

Loan No. 2454-BAN-OCR

Public-Private Infrastructure Development Facility

ANNUAL ENVIRONMENTAL AND SOCIAL COMPLIANCE AUDIT REPORT

Meghnaghat 335 MW Project, Narayanganj, Bangladesh

Summit Meghnaghat Power Company Limited

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List of Abbreviations

ADB	Asian Development Bank
BPDB	Bangladesh Power Development Board
BPC	Bangladesh Petroleum Corporation
DOE	Department of Environment
ECR	Environment Conservation Rules
EHS	Environment and Health Safety
EMP	Environmental Management Plan
ERP	Emergency Response Plan
ESIA	Environmental and Social Impact Assessment
FGD	Focus Group Discussion
HRSG	Heat Recovery Steam Generator
HSD	High Sulfur Diesel
IDCOL	Infrastructure Development Company Limited
PPE	Personal Protective Equipment
SMPCCL	Summit Meghnaghat Power Company Limited
SPS	Safeguards Policy Statement

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EXECUTIVE SUMMARY

Background

Summit Meghnaghat Power Company Limited (SMPCL) has been awarded through an international competitive bidding process to develop and operate an independent power plant project with capacity of 335 MW at Meghnaghat, Narayanganj District of Bangladesh. For financial assistance, SMPCL has approached Infrastructure Development Company Limited (IDCOL), along with other lenders. Considering the importance of the project to meet the national power demand, IDCOL has provided a term loan facility of USD 30 million in favour of the project. IDCOL has sourced the required financing from the fund allocated as ordinary capital resources (OCR) for large infrastructure projects under Public-Private Infrastructure Development Facility (PPIDF) of Asian Development Bank (ADB).

According to the Environment Conservation Rules (ECR), 1997 of Bangladesh Government, industrial projects have been categorized into four classes—Green, Orange A, Orange B and Red. Considering the magnitude of environmental impacts, power plant project has been classified as Red Category. Hence, SMPCL project has fallen into the Red Category. Given the environmental impacts of the SMPCL project are mostly site specific, ADB has categorized the Project as **B**. Due to the absence of any indigenous habitat, the project has been categorised as **C** from IP perspective. In addition, as there is no issue of land acquisition or removing any unauthorised settlers from the site, the project has been categorised as **C** from involuntary Resettlement (IR) perspective. In addition, IDCOL has adopted an Environmental and Social Safeguards Framework (ESSF). According to this ESSF, the project of SMPCL seems to be fallen under the category of **High Risk** requiring detail environmental impact assessment. But IP and IR perspectives, it has been categorised as **Low Risk**.

SGS, India being engaged by SMPCL as Environmental Consultant, has conducted the detail environmental and social impact assessment (ESIA) based on the guidelines of Department of Environment (DOE), Government of Bangladesh (GOB) and Asian Development Bank's (ADB's) Safeguard Policy Statement (SPS), 2009. In addition, as there is investment of DEG, Germany, SMPCL has to comply with the respective IFC EHS guidelines (general and sector specific) as well.

To assess the actual implementation of environmental management plan and social safeguards, respective IDCOL official visited the project site during construction and operation phases. According to the ESIA, there is requirement of IDCOL to submit annual Environmental and Social Compliance Audit Report of this project to ADB. Accordingly, this audit report has been submitted to ADB by IDCOL.

Audit overview and findings

The respective IDCOL official has visited the project during the audit period (January 2016 to December 2017). He has also reviewed the available relevant documents and clearances. In addition, there was consultation with representatives of adjacent neighborhood. While audit, it has been observed that SMPCL is satisfactorily responsive about complying with the environmental management plan and social safeguards including grievance redress and continuous public consultation.

1.0 INTRODUCTION

1.1 PROJECT PROPONENT

The proponent of this project is a consortium of Summit Industrial and Mercantile Corporation (Pvt.) Ltd (SIMCL), Bangladesh, and GE Energy (GEE), LLC USA. The sponsors afterwards formed a special purpose vehicle in the name of Summit Meghnaghat Power Company Limited (SMPCL) for implementing the project and registered the same under the laws of Bangladesh. Table 1.1 shows the key information about the project:

Table 1.1: Key project information

Project Company	Summit Meghnaghat Power Company Limited
Registered Address	Summit Center, 18 Kawran Bazar C/A, Dhaka1215
Project Location	Meghnaghat, Narayanganj
Capacity	305 MW (HSD) and 335 MW (Gas)
Fuel Type	Gas/HSD (Dual Fuel)
EPC Contractor	Consortium of two Chinese companies: First Northeast Electric Power Company Ltd. and China National Electric Engineering Co. Ltd.
O & M Contractor	KEPCO Plant Service and Engineering Co., Ltd., Korea
Environmental Consultant	SGS Pvt. Limited, India
Off-taker	BPDB
Project Tenure	22 Years
Project Type	Independent Power Producer
Land Handover Date	3 October 2011
Land Area	25 acres

1.2 AREA AND LOCATION OF PROJECT SITE

The project is located about 25km south-east of Dhaka, which is at about 3km from the Dhaka-Chittagong Highway to the west, and about 16km road distance from Narayanganj River Port. The project site is adjacent to the existing Phase I of 450MW combined cycle power plant of Meghnaghat Power Ltd. The site is accessible through the Dhaka-Chittagong Highway close to the Meghna River Bridge and slightly southwest downstream of the project site, the Meghna River converges with the Dhaleswari (Kaliganga) and the Shitalakkhya Rivers. The location of the project site in respect of Narayanganj and Comilla District is shown in Figure 1.1.

