Semiannual Social Monitoring Report

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June 2019

Power System Expansion and Efficiency Improvement Investment Program - Tranche 2
Part B2 - Increased South Dhaka Distribution Network
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DHAKA POWER DISTRIBUTION COMPANY LIMITED

SOCIAL SAFEGUARD MONITORING REPORT

on

Construction of 8 Nos of 33/11 KV Substation in DPDC Area (ADB Financed)

Prepared By

greenbud

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# Table of Contents

**EXECUTIVE SUMMARY** .............................................................................................................................................. 4

**CHAPTER 1: PROJECT DESCRIPTION** ........................................................................................................................ 5

1.1 BACKGROUND ......................................................................................................................................................... 5
1.2 OBJECTIVES OF THE STUDY ................................................................................................................................. 5
1.3 PROJECT LOCATIONS .................................................................................................................................................. 6
1.4 CONTRACTORS’ ACQUAINTANCE ............................................................................................................................. 8
1.5 SCOPE OF STUDIES .................................................................................................................................................. 8
1.6 MONITORING POLICY STANDARD .......................................................................................................................... 9
    1.6.1 ADB Safeguard Policy ................................................................................................................................... 9
    1.7 ADB LOAN COVENANTS WITH DPDC ................................................................................................................ 9
    1.7.1 Implementation Arrangement: ......................................................................................................................... 9
1.8 SAFEGUARDS RELATED PROVISIONS IN BIDDING DOCUMENTS OF WORKS AND WORK CONTRACTS .......... 9
1.9 SAFEGUARD MONITORING AND REPORTING ...................................................................................................... 10
1.10 LABOR STANDARDS: ............................................................................................................................................. 10
1.11 PROJECT REVIEWS: .............................................................................................................................................. 10

**CHAPTER 2: APPROACH AND METHODOLOGY** ........................................................................................................ 12

2.1 INTRODUCTION ....................................................................................................................................................... 12
2.2 STUDY MOBILIZATION ............................................................................................................................................ 12
2.3 STUDY TEAM MOBILIZATION ................................................................................................................................ 12
2.4 DATA COLLECTION METHODS ................................................................................................................................ 13

**CHAPTER 3: MONITORING RESULTS** ......................................................................................................................... 15

3.1 SOCIAL SAFEGUARD COMPLIANCE STANDARD .................................................................................................. 15
    3.1.1 Compensation .................................................................................................................................................. 15
    3.1.2 Livelihoods and employment ............................................................................................................................ 15
    3.1.3 Occupational Health, Safety and Security ....................................................................................................... 15
    3.1.4 Personal Protective Equipment ....................................................................................................................... 16
    3.1.5 Involuntary Resettlement ................................................................................................................................ 16
    3.1.6 Impact on Indigenous People .......................................................................................................................... 17
    3.1.7 Fire Safety ....................................................................................................................................................... 17

**CHAPTER 4: INSTITUTIONAL ARRANGEMENT AND GRIEVANCE REDRESS MECHANISM** ................................. 21

4.1 INSTITUTIONAL ARRANGEMENT ........................................................................................................................ 21
4.2 GRIEVANCE REDRESS MECHANISM .................................................................................................................. 21

**CHAPTER 5: STAKEHOLDER CONSULTATION** ........................................................................................................... 23

**CHAPTER 6: CONCLUSION AND RECOMMENDATIONS** .......................................................................................... 25
LIST OF TABLES

Table 1: Location of the Substations ......................................................................................... 6
Table 2: Variables and Indicators for Social Safeguard Monitoring ............................................ 12
Table 3: The Composition of the Team .......................................................................................... 13
Table 4: Protective Equipment of Risky Limb in Human Body ...................................................... 16
Table 5: Matrix of Monitoring Results .......................................................................................... 19
Table 6: Consultation Findings ................................................................................................... 24

LIST OF FIGURES

Figure 1: Map of Proposed 33/11kV Substations in DPDC area...................................................... 7
Figure 2: Existing Fire protection system in substations ................................................................. 18
Figure 3: Public consultation & site visit ..................................................................................... 23
# Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
</tr>
<tr>
<td>ESMF</td>
<td>Environmental and Social Management Framework</td>
</tr>
<tr>
<td>ESMP</td>
<td>Environmental and Social Management Plan</td>
</tr>
<tr>
<td>ESSF</td>
<td>Environmental and Social Screening Form</td>
</tr>
<tr>
<td>IP</td>
<td>Indigenous People</td>
</tr>
<tr>
<td>IEE</td>
<td>Initial Environmental Examination</td>
</tr>
<tr>
<td>LA</td>
<td>Local Authority</td>
</tr>
<tr>
<td>PCR</td>
<td>Physical Cultural Resources</td>
</tr>
<tr>
<td>RAP</td>
<td>Resettlement Action Plan</td>
</tr>
<tr>
<td>RPF</td>
<td>Resettlement Policy Framework</td>
</tr>
<tr>
<td>PIT</td>
<td>Project Implementation Team</td>
</tr>
<tr>
<td>DPDC</td>
<td>Dhaka Power Distribution Company Limited.</td>
</tr>
<tr>
<td>DoE</td>
<td>Department of Environment</td>
</tr>
<tr>
<td>ECR</td>
<td>Environment Conservation Rules</td>
</tr>
<tr>
<td>EHS</td>
<td>Environment and Health Safety</td>
</tr>
<tr>
<td>EMP</td>
<td>Environmental Management Plan</td>
</tr>
<tr>
<td>ERP</td>
<td>Emergency Response Plan</td>
</tr>
<tr>
<td>SPS</td>
<td>Safeguards Policy Statement</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal Protective Equipment</td>
</tr>
<tr>
<td>RP</td>
<td>Resettlement Plan</td>
</tr>
<tr>
<td>GRM</td>
<td>Grievance Redress Mechanism</td>
</tr>
</tbody>
</table>
Executive Summary

