan para RHD Road **(Rupganj/W-02)**	25/09/20) 23°49'57.19"N 90°36'36.02"E	25/09/20) 23°49'56.89"N 90°36'36.83"E	25/09/20) 23°42'57.97"N 90°36'30.68"E	25/09/20) 23°49'57.34"N 90°36'35.18"E	25/09/20) 23°49'55.41"N 90°36'40.61"E
Araihazar bazar-Araihazar Purinda Road **(Araihazar/W-02)**	(26/09/20) 23°47'19.31"N 90°39'27.13"E	(26/09/20) 23°47'20.81"N 90°39'27.11"E	(26/09/20) 23°47'22.76"N 90°39'27.46"E	(26/09/20) 23°47'30.56"N 90°39'29.95"E	(26/09/20) 23°47'23.11"N 90°39'28.98"E
Borpa RHD – Mohajampur UP Road **(Rupganj/W-03)**	(27/09/20) 23°44'48.20"N 90°32'31.38"E	(27/09/20) 23°44'48.39"N 90°32'30.16"E	(27/09/20) 23°44'50.14"N 90°32'51.35"E	(27/09/20) 23°44'50.96"N 90°32'52.04"E	(27/09/20) 23°44'52.29"N 90°32'50.01"E

For the briefness, all the laboratory test reports for ambient air, water quality and noise level are not included in this report. In the **Appendix 6**, only the test results of 4 subprojects as sample is included.

Sampling location map showing monitoring sites are displayed in the Figure below:

Figure: Location of the monitoring sites of environmental parameters



Analytical results and analysis of the ambient air, water quality and noise levels

Air quality

40. ***Ambient Air Quality Monitoring Technique:***

SPM, PM_{10} and $PM_{2.5}$: Particulate matters (SPM, PM_{10} and $PM_{2.5}$) were determined with a real time particle mass counters instrument AEROCET, Model 531, USA. Portable laser particle counters (Dylos, Made: UK) were also used for the comparison of the particulate matters (PM_{10} and $PM_{2.5}$). High Volume Air Sampler Method was also employed for the collection of SPM. Direct measurement of NOx, SOx and CO etc. was conducted on a spot over a period of 8-hrs by using an instrument named Aeroquel Gas Analyser equipped with NOx, SOx and CO sensors(Model: 500, New Zealand).

To assess the base data (at the start of the subproject construction) of the ambient air quality, certain air pollutant parameters of the selected subproject sites were tested. The results of air quality parameters including the time average of each standard are presented in **Table 10** and reference for the amended air quality standard of ECR 1997 are presented below the table.

Table 10: Air Quality Test Results at and around the proposed subproject site

Parameter	Unit	Concentrations of Ambient Air Quality at subproject site							DOE ECR 1997 (Urban Standard)	DoE Duration (time average)	WHO Guidelines
		Savar /W-03)	Savar Poura /W-01	GCC /W-01	GCC /W-02	Rupganj /W-02	Araihazar /W-02	Rupganj /W-03			
CO	ppm	0.013	0.001	0.001	0.001	0.001	0.001	0.001	9 ppm	8 hr	10 µg/m^3
NOx (NO+NO2)	ppm	0.125	0.100	0.087	0.098	0.114	0.326	0.754	0.053 ppm	Annual	40 µg/m3 (1 hr)
SO2	ppm	0.238	0.100	0.100	0.001	0.012	0.558	0.671	0.14 ppm	24 hr	20 µg/m3 (24 hr)
SPM	µg/m3	119	57	75	60	66	79	64	200 µg/m3	Annual	
PM 2.5	µg/m3	23	22	46	18	32	26	26	65 µg/m3	24 hr	25 µg/m3 (24 hr)
PM 10	µg/m3	47	37	52	41	53	62	46	150 µg/m3	24 hr	50 µg/m3 (Annual)
Pb	µg/m3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5 µg/m3 (annual)	Annual	-

Reference for the amended air quality standard of ECR 1997

Description of Parameters	Unit	Concentration of Ambient Air Quality Parameters			DoE ECR 1997 (Urban Standards)	DoE Duration time average	WHO guidelines (µg/m^3)
		Min	Max	Avg.			
Carbon Monoxide (CO)	ppm	0.026	0.031	0.019	35 ppm	1 hour	-
					9 ppm	8 hours	
Carbon Dioxide (CO_2)	ppm	483	730	670	-		-
Nitrogen Dioxide (NO_2)	ppm	0.040	0.091	0.052	0.053 ppm	Annual	40 (1 hr)
Sulphur Dioxide (SO_2)	ppm	0.009	0.056	0.028	0.14 ppm	(24 hr)	20 (24 hr)
					0.03 ppm	Annual	
Suspended Particulate Matter (SPM)	µgm^{-3}	99	233	166	200 µgm^{-3}	Annual	
Particulate Matter (PM_{10})	µgm^{-3}	53	110	86	150 µgm^{-3}	24 hours	50 (Annual)
Particulate Matter ($PM_{2.5}$)	µgm^{-3}	26	76	42	65 µgm^{-3}	24 hours	25 (24 hrs)
Lead (Pb)	µgm^{-3}	nil	nil	nil	0.5 µgm^{-3}	Annual	-
Temperature	^{o}c	28	31	29	-	-	-
Relative Humidity	%	53	60	55	-	-	-

41. It is found, by comparing with the standard limit set by the DOE, that values for SPM, PM 2.5 and PM 10 are within permissible limits. The gaseous pollutant such as CO remain well within permissible limit, but Sox and NOx have recorded somewhat higher values at three locations along the subproject alignment. *The higher NOx and SOx values in selected subproject sites may be due to fossil fuel combustion emissions from the traffic from trucks and vehicles from adjoining highway roads and emission from nearby industries may also contribute to the effect.* The motorized vehicles installed with catalytic converter may likely to reduce the higher concentration of NOx and SOx as the converter helps near complete combustion of fuels. Release of treated and controlled industrial emission may help minimize higher concentration of NOx and Sox.

Surface and Groundwater Water quality

42. **sampling procedure including sample preservation and transportation process, lab information in brief:** Surface water samples were collected from nearby ponds/inland water bodies and Groundwater samples were collected from nearby tubewell of each subproject site. The depth of tubewells was in the range of 100-150m. Sample bottles were preconditioned with 5% nitric acid and rinsed with distilled deionized wate. Each sample was collected in acid-washed 500 mL plastic bottle. Duplicate samples were taken per each sampling. Sample location was marked on the bottle and suitable preservatives were added for storage till completion of quantitative chemical analysis. The bottle was filled to the brim with water taking care that no air bubble was trapped within the water sample. Samples were transferred to the laboratory in coolers containing ice to reduce the degradation of samples before analysis. Immediately after collection, samples were transferred to the laboratory

It is presumed that the quality of surface water may be affected during and after construction of the proposed subprojects. It is also likely that the subproject construction works may change the quality of groundwater. Considering such risks, tests of existing surface water and groundwater have been conducted on important parameters to verify their present qualities. A total of seven surface water samples collected from seven different nearby ponds from subproject sites, and another seven ground water samples collected from seven different nearby drinking water tubewell from subproject sites to test their existing quality. These data will constitute the baseline information, which can be referred to in the construction and post-construction monitoring at the subproject sites. The indicated surface and ground water test results are presented below in the **Tables 11a & 11b** respectively.:

Table 11a: Surface Water quality test results at the proposed subproject sites

Subproject Site/areaa	pH	DO (mg/l)	BOD5d (mg/l)	COD (mg/l)	Fe (mg/l)	Mn (mg/l)	As (ppb)	NO3-N (mg/l)	Cl- (mg/l)	Total Coliform (cfu/100ml)
Savar / W-03)	7.20	4.90	0.86	33.18	<0.20	<0.20	18.55	13.18	11.92	1.92 x 102
Savar Poura/ W-01	7.31	4.98	0.44	5.18	<0.20	<0.20	8.75	6.87	28.02	2.11 x 102
GCC/ W-01	7.12	4.81	0.78	5.18	<0.20	<0.20	7.44	0.83	8.74	3.06 x 102
GCC / W-02	6.92	4.95	1.26	13.18	2.33	<0.20	5.41	3.15	11.40	3.19 x 102
Rupganj / W-02	6.88	5.05	0.68	12.18	<0.20	<0.20	8.25	2.15	8.92	2.46 x 102
Araihazar / W-02	7.12	5.14	0.66	11.18	<0.20	<0.20	10.12	2.86	49.44	2.16 x 102
Rupganj / W-03	7.35	4.78	1.12	23.18	<0.20	<0.20	8.90	3.21	48.60	4.02 x 102
Standard per ECR,1997 (Schedule 3A)	**6.5-8.5**	**5 0r above**	**6 or less**	**NYS**	**NYS**	**NYS**	**NYS**	**NYS**	**NYS**	**5000 or less**
Standard per ECR,1997 (Schedule 10)	**6-9**	**4.5-8**	**50**	**200**	**2**	**5**	**20**	**10**	**600**	**NYS**

Table 11b: Ground Water quality test results of the proposed subproject sites

Subproject Site/areaa	pH	DO (mg/l)	BOD,20 ^{0}C (mg/l)	COD (mg/l)	EC (µs/Cm)	Fe (mg/l)	Mn (mg/l)	As (ppb)	NO3-N (mg/l)	chloride (mg/l)	TDS (mg/l)
Savar / W-03	7.05	7.04	nil	nil	168.9	<0.20	0.47	7.96	3.14	2.87	144
Savar Poura/W-01	7.00	7.10	nil	3.22	129.4	<0.20	<0.20	4.77	4.78	3.55	97
GCC/W-01	7.17	6.96	nil	3.22	180.2	<0.20	0.27	5.05	4.97	6.99	161
GCC /W-02	6.84	7.10	0.10	3.11	146.5	0.20	<0.20	8.30	20.21	25.24	114
Rupganj /W-02	7.27	6.98	nil	36.13	583	<0.20	0.54	14.63	nil	35.77	323
Araihazar/ W-02	7.34	6.94	nil	23.25	622	<0.20	<0.20	4.34	nil	237.17	343
Rupganj /W-03	7.15	6.95	0.08	38.63	627	<0.20	0.80	9.21	1.01	100.22	338
Standard per ECR,1997 (Schedule 3B)	**6.5-8.5**	**6.0**	**0.2**	**4.0**	**NYS**	**0.3-1.0**	**0.1**	**50.0**	**10.0**	**150-600**	**1000**

43. **Surface Water:** The test results show that the levels of pH, DO, BOD, 20^{o}C (5 days) levels and total Coliform count of collected surface water samples are within the standard set by ECR-97(Schedule 3A), and the parameters COD, Fe, Mn, As, NO^3-N,and Chloride are also found to be within the acceptable limits as per ECR standards, 1997 (Schedule 10).

Ground Water: As per documented results, the tested parameters pH, DO, BOD, 20^{o}C (5 days), As, chloride, Fe and TDS values agrees well with the set standard of ECR, 1997. Further, on the basis of BOD levels (Banerji, 1997 & Biney, 1982), it may be mentioned that all the groundwater samples fall under the category unpolluted (BOD < 4 mg/l). DO values of groundwater samples are more or less within the DoE's standard limit.

The Mn concentration at 4 groundwater sources was found to exceed the permissible limit. The shallower depths of source tubewells may explain the probable reason to this. In this connection, the Article "*Occurrence of manganese in groundwater of Bangladesh and its implications on safe water supply*" may be referred [Journal Civil Engineering (IEB), 38(2) (210) 121-128]. It has been pointed out in the article that deeper tubewells (>150m) have been found to contain relatively less Mn. As the source tubewells of our subproject area are relatively shallow (i.e their depth are within the range 100-150m), Mn of these source tubewells are likely to record values higher than the permissible limit. These higher values can supposedly be mitigated by sinking the respective tubewell pipes to the depth of >150m.

NO3-N concentration in the groundwater sample of GCC/W-02 was found to contain twice the amount of the permissible limit. There is no known reason could be found to this irregularity. Most likely the analytical error is the probable reason to the said irregularity.

Noise level

44. ***Sampling procedure including monitoring duration, instrument etc:*** The current noise levels along the proposed subproject sites have been measured during day (8am – 9am, 12am – 1pm & 6pm – 7pm) time to identify existing noise level in the subproject area. A sound level meter/noise level meter was used to quickly determine the ambient noise level in the road construction site. The specification of sound level meter was: TES 1350A; Range: Low 35-100dB, High 65-130dB.

Noise is another potentially serious threat to the quality of an environment. Noise levels vary at the given locations according to ambient noise, including movement of road-traffic, industrial noise, general community noise, and noise from birds and insects. The background noise level at the subproject area is primarily due to the movement of road traffic. The noise level will vary depending on the traffic volume, vehicle type, road surface conditions, and other factors. However, the noise level is likely to become higher after the construction of the subproject since various types of vehicles will pass through the proposed subproject roads and/or bridge.

45. The current noise levels along the proposed subproject sites have been measured during day (8am – 9am, 12am – 1pm & 6pm – 7pm) time to identify existing noise level in the subproject area and results are given in the **Table 12** here below. According to the result of noise level, it is observed that the measured levels of noise at subproject sites (mixed areas-used as residential, commercial and industrial purposes) are more or less within the standard limit set by DoE and Bangladesh Noise Pollution (Control) Rules, 2006. According to WHO Guidelines, human tolerance limit for comfortable hearing is at noise level 75 dBA. In this context, it can be mentioned that the proposed subproject sites are seemingly free from noise disturbances at present. These tested noise level data can be used as a benchmark of noise level, and can be referred to in the construction and post-construction monitoring.

Table 12: Tested noise level data of subproject sites & DoE standard for Noise Level

Subproject sites	Time						DoE Standard for Noise Level (Schedule # 4, Rule # 12: ECR 1997)	
	0800 - 0900		1200 -1300		1800 - 1900		Residential Area	Mixed Area
	Min dBA	Max dBA	Min dBA	Max dBA	Min dBA	Max dBA		
Savar /W-03)	44.6	69.2	53.7	74.8	52.4	77.5	50 dBA at Day Time and 40 dBA at Night Time	60 dBA at Day Time and 50 dBA at Night Time -
Savar Poura /W-01	42.6	64.2	50.7	70.0	46.4	67.5		
GCC /W-01	48.5	64.7	52.4	76.8	49.4	72.0		
GCC /W-02	45.6	66.4	49.4	77.3	48.4	72.8		
Rupganj /W-02	54.7	70.2	59.7	76.6	58.4	78.5		
Araihazar /W-02	48.6	68.2	60.5	77.9	60.4	78.2		
Rupganj /W-03	47.6	69.7	53.7	79.8	59.3	77.5		

Note:
According to the Bangladesh Noise Pollution (Regulation and Control) Rules, 2006, acceptable sound levels are 55 decibels (dBA) for day time (6 am to 9 pm), and 45 dBA for night time (9 pm to 6 am) in residential areas; 50 dBA for day time and 40 dBA for night in quiet places; 60 dBA for day time and 50 dBA for night in mixed areas; 70 dBA for day time and 60 dBA for night in commercial areas; and 75 dBA for day time and 70 dBA for night in industrial areas.

It is sensible to point out here that Nighttime noise measurement has purposely excluded, as the movement of motorized vehicular traffics in the nighttime is very limited in the subproject area, and in consequent, nighttime traffic will not cause any significant noise pollution.

46. The area largely belongs to the residential category. According to ECR, 1997, the maximum standard for residential areas is 50 dBA in the daytime and 40 dBA in the night time. According to the Bangladesh Noise Pollution (Regulation and Control) Rules, 2006, the acceptable sound levels are 55 decibels (dBA) for day time (6 am to 9 pm) and 45 dBA for night time (9 pm to 6 am) in residential areas. The results of the day time level noise measurement range between 45 and 55 dBA. Thus the area appears to be free from noise disturbance at present.

Sample Pictorial evidence for air, noise and water quality sampling undertaken at subproject site:

VII. GRIEVANCE REDRESS MECHANISM

47. Within 12 months after the Effective Date, LGED shall prepare a Grievance Redress Mechanism, acceptable to ADB, and establish a special committee to receive and resolve complaints/grievances or act upon reports from stakeholders on misuse of funds and other irregularities, including grievances due to resettlement. The special committee shall (i) make public of the existence of this Grievance Redress Mechanism, (ii) review and address grievances of stakeholders of the Project, in relation to either the Project, any of the service providers, or any person responsible for carrying out any aspect of the Project; and (iii) proactively and constructively responding to them.

48. Second CRDP has adopted the grievance redress mechanism (GRM) as that of the first CRDP. The GRM will be implemented in three levels (for details, IEE Report may be consulted). Exercising this participatory process/mechanism, all views of the people/stakeholders are adequately reviewed and suitably incorporated in the project design. The GRM provides redress for grievance arising from resettlement, compensation and environmental impact during subproject implementation. Other aspects of the GRM are being progressively complied with.

49. The Grievance Redress Committees (GRC) have been formed on June 07, 2020 vide memo no.46.068.005.00.00.018.2020-455 in local governments where subprojects are under construction. This Office order in Bangla (**Appendix 4**) outlines the composition and capacity of GRC to address project-related issues/complaints.

Measures undertaken to publicize the GRM among the local people reside in the project area:

The measures undertaken to publicize the GRM among the local people reside in the project area are as follows:

- The contact numbers of key personnel of project Safeguard Team (consists personnel from PMCU, PIU and Consultants) who are assigned to safeguarding project issues, will be posted in the project areas and at PMCU and PIU notice boards.
- All grievances will be documented, with full information of the affected person, in a register. The register will kept/available at the project site.
- The project signboards shall contain the necessary contact information (i.e. email address, contact number, etc) of the nodal person responsible for assisting grievance readdressing for the project
- The GRM among the local people are discussed at the focal group discussion meeting

Prepared Sample grievance redress form for the project has been included in the **Appendix 7**. The IEE report of subproject also include this Sample grievance redress form.

VIII. COMPLAINTS RECEIVED DURING SUBPROJECT IMPLEMENTATION

50. No formal complaints were received from the community or from any individual of the community during the reporting period at the construction site. However, it is to note that in almost all the monitored sites, there were instances of informal complaints that are related to dust pollution at the construction-site adjacent built-up areas.

IX. SUMMARY OF KEY ISSUES AND REMEDIAL ACTIONS

51. No formal written complaints were received from the community or from any individual of the community at the construction site. However, in almost all the monitored sites, there were instances of unceremonious/casual complaints lodged by the people of the locality with respect to poor initiative of spraying plentiful water on dry surfaces of construction sites in order to suppress dust pollution. Taking into consideration the community's concern with dust generation, a non-compliance report (NCR) for concerned site was served to the contractor's site engineer/supervisor during monitoring of environmental management works to rectify the flaws of environmental management, and subsequent follow-up actions against CAR after stipulated time have demonstrated rectification of the dust pollution issue.

The follow-up actions against corrective action report issued during reporting period are as follows:

Follow up actions for suggested actions against registered non-compliances

Sl. no	Name **of Subproject (where non-compliances recorded)**	**Type of non-compliances recorded**	**Issuing date of correcting action request (CAR)**	**Follow up status of compliances**
1	GCC W-01 and GCC W-02	poor initiative of spraying plentiful water on dry surfaces of construction sites	09/12/2020 (reported non-compliances to be rectified within 7 days of CAR)	Complied with
2	Savar W-01, Savar W-02 and Savar W-03	poor initiative of spraying plentiful water on dry surfaces of construction sites	17/12/2020 (reported non-compliances to be rectified within 7 days of CAR	Complied with
3	Savar Pour W-01 Savar Pour W-02	poor initiative of spraying plentiful water on dry surfaces of construction sites	17/12/2020 (reported non-compliances to be rectified within 7 days of CAR	Complied with

Considering the recommendation of ADB Mission with regard to environmental safeguard, an action plan has been prepared and presented in the following section

X. CONCLUSIONS AND RECOMMENDATIONS

52. Environmental mitigation measures related to subprojects are being implemented in line with the Environmental Safeguard Framework; by and large performance is generally fair. Environmental review through use of IEEs is done in conjunction with subproject design. Contractors are required to mitigate environmental impacts, and monitoring is being conducted by the environmental specialists and PIU staff towards that end. Where mitigation measures are lacking, contractors are urged to progressively improve their performance. The GRM has been outlined for being implementation with GRCs formed at local level.

