

Social Safeguard and Monitoring Report

15th Semi-Annual (January – June 2023) Report



ASHUGANJ 400 MW (EAST) COMBINED CYCLE POWER PLANT
At Ashuganj, Brahmanbaria



Ashuganj Power Station Company Limited (APSCCL)

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ABBREVIATION

ADB: Asian Development Bank
AIDs: Acquired Immunodeficiency Syndrome
APSCL: Ashuganj Power Station Company Limited
CCB: Central Control Building
CCPP: Combined Cycle Power Plant
CNTIC: China National Technical Import & Export Corporation
EIA: Environmental Impact Assessment
EMP: Environmental Management Plan
EPC: Engineering Procurement & Construction
GIS: Gas Insulated Switchgear
GRC: Grievance Redress Committee
GRM: Grievance Redress Mechanism
GT: Gas Turbine
HIV: Human Immunodeficiency Virus
HRSG: Heat Recovery Steam Generator
MSDS: Material Safety Data Sheet
MW: Mega-Watt
PPE: Personal Protective Equipment
RMS: Regulating and Metering Station
RP: Resettlement Plan
SEMP: Site Specific Environmental Management Plan
SOx: Oxides of Sulfur
ST: Steam Turbine

EXECUTIVE SUMMARY

During the period from January to June 2023, plant was in full operation except from May 2023. In previous semi-annual, the major tasks were commissioning and inspection of different equipment, for instance, inspection of warehouse, CEMS, hot commissioning of HRSG, steam turbine, insulation of LP & IP cylinders, inspection of safety valves. In addition to that, commissioning work of the HRSG in cold state, CW system, fire alarm system, air compressor system, DCS control (grid auxiliary transformer electrify), generator end shield opening for insulation treatment, grid auxiliary transformer, plant electricity system, GUST electrify and 400kV GIS system, hot commissioning activities (such as ST hot commissioning/Boiling tuning etc.) have been completed. Performance test was done successfully both in simple and combined cycle mode at different load. Finally, the plant is now commercially operated from 26 November 2022.

Air Pollution caused by dust emission during operational traffic activities is controlled by good management practices like continuous water spray over the unpaved or bare surfaces, covering soil materials pile. Soil and water pollutions are also prevented by proper management like spill prevention and well drainage system. Solid waste is managed by the waste management plan. noise pollution is also a regarding the issue during for traffic and transport. Noise level is reduced by proper traffic management system. All personnel use personal protective equipment to ensure their safety. The remarkable achievement in this period is that till now there is no record of loss time accident or injury.

Besides this, visual monitoring included dust control, site security, personal protective equipment, incident record and reporting, solid and oily wastes generation and disposal, employee's health, complaints from neighbors, safety orientation and training of employees, sanitation and drinking water facilities to the employees and site drainage is covered during this period and its found that all aspects regarding visual monitoring were found in line with the environmental management plan and required environmental guidelines.

APSCL is committed to keeping the accident level in Zero by implementing its proper occupational health and safety management system. This project also has a positive effect on the socio-economic condition. Local skilled and semi-skilled people were engaged in different levels of construction activities and they are happy about getting employment opportunities.

1.0 INTRODUCTION

The objective of the Social safeguard management and monitoring is to record social impacts resulting from the project activities and to ensure implementation of the “mitigation measures” identified earlier in order to reduce adverse impacts and enhance positive impacts from specific project activities. Besides, it would also address any unexpected or unforeseen environmental impacts that may arise during construction and operation phases of the project. Social safeguards objectives are: (i) to ensure the social soundness and sustainability of projects and (ii) to support the integration of social considerations into the project decision-making process. ADB social safeguards are triggered if a project is likely to have potential social risks and impacts.

1.1 Location of the Project

The power plant is setting up at the existing power plant area of Ashuganj Power Station Company Ltd. (APSCL) at Ashuganj, Brahmanbaria, Bangladesh. Ashuganj is located on the east bank of the Meghna River about 91 km Northeast to Dhaka & is connected by railway & highway way with Dhaka. There also exists good waterway connection to the site by seaports of Chittagong and Mongla. The project is located in Sonaram Mouza of Ashuganj Upazila, Brahmanbaria District. The location map of APSCL 400 MW (East) is shown in Figure 1. Bangladesh UK Friendship Bridge across the river Meghna (Meghna Bridge) connects both the banks of Bhairab and Ashuganj which connects with Dhaka-Sylhet highway which passes at the south side of the project. Meghna River is in the north side of the project. A khal is situated in the east side of the project and the total APSCL complex including APSCL office is located on the west side of the project.

