Environmental Monitoring Report

Project No. 49329-006
Semi-annual Report (January-June 2022)
July 2022

Bangladesh: Second City Region Development Project

Prepared by the Local Government Engineering Department, Government of Bangladesh for the Asian Development Bank.

Semi-Annual Environmental Safeguard Monitoring Report

Project Number: 49329-006Loan Number: L3808/3809
June 2022

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

Period: January - June 2022

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

Table of Contents

LIST OF FIGURES

LIST OF TABLES

Executive Summary

A. 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 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.

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

Environmental Category of Subprojects: The CRDP-2 improvement works have been divided into 38 subproject packages for the convenience of project implementation and the project is classified as category B (Orange B as per ECR‟97) for the urban infrastructure improvement works and as category A (Red as per ECR‟97 for the Solid Waste Management subproject in Khulna City Corporation. Among the 38 packages, 13 have been identified as readiness packages, likely to have minimum environmental impacts.

.

Utilization of Consultancy Services: In order to execute the necessary mitigation measures and to undertake monitoring activities, 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.

Overall Project and Subproject Progress and Status: In 27 contracted packages, there are 78 roads amounting 243.037 Kilometer (Km), 65 Drains amounting 93.108 Km, 24 Bridges having span 525 meter(m), 124 Culverts having Span 285.45 m and 9 Water control Structures. It may be noted that up to May 2022, total 47.58 Km of Reinforced Cement Concrete (RCC) Road, 90.71 Km of Box Drain, 33.22 Km of Pipe Drain, 40.42 Km of Bituminous Road, 4 Bridges, 42 Box Culverts and 6.41 Km Palisading have been completed. Initial Environmental Examinations (IEEs) for all subprojects under the 27 (twenty-seven) 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 especially able people, around 43 km of walkways has been provided in dense settlements areas out of 337 km designed roads in different Packages despite the constraint of land availability. Road Safety Signs for all

pedestrians are considered in all road design. Provision of separate women toilets, breast-feeding corner are also considered in the design of Solid Waste Management (SWM) plant in Khulna City Corporation (KCC).

B. Compliance Status with National Statutory Requirements

The DOE-issued Environmental Clearance Certificate to all subprojects with the exception of Red Category subprojects. All requirements of the Department of Environment related to environmental clearance/renewal are generally being met, in particular, the underlined terms and conditions for Environmental Clearance Certificate. Besides monitoring and recording of subproject ambient air, water (surface and groundwater) quality and noise level, there are specific reporting conditions are to be satisfied. As regards the reporting conditions, Environmental Monitoring Reports shall be made available simultaneously to Head Quarters and respective Regional Offices of the Department of Environment on a quarterly basis during the whole period of the project. As regards the status on relevant GOB Permits, it is to note that the subproject schemes will be constructed within the right-of-way (RoW) and will not involve any potential tree removal, hence no prior permission is to be obtained from the forest department. However, the details of acquiring permits and NOC have been discussed in the respective DDR reports.

C. Compliance Status with Environmental Loan Covenants

The covenants to the loan agreement with ADB require 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.

D. Compliance Status with the Environmental Management Plan

Environmental Safeguard Framework: EMPs and supporting criteria inclusive of environmental specifications for inclusion in construction contract tender documents provide the basis for monitoring compliance.

Initial Environmental Examination (IEE): Initial Environmental Examinations (IEEs) of 35(thirty-five) sub-project packages have been prepared so far. Package-wise IEE documentation status has been presented inside the main document.

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. As a part of the monitoring program, field visits were undertaken in the recent months at site of Savar W-03/04, Sava Poura W-01 on 28/04/2022; GCC W-01/02 on 10/05/2022; Araihazar W-01/02/03 on 30/05/2022 and Rupganj W-01/02/03 on 15/06/2022. As regards the overall compliance with EMP, field observation demonstrates satisfactory status of implementation.

Approach and Methodology for Environmental Monitoring of the Project

Environmental Performance: Environmental specifications reflect general construction requirements as identified in the subproject EMPs Though costs of implementation of the environmental works (as per environmental specification) are considered the responsibility of the contractor and are part of the overall bid price, a provisional sum to cover environmental works is included in the bid price.

Environmental Training / Capacity Building: Capacity building is aimed at orientation and training of PIUs/contractor's staff in ADB's safeguards policy and management. However, no orientation and training of PIUs/contractor's staff was conducted in this reporting period (January-June 2022). It is to note that a cumulative total of the training/orientation sessions conducted till date was 6(six) and total participants were

161 (one hundred andsixty) (the details of these orientation and training have already documented in the previous SEMR of July-December,2021).

Orientation Workshop for Contract Management (Environmental Safeguard Issues): No orientation workshops of Contract Management and related Environmental Safeguard Issues are taken up in this reporting period.

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)

E. Monitoring of Environmental Impacts on Project Surroundings (Ambient Air, WaterQuality and Noise Levels)

In order to assess the base environmental quality of subproject surroundings, analysis of the ambient air, water quality and noise levels were conducted. The analytical results of the tested environmental parameters are found more or less within the standard limit set by DoE and Bangladesh Noise Pollution (Control) Rules, 2006.

F. Grievance Redress Mechanism

The GRM provides redress for grievance arising from resettlement, compensation and environmental impact during subproject implementation. The Grievance Redress Committees (GRC), formed on June 07, 2020, is progressively complying with all aspects related to the GRM. The GRM among the local people are discussed at the focal group discussion meeting. The measures considered to publicize the GRM among the local people reside in the project area have been outlined inside the main report

G. Complaints Received during Subproject Implementation

No formal complaints were received from the community or from any individual of the community during this reporting period at the construction site.

H. Summary of Key Issues and Remedial Actions

No complaint was received from the community or from any individual of the community at the construction site. However, during monitoring field visits, in some cases poor initiative was noticed in suppressing dust pollution by spraying plentiful water on dry surfaces of construction sites. Taking into consideration this issue, contractor'site engineer/supervisor was suggested to use dust suppression log chart to demonstrate routine spraying of water on dry surfaces at construction sites.

I. Project strategy against COVID-19 H&S Guidelines

Project strategy against COVID-19 H&S Guidelines that have been shared by ADB during TPRM held on June 2020 and Status of COVID-19 guidelines implementation. To ensure the proper implementation of the recommended COVID-19 H&S protocols, staffs have been assigned both from PMU and from contractors. They are monitoring the COVID-19 H&S issues, using a template provided by BRM of ADB, in the construction sites. Some examples of monitoring records and photographs on preventive measures practicing at the worksite against spread of COVID-19 infection are displayed at the end of the report.

J. 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 will continue to work with PIUs and contractors to pursue improvement in subproject works. The time bound corrective action plan (CAP) with recommendation for further improvement have been spelled out inside the main text.

I. INTRODUCTION

A. Purpose of the Report

1. **Loan effectiveness and PDS inception.** ADB Loan was effective from 19 November 2019. PDS-2 incepted from November 2021. 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.

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.

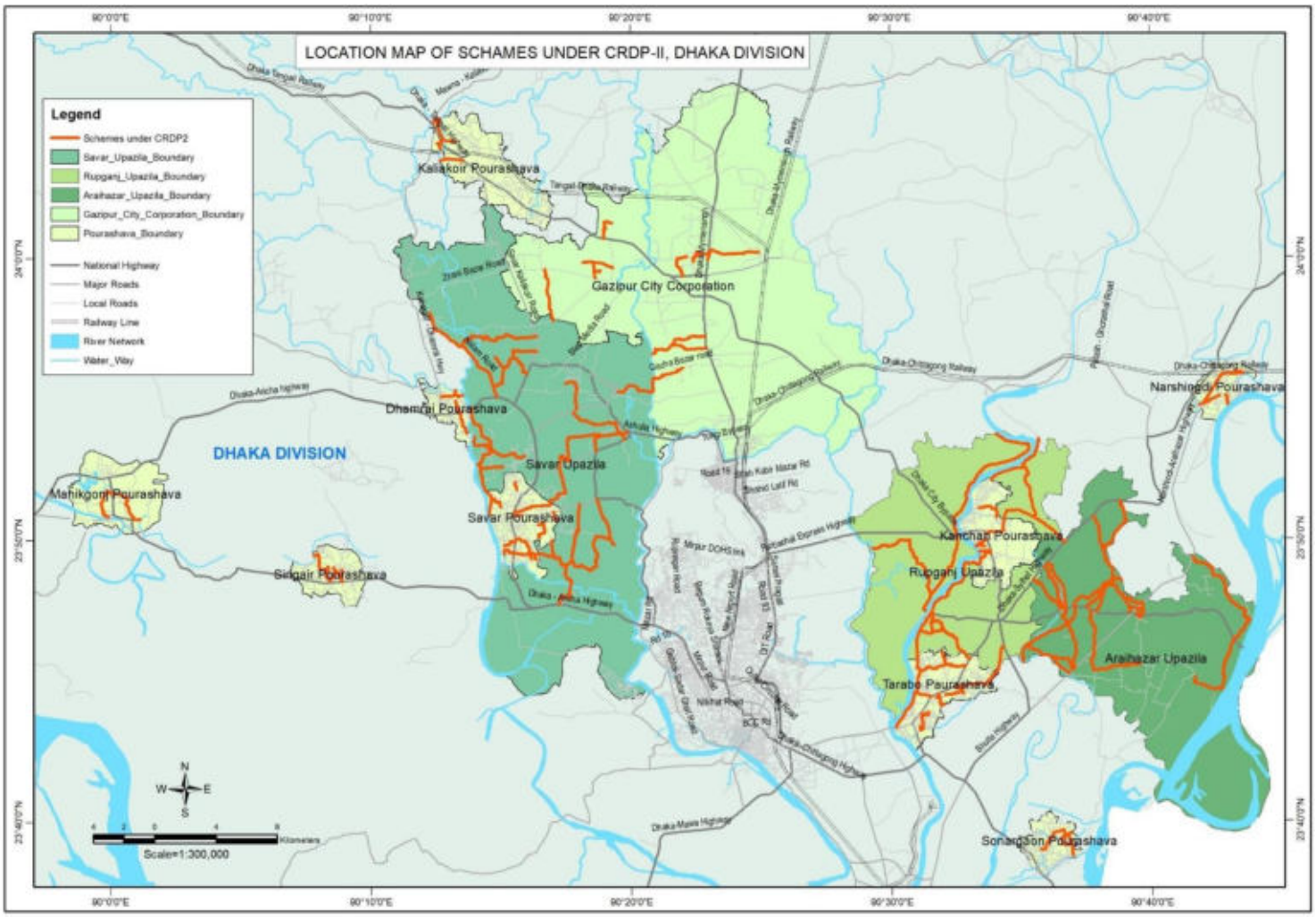
Scope of Monitoring Report: The scope of this report is to summarize and analyze the performance of the environmental works of the contracted subprojects, and to verify the environmental requirements that are specified in the contract documents are adequately address

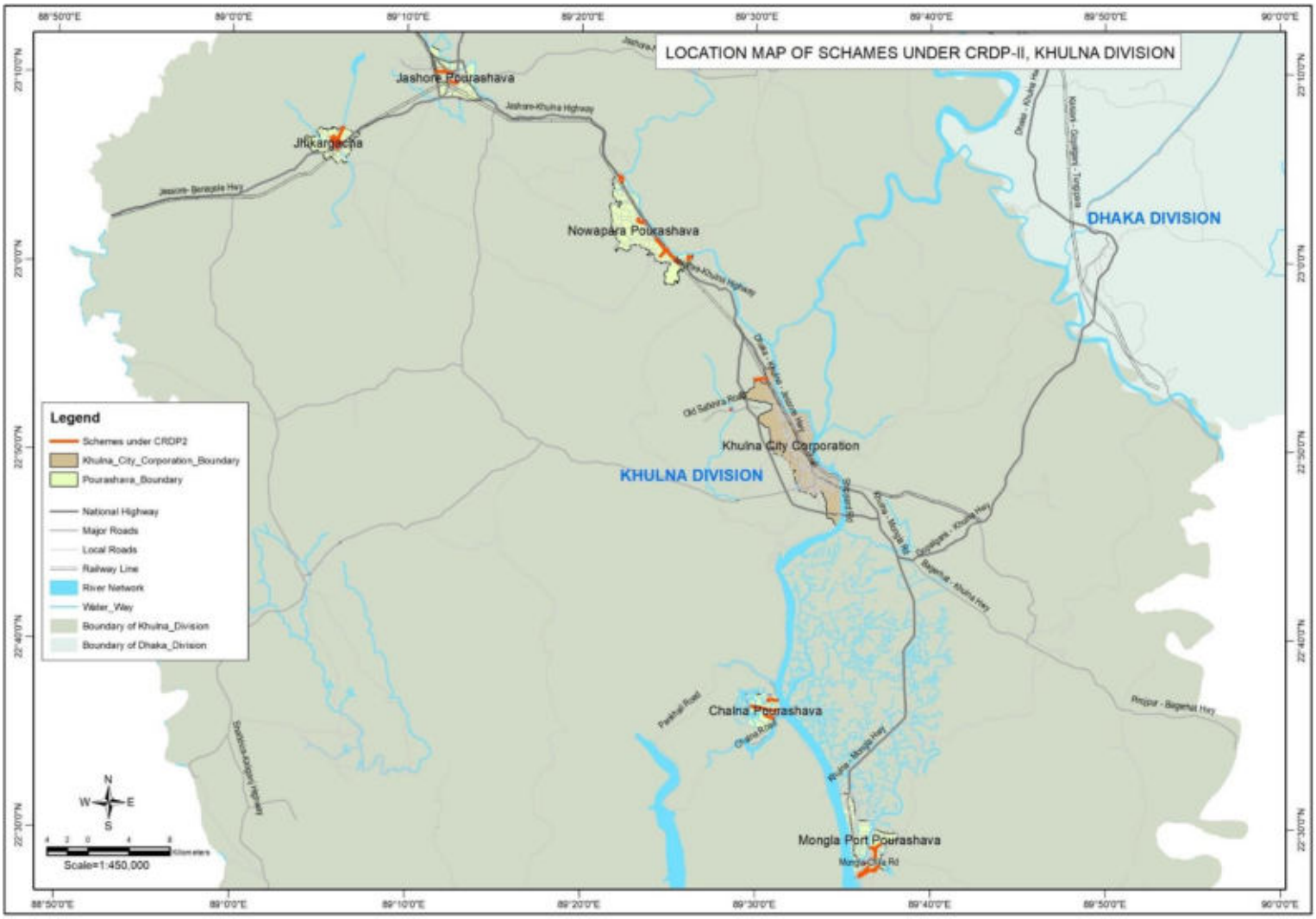
Reporting Period: 1st January to 30th June 2022

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

Project Location: The Project location map showing all contract packages are presentedhere below in **Figure 1**

Figure 1: Location map showing CRDP-2 contract packages




LOCATION MAP OF SCHAMES UNDER CRDP-II, KHULNA DIVISION
Jashore Pourashava
Jhikargacha
Nowapara Pourashava
Khulna City Corporation
KHULNA DIVISION
DHAKA DIVISION
Chalna Pourashava
Mongla Port Pourashava
Legend
Schemes under CRDP2
Khulna_City_Corporation_Boundary
Pourashava_Boundary
National Highway
Major Roads
Local Roads
Railway Line
River Network
Water_Way
Boundary of Khulna_Division
Boundary of Dhaka_Division
Scale=1:450,000

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 thetable below:

Table 1: Progress status on implementation of environmental managementactivities

Sl.no	Environmental Management Activities	Progress Status
1.	Preparation of Initial Environmental Examination (IEE)	35 (thirty-five) IEE Reports of subproject packages have been prepared so far. Detailed feasibility study including gender, social and environmental assessment, and engineering design for integrated waste management facilities in KCC has been completed. The prepared EIA Report of the Integrated Waste Management Facilities in KCC was submitted to DoE for approval. Accordingly, it has been approved and subsequent ECC has been issued on 17-19 October 2021 per decision in 474th DoE's meeting related to ECC (**Appendix1**). Till to date, 22 IEEs have been approved/disclosed by ADB;
2.	Renewal of Environmental Clearance Certificate (ECC)	ECC renewal application has been processed and finalized, accordingly DoE has renewed the subject ECC, and this renewal is valid up to February 9, 2023. (Ref: Memo No. DoE/clearance/5194/2013/72; dated 11/05/2022) **(Appendix 2).**
3.	Field monitoring to check EMP compliance at construction sites	Undertake field visit for monitoring EMP compliance at least once in every month
4.	Monitoring of ambient Air, Water (surface & ground water Quality and Noise Levels) - Sample collection - Analysis and analytical results	a) Sample collected for baseline environmental quality data from 12(twelve)selected subproject sites b) Sample collected for end line (at the completion of subproject construction) environmental quality data from 3(three) selected subproject sites Details of sampling are given inside the report, para 38 - Analysis of the environmental parameters of collected samples from selected subproject sites have been completed and their analytical results have been discussed and presented inside the report, para 39-50
5.	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 January-June,2022): a) 6 nos. monthly progress reports b) 2 nos. Quarterly Progress reports c) 1 no. Semi-annual Environmental report

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 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 and renewal date not later than 09/02/2020. As the period of validity of this ECC has been expired, DoE has made consequent renewal of the ECC vide Memo No. DoE/clearance/5194/2013/72; dated 11/05/2022, and this renewal is valid up to February 9, 2023 (**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.

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 in **Table 2** below:

Table 2: Project Safeguards Team

Name	Designation/ Office	Email Address	Contact	Roles
1. PMU Md. ShahabulIslam	Sr.AssistantEngineer,LGED,Dhaka	Shahabul@lged.gov.bd	+8801714225344	Liaise with the various Government agencies on environmental and other regulatory matter Pertaining toimplementation of the subprojects;
2. PIUs a) Md.AbdulAziz, Dhaka PIU	Assistant Engineer, LGED	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) Abdullah Rashedeen, Narayanganj PIU	Assistant. Engineer, LGED	ae.narayanganj@lged.gov.bd	+8801712623112	
c) Md.AlamMiah, savar pourashava PIU	Assistant Engineer	Alammiah327@gmail.com	+8801712507060	
d) Mydul Islam, GCC PIU	Assistant Engineer, Gazipur City Corporation	mydulislam80@gmail.com	+8801612104080	
e) Md.Zakir Hossain, Tarabo pourashava	Asst. engineer	Eng.zakir99@gmail.com	+8801711960845	
f) Abdul Baten, Singair pourashava	SAE	singairpourashava@gmail.com	+8801712606156	
g) Krisna Dayal Roy, Narshingdi pourashava	Asstt.Engineer	engineerkdroy@gmail.com	+8801712125010	
h) Md. Hasan Ali, Kanchan pourashava	Sub-Assistant Engineer	saehasanali@gmail.com	+8801711006474	
i) S M Abdus Samad, Sonargoan pourashava	Sub-Assistant Engineer	abdussamadcda@gmail.com	+8801914474972	
j) Md.Zubaur Rahman Jeshore Pourashava	SAE	zubadhch@gmail.com	+8801710371842	
k) Md. Ruhul Amin Dhamrai pourashava	SAE	Eng.ruhul81@gmail.com	+8801718574013	
3. Consultant Dr. Md. Nurul Islam	Environmental Specialist	nuruldhaka24@gmail.com	+8801760602194	Assist PMCU in ensuring compliance of Second CRIDP 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 includesthe following:

Dhaka city region:

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 Projec**t: i) Date of Commencement: January 2019 and ii) Date of Completion: June 2024

14. **Improvement of Roads in Dhaka City Region: Progress achieved up to May, 2022**

(i) **Gazipur City Corporation (GCC)**: There are 2 packages (W-01 & W-02) for civil worksin GCC. Total physical progress is 69.97%.

(ii) **LGED-Narayanganj (Rupganj Upazila)**: There are 3 packages (W-01, W-02 & W-03 for civil works in Rupganj Upazila under Narayanganj District. Total physical progress is59.16%.

(iii) **LGED-Narayanganj (Araihazar Upazila)**: There are 3 packages (W-01, W-02 & W-03)for civil works in Araihazar Upazila under Narayanganj District. Total physical progress is 64.86%.

(iv) **LGED-Dhaka (Savar Upazila)**: There are 6 packages (W-01, W-02, W-03, W-04, W-05 & W-06) forcivil works in Savar upazila under Dhaka District. Total Physical progress is 43.22%.

(v) **Savar Pourashava**: There is only 1 package for civil works in Savar Pourashava. Totalphysical progress is 92.28%.

15. **Improvement of Drainage Works:** The design drawing of drain for around 150 Km has been completed out of 153 Km; and the design and drawing of 13Km khal has been completed out of 20Km.

16. **Solid waste management:** The EIA Report of the Integrated Waste Management Facilities in KCC submitted to DoE for approval. Accordingly, it has been approved and subsequent ECC has been issued per decision in DoE's 47^{4th} ECC issuance meeting held on 17-19 October 2021 **(Appendix1**).

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-4**), which reflects the requirements of the EMP and Special Conditions. The checklist is filled in monthly 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 3 b**elow.

Table 3: Subproject progress and status (up to June 2022)

Gazipur City Corporation (GCC):

Package No.	Description	Quantity of Road (km)	Contract signing Date	CompletionTime	Physical Progress up to June 2022
W-01	Construction of Road and Drain at Gazipur City Corporation	**12.54**	18 November 2019	30-06-22	**62.53 %**
W-02	Construction of Road and Drain at Gazipur City Corporation	**7.24**	13 November 2019	01-07-22	**93.60 %**
Total		**19.77**			**72.77 %**

Rupganj Upazila:

Package No.	Description	Quantity of Road (km)	Contract Signing Date	Completion Time	Physical Progress up to June 2022
W-01	Construction of Road and Drain Under Rupganj Upazila	13.78	31 August 2020	30-04-23	**66.21 %**
W-02	Construction of Road and Drain Under Rupganj Upazila	15.89	27 October 2019	20-06-22	**50.49%**
W-03	Construction of Road and Drain Under Rupganj Upazila	18.77	22 January 2029	10-06-22	**80.30%**
Total		**48.44**			**64.90%**

Araihazar Upazila:

Package No.	Description	Quantity Of Road (km)	Contract Signing Date	Completion Time	Physical Progress up to June 2022
W-01	Construction Of Road And Drain Under Araihazar Upazila	13.56	15 September 2019	15-05-22	**96.25 %**
W-02	Construction Of Road And Drain Under Araihazar Upazila	12.17	27 October 2019	20-06-22	**77.85 %**
W-03	Construction Of Road ,Bridge and Culvert Under Araihazar Upazila	13.50	10 November 2020	31-01-23	**30.12 %**
Total		39.23			**66.38 %**

Savar Upazila:

Package No.	Description	Quantity of Road (km)	Contract Signing Date	CompletionTime	Physical Progress up to June 2022
W-01	Construction Of Road,drain And Bridge -Culvert Under Savar Upazila	12.06	8 November, 2020	06-04-22	**72.82 %**
W-02	Construction Of Road,drain And Bridge –Culvert under Savar Upazila	26.24	3 February, 2021	02-07-22	**60.44 %**
W-03	Construction Of Road And Drain Under Savar Upazila	10.06	4 November,2019	30-11-22	**59.30 %**
W-04	Construction Of Road And Drain Under Savar Upazila	13.30	16 March,2020	21-07-22	**85.60 %**
W-05	Construction Of Road And Drain Under Savar Upazila	21.00	22 February 2022	08-03-23	**5.38 %**
W-06	Construction Of Road And Drain Under Savar Upazila	11.71	15 February 2022	01-03-23	**2.94%**
Total		94.37			**44.37 %**

Savar Pourashava:

Package no.	Description	Quantity of Road (km)	Contract Signing Date	CompletionTime	Physical Progress up to June 2022
W-01	Construction of road and drain under Savar Pourashava	6.11	10 February, 2020	02-06-22	**92.28** %
Total		**6.11**			**92.28** %

Kanchon Pourashava:

Package No.	Description	Quantity Of Road (km)	Contract Signing Date	Completion Time	Physical Progress up to June 2022
W-01	Construction of road and drain under Kanchon Pourashava	3.78	12 October 2021	12-10-22	**28.73**%
Total		**3.78**			**28.73**%

Tarabo Pourashava:

Package No.	Description	Quantity Of Road (km)	Contract Signing Date	Completion Time	Physical Progress up to June 2022
W-01	Construction of road and drain under Tarabo Pourashava	2.79	07 November 2021	07-11-22	**33.76**%
Total		**2.79**			**33.76**%

Singair Pourashava:

Package No.	Description	Quantity Of Road (km)	Contract Signing Date	Completion Time	Physical Progress up to June 2022
W-01	Construction of road and drain under Singair Pourashava	3.91	18 November 2021	18-11-22	**27.47** %
Total		**3.91**			**27.47** %

Narsingdi Pourashava:

Package No.	Description	Quantity Of Road (km)	Contract Signing Date	Completion Time	Physical Progress up to June 2022
W-01	Construction of road and drain under Narshingdi Pourashava	2.55	16 November 2021	16-11-22	**11.06** %
Total		**2.55**			**11.06** %

Jhikorgacha Pourashava:

Package No.	Description	Quantity Of Road (km)	Contract Signing Date	Completion Time	Physical Progress up to June 2022
W-01	Construction of road and drain under Jhikargacha Pourashava	5.45	09 November 2021	09-11-22	**19.47** %
Total		**5.45**			**19.47** %

Sonargaon Pourashava:

Package No.	Description	Quantity Of Road (km)	Contract Signing Date	Completion Time	Physical Progress up to June 2022
W-01	Construction of road and drain under Sonargaon Pourashava	3.09	07 November 2021	07-11-22	**27.67** %
Total		**3.09**			**27.67** %

Jashore Pourashava:

Package No.	Description	Quantity Of Road (km)	Contract Signing Date	Completion Time	Physical Progress up to June 2022
W-01	Construction of road and drain under Jashore Pourashava	2.35	28 November 2021	28-11-22	**18.18** %
Total		**2.35**			**18.18** %

Dhamrai Pourashava:

Package No.	Description	Quantity Of Road (km)	Contract Signing Date	Completion Time	Physical Progress up to June 2022
W-01	Construction of road and drain under Dhamrai Pourashava	4.53	02 December 2021	02-12-22	**17.66** %
Total		**4.53**			**17.66** %

Mongla Pourashava:

Package No.	Description	Quantity Of Road (km)	Contract Signing Date	Completion Time	Physical Progress up to June 2022
W-01	Construction of road and drain under Mongla Pourashava	2.38	15.12.2021	21-12-22	**0.67** %
Total		**2.38**			**0.67** %

Chalna Pourashava:

Package No.	Description	Quantity Of Road (km)	Contract Signing Date	Completion Time	Physical Progress up to June 2022
W-01	Construction of road and drain under Jhikargacha Pourashava	2.38	13.12.21	13-12-22	**33.50** %
Total		**2.38**			**33.50** %

Manikganj Pourashava

Package No.	Description	Quantity OfRoad (km)	Contract Signing Date	Completion Time	Physical progress up to June 2022
W-01	Construction of road and drain under Manikganj Pourashava	1.189	10. 05. 22	24-05-23	**1.82** %
Total		1.189			**1.82** %

Nowapara Pourashava

Package No.	Description	Quantity Of Road (km)	Contract Signing Date	Completion Time	Physical progress up to June 2022
W-01	Construction of road and drain under Nowapara Pourashava	2.85	31.03.2022	14-04-23	**00** %
Total		**2.85**			**00** %

19. Package-wise progress of implementation of subproject construction works up to May 2022 is displayed in the **Table 4,** and **Table 5** below shows the overall progress of implementation of subproject construction works

Table 4: Package-wise implementation progress of subproject construction works progress up to June 2022

Sl. No.	Package No.	Subproject Components to develop	Contract Date	Physical Progress (%)
1	ARAIHAZAR/LGED/W-01	4 Road 13.56 Km, 2 Drain 1.11 Km, 1 Bridge 15 m, 4 Box Culvert 14.50 m	15/09/2019	96.25
2	ARAIHAZAR/LGED/W-02	5 Road 12.17 Km, 4 Drain 3.768 km, 6 Box Culvert 46.2 m	27/10/2019	77.85
3	ARAIHAZAR/LGED/W-03	3 Road 13.53 Km, 3 Bridge 60 m, 7 Box Culvert 25.33 m	10/11/2020	30.12
4	KANCHON/W-01	4 Road 3.78 Km, 4 Drain 4.17 Km	12/10/2021	28.73
5	TARABO/W-01	4 Road 2.79 Km, 4 Drain 5.05 Km,2 Box Culvert3.75 m	07/11/2021	33.76
6	SONARGAON/W-01	1 Road 3.09 Km, 1 Drain 2.05 Km, 1 Bridge 8 m, 1 Box Culvert3.50 m	07/11/2021	27.67
7	JHIKARGACHA/W-01	4 Road 5.45 Km, 3 Drain 2.95 Km, 2 Bridge 102 m	09/11/2021	19.47
8	NARSINGDI/W-01	2 Road 2.55 Km, 3 Drain 4.75 Km	16/11/2021	11.06
9	SINGAIR/W-01	3 Road 3.91 Km, 2 Drain 2.33 Km, 3 Box Culvert 13.50 Km	18/11/2021	27.47
10	JASHORE/W-01	3 Road 6.65 Km, 3 Drain 3.21 Km	28/11/2021	18.18
11	DHAMRAI/W-01	4 Road 4.53 Km, 4 Drain 4.31 Km	02/12/2021	17.66
12	CHALNA/W-01	3 Road 3.37 Km, 7 Bridge 93 m, 1 Sluice Gate	13/12/2021	33.50
13	MONGLA/W-01	2 Road 2.38 Km, 4 Drain 3.75 Km, 2 Box Culvert8.87 m	21/12/2021	0.67
14	NOWAPARA/W-01	3 Road 2.85km, 5 Drain 6.326 km,1 culvert 1.50 m	15/12/2021	0.00
15	MANIKGANJ/W-01	1 Road 1.189 km, 1 Drain 2.044 km, 3 bridge 72.00 m	10/05/2022	1.82
16	RUPGANJ/LGED/W-01	1 Road 13.78 Km, 1 Drain 8.26 Km, 8 Sluice Gate	31/08/2020	66.21
17	RUPGANJ/LGED/W-02	3 Road 15.89 Km, 1 Drain 3.01 km, 1 Bridge 45 m, 7 Box Culvert 27 m	27/10/2019	50.49
18	RUPGANJ/LGED/W-03	4 Road 18.77 Km, 2 Box Culvert 5.50 m	22/01/2020	80.30
19	SAVAR/LGED/W-01	3 Road 12.06 Km, 2 Drain 4.59 Km, 1 Bridge 12 m, 4 Box Culvert 10.70 m	08/11/2020	72.82
20	SAVAR/LGED/W-02	5 Road 26.24 Km, 2 Drain 3.08 Km, 4 Bridge 114 m, 5 Box Culvert16.88 m	02/02/2021	60.44
21	SAVAR/LGED/W-03	3 Road 10.06 Km, 3 Drain 4.11 Km, 2 Bridge 93 m,	27/10/2019	59.30
22	SAVAR/LGED/W-04	4 Road 13.29 Km, 1 Drain 0.45 Km, 6 Box Culvert 46 m	16/03/2020	85.60
23	SAVAR/LGED/W-05	3 Road 21 Km, 2 Drain 3.53 Km, 5 Box Culvert 21.13 m	22/02/2022	0.91
24	SAVAR/LGED/W-06	1 Road 11.71 Km, 3 Box Culvert 9.33 m	15/02/2022	5.38
25	SAVAR/POURASHAVA/W-01	5 Road 6.11 Km, 7 Drain 7.28 Km	10/02/2020	92.28
26	GCC/W-01	4 Road 12.53 Km, 4 Drain 7.89 Km, 3 Bridge 49 m, 3 Box Culvert 26 m	18/11/2019	62.53
27	GCC/W-02	2 Road 7.24 Km, 2 Drain 5.09 km, 2 Box Culvert 12.75 m	13/11/2019	93.60

Table 5: Overall progress of implementation of subproject construction works

Project Implementation Unit (City Corporation /Pourashava / LGED)	Total subproject Packages under CRDP-2	Contracted packages for implementation (up to June 2022)	Physical Progress (%)
LGED Dhaka (Savar Upazila)	7	6	44.37
LGED Narayangonj (Rupganj)	4	3	64.94
LGED Narayangonj (Araihazar)	6	3	66.38
Gazipur City Corporation	3	2	72.77
Savar Pourashava	1	1	92.28
Dhamrai Pourashava	1	1	17.66
Manikganj Pourashava	1	1	1.82
Singair Pourashava	1	1	27.47
Kaliakoir Pourashava	1	0	0
Narsingdi Pourashava	1	1	11.06
Kanchon Pourashava	1	1	28.73
Tarabo Pourashava	1	1	33.76
Sonargaon Pourashava	1	1	27.67
Jashore Pourashava	1	1	18.18
Jhikargacha Pourashava	1	1	19.47
Nowapara Pourashava	1	1	0.00
Chalna Pourashava	1	1	33.50
Mongla Pourashava	1	1	0.67
Khulna City Corporation	1	0	0
Total:	**35**	**27**	**45%**

H. Scenario of Subproject Implementation

20. Contract has been signed for 27 (Twenty-Seven) Packages amounting contract value Taka=104886.26 lac. Overall Physical Progress achieved is 45% while time elapsed for project is 50 %.

21. In contracted packages, there are 78 roads amounting 243.037 Kilometer (Km), 65 Drains amounting 93.108 Km, 24 Bridges having span 525 meter(m), 124 Culverts having Span 285.45 m and 9 Water Control Structures

22. It may be noted that up to May 2022, total 47.58 Km of Reinforced Cement Concrete (RCC) Road, 90.71 Km of Box Drain, 33.22 Km of Pipe Drain, 40.42 Km of Bituminous Road, 4 Bridges and 42 Box Culverts, 6.41 Km Palisading have been completed. Initial Environmental Examinations (IEEs) for all 27 contracted subproject packages with their respective EMP template have been prepared considering all possible impacts due to implementation activities and their mitigation measures.

I. Gender Equity

23. The project is ensuring safe and comfortable mobility of women, elderly persons, children and especially able people in designing and constructing the subprojects under it. Around 43 km of walkways has been provided in dense settlements areas out of 337 km designed roads in different Packages despite the constraint of land availability. Road Safety Signs for all pedestrians are considered in all road design. Provision of separate women toilets, breast feeding corner are also considered in the design of Solid Waste Management (SWM) plant in Khulna City Corporation (KCC). Gender Action Plan (GAP) is being followed regular basis. Initiative will be taken to ensure women's effective participation in project planning, implementation, monitoring and evaluation.

II. COMPLIANCE STATUS WITH NATIONAL STATUTORY ENVIRONMENTAL REQUIREMENTS

24. The DOE-issued Environmental Clearance Certificate (ECC) referred to in Sec.I.B covered all B-Category subprojects. As the period of validity of this ECC has been expired, DoE has made renewal of the ECC vide Memo No. DoE/clearance/5194/2013/72; dated 11/05/2022, and this renewal is valid up to February 9, 2023. (**Appendix 2**).

25. In addition, DoE has also issued ECC for the Red Category one -" The Integrated Waste Management Facilities in KCC" per decision in 474th ECC issuance meeting held on 17-19 October 2021 (**Appendix1**).

26. **Status on relevant GOB Permits:** The subproject improvement works will not involve any potential tree removal as the subproject schemes are to construct within the right of way. Thus, no permission is required from the forest department. Since our construction is to be carried out on government property, we shall not require 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 offees. However, the details of acquiring permits and NOC have been discussed in subproject respective DDR reports.

27. All requirements of the Department of Environment, related to environmental clearance/renewal and monitoring and reporting are being met for CRDP-2 subprojects.

III. COMPLIANCE STATUS WITH ENVIRONMENTAL LOAN COVENANTS

28. The covenants to the loan agreement with ADB require 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 6,** and the status of compliance is described in the table.

Table 6: Compliance Status with Environmental Loan Covenants

COVENANTS	Reference in the Loan/Grant Agreement	Status of Compliance (As of June 2022)
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, eachSubproject and all Project facilitiescomply with (a) all applicable lawsand regulations of the Borrowerrelating to environment, health, andsafety; (b) the EnvironmentalSafeguards; (c) the EARF; and (d) allmeasures and requirements set forthin the respective IEE and EMP, and any corrective or preventative actionsset forth in a Safeguards Monitoring Report.	**Schedule 5 to the Ordinary OperationsLoan Agreement**	**Complied with.** All requirements describe in Schedule 5. Para. 7 with regard to allapplicable 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 LGEDand 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 fullyimplement the environmental safeguards, EMPs and RPs.

Safeguards - Related Provisions inBidding 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 priorto 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

COVENANTS	Reference in the Loan/Grant Agreement	Status of Compliance (As of June 2022)
Safeguards Monitoring and Reporting I. 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 fromsuch 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 notconsidered 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 June 2022)
Safeguards Monitoring and Reporting I. 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 fromsuch 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

IV. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT PLAN

A. Environmental Safeguard Framework

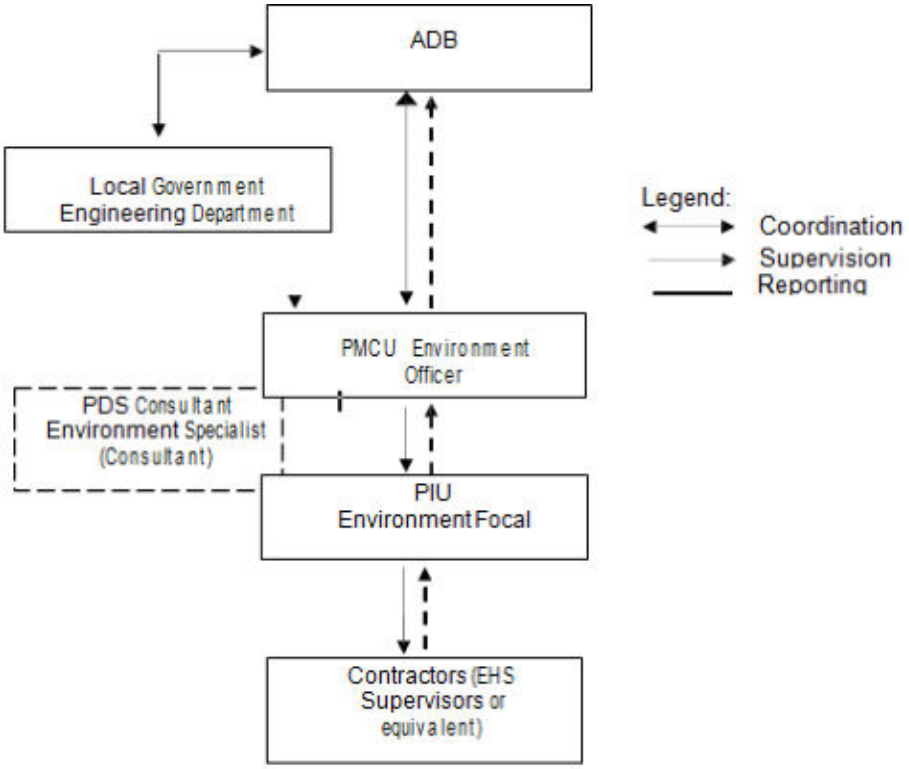
29. The Environmental Assessment and Review Framework (EARF) has been developed in accordance with ADB SPS, 2009 and Government of Bangladesh environmental laws and regulations to guide subproject selection, screening and categorization, environmental assessment, and preparation and implementation of 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 are being 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 are being 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 requirement;
(iii) ADB approval of IEE prior to invitation of bids; and
(iv) obtaining all necessary regulatory clearances andapprovals prior to award of contract

30. The IEEs, which include the environmental management plans (EMPs) are being prepared for each subproject in accordance with ADB SPS, 2009 and EARF. The IEEs also include environmental compliance audit of existing facilities that are being rehabilitated or expanded under the project, and due diligence of associated facilities as defined in ADB SPS, 2009. The IEEs 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 is being 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 are being disclosed on ADB, executing, and implementing agencies websites. Environmental Safeguard Implementation Arrangement is shown in the following figure.

.

Figure 2: Environmental Safeguard Implementation Arrangement



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.

B. Initial Environmental Examination (IEE)

31. Initial Environmental Examination (IEE) of 35 (Thirty-five) sub-projects have been prepared so far. Based on the received comments of ADB on the 10 (ten) IEEs of selected Pourashavas, (namely (i) Dhamrai-W-01, (ii) GCC-W-03, (iii) Jashore-W-01, (iv) Jhikorgacha W-01, (v) Kanchan W-01, (vi) Mongla W-01, (vii) Narasingdi W-01, (viii) Singair W-01, (ix) Sonargaon W-01 and (x) Tarabo W-01), 7 (seven) of them (namely, Dhamrai-W-01, GCC-W-03, Jashore-W-01, Jhikorgacha W-01, Sonargaon W-01, Kanchan W-01 and Narsingdi W-01) have already been revised and update addressing ADB's comments for their approval and disclosure, and subsequently submitted to the PMCU for onward submission to ADB in the current reporting period. The status of the IEEs up to this reporting period is presented in the following tableEnvironmental Examination (IEE) of 35 (thirty-five) subprojects have been prepared so far. Based on some fine tunings in the final design and drawing, theprepared IEE report of subproject package Araihazar W-05 has been revised and updated in this reporting month. The status of the IEEs in different packages under different Project Implementation Unit (PIU) up to June 2022 is presented below in **Table 7** and Package-wise IEE documentation status is given in **Table 8**.

Table 7: Status of IEEs for Subprojects of different packages

Sl. No.	Name of City Corporation / Pourashava/Upazila & corresponding subproject package	Status of IEEs as of June 2022	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	AraihazarUpazila: Araihazar (W-04)	Completed	ADB approval to receive
7	Araihazar Upazila: Araihazar (W-05)	Completed	Approved by ADB
8	Araihazar Upazila: Araihazar (W-06)	Completed	Conditional Approval by ADB
9	SavarUpazila: Savar (W-01)	Completed	Approved by ADB
10	SavarUpazila: Savar (W-02)	Completed	Approved by ADB
11	SavarUpazila: Savar (W-03)	Completed	Approved by ADB
12	SavarUpazila: Savar (W-04)	Completed	Approved by ADB
13	Savar Upazila: Savar (W-05)	Completed	ADB approval to receive
14	Savar Upazila: Savar (W-06)	Completed	Approved by ADB
15	Savar Upazila: Savar (W-07)	Completed	Approved by ADB
16	RupganjUpazila: Rupganj (W-01)	Completed	Approved by ADB
17	RupganjUpazila: Rupganj (W-02)	Completed	Approved by ADB
18	RupganjUpazila: Rupganj (W-03)	Completed	Approved by ADB
19	Rupganj Upazila: Rupganj (W-04)	Completed	ADB approval to receive
20	Savar Pourashava: Savar Pourashava (W-01)	Completed	Approved by ADB
21	Manikganj Pourashava: Manikganj (W-01)	Completed	Approved by ADB
22	Chalna Pourashava: Chalna (W-01)	Completed	Approved by ADB
23	Construction of Composting Plant and Associated facilities for KCC	Completed	Conditional Approval by ADB
24	Gazipur City Corporatin: GCC (W-03)	Completed	ADB approval to receive
25	Dhamrai Upazila: Dhamrai (W-01)	Completed	ADB approval to receive
26	Sonargaon Pourashava: Sonargaon (W-01)	Completed	ADB approval to receive
27	Narasingdi Pourashava: Narasingdi (W-01)	Completed	ADB approval to receive
28	Singair Pourashava: Singair (W-01)	Completed	ADB approval to receive
29	Mongla Pourashava: Mongla (W-01)	Completed	ADB approval to receive
30	Jashore Pourashava: Jashore (W-01)	Completed	ADB approval to receive
31	Jhikargacha Pourashava: Jhikargacha (W-01)	Completed	ADB approval to receive
32	Nowapara Pourashava: Nowapara (W-01)	Completed	ADB approval to receive
33	Kanchon Pourashava : W01	Completed	ADB approval to receive
34	Tarabo Pourashava : W01	Completed	ADB approval to receive
35	Kaliakoir Pourashava W-01	Completed	ADB approval to receive

Table 8: Package-wise IEE Documentation Status

Package Number	Final IEE based on Detailed Design			Site-specific EMP (or Construction EMP) approvedby Project Director? (Yes/No)	Remarks
	Not yet due (detailed design not yetcompleted)	Disclosed on project website (provide Link)	Final IEE provided to Contractor/s (Yes/No)		
1. Gazipur City Corporation: GCC (W-01)	Detailed design Complete	Cleared by ADB, disclosed on http://oldweb.lged.gov.bd/ ProjectLibrary.aspx?project ID=867	Yes	Yes	All statutory clearance/s, no-objection certificates, permit/s, etc. have been obtained prior to award of contract/s. (Refer **Appendix 1 & 2** : Environment alclearance obtained)
2. Gazipur City Corporation: GCC (W-02)	Detailed design Complete	As above	Yes	Yes	
3. AraihazarUpazila: Araihazar (W-01)	Detailed design Complete	As above	Yes	Yes	
4. AraihazarUpazila: Araihazar (W-02)	Detailed design Complete	As above	Yes	Yes	
5. AraihazarUpazila: Araihazar (W-03)	Detailed design Complete	As above	Yes	Yes	
6. AraihazarUpazila: Araihazar (W-04)		As above	Yes	Yes	
7. Araihazar Upazila: Araihazar (W-05)	Detailed design Complete	As above	Yes	Yes	
8. Araihazar Upazila: Araihazar (W-06)	Detailed design Complete	As above	Yes	Yes	
9. SavarUpazila: Savar (W-01)	Detailed design Complete	As above	Yes	Yes	
10. SavarUpazila: Savar (W-02)	Detailed design Complete	As above	Yes	Yes	
11. SavarUpazila: Savar (W-03)	Detailed design Complete	As above	Yes	Yes	
12. SavarUpazila: Savar (W-04)	Detailed design Complete	As above	Yes	Yes	
13. Savar Upazila: Savar (W-05)	Detailed design Complete	As above	Yes	Yes	
14. Savar Upazila: Savar (W-06)	Detailed design Complete	As above	Yes	Yes	
15. Savar Upazila: Savar (W-07)	Detailed design Complete	As above	Yes	Yes	
16. RupganjUpazila: Rupganj (W-01)	Detailed design Complete	As above	yes	Yes	
17. RupganjUpazila: Rupganj (W-02)	Detailed design Complete	As above	yes	Yes	
18. RupganjUpazila: Rupganj (W-03)	Detailed design Complete	As above	yes	Yes	
19.Rupganj Upazila: Rupganj (W-04)	Detailed design Complete	As above	yes	Yes	
20. Savar Pourashava: Savar Pourashava (W-01)	Detailed design Complete	As above	yes	Yes	
21. Manikganj Pourashava: Manik ganj (W-01)	Detailed design Complete	As above	yes	Yes	
22. Chalna Pourashava: Chalna (W-01)	Detailed design Complete	As above	yes	Yes	
23. Construction of Composting Plant and Associated facilities for KCC	Detailed design Complete	Cleared by PMCU and submitted to LGED for disclosure on LGED web	Not yet contracted	No	
24. Gazipur City Corporatin: GCC (W-03)	Detailed design Complete	As above	Not yet contracted	Yes	
25. Dhamrai Upazila: Dhamrai (W-01)	Detailed design Complete	As above	yes	No	
26. Sonargaon Pourashava: Sonargaon (W-01)	Detailed design Complete	As above	yes	No	

Package Number	Final IEE based on Detailed Design			Site-specific EMP (or Construction EMP) approvedby Project Director? (Yes/No)	Remarks
	Not yet due (detailed design not yetcompleted)	Disclosed on project website (provide Link)	Final IEE provided to Contractor/s (Yes/No)		
27. Narasingdi Pourashava: Narasingdi (W-01)	Detailed design Complete	As above	yes	No	
28. Singair Pourashava: Singair (W-01)	Detailed design Complete	As above	yes	No	
29. Mongla Pourashava: Mongla (W-01)	Detailed design Complete	As above	yes	yes	
30. Jashore Pourashava: Jashore (W-01)	Detailed design Complete	As above	yes	yes	
31. Jhikargacha Pourashava: Jhikargacha (W-01)	Detailed design Complete	As above	yes	yes	
32. Nowapara Pourashava: Nowapara (W-01)	Detailed design Complete	As above	yes	yes	
33. Kanchon Pourashava : W01	Detailed design Complete	As above	yes	No	
34. Tarabo Pourashava : W01	Detailed design Complete	As above	yes	No	
35. Kaliakoir Pourashava W-01	Detailed design Complete	As above	Not yet contracted	No	