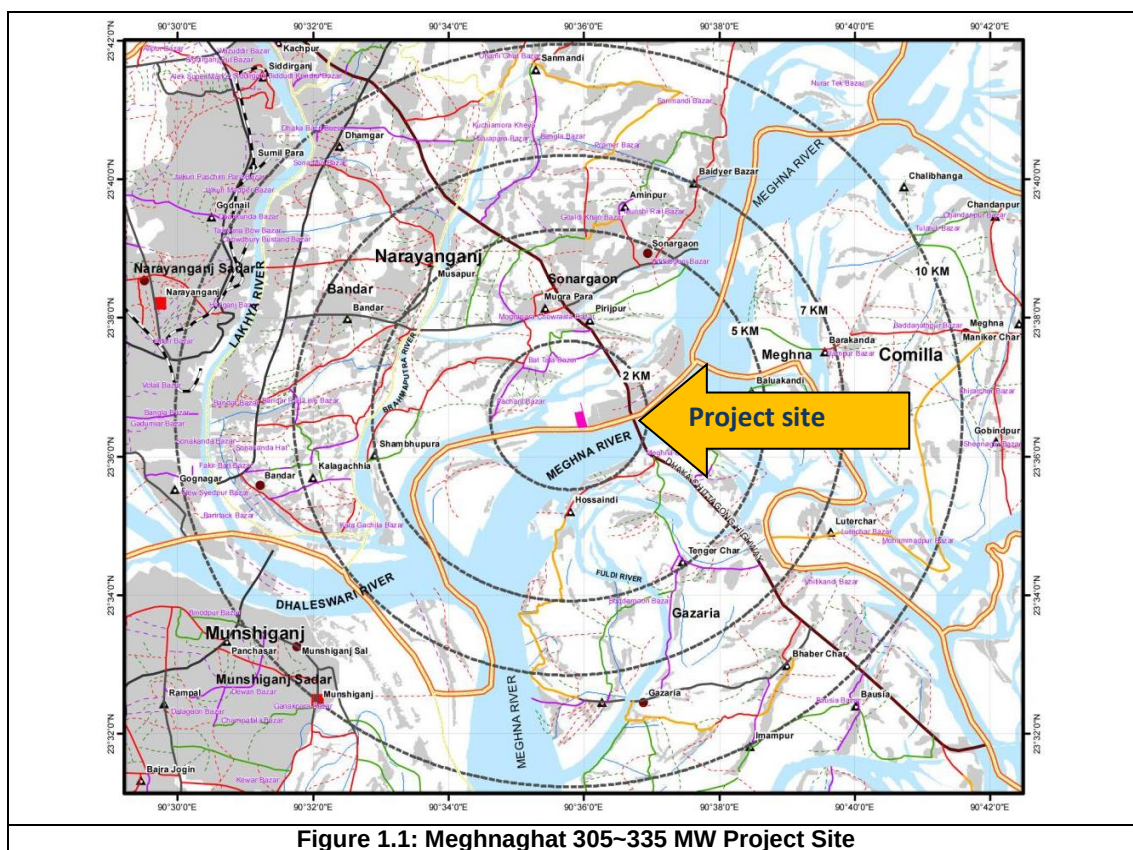


Figure 1.1: Meghnaghat 305-335 MW Project Site

The project site comprises an area of 25 acres, which is a part of a larger developed area known as Meghnaghat Power Sites Area (MPSA). This area was developed by Bangladesh Power Development Board (BPDB) for siting of power generation plants. The land for the project was acquired by BPDB in 1999 and hence there is no resettlement issue.

1.3 THE PROJECT IN BRIEF

The project is based on Combined Cycle technology. The plant comprises two (2) gas turbine generators (GTGs) capable of operating on natural gas and/or High Speed Diesel (HSD), two (2) heat recovery steam generators (HRSGs, consisting of super heaters, evaporators, economizers and steam drums unfired, in double pressure, natural circulation design) connected to a common steam turbine of condensing type for indoor installation, condensate and feed water system, cooling water system and auxiliary equipment. The exhaust gases of each gas turbine is discharged through a bypass damper which is positioned to direct the exhaust gas either through bypass stack into the atmosphere (in case of simple cycle operation) or into the HRSG (in case of combined cycle operation). The gas turbine/HRSG¹ can be started up using bypass stack and 100% capacity of steam bypass to condenser.

¹ HRSG stands for Heat Recovery Steam Generator

Table 1.2: Technical specification of HSD (major parameters)

Test	Method	Limit
Density at 15 ⁰ c, Kg/L	ASTM D 1298	Min 0.820 Max 0.87
Colour, ASTM	ASTM D 1500	Max 3.0
Ash, % mass	ASTM D 482	Max. 0.01
Cetane Number	ASTM D 613	Min. 45
Sulphur , % of total mass	ASTM D 4294	Max 0.25

The HRSG generates High Pressure and Low Pressure superheated steams at Gas Turbine base load operation with natural gas/ Diesel firing. The steam generated from the HRSGs is delivered to the steam turbine to generate power. The plant has been designed to use two kinds of fuel, Natural gas (NG) and Heavy Furnace Oil (HFO) for power generation using the same sets of equipment. However, later on HFO has been replaced by High Speed Diesel (HSD). Generally, the NG is expected to be used. In case of supply of natural gas is not available, HSD is being be used. Currently the plant is being operated with HSD. The NG is expected to be supplied by the Titas Gas Transmission and Distribution Company Limited, a Bangladesh Government owned company. The gas is supposed to be delivered through existing gas pipeline just outside power plant. HSD is being supplied by Bangladesh Petroleum Corporation (BPC) by river through its larger vessels of 1000-180 MT capacity at the oil jetty located on the Meghna River at the south-eastern corner of the project site. According to water balance diagram, the average water consumption for the project is 157m³/h. The evacuation of electric power generated by the power plant is accomplished through the existing six 230 kV circuits connecting nearby 230/132 kV existing substations at Hasnabad, Comilla and Haripur owned by Power Grid Company of Bangladesh Ltd. (PGCB). The connection to this plant is existing Meghnaghat 230 kV switchyard, adjacent to the plant.

Table 1.3: Technical specification of gas turbine (major parameters)

Component	Technical specification
Gas turbine Generator	
Rated power factor	0.8
Rated voltage	14.5kV
Rated frequency	50Hz
Exciter	static
Gas turbine HV Generator Step-up transformer	
Rated capacity	150MVA
Rated voltage and tap range	230±8x1.25%/15kV

The project has started the commercial operation of combined cycle on 1 June 2015.

1.4 OBJECTIVES OF THE ENVIRONMENTAL AND SOCIAL COMPLIANCE AUDIT

The audit has been conducted with the aim to assess the project's compliance with-

- (i) Environment Conservation Rules (ECR)1997 of GOB;
- (ii) Environmental and social safeguards according to the Environmental and Social Safeguards Framework (ESSF) of IDCOL;
- (iii) Environmental and social safeguards according the Safeguards Policy Statement (SPS), 2009 and other relevant standards and guidelines of the ADB;
- (iv) Proposed mitigation measures and monitoring procedures according to the environmental management plan (EMP), resettlement action plan (RAP) as are applicable.

1.5 METHODOLOGY

The audit includes the following steps:

- (i) Visit the project site and consult with stakeholders especially local people;
- (ii) Review the environmental and social safeguards documents including environmental impact assessment report, EMP and Resettlement Action Plan, Stakeholder Engagement Plan (as are relevant) ;
- (iii) Assess actual implementation of the guidelines/action plan of the safeguard related documents.

1.6 REPORTING PERIOD

The reporting period of this Environmental and Social Compliance Audit Report is January 2016 to December 2017.

1.7 CHANGES IN PROJECT SCOPE

There is no change in the technology and operational process as have been declared by the respective government and accepted by SMPCL. So, it can be said that the EMP of ADB approved Environmental and Social impact Assessment (ESIA) is fully applicable during the reporting period as well.

1.8 ENVIRONMENTAL MONITORING

The parameter, frequency and methodology of environmental monitoring are in accordance with EMP of ADB approved ESIA, as has been detailed in chapter 3 of this audit report.

2.0 REGULATORY REQUIREMENTS

2.1 ENVIRONMENT CONSERVATION RULES, 1997 OF BANGLADESH

The project has to comply with the Environment Conservation Rules (ECR), 1997. According to the categorization of ECR, 1997, the project has been categorised as **Red**² meaning that it has significant adverse environmental impacts, which are to be mitigated with proper mitigation measures.

2.2 ENVIRONMENTAL AND SOCIAL COMPLIANCE RELATED STANDARDS AND GUIDELINES OF ASIAN DEVELOPMENT BANK

The project has to comply with the Safeguards Policy Statement (SPS), 2009 and Operational Manual F1 (2010). The ESIA of the Project has been approved by the ADB. Considering the adversity of environmental impacts, it has been categorized as **B**. As there is no record of any indigenous habitat in Narayanganj, the project has been categorised as **C** in respect of Indigenous People (IP). In addition, as the required land for the project site has been leased from BPDB, there is no issue of involuntary resettlement (IR). So, from IR point of view, the project has been categorised as **C**.