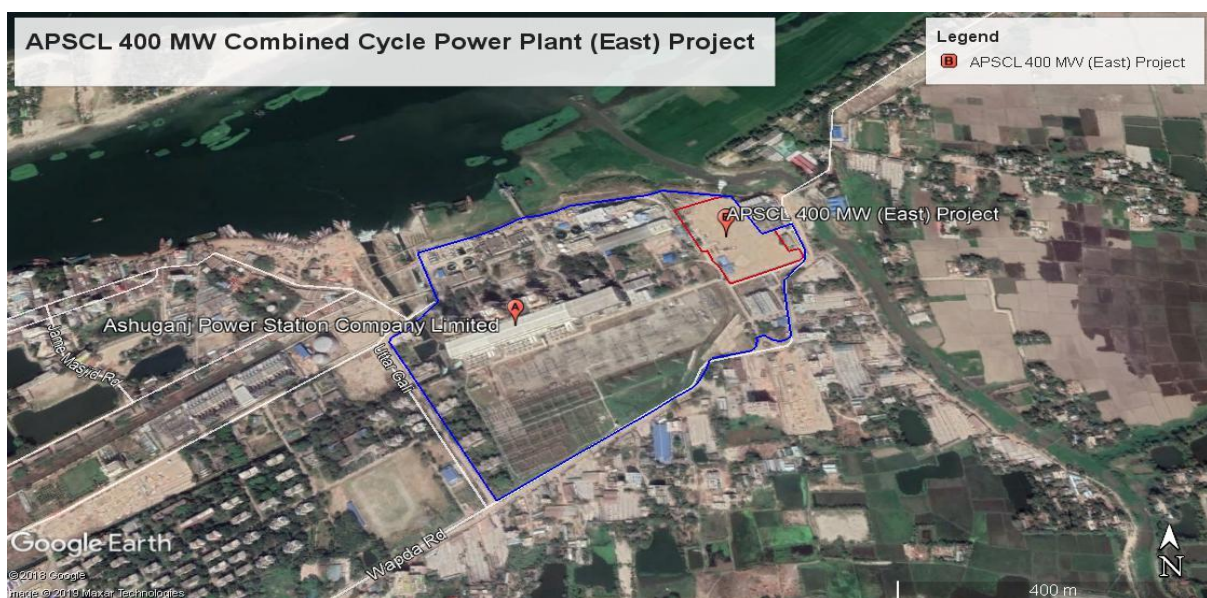


Figure 1: Location Map of APSCL 400 MW CCPP (East) project

1.2 Context of the monitoring report

The present social monitoring report period is January to June 2023 to submit as semiannual basis. Visual monitoring included dust control, site security, personal protective equipment, incident record and reporting, solid and oily wastes generation and disposal, worker's health, complaints from neighbors, safety orientation and training of employees, sanitation and drinking water facilities to the employees and site drainage is covered during this period.

1.3 Project Progress Status

APSCL and CNTIC are working so hard to reach the target within the timeframe. 100% of work has been done successfully before this semi-annual. Plant is now commercially operated from 26 November 2022. Performance test was done successfully both in simple and combined cycle mode at different load on 9 December 2022. Majority of work was related to the erection of auxiliary system, structural work of main building, civil work of hydrogen generation station, installation of Main stack, civil work of Control building, equipment installation of gas station etc has been completed.

Super structure construction of Bypass stack, Exhaust stack, cooling water, Oily waste water treatment station, Turbine Generator, Air compressor building, Central control Building (CCB), Power control center, Main Building has been completed. Similarly, Installation of equipment & pipe for gas booster and regulating station, RMS, drain water treatment system, site processing and foundation work for emergency Oil pit, sewage treatment station, and unit auxiliary transformer has been completed too.

The construction work of auxiliary system erection, GT generator installation, ST installation and electrical system are currently under progress. Commissioning work of the HRSG in cold state, CW system, fire alarm system, air compressor system, DCS control (grid auxiliary transformer electrify), generator end shield opening for insulation treatment, grid auxiliary transformer, plant electricity system, GUST electrify and 400kV GIS system have been completed. Whereas commissioning work of the gas booster regulating station & RMS, GT & ST equipment in cold state, H2 module system has been completed too.

Updated project progress status of Ashuganj 400 MW (East) Combined Cycle Power Plant (CCPP) project is given below in Table 1 & Figure 2 shows the present site condition of the project.

Table 1: Project Progress Status

Sl No.	Task Name	Cumulative Progress July 2018- December 2022	Remarks
1	Design	100%	Plant is now commercially operated from 26 November 2022
2	Procurement	100%	
3	Demolition work of old plant	100%	
4	Construction	100%	
5	Commissioning	100%	



Figure 2: Latest Picture of the Project Site

2.0 SOCIO-ENVIRONMENTAL RESPONSIBILITIES AND INSTITUTIONAL SETUP

For ensuring proper implementation of Site Specific Environmental and Social Management Plan (SEMP) role and responsibilities are delegated among personals from both project proponent and contractor at all stages of the project implementation

Key SEMB responsibilities are defined and communicated to the relevant stakeholders. Sufficient management sponsorship, human and financial resources are also allotted to achieve effective and continuous SEMB performance.

Management of environmental and social impacts during construction period is primary responsibility of the EPC Contractor as per the EPC contract. During the construction phase, APSCCL will review and monitor EPC Contractors performance in accordance with the SEMB.

The overall Project organizational structure for the implementation of the SEMB is shown in Figure 3 and key roles for implementation and supervision of the SEMB are described in Table 2.

