

Environmental and Social Monitoring Report

Semestral Report
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India: Assam Power Sector Enhancement Investment Program – Tranche 4

Prepared by the Assam Power Distribution Company Limited for the Asian Development Bank

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Abbreviation

ADB	Asian Development Bank
AEGCL	Assam Electricity Grid Corporation Ltd.
AP	Affected People
APSEIP	Assam Power Sector Enhancement Investment Program
ASEB	Assam State Electricity Board
D.C.	District Collector
EA	Executing Agency
ESMU	Environmental and Social Management Unit
GHG	Green House Gas
GOA	Government Of Assam
GOI	Government Of India
GRC	Grievance Redressal Mechanism
IA	Implementing Agency
IEE	Initial Environmental Examination
Ltd.	Limited
LAA	Land Acquisition Act
LAO	Land Acquisition Officer
MFF	Multi-Tranche Financing Facility
PAP	Project Affected Persons
PMU	Project Management Unit
ROW	Right of Way
RF	Resettlement Framework
RP	Resettlement Plan
RPD	Resettlement Planning Document
S/S	Sub Station
SEIA	Summary Environmental Impact Assessment
SIEE	Summary Initial Environmental Examination
SRPD	Short Resettlement Planning Document
T&D	Transmission and Distribution
T/L	Transmission Line
T & T	Transmission and Transformation

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Executive Summary (ES)

ES 1.0 Introduction

Assam Power Sector Enhancement Investment Program (The Program) is being funded under Multi-Tranche Financing Facility (MFF) lending approach of Asian Development Bank (ADB). Under this MFF, three tranches has been funded and are currently in implementation stage. The 'Periodic Financing Request' (Tranche 4) submitted by GoA was approved by ADB on July 7, 2014 and considered extension of the MFF availability period from 30 June 2015 up to 31 October 2019. The 'Project Agreement' and 'Loan Agreement' were signed on February 20, 2015. The Tranche-4 will contribute in achieving of MFF objectives.

ES 1.1 Scope of Report

The report capture implementations status of environmental and social safeguard for the period of January-June, 2015.

ES 1.2 Brief Project Description

The Tranche-4 will have two major outputs: (i) enhanced capacity of distribution system; and (ii) improved technology of operation and maintenance (O&M) systems. The details of sub-projects is provided at Annexure 1. Assam Power Distribution Company Limited (APDCL), Government of Assam is the executing agency (EA) and will be supported by its field units i.e. implementing agency for monitor implementation of sub-project under this tranche.

ES 2 Project Status

ES 2.1 Project Implementation

The various sub-projects have been bundled into two contract packages i.e. Package-1 and Package-2. The procurement process of contracting agency is in progress for both the packages. The evaluation and shortlisting of contracting agency has been completed for package 1 and the signing of contract is likely to be completed by July, 2015.

ES 2.2 Consultancy Services to support ESMU in PMU

The procurement of consultancy services for technical support has been completed. The evaluation of financial proposal and negotiation is in progress for engaging individual national safeguard consultant.

ES 3.0 ADB Safeguards Policy

ADB affirms that environmental and social sustainability is a cornerstone of economic growth and poverty reduction in Asia and Asia Pacific region. The EA is abide by ADB's safeguards policy and its compliance in the project.

ES 3.1 Project Safeguard Review

The Resettlement Plan prepared (August, 2014) for the project has envisaged social impacts due to acquisition of 4.68 Ha of land for 20 sub-stations construction. Private land acquisition for 6 sub-stations will economically displace 6 households. In addition, damages to crop due to poles erection and stringing of distribution line is also recorded.

IEE prepared for project has categorised the project as Category 'B' with less significant impacts on environment. The report also recorded 7 sub-stations location coming within 10 km radius from environmentally sensitive areas and doesn't involve diversion of forest land is involved for sub-stations. However, caution to obtain to obtain permission from local forest officer for tree cutting/pruning during

stringing of distribution line and compliance to various the nation and state's environmental regulations during various stages of project implementation.

ES 3.2 Safeguards Implementation Status

Social Safeguard

The process for purchasing private land transfer of government land identified for construction of 20 sub-stations are in progress. Mutual negotiation process is ongoing with three individual owners. In case of government land, implementing agency is coordinating with concerned government department.

For distribution line, land is not required for pole erection. The impacts on crop, trees, structures, livelihoods etc. due to stringing of distribution line will be assessed during RoW verification. According, entitlement will be identified and compensated.