2.3 ENVIRONMENTAL AND SOCIAL SAFEGUARDS FRAMEWORK OF IDCOL

IDCOL has adopted an Environmental and Social Safeguards Framework (ESSF) in 2011, which is to be complied with all infrastructure projects as are funded IDCOL. According to the environmental categorization of ESSF (Annex-4), the project has been categorised as **High Risk**³ project requiring significant compliance safeguards including comprehensive environmental impact assessment and regular monitoring. But from Social categorization, the project has been categorised as **Low Risk** both for IP and IR perspectives. So, there is no requirement of adopting indigenous peoples development framework (IPDF), indigenous peoples development plan (IPDP), resettlement framework (RF) and resettlement plan (RP).

² Schedule-1 of ECR (project no. 6 of Red category), 1997

³ The project risk screening checklist of ESSF, IDCOL is provided in Annex-3

3.0 IMPLEMENTATION OF ENVIRONMENTAL SAFEGUARDS

3.1 COMPLIANCE WITH ENVIRONMENT CONSERVATION RULES, 1997

SMPCL has to comply with the requirement of ECR, 1997 of the DOE. In the following Table 3.1, the compliance status of SMPCL, in regard of major milestones of ECR, 1997 is depicted. The renewal of Environmental Clearance Certificate is provided in Annex-1.

Table 3.1: Compliance with the requirement of ECR, 1997

Basic Requirement	Compliance Status
Award Site Clearance Certificate	Fully complied
Award EIA approval	Fully complied
Award Environmental Clearance Certificate	Fully complied
Renewal of Environmental Clearance Certificate	Fully complied

3.2 COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT PLAN

a. Institutional arrangement

In the earlier section the institutional arrangement of environmental safeguards has already been discussed. SMPCL is regularly monitoring the site condition including housekeeping, unsafe condition, misuse of water and hot work by walk-through inspection. The inspection is carried out by respective EHS officials with due documentation. EHS officials also conduct toolbox safety to the subcontractor's labor on weekly basis. The EPC Safety Department is communicated if there is any significant observation in relevant to EHS aspects. Beside these, all observations of the inspection report are discussed with respective sub-contractors leader through a meeting. In the main entrance of the project, EHS officials strictly monitor proper use of PPE and a register book is maintained on this monitoring

b. Compliance status

In the ESIA, a number of activities having potential adverse environmental impacts and occupational health safety aspects during operation phase have been identified. In the following Table 3.2, suitable mitigation measures to address these impacts according to the EMP and actual responses by SMPCL has been discussed.

Table 3.2: Response of SMPCL on project activities and mitigation measures during operation phase

Project Activity	Potential Impacts	Proposed mitigation measures in EMP	Actual implementation	Compliance status
Power generation	Emission from the power plant	▪ Using 50 meter tall stack for simple cycle and 75 meter tall stack for combined cycle ▪ Installation of stack emission monitoring equipment for major pollutants ▪ Planting of indigenous trees around the Project site	▪ 50 and 75 meter tall stacks have been installed for simple and combined cycle operation respectively. ▪ Detail landscape design has been adopted.	Fully complied
	Generation of noise from generators and associated sub-stations , which could exceed 70 dB(A) at site boundary	▪ Use walls, fencing, and/or greenbelt to provide partial noise barrier ▪ Provision of critical silencers or generators an turbines (if need arises) ▪ Use of ear-muffs and ear-plugs by plant personnel working in the generator and turbine facilities of the plant	▪ Walls are being installed as noise barrier. ▪ Ear plugs were being used as noise barrier.	Fully complied
	NOx generation from the engine, which can negatively affect health	▪ Use low-NOx burners and water injection to control NOx; ▪ Should maintain burning temperature less than 900 °C	▪ SMPCL has installed low-NOx burners and water injection to control NOx. ▪ The burning temperature is less than 900 °C.	Fully complied
	Suspended particulate matter (SPM) and PM _{2.5} , PM ₁₀ generation from the engine, which can adversely affect health	▪ Use fabric bag filter to reduce particulate matter before discharging the emission. ▪ Good combustion control, required stack height should also be maintained properly	▪ Fabric bag filter has been introduced. ▪ Good combustion and required stack height have been ensured.	Partially complied

Project Activity	Potential Impacts	Proposed mitigation measures in EMP	Actual implementation	Compliance status
	Electro-magnetic wave or electrical interference, which may result in occupational health risk.	▪ All equipment should be grounded earthing with mesh system. ▪ Power plant to sub-station should be connected by HT cable. ▪ Power plant & substation site is away from the settlement. ▪ No house is located in the immediate vicinity of the site.	▪ Relevant equipment have been grounded. ▪ Power plant to sub-station has been connected by HT cable. ▪ Power plant & substation site are away from the settlement. ▪ No house is located in the immediate vicinity of the site.	Fully complied
Heath safety during operation	Risk of human health and property damage	▪ All necessary safety equipment should be ready at the plant. ▪ Regular training on safety needs to provide.	▪ PPE were found to be adequately practiced.	Fully complied
Fires, explosion and other accidents	Risk of human health and property damage	▪ Use of PPE during operation and maintenance. ▪ Prepare and implement safety and emergency manual. ▪ Regular inspection of lines for faults prone to accidents. ▪ Provision of fire protection equipment. ▪ Provision of Lightening arrestors	▪ There are fire extinguishers ▪ Automated firefighting system has been installed. ▪ Regular fire drill has been accomplished.	Fully complied
Domestic wastewater and sewage	BOD, fecal coliform contamination in groundwater and surface water	▪ Need to provide septic tank with soak pit for treatment of sewage.	▪ Septic tank with soak pit for treatment of sewage.	Fully complied
Wastes oil from Plant (scrap metal, waste, lube oils, spill oil etc)	Potential soil and groundwater contamination	▪ Secure on-site storage, waste sell to the DOE authorized vendor for discharge in a safe place.	▪ Used lube oil is being sold to DOE designated vendor.	Fully complied

c. Environmental monitoring

i. Technical approach of environmental monitoring

In the EMP of the ESIA, environmental monitoring has been required during operation phase. The air, water and noise quality monitoring schedule are depicted in Table 3.3.