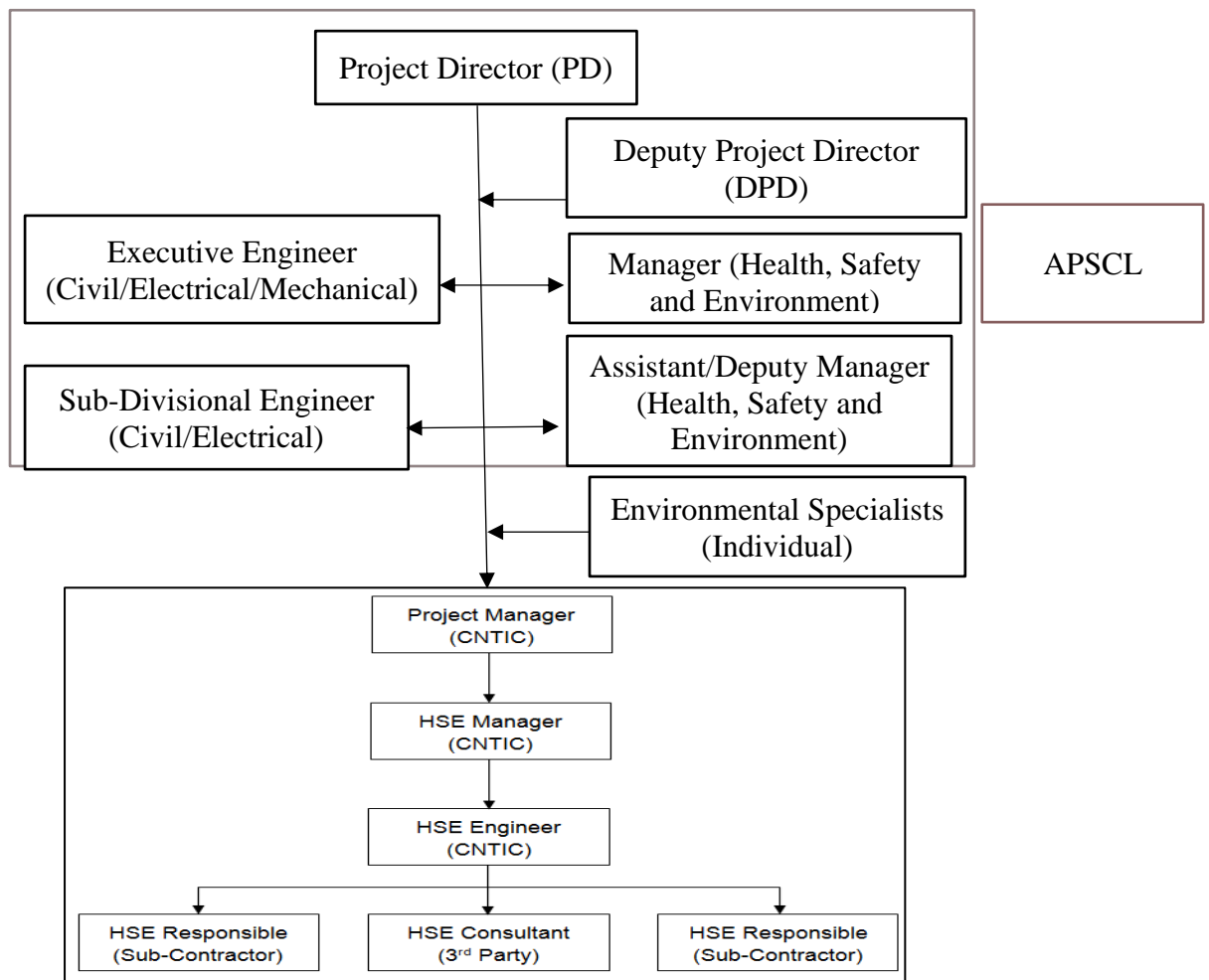


Figure 3: SEMB Organizational Structure

Table 2: Role & Responsibilities for SEMP Implementation

Role and Responsibilities	Key Staff Responsibilities
<p><u>Ashuganj Power Station Company Ltd - Project Implementation Unit (PMU):</u></p> <ul style="list-style-type: none"> ○ Overall responsibility for environmental Social safeguard performance of the Project during construction; ○ Decision-maker on applicable policies for the Project; ○ Oversight supervisory role during construction. ○ Review reports of the Independent Environmental Monitoring Consultant; ○ Approves changes to the SEMP, as necessary, as part of an adaptive approach to HSE and social management of the Project; ○ Responsible for working with stakeholders as required; ○ Establishing an HSE department to implement the SEMP requirements; ○ Management, implementation, monitoring and compliance of the SEMP, sub-contractors; ○ Review of SEMP performance and implementation of correction actions, or stop work procedures, in the event of breaches of SEMP conditions, that may lead to serious impacts on local communities, or affect the reputation of the Project; ○ Ensure effective 	<p><u>APSCL Project Director:</u></p> <ul style="list-style-type: none"> ○ Actively promote and participate in the Project HSE and social programs. ○ Ensure that the HSE and social programs reflect the requirements of the Project in terms of resources; ○ Ensure that all legislative and company requirements are complied with; ○ Ensure that the work scope is conducted in accordance with the Project HSE rules and regulations, work practices and procedures, as detailed in this SEMP and other associated documentation; ○ Ensure that all contractors are made aware of their roles and responsibilities with regard to HSE and social management; ○ Ensure that safety is an agenda item in every contractor meeting; ○ Ensure that all contractors are evaluated throughout the duration of the Project, as to their capabilities and performance; and ○ Ensure implementation of HSE and social audits and recommendations for addressing non-compliances/corrective actions. <p><u>APSCL HSE Department:</u></p> <ul style="list-style-type: none"> ○ Manage, review and develop the HSE program to ensure that it fulfills Project requirements, including measures observed in this SEMP, and monitoring the implementation of the SEMP; ○ Coordinate and evaluate the effectiveness of all program elements; ○ Liaison with related government bodies as necessary; ○ Manage the Project HSE and social team and supervise them to ensure that all areas of the project are given the required level of safety support and attention; ○ Ensure proper housekeeping and waste disposal in accordance with company requirements and

Role and Responsibilities	Key Staff Responsibilities
<p>communication and dissemination of the content and requirements of the SEMP to contractors and sub-contractors;</p> <ul style="list-style-type: none"> ○ Assisting the contractor with implementation of SEMP; ○ Ensuring compliance to all Project social commitments, ○ Report on environmental performance to DOE, the ADB, and other regulators as required; ○ Prepare environmental reports summarizing project activities, as required; ○ Representing the Project at community meetings ○ Ensuring effective community liaison and fulfilling commitments to facilitate public consultation throughout construction. 	<p>regulations;</p> <ul style="list-style-type: none"> ○ Ensure that the respective control areas are given the required level of safety support and attention; ○ Ensure that all HSE and social reports/findings of any unsafe conditions/practices are brought to attention and those are immediately corrected, and coordinate accident/incident investigations and report to the Project Director; and ○ Manage HSE and social audits and report the results to the Project Director.
<p><u>CNTIC</u></p> <ul style="list-style-type: none"> ○ Implementation of the SEMP; ○ Prepare and maintain records and all required reporting data as stipulated by the SEMP, for submission to APSCL. ○ Ensure that all construction personnel and sub-contractors are informed of the intent of the SEMP and are made aware of the required measures for environmental and social compliance and performance. 	<p><u>CNTIC HSE Department:</u></p> <ul style="list-style-type: none"> ○ Actively promote and implement all Project HSE and social plans related with the work they are performing; ○ Make sure that all activities under his/her responsibility shall follow all safety regulation/requirements, coordinating with APSCL's HSE Manager; ○ Ensure that committed resources (personnel, material, and equipment) used are consistent with achieving the objectives and requirements of Project HSE and social plans. <p><u>Construction Workers</u></p> <ul style="list-style-type: none"> ○ Familiarize themselves with the concept of the Project HSE and social rules and regulations; ○ Work in accordance with Project HSE procedures, safe work practices, and method statements, risk assessments, permits to work and any other instructions that apply to their works; ○ Use only tools/equipment and materials, which have