Table 9: Package-wise Contractor/s' Nodal Persons for EnvironmentalSafeguards

Sl. no.	Package No.	Contractor	Contact/Nodal Person	Mobile	E-mail Address
1	ARAIHAZAR/W-01	MEC Engineering &Consultant	Basudeb Sikder, PM	01711-309481	meclbd84@gmail.com
2	ARAIHAZAR/W-02	JV of NCL-PDL	Abdul Aziz Miah, DPM	01894-975660	rfl73@rflgroupbd.com
3	ARAIHAZAR/W-03	Rezvi Construction-Md.Eunus al mamun-KKEnterprise-JV	Foyez Ahammad Babul,PD	01911-302649 01785-642608	haque.enamul2244@gmail.com,eunusalmamunltd@gmail.com mmgrouplimited9@gmail.com arifurrahman50c@gmail.com
4	RUPGANJ/W-01	NDE Ltd-Taher Brothers Ltd JV	Md. Mizanur Rahman, PM	01709-658842	info@ndebd.com, lged-01@ndebd.com.bd
5	RUPGANJ/W-02	JV of NCEL-PDL	Md. Mominul Islam, PM	01894-958034	rfl73@rflgroupbd.com
6	RUPGANJ/W-03	JV of NCEL-PDL	Basirul Islam, DPM	01894-930394	rfl73@rflgroupbd.com
7	SAVAR/W-01	M.M.Builders & EngineersLtd-FastBuild JV	Abu Zafor, PE	01732-124935	engr.mizan97@gmail.com, fastbuild.bd@gmail.com
8	SAVAR/W-02	SEL-UDC JV	Nihar Halder, Construction Manager	01707-078642	udcconstructionltd@gmail.com
9	SAVAR/W-03	Modern Structures Ltd	Shamsul Alam, PM	01719-409553	info@mslgroupbd.com, info@modernstructuresltd.com
10	SAVAR/W-04	M.M.Builders & Engineers Ltd-FastBuild JV	Md. Ariful Islam, Suveyor	01984-680968	engr.mizan97@gmail.com, fastbuild.bd@gmail.com
11	SAVAR/POU/W-01	Toma Shikder JV	Masud Pervez Razu, PM	01819-916441	masudparvezrazu8@gmail.com
12	GCC/W-01	RAB-RC (Pvt) Ltd & Hossain Construction	Zakaria Masud, PM	01874-067764	hcpl.bd@gmail.com
13	GCC/W-02	RAB-RC (Pvt) Ltd & Hossain Construction	Abdul Kaiyum Joni, PM	01883-303838	hcpl.bd@gmail.com
14	KANCHON/W-01	KSBL-MBPL JV	Syed Wazed Ali, Md. Baneezir Alam, Ali RajaurRahman, Md. Rana Ahmed	01723898871, 01778734336, 01706068625, 01873512119,	Syedwazed88@gmail.com, ksblmrk@gmail.com
15	TARABO/W-01	Asif & Brothers and RatnaEnterprise JV	Md. Habibur Rahman, Md. Ruhul Amin, Md. Omar Faruk, Md. SaifulIslam	01713118699, 01738725101, 01715854488, 01924002276	rdp.habib@gmail.com, mdsojalahamd766@gmail.com, fahimhmadooo@gmail.com
16	SONARGAO/W-01	Masud Hi-Tech Engineering Ltd.	S.M. Hasanur Rashid, Md. Esha Khan, Md. Abdur Rahim, Md. FazlyRabbi Talukder, Paran Roy	01674834512, 01724242598, 01613002723, 01683438472, 01712088600	Hasanur1993@gmail.com,eshakhan2425@gmail.com, engr.abdurrahim02@gmail.com, fazlyrs@gmail.com , paranroy.mhel@gmail.com
17	NARSINGDI/W-01	Muhammad Aminul Haque(Pvt.) Ltd.	Abu Bakor Siddique, Khandaker Arshadul Haque, Mohammad ShahAlam miah, Md. Shohel Mulla, Md. Mamun Bhuiyan	01713383598, 01819987302, 01921393948, 01911358037, 01911180586	Basicplanner1999@gmail.com, msariantraders@gmail.com, rsconstruction5876@gmail.com, sohelmulla50@gmail.com, mamunbhuiyan80586@gmail.com
18	SINGAIR/W-01	M/S Kohinoor Enterprise	Md. Rahatul Islam Nobin,Md. Kamruzzaman,	01748923760, 01715948433,	Rahatul735@gmail.com howlader.enterprise8833@gmail.com badal-barisal@yahoo.com
19	DHAMRAI/W-01	MCL-SHE CONSORTIUM and M/S Sheikh Hera Enterprise	Sheikh Hera, Emran Hossain, Md. ShohidulIslam Liton	01712614301, 01767894412, 01718907972	Skhira707@gmail.com , imranbd1969@gmail.com ,woudhi@gmail.com

Table 10: EMP implementation status for CRDP-2 component (for the Reporting Period)

Potential Impacts (List from IEE)	Mitigation Measures (List from IEE)	Actual Implementation	Compliance Status(NC/PC/ FC)	Date of Monitoring Conducted
Design Phase				
Road accidents	Ensure to include in the design the following: (i) road signage 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.	Safe crossings, road safety signs and speed bumps havebeen designed based on the field condition.	Fully complied (FC)	Site and date of monitoring are as follows: • Savar W-03/04 & Savar Poura W-01 on 28/04/2022; • GCC W-01/02 on 10/05/2022; • Araihazar W-01/02/03 on 30/05/2022; and • Rupganj W-01/02/03 on 15/06/2022
Construction work camps, stockpile areas, storage areas, and disposal areas	Determine locations before award of construction contracts	Checked detailed phase	Fully complied (FC)	Site and date of monitoring are as follows: • Savar W-03/04 & Savar Poura W-01 on 28/04/2022; • GCC W-01/02 on 10/05/2022; • Araihazar W-01/02/03 on 30/05/2022; • Rupganj W-01/02/03 on 15/06/2022
Existing utilities	Avoid disruption of services	No disruption of existingservices	Fully complied (FC)	Site and date of monitoring are as follows: • Savar W-03/04 & Savar Poura W-01 on 28/04/2022; • GCC W-01/02 on 10/05/2022; • Araihazar W-01/02/03 on 30/05/2022; and • Rupganj W-01/02/03 on 15/06/2022
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	ı Reuse excess spoils andmaterials ı Disposal site in designated areas. ı Earthworks during dryseason ı Stockyards at least 300maway from watercourses. ı Fuel and other petroleum products stored at storageareas away from	Suggested mitigation measures, as outlined in the left side column, are being implementedat construction sites.	Fully complied (FC)	Site and date of monitoring are as follows: • Savar W-03/04 & Savar Poura W-01 on 28/04/2022; • GCC W-01/02 on 10/05/2022; • Araihazar W-01/02/03 on 30/05/2022; and • Rupganj W-01/02/03 on

Potential Impacts (List from IEE)	Mitigation Measures (List from IEE)	Actual Implementation	Compliance Status(NC/PC/ FC)	Date of Monitoring Conducted
quality of adjacent bodies of water.	water drainage and protected by impermeable lining and bonded 110%. l Take precautions to minimize the overuse ofwater l Prevent wastewater intowater sources. l Ensure safe waterdiversion. No obstruction in flowing water.			15/06/2022
Construction of Box Culvert and cross drain	Drainage congestion, erosion and sedimentation	Diversions with adequateopening have been constructed, stockpiling and fill materials are properly managed.	Fully complied (FC)	Site and date of monitoring are as follows: • Savar W-03/04 & Savar Poura W-01 on 28/04/2022; • GCC W-01/02 on 10/05/2022; • Araihazar W-01/02/03 on 30/05/2022; and • Rupganj W-01/02/03 on 15/06/2022
Workers Health andSafety	Follow Occupational H&S Plan and COVID-19 H&S Plan	Implementing Occupational H&S Plan and COVID-19 H&S Plan	Fully complied (FC)	Site and date of monitoring are as follows: • Savar W-03/04 & Savar Poura W-01 on 28/04/2022; • GCC W-01/02 on 10/05/2022; • Araihazar W-01/02/03 on 30/05/2022; and • Rupganj W-01/02/03 on 15/06/2022

Table 11: Overall Compliance with CEMP/ EMP

Sub-Project Name	EMP/ CEMP Part of Contract Documents (Y/N)	CEMP/EMP Being Implemented (Y/N)	Status of Implementation (Excellent/Satisfactory/ PartiallySatisfactory/ Below Satisfactory)	Action Proposed andAdditional Measures Required
Savar W-03 & 04; Savar Poura W-01; GCC W-01 & 02; Araihazar W-01/02/03 and Rupganj W- 01/02/03	Yes	Yes	Implementation of subprojec works is progressing under all field practical difficulties. However, under these difficulties, field observation and environmental performance demonstrate more or less satisfactory status of implementation. 2 sample filled-in EMP compliance monitoring checklist has been included in **Appendix 4** and summaryof findings from field visits is included in **Appendix 5.** In order to demonstrate the overall environmental safeguard compliances at subproject construction site, some photographs from the sites are displayed below the said Appendix.	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

32. 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

33. 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. Environmental compliance monitoring is being undertaken using the standard EMP Checklist. Environmental compliance monitoring of sample subprojects has been displayed in **Appendix 4**. During field visit, the environmental specialist 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

34. No orientation and training of PIUs/ contractor's staff was conducted in this reporting period (January-June 2022). It is to note that a cumulative total of the training/orientation sessions conducted till date was 6(six) and total participants were 161 (one hundred and sixty one) (the details of these orientation and training have already documented in the previous SEMR of July-December,2021).

D. Institutional and community capacities strengthened

35. **Community Consultations on the subproject IEEs:** In finalizing the subproject IEEs of, Narsingdi Pourashava (W-01), Chalna Pourashava (W-01), Manikganj Pourashava (W-01), Dhamrai Pourashava (W-01), Tarabo Pourashava (W-01), Kanchan Pourashava (W-01), Sonargaon Pourashava (W-01), Singair Pourashava (W- 01), Mongla Pourashava (W-01), Jashore Pourashava (W-01), Noapara Pourashava (W-01) & Araihazar UZ (W-06), consultation meetings at different time and space were conducted with concerned community and stakeholders at the respective subproject area.. Details of these consultation have already been documented in the respective subproject IEE reports. It is to note that PIU and PDS consultants undertake field visit for periodic monitoring and supervision of environmental safeguard compliances. During field visit, local people living along the subproject are informed through informal discussion about the followings: a) Information dissemination about the subproject, b) possible impacts of the subproject, c) participation of local people in different project activities, d) Employment potential for local people in the project works, e) Impact on social issues due to the project, and f) public grievances and redressal mechanism etc.

36. Orientation Workshop for Contract Management (Environmental Safeguard Issues): Though no orientation workshops of Contract Management were held in this reporting period, during finalizing the subproject IEEs of Chalna Pourashava (W-01), Mongla Pourashava (W-01), Jashore Pourashava (W-01), Nowapara Pourashava (W-01) and Manikganj Pourashava (W-01) orientation/consultation meetings were conducted to disseminate information about subproject interventions and pertinent environmental

safeguard issues related to road and drainage improvement under the subproject.

A training and capacity building plan to be conducted in the next semi annual period is given in the table here below:

Date	Subproject/ Location	Name of the Training (i.e. EMP, Social safeguard, H&S etc.)	Trainers Details
19/09/2022 20/09/2022 18/10/2022 19/10/2022 20/10/2022 21/11/2022	Chalna W-01 / Pourashava Hall Room Mongla W-01 / Pourashava Hall Room Jashore W-01 / Pourashava Hall Room Jhikorgacha W-01 / Porashava Hall Room Nowapara W-01 / Porashava Hall Room Manikganj W-01 / Porashava Hall Room	a) ADB‟s Policy and Procedure b) Bangladesh Legal Framework c) Roles and Responsibilities ofPIU d) Field Inspection & Monitoring e) Environmental Safeguards andEMP Implementation f) Anticipated environmental impacts & mitigation measures; construction good practices, and monitoring g) Health & safety issues with particular emphasis on COVID-19 health &safety monitoring guidelines	1) Md. Monir Hussain Deputy Team Leader, PDS-2, CRDP-2 2) Dr. Md. Nurul Islam, Environmental Safeguard Consultant, PDS-2, CRDP-2 and 3) Mr. Md. Shamsuzzaman, UrbanDevelopment Consultant, CRDP-2

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

37. The orientation-cum-training programme conducted for city corporation, Upazilas and Pourashavas covered the following:

- Discussed the distinctiveness 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

38. 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 in Khulna City Corporation).

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

39. In the case of the CRDP-2 subprojects development, environmental impacts duringconstruction phase are not severe because:

a) Most of the component works are relatively small and involve straight forward construction, so impacts (if any) are mainly localized and not significant;

b) 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

c) 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 noted no notable dust generation at the subproject construction site and in its surrounding areas	The contractor was found to exercise routine dust suppression measures by spraying water intermittently overthe dust generating loose soil surfaces, and accordingly maintaining Dust Suppression Log Chart (sample log charts are in **Appendix 6**)
(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 EMP compliance monitoring sample checklists (**Appendix 4**) including photographs, and summary of field findings on EMP compliances (**Appendix 5**) at the end of this report may be seen for overall appraisal of environmental safeguard compliances.
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.	

40. 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

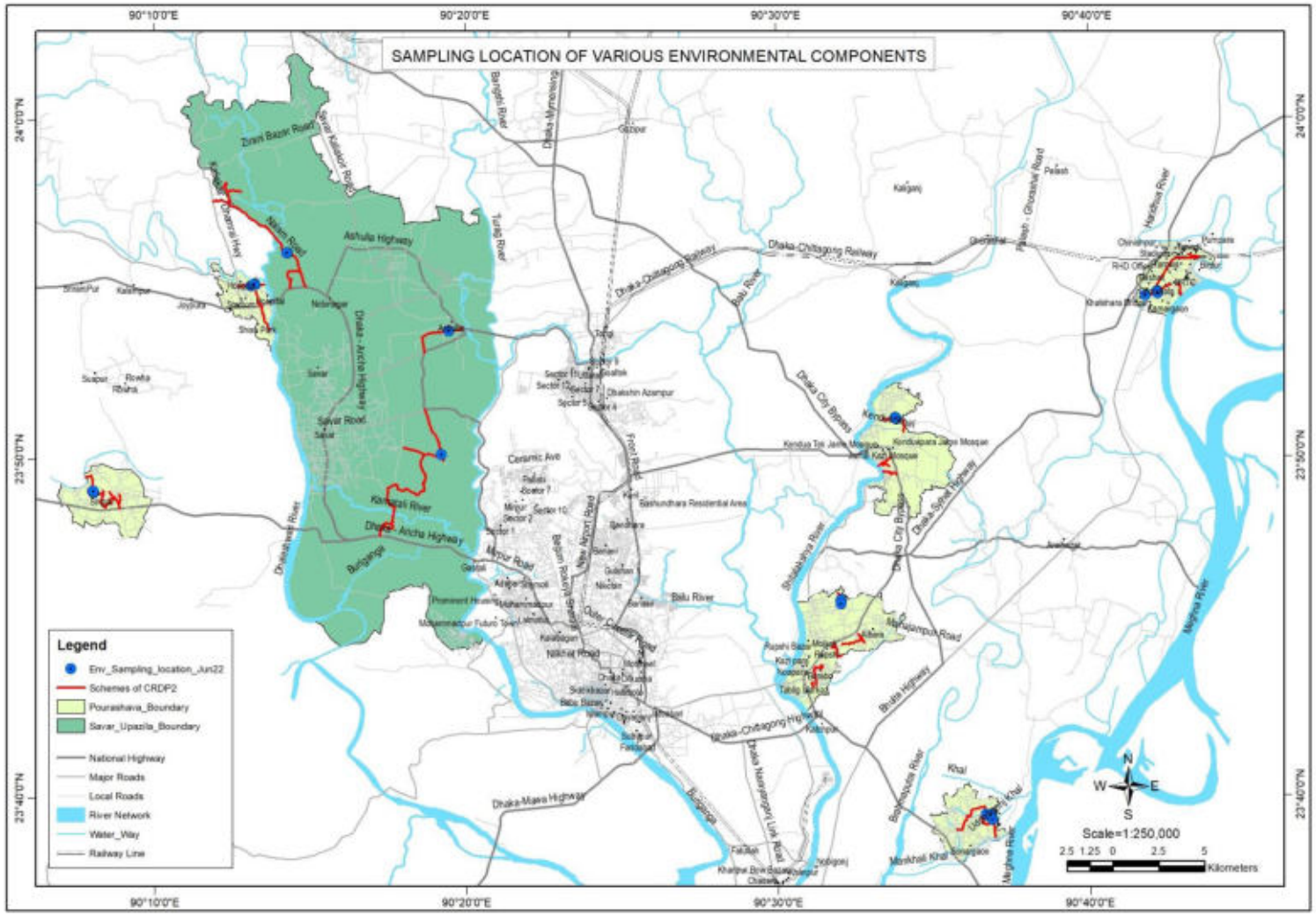
the start of the construction, subproject contractors are required to conduct the environmental quality tests for ambient air, surface- & ground-water quality and noise levels of subproject surroundings for assessing the baseline environmental quality of the subproject surrounding areas. With the progress of the construction works of the subproject, the environmental quality will require to be tested semi-annually during 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 12 (twelve) subprojects have been done. The details of sampling date and location are provided in the table here under. Further the monitoring plan of for environmental quality test of on-going construction packages is given in **Appendix 13.**

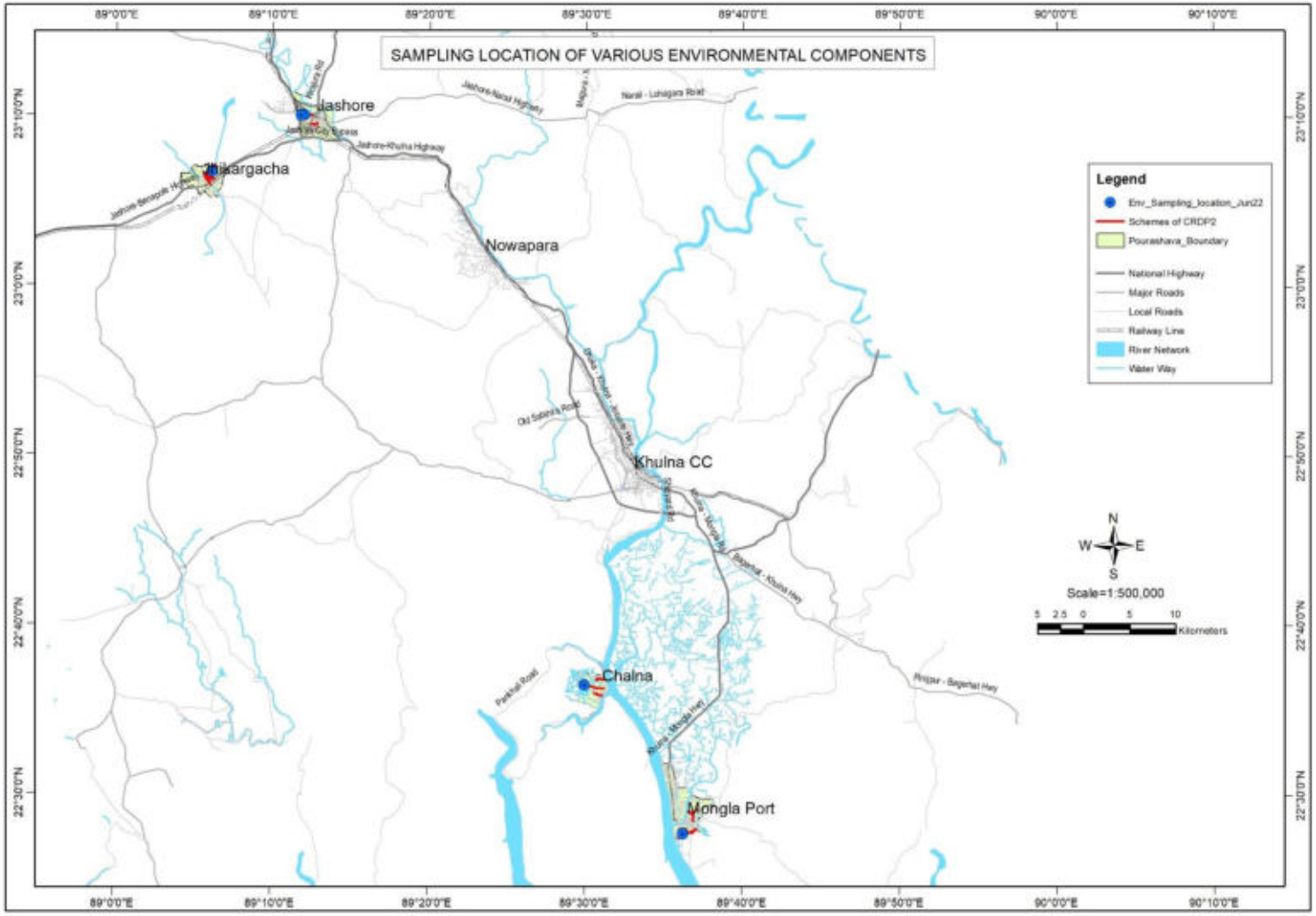
Sampling Date and Location of various environmental components of subproject Roads

Sl. No	Subproject Road andName of Package	Date & Sampling Locations (Coordinates) of various Parameters for Environmental Quality Test				
		Date	Air	Noise	Surface Water	Ground Water
1	Widening of Pourashava road from Kartihara Bridge to Satirpara Petrol Pump (Ch.0-1538m) including 716m link road and 675m link drain **(Narsingdi W-01)**	(26/12/2021)	23^0 54'53"N 90^0 42'13"E	23^{0}54'52.577"N 90^{0}42'12.829"E	23"54' 45.810 "N 90"4 1'50. 052"E	23'54'49.487"N 90"42'14.052"E
2	Road from Uddhavgonj Kushiara Market to G R School via Lahapara (Ch.0-2050m) including 1040m link road **(Sonargaon W-01)**	(27/12/2021)	23^0 39'18"N 90^0 36'52"E	23^0 39'18.192"N 90^0 36'51.563"E	23^0 39'27.010"N 90^0 36'39.455"E	23^0 39'27.493"N 90^0 36'48.266"E
3	Road from Bangshinagar Water Treatment plant to Alraji Textile Mill (Ch.0-1000m) **(Tarabo W-01)**	(28/12/2021)	23^0 45'47" N 90^0 32'1" E	23^{0}45'47.357"N 90^0 32'1.029" E	23^0 45'47.457" N 90^0 32'1.119" E	23^{0}45'40.633" N 90^0 32'1.485" E
4	Road from Masriki Jute Mill to Kendua Khal (Ch.0-1936m) including 245m link road **(Kanchan W-01)**	(29/12/2021)	23^0 51'11" N 90^0 33'47" E	23^0 51' 8.466" N 90^0 33'49.326"E	23^0 51' 8.247'' N 90^0 33'49.385''E	23^0 51'9.254" N 90^0 33'48.507"E
5	Road from Daibari Khal to Dhaleswari River via Hospital Road **(Singair W-01)**	(04/01/2022)	23^0 49'1.0"N 90^0 8'2.0"E	23^0 49'0.540"N 90^0 8'2.233"E	23^0 49'3.155"N 90^0 8'0.083"E	23^0 49'3.330"N 90^0 8'1.084"E
6	Improvement of DC Banglo road **(Jashore/W-01)**	(17/02/2022)	23^{O}10'4"N 89^{O}11'59"E	23^{O}10'4.366"N 89^{O}11'58.006"E	23°10'4.497"N 89°11'44.272"E	23°10'2.266"N 89°11'44.343"E
7	Road from Sree Rampur CRDP drain to Hawaur more bridge **(Jikorgacha/W-01)**	(18/02/2022)	23^{O}6'44"N 89^{O}6'7"E	23°6'45.098"N 89°6'7.438"E	23°6'42.666"N 89°6'3.422"E	23°6'42.337"N 89°6'5.076"E
8	Re-excavation of Chalna Khal including road improvement, slope protection, walkway and landscaping **(Chalna/W-01)**	(19/02/2022)	22^{O}36'30"N 89^{O}29'57"E	22°36'30.469"N 89°29'57.147"E	22°36'30.269"N 89°29'57.047"E	22°36'29.556"N 89°29'58.569"E
9	Mawlana Vasani road at Taher more to Kawratola road (**Mongla/W-01)**	(20/02/2022)	22^{O}27'46"N 89^{O}36'14"E	22°27'45.073"N 89°36'14.407"E	22°27'45.073"N 89°36'14.407"E	22^{O}27'44"N 89^{O}36'14.255"E
10	Road from Bangobandhu road at RHD (Miabarimorh) to Sadullahpur Bazar via Gauripur, Charabag, Khagan Bazar & Akran Bazar **(Savar/W-05)**	(07/03/2022)	23°53'46"N 90°19'27"E	23°53'46.043"N 90°19'26.617"E	23°50'7.621"N 90°19'12.327"E	23°53'46.620"N 90°19'26.717"E
11	Road from Dhaka-Aricha (RHD) at 22 Mile to Shimulia GC via Nolam including 3905m link road **(Savar/W-06)**	(08/03/2022)	23°56'5"N 90°14'16"E	23°56'5.167"N 90°14'16.199"E	23°56'5.595"N 90°14'14.584"E	23°56'5.231"N 90°14'15.114"E
12	Road from Dhamrai Bazar to Bangshi River at Kagojipara **(Dhamrai/W-01)**	(02/04/2022)	23°55'9.3"N 90°13'13.7"E	23°55'9.226"N 90°13'14.009"E	23°55'7.130"N 90°13'5.499"E	23°55'8.965"N 90°13'10.872"E

Sampling location map showing monitoring sites are displayed in the **Figure 3** below:

Figure 3: Location of the monitoring sites of environmental parameters





Sample test results for ambient air, noise and water (surface and ground) quality of subprojects are appended at the end of this report

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

a) Air quality

Ambient Air Quality Monitoring Technique:

41. Direct measurement of NOx, SOx and CO etc. was conducted on a spot over a period of 8- hours by using an instrument named Aeroquel Gas Analyser equipped with NOx, SOx and CO sensors (Model: 500, New Zealand). The portable wireless real time particle mass counters instrument named AEROCET, Model 531, USA was used to measure the particulates- SPM, PM_{10} and $PM_{2.5.}$ 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 SPMs.