Table 3.3: Monitoring parameters and frequency of monitoring during operation phase

Key parameters to be monitored: (1) Ambient air quality		
location	frequency	parameter
At Project site, residential /institutional /commercial areas within 500m outside from plant boundary.	Quarterly (routine) analysis	SPM, SO _x , NO _x
Key parameters to be monitored: (2a) Surface water quality		
location	frequency	parameter
Project site at Meghnaghat	Bi-annual basis in each year (pre-monsoon and post-monsoon)	pH, Temperature, DO, BOD, COD, TDS, Oil and grease
Key parameters to be monitored: (2b) Ground water quality		
location	frequency	parameter
Project site at Meghnaghat	Bi-annual basis in every year (pre-monsoon and post-monsoon)	pH, Temperature, DO, BOD, COD, TDS, Oil and grease
Key parameters to be monitored: (3) Noise quality		
location	frequency	parameter
At four corners of Project boundary, residential/institutional /commercial areas within 100m and 300m outside from plant	Quarterly (routine) analysis (four times in each year)	Limits in dBA

Table 3.4: Ambient air quality at project site

Parameter	Concentration (µg/m ³)		DOE standard (µg/m ³)
	3 July 2016	9 September 2017	
SPM	48	12	200
SO ₂	11	9.53	365
NO _x	17	15.6	100

Source: SMPCL

Table 3.5: Ambient noise level at project site

Location	Day (6.00 am to 9.00 pm)		Night (9.00 pm to 6.00 am)	
	3 July 2016	9 September 2017	3 July2016	9 September 2017
At project site	53.36	57.66	52.10	56.33
Standard of DOE	75		70	

Source: SMPCL

Table 3.6: Effluent water quality at the outlet of project site

Parameter	Monitooring date		DOE standard (µg/m ³)
	3 July2016	10 July 2017	
pH at 24.1°C	7.44	6.65	6-9
TSS	20.40 mg/l	23.80 mg/l	150 mg/l
DO	6.40 mg/l	6.51 mg/l	4.5-8 mg/l
COD	6.86 mg/l	5.88 mg/l	200 mg/l
BOD	2.48 mg/l	3.21 mg/l	50 mg/l
TDS	62.8 mg/l	57.4 mg/l	2100 mg/l

Source: SMPCL

II. Result of environmental monitoring

During operation phase, the ambient air and noise quality have been found to comply with the acceptable limit of DOE standard.

III. Disclosure of environmental monitoring

As disclosure of environmental monitoring, SMPCL has kept the copy of monitoring result available at project site. In addition, during public consultation they have also shared the monitoring result to stakeholders including adjacent villagers.

IV. Monitoring adjustment measure

Based on the result of air, water and noise monitoring, it can be concluded that that there is no requirement of adjustment measure.

3.3 COMPLIANCE WITH SAFEGUARDS POLICY STATEMENT, 2009 OF ADB

It is already said that the SMPCL project has to comply with the requirement of SPS, 2009 of ADB. Accordingly, the compliance status of this project in regard of major EHS requirement are mentioned in Table 3.7.

Table 3.7: Compliance with important EHS aspects during operation phase

ADB Requirements	Issue and Description of Observation	Status of compliance
<i>Environment Assessment requirements for various financing modalities</i>	SMPCL has adopted a number of guidelines in relevant to E&S safeguards, to ensure the full compliance of the respective statutory and institutional requirements.	Fully complied
<i>Occupational and Community Health and safety</i>	SMPCL has ensured the satisfactory application of PPE.	Fully complied
	There is satisfactory evidence of fire drill.	Fully complied
<i>Biodiversity conservation and sustainable natural resource management</i>	The activities in relevant to operation phase seems to have scope to adversely affect the biodiversity and natural resource management in the project area to a greater extent. But it is believed that if SMPCL shows the similar type of commitment in regard of E&S compliance, there is no risk of any undesired situation.	Fully complied
<i>Pollution prevention and abatement</i>	SMPCL has conducted air, water and noise quality monitoring during operation phase.	Fully complied
<i>Physical Cultural resources</i>	Due to the unavailability of physical cultural resources within the range of close distance, the issue of adversely affecting the physical cultural property seems not to be relevant with the project.	Fully complied

4.0 IMPLEMENTATION OF SOCIAL SAFEGUARDS

4.1 IMPACT ON RESETTLEMENT OF THE PROJECT AFFECTED PEOPLE AND LIVELIHOOD

It is already said that the project site has been leased from BPDB. It is a part of a larger developed area known as Meghnaghat Power Sites Area (MPSA). This area was developed by BPDB as a site for establishing power plants. So, BPDB did not allow developing any settlement in this area. In addition, it strictly restricted to use the site for any type of economic activity including agriculture by any third party. As there is no issue of involuntary resettlement (IR), this project is of a **C** category project in regard of Involuntary Resettlement (**IR**) consideration.

4.2 INSTITUTIONAL ARRANGEMENT AND GRIEVANCE REDRESS MECHANISM

The EHS personnel as has been discussed in chapter 4, have been empowered with the responsibility of complying with social safeguards. A grievance redress procedure has been developed for taking into account the grievances due to the projects intervention, raised by various stakeholder and local neighbours. Mr. Md. Reaz Uddin, Chief Operating Officer leads the grievance redressal process at plant level. He is assisted by Mr. Md. Mizanur Rahman, DGM, Operation & Compliance, and Mr. Nowroze Ahmed, Assistant Manager, Safeguards Compliance. SMPCL officials have informed that they conduct periodic consultation to the villagers of adjacent villages. In these, consultations, the respective officials have tried to understand whether the villagers have grievance or they need any support for various community enhancement activities. While visiting the plant by respective IDCOL official, a grievance box and a grievance log book have been found at main entrance, which seems to be easily accessible to the adjacent people and the project's stakeholders for lodging their comments, suggestions or complaints. SMPCL is committed to resolve of any grievance within 15 days of receiving the grievance. However, based on the discussion with villagers, it has been assumed that there is no issue of grievances. Because the workers coming from the local community are given priority to work in the project. In addition, SMPCL has extended co-operation in upgrading various social infrastructures like renovation of school, mosque and so on.

4.3 IMPACT ON INDIGENOUS PEOPLE

Based on the primary observation during site visit and secondary sources including BBS⁴ Census 2011, no habitat of any indigenous community has been reported at Narayanganj. So, the project has been categorized as **C** for Indigenous Peoples (IP) safeguards concluding that there is no issue about adversely affecting IP neither in construction phase nor in operation phase.

⁴ BBS stands for Bangladesh Bureau of Statistics

SMPCL 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.

4.4 CHILD LABOUR

The Bangladesh Labour Act 2006 (Act XLII of 2006) also defines the “child” and the “adolescent” on the basis of age. As per section 2(8) of the Act, a person who has attained the age of 14 but below the age of 18 is considered to be an „adolescent” and as per section 2(63), a person not attaining the age of 14 is defined as a “child”. According to The National Child Labour Elimination Policy 2010, following rights are to be complied with, in regard of addressing child labour Issue

- Employing children according to the age determined by the Acts and not to employ children below 14 years as a regular employee;
- Ensuring the children at domestic work not to perform any hazardous work and providing them with proper food and accommodation, education, recreation since they work full time; and
- Refraining child workers from physical, mental, sexual persecution and abuse.

SMPCL has been found to be careful about the child labour issue. So, no child has been found to be engaged in the project activities.

4.5 PUBLIC CONSULTATION AND DISCLOSURE OF INFORMATION

I. Public Consultation

There are seven villages around the project site. They are Islampur, Ganganagar, Dhudghata, Char Goaldi, Asharia Char, Panchani, Char Balaki and Kurbanpur. Among these seven villages, Char Balaki, Ganganagar and Panchani are located in a close proximity to the project site. As a requirement of consultation during operation phase, SMPCL has informed that they conduct periodic consultation to the villagers of these villages on a regular basis. As a part of consultation, IDCOL team consulted with the villagers of Dudghata.