Role and Responsibilities	Key Staff Responsibilities
	<p>been approved for use, and employ them only for the purpose for which they were designed;</p> <ul style="list-style-type: none"> ○ Take an active part in the protection of themselves, fellow workers, property and the environment from accidental losses; ○ Immediately report to his respective supervisor or HSE officer/inspector if any potential hazards (relates to unsafe conditions and/or unsafe acts), which could lead to an accident, are found; ○ Report promptly to immediate supervisor and HSE officer/inspector if any incidents/near misses as well as injuries, regardless how minor; and ○ Shall attend Project safety training and drills programs as required.
<p><u>Supervising / Owners Engineer (OE):</u></p> <ul style="list-style-type: none"> ○ Assistance in preparation and implementation of the SEMP; ○ Reporting any incidents or non-compliance with the SEMP to APSCL. 	<p><u>OE Environmental and Social Safeguard Consultants:</u></p> <ul style="list-style-type: none"> ○ An OE local consultant and international consultant will report to APSCL and the ADB on compliance with the HSE and social commitments in the SEMP. ○ Preparation and implementation of the Environmental Supervision Plan during construction. ○ Preparation and implementation of the Environmental Monitoring Plan during construction ○ Supervision of contractor performance on implementation of the Construction and Work Camp Management Plan. ○ Reporting any incidents or non-compliance with the SEMP to the PMU. ○ Ensuring adequate training and education of all staff involved in environmental supervision. ○ Making recommendations to the APSCL (PMU) regarding SEMP performance as part of an overall commitment to continuous improvement.

Progress status on implementation of Social management during operational phase of the project is shown in Table 3

Table 3: Implementation of Social Monitoring Plan

SI No.	Issue	Key aspects	Monitoring Frequency	¹ Compliance status			Remarks/ Mitigation measures
				C	PC	NC	
1.	Site Security	Proper fencing, isolation of site from general access, marked passage for workers and visitors	Monthly	√			
2.	Personal Protective Equipment	Ensure every single person involved in the construction activity wear proper PPE	Monthly	√			
3.	Incident record & reporting	Documented record of all incident, accident, near misses etc. and its remedial process.	Monthly	√			
4.	Solid waste	Quantity of solid waste, segregation and disposal process	Monthly	√			
5.	Oily waste generation & disposal system	Quantity of oily waste, storage and disposal process	Monthly	√			
6.	Worker's health	Monitoring process of worker's health	Monthly	√			
7.	Complain from neighbours	Any significant complain from neighbours and its remedial procedure	Monthly	√			
8.	Safety orientation & training of workers	Frequency of training & orientation of workers for safety	Monthly	√			
9.	Sanitation & drinking water facility to workers	Availability of safe drinking water and sanitation to the workers	Monthly	√			
10.	Site Drainage	Maintaining proper drainage	Monthly	√			<ul style="list-style-type: none"> Should be kept it clean regularly.

C- Compliance, PC- Partially Compliance, NC- Non Compliance

3.0 COMPLIANCE OF SAFEGUARD COVENANTS FROM THE ADB LOAN AGREEMENT

3.1 SPS, 2009 compliance status

The status of the respective component sub-projects with regard to compliance status to ADB's policy statement (APS 2009) is shown in Table 4.

Table 4: ADB Safeguards Policy compliance Status for the Projects

ADB Safeguard Policy Statement	Status
Involuntary resettlement will be avoided whenever feasible.	Complied
Where population displacement is unavoidable, it should be minimized.	No displacement
All lost assets acquired or affected will be compensated. Compensation is based on the principle of replacement cost.	NA
Each involuntary resettlement is conceived and executed as part of a development project or program. Affected persons need to be provided with sufficient resources to re-establish their livelihoods and homes with time bound action in co-ordination with civil works.	NA
Affected persons are to be fully informed and closely consulted.	Complied
Affected persons are to be assisted to integrate economically and socially into host communities so that adverse impacts on the host communities are minimized and social harmony is promoted.	NA
The absence of a formal title to land is not a bar to ADB policy entitlements.	NA
Affected persons are to be identified and recorded as early as possible to establish their eligibility, through a census, which serves as a cut-off date, and prevents subsequent influx of encroachers.	NA
Particular attention will be paid to vulnerable groups including those without legal title to land or other assets; households headed by women; the elderly or disabled; and indigenous groups. Assistance must be provided to help them improve their socioeconomic status.	NA
The full resettlement costs will be included in the presentation of project costs and benefits.	NA

3.2 Compliance on the ADB loan agreement

Status of Compliance with the provisions of the ADB loan agreement are Shown in Table 5.

Table 5: Compliance with Environmental Considerations of Loan Agreements

Covenants	Reference	Compliance status
Environment		
The borrower shall ensure, or cause APSCL to ensure, that the preparation, design, construction implementation,	LA, Schedule 5, Para 2	a) All applicable laws and regulations of the Borrower relating to the environment,

<p>operation and decommissioning of the project and all project facilities comply with</p> <p>(a) All applicable laws and regulations of the Borrower relating to the environment, health, and safety;</p> <p>(b) The environmental safeguards;</p> <p>(c) The EARF; and</p> <p>(d) All measures and requirement set forth in the respective EIA, IEE and EMP, and any corrective or preventive actions set forth in a safeguards monitoring report</p>		<p>health, and safety were followed strictly in the project.</p> <p>b) The environmental safeguards and its related all safety measure were maintained in the project. Environmental Quality was monitored and report was submitted each month by EPC which was verified by an independent environmental Consultant to evaluate the environmental and social safeguard policy performance.</p> <p>c) The EARF is followed as per requirements.</p> <p>d) All measures and requirement set forth in the respective EIA, IEE and EMP, and any corrective or preventive actions set forth in a safeguard monitoring report is followed and maintained properly and updated time to time.</p>
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Land Acquisition and Involuntary Resettlement