Air quality monitoring equipment was operated for 8 hours in peak traffic time and a conversion equation was used to convert the data from specific time period to expected time period. Conversion of hourly to 24-hour averages was adapted by applying a conversion process using Pasquill's (1961) air mass dispersion tables defining air mass stability classes and a set of meteorological conditions and Schroeder and Jugloff"s (2012) conversion steps. Following the methodology mentioned above, air quality monitoring data of the subproject surroundings were converted to 1 hour, 8hr and 24hr/annual averages and were compared with the standards of Bangladesh national ambient air quality parameters as defined in the Environmental Conservation Rules ESR-1997 which was amended in 2005.

42. 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 presentedin **Table 12** and reference for the amended air quality standard of ECR 1997 are presented below the table.

Table 12: 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
		Narsingdi /W-01			Sonargaon/ W-01			Tarabo/ W-01			Kanchan/ W-01					
		Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg			
CO	ppm	0.000	0.002	0.001	0.000	0.002	0.001	0.000	0.003	0.001	0.000	0.002	0.001	35 ppm 9 ppm	1 hr 8 hr	10 µg/m^3
CO_2	ppm	790	830	807	695	760	707	667	690	670	645	694	669	NYS		
NOx (NO+NO2)	ppm	0.019	0.025	0.022	0.020	0.022	0.021	0.018	0.023	0.018	0.020	0.023	0.021	0.053 ppm	Annual	40 µg/m3 (1 hr)
SO2	ppm	0.007	0.122	0.091	0.051	0.071	0.059	0.000	0.020	0.014	0.061	0.128	0.093	0.14 ppm 0.03 ppm	24 hr Annual	20 µg/m3 (24 hr)
SPM	µg/m3	102.2	178.1	117.9	44.6	140.1	92.8	71.8	117.1	85.7	62.3	123.6	80.8	200 µg/m3	Annual	
PM 10	µg/m3	77.7	144.4	93.5	40.4	133.7	66.6	61.5	77.2	68.2	51.0	86.4	60.9	150 µg/m3	24 hr	50 µg/m3 (Annual)
PM 2.5	µg/m3	29.0	58.9	51.8	26.7	39.8	33.4	35.6	48.2	40.5	28.1	33.7	29.7	65 µg/m3	24 hr	25 µg/m3 (24hr)

***DOE- National Ambient Air Quality Standard for Bangladesh (ECR-1997, Schedule-2 as amended in 2005)**

Air Quality Test Results at and around the proposed subproject site (Contd.)

Parameter	Unit	Concentrations of Ambient Air Quality at subproject site												DOE-ECR 1997 (Urban Standard) *	DoE Duration(time average)	WHO Guidelines
		Singair/ W-01			Jashore/W-01			Jikorgacha/W-01			Chalna/W-01					
		Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg			
CO	ppm	0.000	0.002	0.001	0.001	0.003	0.002	0.001	0.001	0.001	0.000	0.003	0.002	35 ppm 9 ppm	1 hr 8 hr	10 µg/m^3
CO_2	ppm	526	570	548	654	704	668	603	632	608	614	639	626	NYS		
NOx (NO+NO2)	ppm	0.019	0.021	0.020	0.078	0.101	0.088	0.079	0.103	0.093	0.097	0.109	0.103	0.053 ppm	Annual	40 µg/m3 (1 hr)
SO2	ppm	0.000	0.001	0.001	0.001	0.003	0.002	0.001	0.005	0.003	0.020	0.200	0.090	0.14 ppm 0.03 ppm	24 hr Annual	20 µg/m3 (24 hr)
SPM	µg/m3	105.6	194.8	166.2	178.1	318.7	288.0	209.9	301.2	266.7	168.1	224.8	196.2	200 µg/m3	Annual	
PM 10	µg/m3	95.0	169.4	131.6	128.2	272.8	227.0	188.2	227.7	207.0	159.3	211.5	191.6	150 µg/m3	24 hr	50 µg/m3 (Annual)
PM 2.5	µg/m3	59.3	64.8	61.8	98.1	137.2	107.0	102.3	126.5	114.0	97.2	124.9	112.5	65 µg/m3	24 hr	25 µg/m3 (24hr)

Parameter	Unit	Concentrations of Ambient Air Quality at subproject site												DOE-ECR 1997 (Urban Standard) *	DoE Duration(time average)	WHO Guidelines
		Mongla/W-01			Savar/W-05			Savar/W-06			Dhamrai/W-01					
		Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg			
CO	ppm	0.100	0.200	0.150	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	35 ppm 9 ppm	1 hr 8 hr	10 µg/m^3
CO_2	ppm	620	639	628	655	704	688	603	612	608	633	642	636	NYS		
NOx (NO+NO2)	ppm	0.101	0.117	0.114	0.044	0.048	0.045	0.043	0.051	0.048	0.050	0.055	0.053	0.053 ppm	Annual	40 µg/m3 (1 hr)
SO2	ppm	0.100	0.300	0.200	0.003	0.008	0.006	0.010	0.030	0.020	0.000	0.000	0.000	0.14 ppm 0.03 ppm	24 hr Annual	20 µg/m3 (24 hr)
SPM	µg/m3	179.7	262.3	215.3	228.9	385.2	306.7	207.2	365.8	283.6	189.2	388.8	297.6	200 µg/m3	Annual	
PM 10	µg/m3	165.1	208.5	181.8	178.4	247.7	227.0	152.4	228.6	193.5	162.4	308.6	251.5	150 µg/m3	24 hr	50 µg/m3 (Annual)
PM 2.5	µg/m3	77.8	101.1	86.8	82.3	118.5	105.0	61.8	94.6	83.4	70.8	86.6	77.1	65 µg/m3	24 hr	25 µg/m3 (24hr)

43. It is found, by comparing with the standard limit set by the DOE, that the gaseous pollutant such as CO remain well within permissible limit in all subproject sites, and the recorded values of NO_x and SO_2 are within the DoE"s standard in the majority subproject sites except Jashore/W-01, Jikorgacha/W-01, Chalna/W-01, and Mongla/W-01 where they shows higher concentrations of NO_x and SO_2 than the DoE"s standard. Diesel and other gasoline burning in the boats and ships in the Mongla and Chalna port, contribution of pollution from marine sources, diesel run local vehicles, diesel oil combustion by local rice mills and saw mills etc. and emissions from wood and other biomasses in the local cooking stoves and also trans-boundary pollution might be the possible reasons for higher concentrations of NO_x and SO_2 in these subproject sites. The values for SPM, PM 2.5 and PM 10 are within permissible limits in 5 (five) subproject sites out of 12 (twelve) subproject sites. Due to dry season, and also traffic movement in the roads a lot of dust is suspended in the air which causes high values of SPM, PM 2.5 and PM 10 in the seven subproject sites.

b) Surface and Groundwater Water quality

Sampling procedure including sample preservation and transportation process, lab information in brief:

44. 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.

45. One representative surface water sample was collected from a nearby pond of subproject site and another sample of groundwater was collected from a nearby drinking water tube well of subproject site to test their existing quality. This data will constitute the baseline information, which can be referred to in the construction/ post construction monitoring at the subproject sites. The indicated surface and ground water test results are presented below in the **Tables 13 & 14** respectively.

Surface Water

46. 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). The high nitrate (NO^3) concentration in the surface water samples collected from a canal of Jikorgacha/W-01 Subproject site is possibly due to NO^{-3} pollution caused by runoff or leakage from fertilized agricultural soil, animal feedlots, domestic septic systems, or urban drainage. Higher than permissible limit values of Cl^- in the surface water samples of from Chalna Khal/W-01 subproject site is possibly due to the effects of tidal intrusion of saline water in the coastal area. The Cl- of Mongla/ W-01 is low as it was collected from ponds that usually contain rain water.

Table 13: Surface Water quality test results at the proposed subproject sites

Subproject Site/area	pH	Ec µS/cm	DO mg/l	BOD^{5d} mg/l	COD (mg/l)	TSS mg/L	TDS mg/L	Fe mg/l	Mn mg/l	As ppb	Turbi-dity NTU	NO3-N mg/l	Cl- mg/l	Tota Coliform cfu/100ml
Narsingdi /W-01	7.42	381.8	5.01	2.65	29.25	23.21	406	0.295	0.022	<2.0	26.23	<0.50	5.90	4.2×10^3
Sonargaon/ W-01	7.52	107.8	5.18	1.06	4.15	12.21	113	0.084	0.005	<2.0	13.73	1.90	9.25	6.5×10^2
Tarabo/ W-01	7.46	217.7	5.22	1.36	5.29	13.21	275	0.021	<0.002	<2.0	12.78	<0.50	88.75	3.5×10^3
Kanchan W-01	7.46	111.5	5.38	1.46	4.75	10.56	133	0.026	0.004	2.18	14.23	5.13	16.38	2.8×10^2
Singair/ W-01	7.48	109.4	5.18	1.46	4.25	9.31	119	0.016	0.006	2.36	14.23	<0.50	4.39	2.6×10^3
Jashore/W-01	7.63	259.5	6.08	2.11	14.75	48.56	241	0.285	0.051	<2.0	28.23	4.74	30.91	4.0×10^3
Jikorgacha/W-01	7.52	288.8	5.25	1.65	27.55	24.29	260	0.054	0.035	8.15	21.23	18.21	32.89	1.8×10^4
Chalna/W-01	7.48	1542	5.18	1.76	87.25	22.31	1508	0.162	0.117	3.95	24.63	4.18	712.34	1.1×10^4
Mongla/W-01	7.62	356.8	5.08	2.00	24.15	24.78	317	0.059	0.011	<2.0	23.73	2.69	97.83	8×10^3
Savar/W-05	6.94	136.3	5.58	1.05	6.56	12.29	128	0.204	0.027	<2.0	14.25	<0.50	12.77	1.8×10^2
Savar/W-06	6.88	147.5	5.83	0.96	7.75	8.56	131	0.058	0.008	2.06	15.23	<0.50	7.01	1.1×10^2
Dhamrai/W-01	7.0	133.5	5.03	1.40	12.75	12.46	123	0.075	0.008	2.11	18.80	4.50	12.01	4.1×10^2
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**

Ground Water

47. As per documented results, the tested parameters pH, DO, Mn, As, chloride and TDS values are within the permissible limit as per set standard of ECR, 1997. Further BOD, 20°C (5 days), Fe, nitrate and TSS values of groundwater samples are either nil or beyond detection limit. Higher than permissible limit values of TDS, EC and Cl^-, in the groundwater samples of Chalna/W-01 and Mongla/W-01 subproject sites is mainly due to the effects of coastal saline environments. Further the concentrations of COD have exceeded the national standards at Chalna/W-01 (88.90mg/l) and Mongla/W-01 (97.12mg/l) However, the higher COD values may be related to the fact that the collected groundwater samples are from shallow depth tube-wells (120-140 ft); and these shallow groundwater aquifers are recharged with saline-rich tidal waters from Mongla and Chalna port areas, and these could be the reason for high COD in the groundwater. Shil et al. (2014) reported high COD values (520-884 mg/l) of tidal waters of Chalna and Mongla port area. Construction of tubwell in deeper aquifers or deeper groundwater layers could be a corrective measure for safe groundwater in the subproject areas of Chalna/W-01 and Mongla/W-01. The following article - [S. C. Shil, M. S. Islam, M. E. Hoq, N. T. Meghla and L. Sarkar. 2014. Tidal influence on physicochemical parameters of water from the Mongla port near Sundarban mangroves in Bangladesh. Bangladesh J. Environ. Sci., Vol. 27, 142-149, 2014] is of relevance to the above context.

Table 14: Ground Water quality test results of the proposed subproject sites

Subproject Site/area	pH	DO (mg/l)	BOD^{5d} (mg/l)	COD (mg/l)	EC (µs/Cm)	Fe (mg/l)	Mn (mg/l)	As (ppb)	NO3-N (mg/l)	Cl^- (mg/l)	TSS (mg/l)	TDS (mg/l)
Narsingdi /W-01	7.48	6.52	Nil	Nil	165.7	0.02	0.04	<2.0	<0.50	24.49	Nil	224
Sonargaon/ W-01	7.58	7.05	Nil	0.12	114.7	0.008	0.091	<2.0	1.06	16.13	Nil	126
Tarabo/ W-01	7.62	6.95	Nil	1.22	372.6	0.018	0.005	<2.0	<0.50	122.40	Nil	548
Kanchan W-01	7.76	7.22	Nil	0.18	161.3	0.074	0.037	<2.0	<0.50	33.22	Nil	184
Singair/ W-01	7.60	7.30	Nil	2.88	269.7	0.091	0.095	3.36	<0.50	30.99	Nil	324
Jashore/W-01	7.62	6.85	Nil	1.82	398.3	0.049	0.058	4.79	<0.50	4.95	Nil	348
Jikorgacha/W-01	7.38	6.62	Nil	3.63	429.7	0.154	0.032	31.50	2.57	4.87	Nil	411
Chalna/W-01	7.85	6.30	Nil	88.90	1640	0.185	0.011	6.27	<0.50	1003.08	Nil	1526
Mongla/W-01	7.58	7.05	Nil	97.12	8470.7	0.045	0.100	3.74	9.43	4508.98	Nil	8390
Savar/W-05	6.68	6.42	Nil	2.03	142.7	0.224	0.015	2.48	5.57	22.87	Nil	126
Savar/W-06	6.72	6.56	Nil	1.12	163.3	0.269	0.047	<2.0	4.57	22.91	Nil	139
Dhamrai/W-01	6.96	6.75	Nil	0.42	151.3	0.195	0.033	<2.0	<0.50	16.88	Nil	139
Standard per ECR,1997 (Schedule 3B)	**6.5-8.5**	**6.0 or above**	**0.2**	**4.0**	**NYS**	**0.3-1.0**	**0.1**	**50.0**	**10.0**	**150-600**		**1000**

c) Noise level

Sampling procedure including monitoring duration, instrument etc.:

47. 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.

48. Noise is another potentially threat to the quality of an environment. Noise levels vary at the given locations according to ambient noise. 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 improvement of the proposed subproject roads and bridges since the movement of increased number of motorized vehicular traffic will take effect.

49. 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 15** 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. The 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 15: Environmental noise level data of subproject sites

Subproject sites	Time						Daytime dB(A) Leq	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			
Narsingdi /W-01	58.5	72.6	62.5	75.5	60.9	73.2	71.16		
Sonargaon/ W-01	47.5	54.6	51.2	57.2	50.9	57.5	54.49	50 dBA at Day Time and 40 dBA at Night time	60 dBA at Day Time and 50 dBA at Night Time
Tarabo/ W-01	48.0	56.1	51.1	57.5	50.1	57.8	54.93		
Kanchan W-01	46.1	55.6	48.5	57.6	48.7	58.1	54.70		
Singair/ W-01	45.4	55.6	47.5	58.5	48.9	57.2	54.68		
Jashore/W-01	41.1	52.2	45.5	56.6	46.7	58.1	53.57		
Jikorgacha/W-01	41.2	48.6	42.3	56.5	42.1.	53.2	51.11		
Chalna/W-01	42.2	51.6	43.5	55.5	41.9	54.2	51.34		
Mongla/W-01	39.8	49.6	40.5	51.7	41.0	50.5	48.07		
Savar/W-05	48.2	55.6	49.3	69.5	47.1	67.8	64.12		
Savar/W-06	43.1	55.2	43.5	62.6	43.7	64.1	59.02		
Dhamrai/W-01	45.1	56.2	49.5	63.6	48.7	64.1	59.60		

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 inmixed 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.

50. 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.

51. As the road construction subproject site is adjacent to the residential area, therefore the noise level monitored is compared with the residential category of the National standard of DoE. It is relevant here to point out that no construction work was undertaken adjacent to the residential area at 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. Now, the results of the day time measured noise level in the subproject areas range between Min 41.6 and Max 53.4 dBA (as per Leq calculation, measured sound level is almost equivalent to continuous sound level 50 dBA at Daytime), and this agrees well with DoE's recommended noise level for residential area. Thus, the subproject area/s appears to be free from noise disturbances at present.

Comparison between Baseline Environmental Quality Data (ambient air, water quality and noise levels) and their corresponding Monitoring Results of endline (at conclusion of construction phase) of 3 (three) subproject sites

a) Air quality

52. Ambient Air Quality Monitoring Technique used during end of construction phase is the same as that of Baseline Monitoring Technique. The results of air quality parameters including the time average of each standard are presented in **Table 16** and reference for the amended air quality standard of ECR 1997 are presented below the table.

53. For the purpose of environmental quality data of end period of construction phase, sampling and analysis of the required environmental parameters has been done. The details of sampling date and location are provided in the table here under:

Sampling Location and date of sampling of various environmental components at subproject sites at End Period of Construction Phase

Sl. No	Name of subproject Roads	Sampling date	Sampling Locations (Coordinates) for various Environmental Components			
			Air	Noise	Surface Water	Ground Water
1	Balivadhra GC - Dhamshona UP - Simulia UP Road (**SAVAR/W-04)**	(01/04/2022)	23°57'12"N 90°15'32"E	23°57'13.226"N 90°15'25.109"E	23°57'11.46"N 90°15'33.17"E	23°57'13.05"N 90°15'32.45"E
2	Road from Binairchar to Kamrangir Char (**ARAIHAZAR W-01)**	(08/04/2022)	23°48'6.3"N 90°37'51.1"E	23°48'6.3826"N 90°37'51.501"E	23°48'6.300"N 90°37'50.899"E	23°48'6.183"N 90°37'50.272"E
3	RHD Araihazar bazar - Araihazar Purinda road (**ARAIHAZAR /W-02)**	(09/04/2022)	23°47'19.453"N 90°39'28.037"E	23°47'20.285"N 90°39'28.031"E	23°47'31.371"N 90°39'30.009"E	23°47'23.185"N 90°39'29.372"E

Table 16: Environmental Air Quality Baseline Data and their corresponding Monitoring Results (end period of construction phase) of proposed subproject sites

Subproject Site/area		Concentrations of Ambient Air Quality Parameters at subproject site																				
		CO			CO^2			NO_x (NO+NO2)			SO_2			SPM			$PM_{2.5}$			PM_{10}		
		Min (ppm)	Max (ppm)	Avg (ppm)	Min (ppm)	Max (ppm)	Avg (ppm)	Min (ppm)	Max (ppm)	Avg (ppm)	Min (ppm)	Max (ppm)	Avg (ppm)	Min (µg/m3)	Max (µg/m3)	Avg (µg/m3)	Min (µg/m3)	Max (µg/m3)	Avg (µg/m3)	Min (µg/m3)	Max (µg/m3)	Avg (µg/m3)
Savar W-04	Environmental Baseline data	0.003	0.016	0.014	639	678	658	0.006	0.041	0.039	0.011	0.019	0.016	60	98	79	28	56	46	54	90	62
	Environmental Monitoring data of end period of construction	0.000	0.000	0.000	662	695	682	0.040	0.054	0.048	0.018	0.028	0.022	135.2	218.8	167.6	54.8	64.6	58.1	99.4	138.6	121.5
Araihazar W-01	Environmental Baseline data	0.000	0.001	0.001	639	651	645	0.019	0.100	0.051	0.010	0.023	0.019	88	103	96	36	45	39	66	78	63
	Environmental Monitoring data of end period of construction	0.000	0.000	0.000	634	643	638	0.062	0.089	0.066	0.010	0.033	0.024	146.2	288.8	228.6	60.8	82.6	69.1	132.4	201.6	172.5
Araihazar W-02	Environmental Baseline data	0.001	0.002	0.001	609	707	679	0.063	0.700	0.326	0.518	0.668	0.558	63	88	79	22	28	26	49	69	62
	Environmental Monitoring data of end period of construction	0.000	0.000	0.000	645	690	672	0.078	0.092	0.086	0.011	0.028	0.024	229.2	398.8	318.6	57.8	80.6	68.1	152.4	305.6	212.5

Reference for the air quality standards amended in 2005

Description of Parameters/Pollutants	Unit	National Ambient Air Quality Standards (adopted in 2005)		DoE ECR 1997 (Urban) Standards)	DoE Duration time Average	WHO guidelines (µg/m³)
		Objective	Avg.			
Carbon Monoxide (CO)	ppm	40 mg/m³ (35 ppm)	1 hour(a)	35 ppm (40 mg/m³)	1 hour	-
		10 mg/m³ (9 ppm)	8 hours(a)	9 ppm (10 mg/m³)	8 hours	
Carbon Dioxide (CO2)	ppm			NYS		-
Nitrogen Dioxide (NO2)	ppm	100 µg/m³(0.053 ppm)	Annual	0.053 ppm	Annual	40 (1 hr.)
Sulphur Dioxide (SO2)	ppm	365 µg/m³ (0.14 ppm)	24 hours (a)	0.14 ppm	(24 hr.)	20 (24 hr.)
		80 µg/m³ (0.03 ppm)	Annual	0.03 ppm	Annual	
Suspended Particulate Matter (SPM)	µgm^{-3}			200 µgm^{-3}	Annual	
Particulate Matter (PM10)	µgm^{-3}	150 µg/m³	24 hours (c)	150 µgm^{-3}	24 hours	50 (Annual)
Particulate Matter (PM2.5)	µgm^{-3}	65 µg/m³	24 hours	65 µgm^{-3}	24 hours	25 (24 hr.)
Lead (Pb)	µgm^{-3}	0.5 µg/m³	Annual	0.5 µgm^{-3}	Annual	-

Notes:

(a) Schedule 2 of ECR, 1997

(c) Source: Air Quality Guidelines for Europe, Second Edition, 2000; WHO Regional Office for Europe, Copenhagen

Ambient air quality standards for Bangladesh and WHO Guideline

Pollutant	Bangladesh standard	WHO Guideline	Averaging time
Carbon Monoxide (CO) (mg/m³)	10 (9 ppm)	10	8 hour(a)
	40 mg m³/ (35 ppm)	30	1 hour(a)
Oxides of Nitrogen (NOx) (µg/ m³)	100 µg/ m³ (0.053 ppm)	-	Annual
Particulates (PM10) (µg/ m³)	50 µg/ m³	15	Annual(b)
	150 µg/ m³	50	24 hours(c)
Fine Particulates (PM2.5) (µg/ m³)	15 µg/ m³	10	Annual
	65 µg/ m³	25	24 hours
Ozone (O_3) (µg/ m³)	235 µg m³/ (0.12 ppm)	-	1 hour(d)
	157 µg/ m³ (0.08 ppm)	100	8 hours
Sulfur dioxide (SO_2) (µg/ m³)	80 µg/ m³ (0.03 ppm)	-	Annual
	365 µg/ m³ (0.14 ppm)	20	24 hours(a)

54. Comparison between baseline environmental air quality data and their corresponding Monitoring data of end line (at the conclusion of construction phase) of 3 (three) subproject sites recorded slightly to notable higher values than the standard limit for SPM, PM $_{2.5}$, PM $_{10}$ and NOx for Araihazar W-01/02. Such higher values may be explained by the fact of dry season suspended dust in the air coupled with higher traffic movement after road improvement. As the recorded values of CO, NOx, SPM, $PM_{2.5}$ and PM_{10} for Savar W-04 are well within the DoE's permissible limit, the irregularities for Araihazar W-01/02 could be the temporary effect. The reported higher values (exceeded the national and WHO standards) of SPM, PM10 and PM2.5 (except Savar/W-04 for PM $_{2.5}$) are from the period of construction end phase. It is to note that these higher values are not related to subproject construction works, rather movement of higher volume of mechanized vehicular traffic on the developed roads, which in turn results higher volume of suspended dust causing high concentration of particulate matters (SPM, PM10 and PM2.5). Now, it can be concluded that subproject construction works have no noticeable effect on the ambient air quality standard of subproject environment.

b) Surface and Groundwater Water quality

55. Sampling procedure including sample preservation Technique used during end of construction phase is the same as that of baseline monitoring technique. The indicated surface and ground water quality test results are presented below in the **Tables 17 & 18** respectively.

Surface water

56. The test results show that the levels of pH, DO, BOD, 20°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

57. As per documented results, the tested parameters pH, DO, Mn, As, chloride and TDS values are within the permissible limit as per set standard of ECR, 1997. Further BOD, 20°C (5 days), COD, Fe, nitrate and TDS values of groundwater samples are either nil or beyond detection limit.