II. Major findings

The major findings of public consultation are as follows:

- People are in general pleased with SMPCL as they have extended significant financial support to renovate a local school
- Some qualified local persons have got job in SMPCL project and they are satisfied with salary and other benefits

III. Response from SMPCL

SMPCL representatives have informed that they believe in participatory approach. They consider local people as an influential stakeholder for the sustainability of their project. So, they try to support them as much as possible.

IV. Disclosure

It has been observed that SMPCL has communicated about the grievance redress process to relevant stakeholders including villagers. While audit, no record of grievances was being observed neither in the Grievance Log Book and Grievance Log Box. In responding the issue of disclosure, SMPCL has informed that they are adequately responsive to any stakeholders requesting to disclose any environmental, and social safeguards related document, information and monitoring result.

4.6 ENHANCEMENT

While audit, it has been revealed that SMPCL has extended various types of financial cooperation to a number of institutions for the betterment of adjacent villagers of which following initiatives are worth mentioning:

- Donation to Dudghata Primary School boundary construction
- Support to drain making works at Panchanai
- Donation to provide benches at Kurbanpur Primary School.

5.0 CORRECTIVE ACTION PLAN

5.1 CORRECTIVE ACTION PLAN IN REGARD OF ENVIRONMENTAL AND SOCIAL SAFEGUARDS

SMPCL has been found to be adequately responsive on environmental and social safeguards. They have duly monitored the air, water and noise quality according to the requirement of EMP. The monitoring results have been found to be within the acceptable limit requiring no corrective measures.

Although there is no issue of involuntary resettlement and affecting livelihood; and indigenous peoples issue, SMPCL has been found to practice a well-structured communication process with the villagers of three adjacent villages- Char Balaki, Ganganagar and Panchani.

So, it is felt that SMPCL does not require any corrective measure as there is no significant observation of non-compliance in regard of E&S safeguards.

6.0 CONCLUSION

Based on the findings of environmental and social compliance audit, it can be concluded that SMPCL is satisfactorily responsive in regard of complying with environmental and social safeguards during construction phase as well as operation phase. And there is no requirement of corrective action plan.

Annex 01: Renewal of Environmental Clearance by the DOE

শেখ হাসিনার নির্দেশ
জলবায়ু সহিষ্ণু বাংলাদেশ

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিবেশ অধিদপ্তর
নারায়ণগঞ্জ জেলা কার্যালয়
মা আমেনা স্বপ্ন টাওয়ার (চতুর্থ তলা), পূর্ব লামাপাড়া
(খান সাহেব ওসমান আলী স্টেডিয়ামের পূর্ব পার্শ্বে), ফতুল্লা, নারায়ণগঞ্জ
www.doe.gov.bd

নং-২২.০২.৬৭০০.১৪০.৭২.২৩১.১৫- ৬২

তারিখ: ২৭/১২/১৪২৩বঙ্গাব্দ
২০/০৪/২০১৭খ্রি:

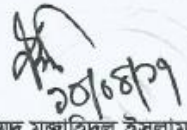
বিষয়: পরিবেশগত ছাড়পত্র নবায়ন।

- সূত্র: (০১) এ কার্যালয়ের স্মারক নং-পঅ/নাঃজে:অ:/৩০.৬৭.০৪.৪.৩৭.১৯০৬১১/২০১১/ছাড়পত্র-১০; তারিখ: ৩১/০৩/২০১৪।
(০২) পরিবেশগত ছাড়পত্র নবায়ন সংক্রান্ত উদ্যোগের ২২/০২/২০১৭খ্রি: তারিখের আবেদনপত্র।

উপর্যুক্ত বিষয় ও সূত্রের প্রেক্ষিতে দাখিলকৃত কাগজপত্রাদি যাচাই-বাছাইপূর্বক মৌজা-চররমজান সোনাউল্লাহ, ইউনিয়ন-পিরোজপুর, থানা-সোনারগাঁ, নারায়ণগঞ্জ এ অবস্থিত লাল শেণির সামিট মেঘনাঘাট পাওয়ার কোম্পানী লি: নামক বিদ্যুৎ উৎপাদন কেন্দ্রটির অনুকূলে সূত্রোক্ত পরিবেশগত ছাড়পত্রের সকল শর্ত যথাযথভাবে পালনসহ নিম্নবর্ণিত নতুন শর্তে পরিবেশগত ছাড়পত্রটি নবায়ন করা হলো:

- (০১) এ ছাড়পত্রের মেয়াদ ৩০/০৩/২০১৮খ্রি: তারিখ পর্যন্ত বহাল থাকবে এবং মেয়াদ শেষ হওয়ার অন্ততঃ ৩০ (ত্রিশ) দিন পূর্বে নবায়নের জন্য (নবায়ন ফি ও প্রয়োজনীয় কাগজপত্রসহ) এ কার্যালয়ে আবেদন করতে হবে।
(০২) বার্ষিকভিত্তিতে নবায়ন করা না হলে ছাড়পত্রটি বাতিল করা হবে।

০২. বর্ণিত ০১নং হতে ০২নং শর্তের কোনটি ভঙ্গ করলে কিংবা প্রদত্ত নবায়নকৃত ছাড়পত্রের কোথাও কোনো ঘষা-মাজা, ওভার রাইটিং করলে ইহা স্বয়ংক্রিয়ভাবে বাতিল বলে গণ্য হবে এবং আপনার প্রতিষ্ঠানটির বিরুদ্ধে বাংলাদেশ পরিবেশ সংরক্ষণ আইন, ১৯৯৫ ও পরিবেশ সংরক্ষণ বিধিমালা, ১৯৯৭ অনুসারে আইনগত ব্যবস্থা গ্রহণ করা হবে।