Social Safeguard Monitoring has been conducted for the 8nos of construction of new 33/11 kV Sub-Stations under DPDC area financed by ADB. Monitoring has been executed based on ADB’s Social safeguard policy, the laws and the National Policies of Bangladesh and loan covenants between ADB and Government of Bangladesh. At this stage, social monitoring has been completed on eight substation’s locations (Mugdapara, Banasree, Dhaka Medical College, Kamalapur Railway Colony, Fatulla, Mondalpara, Nandalalpur and LaxmiNarayan Cotton Mills) where Banasree construction work for substation office is ongoing.

Based on the prepared checklist, the monitoring team observed Occupational Health & Safety management, Social Safety Compliance status, Labor & Working condition, Compliance status with ADB loan covenants and compensation made by DPDC where necessary in the construction sites following both qualitative and quantitative approaches. Moreover, Grievance redress mechanism, Involuntary Resettlement, Impact on Indigenous people has been monitored and maintained. Every possible impact from these project sites on society have been investigated and possible mitigation measures have been provided where necessary and possible in this report.

The investigation has shown that there is no issue regarding involuntary resettlement as all of the lands has been acquired as per proper regulatory procedure. No issues have been found regarding indigenous people. Labor and working condition have been found partially satisfactory with some minor scope of improvement. Allocation of PPE was satisfactory but their proper use was yet to be established. Arrangement of proper training regarding EHS, PPE and fire safety should be ensured. The study also reveals that DPDC has been maintaining the standards enforced by ADB and GoB from the beginning of the construction and are committed to maintain throughout the project lifetime which will in turn minimize the adverse impact on social component.
Chapter 1: Project Description

1.1 Background

Bangladesh, a swiftly developing country, putting emphasis on power sector considering it as a stimulator for improvement. The Government of Bangladesh plans to increase access to electricity in Bangladesh. As a part of it, a move is underway to implement a Tk 2,000 crore project to ensure uninterrupted power supply to Dhaka’s central and south-west zones and major parts of Narayanganj within the next three years. To achieve this, more substations and transmission lines are being considered for construction and upgrading and with it the communication system required for line protection and management process under DPDC area financed by ADB.

DPDC intends to construct 8 Nos of 33/11 kV GIS substations under its command area at Mugdapara, Banasree, Dhaka Medical College and Kamalapur Railway Colony in Dhaka district and Fatullah, Mondalpara, Nandalalpur and LaxmiNarayan Cotton Mills area in Narayanganj district. The proponent (DPDC) has already obtained Site Clearance Certificate (SCC) and received approval based on Environmental Impact Assessment and EMP reports. DPDC has engaged Consortium of CRRC-SPTTC JV as EPC contractor for the construction and as a complementary part of the project, GREENBUD has been entrusted with environmental and social compliance monitoring regarding EMP and ADB’s environmental and social safeguard policy and the loan covenants between ADB and Bangladesh.

1.2 Objectives of the study

The principal objective of the safeguard monitoring is to monitor the social safeguard components (i.e. occupational health and safety, social issues) and Environmental Management Plan (EMP) in relation to Asian Development Bank’s (ADB) safeguard policy and Bangladesh and ADB loan covenants.

The principal objectives of this study were to monitor the construction and operation work of these projects in line with standard Engineering practices/safe guard, Environmental, Health & Safety (EHS) and social issues in line with DoE and Asian Development Bank (ADB)’s Guide line.