58. Comparison between baseline environmental surface and ground water quality data and their corresponding Monitoring data of end line (at the conclusion of construction phase) of 3 (three) subproject sites provides very similar results and well within the standard values set by DoE. Therefore, it can be concluded that subproject construction works have no effect on the surface and ground water quality of the subproject environment.

Table 17: Environmental Surface water Quality Baseline Data and their corresponding Monitoring Results (end period of construction phase) of proposed subproject sites

Subproject	Site/area	pH	Ec µS/cm	DO mg/l	BOD^{5d} mg/l	COD mg/l	TSS mg/L	TDS mg/L	Fe mg/l	Mn mg/l	As ppb	Turbi-dity NTU	NO3-N mg/l	Cl^- mg/l	Total Coliform cfu/100ml
Savar W-04	Environmental Baseline data	7.51	162.7	4.95	1.78	14.18	5.22	253	<0.20	<0.10	4.52	10.5	7.38	21.64	$4.5x10^2$
	Environmental Monitoring data of end period of construction	7.58	153.5	5.13	2.00	12.90	9.40	242	0.085	0.008	4.11	12.4	7.70	23.01	$4.1 x10^2$
AraihazarW-01	Environmental Baseline data	7.42	127.6	5.08	1.12	22.18	6.21	192	<0.20	<0.10	3.99	8.28	7.76	11.92	54
	Environmental Monitoring data of end period of construction	7.38	131.1	5.03	1.88	19.75	10.48	198	0.075	0.009	3.51	11.80	8.92	12.05	$1x10^2$
AraihazarW-02	Environmental Baseline data	7.12	170.4	5.14	0.66	11.18	6.0	145	<0.20	<0.20	10.12	8.12	2.86	49.44	$2.16 x10^2$
	Environmental Monitoring data of end period of construction	7.20	178.1	5.04	1.18	12.57	8.15	151	0.085	0.010	5.51	10.80	3.56	38.05	$2.0 x10^2$
Standard per ECR,1997 (Schedule 3A)		**6.5-8.5**		**5 0r above**	**6 or less**	**NYS**			**NYS**	**NYS**	**NYS**		**NYS**	**NYS**	**5000 orless**
Standard per ECR,1997 (Schedule 10)		**6-9**		**4.5-8**	**50**	**200**			**2**	**5**	**20**		**10**	**600**	**NYS**

Table 18: Environmental Ground water Quality Baseline Data and their corresponding Monitoring Results (end period of construction phase) of proposed subproject sites

Subproject Site/area		pH	DO mg/l	BOD^{5d} mg/l	COD mg/l	EC µs/Cm	Fe mg/l	Mn mg/l	As ppb	NO3-N mg/l	Cl^- mg/l	TSS mg/l	TDS mg/l
Savar W-04	Environmental Baseline data	7.05	7.0	< 0.1	1.12	170.8	<0.20	<0.10	3.62	1.86	22.19	0.0	264
	Environmental Monitoring data of end period of construction	6.98	6.85	Nil	Nil	171.3	0.095	0.013	<2.0	<0.50	24.28	Nil	268
AraihazarW-01	Environmental Baseline data	7.35	7.44	< 0.1	0.0	168.9	<0.20	0.24	3.10	1.14	12.07	0.0	201
	Environmental Monitoring data of end period of construction	7.38	7.35	Nil	Nil	169.3	0.108	0.21	2.93	<0.50	11.88	Nil	199
AraihazarW-02	Environmental Baseline data	7.34	6.94	Nil	23.25	622	<0.20	<0.20	4.34	Nil	237.17	Nil	343
	Environmental Monitoring data of end period of construction	7.38	7.05	Nil	3.15	595.3	0.108	0.051	3.93	<0.50	211.88	Nil	341
Standard per ECR,1997 (Schedule 3B)		**6.5-8.5**	**6.0 or above**	**0.2**	**4.0**	**NYS**	**0.3-1.0**	**0.1**	**50.0**	**10.0**	**150-600**		**1000**

c) Noise level

59. Sampling procedure including monitoring duration employed during end of construction phase is same as that of baseline monitoring technique. The identified noise levels in the subproject area during end of construction phase are given in the **Table 19** here below. As per noise level data, it is found that the measured levels of noise at subproject site (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 75dBA. In this context, it can be mentioned that the proposed subproject sites are seemingly free from noise disturbances.

Table 19: Environmental Noise Level Baseline Data and their corresponding Monitoring Results (end period of construction phase) of proposed subproject sites

Subproject sites		Time						Daytime dB(A) Leq	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-04	Environmental Baseline data	42.5	58.7	47.4	72.8	47.4	69.0	-	50 dBA at Day Time and 40 dBA at Night time	60 dBA at Day Time and 50 dBA at Night Time
	Environmental Monitoring data of end period of construction	40.1	54.2	45.5	63.6	45.7	62.1	58.51		
Araihazar W-01	Environmental Baseline data	41.6	56.2	45.7	67.8	52.4	70.5	-		-
	Environmental Monitoring data of end period of construction	43.1	56.2	44.5	63.6	50.7	65.5	57.78		
Araihazar W-02	Environmental Baseline data	48.6	68.2	60.5	77.9	60.4	78.2	-		
	Environmental Monitoring data of end period of construction	48.1	60.2	52.5	70.8	50.7	73.5	66.76		

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.

60. 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. Now, the results of the day time measured noise level in the subproject areas range between Min 41.6 and Max 53.4 dBA (as per Leq calculation, measured sound level is almost equivalent to continuous sound level 50 dBA at daytime), and this agrees well with DoE's recommended noise level for residential area. Thus, the subproject area/s appears to be free from noise disturbances at end period of construction phase.

61. Comparison between baseline environmental quality data (ambient air, water quality and noise levels) and their corresponding Monitoring Results of end period of construction phase of 3 (three) subproject sites provides very similar results. Therefore, it can be concluded that subproject construction works have no significant effect on the overall environmental quality.

Pictorial evidence of sample collection for air, noise, surface and groundwater quality monitoring for Jhikorgacha / W-01 subproject

Ambient air quality monitoring at road from Sree Rampur CRDP drain to Hawaur more bridge, Jikorgacha/W-01 (23°6'44" N and 89°6'7" E)

Collecting ground water sample from tube-well at roadfrom Sree Rampur CRDP drain to Hawaur more bridge, Jikorgacha/ W-01(23°6'42" N and 89°6'5" E)

Collecting surface water sample from a nearby canal at road from Sree Rampur CRDP drain to Hawaur more bridge,Jhikorgacha/W-01(23°6'42"N and 89°6'3"E)

Noise Level Monitoring at road from Sree Rampur CRDP drain to Hawaur more bridge, Jikorgacha/W-01 (23°6'45"N - 89°6'7"E)

VII. GRIEVANCE REDRESS MECHANISM

62. Within 12 months after the Effective Date, LGED has prepared a Grievance Redress Mechanism, acceptable to ADB, and established 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 is to (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.

63. Second CRDP has adopted the grievance redress mechanism (GRM) as that of the first CRDP. The GRM is being 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.

64. 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 3**) outlines the composition and capacity of GRC to address project-related issues/complaints.

GRC functioning at CRDP-2 sites for resolving the complaints 1st Level GRC (at Local Level)

Sl.	Members	Designation	Responsibility/Scope of work of 1st Level GRC
1	Assistant Engineer of concerned PIU	Chairman	• Document the grievances of affected persons (AP) and resolved these through continuous interactions, • Once the grievances of AP is received/reported, these to be resolved within 7(seven) days of receipt of the complaint, • Make aware the Aps regarding land acquisition, structures acquisition, livelihood impacts, entitlements, and various assistances related to the above, • All grievances will be documented with full information of the person and issue, • Resolved grievances and other related records and minutes of meeting are to preserve properly, and make the Project Director aware this through the Mayor.
2	Consultant of CRDP-II (Safeguard Specialist)	Member	
3	Environmental/Social Safeguard Focal Officer of concerned PIU	Member Secretary	

2nd Level GRC (at Local Level)

Sl.	Members	Designation	Responsibility/Scope of work of 2nd Level GRC
1	Chief Executive Officer/Secretary of concerned PIU	Chairman	• Provide support to affected persons on problems arising from land acquisition (temporary or permanent), asset acquisition andeligibility for entitlements, compensation and assistance, • If any affected person"s claim of loss is valid under the context ofstatutory laws pertaining to relocation, the committee must help the complainant in being recompensed by the project authority, • Record grievances of affected persons, categorize and prioritizethem and provide solutions within 30 days from receipt of grievance from the first level, • Report to the aggrieved parties about developments regardingtheir grievances and decisions of the GRC, • The progress of resolve and decisions made by GRC related tothe grievances of the complainant must be informed to the PD through the Mayor of the Pourashova, • The GRC must hold at least two meetings a month. The numberof meetings held maybe increased or decreased based on the existing number of unresolved cases and making discussion with the PD.
2	Representative of the Mayor of concerned PIU	Member	
3	Representative of Affected Persons of concerned PIU	Member	
4	Official Representative of the land registry department	Member	
5	Official Representative of the DOE Divisional Office	Member	
6	Town planner of the Pourashava or City Corporation	Member	
7	Environmental/social safeguard Focal Officer of concerned Pourashava	Member Secretary	

In connection to the GRC committee established and functioning at CRDP-2 sites, as a sample, Rupganj GRC is displayed in **Appendix 12**.

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

65. The measures undertaken to publicize the GRM among the local people reside in the projectarea 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, are posted inthe project areas and at PMCU and PIU notice boards.
- All grievances are being documented, with full information of the affected person, in a register. The register will kept/available at the project site.
- The project signboards 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 reports of subprojects also include this Sample grievance redress form.

VIII. COMPLAINTS RECEIVED DURING SUBPROJECT IMPLEMENTATION

66. No complaint was received from the community or from any individual of the community at the construction site. However, during monitoring field visits, in some cases poor initiative was noticed in suppressing dust pollution by spraying plentiful water on dry surfaces of construction sites. Taking into consideration this issue, contractor's site engineer/supervisor was suggested to use dust suppression log chart to demonstrate routine spraying of water on dry surfaces at construction sites.

IX. SUMMARY OF KEY ISSUES AND REMEDIAL ACTIONS

67. No complaint was received from the community or from any individual of the community at the construction site. However, during monitoring field visits, in some cases poor initiative was noticed in suppressing dust pollution by spraying plentiful water on dry surfaces of construction sites. Taking into consideration this issue, contractor's site engineer/supervisor was suggested to use dust suppression log chart to demonstrate routine spraying of water on dry surfaces at construction sites.

X. PROJECT STRATEGY AGAINST COVID-19 H&S GUIDELINES

68. Project strategy against COVID-19 H&S Guidelines that have been shared by ADB during TPRM held on June 2020 and Status of COVID-19 guidelines implementation.

69. The PMCU assisted the contractors to prepare „Site Specific H&S Plans" to resume the construction works which had been stopped from March 2020 due to the emergence of COVID-19 crisis. Various government issued circulars and guidance were reviewed in preparing these "Site- specific COVID-19 Health & Safety Plans" and they are line with them. Consultations with relevant officials were done with public health advisory from the government. In addition to national circulars, guidelines and public health advisory guidelines and checklists of various international organizations such as, World Health Organization (WHO), Centers for Disease Control and Prevention (CDC),International Finance Corporation (IFC), International Labor Organization (ILO), Pan American Health Organization (PAHO) and UNOPS, International Safety and Health Construction Coordinators Organization (ISHCCO), Construction Federation of Isle of Man and Construction Industry Council (CIC), UK were reviewed and adopted in preparation of these "Site-specific COVID-19 Health & Safety Plans". Site Specific H&S Plans" of eight sample packages were shared with ADB on 22nd July 2020 and received approval of these by ADB on 3rd August 2020.

70. Meanwhile BRM of ADB transmitted Health and Safety Guidance on COVID-19 prior to works resumption to the project to the project on 28th July 2020 and these documents have been handed over to the contractors and to the relevant project staff.

71. Now, the prerequisites suggested by ADB including their recommendations related to the Site Specific COVID 19 H& S Plans are being followed by the contractors at the construction sites. To ensure the proper implementation of the recommended COVID-19 H&S protocols, staffs have been assigned both from PMU and from contractors. They are monitoring the COVID-19 H&S issues in the construction sites according with the guidance of the concerned PMCU staff and consultants. The BRM of ADB provided template have been adopted by the project to monitor and record the COVID-19 H&S issues in the work sites. The adopted template and some examples of monitoring records have been included in **Appendix 10.** Some photographs on preventive measures practicing at the worksite against spread of COVID-19 infection are displayed at the end of the said Appendix.

XI. CONCLUSIONS AND RECOMMENDATIONS

72. Environmental mitigation measures related to subprojects are being implemented in line with the Environmental Safeguard Framework. By and large performance is more or less satisfactory. Contractors are required to mitigate environmental impacts, and environmental compliance for their mitigation is being monitored 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.

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

- Overall improvement of environmental performance needs 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.
- While the housing and sanitary facilities for workers are up-to-standard, there is still room for further improvement.
- 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, educational and religious institutions, businesses and offices need to be constructed firmly for subprojects under implementation.
- Posting of adequate number of regulatory signs/signals and flagmen is required as these are deficient in few construction sites. These elements shall assist safe traffic flow and pedestrian.
- Contractors need to remove stockpiled materials that are no longer in use from the worksite; and reduce material losses from trucks hauling sand and spoil by covering loads and removing materials from tires and truck underbodies before transport. Contractors need to be more willing to dedicate labor time for cleaning roadway surfaces.

74. 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 in Paragraphs above. The compliance status of recommended action plan with time frame has been outlined in **Table 15** below:

Table 20: Compliance Status of recommended Action Plan with Time frame

Sl.	Recommendation	Compliance status	Responsible Entity	Action Plan to Take Effect
1	Ensure quality and timely implementation of infrastructure improvement works	Complied	PMCU, PIU, PDSC, Contractor's Environmental H&S Supervisor	During construction period
2	Make it mandatory for the construction work force to using PPE when at work	Complied	PMCU, PIU, PDSC, Contractor's Environmental H&S Supervisor	During construction period
3	Construct proper barricade/safety barrier around excavated sites to avoid accident/injury	Complied	PMCU, PIU, PDSC, Contractor's Environmental H&S Supervisor	During work around the excavated section
4	Ensure proper arrangements for water spraying periodically at construction sites to suppress dust pollution	Complied	PMCU, PIU, PDSC, Contractor's Environmental H&S Supervisor	During construction period
5	Stock piles of construction materials (sand, brick chips and stone chips) are to be covered with poly ethylene sheets to avoid being airborne	Complied	PMCU, PIU, PDSC, Contractor's Environmental H&S Supervisor	During construction period
6	Site facilities to be established at safe distance from communities	Complied	PMCU, PIU, PDSC, Contractor's Environmental H&S Supervisor	Before commencement of construction work
7	Proper arrangements of firefighting equipment at work force camp and site office	Complied	Contractor's Site Engineer/Supervisor/ Environmental H&S Supervisor	During construction period
8	Ensure strong measures to minimizing the potential risk of COVID-19 infection among the field work force so that construction work can continue safely	Complied	PMCU, PIU, PDSC, Contractor's Environmental H&S Supervisor	During construction period
9	Prepare Hand washing and social distancing posters and Tobe displayed at work sites and labor camps	Complied	PMCU, PIU, PDSC, Contractors Environmental H&S Supervisor	During construction period
10	Periodic meetings to be held between the construction representative/sand local elite to avoid possible social conflict	Complied	PMCU, PIU, PDSC, Contractor's Environmental H&S Supervisor	During construction period

Appendix 1: EIA approval and ECC for Integrated Waste Management Facilities in KCC

শেখ হাসিনার নির্দেশ
জলবায়ু সহিষ্ণু বাংলাদেশ

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

Memo No: 22.02.0000.018.72.075.21-148 Date: November 04, 2021

Subject: Environmental Clearance for Khulna City Corporation Solid Waste Management under Second City Region Development Project (CRDP-II)

Ref: Your Letter No. কেসিসি/পৃ:বি:/২০২১/১৯৩৪; তারিখ: ০৫/১০/২০২১

With reference to the above, the Department of Environment (DoE) hereby approves Environmental Impact Assessment (EIA) as well as accords the Environmental Clearance to **Khulna City Corporation (KCC) Solid Waste Management under Second City Region Development Project (CRDP-II)** subject to the fulfillment of the terms and conditions as under:

1. This Environmental Clearance is accorded to Khulna City Corporation (KCC) for solid waste management facility in an area of 13.82 acres at Scholua Mouza of Rongpur Union under Dumuria Upazila of Khulna.
2. This Environmental Clearance is valid to establish/construct and operate following:

Name of Activities	Maximum capacity
a. Sanitary Landfill	254 ton/day
b. Compost Plant	15 ton/day
c. Leachate Treatment Plant	159 ton/day
d. Biogas Plant	20 ton/day
e. Waste Plastic to Fuel Plant	14 ton/day

3. The detailed design and layout plan should be maintained as per EIA report. In case of any changes in design the proponent must obtain consent from DoE.
4. Project Proponent may undertake activities for land development and infrastructural development of the project.
5. Project Proponent may open L/C (Letter of Credit) for importing machineries for the project which shall also include machineries relating to waste treatment plant and other pollution control devices.
6. The activity under construction of the project shall not release any pollutant that affect human health or will have damaging impact on the environment or natural resources or ecosystem.
7. Proper and adequate mitigation measures shall be ensured throughout preparation, construction and operation period of the proposed project activities.
8. Environment friendly construction and development practices shall be followed that minimize loss of habitats of any flora and fauna.
9. Construction works shall be restricted to day time hours so as to avoid/mitigate the disturbance of local lives.
10. Proper and adequate sanitation facilities shall be ensured in labor camps throughout the proposed project period.

11. In order to control noise pollution, vehicles & equipment shall undergo regular maintenance; working during sensitive hours and locating machinery close to sensitive receptor shall be avoided.
12. Proper and adequate on-site precautionary measures and safety measures shall be ensured so that no habitat of any flora and fauna would be endangered or destructed.
13. All the required mitigation measures suggested in the EIA report along with the emergency response plan are to be strictly implemented and kept operative/functioning on a continuous basis.
14. To control dust, spraying of water over the earthen materials should be carried out from time to time.
15. Storage area for soils and other construction materials shall be carefully selected to avoid disturbance of the natural drainage.
16. Adequate considerations should be given to facilitate drainage system for run-off water from rain.
17. Adequate facilities should be ensured for silt trap to avoid clogging of drain/canal/water bodies.
18. Construction material should be properly disposed-off after the construction work is over.
19. Leachate and Rainwater runoff the landfill should be collected and treated in the leachate treatment plant and reused.
20. A piezometer well shall be installed in the project site to monitor the ground water. The information of the ground water quality should be submitted to the DoE.
21. No hazardous waste should be handled in the premise
22. Green belt shall be developed around the project area.
23. All activities (pre-construction, construction and post-construction stage) should be implemented according to EMP clearly listed in the EIA report.
24. The project authority should provide all sort of logistics support to DOE and other relevant agencies for monitoring environment related items/events.
25. The feed to the pyrolysis reactor should be devoid of dirt and the feeding arrangement to the reactor should be mechanized.
26. The initial heating of the reactor should be done by liquid fuel or gas. The flue gas should be released through a chimney of at least 30 meters height.
27. Excess pyro gas if any should be stored or flared at a minimum height of 30 meters.
28. Adequate instrument for measurement and control of temperature and pressure along with safety interlocks should be provided.
29. Removal of carbon should be done through mechanized system.
30. Environmental Monitoring Reports according to specific format specified in the EIA Report shall be made available to Khulna Divisional Office of the Department of Environment on a quarterly basis during the construction period of the project.
31. The following records must be kept in respect of any samples required to be collected for the purposes of environmental monitoring activities :
    (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.
32. The results of any monitoring required to be conducted under this EIA report must be

33. In case of any emergency, the following information shall immediately be reported to Khulna Divisional Office, Khulna and Head Office of the Department of Environment simultaneously:
    a) Nature of incident (fire, accident, collision, land slide etc.)
    b) Personnel affected (injured, missing, fatalities etc.)
    c) Emergency support available and its location (standby transport, medical facilities)
    d) Weather conditions
    e) Current operations (abandoning the site, firefighting, etc.)
34. The project authority 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.
35. No activity of cutting/razing/ dressing of hill is endorsed under this approval of EIA.
36. Re-vegetation and replantation under green belt activities shall be undertaken according to those mentioned in the EIA report.
37. This Environmental Clearance is valid for one year from the date of issuance and the project authority shall apply for renewal to the Khulna Divisional Office of the Department of Environment in Khulna at least 30(thirty) days of expiry.
38. Violation of any of the above conditions shall render this approval void.

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

04.11.2021

(Masud Iqbal Md. Shameem)
Director (Environmental Clearance)
Phone # 8181673

Project Director
Khulna City Corporation Solid Waste Management under
Second City Region Development Project (CRDP-II)
Khulna City Corporation
Khulna.

Copy Forwarded to:

1. Secretary, Ministry of Environment, Forests and Climate Change, Bangladesh Secretariat, Dhaka.
2. Director, Department of Environment, Khulna Divisional Office, Khulna.
3. Assistant Director, Office of the Director General, Department of Environment, Dhaka.

Appendix 2: Renewal of Environmental Clearance Certificate (ECC)

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/ 72 Date: 11 /05/2022

Subject: Renewal of Environmental Clearance Certificate for "Second City Region Development Project (CRDP-2), Local Government Engineering Department, LGED Bhaban, Agargaon, Sher-E-Bangla Nagar, Dhaka"

Ref: Your application received on 21/03/2022.

With reference to your above application, the Department of Environment hereby renews the Environmental Clearance Certificate in favor of the Second City Region Development Project (CRDP-2) subject to fulfilling the terms and conditions stated in Environmental Clearance Certificate issued on 10.02.2019 vide memo no. DoE/Clearance/5194/2013/53.

2. This renewal is valid upto 09 February, 2023. An application for further renewal along with a) the renewal fees (as per the ECR, 1997) b) VAT on renewal fees (in separate Treasury Chalan) and c) all associated documents shall be submitted to the Head Office of DoE with a copy to Dhaka Regional/Khulna Divisional Office at least 30 days ahead of expiry date.

11.05.2022

(Masud Iqbal Md. Shamcem)
Director (Environmental Clearance)
Phone: 8181673

Project Director
Second City Region Development Project (CRDP-2)
Local Government Engineering Department
LGED Bhaban, 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) Director, Department of Environment, Khulna Divisional Office, Khulna.
4) Assistant Director, Office of the Director General, Department of Environment, Head Office, Dhaka.

Appendix 3: 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:

(i) **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 পর্যালোচনাপূর্বক 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 সম্মরে 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 আহবান করবে,
(৩) প্রকল্প পর্যায়ে অভিযোগ নিরসন কমিটি ১৫ দিনের মধ্যে সিদ্ধান্ত প্রদান করবে,
(৪) পরিবেশ/সামাজিক সুরক্ষা কর্মকর্তা প্রকল্প পর্যায়ে 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।

৭/১২/২০২০

(জেসমিন পারভীন)
উপসচিব
ফোন: ৯৫৭৫৫৬৭

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।

৭/১২/২০২০

(জেসমিন পারভীন)
উপসচিব

English Translation of GRC Formation
Office Order

Peoples Republic of Bangladesh
Local Government, Rural Development & Cooperatives
MinistryLocal Government Division

24 Jaistha, 1427
Ref: 46.068.005.00.018.2020.455 Date: 07 June, 2020

Office Order

Under the Second City Region Development Project, where LGED is the implementing/executing agency, Grievance Redress Committees (GRCs) have been formed at Pourashava, City Corporation and LGED levels to redress the reported grievances resulting from the subproject implementation. These Committees are to redress the reported grievances in a procedural basis and it is being done ina quick and timely fashion.

(i) At Pourashava Level:

Grievance Redress Committee (GRC) and Grievance Redress Mechanism (GRM):

The GRM will be implemented in three levels. First and Second Levels shall involve at Pourashava and the Third at Project Level.

First Level: The first level and most accessible and immediate venue for the fastest resolve of grievances is the PIU. At this level, PIU Head (Mayor of Pourashava) shall appoint/nominate an Officer from the concerned PIU as Focal Person. The Focal Person will document the grievances of the affected persons and will take initiative for quick resolution. The contact cell phone number of the Focal Person will be posted at important places of the project areas. After receiving the written complaints from the project affected person/s, the Focal Person shall immediately place it to the First Level Committee (as per committee‟s work-clause No. 2).