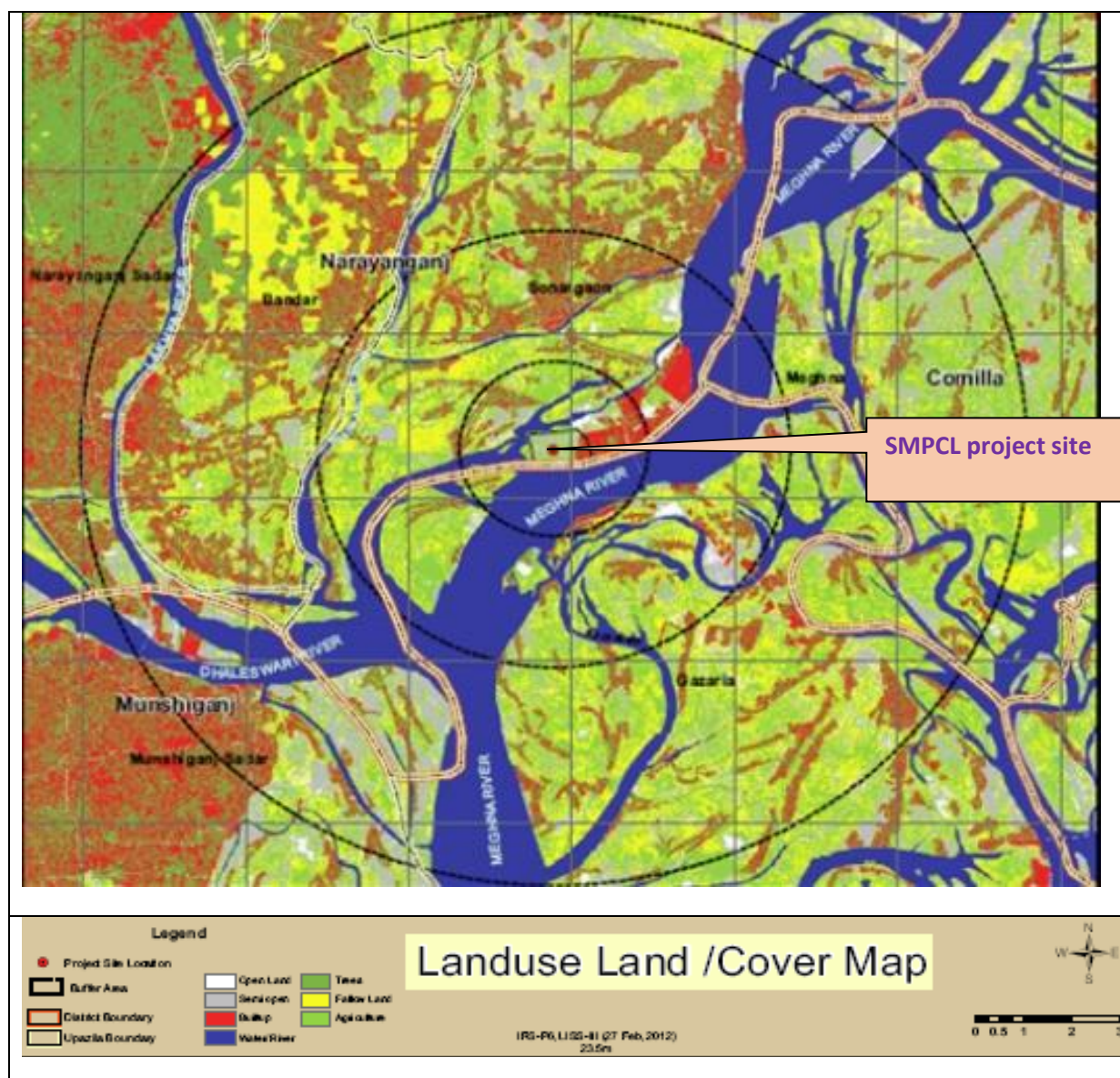

(মুহাম্মদ মুজাহিদুল ইসলাম)
উপপরিচালক
ফোন: ০২-৭৬৪২৪১১

চিফ এক্সিকিউটিভ অফিসার
সামিট মেঘনাঘাট পাওয়ার কোম্পানী লি:
মৌজা-চররমজান সোনাউল্লাহ, ইউনিয়ন-পিরোজপুর,
থানা-সোনারগাঁ, জেলা-নারায়ণগঞ্জ।

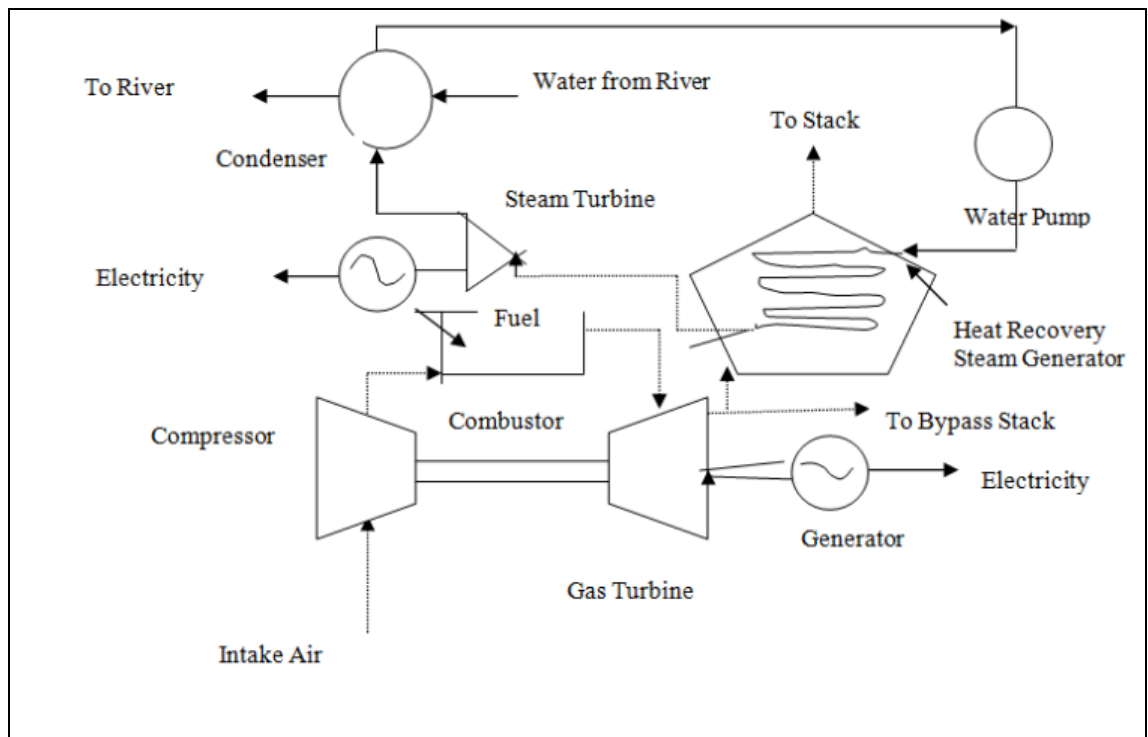
অনুলিপি: সদয় জ্ঞাতার্থে-

- ১। পরিচালক (ঢাকা অঞ্চল), পরিবেশ অধিদপ্তর, ঢাকা অঞ্চল কার্যালয়, ঢাকা।
২। অফিস কপি।

Annex 02: Landuse map with an airshed of 10 km radius



Annex 03: Process- flow diagram of combined cycle power plant



Annex 04: Project risk screening checklist of ESSF, IDCOL

Sl. no	Env. and scl. risks rating criteria	Response		Remarks
		Yes	No	
01	For new projects, does the project have any pending compliance such as Location and Environmental Clearance based on its category (Red, Orange-A, Orange-B and Green), from the DOE?			
02	Is the project located in the immediate vicinity (likely to adverse impact) of environmentally critical areas (national wetlands, wildlife habitats, important bird areas, and protected areas)			
03	Does the project construction and/or operation lead to environmental impacts that are diverse, irreversible and/or unprecedented in nature?			
04	Does the project require involuntary resettlement that results in loss of land or livelihoods or physically displaces more than 200 persons?			
05	Is the project site on or in immediate vicinity of socially vulnerable or Indigenous People (IP) owned or occupied land and has the potential to cause an adverse impact on their culture and identity?			
06	Is the project vulnerable to climate change related impacts?			
07	Does the Borrower have a documented Policy on E&S Performance?			
08	Does the Borrower have dedicated human resources to address E&S performance?			
09	Has the Borrower established and implemented Environmental, Health & Safety Management Systems and Social Accountability Systems for the Project SPV or in the parent company?			