53. Active areas for improvement for subprojects under implementation include the following:

- Overall improvement of environmental performance need to be ensured on most contracts through strict adherence to site-specific environmental health & safety plan.
- Workers need to be well equipped and adapted with Personal Protective Equipment (PPE) at all times within the construction work sites, as it was found that workers were negligent in using PPE in instances.
- Housing and sanitary facilities for workers are not up-to-standard in few contracts, whereas at other locations these facilities are found satisfactory.
- Due to the small size of subproject, formal public consultation is not warranted; affected parties can and do directly approach site supervisors to remedy a particular problem or inconvenience.
- PIUs need to post notices regarding the grievance redress mechanism and the ability of an affected party to seek redress on an environmental issue.
- Some community safety issues are sometimes only partially addressed by contractors. At some locations improved barricades need to be erected around open excavations where the public has frequent access.
- Temporary access to homes and businesses need to be constructed firmly for subprojects under implementation.
- Require posting of adequate number of regulatory signs/signals and flagmen as these are deficient in few construction sites. These elements shall assist safe traffic flow and pedestrian.
- Wind-blown dust and mud/gravel on road surfaces is common at many sites. Contractors need to remove stockpiled materials that are no longer in use from the jobsite; and reduce material losses from trucks hauling sand and spoil by covering loads and by removing materials from tires and truck underbodies before transport. Contractors need to be more willing to dedicate labor time for cleaning roadway surfaces.

54. The PMCU has been making sincere efforts in improving environmental awareness of the need for mitigation measures among the PIUs and construction contractors. The Environmental Specialist has all along been striving to impress upon the contractors about the urgency of compliance of environmental safeguard requirements. Environmental specialist will continue to work with PIUs and contractors to pursue improvement in the areas set out at Para 50 above.

As regards the time bound corrective action plan (CAP) for further improvement, the followings are the recommendations:

- Ensure strict supervision and regular thorough monitoring and control to ensuring quality and timely implementation of urban infrastructure improvement works (*Throughout the construction period*)

- Make it mandatory for the construction workforce to using PPE when at work (T*hroughout the construction period*)

- Construct proper barricade/safety barrier around excavated sites to avoid accident/injury (*At the time of work around the excavated section*)

- Ensure proper arrangements for water spraying periodically at construction sites during g construction to suppress dust pollution (*Throughout the construction period*)

- Stockpiles of construction materials, specially sands, brick chips and stone chips are to be covered with polyethylene sheets to avoid being airborne (T*hroughout the construction period*)

- Provide key information and create awareness among community people about project intervention (*Before commencement of intervention work*)

- Site facilities to be established at a safe distance from communities (*Before commencement of intervention work*)

- Contractor to prepare and implement Traffic Management Plan (TMP) to confirm minimal hindrance to local communities and commuters (*Throughout the construction period*)

- Proper arrangements of firefighting equipment at workforce camp and site office (T*hroughout the construction period*)

- Ensure strong measures to minimizing the potential risk of COVID-19 infection among the field workforce so that construction work can continue safely (T*hroughout the construction period*)

- Prepare Hand washing and social distancing posters and to be displayed at work sites and labor camps *(Throughout construction period during COVID-19 calamity)*

- Provide regular information about the risk of COVID-19 using official sources, such as national Health Organizations and WHO *(Throughout construction period during COVID-19 calamity)*

- Periodic meetings to be held between the construction representative/s and local elite to avoid possible social conflict/disruption (T*hroughout the construction period*)

Appendix 1: Checklist for Monitoring Site-specific EMP Compliance Status

Environmental Compliance Monitoring Form

EMP Compliance Checklist	Date:
Package & Scheme Name **Second City Region Development Project (CRDP-2)**	

Sl No.	Environmental Issues / Aspects	Activity / Inspection items	Status of compliance (Tick √)			Remarks (i.e. specify location, site conditions, problem observed, possible cause of nonconformity and / or proposed corrective/ preventative actions)
			Yes	No	N/A	
1.	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				
2.	Deployment of Environment and Safety Supervisor	• Deployment one full-time Environment health and Safety officer by the contractor to oversee and comply environmental safeguards				
3.	Fuel storage areas	• Install hardstand/raised platform with polyethylene on the top				
		• Firefighting equipment installation				
		• Regular checks on physical condition				
4.	Access road construction	• Obtaining approval				
		• Construction of culverts if needed				
5.	Earthworks	• Agreeing on disposal of spoil earth/soils				
		• Prevention of erosion/dust due to transporting /carrying earth				
6.	Workers' Health and safety	• Development of Health and Safety Plan				
		• Train all staff in health and safety				
		• Considering prevention and control of COVID-19 at worksite				
		• Provision of PPE (gloves, masks, helmets, gum boots, goggles etc.) and ensuring their use				
		• Installation of first aid facilities at work site/camps with adequate stock				
		• Provide separate sanitation facilities for male & female if needed				
		• Provision of safe drinking water to work force (arsenic free)				
7.	Public Safety	• Notify the community people about the construction activities in the areas				
		• Installation of dedicated pathways for pedestrians				
		• Installation of Regulatory safety signs and signals				
		• Limitation of construction vehicles at public roads during peak hours.				
8.	Protection of Cultural//Archaeological Properties	• Providing measures to protect cultural properties				
9.	Water Supply	• Providing construction camps /site office with potable water through installing tube wells				

Sl No.	Environmental Issues / Aspects	Activity / Inspection items	Status of compliance (Tick √)			Remarks (i.e. specify location, site conditions, problem observed, possible cause of nonconformity and / or proposed corrective/ preventative actions)
			Yes	No	N/A	
		• Ensuring that there are no tube wells sitting near any sanitation facilities as to avoid water pollution.				
		• Maintaining the distance of water source (ground /surface water from a soak pit at the minimum 15m				
		Maintaining the drainage from the tube well diverting into the drainage system of the camp area.				
10.	Sanitation	• Providing suitable sanitation facilities for the workforce.				
		• Ensuring the location plan of the latrine at least 50 meter away from the accommodation facility.				
		• Providing separate latrines for the use of women.				
		• Installing treatment facilities (i.e. septic tank, soak pits etc.) for sewerage of toilet and camp site wastes.				
		• Arranging disposal of wastewater from washrooms, kitchens, s, etc. via the camp area's drainage system.				
11.	Waste	• Provision of containers to store separately non-hazardous/hazardous solid waste				
		• Proper disposal of generated wastes at approved disposal sites				
12.	Dust Control	• Covering or wetting of dusty materials				
		• Dust suppression by wetting surfaces				
		• Impose speed limits				
13.	Water and Hydrology	• Preventing wastes, soil, etc. entering in the water system by waste collection, revegetation and dust suppression etc.				
14.	Flora and Fauna	• Agreeing with local authorities on tree felling				
		• Avoid/prevent un-necessary tree/vegetation cutting and clearing				
		• Ensuring sufficient free flow in the construction				
		• Prevent disturbance of animals				
15.	Complaints and Environmental Incidents	• 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.				

Certified that the furnished information is correct and the quality of work as per good practice

PDS Consultant/Site Supervision Engineer	Environmental Officer (PIU)	Contractor's Health & Safety Officer

Appendix 2: Environmental Clearance Certificate For CRDP-2

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/5194/2013/53 Date: 10 /02/2019

Subject: Environmental Clearance for City Region Development Project-II (CRDP-II).

Ref: Your application on 30/08/2018 and 27/12/2018.

Please refer to your letter and the captioned subject mentioned above, I have the pleasure to convey the approval of Environmental Clearance for City Region Development Project-II (CRDP-II).

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

10.02.2019

(Syed Nazmul Ahsan)
Director (Environmental Clearance)
Phone # 8181673

Project Director
City Region Development Project-II (CRDP-II)
Local Government Engineering Department
RDEC LGED Bhaban (Level-4), Agargaon, Sher-e-Bangla Nagar, Dhaka.

Copy Forwarded to :

1) PS to Secretary, Ministry of Environment, Forest and Climate Change, Bangladesh Secretariat, Dhaka.
2) Director, Department of Environment, Dhaka Regional Office, Dhaka.
3) Assistant Director, Office of the Director General, Department of Environment, Head Office, Dhaka.

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

Environmental Clearance Certificate

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

Clearance Certificate Number: 53

File number: DOE/Clearance/5194/2013/

Clearance Certificate Issue Date: 10 February 2019

Renewal date not later than: 09 February 2020

A. Clearance Certificate Type
Environmental Clearance Certificate

B. Clearance Certificate Holder
Project Director City Region Development Project-II (CRDP-II) Local Government Engineering Department RDEC LGED Bhaban (Level-4), Agargaon, Sher-e-Bangla Nagar, Dhaka.

C. Premises to which this Clearance Certificate Applies
Construction and Rehabilitation of Roads and associated Drainage subprojects in Dhaka region comprise 9 roads in Gazipur City Corporation, 31 roads in Savar Upazila and Municipality, 10 roads in Rupganj Upazila and 23 roads in Araihazar Upazila of Narayanganj District.

D. Activities for which this Clearance Certificate Authorizes and Regulates
Construction and Rehabilitation of Roads and associated Drainage Network. These roads and associated drainage subprojects in Dhaka region comprise 9 roads in Gazipur City Corporation, 31 roads in Savar Upazila and Municipality, 10 roads in Rupganj Upazila and 23 roads in Araihazar Upazila of Narayanganj District.

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.

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 plant and equipment 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 soils and other construction materials shall be carefully selected to avoid disturbance of the natural drainage.

3.5 This shall be ensured that soil is obtained from nearby areas, which are free of invasive plants. Re-vegetation and replanting shall be undertaken if rehabilitation works involve extensive vegetation clearance.

3.6 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.

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

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

3.9 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.

3.10 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.

3.11 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.

3.12 All the required mitigation measures suggested in the IEE report are to be strictly implemented and kept operative/functioning on a continuous basis.

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

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

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

3.16 The Environmental Management Plan included in the IEE report 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: air quality, water quality and Noise.

5. **Reporting Conditions:** Environmental Monitoring Reports shall be made available simultaneously to Head quarters and respective Regional 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 complaints**

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 of the complaint;
(b) the method by which the complaint was made;
(c) any personal details of the complainant which were provided by the complainant 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 complainant; 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 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 Project Director shall apply for renewal to the Dhaka Regional Office with a copy to Head Office of DOE in Dhaka at least 30 days ahead of expiry.

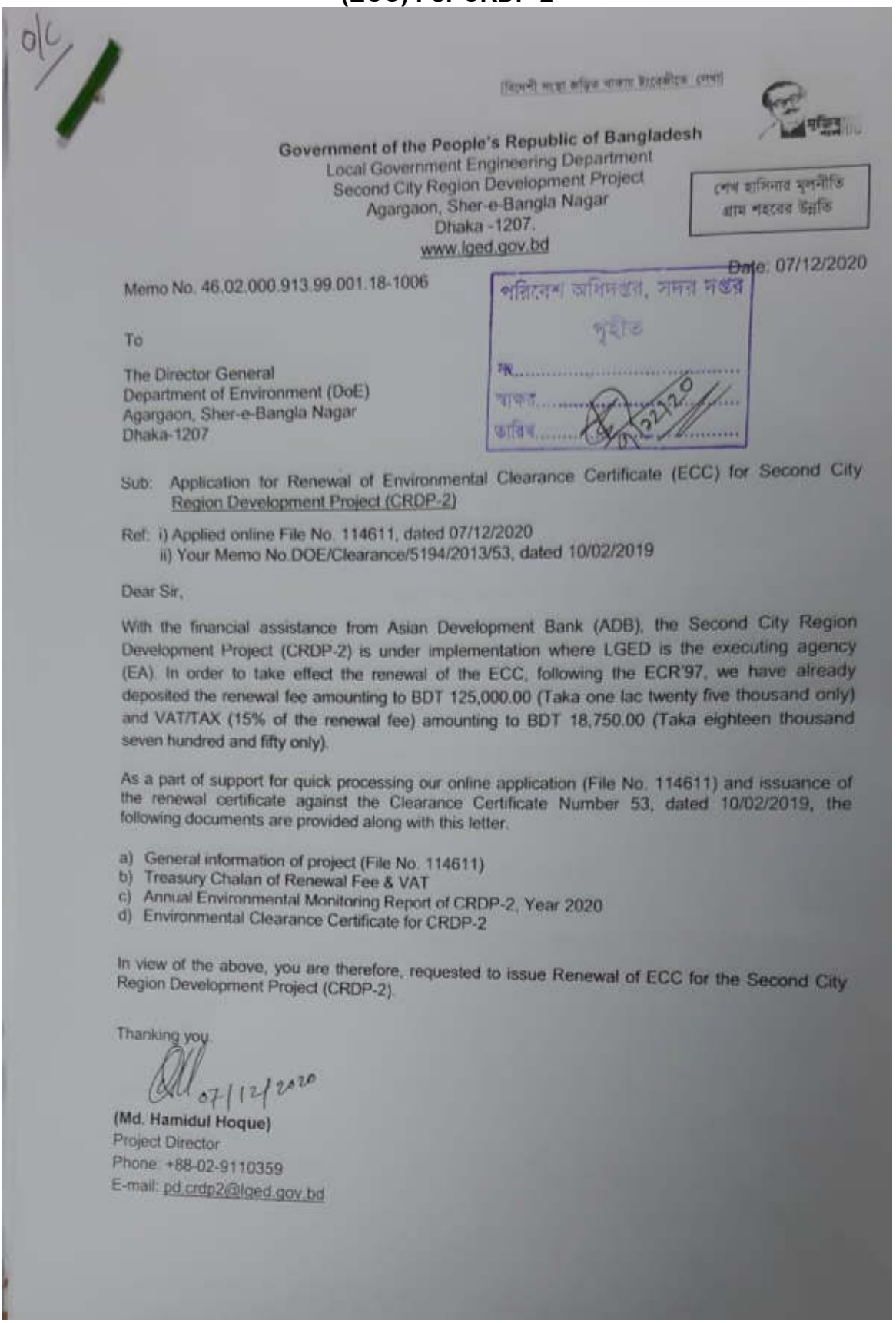
Violation of any of the above conditions shall render this clearance void.

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

10.02.2019

(Syed Nazmul Ahsan)
Director (Environmental Clearance)
Phone # 8181673

Appendix 3: Application for Renewal for Environmental Clearance Certificate (ECC) For CRDP-2



Government of the People's Republic of Bangladesh
Local Government Engineering Department
Second City Region Development Project
Agargaon, Sher-e-Bangla Nagar
Dhaka -1207.
www.lged.gov.bd

শেখ হাসিনার মূলনীতি
গ্রাম শহরের উন্নতি

Memo No. 46.02.000.913.99.001.18-1006

Date: 07/12/2020

পরিবেশ অধিদপ্তর, সদর দপ্তর
গৃহীত
তারিখ 07/12/2020

To

The Director General
Department of Environment (DoE)
Agargaon, Sher-e-Bangla Nagar
Dhaka-1207

Sub: Application for Renewal of Environmental Clearance Certificate (ECC) for Second City Region Development Project (CRDP-2)

Ref: i) Applied online File No. 114611, dated 07/12/2020
ii) Your Memo No.DOE/Clearance/5194/2013/53, dated 10/02/2019

Dear Sir,

With the financial assistance from Asian Development Bank (ADB), the Second City Region Development Project (CRDP-2) is under implementation where LGED is the executing agency (EA). In order to take effect the renewal of the ECC, following the ECR'97, we have already deposited the renewal fee amounting to BDT 125,000.00 (Taka one lac twenty five thousand only) and VAT/TAX (15% of the renewal fee) amounting to BDT 18,750.00 (Taka eighteen thousand seven hundred and fifty only).

As a part of support for quick processing our online application (File No. 114611) and issuance of the renewal certificate against the Clearance Certificate Number 53, dated 10/02/2019, the following documents are provided along with this letter.

a) General information of project (File No. 114611)
b) Treasury Chalan of Renewal Fee & VAT
c) Annual Environmental Monitoring Report of CRDP-2, Year 2020
d) Environmental Clearance Certificate for CRDP-2

In view of the above, you are therefore, requested to issue Renewal of ECC for the Second City Region Development Project (CRDP-2).

Thanking you.

07/12/2020

(Md. Hamidul Hoque)
Project Director
Phone: +88-02-9110359
E-mail: pd.crdp2@lged.gov.bd

Appendix 4: Grievance Redress Committees (GRC) – Office Order

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
স্থানীয় সরকার, পল্লী উন্নয়ন ও সমবায় মন্ত্রণালয়
স্থানীয় সরকার বিভাগ
উন্নয়ন ২ শাখা
www.lgd.gov.bd

শেখ হাসিনার মূলনীতি
গ্রাম শহরের উন্নতি

স্মারক নং- ৪৬.০৬৮.০০৫.০০.০০.০১৮.২০২০-৪৫৫

তারিখ: ২৪ জ্যৈষ্ঠ ১৪২৭ / ০৭ জুন ২০২০

অফিস আদেশ

স্থানীয় সরকার প্রকৌশল অধিদপ্তর কর্তৃক বাস্তবায়নাধীন "দ্বিতীয় নগর অঞ্চল উন্নয়ন" প্রকল্পের আওতায় পৌরসভা, সিটি কর্পোরেশন ও এলজিইডি পর্যায়ে অভিযোগ নিরসন কার্যক্রম দ্রুত ও নিয়মানুগভাবে বাস্তবায়নের লক্ষ্যে নিম্নরূপ অভিযোগ নিরসন কমিটি (Grievance Redress Committee) গঠন করা হলো:

ক) পৌরসভা পর্যায়ে:

অভিযোগ নিরসন কমিটি ও নিষ্পত্তি প্রক্রিয়া:

অভিযোগ নিরসন প্রক্রিয়া ৩টি স্তরে বাস্তবায়িত হবে। পৌরসভা পর্যায়ে প্রাথমিক ও দ্বিতীয় স্তরে এবং প্রকল্প পর্যায়ে তৃতীয় স্তর।

প্রথম স্তর:

প্রাথমিক স্তরে থাকবে অভিযোগকারীর সহজে যোগাযোগের সুযোগ ও অভিযোগসমূহ দ্রুত সমাধানের ব্যবস্থা। এ স্তরে PIU-প্রধান (পৌরসভার মেয়র) সংশ্লিষ্ট PIU এর একজন কর্মকর্তাকে ফোকাল পার্সন হিসেবে নিয়োজিত করবেন। ফোকাল পার্সন ক্ষতিগ্রস্তের অভিযোগ গ্রহণ এবং দ্রুত নিরসনের উদ্যোগ গ্রহণ করবেন। ক্ষতিগ্রস্তদের যোগাযোগের সুবিধার জন্য ফোকাল পার্সনের মোবাইল নম্বর উপ-প্রকল্প এলাকার গুরুত্বপূর্ণ স্থানে ঝুলিয়ে দিতে হবে। ক্ষতিগ্রস্ত ব্যক্তি/ব্যক্তিবর্গের কাছ থেকে লিখিত অভিযোগ প্রাপ্তির পর ফোকাল পার্সন বিষয়টি অবিলম্বে প্রাথমিক স্তরে গঠিত কমিটিতে (কমিটির কার্যপরিধির ২নং দায়িত্বের নিরিখে) উপস্থাপন করবেন।

প্রথম স্তরের স্থানীয় অভিযোগ নিরসন কমিটি:

(১) নির্বাহী প্রকৌশলী/সহকারী প্রকৌশলী, সংশ্লিষ্ট পৌরসভা ----------সভাপতি
(২) সিআরডিপি-২ প্রকল্পের কনসালটেন্ট (সেফগার্ড এক্সপার্ট) ----------সদস্য
(৩) পরিবেশ/সামাজিক সুরক্ষা ফোকাল কর্মকর্তা, সংশ্লিষ্ট পৌরসভা ---------- সদস্য-সচিব