First Level Grievance Redressal committee (at Local Level):

1) Executive Engineer/Assistant Engineer of concerned PIU ---------- Chairman
2) Consultant of CRDP-II (Safeguard Expert/Specialist ---------- Member
3) Environmental/Social Safeguard Focal Officer of concerned PIU -------- Member Secretary

Scope of Work of First Level Grievance Redressal Committee (at Local Level)

1) Document the grievances of affected persons (AP)and resolved these through continuousinteractions,
2) Once the grievances of AP is received/reported, these to be resolved within 7 (seven) days ofreceipt of the complaint,
3) Make aware the APs regarding land acquisition, structures acquisition, livelihood impacts,entitlements, and various assistances related to the above,
4) All grievances will be documented with full information of the person and issue,
5) Resolved grievances and other related records and minutes of meeting are to preserveproperly, and make the Project Director aware this through the Mayor.

Second Level: If the grievance remains unresolved at First Level of Pourashava, the Member Secretary (Focal Person/Officer) of the First Level, through the Mayor, shall refer the case/issue with written documentation to the Second Level GRC formed at Pourashava Level. The Mayor, after receiving a written letter containing the above fact, shall activate the Second Level of the GRM.

Second Level Grievance Redressal committee (at Local Level):

1) Chief Executive Officer/Secretary of concerned Pourashava ---------- Chairman
2) Representative of the Mayor of concerned Pourashava ---------- Member
3) Representative of Affected Persons of concerned Pourashava ---------- Member
4) Official Representative of the land registry department ---------- Member
5) Official Representative of the DOE Divisional Office ---------- Member

6) Town planner of the Pourashava or City Corporation
Member
7) Environmental/social safeguard Focal Officer of concerned Pourashava -------Member

Scope of Work of Second Level Grievance Redressal Committee (at Local Level)

1) Provide support to affected persons on problems arising from land acquisition (temporary or permanent), asset acquisition and eligibility for entitlements, compensation and assistance,
2) If any affected person‟s claim of loss is valid under the context of statutory laws pertaining to relocation, the committee must help the complainant in being recompensed by the project authority,
3) Record grievances of affected persons, categorize and prioritize them and provide solutions within 30 days from receipt of grievance from the first level,
4) Report to the aggrieved parties about developments regarding their grievances and decisions of the GRC,
5) The progress of resolve and decisions made by GRC related to the grievances of the complainant must be informed to the PD through the Mayor of the Pourashova,
6) The GRC must hold at least two meetings a month. The number of meetings held may be increased or decreased based on the existing number of unresolved cases and making discussion with the PD.

Third Level: Should the grievance still remain unresolved, the Project Manager (the Mayor) of concerned Pourashava will activate the third level of the GRM by informing quickly the Project Director who will, based on review of the local GRC minutes and consultation with the local GRCChair (the Mayor), activate the Third Level GRC.

Third Level Grievance Redressal committee (at Project Level):

1) Project Director, CRDP-II Secretary of concerned Pourashava---------- Chairman
2) Representative from Land Ministry -concerned Pourashava ---------- Member
3) Representative from Department of Environment (DOE)----------Member
4) Environmental/social safeguard Focal Officer of concerned Pourashava -----Member
5) Representative of Affected Persons of concerned Pourashava----------Member
6) Environmental/social safeguard Focal Officer from CRDP-II ---------Member Secretary

Scope of Work of Third Level Grievance Redressal Committee at Project Level

1) The Environmental and/or Social Safeguards Officer of the PMCU will be responsible for processing and placing all papers related to the grievances and earlier decisions before the Project Level GRC
2) A meeting shall be convened within 7 (seven) days just after receiving the complaint at the Project Level,
3) The GRC at Project Level will conveyed decision within 15 (fifteen) days of the receiptof the complaint,
4) Environment/Social Safeguard Officer at Project Level shall record the decisions taken at the GRC meeting and issuing minutes of the meeting/s,
5) Environment/Social Safeguard Officer at Project Level, after discussion with, shall take necessary actions regarding the progress of the implementation of the decisions taken by the GRC

(ii) At City Corporation Level:

Necessity of Grievance Redressal Committee (GRC)

During the implementation of CRDP-II, if any private property/asset (temporary/permanent) gets damaged and if any grievances are raised by the affected persons, then in order to

resolve such issues, it becomes mandatory/ compulsory to form a GRC at City Corporation Level. The formed GRC would play an effective role in receiving and resolving the grievances/complaints raised by the affected persons that may cause from the implementation of projects and subprojects of the City Corporation. The process of resolving so and so complaints would be considered as a part of policies relating to safeguard of the project. In this process, the grievances of aggrieved person or persons must be addressed and resolved in a transparent and timely manner. The process to be implemented should not be gender sensitive and should be free from any cultural biases. It should be ensured that in this form of resolve, the affected persons can easily accept the process of achieving the resolve and they do not require spending any money for it. The affected persons must gradually be given accurate and elaborate information on this process of grievances redressing.

Grievance Redressal Committee and Settlement Process

The grievances redress process will be implemented at 3 (three) levels. The First and Second Levels will be addressed at City Corporation Level and the Third at Project Level.

First Level: At the First Level, the complainant/AP shall have easy accessibility to the venue and a fastest resolve of grievances system. In this stage, the PIU Head shall appoint an Officer of the concerned PIU as a focal person of the project. The focal person will receive complaints from the victims and make an effort for prompt grievance redress. In order to provide ease of communication, the focal person"s mobile number needs to be put up in an important place of the project area. Upon receipt of a written complaint/s from the victim or persons, the Focal Person shall immediately refer the matter to the committee formed at the primary level (as per scope of work no. 2 of the Committee in terms of responsibility)

First Level Local Grievance Redressal committee

1) Executive Engineer/Assistant Engineer of concerned City Corporation ----------Chairman
2) Project Consultant (Safeguard Expert) of CRDP-II ---------- Member
3) Environmental/Social Safeguard Focal Person of concerned City Corporation Member
Secretary

Scope of work of the First Level Grievance Redressal Committee (at Local Level)

1) Upon receipt of the complaints from the affected/aggrieved person, grievances are beingresolved through discussions
2) Once the grievances of AP is received/reported, these are to be resolved within 7 (seven)days of receipt of the complaint,
3) Inform the affected persons about land acquisition, structures acquisition, livelihood impacts,entitlements, and about various assistance/collaboration,
4) All the information related to the complaint of the complainant is recorded,
5) To preserve properly all records and minutes of meetings related to grievance redressal andinform the Project Director through the Project Manager (Head of PIU).

Second Level: If the grievance remains unresolved at First Level, the Member Secretary (Focal Person/Officer) of the First Level, through the Project Manager (Head of PIU) shall refer the case/issue with written documentation to the Second Level GRC formed at City Corporation Level. The Mayor, after receiving a written letter containing the above fact, shall activate the Second Level of the GRM.

Second Level Grievance Redressal committee (at Local Level):

1) Chief Executive Officer/Secretary of concerned City Corporation: Chairman
2) Representative of the Mayor of concerned City Corporation: Member
3) Representative of Affected Persons of concerned City Corporation: Member
4) Official Representative of the land registry department: Member
5) Official Representative of the DOE Divisional Office: Member
6) Town planner of the Pourashava or City Corporation: Member

7) Environmental/social safeguard Focal Officer of concerned City Corporation: Member

Scope of Work of Second Level Grievance Redressal Committee (at Local Level)

1) Provide support to affected persons on problems arising from land acquisition (temporary or permanent), asset acquisition and eligibility for entitlements, compensation and assistance,
2) If any affected person‟s claim of loss is valid under the context of statutory laws pertaining to relocation, the committee must help the complainant in being recompensed by the project authority
3) Record grievances of affected persons, categorize and prioritize them and provide solutions within 30 days from receipt of grievance from the first level
4) Report to the aggrieved parties about developments regarding their grievances and decisions of the GRC.
5) The progress of resolve and decisions made by GRC related to the grievances of the complainant must be informed to the PD through the Project Manager (Head of PIU) of City Corporation.
6) The GRC must hold at least two meetings a month. The number of meetings held may be increased or decreased based on the existing number of unresolved cases and making discussion with the PD.

Third Level: Should the grievance still remain unresolved at second level, the Project Manager (Head of PIU) will inform the Project Director quickly. The Project Director will activate the third level of the GRC at the project level based on review of the local GRC minutes and consultation with the Head of PIU.

Third Level Grievance Redressal committee (at Project Level):

1) Project Director, CRDP-II.....
Chairman2) ----------Representative from Lanc
3) Representative from Department of Environment (DOE) ---------- Member
4) Environmental/social safeguard Focal Officer of concerned Pourashava ------ Member
5) Representative of Affected Persons ---------- Member
6) Environmental/social safeguard Focal Officer from CRDP-II ---------- Member Secretary

Scope of Work of Third Level Grievance Redressal Committee at Project Level

1) The Environmental and/or Social Safeguards Officer of the PMCU will be responsible for processing and placing all papers related to the grievances and earlier decisions before the Project Level GRC
2) A meeting shall be convened within 7 (seven) days just after receiving the complaint at the Project Level,
3) The GRC at Project Level will conveyed decision within 15 (fifteen) days of the receiptof the complaint,
4) Environment/Social Safeguard Officer at Project Level shall record the decisions taken at the GRC meeting and issuing minutes of the meeting/s,
5) Environment/Social Safeguard Officer at Project Level, after discussion with, shall take necessary actions regarding the progress of the implementation of the decisions taken by the GRC

(iii) At LGED Level:

Necessity of Grievance Redressal Committee (GRC)

During the implementation of CRDP-II, if any private property/asset (temporary/permanent) gets damaged and if any grievances are raised by the affected persons, then in order to resolve such issues, it becomes mandatory/ compulsory to form a GRC. The formed GRC would play an effective role in receiving and resolving the grievances/complaints raised by the affected persons that may cause from the implementation of projects and subprojects. The process of resolving so and so

complaints would be considered as a part of policies relating to safeguard of the project. In this process, the grievances of aggrieved person or persons must be addressed and resolved in atransparent and timely manner. The process to be implemented should not be gender sensitive and should be free from any cultural biases. It should be ensured that in this form of resolve, the affected persons can easily accept the process of achieving the resolve and they do not require spending any money for it. The affected persons must gradually be given accurate and elaborate information on this process of grievances redressing.

Grievance Redressal Committee and Settlement Process

The grievances redress process will be implemented at 3 (three) levels. The First and Second Levels will be addressed at Upazila Level and the Third at Project Level.

First Level: At the First Level, the complainant/AP shall have easy accessibility to the venue and a fastest resolve of grievances system. In this stage, the Upazila Engineer shall appoint a Sub Assistant Engineer of the concerned PIU as a focal person of the project. The focal person will receive complaints from the victims and make an effort for prompt grievance redress. In order to provide ease of communication, the focal person‟s mobile number needs to be put up in an important place of the project area. Upon receipt of a written complaint/s from the victim or persons, the Focal Person shall immediately refer the matter to the committee formed at the primary level (as per scope of work no. 2 of the Committee in terms of responsibility)

First Level Local Grievance Redressal committee

1) Executive Engineer/Assistant Engineer of concerned City Corporation: Chairman
2) Project Consultant (Safeguard Expert) of CRDP-II: Member
3) Environmental/Social Safeguard Focal Person of concerned City Corporation: Member-Secretary

Scope of work of the First Level Grievance Redressal Committee (at Local Level)

1) Upon receipt of the complaints from the affected/aggrieved person, grievances are beingresolved through discussions,
2) Once the grievances of AP is received/reported, these are to be resolved within 7 (seven)days of receipt of the complaint,
3) Inform the affected persons about land acquisition, structures acquisition, livelihood impacts,entitlements, and about various assistance/collaboration,
4) All the information related to the complaint of the complainant is recorded,
5) To preserve properly all records and minutes of meetings related to grievance redressal and inform the Project Director by the Upazila Engineer through the Executive Engineer, LGED, ofconcerned district.

Second Level: If any complaint is unresolved at the primary level, the Upazila Engineer will report thecomplaint in writing to the second level local grievance redressal committee formed at the upazila level. After receiving the written letter from the Upazila Engineer, the second level grievance redressalprocess will start.

Second level local grievance redressal committee

1) Upazila Nirbahi (Executive) Officer ---------- Chairman
2) Representative of Upazila Nirbahi (Executive) Officer of concerned Upazila ------ Member
3) Representative of aggrieved/affected person of concerned City Corporation------ Member
4) Representative of the local Land Registry Office ---------- Member
5) Representative of Divisional DOE Office---------- Member
6) Representative of Office of Executive Engineer of concerned District---------- Member
7) Environmental/Social Safeguard Officer of concerned District---------- Member Secretary

Scope of the second level local grievance redressal committee

1) At this stage, it is to assess the amount of loss (physical quantity only) in the acquisition of assets (permanent / temporary) of the affected persons in the project, and to assist in obtaining compensation
2) To assist in obtaining compensation from the project authorities, if the victim's complaint is covered by the Rehabilitation Policy,
3) To resolve the grievances of the victims/AP on priority basis by sorting them according to type within 1 month,
4) To inform the complainant about the progress of the complaint and the decision of the committee,
5) To inform the Project Director through the Upazila Nirbahi (Executive) Officer about the progress of the complainant's complaint and the decisions of the Redressal Committee.
6) The grievance redressal committee will meet at least twice a month. The number of monthly meetings can be reduced or increased based on the number of unresolved complaints and in consultation with the Project Director.

Third Level: In the second stage, if any grievance remains unresolved in the local grievance redressal committee, the Executive Engineer of concerned District will immediately inform the project director. The Project Director will initiate the activities of the third level grievance redressal committee formed at the project level in consultation with the Executive Engineer on the basis of the report and recommendations of the local grievance redressal committee.

Third level local grievance redressal committee

1) The Project Director of CRDP-II: Chairman
2) Representative of Land Ministry: Member
3) Representative of Department of environment: Member
4) Environmental/Social Safeguard Focal Person, concerned Upazila: Member
5) Representative of Project Affected Persons: Member
6) Environmental/Social Safeguard Focal Person, CRDP-II: Member-Secretary

Scope of the Third Level local grievance redressal committee

1) The Environment / Social Safeguard Officer will present the grievances and previous leveldecisions to the grievance redressal committee.
2) At the Project Level, the grievance redressal committee will convene a meeting within 7days of receiving the grievance
3) At the Project Level, the grievance redressal committee will provide decision within 15days
4) The Environment / Social Safeguard Officer, at the Project Level, will record the decisionsof the grievance redressal committee meeting and issue the minutes of the meeting.
5) The Environmental / Social Safeguard Officer, at the Project Level, will take necessary steps after discussing the progress of implementation of the decision of the grievance redressal committee.

Signature

(Jesmin Parvin)
Deputy Secretary
Phone: 9575567

Distribution (in action)

1) Secretary, Land Ministry, Bangladesh Secretariate,Dhaka (With a request to send a suitable representative)
2) Director General, Department of Environment, Agargaon,Dhaka (With the request to send a suitable representative of the Divisional Office to the concerned grievance redressal committee)
3) Chief Engineer, Local Government Engineering Department, Agargaon, Dhaka
4) Chief Executive Officer/Secretary, City Corporation
5) Director, Divisional Office, Department of Environment Division
6) Mayor, Pourashava District (With a request to send a suitablerepresentative)
7) Project Director, CRDP-II, Local Government Engineering Department, Agargaon, Dhaka
8) Upazila Nirbahi Officer, Upazila District
9) Chief Executive Officer/Secretary, Pourashava District
10) Executive Engineer/Assistant Engineer City Corporation-
11) Environmental/Social Safeguard Officer, City Corporation-
12) Urban Planner, City Corporation
13) Executive Engineer/Assistant Engineer, Pourashava, District
14) Safeguard Expert, MDS Consultant
15) Environmental/Social Safeguard Officer, Pourashava, District
16) Sub Register, Local Land Registry Office (With a request to send a suitable representative)
17) Urban Planner, Pourashava, District
18) Environmental/Social Safeguard, City Corporation
19) Representative from project affected persons
20) Environmental/Resettlement Safeguard Officer, CRDP-II, LGED, Dhaka
21) Environmental/Social Safeguard Officer,City Corporation
22) Upazila Engineer/Assistant Engineer, Upazila, District
23) Environmental/Social Safeguard Officer, Upazila, District

Reference no.-46.068.005.00.00.018.2020.455 Date: 24 Jaistha 1427
07 June 2020

Copy to :

1. Private Secretary to the Hon'ble Minister, Ministry of Local Government, Rural Development and Cooperatives, Bangladesh Secretariat, Dhaka
2. Private Secretary to Senior Secretary, Department of Local Government, BangladeshSecretariat, Dhaka
3. Office Copy / Master Copy

Signature

(Jesmin Parvin)
Deputy Secretar

Appendix 4: 1. Sample Filled-in EMP compliance monitoring checklist
Table: Site-specific EMP Compliance Status (GCC W-02)

EMP Compliance Checklist **Second City Region Development Project (CRDP-II)** **Scheme name of sub-project: Improvement of Road from Bhabanipur Primary School to Mother Textile via Latifupur Road. (ch.0-3600m)**	**Date: May, 2022**

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	Deployment one full-time Environment health and Safety officer by the contractor to oversee and comply environmental	√			

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	
	Supervisor	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	√			

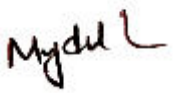
Sl No.	Environmental Issues / Aspects	Activity / Inspection items	Status of compliance (Tick √)			Remarks (i.e. specify location, site conditions, problem observed, possible cause of nonconformity and / or proposed corrective/ preventative actions)
			Yes	No	N/A	
		adequate stock Provide separate sanitation 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	√			

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	
		sanitation facilities as to avoid water pollution.				
		Maintaining the distance of water source (ground /surface water from a soak pit at 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	√			

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	
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.	√			

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	
		Action will be taken within 7 working days.	√			

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



Md. Rakibul Hasan	Md. Mydul Islam	Abdul Kaium
PDS Consultant/Site Supervision Engineer	Environmental Officer (PIU)	Contractor's Health & Safety Officer

2. Sample Filled-in EMP compliance monitoring checklist

Table: Site-specific EMP Compliance Status (Rupganj W-01)

EMP Compliance Checklist **Second City Region Development Project (CRDP-II)** **Road Name: Improvement of Rupshi GC - Kanchan GC via Murapara GC road (Road ID – 367682006) (Ch. 0-13775m).**	**Date: June, 2022**

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**	
16.	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	√			
17.	Deployment of Environment and Safety Supervisor	• Deployment one full-time Environment health and Safety officer by the contractor to oversee and comply environmental safeguards	√			

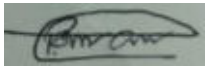
Sl No.	Environmental Issues / Aspects	Activity / Inspection items	Status of compliance (Tick √)			Remarks (i.e. specify location, site conditions, problem observed, possible cause of nonconformity and / or proposed corrective/ preventative actions)
			Yes	No	N/A	
18.	Fuel storage areas	• Install hardstand/raised platform with polyethylene on the top	√			
		• Firefighting equipment installation	√			
		• Regular checks on physical condition	√			
19.	Access road construction	• Obtaining approval			√	
		• Construction of culverts if needed			√	
20.	Earthworks	• Agreeing on disposal of spoil earth/soils	√			
		• Prevention of erosion/dust due to transporting /carrying earth	√			
21.	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	√			

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	
		• Provide separate sanitation facilities for male & female if needed				
		• Provision of safe drinking water to work force (arsenic free)	√			
22.	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.	√			
23.	Protection of Cultural//Archaeological Properties	• Providing measures to protect cultural properties			√	
24.	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.	√			
		• Maintaining the distance of water source (ground /surface water from a soak pit at minimum 15m.	√			
		Maintaining the drainage from the tube well diverting into the	√			

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	
		drainage system of the camp area.				
25.	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.	√			
26.	Waste	• Provision of containers to store separately non-hazardous/hazardous solid waste	√			
		• Proper disposal of generated wastes at approved disposal sites	√			
27.	Dust Control	• Covering or wetting of dusty materials	√			
		• Dust suppression by wetting surfaces	√			
		• Impose speed limits	√			
28.	Water and Hydrology	• Preventing wastes, soil, etc. entering in the water system by waste collection, revegetation and dust suppression etc.			√	

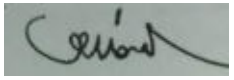
Sl No.	Environmental Issues / Aspects	Activity / Inspection items	Status of compliance (Tick √)			Remarks (i.e. specify location, site conditions, problem observed, possible cause of nonconformity and / or proposed corrective/ preventative actions)
			Yes	No	N/A	
29.	Flora and Fauna	• Agreeing with local 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	√			
30.	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



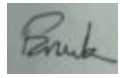
RIAD KHAN

PDS Consultant/Site Supervision Engineer



Md. SHAHNEWAZ BHUIYAN

Environmental Officer (PIU)



MD.FARUK

Contractor's Health & Safety Officer

Appendix 5: Summary of Findings from Field Visits

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 of EMP issues	EMP Compliance Status
Visited the randomly selected schemes of the following contract packages: • Savar W-03/04 & Savar Poura W- 01 visited on 28/04/2022; • GCC W-01/02 visited on 10/05/2022; • Araihazar W-01/02/03 visited on 30/05/2022; and • Rupganj W- 01/02/03 visited on 15/06/2022	• Multilayer, strong safety barriers at excavation ordeep cut construction works	Was found to secure the excavated/deep cut construction site with multilayer safety tape/barrier	EMP Complied
	• Planned stock piles forconstruction 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 constructdiversion road at place where required	EMP Complied
	• Warning/Regulatory Signat Construction work site	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 PPEat construction sites	EMP Complied
	• Dust Suppression	Noticed initiative of dust suppress by spraying water on dry surfaces of construction site.	EMP Complied
	• Waste managementat Campsite	Trashes generated at campsite wasfound.to collect in the bins	EMP Complied
	• First-aid Facility at campsite	Health safety measures including first-aid facilities are found OK at the camp/worksite	EMP Complied
	• Base environmental dataof 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

Few sample photographs from field monitoring sites

As regards the overall environmental safeguard compliances at subproject construction site are displayed here below.