<p>The borrower shall ensure, or cause APSCL to ensure, that all land and all rights-of-way required for the project, and all project facilities are made available to the works contractor in accordance with the schedule agrees under the related works contract and all land acquisition and resettlement activities are implemented in compliance with</p> <p>(a) all applicable laws and regulations of the borrower relating to land acquisition and involuntary resettlement;</p> <p>(b) the involuntary resettlement safeguards;</p> <p>(c) the RF; and</p> <p>(d) All measures and requirement set</p>	<p>LA, Schedule 5, Para 3</p>	<p>In the case of APSCL, this type of issues does not arise due to the project location. The project location is inside the premises of APSCL own land. So, There was no requirement of Land Acquisition and Involuntary Resettlement throughout the project period.</p>
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<p>forth in the respective RP, and any corrective or preventive actions set forth in a safeguards monitoring report.</p>		
<p>Safeguards – Related provisions in bidding documents and works contracts</p>		
<p>The borrower shall ensure, or cause each projects executing agency to ensure, that all bidding documents and contracts for works contain provisions that require the contractor to:</p> <ul style="list-style-type: none"> (a) Comply with the measures and requirements relevant to the contractor set forth in the EIA, IEE, the EMP, the RP and any small ethnic community peoples plan (to the extent they concern impacts on affected people during construction), and any corrective or preventive actions set out in a safeguards monitoring report; (b) Make available a budget for all such environmental and social measures; (c) Provide the borrower with a written notice of any unanticipated environmental, resettlement or small ethnic community people risks or impacts that arise during construction, implementation or operation of the project that were not considered in the EIA, the IEE, the EMP, the RP or any small ethnic community peoples plan; (d) Adequately record the condition of roads, agricultural and other infrastructure prior to starting to transport materials and construction; (e) Fully reinstate pathways, other local infrastructure, and 	<p>LA, Schedule 5, Para 7</p>	<ul style="list-style-type: none"> (a) APSCL complied with the measures and requirements relevant to the contractor set forth in the EIA, IEE, the EMP, the RP and any small ethnic community peoples plan (to the extent they concern impacts on affected people during construction), and any corrective or preventive actions set out in a safeguards monitoring report; (b) Proper budget was allocated for all such environmental and social measures. (c) APSCL followed that properly as per requirements and standard of ADB Social Safeguard Policy. (d) It was maintained as given guideline. (e) It was followed as per requirements.

<p>agricultural land to at least their pre-project condition upon the completion of construction.</p>		
<p>Safeguards- Monitoring and Reporting</p>		
<p>The borrower shall do the following or shall cause APSCL to do the following:</p> <ul style="list-style-type: none"> (a) Submit semiannual safeguards monitoring reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission; (b) If any unanticipated environmental and or social risks and impacts arise during construction, implementation or operation of the project that were not considered in the EIA, the IEE, the EMP or the RP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; (c) No later than the mobilization of the turnkey contractor for APSCL's power plant, engage qualified and experienced external experts or qualified non-governmental organizations under a selection process and terms of reference acceptable to ADB, to verify information produced through the project monitoring process, and facilitated the carrying out of any verification by such external experts; and (d) Report any actual or potential breach of compliance with the measures and requirements set forth in the EMP or the RP 	<p>LA, Schedule 5, Para 7</p>	<ul style="list-style-type: none"> a) The proper Safeguards monitoring already being carried out during pre-construction stage and is going on in construction and will be continued for post-construction phase or operation phase. b) It is followed as per the ADB guideline. c) One Environmental Expert is engaged already, and he is monitoring and giving valuable comments and feedback to APSCL. d) As per SEMP, we will follow the instruction.

promptly after becoming aware of the breach.		
Labor standards		
<p>The borrower shall ensure that all works contract documents to be prepared under the project incorporate provisions and budget to the effect that contractors</p> <ul style="list-style-type: none"> (a) Comply with all applicable labor laws and related international treaty obligations of the borrower and do not employ child labor as defined under Bangladesh law; (b) Provide safe working conditions for male and female workers; (c) Carry out HIV/ AIDS and human trafficking prevention and awareness campaigns in the campsites and corridors of influence; (d) Engage women worker as wage laborers depending on their skill; and (e) Provide equal wages for equal work between men and women 	LA, Schedule 5, Para 10	<ul style="list-style-type: none"> a) APSCCL complies exiting all labor laws and related international treaty obligations of the borrower and not engaged any child labor at the project site. b) APSCCL is committed to provide safe working condition both for male and female workers and follow up regularly. c) APSCCL arrange this type awareness program at the foundation training of the worker. d) The women were engaged on the basis of their skill and there was no discrimination between man and women in terms of wage of equal work. e) It was maintained strictly.

4.0 SAFEGUARD MONITORING RESULTS AND UNANTICIPATED IMPACTS

4.1 Dust Control & Plantation

Dust poses negative impact of air quality as well as health especially in dry season. To control the dust the project area was swept regularly and sprayed water if necessary (Figure 5) and stock materials were kept covered.

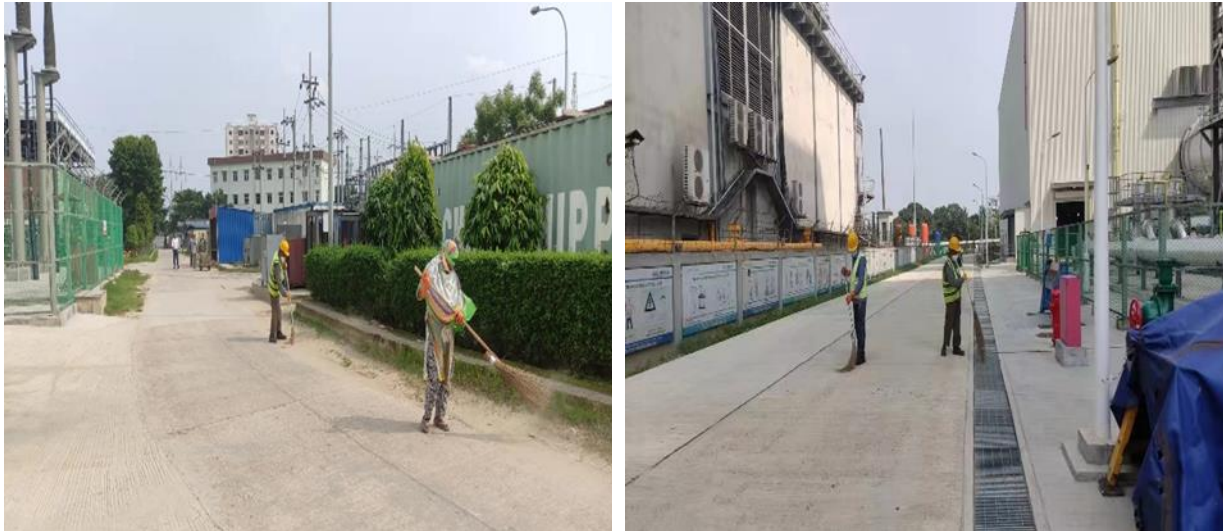


Figure 4: Dust Control in the Plant Area

However, the bared soil is covered with carpet grass and different species of plants are implanted (Figure 5) at different locations of the project site