The specific objectives of this report were to:

- Analyze the Environmental and Social Safeguarding laws and policies of Bangladesh and ADB
- Illustrate the social management system of the project sites.
- Monitor working condition and occupational health safety of workers throughout project life
- Verify compliance with the social regulations and relevant standards;
- Identify non-conformity and recommend measures to improve the social management system;
1.3 Project Locations

The location of the project is shown in Table 1. The proposed 33/11kV Substations and connected transmission lines will be constructed in different location under DPDC area such as Banasree, Khilgaon in Dhaka North, DMC and Kamalapur in Dhaka South and Fatullah, Narayanganj Sadar under Narayanganj districts. The locations of Substations are given in the table 1 below:

Table 1: Location of the Substations

<table>
<thead>
<tr>
<th>S/l</th>
<th>Name of the Substation</th>
<th>Location of the land</th>
<th>Area of land</th>
<th>Acquisition/Ownership</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Mugdapara Hospital 33/11 KV Substation Grid North-2</td>
<td>South-East corner of 500 bed general hospital, Mugdapara Khilgaon. Coordinate: 23°43'55.28&quot;N 90°25'51.98&quot;E</td>
<td>6.85 decimal</td>
<td>Allocated by Mugdapara General Hospital</td>
<td>Went in to operation</td>
</tr>
<tr>
<td>02</td>
<td>Banasree 33/11 KV Substation Grid North-2</td>
<td>Block-E, Plot no-E-14, Banasree, Rampura, Dhaka</td>
<td>8.25 decimal</td>
<td>purchased from Eastern Housing Ltd</td>
<td>Office floor construction is ongoing, went in to operation</td>
</tr>
<tr>
<td>03</td>
<td>Dhaka Medical College 33/11 KV Substation Grid North-1</td>
<td>Right side of the entrance of Shaheed Dr. Milon Auditorium</td>
<td>8.25 decimal</td>
<td>allocated by DMC authority</td>
<td>Went in to operation</td>
</tr>
<tr>
<td>04</td>
<td>Kamlapur railway colony 33/11 KV Substation Grid South-2</td>
<td>Kamlapur railway colony</td>
<td>22.28 Decimal</td>
<td>leased from Bangladesh Railway Authority</td>
<td>Construction finished, yet to be operational</td>
</tr>
<tr>
<td>06</td>
<td>Mondalpara 33/11 KV Substation Grid South-1</td>
<td>S.A-574, R.S- (717/1176) Khatian-2706, Naryangonj Sadar, Naryangonj</td>
<td>12.68 decimal</td>
<td>owned by DPDC (Previous Substation land)</td>
<td>Went in to operation</td>
</tr>
<tr>
<td>07</td>
<td>Nandalalpur 33/11 KV Substation Grid South-2</td>
<td>Adjacent to Prime Textile Mill</td>
<td>A part of 20 Katha land</td>
<td>donated by Prime Textile</td>
<td>Went in to operation</td>
</tr>
<tr>
<td>08</td>
<td>LaxmiNarayan Cotton Mills 33/11 KV Substation Grid South-1</td>
<td>North-West side of Laxmi Narayan Cotton Mills Compound</td>
<td>5.78 Katha</td>
<td>donated by Laxmi Narayan Cotton Mill</td>
<td>Went in to operation</td>
</tr>
</tbody>
</table>
Figure 1: Map of Proposed 33/11kV Substations in DPDC area
1.4 Contractors’ Acquaintance

The name of the contractors engaged with these eight sub-station construction and erection is given in the below table:

<table>
<thead>
<tr>
<th>Contractor’s Name</th>
<th>Contract No.</th>
<th>Lot</th>
<th>Responsibilities</th>
<th>Substation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRRC-SPTTC JV, China.</td>
<td>PSEEIIP/ADB/DPDC C/33kVSS, Date: 02/12/2015</td>
<td>1</td>
<td>Design, Supply, Erection, Installation, Testing &amp; Commissioning of 8 Nos. 33/11 kV GIS Sub-station</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1. Mugdapa Hospital 33/11 KV Substation Grid North-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. Banasree 33/11 KV Substation Grid North-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3. Dhaka Medical College 33/11 KV Substation Grid North-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4. Kamlapur railway colony 33/11 KV Substation Grid South-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5. Shah Fatehullah 33/11 KV Substation Grid South-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6. Mondalpara 33/11 KV Substation Grid South-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7. Nandalalpur 33/11 KV Substation Grid South-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8. LaxmiNarayan Cotton Mills 33/11 KV Substation Grid South-1</td>
</tr>
</tbody>
</table>

1.5 Scope of Studies

The EIA report provides information on the baseline social condition (Occupational Health & Safety, Social Safety Compliance status, Labor & Working condition, Compliance status with ADB loan covenants, Compensation made by DPDC, Grievance redress mechanism, Involuntary Resettlement, Impact on Indigenous people of the project area. Following National guidelines, the report identified potential impacts of the proposed project activity on the social components of the project area. It includes the Terms of Reference (ToR) for the EIA and the Environmental Management Plan (EMP) against adverse impacts.