প্রথম স্তরের স্থানীয় অভিযোগ নিরসন কমিটির কার্যপরিধি:

(১) ক্ষতিগ্রস্ত ব্যক্তির অভিযোগ গ্রহণ এবং পারস্পারিক আলোচনার ভিত্তিতে তা নিরসন করা,
(২) অভিযোগকারীর অভিযোগ গ্রহণের ৭ দিনের মধ্যে অভিযোগ নিষ্পত্তিকরণের ব্যবস্থা করা,
(৩) ভূমি এবং/অথবা অবকাঠামো (Structures) অধিগ্রহণ, জীবিকা অর্জনের ওপর প্রভাব, প্রাপ্য ক্ষতিপূরণ (Entitlements) এবং বিভিন্ন সহযোগিতা সম্পর্কে ক্ষতিগ্রস্তদের অবহিত করা,
(৪) অভিযোগকারী ব্যক্তির অভিযোগ সংক্রান্ত যাবতীয় তথ্যাবলী লিপিবদ্ধ করা,
(৫) অভিযোগ নিষ্পত্তি সংক্রান্ত যাবতীয় রেকর্ড ও সভার কার্যবিবরণী যথাযথভাবে সংরক্ষণ এবং মেয়র এর মাধ্যমে প্রকল্প পরিচালককে অবহিত করা।

দ্বিতীয় স্তর:

প্রাথমিক স্তরে কোনো অভিযোগ অমীমাংসিত থাকলে প্রাথমিক স্তরে গঠিত কমিটির সদস্য-সচিব (ফোকাল পার্সন) মেয়রের মাধ্যমে পৌরসভায় গঠিত দ্বিতীয় স্তরের স্থানীয় অভিযোগ নিরসন কমিটি-এর নিকট অভিযোগটি সত্বর লিখিতভাবে জানাবেন। মেয়রের লিখিত পত্র প্রাপ্তির পর দ্বিতীয় স্তরের অভিযোগ নিরসন প্রক্রিয়া শুরু হবে।

দ্বিতীয় স্তরের স্থানীয় অভিযোগ নিরসন কমিটি:

(১) প্রধান নির্বাহী কর্মকর্তা/ সচিব, সংশ্লিষ্ট পৌরসভা---------- সভাপতি
(২) পৌরসভা মেয়র এর প্রতিনিধি, সংশ্লিষ্ট পৌরসভা---------- সদস্য
(৩) ক্ষতিগ্রস্ত ব্যক্তিবর্গের প্রতিনিধি, সংশ্লিষ্ট পৌরসভা ----------সদস্য
(৪) স্থানীয় ভূমি রেজিস্ট্রি দপ্তরের প্রতিনিধি---------- সদস্য
(৫) পরিবেশ অধিদপ্তরের বিভাগীয় দপ্তরের প্রতিনিধি ---------- সদস্য
(৬) নগর পরিকল্পনাবিদ, সংশ্লিষ্ট পৌরসভা---------- সদস্য
(৭) পরিবেশ/সামাজিক সুরক্ষা ফোকাল কর্মকর্তা, সংশ্লিষ্ট পৌরসভা----- সদস্য-সচিব

চলমান-২

দ্বিতীয় স্তরের স্থানীয় অভিযোগ নিরসন কমিটির কার্যপরিধি:

(১) এ পর্যায়ে প্রকল্পে ক্ষতিগ্রস্ত ব্যক্তিদের সম্পদ অধিগ্রহণে (স্থায়ী/অস্থায়ীভাবে) ক্ষতির পরিমাণ (শুধুমাত্র ভৌত পরিমাণ- Physical Quantity) নির্ধারণ এবং ক্ষতিপূরণ প্রাপ্তিতে সহযোগিতা করা,

(২) ক্ষতিগ্রস্ত ব্যক্তির অভিযোগ পুনর্বাসন নীতিমালার আওতাভুক্ত হলে প্রকল্প কর্তৃপক্ষের মাধ্যমে ক্ষতিপূরণ প্রাপ্তিতে সহযোগিতা করা,

(৩) ক্ষতিগ্রস্তদের অভিযোগসমূহ ধরণ অনুযায়ী বিন্যাস করে অগ্রাধিকার ভিত্তিতে এক মাস সময়ের মধ্যে সমাধান করা,

(৪) অভিযোগকারীর অভিযোগ বিষয়ে অগ্রগতি এবং কমিটির সিদ্ধান্ত অভিযোগকারীকে অবহিত করা,

(৫) অভিযোগকারীর অভিযোগ বিষয়ে অগ্রগতি এবং নিরসন কমিটির সিদ্ধান্তসমূহ মেয়র, পৌরসভা -এর মাধ্যমে প্রকল্প পরিচালককে অবহিত করা,

(৬) অভিযোগ নিরসন কমিটি মাসে কমপক্ষে ২ বার সভায় বসবে। অমীমাংসিত অভিযোগের সংখ্যার ভিত্তিতে এবং প্রকল্প পরিচালকের সাথে আলোচনা করে মাসিক সভার সংখ্যা হ্রাস বা বৃদ্ধি করা যাবে।

তৃতীয় স্তর:

দ্বিতীয় স্তর পর্যায়ে স্থানীয় অভিযোগ নিরসন কমিটি-তে কোনো অভিযোগ অমীমাংসিত থেকে গেলে প্রকল্প ব্যবস্থাপক (মেয়র) বিষয়টি দ্রুত প্রকল্প পরিচালক-কে অবহিত করবেন। প্রকল্প পরিচালক স্থানীয় অভিযোগ নিরসন কমিটির প্রতিবেদন ও সুপারিশসমূহের ভিত্তিতে PIU-প্রধান (মেয়র) এর সাথে আলোচনা করে প্রকল্প পর্যায়ে গঠিত তৃতীয় স্তরের অভিযোগ নিরসন কমিটির কার্যক্রম শুরু করবেন।

তৃতীয় স্তরের প্রকল্প পর্যায়ের অভিযোগ নিরসন কমিটি:

(১) প্রকল্প পরিচালক , সিআরডিপি-২- ---------- সভাপতি

(২) প্রতিনিধি, ভূমি মন্ত্রণালয় ---------- সদস্য

(৩) প্রতিনিধি, পরিবেশ অধিদপ্তর------- ---------- সদস্য

(৪) পরিবেশ/সামাজিক সুরক্ষা ফোকাল কর্মকর্তা, সংশ্লিষ্ট পৌরসভা ------ সদস্য

(৫) প্রকল্পে ক্ষতিগ্রস্ত ব্যক্তিবর্গের প্রতিনিধি----------সদস্য

(৬) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা, সিআরডিপি-২ ----------সদস্য-সচিব

তৃতীয় স্তরের প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটির কার্যপরিধি:

(১) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা অভিযোগ ও পূর্ববর্তী স্তরের সিদ্ধান্তসমূহ, প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটিতে উপস্থাপন করবেন,

(২) প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটি অভিযোগ গ্রহণের ৭ দিনের মধ্যে সভা আহবান করবে,

(৩) প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটি ১৫ দিনের মধ্যে সিদ্ধান্ত প্রদান করবে,

(৪) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা প্রকল্প পর্যয়ে অভিযোগ নিরসন কমিটির সভার সিদ্ধান্তসমূহ লিপিবদ্ধ করবেন এবং সভার কার্যবিবরণী জারি করবে,

(৫) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটির সিদ্ধান্ত বাস্তবায়নের অগ্রগতি পর্যলোচনাপূর্বক প্রয়োজনীয় ব্যবস্থা গ্রহণ করবে।

(ii) সিটি কর্পোরেশন পর্যায়ে:

অভিযোগ নিরসন কমিটির প্রয়োজনীয়তা:

দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প (সিআরডিপি-২) বাস্তবায়নের জন্য সম্পদ (স্থাবর/ অস্থাবর) ক্ষতিগ্রস্ত হলে এবং ক্ষতিগ্রস্তদের পক্ষ থেকে কোন অভিযোগ উত্থাপিত হলে তা নিরসনের জন্য সিটি কর্পোরেশনে 'অভিযোগ নিরসন কমিটি' গঠনের বাধ্যবাধকতা রয়েছে। সিটি কর্পোরেশন এ উপ-প্রকল্পের কাজ বাস্তবায়নে কোনও ক্ষতিগ্রস্তের অভিযোগ উত্থাপিত হলে গঠিত 'অভিযোগ নিরসন কমিটি' অভিযোগ গ্রহণ ও নিষ্পত্তির ক্ষেত্রে কার্যকর ভূমিকা রাখবে। অভিযোগ নিষ্পত্তি প্রক্রিয়া প্রকল্পের সুরক্ষা (Safeguard) সংক্রান্ত শর্ত বাস্তবায়নের অংশ হিসেবে বিবেচিত হবে। এ প্রক্রিয়ায় ক্ষতিগ্রস্ত ব্যক্তি বা ব্যক্তিবর্গের অভিযোগ স্বচ্ছ এবং যথাসম্ভব স্বল্প সময়ের মধ্যে নিরসন করতে হবে। প্রক্রিয়াটি জেন্ডার সংবেদনশীল ও সাংস্কৃতিক বৈষম্যহীনভাবে বাস্তবায়ন করতে হবে। এ ব্যবস্থা ক্ষতিগ্রস্ত জনগণ যেন সহজে গ্রহণ করতে পারে এবং এর জন্য যাতে তাদের কোনও অর্থ ব্যয়ের প্রয়োজন না হয় তা নিশ্চিত করতে হবে। অভিযোগ নিরসন প্রক্রিয়া সম্পর্কে ক্ষতিগ্রস্তদের যথাসময়ে সঠিক ও বিস্তারিতভাবে অবহিত করতে হবে।

চলমান পৃষ্ঠা-৩

অভিযোগ নিরসন কমিটি ও নিষ্পত্তি প্রক্রিয়া:

অভিযোগ নিরসন প্রক্রিয়া ৩টি স্তরে বাস্তবায়িত হবে। সিটি কর্পোরেশন পর্যায়ে প্রাথমিক ও দ্বিতীয় স্তর এবং প্রকল্প পর্যায়ে তৃতীয় স্তর।

প্রাথমিক স্তর:

প্রাথমিক স্তরে থাকবে অভিযোগকারীর সহজে যোগাযোগের সুযোগ ও অভিযোগসমূহ দ্রুত সমাধানের ব্যবস্থা। এ স্তরে PIU-প্রধান সংশ্লিষ্ট PIU-এর একজন কর্মকর্তাকে ফোকাল পার্সন হিসেবে নিয়োজিত করবেন। ফোকাল পার্সন ক্ষতিগ্রস্তের অভিযোগ গ্রহণ এবং দ্রুত নিরসনের উদ্যোগ গ্রহণ করবেন। ক্ষতিগ্রস্তদের যোগাযোগের সুবিধার জন্য ফোকাল পার্সনের মোবাইল নম্বর উপ-প্রকল্প এলাকার গুরুত্বপূর্ণ স্থানে ঝুলিয়ে দিতে হবে। ক্ষতিগ্রস্ত ব্যক্তি/ব্যক্তিবর্গের কাছ থেকে লিখিত অভিযোগ প্রাপ্তির পর ফোকাল পার্সন বিষয়টি অবিলম্বে প্রাথমিক স্তরে গঠিত কমিটিতে (কমিটির কার্যপরিধির ২নং দায়িত্বের নিরিখে) উপস্থাপন করবেন।

প্রথম স্তরের স্থানীয় অভিযোগ নিরসন কমিটি:

(১) নির্বাহী প্রকৌশলী/সহকারী প্রকৌশলী, সংশ্লিষ্ট সিটি কর্পোরেশন ---------- সভাপতি
(২) সিআরডিপি-২ প্রকল্পের কনসালটেন্ট (সেভগার্ড এক্সপার্ট) ---------- সদস্য
(৩) পরিবেশ/সামাজিক সুরক্ষা ফোকাল কর্মকর্তা, সংশ্লিষ্ট সিটি কর্পোরেশন ------ সদস্য-সচিব

প্রথম স্তরের স্থানীয় অভিযোগ নিরসন কমিটির কার্যপরিধি:

(১) ক্ষতিগ্রস্ত ব্যক্তির অভিযোগ গ্রহণ এবং পারস্পারিক আলোচনার ভিত্তিতে তা নিরসন করা,
(২) অভিযোগকারীর অভিযোগ গ্রহণের ৭ দিনের মধ্যে অভিযোগ নিষ্পত্তিকরণের ব্যবস্থা করা,
(৩) ভূমি এবং অবকাঠামো (Structures) অধিগ্রহণ, জীবিকা অর্জনের ওপর প্রভাব, প্রাপ্য ক্ষতিপূরণ (Entitlements) এবং বিভিন্ন সহযোগিতা সম্পর্কে ক্ষতিগ্রস্তদের অবহিত করা,
(৪) অভিযোগকারী ব্যক্তির অভিযোগ সংক্রান্ত যাবতীয় তথ্যাবলী লিপিবদ্ধ করা,
(৫) অভিযোগ নিষ্পত্তি সংক্রান্ত যাবতীয় রেকর্ড ও সভার কার্যবিবরণী যথাযথভাবে সংরক্ষণ এবং প্রকল্প ব্যবস্থাপক (PIU-প্রধান) এর মাধ্যমে প্রকল্প পরিচালক-কে অবহিত করা।

দ্বিতীয় স্তর:

প্রাথমিক স্তরে কোনো অভিযোগ অমীমাংসিত থাকলে প্রাথমিক সন্তরে গঠিত কমিটির সদস্য-সচিব (ফোকাল পার্সন) প্রকল্প ব্যবস্থাপক (PIU-প্রধান) - এর মাধ্যমে সিটি কর্পোরেশনে গঠিত দ্বিতীয় স্তরের স্থানীয় অভিযোগ নিরসন কমিটি-এর নিকট অভিযোগটি লিখিতভাবে জানাবেন। মেয়রের লিখিত পত্র প্রাপ্তির পর দ্বিতীয় স্তরের অভিযোগ নিরসন প্রক্রিয়া শুরু হবে।

দ্বিতীয় স্তরের স্থানীয় অভিযোগ নিরসন কমিটি:

(১) প্রধান নির্বাহী কর্মকর্তা/সচিব, সংশ্লিষ্ট সিটি কর্পোরেশন ---------- সভাপতি
(২) মেয়র এর প্রতিনিধি, সংশ্লিষ্ট সিটি কর্পোরেশন ----------সদস্য
(৩) ক্ষতিগ্রস্ত ব্যক্তিবর্গের প্রতিনিধি, সংশ্লিষ্ট সিটি কর্পোরেশন ----------সদস্য
(৪) স্থানীয় ভূমি রেজিস্ট্রি দপ্তরের প্রতিনিধি----------সদস্য
(৫) পরিবেশ অধিদপ্তরের বিভাগীয় দপ্তরের প্রতিনিধি ----------সদস্য
(৬) নগর পরিকল্পনাবিদ, সংশ্লিষ্ট সিটি কর্পোরেশন---------- সদস্য
(৭) পরিবেশ/সামাজিক সুরক্ষা ফোকাল কর্মকর্তা, সংশ্লিষ্ট সিটি কর্পোরেশন ------ সদস্য-সচিব

দ্বিতীয় স্তরের স্থানীয় অভিযোগ নিরসন কমিটির কার্যপরিধি:

(১) এ পর্যায়ে প্রকল্পে ক্ষতিগ্রস্ত ব্যক্তিদের সম্পদ অধিগ্রহণে (স্থায়ী/অস্থায়ী ভাবে) ক্ষতির পরিমাণ (শুধুমাত্র ভৌত পরিমাণ-Physical Quantity) নির্ধারণ এবং ক্ষতিপূরণ প্রাপ্তিতে সহযোগিতা করা,
(২) ক্ষতিগ্রস্ত ব্যক্তির অভিযোগ পুনর্বাসন নীতিমালার আওতাভুক্ত হলে প্রকল্প কর্তৃপক্ষর মাধ্যমে ক্ষতিপূরণ প্রাপ্তিতে সহযোগিতা করা,
(৩) ক্ষতিগ্রস্তদের অভিযোগসমূহ ধরণ অনুযায়ী বিন্যাস করে অগ্রাধিকার ভিত্তিতে ১ মাস সময়ের মধ্যে সমাধান করা,
(৪) অভিযোগকারীর অভিযোগ বিষয়ে অগ্রগতি এবং কমিটির সিদ্ধান্ত অভিযোগকারীকে অবহিত করা,
(৫) অভিযোগকারীর অভিযোগ বিষয়ে অগ্রগতি এবং নিরসন কমিটির সিদ্ধান্তসমূহ সিদ্ধান্তসমূহ প্রকল্প ব্যবস্থাপক (PIU-প্রধান), সিটি কর্পোরেশন এর মাধ্যমে প্রকল্প পরিচালক-কে অবহিত করা,
(৬) অভিযোগ নিরসন কমিটি মাসে অন্তত: ২ বার সভায় বসবে। অমীমাংসিত অভিযোগের সংখ্যার ভিত্তিতে এবং প্রকল্প পরিচালকের সাথে আলোচনা করে মাসিক সভার সংখ্যা হ্রাস বা বৃদ্ধি করা যাবে।

চলমান পৃষ্ঠা-৪

তৃতীয় স্তর:

দ্বিতীয় স্তর পর্যায়ে স্থানীয় অভিযোগ নিরসন কমিটি-তে কোনো অভিযোগ অমীমাংসিত থেকে গেলে প্রকল্প ব্যবস্থাপক (PIU-প্রধান) বিষয়টি দ্রুত প্রকল্প পরিচালক-কে অবহিত করবেন। প্রকল্প পরিচালক স্থানীয় অভিযোগ নিরসন কমিটির প্রতিবেদন ও সুপারিশসমূহের ভিত্তিতে PIU-প্রধান এর সাথে আলোচনা করে প্রকল্প পর্যায়ে গঠিত তৃতীয় স্তরের অভিযোগ নিরসন কমিটির কার্যক্রম শুরু করবেন।

তৃতীয় স্তরের প্রকল্প পর্যায়ের অভিযোগ নিরসন কমিটি:

(১) প্রকল্প পরিচালক, সিআরডিপি-২----------সভাপতি
(২) প্রতিনিধি, ভূমি মন্ত্রণালয় ----------সদস্য
(৩) প্রতিনিধি, পরিবেশ অধিদপ্তর---------- সদস্য
(৪) পরিবেশ/সামাজিক সুরক্ষা ফোকাল কর্মকর্তা, সংশ্লিষ্ট সিটি কর্পোরেশন------ সদস্য
(৫) প্রকল্পে ক্ষতিগ্রস্ত ব্যক্তিবর্গের প্রতিনিধি----------সদস্য
(৬) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা, সিআরডিপি-২ ---------- সদস্য-সচিব

তৃতীয় স্তরের প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটির কার্যপরিধি:

(১) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা অভিযোগ ও পূর্ববর্তী স্তরের সিদ্ধান্তসমূহ, প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটিতে উপস্থাপন করবেন,
(২) প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটি অভিযোগ গ্রহণের ৭ দিনের মধ্যে সভা আহ্বান করবে,
(৩) প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটি ১৫ দিনের মধ্যে সিদ্ধান্ত প্রদান করবে,
(৪) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা প্রকল্প পর্যয়ে অভিযোগ নিরসন কমিটির সভার সিদ্ধান্তসমূহ লিপিবদ্ধ করবে এবং সভার কার্যবিবরণী জারি করবে,
(৫) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটির সিদ্ধান্ত বাস্তবায়নের অগ্রগতি পর্যালোচনাপূর্বক প্রয়োজনীয় ব্যবস্থা গ্রহণ করবে।

(iii) এলজিইডি পর্যায়ে:

অভিযোগ নিরসন কমিটির প্রয়োজনীয়তা:

দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প (সিআরডিপি-২) বাস্তবায়নের জন্য সম্পদ (স্থাবর/অস্থাবর) ক্ষতিগ্রস্ত হলে এবং ক্ষতিগ্রস্তদের পক্ষ থেকে কোন অভিযোগ উত্থাপিত হলে তা নিরসনের জন্য 'অভিযোগ নিরসন কমিটি' গঠনের বাধ্যবাধকতা রয়েছে। প্রকল্পের আওতায় উপ-প্রকল্পের কাজ বাস্তবায়নে কোনও ক্ষতিগ্রস্তের অভিযোগ উত্থাপিত হলে গঠিত 'অভিযোগ নিরসন কমিটি' অভিযোগ গ্রহণ ও নিষ্পত্তির ক্ষেত্রে কার্যকর ভূমিকা রাখবে। অভিযোগ নিষ্পত্তি প্রক্রিয়া প্রকল্পের সুরক্ষা (Safeguard) সংক্রান্ত শর্ত বাস্তবায়নের অংশ হিসেবে বিবেচিত হবে। এ প্রক্রিয়ায় ক্ষতিগ্রস্ত ব্যক্তি বা ব্যক্তিবর্গের অভিযোগ স্বচ্ছ এবং যথাসম্ভব স্বল্প সময়ের মধ্যে নিরসন করতে হবে। প্রক্রিয়াটি জেন্ডার সংবেদনশীল ও সাংস্কৃতিক বৈষম্যহীনভাবে বাস্তবায়ন করতে হবে। এ ব্যবস্থা ক্ষতিগ্রস্ত জনগণ যেন সহজে গ্রহণ করতে পারে এবং এর জন্য যাতে তাদের কোনও অর্থ ব্যয়ের প্রয়োজন না হয় তা নিশ্চিত করতে হবে। অভিযোগ নিরসন প্রক্রিয়া সম্পর্কে ক্ষতিগ্রস্তদের যথাসময়ে সঠিক ও বিস্তারিতভাবে অবহিত করতে হবে।

অভিযোগ নিরসন কমিটি ও নিষ্পত্তি প্রক্রিয়া:

অভিযোগ নিরসন প্রক্রিয়া তিনটি স্তরে বাস্তবায়িত হবে। উপজেলা পর্যায়ে প্রাথমিক স্তর ও দ্বিতীয় স্তর এবং প্রকল্প পর্যায়ে তৃতীয় স্তর।

প্রথম স্তর:

এলজিইডি'র উপজেলা পর্যায়ে প্রাথমিক স্তরে থাকবে অভিযোগকারীর সহজে যোগাযোগের সুযোগ ও অভিযোগসমূহ দ্রুত সমাধানের ব্যবস্থা। এ স্তরে উপজেলা প্রকৌশলী তার দপ্তরের একজন উপ-সহকারী প্রকৌশলীকে ফোকাল পার্সন হিসেবে নিয়োজিত করবেন। ফোকাল পার্সন ক্ষতিগ্রস্তের অভিযোগ গ্রহণ এবং দ্রুত নিরসনের উদ্যোগ গ্রহণ করবেন। ক্ষতিগ্রস্তদের যোগাযোগের সুবিধার জন্য ফোকাল পার্সনের মোবাইল নম্বর উপ-প্রকল্প এলাকার গুরুত্বপূর্ণ স্থানে ঝুলিয়ে দিতে হবে। ক্ষতিগ্রস্ত ব্যক্তি/ব্যক্তিবর্গের কাছ থেকে লিখিত অভিযোগ প্রাপ্তির পর ফোকাল পার্সন বিষয়টি অবিলম্বে প্রাথমিক স্তরে গঠিত কমিটিতে (কমিটির কার্যপরিধির ২নং দায়িত্বের নিরিখে) উপস্থাপন করবেন।

প্রথম স্তরের স্থানীয় অভিযোগ নিরসন কমিটি:

(১) উপজেলা প্রকৌশলী/ উপজেলা সহকারী প্রকৌশলী, সংশ্লিষ্ট উপজেলা ---------- সভাপতি
(২) সিআরডিপি-২ প্রকল্পের কনসালটেন্ট (সেভগার্ড এক্সপার্ট)---------- সদস্য
(৩) পরিবেশ/সামাজিক সুরক্ষা ফোকাল কর্মকর্তা, সংশ্লিষ্ট উপজেলা ---------- সদস্য-সচিব

চলমান পৃষ্ঠা-৫

প্রথম স্তরের স্থানীয় অভিযোগ নিরসন কমিটির কার্যপরিধি:

(১) ক্ষতিগ্রস্ত ব্যক্তির অভিযোগ গ্রহণ এবং পারস্পারিক আলোচনার ভিত্তিতে তা নিরসন করা,
(২) অভিযোগকারীর অভিযোগ গ্রহণের ৭ দিনের মধ্যে অভিযোগ নিষ্পত্তিকরণের ব্যবস্থা করা,
(৩) ভূমি এবং / অথবা অবকাঠামো (Structures) অধিগ্রহণ, জীবিকা অর্জনের ওপর প্রভাব, প্রাপ্তব্য ক্ষতিপূরণ (Entitlements) এবং বিভিন্ন সহযোগিতা সম্পর্কে ক্ষতিগ্রস্তদের অবহিত করা,
(৪) অভিযোগকারী ব্যক্তির অভিযোগ সংক্রান্ত যাবতীয় তথ্যাবলী লিপিবদ্ধ করা,
(৫) অভিযোগ নিষ্পত্তি সংক্রান্ত যাবতীয় রেকর্ড ও সভার কার্যবিবরণী যথাযথভাবে সংরক্ষণ এবং উপজেলা প্রকৌশলী কর্তৃক নির্বাহী প্রকৌশলী, এলজিইডি, সংশ্লিষ্ট জেলা - এর মাধ্যমে প্রকল্প পরিচালক-কে অবহিত করা।

দ্বিতীয় স্তর:

প্রাথমিক স্তরে কোনো অভিযোগ অমীমাংসিত থাকলে উপজেলা প্রকৌশলী উপজেলা পর্যায়ে গঠিত দ্বিতীয় স্তরের স্থানীয় অভিযোগ নিরসন কমিটি-এর নিকট অভিযোগটি দ্রুত লিখিতভাবে জানাবেন। উপজেলা প্রকৌশলীর লিখিত পত্র প্রাপ্তির পর দ্বিতীয় স্তরের অভিযোগ নিরসন প্রক্রিয়া শুরু হবে।

দ্বিতীয় স্তরের স্থানীয় অভিযোগ নিরসন কমিটি:

(১) উপজেলা নির্বাহী কর্মকর্তা, সংশ্লিষ্ট উপজেলা ----------সভাপতি
(২) উপজেলা নির্বাহী কর্মকর্তা এর প্রতিনিধি, সংশ্লিষ্ট উপজেলা ----------সদস্য
(৩) ক্ষতিগ্রস্ত ব্যক্তিবর্গের প্রতিনিধি, সংশ্লিষ্ট উপজেলা ----------সদস্য
(৪) স্থানীয় ভূমি রেজিস্ট্রি দপ্তরের প্রতিনিধি---------- ----------সদস্য
(৫) পরিবেশ অধিদপ্তরের বিভাগীয় দপ্তরের প্রতিনিধি ----------সদস্য
(৬) এলজিইডি'র নির্বাহী প্রকৌশলীর দপ্তরের প্রতিনিধি, সংশ্লিষ্ট জেলা----------সদস্য
(৭) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা, সংশ্লিষ্ট উপজেলা ---------- সদস্য-সচিব

দ্বিতীয় স্তরে স্থানীয় অভিযোগ নিরসন কমিটির কার্যপরিধি:

(১) এ পর্যায়ে প্রকল্পে ক্ষতিগ্রস্ত ব্যক্তিদের সম্পদ অধিগ্রহণে (স্থায়ী/অস্থায়ীভাবে) ক্ষতির পরিমাণ (শুধুমাত্র ভৌত পরিমাণ- Physical Quantity) নির্ধারণ এবং ক্ষতিপূরণ প্রাপ্তিতে সহযোগিতা করা,
(২) ক্ষতিগ্রস্ত ব্যক্তির অভিযোগ পুনর্বাসন নীতিমালার আওতাভুক্ত হলে প্রকল্প কর্তৃপক্ষের মাধ্যমে ক্ষতিপূরণ প্রাপ্তিতে সহযোগিতা করা,
(৩) ক্ষতিগ্রস্তদের অভিযোগসমূহ ধরণ অনুযায়ী বিন্যাস করে অগ্রাধিকার ভিত্তিতে ১ মাস সময়ের মধ্যে সমাধান করা,
(৪) অভিযোগকারীর অভিযোগ বিষয়ে অগ্রগতি এবং কমিটির সিদ্ধান্ত অভিযোকারীকে অবহিত করা,
(৫) অভিযোগকারীর অভিযোগ বিষয়ে অগ্রগতি এবং নিরসন কমিটির সিদ্ধান্তসমূহ উপজেলা নির্বাহী কর্মকর্তা- এর মাধ্যমে প্রকল্প পরিচালক-কে অবহিত করা,
(৬) অভিযোগ নিরসন কমিটি মাসে অন্তত: ২ বার সভায় বসবে। অমীমাংসিত অভিযোগের সংখ্যার ভিত্তিতে এবং প্রকল্প পরিচালকের সাথে আলোচনা করে মাসিক সভার সংখ্যা হ্রাস বা বৃদ্ধি করা যাবে।

তৃতীয় স্তর:

দ্বিতীয় স্তর পর্যায়ে স্থানীয় অভিযোগ নিরসন কমিটি-তে কোনো অভিযোগ অমীমাংসিত থেকে গেলে নির্বাহী প্রকৌশলী, সংশ্লিষ্ট জেলা বিষয়টি দ্রুত প্রকল্প পরিচালককে অবহিত করবেন। প্রকল্প পরিচালক স্থানীয় অভিযোগ নিরসন কমিটির প্রতিবেদন ও সুপারিশসমূহের ভিত্তিতে নির্বাহী প্রকৌশলীর সঙ্গে আলোচনা করে প্রকল্প পর্যায়ে গঠিত তৃতীয় স্তরে অভিযোগ নিরসন কমিটির কার্যক্রম শুরু করবেন।

তৃতীয় স্তরের প্রকল্প পর্যায়ের অভিযোগ নিরসন কমিটি:

(১) প্রকল্প পরিচালক, সিআরডিপি-২ ---------- সভাপতি
(২) প্রতিনিধি, ভূমি মন্ত্রণালয় ---------- সদস্য
(৩) প্রতিনিধি, পরিবেশ অধিদপ্তর ---------- সদস্য
(৪) পরিবেশ/সামাজিক সুরক্ষা ফোকাল কর্মকর্তা, সংশ্লিষ্ট উপজেলা ------ সদস্য
(৫) প্রকল্পে ক্ষতিগ্রস্ত ব্যক্তিবর্গের প্রতিনিধি ---------- সদস্য
(৬) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা, সিআরডিপি-২ ---------- সদস্য-সচিব

চলমান পৃষ্ঠা-৬

তৃতীয় স্তরের প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটির কার্যপরিধি:

(১) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা অভিযোগ ও পূর্ববর্তী স্তরের সিদ্ধান্তসমূহ প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটিতে উপস্থাপন করবেন,

(২) প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটি অভিযোগ গ্রহণের সাত দিনের মধ্যে সভা আহবান করবে, প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটি পনেরো দিনের মধ্যে সিদ্ধান্ত প্রদান করবে,

(৩) প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটি পনেরো দিনের মধ্যে সিদ্ধান্ত প্রদান করবে,

(৪) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটির সভার সিদ্ধান্তসমূহ লিপিবদ্ধ করবেন এবং সভার কার্যবিবরণী জারি করবে,

(৫) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটির সিদ্ধান্ত বাস্তবায়নের অগ্রগতি পর্যালোচনাপূর্বক প্রয়োজনীয় ব্যবস্থা গ্রহণ করবে।

9/6/2020

(জেসমিন পারভীন)
উপসচিব
ফোন: ৯৫৭৬৫৬৭

বিতরণ (কার্যার্থে):

১। সচিব, ভূমি মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা (একজন উপযুক্ত প্রতিনিধি প্রেরণের অনুরোধসহ);
২। মহাপরিচালক, পরিবেশ অধিদপ্তর, আগারগাঁও, ঢাকা (বিভাগীয় কার্যালয়ের একজন উপযুক্ত প্রতিনিধি সংশ্লিষ্ট অভিযোগ নিরসন কমিটিতে প্রেরণের অনুরোধসহ);
৩। প্রধান প্রকৌশলী, স্থানীয় সরকার প্রকৌশল অধিদপ্তর, আগারগাঁও, ঢাকা;
৪। প্রধান নির্বাহী কর্মকর্তা/সচিব,----------সিটি কর্পোরেশন----------;
৫। পরিচালক, বিভাগীয় কার্যালয়, পরিবেশ অধিদপ্তর, ----------বিভাগ;
৬। মেয়র, ----------পৌরসভা----------জেলা (একজন উপযুক্ত প্রতিনিধি প্রেরণের অনুরোধসহ);
৭। প্রকল্প পরিচালক, সিআরডিপি, এলজিইডি, আগারগাঁও, ঢাকা;
৮। উপজেলা নির্বাহী অফিসার, ----------উপজেলা,----------জেলা;
৯। প্রধান নির্বাহী কর্মকর্তা/সচিব, ----------পৌরসভা,----------জেলা;
১০। নির্বাহী প্রকৌশলী/সহকারী প্রকৌশলী, ----------সিটি কর্পোরেশন,----------;
১১। পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা, ----------সিটি কর্পোরেশন,----------;
১২। নগর পরিকল্পনাবিদ,----------সিটি কর্পোরেশন,----------;
১৩। নির্বাহী প্রকৌশলী/সহকারী প্রকৌশলী, ----------পৌরসভা,----------জেলা;
১৪। সেভ গার্ড এক্সপার্ট, এমডিএস কনসালটেন্ট;
১৫। পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা,----------পৌরসভা,----------জেলা;
১৬। সাব-রেজিস্ট্রার, স্থানীয় ভূমি রেজিস্ট্রি দপ্তর (একজন উপযুক্ত প্রতিনিধি প্রেরণের অনুরোধসহ);
১৭। নগর পরিকল্পনাবিদ,----------পৌরসভা----------জেলা;
১৮। পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা,----------সিটি কর্পোরেশন----------;
১৯। প্রকল্পে ক্ষতিগ্রস্ত ব্যক্তিবর্গের একজন প্রতিনিধি;
২০। পরিবেশ/পুনর্বাসন সুরক্ষা কর্মকর্তা, সিআরডিপি, এলজিইডি, আগারগাঁও, ঢাকা;
২১। পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা,----------সিটি কর্পোরেশন,----------;
২২। উপজেলা প্রকৌশলী/সহকারী প্রকৌশলী, ----------উপজেলা, ----------জেলা;
২৩। পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা,----------উপজেলা,----------জেলা।

স্মারক নং- ৪৬.০৬৮.০০৫.০০.০০.০১৮.২০২০-৪৫৫

তারিখ: ২৪ জ্যৈষ্ঠ ১৪২৭ / ০৭ জুন ২০২০

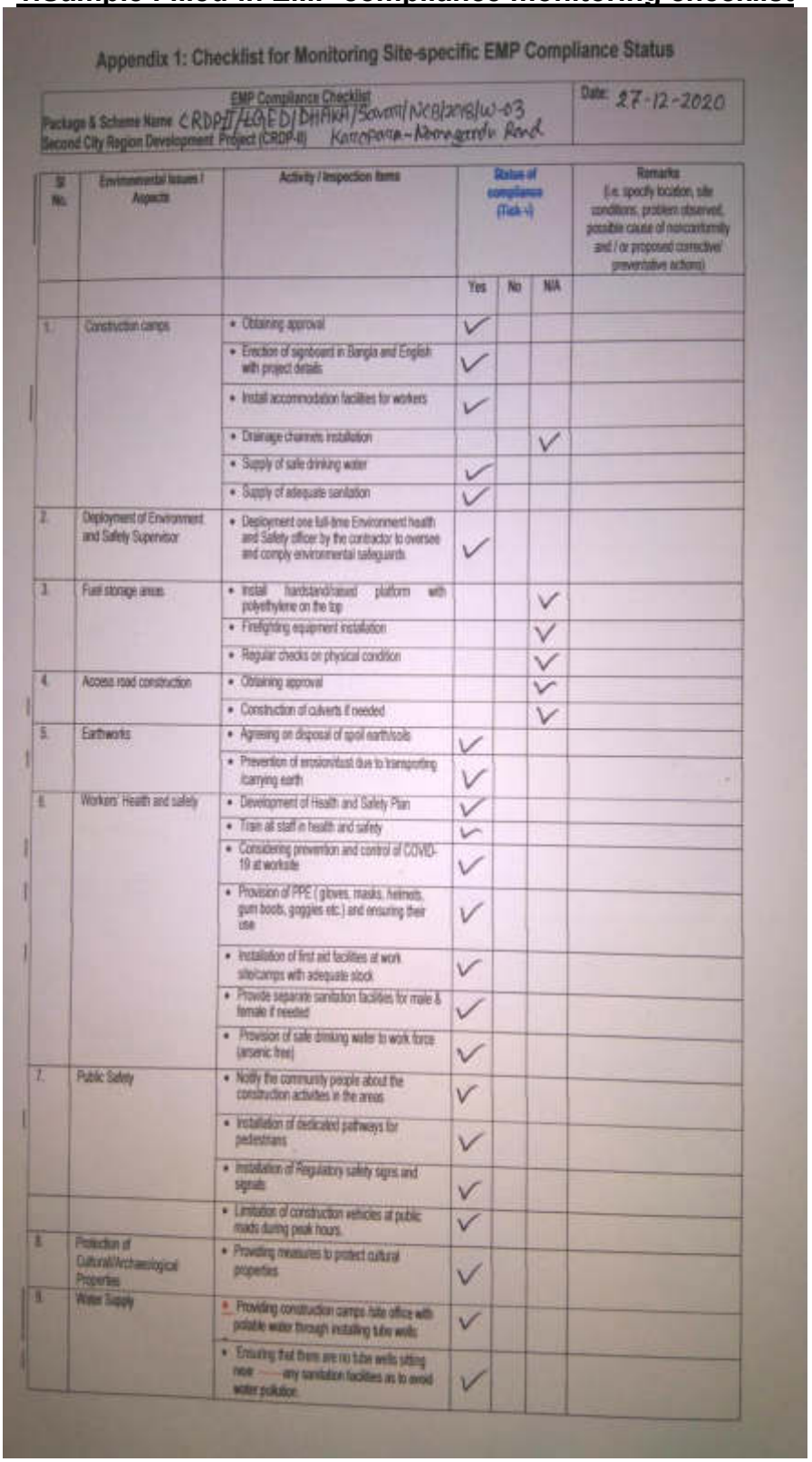
অনুলিপি:

১। মাননীয় মন্ত্রীর একান্ত সচিব, স্থানীয় সরকার,পল্লী উন্নয়ন ও সমবায় মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা;
২। সিনিয়র সচিব মহোদয়ের একান্ত সচিব, স্থানীয় সরকার বিভাগ, বাংলাদেশ সচিবালয়, ঢাকা।
৩। অফিস কপি/মাস্টার কপি।