Annex 05: Fire-fighting arrangement

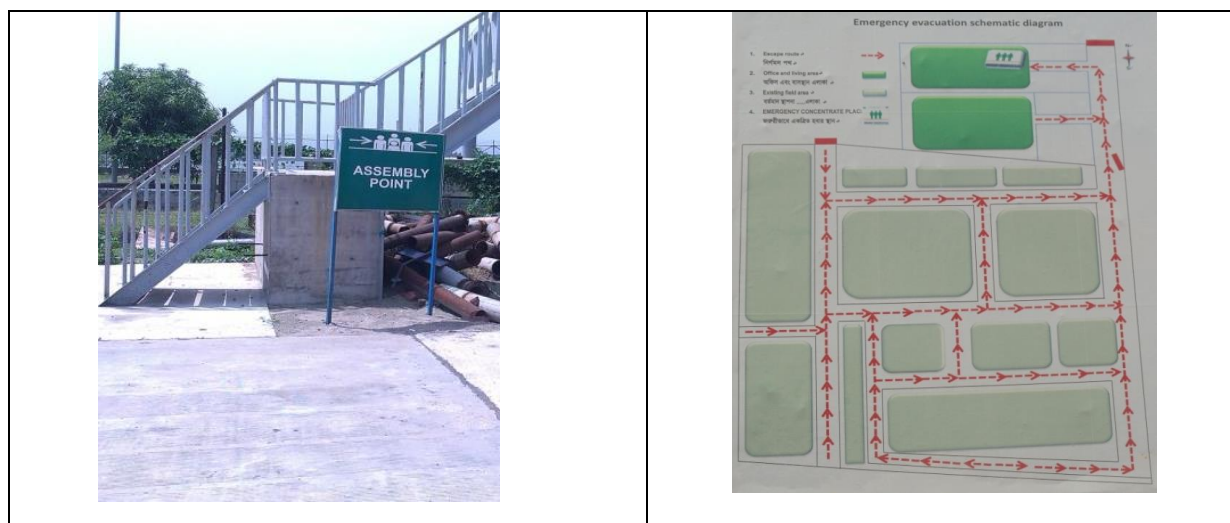
	
	
Photograph: Different types of fire-fighting arrangement	

Annex 06: Fire-fighting drill by Bangladesh Fire Service and Civil Defense



Photographs: Fire-fighting drill by Bangladesh Fire Service and Civil Defense

Annex 07: Emergency response arrangement



Photographs : Emergency assembly point and emergency evacuation plan

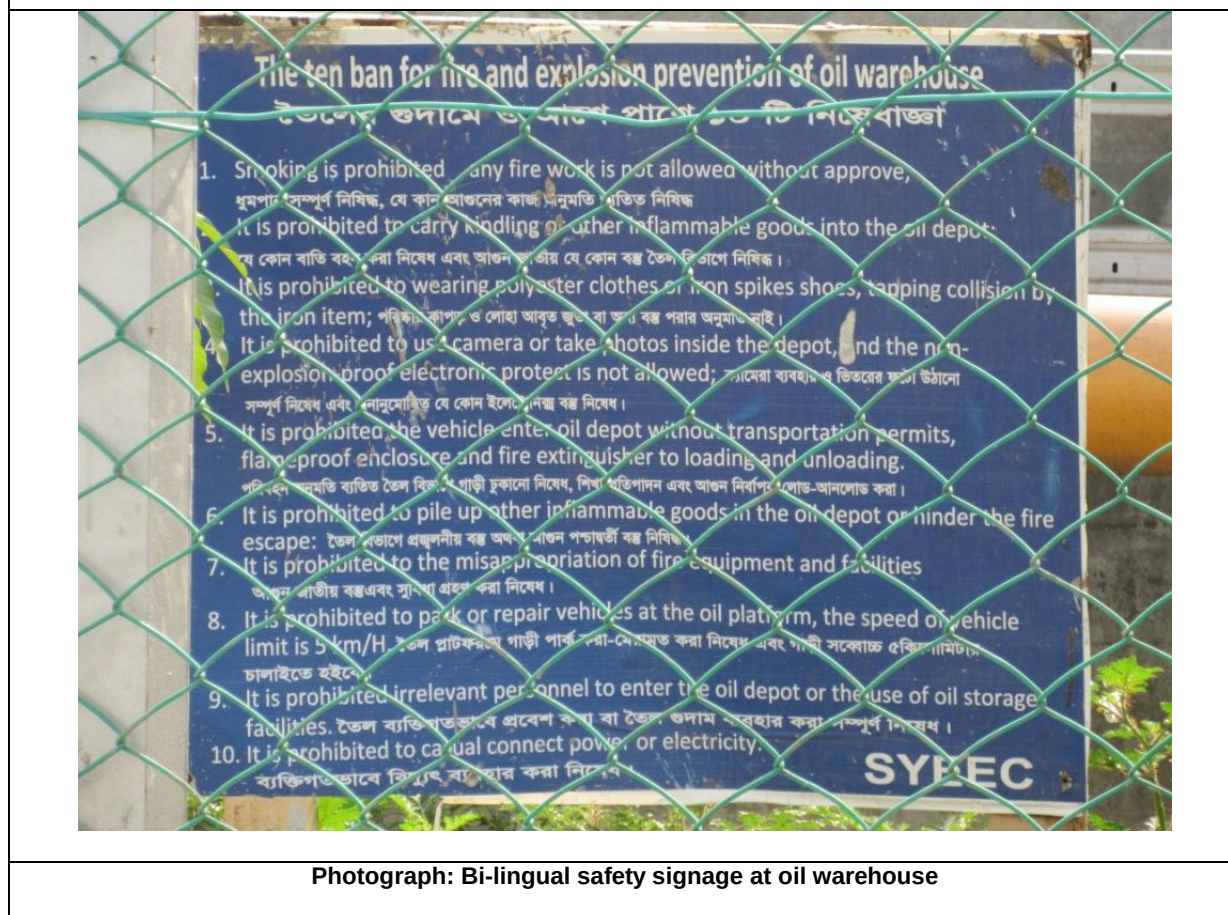
EMERGENCY CONTACT NUMBERS				
জরুরী যোগাযোগ সংখ্যা				
SL. NO.	ক্র. নং	SERVICE NAME / সেবার নাম	LOCATION / স্থানের নাম	CONTACT NUMBERS / যোগাযোগ সংখ্যা
01	০১	Fire service/Ambulance আগুন সার্ভিস/অ্যাম্বুলেন্স	Dumra, Narayanganj ডুমরা, নারায়ণগঞ্জ	৯১-৭৫০০১১১, ০১৭৩০০০২৯০৩
02	০২	Fire service/Ambulance আগুন সার্ভিস/অ্যাম্বুলেন্স	Bondar, Narayanganj বন্ডার, নারায়ণগঞ্জ	০২-৭৬৬১৯৯৯, ০১৭৩০০০২১১৩
03	০৩	Police station পুলিস স্টেশন	Narayanganj নারায়ণগঞ্জ	০১৭১৩৩৭৩৩৩৯
04	০৪	Officer, Inspector অফিসার, ইন্সপেক্টর	Konaraganj police station কোনারগঞ্জ পলিস্টেশন	০১৭১১৬৩৯৯৯৩, ০১৭১৩৩৭৩৩৫০
05	০৫	NAB ন্যাটো	Narayanganj নারায়ণগঞ্জ	০১৭১৩৩৭৪৪৯০
06	০৬	Hospital হস্পিটাল	Konaraganj Narayanganj কোনারগঞ্জ নারায়ণগঞ্জ	০১৭৩০১২৫৩৩
07	০৭	Shree General Hospital শ্রী জেনারেল হস্পিটাল	Narayanganj নারায়ণগঞ্জ	০১৮১৯৪৩০৯৯০
08	০৮	EHS Manager এইচএস ম্যানেজার	CHREC-NEPC চিআরসি-নেপসি	০১৭৭৭৭৫৪১০৪
09	০৯	EHS in charge এইচএস ইনচার্জ	Swarnar স্বর্ণার	০১৮০০১৭০৭৮২
10	১০	EHS in charge এইচএস ইনচার্জ	CHREC-NEPC চিআরসি-নেপসি	০১৮১৩০০৪১৭৫
11	১১	Ambulance অ্যাম্বুলেন্স	CHREC-NEPC চিআরসি-নেপসি	০১৭১৫৫৭৩৪০০
12	১২	Hospital হস্পিটাল	CHREC-NEPC চিআরসি-নেপসি	০১৭২১৫৪৫৬৩৪, ০১৭৪২১৮৪৪৭১
13	১৩	Security Department সিকিউরিটি ডিপার্টমেন্ট	Fakon ফাকন	০১৭১১১৩০১৬৫, ০১৭৫৪২২৭৭৭৪
14	১৪	Armed Force Department আর্মড ফোর্স ডিপার্টমেন্ট	Goverment গভর্নমেন্ট	০১৭১১০০৬১১১