In line with the aforementioned objectives the scope of the services regarding the social safeguard issues would cover the following:

- Review of social management and monitoring plan suggested in the EIA report in line with the action plan proposed by ADB
- Monthly monitoring of construction activities to overview their compliance with national environmental and social regulations, and ADB’s performance standards on social issues regarding sustainability.
- Monthly monitoring of socio-economic issues like community safeguard due to pollution, hazards and employment opportunity.
- Suggestion of pollution prevention and mitigation measures to ensure social safeguard, to ensure compliance with national standard.
- Keeping close liaison with the project implementation office and Engineering, Procurement and Construction (EPC) contractor.
• Providing a monitoring report at the end of every six (6) months in line with the reporting requirement of ADB satisfying equator principles.

1.6 Monitoring Policy Standard

1.6.1 ADB Safeguard Policy

The Safeguard Policy Statement (SPS) of Asian Development Bank reviewed to understand the compliance and terms of partnership with the Bangladesh GoB. Presently, the Bangladesh Govt amended the ECA 1995 took the construction of substation is under the Orange B category (as like as ADB categorization) under the social safeguard policy.

In this social safeguard monitoring follow the Environmental Management Plan (EMP) prepared during the period EIA study. In addition, the standards determined by this policy are followed during this study. The standards for social safeguard issues identified in which as all construction activities can continue taking care all social issues around the project area. For this reason, this monitoring considers the risk of electrocution, safety measures within the construction site, emergency plan, livelihood challenges, restoration process, compensation process as any complaints from affected people can be noted with necessary measures at the construction phase of the project.

1.7 ADB Loan covenants with DPDC

According to the loan covenants DPDC should carry out the project with the due diligence and efficiency and conformity with sound administrative, financial, engineering, environmental and power sector practices for the execution of project following criteria should be followed.

1.7.1 Implementation Arrangement:

DPDC should ensure the project implementation in accordance with the detailed arrangements set forth in the PAM. Besides, it is responsibility of DPDC to ensure their project management staff who have the qualification to undertake necessary tasks of procurement, construction, supervision, inspection and testing of equipment, payments to the contractors, monitoring environmental and social safe guards due diligence and reporting progress relevant to the components under their responsibility.

1.8 Safeguards related provisions in bidding documents of works and work contracts

DPDC should ensure the following compliance in relation to contract or bidding during the project implementation.

a) Comply with the measures and requirements relevant to the contractors set forth in the IEE, EMP and RP (if required) any small ethnic community peoples plan and any corrective or preventive actions set out in a safeguard monitoring report.

b) Make available budget for all such environmental and social measures.
c) Provide the borrower with a written notice of any unanticipated environmental and social resettlement or small ethnic community peoples plan.
d) Adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction.
e) Completely reinstate pathways, other infrastructure and agricultural land to at least their pre-project condition upon the completion of construction.

1.9 Safeguard monitoring and reporting

DPDC should comply the following section:

Submit safeguards monitoring reports to ADB and disclose relevant information from such reports to the affected person.

a) Any anticipated environmental and social impacts arise during the construction, implementation or operation of the project that were not considered in the IEE, the EMP or the RP promptly inform ADB of the occurrence of such risks and impacts with detailed description of the events and proposed corrective action plans
b) Reporting would be completed based on the any potential bech of compliance with the measures and requirements set forth in the EMP.

1.10 Labor Standards:

Labor standards should be followed as per ADB loan covenants are as follows:

a) Comply with all applicable law and related international treaty obligations of the borrower and do not employ child labor as defined under the Bangladesh Law.
b) Provide safe working condition for male and female workers.
c) Carryout HIV/Aids and human trafficking prevention and awareness campaigns in the campsites and corridor of influence.
d) Engage women workers as wage laborers depending on their skill.
e) Provide equal wage for equal works between men and women.

1.11 Project Reviews:

a) The project progress would be reviewed by the ADB with necessary mid-course corrections.
b) The assistance should be provided by the executing agency (i.e. DPDC).

The social monitoring will assess the compliance that has been suggested under the Bangladesh Govt. laws, policies and national standards and ADB loan covenants. As there is no involuntary resettlement and ethnic minority issues, therefore, this monitoring assesses the environmental and social safeguard issues in accordance with the Govt. laws and ADB loan covenants like the above mentioned ways.
The results of the monitoring will be compared with the established benchmarks/baseline and compliance status and help to identify the areas where adverse environmental and social impacts are still occurring. It will help to formulate the corrective actions accordingly and in a timely manner.
Chapter 2: Approach and Methodology

2.1 Introduction

This chapter includes methodology following which the monitoring of various socio-economic components was carried out. The mixed (quantitative and qualitative approach) and interdisciplinary approaches followed for conducting this study. The locations of eight substations visited monthly and analyzed with the compliance status applying different social tools (i.e. Questionnaire Survey, Observation, and Group Discussion) considering construction activities, Impacts, safeguard policies, and Bangladesh and ADB’s loan covenants.

2.2 Study Mobilization

A comprehensive checklist on environmental and social compliance was prepared. A preliminary prepared based on the suggested recommendations incorporated in the Environmental Management Plan (EMP) of EIA for the construction of eight 33/11kV new substations in DPDC area.