9/6/2020

(জেসমিন পারভীন)
উপসচিব

1.Sample Filled-in EMP compliance monitoring checklist



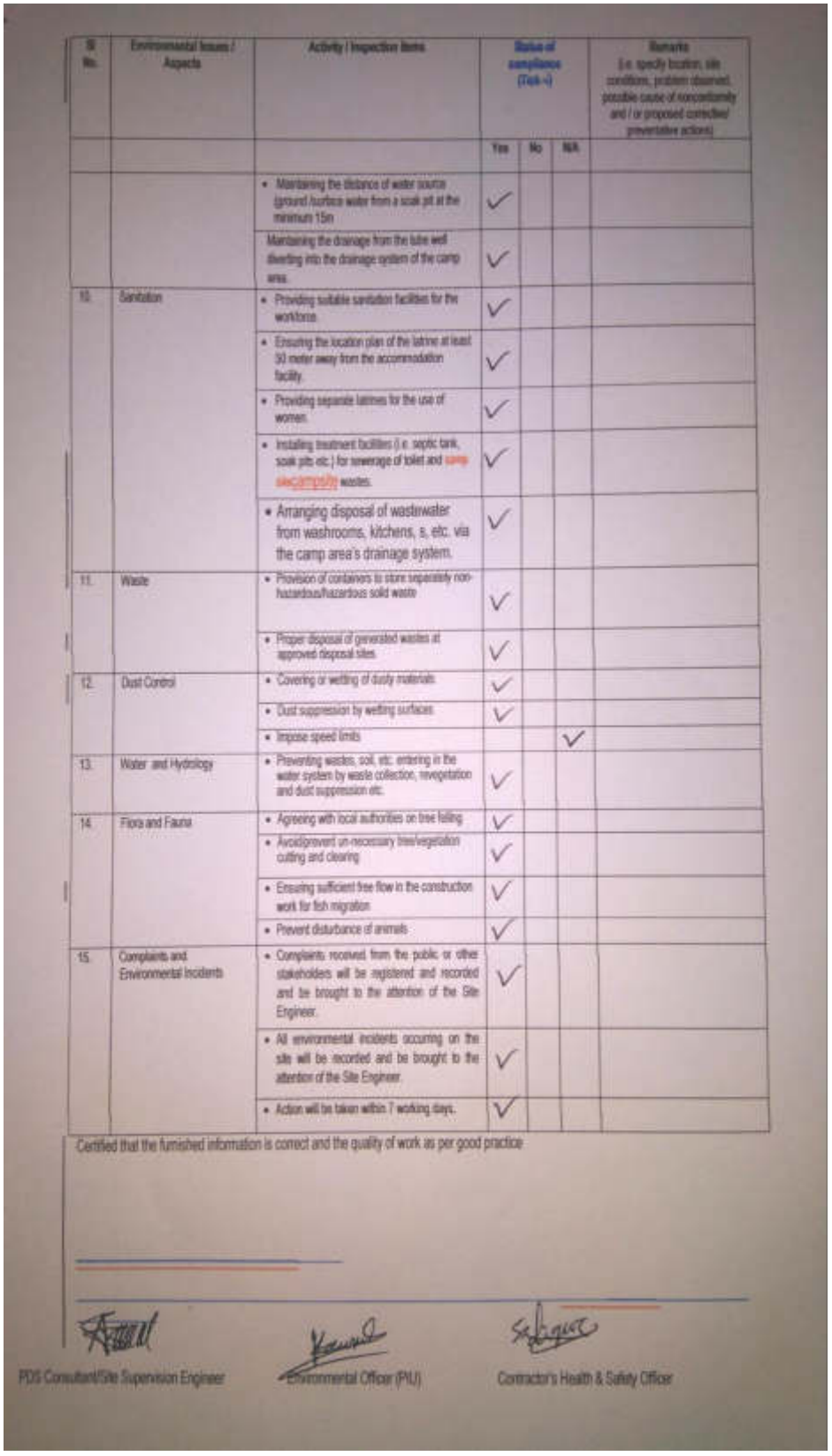
Appendix 1: Checklist for Monitoring Site-specific EMP Compliance Status

EMP Compliance Checklist

Package & Scheme Name: CRDP II/LGED/DHAKA/Savar/NC8/2018/W-03
Second City Region Development Project (CRDP-II) Kamrangirchar-Nawabganj Road

Date: 27-12-2020

Sl No.	Environmental Issues / Aspects	Activity / Inspection Items	Status of compliance (Tick √)			Remarks (i.e. specify location, site conditions, problem observed, possible cause of non-conformity and / or proposed corrective/ preventative actions)
			Yes	No	N/A	
1.	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	✓			
2.	Deployment of Environment and Safety Supervisor	• Deployment one full-time Environment health and Safety officer by the contractor to oversee and comply environmental safeguards	✓			
3.	Fuel storage areas	• Install hardstand/raised platform with polyethylene on the top			✓	
		• Firefighting equipment installation			✓	
		• Regular checks on physical condition			✓	
4.	Access road construction	• Obtaining approval			✓	
		• Construction of culverts if needed			✓	
5.	Earthworks	• Agreeing on disposal of spoil earth/soils	✓			
		• Prevention of erosion/dust due to transporting /carrying earth	✓			
6.	Workers' Health and safety	• Development of Health and Safety Plan	✓			
		• Train all staff in health and safety	✓			
		• Considering prevention and control of COVID-19 at worksite	✓			
		• Provision of PPE (gloves, masks, helmets, gum boots, goggles etc.) and ensuring their use	✓			
		• Installation of first aid facilities at work site/camps with adequate stock	✓			
		• Provide separate sanitation facilities for male & female if needed	✓			
		• Provision of safe drinking water to work force (arsenic free)	✓			
7.	Public Safety	• Notify the community people about the construction activities in the areas	✓			
		• Installation of dedicated pathways for pedestrians	✓			
		• Installation of Regulatory safety signs and signals	✓			
		• Limitation of construction vehicles at public roads during peak hours.	✓			
8.	Protection of Cultural/Archaeological Properties	• Providing measures to protect cultural properties	✓			
9.	Water Supply	• Providing construction camps /site office with potable water through installing tube wells	✓			
		• Ensuring that there are no tube wells sitting near ——any sanitation facilities as to avoid water pollution	✓			

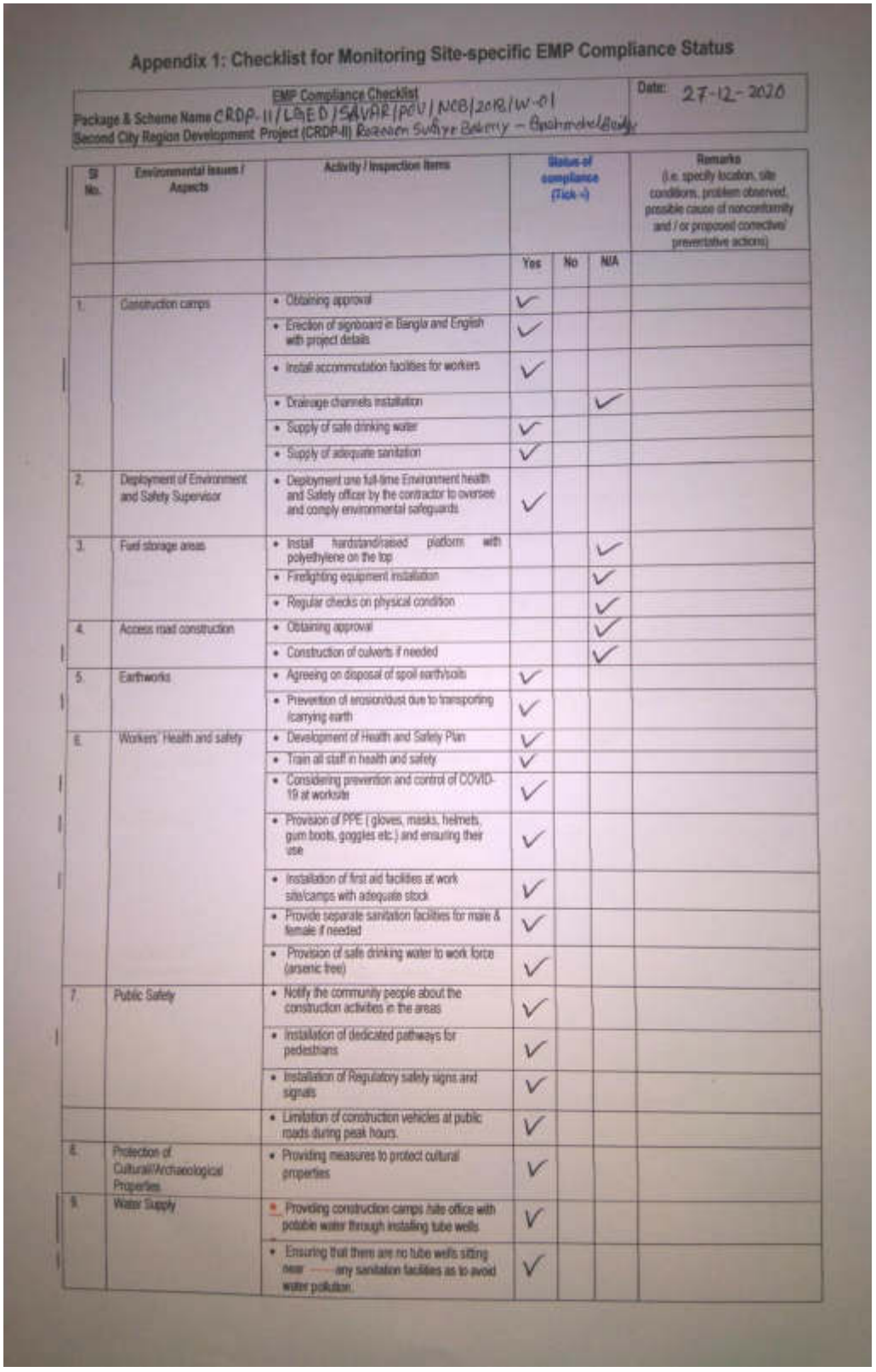


Sl No.	Environmental Issues / Aspects	Activity / Inspection Items	Status of compliance (Tick √)			Remarks (i.e. specify location, site conditions, problem observed, possible cause of nonconformity and / or proposed corrective/ preventative actions)
			Yes	No	N/A	
		• Maintaining the distance of water source (ground /surface water from a soak pit at the minimum 15m	✓			
		Maintaining the drainage from the tube well diverting into the drainage system of the camp area.	✓			
10.	Sanitation	• Providing suitable sanitation facilities for the workforce.	✓			
		• Ensuring the location plan of the latrine at least 50 meter away from the accommodation facility.	✓			
		• Providing separate latrines for the use of women.	✓			
		• Installing treatment facilities (i.e. septic tank, soak pits etc.) for sewerage of toilet and camp site/camps/to wastes.	✓			
		• Arranging disposal of wastewater from washrooms, kitchens, s, etc. via the camp area's drainage system.	✓			
11.	Waste	• Provision of containers to store separately non-hazardous/hazardous solid waste	✓			
		• Proper disposal of generated wastes at approved disposal sites.	✓			
12.	Dust Control	• Covering or wetting of dusty materials	✓			
		• Dust suppression by wetting surfaces	✓			
		• Impose speed limits			✓	
13.	Water and Hydrology	• Preventing wastes, soil, etc. entering in the water system by waste collection, revegetation and dust suppression etc.	✓			
14.	Flora and Fauna	• Agreeing with local authorities on tree felling	✓			
		• Avoid/prevent un-necessary tree/vegetation cutting and clearing	✓			
		• Ensuring sufficient free flow in the construction work for fish migration	✓			
		• Prevent disturbance of animals	✓			
15.	Complaints and Environmental Incidents	• 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.	✓			

Certified that the furnished information is correct and the quality of work as per good practice

PDS Consultant/Site Supervision Engineer | Environmental Officer (PIU) | Contractor's Health & Safety Officer

2. Sample Filled-in EMP compliance monitoring checklist

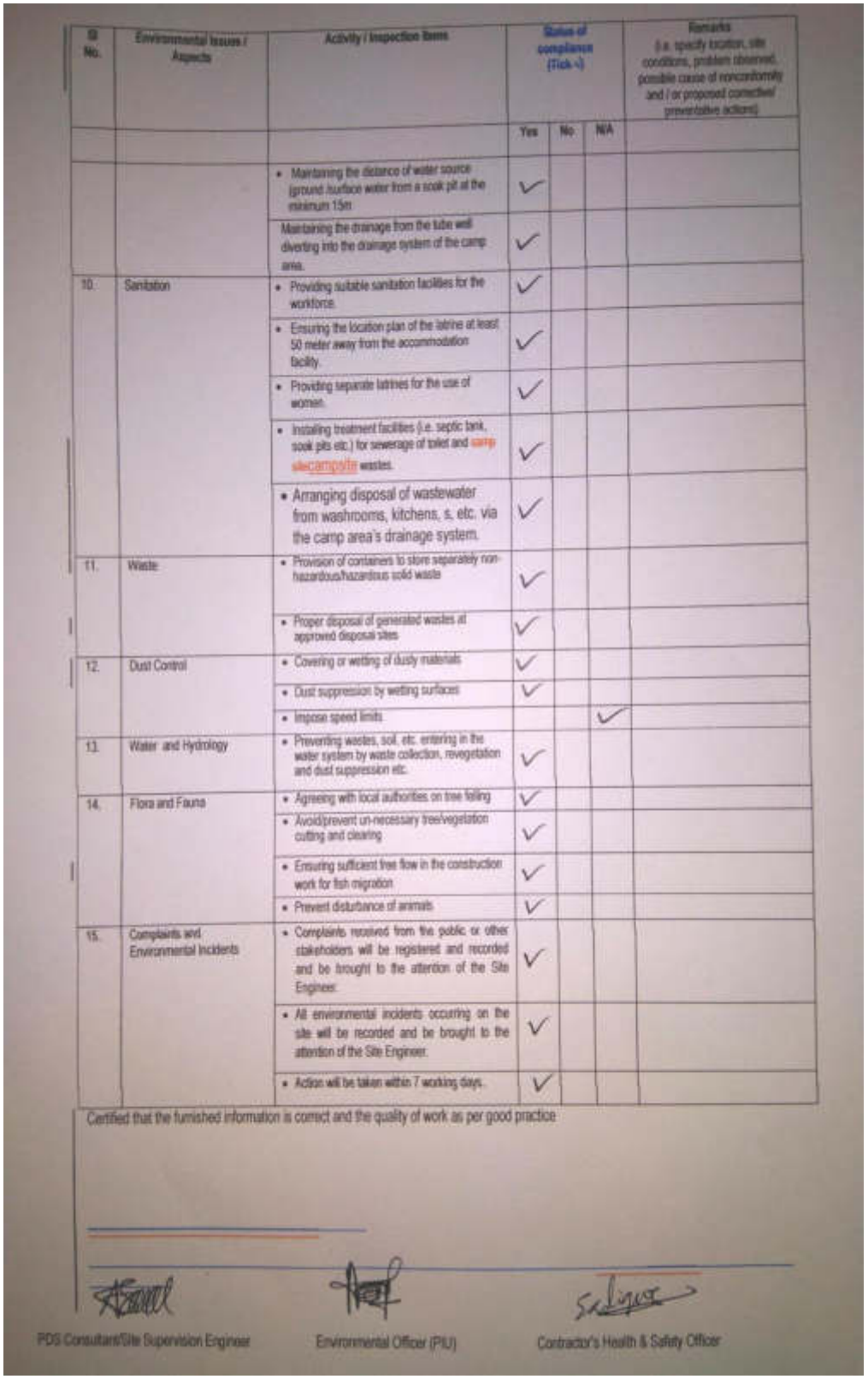


Appendix 1: Checklist for Monitoring Site-specific EMP Compliance Status

EMP Compliance Checklist — Date: 27-12-2020

Package & Scheme Name: CRDP-II/LGED/SAVAR/PCU/NCB/2018/W-01
Second City Region Development Project (CRDP-II) Razzaq Sweets Bakery – Gabtoli Bus Stand

Sl No.	Environmental issues / Aspects	Activity / Inspection Items	Status of compliance (Tick √)			Remarks (i.e. specify location, site conditions, problem observed, possible cause of nonconformity and / or proposed corrective/ preventative actions)
			Yes	No	N/A	
1.	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	√			
2.	Deployment of Environment and Safety Supervisor	• Deployment one full-time Environment health and Safety officer by the contractor to oversee and comply environmental safeguards	√			
3.	Fuel storage areas	• Install hardstand/raised platform with polyethylene on the top			√	
		• Firefighting equipment installation			√	
		• Regular checks on physical condition			√	
4.	Access road construction	• Obtaining approval			√	
		• Construction of culverts if needed			√	
5.	Earthworks	• Agreeing on disposal of spoil earth/soils	√			
		• Prevention of erosion/dust due to transporting /carrying earth	√			
6.	Workers' Health and safety	• Development of Health and Safety Plan	√			
		• Train all staff in health and safety	√			
		• Considering prevention and control of COVID-19 at worksite	√			
		• Provision of PPE (gloves, masks, helmets, gum boots, goggles etc.) and ensuring their use	√			
		• Installation of first aid facilities at work site/camps with adequate stock	√			
		• Provide separate sanitation facilities for male & female if needed	√			
		• Provision of safe drinking water to work force (arsenic free)	√			
7.	Public Safety	• Notify the community people about the construction activities in the areas	√			
		• Installation of dedicated pathways for pedestrians	√			
		• Installation of Regulatory safety signs and signals	√			
		• Limitation of construction vehicles at public roads during peak hours.	√			
8.	Protection of Cultural/Archaeological Properties	• Providing measures to protect cultural properties	√			
9.	Water Supply	• Providing construction camps /site office with potable water through installing tube wells	√			
		• Ensuring that there are no tube wells sitting near any sanitation facilities as to avoid water pollution	√			



SI No.	Environmental Issues / Aspects	Activity / Inspection Items	Status of compliance (Tick √)			Remarks (i.e. specify location, site conditions, problem observed, possible cause of nonconformity and / or proposed corrective/ preventative actions)
			Yes	No	N/A	
		• Maintaining the distance of water source (ground /surface water from a soak pit at the minimum 15m	✓			
		Maintaining the drainage from the tube well diverting into the drainage system of the camp area.	✓			
10.	Sanitation	• Providing suitable sanitation facilities for the workforce.	✓			
		• Ensuring the location plan of the latrine at least 50 meter away from the accommodation facility.	✓			
		• Providing separate latrines for the use of women.	✓			
		• Installing treatment facilities (i.e. septic tank, soak pits etc.) for sewerage of toilet and camp sitecampsite wastes.	✓			
		• Arranging disposal of wastewater from washrooms, kitchens, s, etc. via the camp area's drainage system.	✓			
11.	Waste	• Provision of containers to store separately non-hazardous/hazardous solid waste	✓			
		• Proper disposal of generated wastes at approved disposal sites	✓			
12.	Dust Control	• Covering or wetting of dusty materials	✓			
		• Dust suppression by wetting surfaces	✓			
		• Impose speed limits			✓	
13.	Water and Hydrology	• Preventing wastes, soil, etc. entering in the water system by waste collection, revegetation and dust suppression etc.	✓			
14.	Flora and Fauna	• Agreeing with local authorities on tree felling	✓			
		• Avoid/prevent un-necessary tree/vegetation cutting and clearing	✓			
		• Ensuring sufficient free flow in the construction work for fish migration	✓			
		• Prevent disturbance of animals	✓			
15.	Complaints and Environmental Incidents	• 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.	✓			

Certified that the furnished information is correct and the quality of work as per good practice

PDS Consultant/Site Supervision Engineer | Environmental Officer (PIU) | Contractor's Health & Safety Officer

Summary of Findings from Field Visits on EMP Issues & EMP Compliance Status

Visited Field sites (Contract Package no./ Scheme)	Important EMP Issues/ Environmental Attributes	Major observations from Field visits/monitoring against EMP issues	EMP Compliance Status
Visited the randomly selected schemes under the following contract packages: Visited on 09/12/2020 **Gazipur City Corporation** GCC W-01 GCC W-02, Visited on 17/12/2020 **Savar Upazila** Savar W-01 Savar W-02 Savar W-03 **Savar Pourashava** Savar Pour W-01 Savar Pour W-02	• Multilayer, strong safety barriers at excavation or deep cut construction works	Was found to secure the excavated/deep cut construction site with multilayer safety tape/barrier	EMP Complied
	• Planned stock piles for construction material	Stack yard with fence around was found at the site	EMP Complied
	• Preventive Measures against COVID	Use of PPE/temperature recording/ hand washing at worksite are in practice to prevent COVID-19 infection	EMP Complied
	• Water Supply and Sanitation Facility (Gender Segregated)	Water supply and sanitation facilities seem to be adequate	EMP Complied
	• Labor Shed	Noticed to provide hygienic labor shed at construction site	EMP Complied
	• Diversion Road	Was found to construct diversion road at place where required	EMP Complied
	• Warning/Regulatory Sign at Construction work	Warning/Regulatory sign at the construction site was found to post for the safe movement of vehicles/pedestrian	EMP Complied
	• Use of Personal Protective Equipment (PPE)	Workers were found to use PPE at construction sites	EMP Complied
	• Dust Suppression	Noticed initiative of dust suppress by spraying water on dry surfaces of construction site.	EMP Complied
	• Waste management at Campsite	Trashes generated at camp site was found.to collect in the bins	EMP Complied
	• First-aid Facility at campsite	Health safety measures including first-aid facilities are found OK at the work site	EMP Complied
	• Base environmental data of the subproject site for ambient air, water and noise (sound) quality of the site	Tested results of base environmental data confirm the permissible level of their quality	EMP Complied

Photographs from field monitoring sites

In order to demonstrate the overall environmental safeguard compliances at subproject construction site, some photographs from the sites are displayed in the following pages.