Table 6: Details of tree planation program done in project site

Tree plantation plan (TPP) prepared (Yes/No)	No. of trees planned to cut	Trees planned to replant as per TPP	Trees removed (if any)	Types of species planted	Trees planted (as of Jun'23)	Plantation completion status	Survival status	Remarks
Yes	0	0	0	Mango	55 Nos	100%	100%	Regular nursing of the plants is going on under HS&E division. In this period no changes have
				Jackfruit	15 Nos			
				Neem	15 Nos			
				Kamini Flower	150 Nos			
				Krishnachura Flower	25 Nos			
				Palash Flower	3 Nos			
				Cherry	18 Nos			
				Panthopadop	2 Nos			
				Orchid	120 Nos			
				Baganbilash	35 Nos			
				Malotilota	8 Nos			

Tree plantation plan (TPP) prepared (Yes/No)	No. of trees planned to cut	Trees planned to replant as per TPP	Trees removed (if any)	Types of species planted	Trees planted (as of Jun'23)	Plantation completion status	Survival status	Remarks
				PaulowniaTomentosa	4 Nos			occurred.
				Candle Boxwood for edging	9000 Nos			
				Carpet Grass	On 5000 Sq. ft Land Area.			



Figure 5: Tree Plantation at the Plant Area

4.2 Site Security

The 400 MW CCPP (East) is situated inside the main power plant which is secured by plant boundary wall. Inside of it, site boundary fencing has isolated the plant site from other plants. Elevated platforms, walkways and ramps are installed and equipped with handrails, toe-plates, and non-slip surfaces. Proper safety related signboards and pictorial safety signs are given on site mentioning caution for area of fire, various types of hazards and general awareness prohibiting smoking inside the power plant. Signboards and pictorial safety signs are written in Bengali and English language.

There are two folding rotatable gates and control room at entrance of the plant site and another one is at back side of the plant area. The security of site is maintained properly by security person at South, North & West Side gate. chemical plant area, River side area, CW pump house area and Berge area. The location of three gates is shown in the map.



Figure 6: Present Boundary Wall Condition & Warning Signage at the Plant Site

4.3 Personal Protective Equipment

74. The working personnel involved in the construction activities has to be under the safeguard of personal protective equipment (PPE) properly. Everyone was instructed to use proper PPE strictly. Figure 7 shows that, the employees involved in operation were using applicable PPEs. A list of PPEs that are supplied are listed in Table 7.

Table 7: List of Personal Protective Equipment Used in Project Site

SI No.	Type of work	Personal Protective Equipment used in site
1.	Operation and Maintenance (During Hot work, Cold work, Confined space)	Safety Jacket, Safety Shoes, Safety Helmet, Welding Helmet, Grinding Helmet, Arc Flash Suit, Ear Muff/Ear Plug, Anti Gas Mask/Respiratory Protection and Hand Gloves.
2.	Welding (Hot work)	Welding Helmet, Safety shoes, Eye & Face protection, Welding Apron, Protective Apron, Hand Gloves, Ear Muff/Ear Plug, Anti Gas Mask/Respiratory protection etc.
3.	Scaffolding (Works at height)	Safety Jacket, Full body Safety Harness with fall arrestor, Safety Shoes, Safety Helmet, Eye & Face protection, Safety belt, Hand protection.
4.	Excavation	Safety Jacket, Safety Shoes, Gumboot, Safety Helmet, Confined Space Tripod with Life Liner, Respiratory protection and Hand Gloves.
5.	COVID-19	Mask, Non-sterile gloves, Soap, Hand Sanitizer etc.



Figure 7: Use of Proper PPEs during Works

4.4 Incident Record & Reporting

APSCCL authority has developed to monitor any incident, accident, near misses, first aid recording and reporting system with proper format. It is observed that the Incident Record & Reporting are being properly monitored and recorded in the register book. There was no accident in the reporting time. However, some first aid recording was found. If any incidental issue arises, immediately it has to be reported & recorded properly in the prescribed format as per form no. SF-OHS-24.

4.5 Waste & Hazardous Materials

76. Wastes were generated from maintenance and employee's daily activities at the project site. For waste management, dustbins of different color codes indicating different wastes are placed in different locations of the project site. All solid, liquid and non-hazardous, hazardous waste are disposed to the designated container at the plant site. The most common non-hazardous waste were paper, packaging material and air filter. Packaging material and air filter were mostly generated in every five months in average during air filter change in air intake of gas turbine. Paper and packaging materials were sold to the local market for recycle. Air Filters were sold to 3rd party as per applicable rule. Other hazardous material like oily rags are not generated in significant amount till now. All kinds of solid wastes are disposed to APSCCL's scrap yard for proper management. The saleable or recyclable solid wastes were handed over to proper party for recycling. Liquid hazardous waste was conserved in sealed and labelled container and was properly cleaned of the storage area. Hazardous waste was kept at designated places by labelling. But in fact, being a new plant till now significant amount of hazardous waste is not generated from this plant. Generated wastes are disposed at the designated dumping site (Figure 8) in front of Unit-5 of APSCCL. Waste inventory was properly maintained and Table 8 describes the amount of waste generated according to their character during the reporting time.