In this way, study team for this study mobilized and visited eight grid substations in which seven of them were already went into operation and the remaining one will be operational within short time. Based on the observation, this social safeguard monitoring has been conducted and whole study mobilized according to the plan and the prepared methodology.

2.3 Study Team Mobilization

Based on the contract agreement between DPDC and the Monitoring Consultant a multidisciplinary team was mobilized targeting the work plan to monitor the social issues following the social safeguard policy and other selected social indicators.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation</td>
<td>Compensation for Land Acquisition (if required)</td>
</tr>
<tr>
<td>Livelihoods and Employment</td>
<td>Employment opportunity, Occupational Status APs (If required), Income, Wage</td>
</tr>
<tr>
<td>Community Health, Safety and Security</td>
<td>Community health condition, Safety and Security Status, Threats for Community health and safety</td>
</tr>
<tr>
<td>Occupational Health and Safety</td>
<td>Status of Labor Health, Accidental status, Mitigation measure (i.e. First Aid Box, Ambulance), Status of Safety Tools and Instruments (i.e. Gumboots, Earmuffs, Helmet, Gloves etc)</td>
</tr>
<tr>
<td>Labor and Working Condition</td>
<td>Labor Shed, Condition of Kitchen, Status of Food, Sanitation and Drinking Water, Status of Waste management (i.e. Kitchen Waste)</td>
</tr>
</tbody>
</table>
The consultant started work under the overall supervision of the Project Director, maintaining close liaison with DPDC offices (both field and head office) and EPC contractor. The supervision got from the study team and guided the multidisciplinary team for achieving the goal of the study, in relation to the study objectives. The progress of the study was reviewed in weekly progress review meeting held in consultant team. The composition of the team members list presented in table

### Table 3: The Composition of the Team

<table>
<thead>
<tr>
<th>S/l</th>
<th>Name</th>
<th>Educational Qualification</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Engr. Syed Tasnem Mahmood</td>
<td>B.Sc and M.Sc in Civil and Environmental Engineering, Shahjalal University of Science and Technology, Bangladesh</td>
<td>Team Leader</td>
</tr>
<tr>
<td>2</td>
<td>Engr. Kanak Kanti Kar</td>
<td>PGD in Climate and Geological Risk, University of Geneva, Switzerland M.Sc in Civil Engineering, Jeju National University, South Korea</td>
<td>Environmental Specialist/EIA Expert</td>
</tr>
<tr>
<td>3</td>
<td>Farhana Nusrat</td>
<td>M.A. in Economics, University of Maine, USA</td>
<td>Economist</td>
</tr>
<tr>
<td>4</td>
<td>Engr. Shopnil Khan</td>
<td>B.Sc in Electrical &amp; Electronics Engineering, American International University, Bangladesh</td>
<td>Team Member</td>
</tr>
</tbody>
</table>

#### 2.4 Data Collection Methods

**Physical Observation**

The site specific physical observation occurred during the field work at the eight Substations. With the physical observation, working condition, use of safety tools, sanitation and drinking water status, labor shed condition, kitchen waste management status, food quality, status of pollution monitored understood the site specific compliance status. The noncompliance issues also identified based on the physical observation and these issues discussed with the relevant stakeholders during the KII and Group Discussions.

**Key Informant Interview (KII)**

During the project implementation, some key personnel from DPDC and CRRC-SPTTC JV, Contractor were responsible to monitor the work progress. The site engineers from CRRC-SPTTC JV considered as the Key Informants (from each site) interviewed for understanding the work progress and status of different social safeguard issues during the project implementation.
Group Discussion (GD)

During the field visit, group discussion held with labors, site engineers, supervisors, concerned personnel from DPDC to be updated with the construction status and compliance status of relevant issues. During the consultation, Non-compliance issues also identified and discussed how to address them within the duration of project implementation.

Consultation with relevant Stakeholders

The project director and concerned personnel from DPDC consulted regarding several issues. The non-compliance issues addressed during the field visit shared with the project directors and concerned personnel and outlined the guidelines based on their suggestion for implementation. In addition, any difficulties related to the study addressed through such consultation and relate them with the study findings.
Chapter 3: Monitoring Results

This chapter provides the monitoring results based on field visits at eight project sites among which one is under construction and seven others are operational belonging to the project “Construction of new 8 nos 33/11 KV Substation Project” under DPDC area. The monitoring result considered the occupational health & safety, involuntary resettlement, indigenous people and other social issues related to the project activity. Based on the prepared checklist, a synthesis result is provided in the following sections considering field findings, quantitative and qualitative analysis.

3.1 Social Safeguard Compliance Standard

3.1.1 Compensation

During the site visit the study team did not encounter any compensation related dispute in the study area as the project proponent had already own the lands required for the construction and operation of 8 nos 33/11 KV Substation. All project activities are ongoing within demarcated land boundary owned by DPDC. In this consideration, there is no compensation related issue found during this phase of study.