Separate Sanitation Facility for Male and Female Worker
CRDP-2/LGED/GCC/NCB/2018/W-02 (Scheme No: Improvement of Jarun Road from Lukku Market to Hatimara Lohakoir Road & Zirani-Kashimpur Road via Baganbari Chowrasta & Anayetpur GP School. (ch.0-2420m)

CRDP-2/LGED/GCC/NCB/2018/W-02
First Aid Facility for labor Shed

CRDP-2/LGED/GCC/NCB/2018/W-02
Waste collection bin Facility for at camp site

	
CRDP-2/LGED/GCC/NCB/2018/W-02 **Use of PPE/temperature gun at worksite (a first-hand measure to detect COVID-19 infection**	**CRDP-2/LGED/GCC/NCB/2018/W-02** **Washing Hand upon entering and leaving the worksite –a measure to prevent spread of COVID-19 infection**

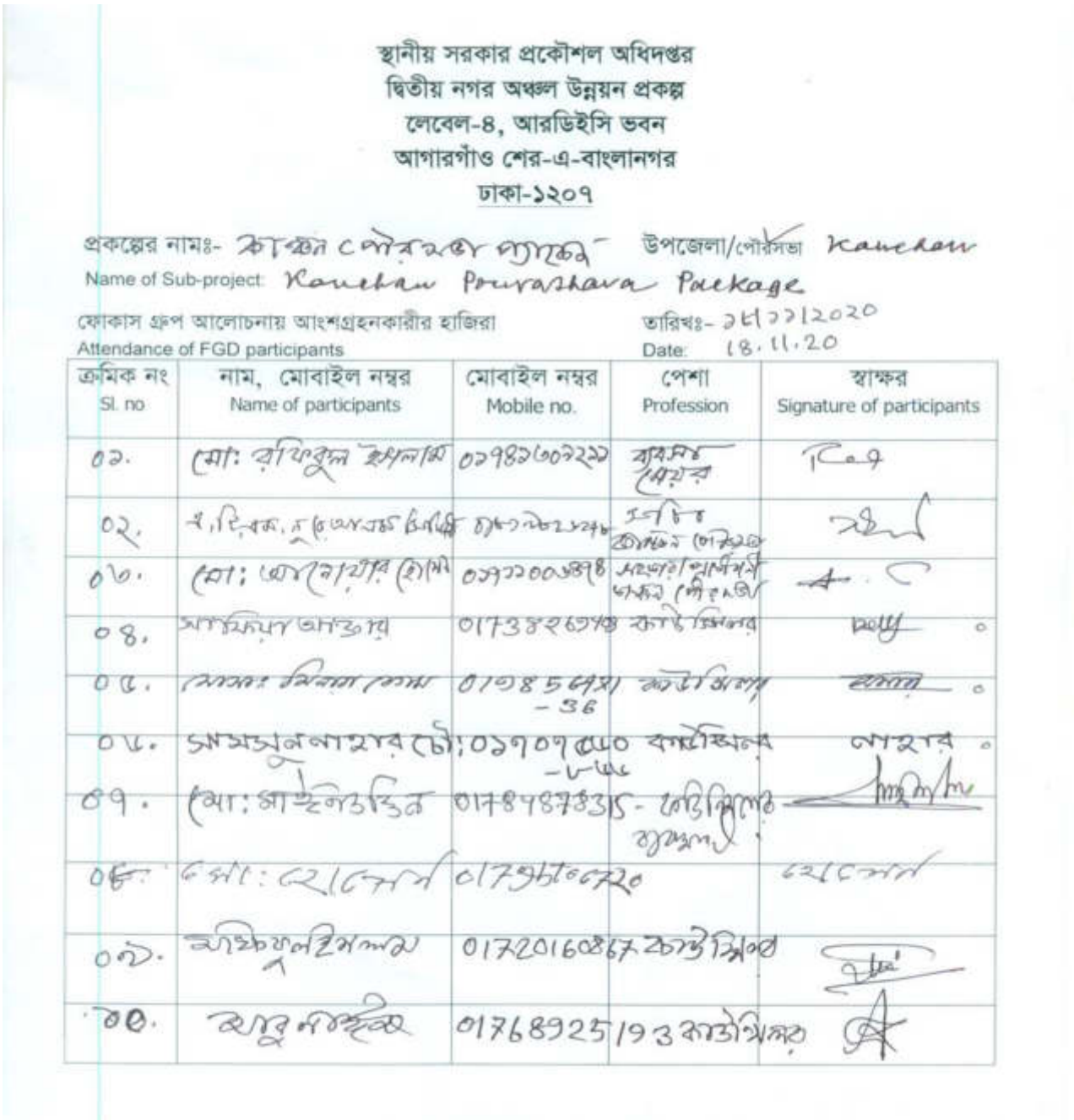
CRDP-2/LGED/GCC/NCB/2018/W-01 **IUT box culvert work on going at ch. 2+652 with Road sign for Diversion**	CRDP-2/LGED/GCC/NCB/2018/W-01 Figure **IUT box culvert work on going at ch. 2+652 with Warning sign and Safety barrier at construction site**.

	
CRDP-2/LGED/GCC/NCB/2018/W-01 **Sign Board with Name and Contact Number of Respective Focal Person**	CRDP-2/LGED/GCC/NCB/2018/W-01 **Deep Tube-well and water reservoir (water supply facilities for Labor Shed)**

	
CRDP-2/LGED/GCC/NCB/2018/W-01 **Planned stock yard for construction materials and CC block construction yard**	CRDP-2/LGED/Rupganj/NCB/2018/W-01 **Dust Control by Watering on Rupshi GC to Kanchan GC via Murapara road surface under construction**

Appendix 5: Participants List for the meeting/training/workshop

a) Consultation Workshop on Drainage Masterplan



স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেবেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ কক্সবাজার পৌরসভা পয়ঃনিষ্কাশন প্যাকেজ উপজেলা/পৌরসভা Kaxbazar
Name of Sub-project: Kaxbazar Pourashava Package

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা তারিখঃ- ১৮/১১/২০২০
Attendance of FGD participants Date: 18.11.20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
০১.	মো: রফিকুল ইসলাম	০১৭৪২৩০৭২২৩	ব্যবসায় (মেয়র)	
০২.	[illegible]	[illegible]	[illegible]	
০৩.	মো: জোবায়ের (হাসি)	০১৭২২০০৬৪৭৪	সহকারী প্রকৌশলী পৌরসভা	
০৪.	সাফিয়ান আক্তার	০১৭৩৪২৬৭৭৪	কাউন্সিলর	
০৫.	মোসা: মিনা বেগম	০১৭৪৫৫৫৯১ -৩৬	কাউন্সিলর	
০৬.	মোসাম্মৎ নাসরীন চৌ:	০১৭০৭৫৫০ -৮৮৫	কাউন্সিলর	
০৭.	মো: শাহীনুজ্জামান	০১৭৪৭৪৭৪৩১৫	[illegible]	
০৮.	মো: হোসেন	০১৭৯৮৫৫৭২০		
০৯.	[illegible]	০১৭২০১৬০৪৬৭	কাউন্সিলর	
১০.	[illegible]	০১৭৬৪৯২৫১৯৩	কাউন্সিলর	

স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেবেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ- কাউখালী পৌরসভা প্যাকেজ উপজেলা/পৌরসভা Kauchau

Name of Sub-project: Kauchau Pourashava Package

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা তারিখঃ- ১৮/১১/২০২০

Attendance of FGD participants Date: 18.11.20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
১১.	মুহা: আশরাফ আহমেদ	01688933680	SAE	[signature]
১২.	মো: হুমায়ুন কবির	01720974136	SAE	[signature]
১৩.	মো: [illegible]	01711977010	কাউন্সিলর	[signature]
১৪.	মো: রোকন মিয়া	01712-610718	কাউন্সিলর	[signature]
১৫.	[illegible]	01720962484	কাউন্সিলর	[signature]
১৬.	[illegible] হোসেন	01722035[illegible]	কাউন্সিলর	[signature]
১৭.	সুইটি আক্তার	01861828640	সদস্য	সুইটি আক্তার
১৮.	ফাতেমা খাতুন	01739551883	স্বাস্থ্য সহকারী	[signature]
১৯.	রবি সুলতানা	01956777987	টিকাদানকারী	Bobi
২০.	মোসলেমা [illegible]	01722221646	সমাজকল্যাণ [illegible]	[signature]

স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেবেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ- কচুয়া পৌরসভা প্যাকেজ   উপজেলা/পৌরসভা Kachua
Name of Sub-project: Kachua Pourashava Package

ফোকাস গ্রুপ আলোচনায় অংশগ্রহনকারীর হাজিরা   তারিখঃ- ১৮/১১/২০২০
Attendance of FGD participants   Date: 18.11.20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
২১.	নাছিমা আক্তার	0168475009	সহকারী শিক্ষিকা	Asim
২২.	বিনারানী	01825085186	গৃহিনী	[illegible]
২৩.	[illegible]	01835126273	গৃহিনী	[illegible]
২৪.	জমিলা খাতুন	01789911533	গৃহিনী	জমিলা খাতুন
২৫.	রোকসানা	01793399453	গৃহিনী	রোকসানা
২৬.	মেহেদী হাসান জাহিদ	01710-564652	Business	[illegible]
২৭.	মো: আরিফুজ্জামান	01843637078	ব্যবসা	[illegible]
২৮.	সাথী	01834185 6454	গৃহিনী	সাথী
২৯.	ডা: [illegible]	01715066046	[illegible]	[illegible]
৩০.	মো: [illegible]	01724517928	[illegible]	[illegible]

স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেবেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ- তারাব পৌরসভা
Name of Sub-project: Tarabo Pourashava

উপজেলা/পৌরসভা তারাব Tarabo

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা
Attendance of FGD participants

তারিখঃ- ২৮/১০/২০২০
Date: 28/10/'20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
১।	হাছিনা গাজী-	০১৯১৬৮১৫ ৩৫৯	মেয়র	
২।	মোঃ আমিনুল ইসলাম	০১৭১১২৬৭২৬০	নির্বাহী প্রকৌঃ	
৩।	মোঃ জাকির হোসেন ভূঁইয়া	০১৭১১২৬৭২৬০		
৪।	মোঃ আবু বক্কার সিদ্দিক	০১৭১৫৩৬৭৪		
৫।	মোঃ হোসেন	০১৮৪৩৪৩৮ ৭৩০		
৬।	আবদুর রহমান	০১৮১৩১১৮৪৪৩		
৭।	মুহাম্মদ আলম	০১৮১৭-৮৮৪৯৫৪		
৮।	মোহাম্মদ আবির হোসেন	০১৯১১-৯৬০৪৭৫	SAE	
৯।	প্রোঃ পারভেজ আক্তার	০১৭১৮৮৭৯৫৭০	T.L.C সদস্য	
১০।	ফারজানা আহমেদ	০১৯৫১৫২৫৭১৪	T.L. মেম্বার	ফারজানা আহমেদ

স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেবেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ- উপজেলা/পৌরসভা তাবুবে

Name of Sub-project:

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা তারিখঃ- ২৪/১০/২০২০

Attendance of FGD participants Date: 28/10/'20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
২১	মোসা: হুমায়রা আক্তার	017277 72345	TLC সদস্য	
22	[illegible]	01712126258	[illegible]	[illegible]
২৩	[illegible]	61983	462123	[illegible]
২৪	Md. Nazmul Islam	01516171665	SAE-E	28/10/20
২৫	মো: [illegible]	01736 16245	Service	28/10/20
২৬	[illegible]	01866791971	Service	28/10/2020
২৭	মো: [illegible]	01912926644	Service LGED	28/10/20
২৮	মো: [illegible]	01711566897	SAE LGED	[illegible]
২৯	[illegible]	01712296051	Counciloi-1	[illegible]

স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেবেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ যশোর পৌ: সভার ড্রেনেজ মা: প্লান উপজেলা/পৌরসভা সহকার

Name of Sub-project: Drainage masterplan of Jessore Pourashova

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা — তারিখঃ- ২২.২০.২০২০

Attendance of FGD participants — Date: 12.10.'20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
০১	Md. Jahirul Islam Chakladar Rontu	01711298855	Mayor	12/10/2020
০২	Md. Habibur Rahoman Chakladar.	01711-335875	Councillor	
০৩.	S. M. Sharif Hasan	01711213978	XEN	
৪.	মোঃ [illegible]	01718652055	[illegible]	
৫.	Md. Azmal Hassan	01711310294	[illegible]	
৬.	SK [illegible]	01716699670	Councillor Ward-09	12/10/20
৭.	AZIJUL ISLAM	01711-337073	11	12/10/2020
৮.	Md. Zuba-ur-Rahman Sae-J.P	01710-371842	SAE J.P.	
৯	Sikder Mokbahur Rahman	01712-732869	SAE JP	
১০	MD Akbal Hossain	01712662462		

স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেবেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ- যশোর পৌ: সহ অন্য শহর উপজেলা/পৌরসভা

Name of Sub-project: Drainage masterplan of Jessore Pourashava

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা তারিখঃ- ২২/১০/২০২০

Attendance of FGD participants Date: 12.10.20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
11	Md. Ahsan Bari	01712013213	AE, JPS	
12	Sultana Sajia	01723355202		
13	SK. MOKSIMUL BARI	0171-1732 55	Councillor	
14.	Teslima Akter	01716520055	Social worker	
15.	Rabindra nath Rala	01715-143941	ব্যবসা	
16.	Md. Wohedurzzaman	01710786633	ব্যবসা	
17.	MD. Sayfuzzaman	01751683454	চাকুরী	
18	MD. HANNA	017126356/9	চাকুরী	
19.	Md. Moksed Ali	01711662944	ব্যবসা	
20	MOMOTAZ PARVEN BITTE	0179-92217	গৃহিনী	

স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেবেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ- যশোর শহর: সরু ড্রেনের মাস্টারপ্লান/পৌরসভা যশোর
Name of Sub-project: Drainage masterplan of Jessore

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা তারিখঃ- ২২/১০/২০২০
Attendance of FGD participants Date: 12.10.20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
21	FARZANA AKTAR	01750-370189	সুধিবৃন্দ	FARZANA
22	Ummay Zoaiyna Rafin	01935-158057	সুধিবৃন্দ	Rafin
23.	Uttom Kumar Kundu	01715-268831	ব্যবসা	
24.	Md. Abdur RazzakMonju	01712-544186	ব্যবসা	
25.	Shekh Rokeyaparvin Doli	01726-505870	Councillore (Femal)	
26.	Nasima Akter Joli	01911708398	Councillor (Femal)	
27.	Jibon nahar	01715008196	চাকরী	
28	ABDUL	01751357393	সুধিবৃন্দ	
29	IRIN PERVEN	01713162426	সুধিবৃন্দ	
30	IRIN Perven Daisy	01712-926526	Councillore Femal	

স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেবেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ- সমীক্ষা লেঃ সদর যেশোর মঃ: পৌরজেলা/পৌরসভা সমীক্ষা

Name of Sub-project: Drainage masterplan of Jessore Pourashova.

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা
Attendance of FGD participants

তারিখঃ- 22.10.2020
Date: 12.10.20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
31	রাজিয়া সুলতান	01714889084	SIC সদস্য	
32	করিমুন্নেছা	01761723901	SIC সদস্য	
33	সাজেদা সুলতানা	01939662112	SIC মহিলা সদস্য	
34	জাহাঙ্গীর আহম্মদ	কাউন্সিলর ওয়ার্ড নং ১	01722-260094	

স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেবেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ- মংলা পৌরসভা ড্রেনেজ মাস্টারপ্লান উপজেলা/পৌরসভা মংলা
Name of Sub-project: Drainage masterplan Mongla

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা
Attendance of FGD participants

তারিখঃ- ২২/১০/২০২০
Date: 11.10.20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
১.	[illegible]	[illegible]	[illegible]	11.10
০২.	নয়ন কুমার [illegible]	01719 478271	AC (Land) Mongla	২২/১০/২০২০
# ৩.	মো: [illegible]	01712860112	Drainage Design Engr.	11.10.2020
৪.	[illegible]	[illegible]	Structural Engineer	
৫.	[illegible]	[illegible]	CDS	
৬	[illegible]	[illegible]	Field Engineer	
৭	[illegible]	[illegible]	[illegible]	
৮	[illegible]	01716 190 549.	[illegible]	11/10/2020
৯.	[illegible]	01711 029 800	[illegible]	
১০	[illegible]	[illegible]	[illegible]	২২/১০/২০

স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেবেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ- মুংলা পৌরসভা ড্রেনেজ মাস্টার উপজেলা/পৌরসভা
Name of Sub-project: Mongla Pourashava Drainage Master plan.

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা
Attendance of FGD participants

তারিখঃ- ১১/১০/২০২০
Date: 11. 10. 20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
১১.	বিভা. এম. কবির	০১৭১১-৭৬ ৭৭৭০	কাবিতা	
১২.	মোঃ ইব্রাহিম হোসেন	০১৭২৮২৬ ০৫২৭	কন্ট্রাক্টর	১১/১০/২০২০
১৩	মোঃ [illegible]	০১৭১১ ৩৫৭-৭৫০	[illegible]	১১/১০/২০২০
১৪	মোঃ [illegible]	০১৯৬৫০৫ ৭৩০৫	[illegible]	
১৫	মোঃ [illegible]	০১৭৭৭১৪ ৫৬৮৭	[illegible]	
১৬	[illegible]	[illegible]	[illegible]	
১৭	[illegible]	০১৮২৭৭৩৩৫৭	[illegible]	
১৮.	মোঃ ফরিদ	০১৫৪১১৩৯৪৮	চাকুরী	
১৯.	মোঃ [illegible]	০১৭৬৭৪৭৮ ৩৭	[illegible]	
২০	[illegible]	০১৭৭৪৬০৫৫৫	[illegible]	

স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেবেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

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প্রকল্পের নামঃ- মংলা পৌঃ সভা ড্রেনেজ মাঃ প্ল্যান উপজেলা/পৌরসভা মংলা

Name of Sub-project: Drainage Masterplan Mongla Pourashova.

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা — তারিখঃ- ১১/১০/২০২০

Attendance of FGD participants — Date: 11.10.20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
২১.	[illegible]	01716074858	[illegible]	
২২	[illegible]	01711 350820	সাংবাদিক	
২৩	মোঃ [illegible] রহমান	01729609999	[illegible]	
২৪	[illegible]	01711-346443	ব্যবসা	
২৫	ইমারত আহসান	01741247880	UWAO	
২৬	বেবি সুলতানা	01714932645	শিক্ষিকা	
২৭	আনোয়ারা [illegible]	01715166679	[illegible]	
২৮	[illegible]	01716-152492	[illegible]	
২৯	[illegible]	01996024222		
৩০	মো: [illegible]	01926[illegible]	[illegible]	

স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেভেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ- মংলা পৌ: সভা ড্রেনেজ মা: প্লান উপজেলা/পৌরসভা মংলা

Name of Sub-project: Drainage Master plan Mongla Pourashova.