Table 8: Waste Inventory Log (From January to June 2023)

SI	Wastage Name	Wastage Classification	Wastage Type	Source of wastage	Wastage storage area	Storage quantity (No/ Kg/ Vol)
1	Paper/ Cartons	Non-Hazardous	Solid	Plant Site	On site	12.5 kgs
2	Timber/ Wood Scraps	Non-Hazardous	Solid	Plant Site	On site	5.5 kgs
3	Steel/ Metal Scraps	Non-Hazardous	Solid	Plant Site	On site	10.5 kgs
4	Glass	Non-Hazardous	Solid	Plant Site	On site	6 kgs
5	Plastic	Non-Hazardous	Solid	Plant Site	On site	5 kgs
6	Welding Electrodes & Grinding Disc	Non-Hazardous	Solid	Plant Site	On site	19 pcs
7	Insulation Materials	Non-Hazardous	Solid	Plant Site	On site	11.5 kgs
8	Electrical Cables/ Wires Fuses & Contactors	Non-Hazardous	Solid	Plant Site	On site	12 kgs
9	Packing Materials	Non-Hazardous	Solid	Plant Site	On site	15.5 kgs
10	Air Filters	Non-Hazardous	Solid	Plant Site	On site	570
11	Spent/ Used Oils & Grease	Hazardous	Liquid	Plant Site	On site	5 Lit
12	Oily rags, oil sorbents excluding Lube oil flushes	Hazardous	Solid/Liquid	Plant Site	On site	9.5 kgs
13	Fluorescent Light Tubes & Light Bulbs	Hazardous	Solid	Plant Site	On site	11 pcs



Figure 8: Waste Disposal Site at APSCCL

4.6 Employee's Health and COVID Response

APSCCL has own medical centre with full time doctors and nurses. So, employees get treatment here. Beside this annual health check-up program is a common practice here. There are two ambulances for emergency service in the plant area to support any emergency medical aid and shifting to the hospital/medical centre. First aid facilities are available at plant site. Furnished First-Aid Box is provided from plant medical centre.

First Aid Box is furnished with medicine list that are-

- Adhesive Tape
- Face Mask
- Hand Gloves
- Hand Sanitizer
- Adhesive Bandages (Band-Aids) in several sizes
- Elastic Bandage
- Splint
- Antiseptic Wipes
- Antibiotic Ointment
- Antiseptic Solution (Like Hydrogen Peroxide/Viodin)
- Savlon Cream
- Tweezers
- Sharp Scissors
- Nebanol Powder
- Alcohol Wipes Or Ethyl Alcohol
- Thermometer
- OR Saline

APSCL and this plant follows COVID-19 guidelines of Directorate of Health, Bangladesh. Beside this APSCL has it's own COVID-19 response guidelines that is followed. Generally, it is always ensured that all of the employees are vaccinated.



Figure 9: On-site Ambulance and furnished First Aid box.

4.7 Sanitation & Drinking Water Facility

Treated river water is being supplied through the arrangement of piping network in the plant site and this water is available to the employees for the washing and toilet facilities purpose. Pure drinking water is provided to all employees of the plant by robust purification system with reverse osmosis and UV with ambient and cold-water system at various locations in adequate numbers. Adequate toilets for male and female employees are constructed and cleaned every day as required.



Figure 10: Pure Drinking Water & Sanitation facility to workers

4.8 Grievance Redress Mechanism and Status

Grievance Redress Mechanism (GRM) allows project affected persons not to lose time and resources from going through lengthy administrative and legal procedures. During the operational phase of the project, the complaints that may be anticipated are mostly related to noise & vibration of the engines. However, unforeseen issues may occur. To settle such issues effectively, an effective and transparent channel for lodging complaints and grievances is established. For ensuring proper implementation of GRM, APSCL has set-up a grievance redress committee (GRC) shown in table 9 that will address any complaints during operational period of this project. But yet no grievance is recorded.

The representation in the committee makes project affected persons to have trust and build confidence in the system. The grievance redress committee reports its plan and activities to the Implementation committee. The following list presents members of the committee a figure 11 represents the step wise procedure of GRM.

GRC will maintain a Complaints Database, which will contain all the information on complaints or grievances received from the communities or other stakeholders. This would include: the type of complaint, location, time, actions to address these complaints, and final outcome.

The procedures to be followed and adopted by the grievance redress should be transparent and simple to understand or uniform process for registering complaints provide project affected persons with free access to the procedures. The response time between activating the procedure and reaching a resolution should be as short as possible. An effective monitoring system will inform project management about the frequency and nature of grievances. GRC will arrange half yearly meetings where the activities and the outcomes/measures taken according to the Complaints Database are to be monitored and reviewed to ensure the required transparency. In addition to the above, if there are any grievances related to environmental management issues in the project area, the GRC will record these grievances and suggestions and pass it on to the relevant personnel for necessary action and follow-up.

GRC will be responsible to response for the grievances within a time limit. The initial movement to identify the causes should be taken within 48 hours. The GRC will not take more than two weeks to take the final initiative.

In case a dispute is not resolved by arbitrational tribunal, then if any of the Party disagrees, the aggrieved party has the right to appeal to the ordinary courts of law. However, the preferred option of dispute settlement ought to be the option of settling the dispute amicably because recourse to courts may take a very long-time even years before a final decision is made and therefore, should not be the preferred option for both parties.

Beside this as per Labor Law 2018 and Clause no 81 of Labor Rules 2015, APSCL has an active ‘Safety Committee’ to address and solve the internal grievance regarding Health, Safety and Environmental issues. APSCL has established and published ‘Citizen’s Charter’ System to address any grievance related to it and to rectify the problem rapidly by proper system. The web link of this is: https://apscl.portal.gov.bd/site/view/citizen_charter/.

APSCL has also online Grievance Redress System. The useful links of these are: <http://apscl.gov.bd/site/page/929f626c-752c-4724-9680-845d0414883f/Process-Map> & <http://www.grs.gov.bd/>.

If anybody is affected by this 400 MW CCPP (East) project activities of APSCL can give complain here. However, no grievance was recorded regarding this project.