3.1.2 Livelihoods and employment

Local people stated that the projects have no threat for the existing livelihoods. At the same time people of this area consider this project as the generation of working opportunities for labors within the DPDC area.

As a follow up study, as the findings of monitoring, it is found that a number of workers from the locality got the chance for working and rest of the workers joined as the workforce from different districts for the construction and finishing of substation building, transformer setup, commissioning and other minor activities were observed to be initiated in the project sites.

According to a working laborer, at present about 12 laborers are working in the Banasree site only as construction work has already been finished in all other sites. The labors of the construction area are satisfied by their wages in comparison to the wage rate of project surroundings.

3.1.3 Occupational Health, Safety and Security

DPDC has appointed an Assistant Engineer to function as the EHS manager for taking care of occupational health and safety issues. DPDC has developed an EHS Policy which has also been translated in Bengali. EHS Policy in both English and Bangla has already been displayed in the two operational site and will be displayed in other two under construction site.

The Contractor is aware to ensure the health, safety and security of the labors at all project sites. They have the provision to manage any accidental case through written agreements with the adjacent hospitals. The ambulance service was available if any accidental case occurred during the project implementation. The EHS Plan of the Contractor has been developed focusing on site
specific construction activities, which outlines the key procedures and permits to be implemented to safeguard onsite employees and workers of DPDC and subcontractors at the same time ensuring safe working conditions and efficient operations contractor also implemented No-Smoking Policy, different types of safety notice throughout the substations for ensuring safety of all the labors, senior officials who are working in the substations.

Based on the findings, six substations have first aid set up for primary treatment but the facilities of first Aid Box for the Banasree and Kamalapur sites is not found as in satisfactory level. All emergency numbers were pasted around the project sites to call and carry injured patient at the adjacent local hospitals.

3.1.4 Personal Protective Equipment

A Personal Protective Equipment (PPE) Matrix has been developed for ensuring workers’ safety for different types of jobs, e.g. cutting, grinding, excavation, work at height, pipe laying or manual lifting, confined spaces, electrical work, welding, spray painting, concreting etc. During field visit it has been observed that in most of the site’s personnel/workers were using necessary PPEs i.e. safety helmet and safety shoes as well as other job/site specific PPEs i.e. safety gloves, safety goggles, safety mask, gum boots, safety harness/belt etc. Though monitoring and supervision regarding PPE use were established by the contractor’s EHS team as well as project proponent, some workers were found not using all the required PPE properly specially the use of earplug. Some worker also found not using masks during painting and finishing work.

<table>
<thead>
<tr>
<th>Risky limbs of human body</th>
<th>Protective Equipment</th>
<th>Practice in project site</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye</td>
<td>Safety spectacles/goggles</td>
<td>√</td>
<td>Partially complied</td>
</tr>
<tr>
<td>Ear</td>
<td>Earplugs</td>
<td>x</td>
<td>Not complied</td>
</tr>
<tr>
<td>Head and neck</td>
<td>Safety helmets</td>
<td>√</td>
<td>Fully complied</td>
</tr>
<tr>
<td>Hands and Arms</td>
<td>Gloves, gauntlets and sleeves that covers part or all of the arm</td>
<td>√</td>
<td>Partially complied</td>
</tr>
<tr>
<td>Legs and Feet</td>
<td>Safety boots and shoes</td>
<td>√</td>
<td>Fully complied</td>
</tr>
<tr>
<td>Lungs</td>
<td>Half and full masks filtering dust</td>
<td>√</td>
<td>Partially complied</td>
</tr>
</tbody>
</table>

*Source: Personal Protective Equipment at Work Regulations 1992 (as amended)*

3.1.5 Involuntary Resettlement

DPDC didn’t have to go through involuntary resettlement phase as some land were previously owned, purchased or leased by the DPDC. Rest of the lands were donated by the respective authority. The land of Kamalapur was leased from Bangladesh Railway Authority, Banasree land was purchased from Eastern Housing Ltd. DMC, Mugdapara, Shah Fatullah, Nandalpara and
Laxminarayan lands were donated by DMC, Mugdapara Hospital, Fatulla Textile Mill, Prime Textile and Laxmi Naryan Cotton Mill authority respectively. All of the land is now permanently owned by DPDC. Therefore, no issue of involuntary resettlement was generated as it didn’t affect any personal land holder directly.

3.1.6 Impact on Indigenous People

Based on the primary observation during site visit, no habitat of any indigenous community has been reported at Dhaka and Narayanganj area. So, the project has been categorized as Category-C for Indigenous Peoples (IP) safeguards concluding that there is no issue about adversely affecting IP neither in construction phase nor in operation phase. However, DPDC has conveyed that they are gender and caste neutral. So, any qualified person coming from the indigenous community will be equally treated during the recruitment process, and will be given the same benefits as like as other personnel.