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা — তারিখঃ- ১১/১০/২০২০

Attendance of FGD participants — Date: 11.10.20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
৩১	[illegible]	01711841473	চাকরি	[signature]
৩২	[illegible]	01940075218	ব্যবসা	[signature]
৩৩	কিশোর চক্রবর্তী	01700709779	[illegible]	[signature]
34	Md Jashimuddin	01711341655	Journalist	[signature]
35	মনি আক্তার	01951908147	গৃহিনি	মনি আক্তার
36	সাবিনা বেগম	01929938911	গৃহিনি	সাবিনা
37.	মোঃ হাফিজুর রহমান	01717086449	সভাপতি কৃষক সমিতি	[signature] 11-10-20
38.	মিঠু ফকির	01711342245	[illegible]	[signature] 11.10.2020
39.	Subrata borman	01722-738106	LGED mongla	Subrata
40.	Bijan Kumer Das	01711-144107	LGED upazila Engineer,	[signature] 11.10.2020

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স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেভেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ- মংলা পৌ: সভা ড্রেনের মা: প্ল্যান উপজেলা/পৌরসভা মংলা
Name of Sub-project: Drainage Master plan of Mongla Pourashava.

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা
Attendance of FGD participants

তারিখঃ- ১১/১০/২০২০
Date: 11. 10. 20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
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স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেবেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

৬

প্রকল্পের নামঃ- মনোহরদী সদর ড্রেনেজ মাস্টার প্লান উপজেলা/পৌরসভা মনোহরদী

Name of Sub-project: Drainage master plan of Monohordi Pourashava.

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা
Attendance of FGD participants

তারিখঃ- ২২/১০/২০২০
Date: 11.10.20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
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স্থানীয় সরকার প্রকৌশল অধিদপ্তর
দ্বিতীয় নগর অঞ্চল উন্নয়ন প্রকল্প
লেভেল-৪, আরডিইসি ভবন
আগারগাঁও শের-এ-বাংলানগর
ঢাকা-১২০৭

প্রকল্পের নামঃ- মংলা পৌঃ সভা ড্রেনেজ মাঃ প্লান উপজেলা/পৌরসভা মংলা

Name of Sub-project: Drainage master plan of Mongla Pourashova

ফোকাস গ্রুপ আলোচনায় আংশগ্রহনকারীর হাজিরা
Attendance of FGD participants

তারিখঃ- ১১/১০/২০২০
Date: 11. 10. 20

ক্রমিক নং Sl. no	নাম, মোবাইল নম্বর Name of participants	মোবাইল নম্বর Mobile no.	পেশা Profession	স্বাক্ষর Signature of participants
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b) Orientation workshop at Narayanganj on 10th September 2020

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C) Information Exchange Meeting at Dhaka LGED on 28th November 2020

Local Government Engineering Department (LGED)
Second City Region Development Project

Information Exchange Meeting

Venue: Seminar Room, RDEC, LGED Bhaban   Date: 28/11/2020

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Appendix 6: Sample Laboratory test reports for ambient air, water (surface & ground) quality and noise level quality

For GCC W-01

মৃত্তিকা, পানি ও পরিবেশ বিভাগ
ঢাকা বিশ্ববিদ্যালয়, ঢাকা ১০০০, বাংলাদেশ

Department of Soil Water and Environment
University of Dhaka, Dhaka 1000, Bangladesh

Date: 24. 10. 2020

Surface Water Quality Test Report

Sample supplied by

Md. Anwar Hossain
RAB-RC (Pvt) Ltd. &
Hossain Copnstruction (Pvt.) Ltd. JV
Commercial Plot No-16, Main Road no-1, Section-10
Senpara Parbata, Mirpur, Dhaka-1216

Name of Road Construction Subproject Site: IUT to Icharkandi Road in Gazipur City Corporationunder CRDP-II/LGED/GCC /NCB/2018/W-01 of Second City Region Development Project

Service Rendered : Environmental Quality Test for EIA report of a road construction site
Sample Title : Surface Water Sample from a nearby beel (depression) **(SW)**
Sampling Date : 23/09/2020
Date of Testing : 24/09/2020 - 18/10/2020
Geographical Coordinates : 23°56'52.25"N and 90°21'57.34"E

Analytical Results:
The results of analysis of Surface Water Sample from a nearby beel (depression) are given below:

Table 1. Analytical Results of Surface Water (SW) Sample

Sample Location	Test Parameters	Units	Results	Methods
Nearby IUT to Icharkandi Road in Gazipur City Corporation (23°56'52.25"N and 90°21'57.34"E)	pH	-	7.12	pH meter
	EC	(µS/cm)	114.7	EC meter
	DO	(mg/L)	4.81	DO meter(Hanna HI98193)
	BOD_{5days}	(mg/L)	0.78	DO meter(Hanna HI98193)
	COD	(mg/L)	5.18	Chemical method
	TSS	(mg/L)	<4.0	Gravimetric method
	TDS	(mg/L)	81	TDS Multimeter
	Iron (Fe)	(mg/L)	<0.20	AAS
	Manganese (Mn)	(mg/L)	<0.20	AAS
	Arsenic (As)	(ppb)	7.44	HG-AAS (APHA 3114)
	Turbidity	NTU	6.22	Turbidity meter
	NO_3-N	(mg/L)	0.83	Kjeldahl method
	Cl^-	(mg/L)	8.74	Titrimetric method
	Total coliform	(cfu/100 ml)	3.06×10^2	Membrane filtration method

(Dr. Md. Zakir Hossain Khan)
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মৃত্তিকা, পানি ও পরিবেশ বিভাগ
ঢাকা বিশ্ববিদ্যালয়, ঢাকা ১০০০, বাংলাদেশ

Department of Soil Water and Environment
University of Dhaka, Dhaka 1000, Bangladesh

Date: 24. 10. 2020

Ground Water Quality Test Report

Sample supplied by

Md. Anwar Hossain
RAB-RC (Pvt) Ltd. &
Hossain Copnstruction (Pvt.) Ltd. JV
Commercial Plot No-16, Main Road no-1, Section-10
Senpara Parbata, Mirpur, Dhaka-1216

Name of Road Construction Subproject Site: IUT to Icharkandi Road in Gazipur City Corporationunder CRDP-II/LGED/GCC /NCB/2018/W-01 of Second City Region Development Project

Service Rendered : Environmental Quality Test for EIA report of a road construction site
Sample Title : Ground Water Sample from nearbyTube well**(GW)**
Sampling Date : 23/09/2020
Date of Testing : 24/09/2020 - 18/10/2020
Geographical Coordinates :23°56'45.67"N and 90°22'6.03"E

Analytical Results:
The results of analysis of Ground Water Sample from nearby Tubewell are given below:

1. Analytical Results of Ground Water Sample from nearby Tubewell**(GW)**

Sample Location	Test Parameters	Units	Results	Methods
Nearby IUT to Icharkandi Road in Gazipur City Corporation (23°56'45.67"N and 90°22'6.03"E)	pH	-	7.17	pH meter
	EC	(µS/cm)	180.2	EC meter
	DO	(mg/L)	6.96	DO meter(Hanna HI98193)
	BOD_{5days}	(mg/L)	Nil	DO meter(Hanna HI98193)
	COD	(mg/L)	3.22	Chemical method
	TSS	(mg/L)	Nil	Gravimetric method
	TDS	(mg/L)	161	TDS Multimeter
	Iron (Fe)	(mg/L)	<0.20	AAS
	Manganese (Mn)	(mg/L)	0.27	AAS
	Arsenic (As)	(ppb)	5.05	HG-AAS (APHA 3114)
	Chloride (Cl^-)	(mg/L)	6.99	Titrimetric method
	Nitrate (NO_3-N)	(mg/L)	4.97	Kjeldahl method

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মৃত্তিকা, পানি ও পরিবেশ বিভাগ
ঢাকা বিশ্ববিদ্যালয়, ঢাকা ১০০০, বাংলাদেশ

Department of Soil Water and Environment
University of Dhaka, Dhaka 1000, Bangladesh

Date: 24.10. 2020

Ambient Air Quality Test Report

Sample supplied by

Md. Anwar Hossain
RAB-RC (Pvt) Ltd. &
Hossain Copnstruction (Pvt.) Ltd. JV
Commercial Plot No-16, Main Road no-1, Section-10
Senpara Parbata, Mirpur, Dhaka-1216

Name of Road Construction Subproject Site: IUT to Icharkandi Road in Gazipur City Corporationunder CRDP-II/LGED/GCC /NCB/2018/W-01 of Second City Region Development Project
Service Rendered : Environmental Quality Test for EIA Report
Sample Title : Air Quality Monitoring (**AQ**) NearRoad Construction Subproject Site
Sampling Date : **(23/09/2020)**
Geographical Coordinates : 23°56'55.12"N and 90°21'47.32"E

Analytical Results:
The test results of ambient air quality analysis are given below:

Description of Parameters	Unit	Concentration of Ambient Air Quality Parameters			DoE (Urban Standards)	WHO guidelines ($\mu g/m^3$)
		Min	Max	Avg.		
Carbon Monoxide (CO)	ppm	0.001	0.003	**0.001**	9 ppm	-
Carbon Dioxide (CO_2)	ppm	651	705	**676**	-	-
Nitrogen Dioxide (NO_2)	ppm	0.058	0.121	**0.087**	0.053 ppm	40 (1 hr)
Sulphur Dioxide (SO_2)	ppm	0.001	0.002	**0.100**	0.03 ppm	20 (24 hr)
Suspended Particulate Matter (SPM)	μgm^{-3}	60	98	**75**	$200\mu gm^{-3}$	
Particulate Matter ($PM_{2.5}$)	μgm^{-3}	28	86	**46**	$65\mu gm^{-3}$	25 (24 hrs)
Particulate Matter (PM_{10})	μgm^{-3}	22	90	**52**	$150\mu gm^{-3}$	50 (24 hrs)
Lead (Pb)	μgm^{-3}	Nil	Nil	Nil	$0.5\ \mu gm^{-3}$ Annual	-
Temperature	°c	30	30	**29**	-	-
Relative Humidity	%	78	86	**80**	-	-

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Department of Soil Water and Environment
University of Dhaka, Dhaka 1000, Bangladesh

Date: 24. 10. 2020

Noise Quality Test Report

Sample supplied by

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RAB-RC (Pvt) Ltd. &
Hossain Copnstruction (Pvt.) Ltd. JV
Commercial Plot No-16, Main Road no-1, Section-10
Senpara Parbata, Mirpur, Dhaka-1216

Name of Road Construction Subproject Site: IUT to Icharkandi Road in Gazipur City Corporationunder CRDP-II/LGED/GCC /NCB/2018/W-01 of Second City Region Development Project

Service Rendered : Environmental Quality Test for EIA report of a road construction site
Sample Title : Noise level monitoring (**NL**) near roadconstruction site
Sampling Date : 23/09/2020
Temperature : 29°C
Relative Humidity : 80%
Geographical Coordinates : 23°56'54.77"N and 90°21'46.92"E

Analytical Results:

The results of noise level monitoring are given below:

Sampling Locations	Geographical Co-ordinates	Time	Min dBA	Max dBA	DOE Standard for Noise (Schedule # 4, Rule #12; ECR 1997)	
					Residential Area	Mixed Area
Nearby IUT to Icharkandi Road CRDP- II / LGED /GCC/NCB/2018/W-01	23°56'54.77"N and 90°21'46.92"E	0800-0900	48.5	64.7	50 dBA at Day Time and 40 dBA at Night Time	60 dBA at Day Time and 50 dBA at Night Time
		1200-1300	52.4	76.8		
		1800-1900	49.4	72.0		

*According to the Noise Pollution (Regulation and Control) Rules, 2006, acceptable sound levels are 55 decibels(dBA) for daytime – 6am to 9pm –and 45 decibels for night – 9pm to 6am – in residential areas; 50 decibels for daytime and 40 decibels for night in quiet places; 60 decibels for daytime and 50 decibels for night in mixed areas; 70 decibels for daytime and 60 decibels for night in commercial areas; and 75 decibels for daytime and 70 decibels for night in industrial areas.

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For Savar W-03

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Department of Soil Water and Environment
University of Dhaka, Dhaka 1000, Bangladesh

Date: 24. 10. 2020

Surface Water Quality Test Report

Sample supplied by

Chairman
Modern Structures Ltd.
Head Office: 15/4(4th Floor) Mirpur Road
Shyamoli, Dhaka -1207, Bangladesh

Name of Road Construction Subproject Site: Bongaon UP Road under the package No. CRDP-II/LGED/DHAKA/SAVAR /NCB/2018/W-03 of Second City Region Development Project

Service Rendered : Environmental Quality Test for EIA report of a road construction site
Sample Title : Surface Water Sample from anearby canal**(SW)**
Sampling Date : 19/09/2020
Date of Testing : 22/09/2020 - 18/10/2020
Geographical Coordinates :23°49'27.46"N and 90°16'43.81"E

Analytical Results:
The results of analysis of Surface Water Sample from a canal are given below:

Table 1. Analytical Results of Surface Water (SW) Sample

Sample Location	Test Parameters	Units	Results	Methods
Nearby Bongaon UP Road Construction Site (23°49'27.46"N and 90°16'43.81"E)	pH	-	7.20	pH meter
	EC	(µS/cm)	185	EC meter
	DO	(mg/L)	4.90	DO meter(Hanna HI98193)
	BOD_{5days}	(mg/L)	0.86	DO meter(Hanna HI98193)
	COD	(mg/L)	33.18	Chemical method
	TSS	(mg/L)	8	Gravimetric method
	TDS	(mg/L)	162	TDS Multimeter
	Iron (Fe)	(mg/L)	<0.20	AAS
	Manganese (Mn)	(mg/L)	<0.20	AAS
	Arsenic (As)	(ppb)	18.55	HG-AAS (APHA 3114)
	Turbidity	NTU	12.28	Turbidity meter
	NO_3-N	(mg/L)	13.18	Kjeldahl method
	Cl^-	(mg/L)	11.92	Titrimetric method
	Total coliform	(cfu/100ml)	$1.92x10^2$	Membrane filtration method

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Department of Soil Water and Environment
University of Dhaka, Dhaka 1000, Bangladesh

Date: 24. 10. 2020

Ground Water Quality Test Report

Sample supplied by

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Modern Structures Ltd.
Head Office: 15/4(4th Floor) Mirpur Road
Shyamoli, Dhaka-1207, Bangladesh

Name of Road Construction Subproject Site: Bongaon UP Road under the package No. CRDP-II/LGED/DHAKA/SAVAR /NCB/2018/W-03 of Second City Region Development Project

Service Rendered : Environmental Quality Test for EIA report of a road construction site
Sample Title : Groundwater Sample from a nearby submersible Tubewell **(GW)**
Sampling Date : 19/09/2020
Date of Testing : 22/09/2020 - 18/10/2020
Geographical Coordinates : 23°49'10.08"N and 90°16'50.86"E

Analytical Results:
The results of analysis of Groundwater Sample from nearbyTubewell are given below:

1. Analytical Results of Groundwater Sample from nearby Tubewell **(GW)**

Sample Location	Test Parameters	Units	Results	Methods
Nearby Bongaon UP Road construction site (23°49'10.08"N and 90°16'50.86"E)	pH	-	7.05	pH meter
	EC	(µS/cm)	168.9	EC meter
	DO	(mg/L)	7.04	DO meter(Hanna HI98193)
	BOD_{5days}	(mg/L)	Nil	DO meter(Hanna HI98193)
	COD	(mg/L)	Nil	Chemical method
	TSS	(mg/L)	Nil	Gravimetric method
	TDS	(mg/L)	144	TDS Multimeter
	Iron (Fe)	(mg/L)	<0.20	AAS(Atomic Absorption Spectrophotometry)
	Manganese (Mn)	(mg/L)	0.47	AAS
	Arsenic (As)	(ppb)	7.96	HG-AAS (APHA 3114)
	Chloride (Cl^-)	(mg/L)	2.87	Titrimetric method
	Nitrate (NO_3-N)	(mg/L)	3.14	Kjeldahl method

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Department of Soil Water and Environment
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Date: 24. 10. 2020

Ambient Air Quality Test Report

Sample supplied by

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Name of Road Construction Subproject Site: Bongaon UP Road under the package No. CRDP-II/LGED/DHAKA/SAVAR /NCB/2018/W-03 of Second City Region Development Project
Service Rendered : Environmental Quality Test for EIA Report
Sample Title : Air Quality Monitoring (**AQ**) NearRoad Construction Subproject Site
Sampling Date : 19/09/2020
Geographical Coordinates : 23°50'30.36"N and 90°15'40.12"E

Analytical Results:
The test results of ambient air quality analysis are given below:

Description of Parameters	Unit	Concentration of Ambient Air Quality Parameters			DoE (Urban Standards)	WHO guidelines ($\mu g/m^3$)
		Min	Max	Avg.		
Carbon Monoxide (CO)	ppm	0.010	0.020	**0.013**	9 ppm	-
Carbon Dioxide (CO_2)	ppm	598	688	**656**	-	-
Nitrogen Dioxide (NO_2)	ppm	0.011	0.510	**0.125**	0.053 ppm	40 (1 hr)
Sulphur Dioxide (SO_2)	ppm	0.011	0.490	**0.238**	0.03 ppm	20 (24 hr)
Suspended Particulate Matter (SPM)	μgm^{-3}	86	214	**119**	$200\mu gm^{-3}$	
Particulate Matter ($PM_{2.5}$)	μgm^{-3}	9	56	**23**	$65\mu gm^{-3}$	25 (24 hrs)
Particulate Matter (PM_{10})	μgm^{-3}	13	107	**47**	$150\mu gm^{-3}$	50 (24 hrs)
Lead (Pb)	μgm^{-3}	Nil	Nil	Nil	$0.5\ \mu gm^{-3}$ Annual	-
Temperature	°c	35	39	**37**	-	-
Relative Humidity	%	65	80	**70**	-	-

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Department of Soil Water and Environment
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Date: 24. 10. 2020

Noise Quality Test Report

Sample supplied by

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Name of Road Construction Subproject Site: Bongaon UP Road under the package No. CRDP-II/LGED/DHAKA/SAVAR /NCB/2018/W-03 of Second City Region Development Project

Service Rendered : Environmental Quality Test for EIA report of a Road Construction site
Sample Title : Noise level monitoring (**NL**) Near Roadconstruction site
Sampling Date : 19/09/2020
Temperature : 37°C
Relative Humidity : 70%
Geographical Coordinates : 23°50'30.36"N and 90°15'39.72"E

Analytical Results:

The results of noise level monitoring are given below:

Sampling Locations	Geographical Co-ordinates	Time	Min dBA	Max dBA	DOE Standard for Noise (Schedule # 4, Rule #12; ECR 1997)	
					Residential Area	Mixed Area
Nearby Bongaon UP Road CRDP-II/LGED/DHAKA/SAVAR/ NCB/2018/W-03	23°50'30.36"N and 90°15'39.72"E	0800-0900	44.6	69.2	50 dBA at Day Time and 40 dBA at Night Time	60 dBA at Day Time and 50 dBA at Night Time
		1200-1300	53.7	74.8		
		1800-1900	52.4	77.5		

*According to the Noise Pollution (Regulation and Control) Rules, 2006, acceptable sound levels are 55 decibels(dBA) for daytime – 6am to 9pm –and 45 decibels for night – 9pm to 6am – in residential areas; 50 decibels for daytime and 40 decibels for night in quiet places; 60 decibels for daytime and 50 decibels for night in mixed areas; 70 decibels for daytime and 60 decibels for night in commercial areas; and 75 decibels for daytime and 70 decibels for night in industrial areas.