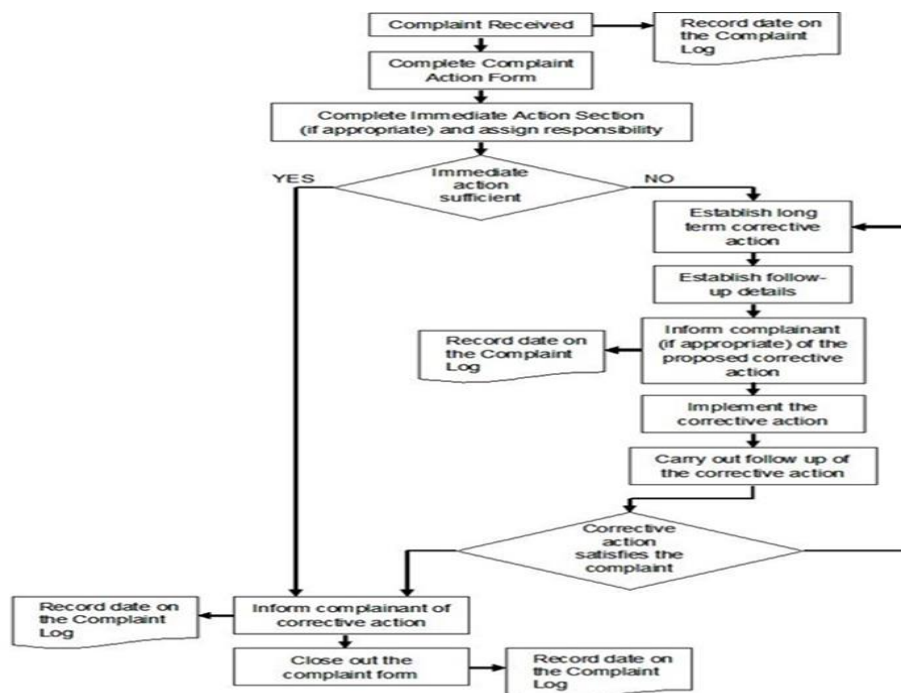


Figure 11: Flowchart of Complain/Grievance Procedure

Table 9: Members of the Committee of Grievance Redress (GRC)

SI No	Designation
1.	Project Director (Chief Engineer), Ashuganj 400 MW East Project
2.	Chief Engineer (O&M), APSCL.
3.	Manager (HRM), APSCL.
4.	Manager (HS&E), APSCL.
5.	Deputy Manager (Security & Discipline), APSCL.
6.	Assistant Manager (Security & Discipline), APSCL.
7.	Chairman, Ashuganj Union Parishad, Member.

4.9 Safety Assurance of the Project Site

Use of proper safety materials is mandatory for all at the project site. Employees and workers use appropriate PPE, such as safety boots, helmet, safety jacket, safety belt, safety harness, gloves, protective clothing, goggles, grinding shield, welding shield, anti-dust mask, anti-gas mask and ear protection etc. Daily workplace inspection was done regularly by HSE personals of APSCL. The observations found during site visit were informed immediately for taking action to resolve it. Safe entry into confined space and height work procedure was strictly maintained. Good housekeeping practice was maintained to ensure walkway and working areas were free from any kind of hazards. Firefighting appliances were placed at different locations of the project site to make them available an accessible during emergencies. These were checked regularly to ensure that that were operable. Compressed gas cylinders were stored and handled with proper care. Total 10 HSE observations were found regarding housekeeping, use of PPE, waste management, dust control, soil transfer and so on that was resolved immediately. Furthermore, 5 first aid cases took place with no loss time. Total safe man hour was 254800 in the reporting time and.

Training is essential to maintain the employees' health and safety at construction site. Both theoretical and practical training was arranged regularly for the employees especially on the identification of hazards of workplace and their mitigation measure, safe use of personal protective equipment (PPE), COVID awareness, procedure of hot work and confined space entry, safe handling and storage of pressure gas cylinder. Daily toolbox meeting is mandatory before any execution of work. Tool box meeting is done section wisely to limit the mass contact. During site visit HSE personals from both APSCL and EPC regularly consulted with the worker to improve safety of workplace.

To improve the environmental, health & safety performance, monthly safety meeting was conducted each month. A summary of HSE management and monitoring is illustrated in Table 10.

Table 10: Summary of HSE Management

Areas to improve:		Housekeeping all area, Proper Safety, Housekeeping, Confined Space entry, toolbox, Use of PPE, Incident reporting	
SI	Description	From January-June 2023	Remarks/Corrective Action
1	Total Man-hour	254800	
2	Safe man hours	254800	
3	Fatal Accidents	0	
4	Lost Time Injury (LTI)	0	
5	Medical Treatment (MT)	0	
6	First Aid Cases (FAC)	5	Root cause analysis was done.
7	Health Incidents	0	
8	Property Damage (PD)	0	
9	Fire/Explosion	0	
10	Security Incident	0	
11	Near Miss	0	
12	Minor Injury	1	Root cause analysis was done.
13	Environment (EN)	0	
14	Job Transfer days	0	
15	Total Days Lost	0	
16	Tool Box Talks	12	Continued.
17	Grievance	0	
18	Safety Observations (SOC)	10	Root Cause analysis were done with awareness buildup and toolbox talks. Works were conducted following as per operational manual or SOP.

5.0 CONCLUSION AND RECOMMENDATION


The social safeguard monitoring report consists of 15th Semiannually social monitoring reporting based on identified parameters in ESIA during construction phase. But till now no grievance is recorded for the project construction activities. There is no land acquisition and resettlement issue for this project because it is establishing inside the APSCL's existing plant premises replacing old one combined cycle power plant. Development of the site for this project has positive impact on livelihoods of local people. No issues are triggered under ADB safeguard policy and no population will be impacted by the project at this site. So, no negative impact was found on the socio-environment due to this project. During construction activities all the mitigation measures will be taken following ADB Safeguard Policy 2009, IFC/World Bank Thermal Power Plant Guideline 2008 and 2017 and DoE, Bangladesh guideline and suggestive and recommended measures in the EIA.

During the Visual monitoring on Dust Control, Site Security, Personal Protective Equipment, Incident Record & Reporting, Solid Waste, Oily Waste Generation & Disposal System, Employees Health, Safety Orientation & Training of Workers, Sanitation & Drinking Water facility to employees, Site Drainage all are properly managed for January-June, 2023. Most of the records are being maintained in the Project site.

Supply of pure mineralized drinking water is ensured for all by HS&E division of APSCL in the plant area by enough high-quality Drinking water purifier & Dispenser at suitable locations that are visible to all.

Housekeeping is also in good condition at the plant site. All solid, liquid, and hazardous waste are disposed of the designated container at the plant site and managed properly. Most of the solid wastes are disposed of by landfill. The usable solid wastes are handed over to proper party for recycling.

To recapitulate, the project has no detrimental impact on the social safeguard during the period from January to June 2023.


24.07.2023
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