3.1.7 Fire Safety

A developed fire extinguishing system can prevent any unexpected incident. It is one of the key issues that an organization should take care of. Oil filled transformers pose the greatest fire risk in any substation. Various flammable chemical, grease can also be potential reason for fire incident.

While inspecting the project sites, it was noticed that transformers were properly insulated. Layer of rocks were seen under transformers so that no oil can leak and penetrate through the ground and contaminate it. Fire extinguisher (CO₂, ABC dry powder, water) equipment, fire detection alarm was available in the premise.

NIFPS (Nitrogen Injection Fire Protection System) is introduced in project areas. Nitrogen injection fire protection system designed for oil filled transformers shall prevent tank explosion and the fire during internal faults resulting in an arc, where tank explosion will normally take few seconds after arc generation and also extinguish the external oil fires on transformer top cover due to tank explosion and for external failures like bushing fires, OLTC fires and fire from surrounding equipment. The system shall work on the principle of DRAIN AND STIR and on activation, it shall drain a pre-determined quantity of oil from the tank top through outlet valve to reduce the tank pressure and inject nitrogen gas at high pressure from the lower side of the tank through inlet valves to create stirring action and reduce the temperature of top oil surface below flash point to extinguish the fire. Conservator tank oil shall be isolated during bushing bursting, tank explosion and oil fire to prevent aggravation of fire.
Figure 2: Existing Fire protection system in substations
### Table 5: Matrix of Monitoring Results

<table>
<thead>
<tr>
<th>Social Components</th>
<th>Potential Impact</th>
<th>Monitoring Measures</th>
<th>Status</th>
<th>Corrective Action Plan (CAP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation</td>
<td>Not applicable because land acquisition wasn’t needed.</td>
<td>-</td>
<td>-</td>
<td>N/A</td>
</tr>
<tr>
<td>Livelihood and employment</td>
<td>Disturbance of livelihood activities due to construction and operation activity</td>
<td>No threat causing to the livelihood of local people</td>
<td>No significant adverse impacts and livelihoods were observed</td>
<td>N/A</td>
</tr>
</tbody>
</table>
| Occupational Health, Safety and Security | Health, Safety and Security would be affected during construction phase. | - Construction of boundary wall/fence around sub-station area.  
- Consider community health, and safety in designing infrastructure and equipment.  
- Practicing safe management for hazardous materials which may pose threat to the community  
- Site specific HSE Manager would be required for regular monitoring.  
- Availability of contingency plan for natural hazards, Training and instruction to the security personnel about their behavior and communication with the local people.  
- Safety training for workers (i.e. in the control, working at height, working in heat, first aid etc.)  
- Increased awareness amongst the workers and employees and conduct health awareness  
- Drivers and Medical camps in the neighboring areas’ | Contractor were partially following occupational health, safety and security practices in all the sites | Contractors should properly ensure the following:  
- Personal protective equipment  
- Arranged tool box training to the workers  
- Displaying emergency contact numbers should be provided in Bengali language (hospitals, fire service, police station etc.)  
- Display of construction site safety signs in Bengali inside and around the project boundary.  
- No smoking instruction to be displayed in Bengali  
- Need basket or dustbin in all sites for disposal and non-disposal waste. |
<table>
<thead>
<tr>
<th>Social Components</th>
<th>Potential Impact</th>
<th>Monitoring Measures</th>
<th>Status</th>
<th>Corrective Action Plan (CAP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor and Working condition</td>
<td>Community dwellers may feel that they are not giving substantial share in project related job opportunity</td>
<td>Adequate fire precautions in place (for example, fire extinguishers, escape routes). Documentation and reporting of occupational accidents, diseases and incidents. Compliance of projects labor policy with the national accidents, diseases and incidents. Compliance of projects labor policy with the national labor law. No child labor and forced labor and security sheds related regular monitoring during construction phase of the project to assess the contractor’s compliance levels in meeting the statutory and ADB requirements.</td>
<td>HSE issues are partially complied (Like fire safety). Labor shed sanitations, drinking water facilities partially ensuring</td>
<td>Contractor developed and refurbished the labor sheds (enough windows, fans, light etc). Sanitation facilities should be improved Fire extinguisher should be provided near the workers’ sheds. Weekly or at least monthly training should be provided regarding fire safety</td>
</tr>
</tbody>
</table>
Chapter 4: Institutional arrangement and Grievance Redress Mechanism

4.1 Institutional Arrangement

The organogram provided by the DPDC is responsible to monitor social & environmental compliance during the project construction. The Superintend Engineer (electrical & civil), Executive Engineer, Assistant Manager and Assistant Engineers are working under supervision of the Project Director (Chief Engineer) for the compliance monitoring of the construction of eight 33/11 kV grid substation in DPDC area. The Project Director is responsible to supervise and guide the whole work regarding monitoring and compliance. The following figure shows the institutional arrangement those who are responsible to ensure monitoring and compliance in accordance with Govt. laws, rules, regulations and ADB’s loan covenants.