Photograph : Emergency contact number

Annex 08: Application of signage



Photographs: Some of the signage in the plant



Photograph: Bi-lingual safety signage at oil warehouse

Annex 9: Air quality monitoring station



Annex 10: Current status of project (external view)

	
Photograph: Chlorine dosing plant	Photograph: Jetty
	
Photograph: A view of transformer	Photograph: Fuel storage tank

Annex 11: Current status of project (internal view)



Photograph: Control monitor



Photographs: Steam turbine generator hall and workshop



Photographs: Underground arrangement of steam turbine generator hall

Annex 12: Housekeeping



Photographs: Status of internal housekeeping



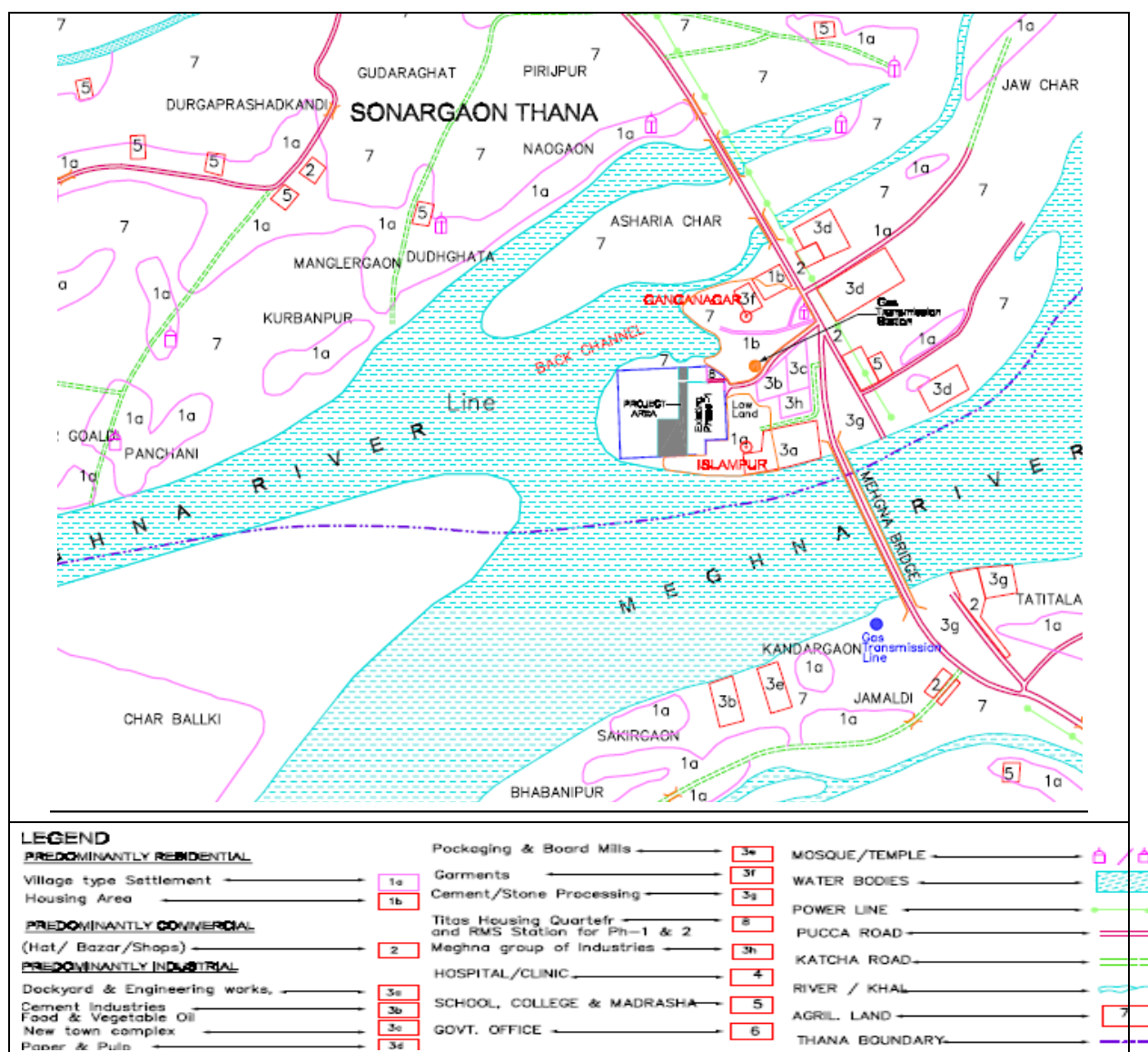
Photographs: Status of external housekeeping

Annex 13: Arrangement of drainage facility



Photographs: Thermal balancing drainage and screen at outlet

Annex 14: Location of the project site in respect of adjacent villages



Annex 15: Grievance redress officials



If you have any grievance, please raise it to appropriate authority

1. Please record in the register book kept in the main gate.
2. Please drop as written grievance in the box kept at main gate
3. Please communicate to the designated personnel or to your respective supervisor /GM/PM

Name	Designation	Mobile Number
Mr. Nowroze Ahmed	Asst. EHS Manager	01719206106
Mr. Tonmoy Islam	Logistic Officer	01911603032
Mr. Moktar Hossain	Safety & Community Liaison Officer	01813084175

Annex 16: Consultation by IDCOL official



Photograph: Consultation with respondents by IDCOL official

Annex 17: List of respondents as were consulted with IDCOL official

Name	Profession	Cell phone
Mr. Md. Ashek Ali	Small trader	01717316775
Mr. Saiful	Small trader	01865169798
Mr. Abul Kashem	Small trader	01846841885
Mr. Md. Joynal Hossain	Fisherman	01813349500
Mr. Ayub Ali	Fisherman	—
Mr. Zakir Hossain	Fisherman	—
Mr. Mohiuddin Bhuyan	Fisherman	01857203898