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Savar Poura W-01

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Department of Soil Water and Environment
University of Dhaka, Dhaka 1000, Bangladesh

Date: 24. 10. 2020

Surface Water Quality Test Report

Sample supplied by

Managing Director
Toma Shikder JV
1349, Mazar Road, BKSP, (Zirani) Ashulia
Savar, Dhaka

Name of Road Construction Subproject Site: Rajashan Sufia Bekary to Gashmohol road under the Package No.: CRDPII/LGED/DHAKA /SAVAR/POURA/ NCB/2018/W-01 of Second City Region Development Project

Service Rendered : Environmental Quality Test for EIA report of a road construction site
Sample Title : Surface Water Sample from nearby pond**(SW)**
Sampling Date : 20/09/2020
Date of Testing : 22/09/2020 - 18/10/2020
Geographical Coordinates :23°50'14.01"N and 90°16'32.51"E

Analytical Results:
The results of analysis of Surface Water Sample from a nearby pond are given below:

Table 1. Analytical Results of Surface Water (SW) Sample

Sample Location	Test Parameters	Units	Results	Methods
Nearby Rajashan Sufia Bekary to Gashmohol road construction site (23°50'14.01"N and 90°16'32.51"E)	pH	-	7.31	pH meter
	EC	(µS/cm)	184.2	EC meter
	DO	(mg/L)	4.98	DO meter(Hanna HI98193)
	BOD_{5days}	(mg/L)	0.44	DO meter(Hanna HI98193)
	COD	(mg/L)	5.18	Chemical method
	TSS	(mg/L)	6.0	Gravimetric method
	TDS	(mg/L)	192	TDS Multimeter
	Iron (Fe)	(mg/L)	<0.20	AAS
	Manganese (Mn)	(mg/L)	<0.20	AAS
	Arsenic (As)	(ppb)	8.75	HG-AAS (APHA 3114)
	Turbidity	NTU	10.22	Turbidity meter
	NO_3-N	(mg/L)	6.87	Kjeldahl method
	Cl^-	(mg/L)	28.02	Titrimetric method
	Total coliform	(cfu/100ml)	2.11×10^2	Membrane filtration method

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Date: 24. 10. 2020

Ground Water Quality Test Report

Sample supplied by

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Name of Road Construction Subproject Site: Rajashan Sufia Bekary to Gashmohol road under the Package No. CRDPII/LGED/DHAKA /SAVAR/POURA/ NCB/2018/W-01 of Second City Region Development Project

Service Rendered : Environmental Quality Test for EIA report of a road construction site
Sample Title : Ground Water Sample from nearby Tubewell **(GW)**
Sampling Date : 20/09/2020
Date of Testing : 22/09/2020 - 18/10/2020
Geographical Coordinates :23°50'16.35"N and 90°16'37.63"E

Analytical Results:
The results of analysis of Ground Water Sample from nearby Tubewell are given below:

1. Analytical Results of Ground Water Sample from nearby Tubewell **(GW)**

Sample Location	Test Parameters	Units	Results	Methods
Nearby Rajashan Sufia Bekary to Gashmohol road construction site (23°50'16.35"N and 90°16'37.63"E)	pH	-	7.00	pH meter
	EC	(µS/cm)	129.4	EC meter
	DO	(mg/L)	7.10	DO meter(Hanna HI98193)
	BOD_{5days}	(mg/L)	Nil	DO meter(Hanna HI98193)
	COD	(mg/L)	3.22	Chemical method
	TSS	(mg/L)	Nil	Gravimetric method
	TDS	(mg/L)	97	TDS Multimeter
	Iron (Fe)	(mg/L)	<0.20	AAS
	Manganese (Mn)	(mg/L)	<0.20	AAS
	Arsenic (As)	(ppb)	4.77	HG-AAS (APHA 3114)
	Chloride (Cl^-)	(mg/L)	3.55	Titrimetric method
	Nitrate (NO_3-N)	(mg/L)	4.78	Kjeldahl method

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Department of Soil Water and Environment
University of Dhaka, Dhaka 1000, Bangladesh

Date: 24. 10. 2020

Ambient Air Quality Test Report

Sample supplied by

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Savar, Dhaka

Name of Road Construction Subproject Site: Rajashan Sufia Bekary to Gashmohol road under the Package No. CRDPII/LGED/DHAKA /SAVAR/POURA/ NCB/2018/W-01 of Second City Region Development Project

Service Rendered : Environmental Quality Test for EIA Report
Sample Title : Air Quality Monitoring (**AQ**) NearRoad Construction Subproject Site
Sampling Date : 20/09/2020
Geographical Coordinates : 23°49'51.65"N and 90°17'20.13"E

Analytical Results:
The test results of ambient air quality analysis are given below:

Description of Parameters	Unit	Concentration of Ambient Air Quality Parameters			DoE (Urban Standards)	WHO guidelines ($\mu g/m^3$)
		Min	Max	Avg.		
Carbon Monoxide (CO)	ppm	0.001	0.002	**0.001**	9 ppm	-
Carbon Dioxide (CO_2)	ppm	566	632	**595**	-	-
Nitrogen Dioxide (NO_2)	ppm	0.098	0.134	**0.100**	0.053 ppm	40 (1 hr)
Sulphur Dioxide (SO_2)	ppm	0.100	0.100	**0.100**	0.03 ppm	20 (24 hr)
Suspended Particulate Matter (SPM)	μgm^{-3}	49	63	**57**	$200\mu gm^{-3}$	
Particulate Matter ($PM_{2.5}$)	μgm^{-3}	19	26	**22**	$65\mu gm^{-3}$	25 (24 hrs)
Particulate Matter (PM_{10})	μgm^{-3}	33	44	**37**	$150\mu gm^{-3}$	50 (24 hrs)
Lead (Pb)	μgm^{-3}	Nil	Nil	Nil	$0.5\ \mu gm^{-3}$ Annual	-
Temperature	°c	32	37	**35**	-	-
Relative Humidity	%	74	90	**84**	-	-

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Department of Soil Water and Environment
University of Dhaka, Dhaka 1000, Bangladesh

Date: 24. 10. 2020

Noise Quality Test Report

Sample supplied by

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Name of Road Construction Subproject Site: Rajashan Sufia Bekary to Gashmohol road under the Package No. CRDPII/LGED/DHAKA /SAVAR/POURA/ NCB/2018/W-01 of Second City Region Development Project

Service Rendered : Environmental Quality Test for EIA report of a Road Construction site
Sample Title : Noise level monitoring (**NL**) Near Roadconstruction site
Sampling Date : 20/09/2020
Temperature : 35°C
Relative Humidity : 84%
Geographical Coordinates : 23°50'15.65"N and 90°16'38.33"E

Analytical Results:
The results of noise level monitoring are given below:

Sampling Locations	Geographical Co-ordinates	Time	Min dBA	Max dBA	DOE Standard for Noise (Schedule # 4, Rule #12; ECR 1997)	
					Residential Area	Mixed Area
Nearby Rajashan Sufia Bekary to Gashmohol Bridge Road CRDP-II/LGED/ DHAKA/SAVAR/POURA/NCB/2018/W-01	23°50'15.65"N and 90°16'38.33"E	0800-0900	42.6	64.2	50 dBA at Day Time and 40 dBA at Night Time	60 dBA at Day Time and 50 dBA at Night Time
		1200-1300	50.7	70.0		
		1800-1900	46.4	67.5		

*According to the Noise Pollution (Regulation and Control) Rules, 2006, acceptable sound levels are 55 decibels (dBA) for daytime – 6am to 9pm –and 45 decibels for night – 9pm to 6am – in residential areas; 50 decibels for daytime and 40 decibels for night in quiet places; 60 decibels for daytime and 50 decibels for night in mixed areas; 70 decibels for daytime and 60 decibels for night in commercial areas; and 75 decibels for daytime and 70 decibels for night in industrial areas.

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Department of Soil
Water and Environment
University of Dhaka, Dhaka 1000, Bangladesh

Date: 24. 10. 2020

Surface Water Quality Test Report

Sample supplied by

JV of NCEL-PDL
PRAN-RFL CENTER,
105 PRAGATI SARANI, MIDDLE BADDA,
DHAKA-1212, BANGLADESH

Name of Road Construction Subproject Site: Kanchan GC-Sorankhali bazar Chanpara RHD Road subproject site under the Package No: - 304I23/CRDP-II/LGED/NARAYANGANJ/RUPGANJ/NCB/2018/W-02 of Second City Region Development Project.

Service Rendered : Environmental Quality Test for EIA report of a road construction site
Sample Title : Surface Water Sample **(SW)**
Sampling Date : 25/09/2020
Date of Testing : 26/09/2020 - 18/10/2020
Geographical Coordinates : 23°49'57.34"N and 90°36'35.18"E

Analytical Results:
The results of analysis of Surface Water Sample from a beel (depression) are given below:

Table 1. Analytical Results of Surface Water (SW) Sample

Sample Location	Test Parameters	Units	Results	Methods
Nearby Kanchan GC-Sorankhali bazar Chanpara RHD Road subproject site (23°49'57.34"N and 90°36'35.18"E)	pH	-	6.88	pH meter
	EC	(µS/cm)	101.5	EC meter
	DO	(mg/L)	5.05	DO meter(Hanna HI98193)
	BOD_{5days}	(mg/L)	0.68	DO meter(Hanna HI98193)
	COD	(mg/L)	12.18	Chemical method
	TSS	(mg/L)	7	Gravimetric method
	TDS	(mg/L)	66	TDS Multimeter
	Iron (Fe)	(mg/L)	<0.20	AAS
	Manganese (Mn)	(mg/L)	<0.20	AAS
	Arsenic (As)	(ppb)	8.25	HG-AAS (APHA 3114)
	Turbidity	NTU	8.12	Turbidity meter
	NO_3-N	(mg/L)	2.15	Kjeldahl method
	Cl^-	(mg/L)	8.92	Titrimetric method
	Total coliform	(cfu/100 ml)	2.46×10^2	Membrane filtration method

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মৃত্তিকা, পানি ও পরিবেশ বিভাগ
ঢাকা বিশ্ববিদ্যালয়, ঢাকা ১০০০, বাংলাদেশ

Department of Soil Water and Environment
University of Dhaka, Dhaka 1000, Bangladesh

Date: 24. 10. 2020

Ground Water Quality Test Report

Sample supplied by

JV of NCEL-PDL
PRAN-RFL CENTER,
105 PRAGATI SARANI, MIDDLE BADDA,
DHAKA-1212, BANGLADESH

Name of Road Construction Subproject Site: Kanchan GC-Sorankhali bazar Chanpara RHD Road subproject site under the Package No: - 304I23/CRDP-II/LGED/NARAYANGANJ/RUPGANJ/NCB/2018/W-02 of Second City Region Development Project.

Service Rendered : Environmental Quality Test for EIA report of a road construction site
Sample Title : Ground Water Sample **(GW)**
Sampling Date : 25/09/2020
Date of Testing : 26/09/2020 - 18/10/2020
Geographical Coordinates : 23°49'55.41"N and 90°36'40.61"E

Analytical Results:
The results of analysis of Ground Water Sample from nearby Tubewell are given below:

1. Analytical Results of Ground Water Sample from nearby Tubewell**(GW)**

Sample Location	Test Parameters	Units	Results	Methods
Nearby Kanchan GC-Sorankhali bazar Chanpara RHD Road subproject site (23°49'55.41"N and 90°36'40.61"E)	pH	-	7.27	pH meter
	EC	(µS/cm)	583	EC meter
	DO	(mg/L)	6.98	DO meter(Hanna HI98193)
	BOD_{5days}	(mg/L)	Nil	DO meter(Hanna HI98193)
	COD	(mg/L)	36.13	Chemical method
	TSS	(mg/L)	Nil	Gravimetric method
	TDS	(mg/L)	323	TDS Multimeter
	Iron (Fe)	(mg/L)	<0.20	AAS
	Manganese (Mn)	(mg/L)	0.54	AAS
	Arsenic (As)	(ppb)	14.63	HG-AAS (APHA 3114)
	Chloride (Cl^-)	(mg/L)	35.77	Titrimetric method
	Nitrate (NO_3-N)	(mg/L)	Nil	Kjeldahl method

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Department of Soil Water and Environment
University of Dhaka, Dhaka 1000, Bangladesh

Date: 24. 10. 2020

Ambient Air Quality Test Report

Sample supplied by

JV of NCEL-PDL
PRAN-RFL CENTER,
105 PRAGATI SARANI, MIDDLE BADDA,
DHAKA-1212, BANGLADESH

Name of Road Construction Subproject Site: Name of Road Construction Subproject Site: Kanchan GC-Sorankhali bazar Chanpara RHD Road subproject site under the Package No: - 304I23/CRDP-II/LGED/NARAYANGANJ/RUPGANJ/NCB/2018/W-02 of Second City Region Development Project

Service Rendered : Environmental Quality Test for EIA Report
Sample Title : Air Quality Monitoring (**AQ**) NearRoad Construction Subproject Site
Sampling Date : (25/09/20)
Geographical Coordinates : 23°49'57.19"N and 90°36'36.02"E

Analytical Results:
The test results of ambient air quality analysis are given below:

Description of Parameters	Unit	Concentration of Ambient Air Quality Parameters			DoE (Urban Standards)	WHO guidelines ($\mu g/m^3$)
		Min	Max	Avg.		
Carbon Monoxide (CO)	ppm	0.001	0.003	**0.001**	9 ppm	-
Carbon Dioxide (CO_2)	ppm	624	717	**654**	-	-
Nitrogen Dioxide (NO_2)	ppm	0.100	0.200	**0.114**	0.053 ppm	40 (1 hr)
Sulphur Dioxide (SO_2)	ppm	0.000	0.020	**0.012**	0.03 ppm	20 (24 hr)
Suspended Particulate Matter (SPM)	μgm^{-3}	49	103	**66**	$200\mu gm^{-3}$	
Particulate Matter ($PM_{2.5}$)	μgm^{-3}	14	60	**32**	$65\mu gm^{-3}$	25 (24 hrs)
Particulate Matter (PM_{10})	μgm^{-3}	40	83	**53**	$150\mu gm^{-3}$	50 (24 hrs)
Lead (Pb)	μgm^{-3}	Nil	Nil	Nil	$0.5\ \mu gm^{-3}$ Annual	-
Temperature	°c	30	27	**29**	-	-
Relative Humidity	%	80	92	**89**	-	-

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Department of Soil Water and Environment
University of Dhaka, Dhaka 1000, Bangladesh

Date: 24. 10. 2020

Noise Quality Test Report

Sample supplied by

JV of NCEL-PDL
PRAN-RFL CENTER,
105 PRAGATI SARANI, MIDDLE BADDA,
DHAKA-1212, BANGLADESH

Name of Road Construction Subproject Site: Name of Road Construction Subproject Site: Kanchan GC-Sorankhali bazar Chanpara RHD Road subproject site under the Package No: - 304I23/CRDP-II/LGED/NARAYANGANJ/RUPGANJ/NCB/2018/W-02 of Second City Region Development Project

Service Rendered : Environmental Quality Test for EIA report of a Road Construction site
Sample Title : Noise level monitoring (**NL**) Near Roadconstruction site
Sampling Date : 25/09/2020
Temperature : 29°C
Relative Humidity : 89%
Geographical Coordinates : 23°49'56.89"N and 90°36'36.83"E

Analytical Results:
The results of noise level monitoring are given below:

Sampling Locations	Geographical Co-ordinates	Time	Min dBA	Max dBA	DOE Standard for Noise (Schedule # 4, Rule #12; ECR 1997)	
					Residential Area	Mixed Area
Nearby Kanchan GC-Sorankhali bazar Chan para RHD Road Road 304123/CRDP-II/LGED /NARAYANGANJ/RUPGANJ/NCB/2018/W-02	23°49'56.89"N and 90°36'36.83"E	0800-0900	54.7	70.2	50 dBA at Day Time and 40 dBA at Night Time	60 dBA at Day Time and 50 dBA at Night Time
		1200-1300	59.7	76.6		
		1800-1900	58.4	78.5		

*According to the Noise Pollution (Regulation and Control) Rules, 2006, acceptable sound levels are 55 decibels (dBA) for daytime – 6am to 9pm –and 45 decibels for night – 9pm to 6am – in residential areas; 50 decibels for daytime and 40 decibels for night in quiet places; 60 decibels for daytime and 50 decibels for night in mixed areas; 70 decibels for daytime and 60 decibels for night in commercial areas; and 75 decibels for daytime and 70 decibels for night in industrial areas.

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Appendix 7: Sample Grievance Redress Form

(To be available in Bangla and Other Local Language, if any)

The _____Project welcomes complaints, suggestions, queries and comments regarding project implementation. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback.

Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing *(CONFIDENTIAL)* above your name. Thank you.

Date		***Place of registration***			
Contact Information/Personal Details					
Name		**Gender**	■ **Male** ■ **Female**	**Age**	
Home Address					
Village / Town					
District					
Phone no.					
E-mail					
Complaint/Suggestion/Comment/Question Please provide the details (who, what, where and how) of your grievance below: If included as attachment/note/letter, please tick here:					
How do you want us to reach you for feedback or update on your comment/grievance?					

FOR OFFICIAL USE ONLY

Registered by: (Name of Official registering grievance)	
Mode of communication: ■ **Note/Letter** ■ **E-mail** ■ **Verbal/Telephonic**	
Reviewed by: (Names/Positions of Official(s) reviewing grievance)	
Action Taken:	
Whether Action Taken Disclosed:	■ **Yes** ■ **No**
Means of Disclosure:	

Appendix 8: Project Implementation Schedule

B. Overall Project Implementation Plan

Table 2: Project Implementation Plan

Activity	2018				2019				2020				2021				2022				2023				2024			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
A. Design and Monitoring Framework																												
Output 1: Urban infrastructure in the project areas in the Dhaka and Khulna city regions improved and made climate-resilient																												
Urban Roads																												
1.1 Award civil works contracts for 13 urban roads subprojects in the Dhaka city region (Q2 2019)																												
1.2 Award all civil work contracts for drainage subprojects in the Dhaka and Khulna city regions (Q3 2020)																												
1.3 Award civil works contracts for all remaining urban roads projects in the Dhaka city region (Q3 2021)																												
1.4 Award civil work contract for composting plant and associated facilities in KCC (Q4 2021)																												
1.5 Complete all physical works (Q4 2023)																												
Output 2: Institutional capacity and community awareness strengthened																												
2.1 Launch integrated solid waste management awareness campaign in KCC (Q4 2019)																												
2.2 Prepare or update drainage master plans (Q1 2020)																												
2.3 Select additional priority urban investments for project preparation (Q4 2021)																												

6

Activity	2018				2019				2020				2021				2022				2023				2024			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.4 Prepare detailed feasibility study and engineering design for integrated solid waste management facilities in KCC (Q2 2021)																												
2.5 Prepare O&M plans for all subprojects (Q4 2021)																												
2.6 Prepare detailed engineering designs for selected additional priority investments (Q1 2023)																												
2.7 Deliver and evaluate training programs and awareness-raising campaigns (Q1 2024)																												
B. Management Activities																												
Recruit all consultants under the project, ensure adequate staff and diverse workforce in the PMCU and PIUs, and implement a project performance management system																												
Implement gender action plan																												

KCC = Khulna city corporation, O&M = operation and maintenance, PIU = project implementation unit, PMCU = project management and coordination unit, Q = quarter.
Source: Asian Development Bank estimates.

Appendix 9: Environmental Management Implementation Schedule
(For Period January 2021 – June 2021)

Activity	Frequency and/or Implementation Time Frame (6 months)
	(January 2021 through June 2021)
1. Preparation of IEE Reports of subproject packages (to be included in the Tender Documents that will be floated for contract award)	Throughout 6 months period
2. Routing supervision and monitoring of construction works and proper implementation of environmental mitigation/safeguard measures, including implementation of EMP.	Throughout construction period at least monthly
3. Issue corrective action request to the contractor or his representative against registered non-compliance of EMP, and conduct follow-up inspections and evaluation of corrective actions.	As needed throughout construction period
4. Reporting: a) Monthly Progress Report b) Quarterly Progress Report c) Semi-annual Environmental Monitoring Report	a) In every month b) In every 3rd month (in March and June) c) In the 6th month (in July)

Appendix 10: Sample accident/incident/ near miss report Form

(Reporting by Contractor to PDS Environmental Consultant and PIU & PMCU Environmental Consultant)
(Attach Photograph of the accident/incident Site)

Name of the Contractor or his Representative:
Contact no.

1. Project Name:	
2. Subproject/ Scheme Name:	
3. Place of Occurrence	
4. Date of occurrence	
5. Details of what happened	
6. cause of incident	
7. Lessons Learned	