4.2 Grievance Redress Mechanism

Grievance Redress Mechanism builds a bridge between consumers and authorities. DPDC has emphasized on this process from the very beginning of the project. During the construction phase, a GRM (Grievance redress mechanism) committee was formed. This committee consist of EPC contractor agency members, site engineers, supervisor, site workers & DPDC officials. Most of the substations (7 nos) already went in operation. Construction work of Kamalapur Substation has already been finished and will be operational within short time. It has been confirmed that GRM
committee will conduct its’ operation even after construction phase is over. Local stakeholders might have complaints regarding operating procedures of these substations.

A grievance box is mounted on the entrance wall of the project site so that anyone can express their concern anytime from outside. Another box is placed inside the site area for the workers. Workers can complain pertinent to project works, procedures, accommodation, wage, other facilities etc. People can also express their grievance through the following link https://dpdc.org.bd/home/contact_form. A team formed by GRM conducts a survey after every two weeks in the respective areas to talk with locals and find out if they are facing any problem for the substation. Local people are highly encouraged to share their opinions freely with the authorities.

Consumers can also get response via call center and control center. Post box are opened twice in a week and immediate actions are implemented where possible. GRM committee meets with the affected client and try to resolve the issue through discussion, Opinions of local stakeholders are highly honored. GRM committee take into consideration these suggestions and solve the issue within shortest possible time where possible.
Chapter 5: Stakeholder Consultation

Several stakeholder consultations were held in the study area during the construction and operational phase from Jan to June, 2019. These consultations were held comprising of different stakeholders such as project affected people (PAPs, DPDC officials, representatives from CRRC-SPTTC JV and other local concerned people). These stakeholders were brought together through prior contacts. The stakeholder specially DPDC officials and contractor employees were quite cooperative during these consultation meeting. They provided all the necessary information which were asked and were forthright to comply with all the acts and safeguards guidelines. Several issues were discussed in the meeting regarding the project. In consultation meetings, the participants expressed their opinion spontaneously and the monitoring team recorded all the information delivered in the meeting.

Figure 3: Public consultation & site visit
### Table 6: Consultation Findings

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel of Contract</td>
<td>- They claimed that before starting construction work, they arranged some training (i.e. tool box and job specific related) regarding health, safety and security issues.</td>
</tr>
</tbody>
</table>
| Local Affected Stakeholder         | - No complain addressed by the local people regarding any compensation issue  
                                 |   - Construction vehicle movement cause noise and disturbance  
                                 |   - Avoid construction work at night.                                |
| Engagement of local labors         | - The local people complained that they get very little scope of employment.  
                                 |   - Local labor from adjacent project location should be engaged as their proficiency. |
| Labor’s Facilities                 | - The existing labor shed and sanitation facilities are not adequate. So, it is required to take initiatives for more labor sheds and sanitations facilities. |
Chapter 6: Conclusion and Recommendations

This social safeguard monitoring was conducted at the eight (8) sites and observed the compliance status based on ADB safeguard policy, Environmental Management Plan, Government of Bangladesh (GoB) and ADB loan covenant. For the social safeguard monitoring, occupational health and safety, and workers’ wellbeing, impacts and benefits of community people due to construction have been observed and site specific compliance provided through monthly field visit based on prepared selected variables and indicators. In addition, a corrective action plan has been prepared for non-compliance issues addressed during the field visit.

To make the process smoother and more efficient, the following recommendations are proposed by the study team should be followed to address the non-compliance issues at this stage of project implementation.

- More awareness is to be created among the workers and community dwellers regarding the health and safety risks associated with the construction phase of the project. Besides, one paramedic doctors, and an ambulance need to be made available for the labors in case of any injury and accident.
- Weekly toolbox meetings on health and safety, as well as the other governing environmental and social issues should be initiated.
- Increased awareness on child labor; confining the involvements of labors below 18 years of age to light works (works not connected with heavy loads).
- Emergency preparedness and response plan; fire prevention, protection and control plan;
- It is obligatory to provide hearing protection equipment to the employees who are exposed to loud noise;
- Separate dustbins used for both disposal and non-disposal waste during construction; it should be maintained.
- The level of safety for workers must be enhanced with comprehensive enforcement on PPE usage, and regular (at least four times a day) health and safety supervision should be carried out;
- Workers working condition i.e. accommodation, drinking water, sanitation and medical facilities has remained same as it was in earlier phase of monitoring;
- The sanitation system for labor must be improved up to a healthy and desirable level;
- The labor sheds must be improved up to a comfortable, useable and desirable level for construction workers and security force;
- Recruitment of more local labor in the newly constructed sites would certainly improve the economic condition of local people; Rationalized work permit system and enhanced medical support at site should be maintained.