<table>
<tr>
<td> 
</td>
<td> 
</td>
</tr>
<tr>
<td colspan="2">Separate Toilet Facility for Male and Female Worker
CRDP-2/LGED/RUPGANJ/NCB/2018/W-01)</td>
</tr>
</table>

<table>
<tr>
<td> 
</td>
<td>  </td>
</tr>
<tr>
<td>CRDP-2/LGED/SAVAR/NCB/2018/W-04
First Aid Facility at construction site</td>
<td>CRDP-2/LGED/SAVAR/NCB/2018/W-02
Adequate drinking water supply</td>
</tr>
</table>

	
CRDP-2/LGED/SAVAR/NCB/2018/W-02 **Hand washing/sanitizing facility at worksite**	CRDP-2/LGED/GCC/NCB/2018/W-01 **Waste bin facility at worksite**

 Package no: W-01 (Savar upazila) Dismantling work ongoing of existing damage bridge of Savar bus-stand to Hemna via Savar UP road at ch 1+500km. Diversion road are opened. (Date: 13-02-2021)	
CRDP-2/LGED/SAVAR/NCB/2018/W-01 **Constructed diversion road at worksite**	**CRDP-2/LGED/SAVARP OUR/NCB/2018/W-01** **Warning sign at construction site**

CRDP-2/LGED/SAVAR/NCB/2018/W-03
Project signboard at construction site

CRDP-2/LGED/GCC/NCB/2018/W-01
Workers with PPE and hand sanitization

CRDP-2/LGED/Savar/NCB/2018/W-03
Warning sign at construction site

CRDP-2/LGED/GCC/NCB/2018/W-01
Diversion road sign at constructionsite

	
CRDP-2/LGED/GCC/NCB/2018/W-01 **Female workers Working using PPE**	CRDP-2/LGED/GCC/NCB/2018/W-01 **Workers with PPE at construction site**

Appendix 6:Dust Suppression Log Chart

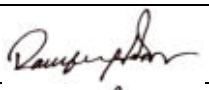
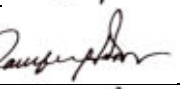
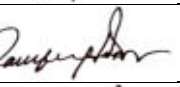
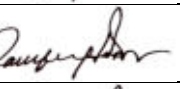
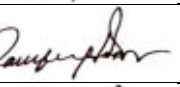
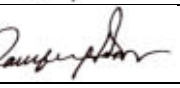
LOCAL GOVERNMENT ENGINEERING DEPARTMENT
City Region Development Project-II
LGED Headquarters, Dhaka

Dust Suppression Log Chart (GCC W-02)
(ধুলা নিয়ন্ত্রন কার্যক্রমের লগ চার্ট)

Name of sub-project: CRDP-II/LGED/GCC/NCB/2018/W-02	
Scheme name of sub-project: Improvement of Road from Bhabanipur Primary School to Mother Textile via Latifupur Road. (ch.0-3600m)	
District: Gazipur	**Upazila: Gazipur Shadar**

Month: May, 2022

Sl. No.	Date	Period of spraying water			Signature of the contractor's representative	Signature of the supervising engineer
		Morning	Mid-day	Afternoon		
1	06-05-2022	√	√			
2	07-05-2022		√			
3	08-05-2022		√	√		
4	09-05-2022	√	√			
5	10-05-2022		√	√		
6	12-05-2022		√			
7	13-05-2022		√	√		
8	14-05-2022		√			
9	16-05-2022	√	√			
10	17-05-2022		√	√		
11	18-05-2022		√			
12	19-05-2022		√	√		
13	20-05-2022	√	√			
14	22-05-2022		√	√		
15	23-05-2022		√			

16	24-05-2022		√	√		
17	25-05-2022		√	√		
18	27-05-2022		√	√		
19	28-05-2022	√	√			
20	30-05-2022		√	√		
21	31-05-2022		√			

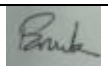
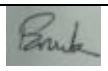
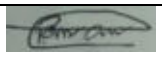
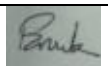
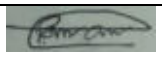
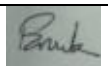
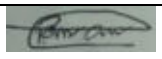
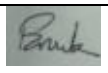
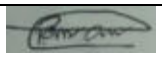
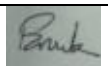
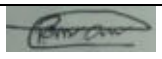
LOCAL GOVERNMENT ENGINEERING DEPARTMENT
City Region Development Project-II
LGED Headquarters, Dhaka

Dust Suppression Log Chart (Rupganj W-01)
(ধুলা নিয়ন্ত্রন কার্যক্রমের লগ চার্ট)

Package No. : CRDP-II/LGED/NARAYANGANJ/RUPGANJ/NCB/2018/W-01	
Road Name: Improvement of Rupshi GC - Kanchan GC via Murapara GC road (Road ID – 367682006) (Ch. 0-13775m).	
District: Narayanganj	**Upazila: Rupganj**

Month: June, 2022

Sl. No.	Date	Period of spraying water			Signature of the contractor's representative	Signature of the supervising engineer
		Morning	Mid-day	Afternoon		
1	01-06-2022		√	√		
2	02-06-2022		√	√		
3	03-06-2022	√	√			
4	04-06-2022		√			
5	06-06-2022		√	√		
6	08-06-2022	√	√			
7	10-06-2022		√	√		
8	11-06-2022		√			
9	12-06-2022		√			
10	13-06-2022		√	√		
11	15-06-2022	√	√			
12	16-06-2022		√			
13	18-06-2022		√			
14	20-06-2022		√			
15	21-06-2022		√	√		

16	22-06-2022		√			
17	24-06-2022		√	√		
18	25-06-2022		√			
19	27-06-2022		√	√		
20	28-06-2022	√	√			
21	30-06-2022		√			

Appendix 7: Sample Grievance Redress Form

(To be available in Bangla and Other Local Language, if any)
The_____Project welcomes complaints, queries, 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 yourgrievance 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/Lette** ■ **r E-mail** ■ **Verbal/Telephonic**	
Reviewed by: (Names/Positions of Official(s) reviewing grievance)	
Action Taken:	
Whether Action Taken Disclosed:	■ **Ye** ■ **s** **No**
Means of Disclosure:	

Appendix 8: Environmental Management Implementation Schedule

(For Period July 2022 – December 2022)

Activity	Frequency and/or Implementation Time frame (6 months)
	(July 2022 – December 2022)
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 September and December) c) In the 6th month (in December)

Appendix 9: Sample accident/incident/ near miss report Form

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

Name of the Contractor or his Representative:Contact no.

Project Name:	
Subproject/ Scheme Name:	
Place of Occurrence	
Date of occurrence	
Details of what happened	
cause of incident	
Lessons Learned	

Appendix 10: COVID-19 Health & Safety Plan Monitoring Checklist
(EHS COVID-19 Response Guidance, ADB Bangladesh Resident Mission template)

COVID-19 Health & Safety Plan Monitoring Checklist (GCC W-02)

(EHS COVID-19 Response Guidance, ADB Bangladesh Resident Mission Template)

Package Name: CRDP-II/LGED/GCC/NCB/2018/W-02
Road Name: Improvement of Road from Bhabanipur Primary School to Mother Textile via Latifupur Road. (ch.0-3600m)
Month / Year: May, 2022

A. Environmental Health and Safety Checklist			
Sl.	**Checklist**	**Number/Quantity**	**Remarks**
1	Number of workers & employees available at site	32 persons	
2	Health checkup/screening completed for all workers/employee/visitors	32 persons	
3	Washbasin, sanitizer dispenser at site	4 nos	
4	Stock of soap, sanitizer, disinfectants, PPEs (masks, hand gloves, boots) available at site	50 set	
5	Number of cleaning staff employed	5 persons	
6	Number of covered bins with COVID sign at the site	10 nos.	

B. Daily Monitoring: COVID -19 protocols (worksite and campsite)					
Sl.	**Checklist**	**Observation**		**Corrective Action Plan**	**Time frame to comply**
		Yes	**No**		
1	Medical professional is available on call	√			
2	Contractor's EHS officer is available at site	√			
3	Entrance protocol: 6 ft distance maintained.	√			
4	Disinfectant spray used at site entry at hands and under shoes	√			
5	Workers & employees are using mask, gloves and shoes	√			
6	Workers & employees are washing their hands	√			
7	Used PPEs (masks, gloves) are disposed in covered bin	√			
8	Social distancing: workers & employees maintaining social distancing all the time	√			
9	Vehicle protocol: vehicle disinfection protocol followed	√			
10	Tools/machinery: wiped to disinfect before and after sharing/working	√			
11	Disinfecting work area (worksite/ common surfaces, toilets etc.) are disinfected i) before worksite opened in the morning, ii) before lunch and iii) after closing for the day	√			
12	Trash bins are covered and used for disposal of PPEs (masks, gloves)	√			

COVID-19 Health & Safety Plan Monitoring Checklist (Rupganj W-01)

(EHS COVID-19 Response Guidance, ADB Bangladesh Resident Mission Template)

Package No. : CRDP-II/LGED/NARAYANGANJ/RUPGANJ/NCB/2018/W-01
Road Name (i) Improvement of Rupshi GC - Kanchan GC via Murapara GC road (Road ID – 367682006) (Ch. 0-13775m).
Month / Year: June, 2022

A. Environmental Health and Safety Checklist

Sl.	Checklist	Number/Quantity	Remarks
1	Number of workers & employees available at site	30 persons	
2	Health checkup/screening completed for all workers/employee/visitors	30 persons	
3	Washbasin, sanitizer dispenser at site	4 nos	
4	Stock of soap, sanitizer, disinfectants, PPEs (masks, hand gloves, boots) available at site	50 set	
5	Number of cleaning staff employed	5 persons	
6	Number of covered bins with COVID sign at the site	10 nos.	

B. Daily Monitoring: COVID -19 protocols (worksite and campsite)

Sl.	Checklist	Observation		Corrective Action Plan	Time frame to comply
		Yes	No		
1	Medical professional is available on call	√			
2	Contractor's EHS officer is available at site	√			
3	Entrance protocol: 6 ft distance maintained.	√			
4	Disinfectant spray used at site entry at hands and under shoes	√			
5	Workers & employees are using mask, gloves and shoes	√			
6	Workers & employees are washing their	√			
7	Used PPEs (masks, gloves) are disposed in covered bin	√			
8	Social distancing: workers & employees maintaining social distancing all the time	√			
9	Vehicle protocol: vehicle disinfection protocol followed	√			
10	Tools/machinery: wiped to disinfect before and after sharing/working	√			
11	Disinfecting work area (worksite/ common surfaces, toilets etc.) are disinfected i) before worksite opened in the morning, ii) before lunch and iii) after closing for the day	√			
12	Trash bins are covered and used for disposal of PPEs (masks, gloves)	√			

Photographs on preventive measures against spread of COVID-19

COVID-19 Health & Safety Monitoring

Package Name: CRDP-II/LGED/DHAKA/RUPGANJ/NCB/2018/W-01

Sl.#	Picture	Picture
01.		
	Body temperature measurement	Portable Hand wash.
02.		
	Body wash .	Covid-19 sing & awareness instruction hanging in the base camp area.

Appendix 11: Sample Laboratory test results for ambient air, surface and ground water quality and noise level

Subproject: Araihazar W-02

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

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

Date: 10. 05. 2022

Surface Water Quality Test Report

Name of the service requesting organization/person:
Authorized Representative
JV OF NCEL-PDL
Pran-Rfl Center, 105 Pragati Sarani, Middle Badda,
Dhaka-1212, Bangladesh

Name of Road Construction Subproject Site: Improvement of RHD Araihazar bazar - Araihazar Purinda road (Ch.0-1126m) including 517m link road Under the Package No CRDP II/LGED/NARAYANGANJ/**ARAIHAZAR /NCB/2018/W-02** of Second City Region Development Project

Service Rendered : Environmental Quality Tests of Surface Water of road construction subproject site
Sample Title : Surface water (SW) sample from a nearby pond
Sampling Date : 09/04/2022
Date of Testing : 09/04/2022 - 28/04/2022
Geographical Coordinates : 23°47'31.371"N and 90°39'30.009"E

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

Test Parameters	Units	Test Results	Methods Used	National Standard for Inland Surface Water as per ECR – 1997 (Schedule 3A)	Remarks
pH	-	7.20	pH meter	6.5-8.5	Result is within the National Standards
EC	(µS/cm)	178.1	EC meter	-	Not yet standardized (NYS)
DO	(mg/L)	5.04	DO meter (Hanna HI98193)	5 (mg/L) and above	Result is within the National Standards
BOD_{5days}	(mg/L)	1.18	DO meter (Hanna HI98193)	6 or less	Result is within the National Standards
COD	(mg/L)	12.57	Chemical method	-	(NYS)
TSS	(mg/L)	8.15	Gravimetric method	-	(NYS)
TDS	(mg/L)	151	TDS meter	1000 (mg/L)	Result is within the National Standards
Iron (Fe)	(mg/L)	0.085	AAS	-	(NYS)
Manganese (Mn)	(mg/L)	0.010	AAS	-	
Arsenic (As)	(ppb)	5.51	HG-AAS (APHA 3114)	-	
Turbidity	NTU	10.80	Turbidity meter	-	
Nitrate (NO_3-N)	(mg/L)	3.56	Ion Chromatography System	-	
Chloride (Cl^-)	(mg/L)	38.05	Ion Chromatography System	-	
Total coliform	(cfu/100ml)	2.0×10^2	Membrane filtration method	-	

10.05.22

(Dr. Md. Zakir Hossain Khan)
Professor

Dr. Md. Zakir Hossain Khan
Professor
Dept. of Soil, Water & Environment
University of Dhaka
Dhaka-1000, Bangladesh

Telephone : 9661920-73/7470, Fax: (880-2) 9667222, e-mail: swed@du.ac.bd

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

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

Date: 10. 05. 2022

Ground Water Quality Test Report

Name of the service requesting organization/person:
Authorized Representative
JV OF NCEL-PDL
Pran-Rfl Center, 105 Pragati Sarani, Middle Badda,
Dhaka-1212, Bangladesh

Name of Road Construction Subproject Site: Improvement of RHD Araihazar bazar - Araihazar Purinda road (Ch.0-1126m) including 517m link road Under the Package No CRDP II/LGED/NARAYANGANJ/**ARAIHAZAR /NCB/2018/W-02** of Second City Region Development Project

Service Rendered : Environmental Quality Tests of Groundwater of road construction subproject site
Sample Title : Groundwater **(GW)** sample from a submersible Tubewell
Sampling Date : 09/04/2022
Date of Testing : 09/04/2022 - 28/04/2022
Geographical Coordinates : 23°47'23.185"N and 90°39'29.372"E

Analytical Results:
The results of analysis of Groundwater Sample from a nearby Tubewell are given below:

Test Parameters	Units	Results	Methods	National (DoE) Standard for Drinking Water as per ECR – 1997 (Schedule 3B)	Remarks
pH	-	7.38	pH meter	6.5-8.5	Result is within the National Standards
EC	(µS/cm)	595.3	EC meter	-	NYS
DO	(mg/L)	7.05	DO meter	6.0 or above	Result is within the National Standards
BOD_{5days}	(mg/L)	Nil	DO meter	0.2	Result is within the National Standards
COD	(mg/L)	3.15	Chemical method	4.0	Result is within the National Standards
TSS	(mg/L)	Nil	Gravimetric method	-	NYS
TDS	(mg/L)	341	TDS Meter	1000	Result is within the National Standards
Iron (Fe)	(mg/L)	0.108	AAS	0.3-1.0	Result is within the National Standards
Manganese (Mn)	(mg/L)	0.051	AAS	0.1	Result is within the National Standards
Arsenic (As)	(ppb)	3.93	HG-AAS (APHA 3114)	50.0	Result is within the National Standards
Chloride (Cl^-)	(mg/L)	211.88	Ion Chromatography System	150-600	Result is within the National Standards
Nitrate (NO_3-N)	(mg/L)	<0.50	Ion Chromatography System	10.0	Result is within the National Standards
Turbidity	(NTU)	3.30	Turbidity meter	10.0	Result is within the National Standards

10.05.22

(Dr. Md. Zakir Hossain Khan)
Professor

Dr. Md. Zakir Hossain Khan
Professor
Dept. of Soil, Water & Environment
University of Dhaka
Dhaka-1000, Bangladesh

Telephone : 9661920-73/7470, Fax: (880-2) 9667222, e-mail: swed@du.ac.bd

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

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

Date: 10. 05. 2022

Ambient Air Quality Test Report

Name of the service requesting organization/person:
Authorized Representative
JV OF NCEL-PDL
Pran-Rfl Center, 105 Pragati Sarani, Middle Badda,
Dhaka-1212, Bangladesh

Name of Road Construction Subproject Site: Improvement of RHD Araihazar bazar - Araihazar Purinda road (Ch.0-1126m) including 517m link road Under the Package No CRDP II/LGED/NARAYANGANJ/**ARAIHAZAR /NCB/2018/W-02** of Second City Region Development Project

Sample Title : Air Quality (AQ) Monitoring at the Road Construction Subproject Site
Sampling Date : 09/04/2022
Geographical Coordinates : 23°47'19.453"N and 90°39'28.037"E

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

Description of Ambient Air Quality Parameters	Unit	Concentration of Ambient Air Quality Parameters			National Ambient Air Quality Standard for Bangladesh (ECR-1997, Schedule-2 as amended in 2005)		Remarks
		Min	Max	Duration Avg.	Standard Concentration	Average Time	
Carbon Monoxide (CO)	ppm	0.000	0.000	0.000	35 ppm (40 mg/m^3)	1 hour	Result is within the National Standards
					9 ppm (10 mg/m^3)	8 hours	-
Carbon Dioxide (CO_2)	ppm	645	690	672	(NYS)		-
Nitrogen Dioxide (NO_2)	ppm	0.078	0.092	0.086	0.053 ppm (100 µg/m^3)	Annual	Conc. of NO_2 is much higher than the national Standards [1].
Sulphur Dioxide (SO_2)	ppm	0.011	0.028	0.024	0.14 ppm (365 µg/m^3)	(24 hr)	Result is within the National Standards
					0.03 ppm (80 µg/m^3)	Annual	
Suspended Particulate Matter (SPM)	µgm^{-3}	229.2	398.8	318.6	200 µgm^{-3}	Annual	SPM, PM_{10}, $PM_{2.5}$ is higher than the DoE standard. This is due to road dust [2].
Particulate Matter (PM_{10})	µgm^{-3}	152.4	305.6	212.5	150 µgm^{-3}	24 hours	
Particulate Matter ($PM_{2.5}$)	µgm^{-3}	57.8	80.6	68.1	65 µgm^{-3}	24 hours	
Temperature	°c	29	31	30	-	-	-
Relative Humidity	%	62	66	64	-	-	-

[1] This is not for project work but for diesel and other gasoline burning vehicles in the roads and emissions from woods and other biomasses in the local cooking stoves that contributed NO_2 pollution to this location. [2] Due to the dry season and also traffic movements in the roads - a lot of dust is suspended in the air - which causes these very high values of SPM, PM10 and M2.5 at this location.

10.05.22

(Dr. Md. Zakir Hossain Khan)
Professor

Dr. Md. Zakir Hossain Khan
Professor
Dept. of Soil, Water & Environment
University of Dhaka
Dhaka-1000, Bangladesh

Telephone : 9661920-73/7470, Fax: (880-2) 9667222, e-mail: swed@du.ac.bd

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

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

Date: 10. 05. 2022

Noise Quality Test Report

Name of the service requesting organization/person:
Authorized Representative
JV OF NCEL-PDL
Pran-Rfl Center, 105 Pragati Sarani, Middle Badda,
Dhaka-1212, Bangladesh

Name of Road Construction Subproject Site: Improvement of RHD Araihazar bazar - Araihazar Purinda road (Ch.0-1126m) including 517m link road Under the Package No CRDP II/LGED/NARAYANGANJ/ARAIHAZAR /NCB/2018/W-02 of Second City Region Development Project

Sample Title : Noise level (NL) monitoring at road construction subproject site
Sampling Date : 09/04/2022
Temperature : 30°C
Relative Humidity : 63%
Geographical Coordinates : 23°47'20.285"N and 90°39'28.031"E

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

Sampling Locations and GPS Coordinates	Noise Monitoring Results				DOE Standard for Noise Pollution (Regulation and Control) Rules, 2006*		Remarks
	Daytime	Min dBA	Max dBA	Daytime dB(A) Leq	In residential areas dB(A) Leq	In quiet places dB(A) Leq	
RHD Araihazar bazar - Araihazar Purinda road (23°47'20.285"N and 90°39'28.031"E)	0800-0900	48.1	60.2	66.76	55 Daytime 45 Nighttime	50 Daytime 40 Nighttime	Noise level is higher than the national standard in respect to the residential area. This is not for project work but for frequent local and heavy traffic movement.
	1200-1300	52.5	70.8				
	1800-1900	50.7	73.5				

*According to the DOE 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.

10.05.22

(Dr. Md. Zakir Hossain Khan)
Professor

Dr. Md. Zakir Hossain Khan
Professor
Dept. of Soil, Water & Environment
University of Dhaka
Dhaka-1000, Bangladesh

Telephone : 9661920-73/7470, Fax: (880-2) 9667222, e-mail: swed@du.ac.bd

Subproject: Dhamrai 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: 10. 05. 2022

Surface Water Quality Test Report

Name of the service requesting organization/person:
Managing Director,
MCL-SHE CONSORTIUM and M/S Sheikh Hera Enterprise

Name of Road Construction Subproject Site: Improvement of road from Dhamrai Bazar to Bangshi River at Kagojipara (Ch. 0 - 1295m) including 430 m Link Road Under Package No. CRDP II/LGED/**DHAMRAI/NCB/2021/W-01** of Second City Region Development Project

Service Rendered : Environmental Quality Tests of Surface Water of road construction subproject site
Sample Title : Surface water **(SW)** sample from a nearby pond
Sampling Date : 02/04/2022
Date of Testing : 02/04/2022 - 28/04/2022
Geographical Coordinates : 23°55'7.130"N and 90°13'5.499"E

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

Test Parameters	Units	Test Results	Methods Used	National Standard for Inland Surface Water as per ECR – 1997 (Schedule 3A)	Remarks
pH	-	7.08	pH meter	6.5-8.5	Result is within the National Standards
EC	(µS/cm)	133.5	EC meter	-	Not yet standardized (NYS)
DO	(mg/L)	5.03	DO meter (Hanna HI98193)	5 (mg/L) and above	Result is within the National Standards
BOD_{5days}	(mg/L)	1.40	DO meter (Hanna HI98193)	6 or less	Result is within the National Standards
COD	(mg/L)	12.75	Chemical method	-	(NYS)
TSS	(mg/L)	12.46	Gravimetric method	-	(NYS)
TDS	(mg/L)	123	TDS meter	1000 (mg/L)	Result is within the National Standards
Iron (Fe)	(mg/L)	0.075	AAS	-	(NYS)
Manganese (Mn)	(mg/L)	0.008	AAS	-	
Arsenic (As)	(ppb)	2.11	HG-AAS (APHA 3114)	-	
Turbidity	NTU	18.80	Turbidity meter	-	
Nitrate (NO_3-N)	(mg/L)	4.50	Ion Chromatography System	-	
Chloride (Cl^-)	(mg/L)	12.01	Ion Chromatography System	-	
Total coliform	(cfu/100ml)	4.1×10^2	Membrane filtration method	-	

10.05.22

(Dr. Md. Zakir Hossain Khan)
Professor

Dr. Md. Zakir Hossain Khan
Professor
Dept. of Soil, Water & Environment
University of Dhaka
Dhaka-1000, Bangladesh

Telephone : 9661920-73/7470, Fax: (880-2) 9667222, e-mail: swed@du.ac.bd

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

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

Date: 10. 05. 2022

Ground Water Quality Test Report

Name of the service requesting organization/person:
Managing Director,
MCL-SHE CONSORTIUM and M/S Sheikh Hera Enterprise

Name of Road Construction Subproject Site: Improvement of road from Dhamrai Bazar to Bangshi River at Kagojipara (Ch. 0 - 1295m) including 430 m Link Road Under Package No. CRDP II/LGED/**DHAMRAI/NCB/2021/W-01** of Second City Region Development Project

Service Rendered : Environmental Quality Tests of Groundwater of road construction subproject site
Sample Title : Groundwater **(GW)** sample from a submersible Tubewell
Sampling Date : 02/04/2022
Date of Testing : 02/04/2022 - 28/04/2022
Geographical Coordinates : 23°55'8.965"N and 90°13'10.872"E

Analytical Results:
The results of analysis of Groundwater Sample from a nearby Tubewell are given below:

Test Parameters	Units	Results	Methods	National (DoE) Standard for Drinking Water as per ECR – 1997 (Schedule 3B)	Remarks
pH	-	6.96	pH meter	6.5-8.5	Result is within the National Standards
EC	(µS/cm)	151.3	EC meter	-	NYS
DO	(mg/L)	6.75	DO meter	6.0 or above	Result is within the National Standards
BOD_{5days}	(mg/L)	Nil	DO meter	0.2	Result is within the National Standards
COD	(mg/L)	0.42	Chemical method	4.0	Result is within the National Standards
TSS	(mg/L)	Nil	Gravimetric method	-	NYS
TDS	(mg/L)	139	TDS Meter	1000	Result is within the National Standards
Iron (Fe)	(mg/L)	0.195	AAS	0.3-1.0	Result is within the National Standards
Manganese (Mn)	(mg/L)	0.033	AAS	0.1	Result is within the National Standards
Arsenic (As)	(ppb)	<2.0	HG-AAS (APHA 3114)	50.0	Result is within the National Standards
Chloride (Cl^-)	(mg/L)	16.88	Ion Chromatography System	150-600	Result is within the National Standards
Nitrate (NO_3-N)	(mg/L)	<0.50	Ion Chromatography System	10.0	Result is within the National Standards
Turbidity	(NTU)	4.50	Turbidity meter	10.0	Result is within the National Standards

10.05.22

(Dr. Md. Zakir Hossain Khan)
Professor

Dr. Md. Zakir Hossain Khan
Professor
Dept. of Soil, Water & Environment
University of Dhaka
Dhaka-1000, Bangladesh

Telephone : 9661920-73/7470, Fax: (880-2) 9667222, e-mail: swed@du.ac.bd

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

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

Date: 10. 05. 2022

Ambient Air Quality Test Report

Name of the service requesting organization/person:
Managing Director,
MCL-SHE CONSORTIUM and M/S Sheikh Hera Enterprise

Name of Road Construction Subproject Site: Improvement of road from Dhamrai Bazar to Bangshi River at Kagojipara (Ch. 0 - 1295m) including 430 m Link Road Under Package No. CRDP II/LGED/**DHAMRAI/NCB/2021/W-01** of Second City Region Development Project

Sample Title : Air Quality (**AQ**) Monitoring at the Road Construction Subproject Site
Sampling Date : 02/04/2022
Geographical Coordinates : 23°55'9.3"N and 90°13'13.7"E

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

Description of Ambient Air Quality Parameters	Unit	Concentration of Ambient Air Quality Parameters			National Ambient Air Quality Standard for Bangladesh (ECR-1997, Schedule-2 as amended in 2005)		Remarks
		Min	Max	Duration Avg.	Standard Concentration	Average Time	
Carbon Monoxide (CO)	ppm	0.000	0.000	0.000	35 ppm (40 mg/m^3)	1 hour	Result is within the National Standards
					9 ppm (10 mg/m^3)	8 hours	-
Carbon Dioxide (CO_2)	ppm	633	642	636	(NYS)		-
Nitrogen Dioxide (NO_2)	ppm	0.050	0.055	0.053	0.053 ppm (100 µg/m^3)	Annual	Result is within the National Standards
Sulphur Dioxide (SO_2)	ppm	0.000	0.000	0.000	0.14 ppm (365 µg/m^3)	(24 hr)	Result is within the National Standards
					0.03 ppm (80 µg/m^3)	Annual	
Suspended Particulate Matter (SPM)	µgm^{-3}	189.2	388.8	297.6	200 µgm^{-3}	Annual	SPM, PM_{10}, $PM_{2.5}$ is higher than the DoE standard [1]. This is due to road dust.
Particulate Matter (PM_{10})	µgm^{-3}	162.4	308.6	251.5	150 µgm^{-3}	24 hours	
Particulate Matter ($PM_{2.5}$)	µgm^{-3}	70.8	86.6	77.1	65 µgm^{-3}	24 hours	
Temperature	°c	31	33	32	-	-	-
Relative Humidity	%	60	65	63	-	-	-

[1] Due to the dry season and also traffic movement in the roads - a lot of dust is suspended in the air - which causes these very high values of SPM, PM10 and M2.5 at this location.

10.05.22

(Dr. Md. Zakir Hossain Khan)
Professor

Dr. Md. Zakir Hossain Khan
Professor
Dept. of Soil, Water & Environment
University of Dhaka
Dhaka-1000, Bangladesh

Telephone : 9661920-73/7470, Fax: (880-2) 9667222, e-mail: swed@du.ac.bd

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

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

Date: 10. 05. 2022

Noise Quality Test Report

Name of the service requesting organization/person:
Managing Director,
MCL-SHE CONSORTIUM and M/S Sheikh Hera Enterprise

Name of Road Construction Subproject Site: Improvement of road from Dhamrai Bazar to Bangshi River at Kagojipara (Ch. 0 - 1295m) including 430 m Link Road Under Package No. CRDP II/LGED/DHAMRAI/NCB/2021/W-01 of Second City Region Development Project

Sample Title : Noise level (NL) monitoring at road construction subproject site
Sampling Date : 02/04/2022
Temperature : 32°C
Relative Humidity : 63%
Geographical Coordinates : 23°55'9.226"N and 90°13'14.009"E

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

Sampling Locations and GPS Coordinates	Noise Monitoring Results				DOE Standard for Noise Pollution (Regulation and Control) Rules, 2006*		Remarks
	Daytime	Min dBA	Max dBA	Daytime dB(A) Leq	In residential areas dB(A) Leq	In quiet places dB(A) Leq	
Road from Dhamrai Bazar to Bangshi River at Kagojipara (23°55'9.226"N and 90°13'14.009"E)	0800-0900	45.1	56.2	59.60	55 Daytime 45 Nighttime	50 Daytime 40 Nighttime	Noise level is higher than the national standard in respect to the residential area. This is not for project work but for frequent local traffic movement.
	1200-1300	49.5	63.6				
	1800-1900	48.7	64.1				

*According to the DOE 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.

10.05.22

(Dr. Md. Zakir Hossain Khan)
Professor

Dr. Md. Zakir Hossain Khan
Professor
Dept. of Soil, Water & Environment
University of Dhaka
Dhaka-1000, Bangladesh

Telephone : 9661920-73/7470, Fax: (880-2) 9667222, e-mail: swed@du.ac.bd

Subproject: Chalna 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: 23. 03. 2022

Surface Water Quality Test Report

Sample supplied by :
Authorized Representative
RELIABLE BUILDERS LTD.&
AL MAMUN ENTERPRISE LTD. JV
Sador Road, West Barguna, Barguna

Name of Road Construction Subproject Site: Re-excavation of Chalna Khal (Boumer Gachtola to Ekneck Bridge) including road improvement, slope protection, walkway and landscaping (Ch.0-2500m) under Package No- CRDP II/LGED/**CHALNA**/NCB/2021/W-01 of Second City Region Development Project

Service Rendered : Environmental Quality Tests of Surface Water of a road construction subproject site
Sample Title : Surface water **(SW)** sample from a nearby Canal (Khal)
Sampling Date : 19/02/2022
Date of Testing : 19/02/2022 - 15/03/2022
Geographical Coordinates : 22°36'30.269"N and 89°29'57.047"E
Analytical Results:
The results of analysis of Surface Water Sample from a pond are given below:

Test Parameters	Units	Test Results	Methods Used	National Standard for Inland Surface Water as per ECR – 1997 (Schedule 3A)	Remarks
pH	-	7.48	pH meter	6.5-8.5	Result is within the National Standards
EC	(µS/cm)	1542	EC meter	-	Not yet standardized (NYS)
DO	(mg/L)	5.18	DO meter (Hanna HI98193)	5 and above	Result is within the National Standards
BOD_{5days}	(mg/L)	1.76	DO meter (Hanna HI98193)	6 or less	Result is within the National Standards
COD	(mg/L)	87.25	Chemical method	-	(NYS)
TSS	(mg/L)	22.31	Gravimetric method	-	(NYS)
TDS	(mg/L)	1508	TDS meter	1000 (mg/L)	High TDS is due to saline water recharge from the tidal rivers and creeks.
Iron (Fe)	(mg/L)	0.162	AAS	-	(NYS)
Manganese (Mn)	(mg/L)	0.117	AAS	-	
Arsenic (As)	(ppb)	3.95	HG-AAS (APHA 3114)	-	
Turbidity	NTU	24.63	Turbidity meter	-	
Nitrate (NO_3-N)	(mg/L)	4.18	Ion Chromatography System	-	
Chloride (Cl^-)	(mg/L)	712.34	Ion Chromatography System	-	
Total coliform	(cfu/100ml)	1.1×10^4	Membrane filtration method	-	

23.3.22

(Dr. Md. Zakir Hossain Khan)
Professor

Dr. Md. Zakir Hossain Khan
Professor
Dept. of Soil, Water & Environment
University of Dhaka
Dhaka-1000, Bangladesh

Telephone : 9661920-73/7470, Fax: (880-2) 9667222, e-mail: swed@du.ac.bd

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

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

Date: 23. 03. 2022

Ground Water Quality Test Report

Sample supplied by :
Authorized Representative
RELIABLE BUILDERS LTD.&
AL MAMUN ENTERPRISE LTD. JV
Sador Road, West Barguna, Barguna

Name of Road Construction Subproject Site: Re-excavation of Chalna Khal (Boumer Gachtola to Ekneck Bridge) including road improvement, slope protection, walkway and landscaping (Ch.0-2500m) under Package No- CRDP II/LGED/**CHALNA**/NCB/2021/W-01 of Second City Region Development Project

Service Rendered : Environmental Quality Tests of Groundwater of a road construction site
Sample Title : Groundwater **(GW)** Sample from a submersible Tubewell
Sampling Date : 19/02/2022
Date of Testing : 19/02/2022 - 15/03/2022
GPS Coordinates : 22°36'29.556"N and 89°29'58.569"E

Analytical Results:
The results of analysis of Groundwater Sample from a nearby Tubewell are given below:

Test Parameters	Units	Results	Methods	National (DoE) Standard for Drinking Water as per ECR – 1997 (Schedule 3B)	Remarks
pH	-	7.85	pH meter	6.5-8.5	Result is within the National Standards
EC	(µS/cm)	1640	EC meter	-	NYS
DO	(mg/L)	6.30	DO meter	6.0 or above	Result is within the National Standards
BOD_{5days}	(mg/L)	0.18	DO meter	0.2	Result is within the National Standards
COD	(mg/L)	88.90	Chemical method	4.0	Higher COD is due to groundwater salinity
TSS	(mg/L)	Nil	Gravimetric method	-	NYS
TDS	(mg/L)	1526	TDS Meter	1000	High TDS is due to groundwater salinity
Iron (Fe)	(mg/L)	0.185	AAS	0.3-1.0	Result is within the National Standards
Manganese (Mn)	(mg/L)	0.011	AAS	0.1	Result is within the National Standards
Arsenic (As)	(ppb)	6.27	HG-AAS (APHA 3114	50.0	Result is within the National Standards
Chloride (Cl^-)	(mg/L)	1003.08	Ion Chromatography System	150-600	High Cl^- is due to groundwater salinity
Nitrate (NO_3-N)	(mg/L)	<0.50	Ion Chromatography System	10.0	Result is within the National Standards
Turbidity	(NTU)	6.20	Turbidity meter	10.0	Result is within the National Standards

23.3.22

(Dr. Md. Zakir Hossain Khan)
Professor

Dr. Md. Zakir Hossain Khan
Professor
Dept. of Soil, Water & Environment
University of Dhaka
Dhaka-1000, Bangladesh

Telephone : 9661920-73/7470, Fax: (880-2) 9667222, e-mail: swed@du.ac.bd

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

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

Date: 23. 03. 2022

Ambient Air Quality Test Report

Sample supplied by :
Authorized Representative
RELIABLE BUILDERS LTD.&
AL MAMUN ENTERPRISE LTD. JV
Sador Road, West Barguna, Barguna

Name of Road Construction Subproject Site: Re-excavation of Chalna Khal (Boumer Gachtola to Ekneck Bridge) including road improvement, slope protection, walkway and landscaping (Ch.0-2500m) under Package No- CRDP II/LGED/**CHALNA**/NCB/2021/W-01 of Second City Region Development Project

Sample Title : Air Quality (**AQ**) Monitoring Near Road Construction Subproject Site
Sampling Date : 19/02/2022
Geographical Coordinates : 22°36'30"N and 89°29'57"E

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

Description of Air Quality Parameters	Unit	Concentration of Ambient Air Quality Parameters			National Ambient Air Quality Standard for Bangladesh (ECR-1997, Schedule-2 as amended in 2005)		Remarks
		Min	Max	Duration Avg.	Standard Concentration	Average Time	
Carbon Monoxide (CO)	ppm	0.000	0.003	0.002	35 ppm (40 mg/m^3)	1 hour	Result is within the National Standards
					9 ppm (10 mg/m^3)	8 hours	-
Carbon Dioxide (CO_2)	ppm	614	639	626	(NYS)	-	-
Nitrogen Dioxide (NO_2)	ppm	0.097	0.109	0.103	0.053 ppm (100 µg/m^3)	Annual	Conc. of NO_2 and SO_2 is much higher than the standard [1].
Sulphur Dioxide (SO_2)	ppm	0.020	0.200	0.090	0.14 ppm (365 µg/m^3)	(24 hr)	
					0.03 ppm (80 µg/m^3)	Annual	
Suspended Particulate Matter (SPM)	µgm^{-3}	168.1	224.8	166.2	200 µgm^{-3}	Annual	SPM, PM_{10}, $PM_{2.5}$ is higher than the DoE standard [2].
Particulate Matter (PM_{10})	µgm^{-3}	159.3	211.5	191.6	150 µgm^{-3}	24 hours	
Particulate Matter ($PM_{2.5}$)	µgm^{-3}	97.2	124.9	112.5	65 µgm^{-3}	24 hours	
Temperature	°c	23	25	24	-	-	-
Relative Humidity	%	43	47	45	-	-	-

[1] This may be due to the diesel and other gasoline burning in the boats and ships, contribution from marine sources and emissions from woods and other biomasses in the local cooking stoves and also trans-boundary pollution contributed to this location. [2] Due to the dry season and also traffic movement in the roads - a lot of dust is suspended in the air - which causes these very high values of SPM, PM10 and M2.5 at this location.

23.3.22

(Dr. Md. Zakir Hossain Khan)
Professor

Dr. Md. Zakir Hossain Khan
Professor
Dept. of Soil, Water & Environment
University of Dhaka
Dhaka-1000, Bangladesh

Telephone : 9661920-73/7470, Fax: (880-2) 9667222, e-mail: swed@du.ac.bd

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

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

Date: 23. 03. 2022

Noise Quality Test Report

Sample supplied by :
Authorized Representative
RELIABLE BUILDERS LTD.&
AL MAMUN ENTERPRISE LTD. JV
Sador Road, West Barguna, Barguna

Name of Road Construction Subproject Site: Re-excavation of Chalna Khal (Boumer Gachtola to Ekneck Bridge) including road improvement, slope protection, walkway and landscaping (Ch.0-2500m) under Package No- CRDP II/LGED/**CHALNA**/NCB/2021/W-01 of Second City Region Development Project

Sample Title : Noise level (**NL**) monitoring near road construction subproject site
Sampling Date : 19/02/2022
Temperature : 24°C
Relative Humidity : 45%
Geographical Coordinates : 22°36'30.469"N and 89°29'57.147"E

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

Sampling Locations and GPS Coordinates	Noise Monitoring Results				DOE Standard for Noise Pollution (Regulation and Control) Rules, 2006*		Remarks
	Daytime	Min dBA	Max dBA	Daytime dB(A) Leq	In residential areas dB(A) Leq	In quiet places dB(A) Leq	
Re-excavation of Chalna Khal including road improvement, slope protection, walkway and landscaping **(CHALNA/W-01)** (22°36'30.469"N and 89°29'57.147"E)	0800-0900	42.2	51.6	51.34	55 Daytime 45 Nighttime	50 Daytime 40 Nighttime	Noise level is within the national standard in respect to the residential areas.
	1200-1300	43.5	55.5				
	1800-1900	41.9	54.2				

*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.

23.3.22

(Dr. Md. Zakir Hossain Khan)
Professor

Dr. Md. Zakir Hossain Khan
Professor
Dept. of Soil, Water & Environment
University of Dhaka
Dhaka-1000, Bangladesh

Telephone : 9661920-73/7470, Fax: (880-2) 9667222, e-mail: swed@du.ac.bd

Appendix 12: Sample GRC Committee established and functioning (Rupganj GRC)

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
স্থানীয় সরকার প্রকৌশল অধিদপ্তর
উপজেলা প্রকৌশলীর কার্যালয়
রূপগঞ্জ, নারায়ণগঞ্জ ।

স্মারক নং- ৪৬.০২.০০০.৬৭.৬৮.১৪.২০-৫৫৯ তারিখ ঃ ৩০/০৯/২০২০ইং

অফিস আদেশ

স্থানীয় সরকার প্রকৌশল অধিদপ্তর কর্তৃক বাস্তবায়নাধীন "দ্বিতীয় নগর অঞ্চল উন্নয়ন" প্রকল্পের আওতায় এলজিইডির উপজেলা পর্যায়ে অভিযোগ নিরসন কার্যক্রম দ্রুত ও নিয়মানুগভাবে বাস্তবায়নের লক্ষ্যে নিম্নরূপ অভিযোগ নিরসন কমিটি (Grievance Redress Committee) গঠন করা হলো।

সূত্র ঃ স্মারক নং-৪৬.০৬৮.০০৫.০০.০০.০১৮.২০২০-৪৫৫ তারিখঃ ০৭-০৬-২০২০ ইং।

প্রথম স্তরের স্থানীয় অভিযোগ নিরসন কমিটি ঃ

১। জনাব মীর কায়ছার রিজভী, উপজেলা সহকারী প্রকৌশলী, উপজেলা রূপগঞ্জ, জেলা নারায়ণগঞ্জ- সভাপতি।
২। জনাব মোঃ আব্দুল্লাহ আল ফারুক, সিআরডিপি-২ প্রকল্পের কনসালটেন্ট (সেভগার্ড এক্সপার্ট)-সদস্য।
৩। জনাব মোঃ শামীম দেওয়ান, কমিউনিটি অগ্রানাইজার, উপজেলা রূপগঞ্জ, নারায়ণগঞ্জ (পরিবেশ/সামাজিক সুরক্ষা ফোকাল কর্মকর্তা) - সদস্য সচিব।

কমিটির কার্য পরিধি ঃ

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

৩০/৯/২০২০
(মোহাম্মদ এনায়েত কবীর)
উপজেলা প্রকৌশলী
রূপগঞ্জ,নারায়ণগঞ্জ।
ফোন ঃ ৭৬৫০০৫০

অনুলিপি সদয় অবগতির জন্য ঃ-
১। তত্ত্বাবধায়ক প্রকৌশলী, এলজিইডি, নারায়ণগঞ্জ অঞ্চল, নারায়ণগঞ্জ।
২। প্রকল্প পরিচালক, সিআরডিপি-২, এলজিইডি, আগারগাঁও, ঢাকা-১২০৭।
৩। নির্বাহী প্রকৌশলী, এলজিইডি, নারায়ণগঞ্জ।
৪। উপজেলা নির্বাহী অফিসার, রূপগঞ্জ, নারায়ণগঞ্জ।
৩। জনাব মোঃ আব্দুল্লাহ আল ফারুক, সিআরডিপি-২ প্রকল্পের কনসালটেন্ট (সেভগার্ড এক্সপার্ট) সদস্য।
৫। জনাব, মোঃ শামীম দেওয়ান, কমিউনিটি অগ্রানাইজার ও পরিবেশ/সামাজিক সুরক্ষা ফোকাল কর্মকর্তা, উপজেলা রূপগঞ্জ, নারায়ণগঞ্জ।

- 16 -

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
স্থানীয় সরকার প্রকৌশল অধিদপ্তর
উপজেলা প্রকৌশলীর কার্যালয়
রূপগঞ্জ, নারায়ণগঞ্জ ।

শেখ হাসিনার মূলনীতি
গ্রাম শহরের উন্নতি

স্মারক নং- ৪৬.০২.০০০.৬৭.৬৮.১৪.২০-৫৬০ তারিখ ঃ ৩০/০৯/২০২০ইং

অফিস আদেশ

স্থানীয় সরকার প্রকৌশল অধিদপ্তর কর্তৃক বাস্তবায়নাধীন "দ্বিতীয় নগর অঞ্চল উন্নয়ন" প্রকল্পের আওতায় এলজিইডির উপজেলা পর্যায়ে অভিযোগ নিরসন কার্যক্রম দ্রুত ও নিয়মানুগভাবে বাস্তবায়নের লক্ষ্যে নিম্নরূপ অভিযোগ নিরসন কমিটি (Grievance Redress Committee) গঠন করা হলো।

সূত্র ঃ স্মারক নং-৪৬.০৬৮.০০৫.০০.০০.০১৮.২০২০-৪৫৫ তারিখঃ ০৭-০৬-২০২০ ইং।

দ্বিতীয় স্তরের স্থানীয় অভিযোগ নিরসন কমিটি ঃ

১। জনাব শাহ্ নুসরাত জাহান, উপজেলা নির্বাহী কর্মকর্তা, উপজেলা রূপগঞ্জ, জেলা নারায়ণগঞ্জ- সভাপতি।
২। জনাব আফিফা খান, সহকারী কমিশনার (ভূমি), উপজেলা রূপগঞ্জ, জেলা নারায়ণগঞ্জ -সদস্য।
৩। জনাব আরমানুজ্জামান, স্বর্নখলী বাজার, ভোলাব, রূপগঞ্জ, নারায়ণগঞ্জ(ক্ষতিগ্রস্ত ব্যক্তিবর্গের প্রতিনিধি)-সদস্য ।
৪। জনাব এস, এম শফিউল বারি, সাব-রেজিস্টার, উপজেলা রূপগঞ্জ, নারায়ণগঞ্জ- সদস্য ।
৫। জনাব আব্দুল গফুর, পরিদর্শক, পরিবেশ অধিদপ্তর, নারায়ণগঞ্জ- সদস্য।
৬। জনাব মালা বেগম, সহকারী প্রকৌশলী, এলজিইডি, নারায়ণগঞ্জ- সদস্য।
৭। জনাব মোঃ আব্দুল মালেক, উপ-সহকারী প্রকৌশলী, এলজিইডি, উপজেলা রূপগঞ্জ, নারায়ণগঞ্জ (পরিবেশ/ সামাজিক সুরক্ষা কর্মকর্তা)- সদস্য সচিব।

কমিটির কার্য পরিধি ঃ

১। এ পর্যায়ে প্রকল্পে ক্ষতিগ্রস্ত ব্যক্তিদের সম্পদ অধিগ্রহণে (স্থায়ী-অস্থায়ীভাবে) ক্ষতির পরিমান (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। অভিযোগকারী অভিযোগ বিষয়ে অগ্রগতি এবং কমিটির সিদ্ধান্ত অভিযোগকারীকে 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 অন্ততঃ ২ বার সভায় বসবে। অমীমাংসিত অভিযোগের সংখ্যার ভিত্তিতে এবং প্রকল্প পরিচালকের সাথে আলোচনা করে মাসিক সভার সংখ্যা হ্রাস বা বৃদ্ধি করা যাবে।

৩০/০৯/২০২০

(মোহাম্মদ এনায়েত কবীর)
উপজেলা প্রকৌশলী
রূপগঞ্জ,নারায়ণগঞ্জ।
ফোন ঃ ৭৬৫০০৫০

অনুলিপি সদয় অবগতির জন্য ঃ-
১। তত্ত্বাবধায়ক প্রকৌশলী, এলজিইডি, নারায়ণগঞ্জ অঞ্চল, নারায়ণগঞ্জ।
২। প্রকল্প পরিচালক, সিআরডিপি-২, এলজিইডি, আগারগাঁও, ঢাকা-১২০৭।
৩। নির্বাহী প্রকৌশলী, এলজিইডি, নারায়ণগঞ্জ।
৪। উপজেলা নির্বাহী অফিসার, রূপগঞ্জ, নারায়ণগঞ্জ।
৩। জনাব মোঃ আব্দুল্লাহ আল ফারুক, সিআরডিপি-২ প্রকল্পের কনসালটেন্ট (সেভগার্ড এক্সপার্ট) সদস্য।
৫। জনাব, মোঃ আব্দুল মালেক, উপ-সহকারী প্রকৌশলী ও পরিবেশ/সামাজিক সুরক্ষা ফোকাল কর্মকর্তা, উপজেলা রূপগঞ্জ, নারায়ণগঞ্জ।

Appendix 13: Monitoring Plan for Environmental Quality Tests of On-Going Construction Packages

Sl.	Package	1st Test completion/ Planned Date (Before start of construction)	2nd Test completion/ Planned Date (At the end of construction)	Remarks
1	Gazipur City Corporation: GCC (W-01)	Done on 23/09/2020	Planned on 01/08/2022	
2	Gazipur City Corporation: GCC (W-02)	Done on 24/09/2020	**Completed on 25/06/2022**	Field sampling done
3	Araihazar Upazila: Araihazar (W-01)	Done on 14/11/2020	**Completed on 08/04/2022**	
4	Araihazar Upazila: Araihazar (W-02)	Done on 26/09/2020	**Completed on 08/04/2022**	
5	Araihazar Upazila: Araihazar (W-03)	Done on 25/09/2021	Planned on 01/02/2023	
6	Savar Upazila: Savar (W-01)	Done on 19/11/2020	Planned on 08/09/2022	
7	Savar Upazila: Savar (W-02)	Done on 20/03/2021	Planned on 09/10/2022	
8	Savar Upazila: Savar (W-03)	Done on 19/09/2020	Planned on 10/09/2022	
9	Savar Upazila: Savar (W-04)	Done on 18/11/2020	**Completed on 01/04/2022**	
10	Rupganj Upazila: Rupganj (W-01)	Done on 15/11/2020	Planned on 15/12/2022	
11	Rupganj Upazila: Rupganj (W-02)	Done on 25/09/2020	Planned on 15/01/2023	
12	Rupganj Upazila: Rupganj (W-03)	Done on 27/09/2020	Planned on 01/09/2022	
13	Savar Pourashava: Savar Pourashava (W-01)	Done on 20/09/2020	Planned on 18/07/2022	
14	Dhamrai Pourashava: Dhamrai (W-01)	Done on 24/04/2022	Planned on 13/06/2023	
15	Sonargaon Pourashava: Sonargaon (W-01)	Done on 27/12/2021	Planned on 02/06/2023	
16	Narasingdi Pourashava: Narasingdi (W-01)	Done on 26/12/2021	Planned on 01/06/2023	
17	Tarabo Pourashava: Tarabo (W-01)	Done on 28/12/2021	Planned on 03/06/2023	
18	Singair Pourashava: Singair (W-01)	Done on 04/01/2022	Planned on 12/06/2023	
19	Mongla Pourashava: Mongla (W-01)	Done on 09/05/2022	Planned on 13/06/2023	
20	Jashore Pourashava: Jashore (W-01)	Done on 5/05/2022	Planned on 19/06/2023	
21	Jhikargacha Pourashava: Jhikargacha (W-01)	Done on 03/05/2022	Planned on 07/06/2023	
22	Kanchan Pourashava: Kanchan (W-01)	Done on 29/12/21	Planned on 04/06/2023	
23	Chalna Pourashava: Chalna (W-01)	Done on 07/05/2022	Planned on 11/06/2023	
24	Savar Upazila: Savar (W-05)	Done on 07/03/2022	Planned on 05/06/2023	
25	Savar Upazila: Savar (W-06)	Done on 08/03/2022	Planned on 06/06/2023	
26	Noapara Pourashava: Noapara (W-01)	Done on 26/06/2022	**Completed on 26/06/2023**	Field sampling done

Note: Since 2nd CRDP subprojects are small and having relatively short construction work days PMCU find it reasonable to test environmental quality once at the end of construction phase. Two tests: once at inception and once at end seems to be quite ok considering short construction period for the subproject packages.