Environmental Safeguard

The needs for obtaining permission under various environmental regulation is being assessed. The need for EC though not envisaged, but will be confirmed once building design for control room and office are finalised. In case of seven sub-stations coming with 10km radius from boundary of environmentally sensitive areas, the need for wildlife clearance will be assessed in consultation with concerned wildlife department. Forest land diversion is not involved for sub-stations, hence FC will not be required. But, permission for tree cutting/pruning during stringing of distribution line will be ensure as and when needs arises.

The civil works has not started and compliance to EMP measures will be reported once works starts at site. The environmental monitoring as needed is EMP is yet to start.

ES 4.0 Grievance Redress Mechanism

Grievance Redress Committee is still to be established and will be initiated for Tranche-4 in line with does existing GRC established for Tranche 3.

ES 5.0 Consultation and Disclosure

The implementing agency is interacting and informing about the project to the local peoples of the villages during site identification of sub-stations land. All documents prepared for the project are disclosed in website of APDCL.

ES 6.0 Compliance to Loan Agreement

The safeguard covenants compliance will be ensured once works at site starts.

ES 7.0 Project Implementation Schedule

Currently, emphasise is on taking over of possession of land for sub-stations. The detailed implementation schedule will be submitted from next bi-annual report.

ES 8.0 Conclusion

Environmental and Social Safeguards are integral part of the 'Loan Agreement' and EA is abide by and to ensure compliance with conditions in the covenant. All environmental and social safeguards activities are in various stages of advancement and will further ensure project has minimum environment and social impacts.

1.0 Introduction

Assam Power Sector Enhancement Investment Program (The Program) is being funded under Multi-Tranche Financing Facility (MFF) lending approach of Asian Development Bank (ADB). The Program is an endeavour to conduct low carbon power sector development, among others, through (i) reducing technical loss and enhancing physical capacity of transmission and distribution network, and (ii) promoting Demand Side Management (DSM) in tandem with increase of power generation capacities mainly by other agencies. Assam Power Distribution Company Limited (APDCL) will be the Executing Agency (EA) for the MFF. Government of Assam (GoA) through Government of India (GOI) has requested the Asian Development Bank (ADB) for an MFF to partly fund the power sector investment program in the state of Assam and the same was approved and the loan is under implementation. The investment program covers physical investments in transmission, distribution, energy efficiency, and non-physical investments in management information system. The investments to be supported by ADB will (i) improve quality and reliability of power; (ii) remove transmission bottlenecks; (iii) facilitate in state and interregional power transfers; (iv) facilitate a reduction in overall system losses; (v) improve energy efficiency, capitalize related carbon market opportunities; and (vi) improve utility operational and financial performance. The proposed program will sustain the reform agenda established with earlier ADB support, and is expected to help to attract other long-term financiers to the sector.

Three tranches under ‘the Program’ are in implementation stage. Due to competitive bidding process and the depreciation of the Indian currency against the US Dollar resulted in loan savings of \$50.2 million under the MFF from three tranches. These savings were realized while the committed outputs of the MFF being delivered. Subsequent to realization of these savings, APDCL and GOA requested ADB to consider financing a supplementary tranche under the ongoing MFF. The ‘Periodic Financing Request’ (Tranche 4) submitted by GoA was approved by ADB on July 7, 2014 and considered extension of the MFF availability period from 30 June 2015 up to 31 October 2019. The ‘Project Agreement’ and ‘Loan Agreement’ were signed on February 20, 2015.

1.1 Project Description

As part of Assam Power Sector Enhancement Investment Programme, the Tranche-4 will have two major outputs: (i) enhanced capacity of distribution system; and (ii) improved technology of operation and maintenance (O&M) systems. The various sub-projects identified under Tranche-4 are in Annexure 1. The Loan Agreement of Tranche 4 was signed on February 20, 2015 and the loan closing date is June 30, 2019. Assam Power Distribution Company Limited (APDCL) is the executing agency for the Assam Power Sector Enhancement Investment Program (APSEIP), Tranche-4. The field units of APDCL i.e. implementing agency, will provide the support and monitor implementation of sub-project under this tranche. Please note that the APSEIP Tranche-4 is hereinafter and throughout this Report, referred to as the ‘Project’.

1.2 Scope of Report

This bi-annual environmental and social safeguard monitoring report is for the period of January-June, 2015. The report provide an overview and status of environmental and social safeguards activities implementation progress during this reporting period.

2.0 Project Status

2.1 Status of Project Implementation

Under tranche 4, various sub-projects have been bundled into two contract packages i.e. Package-1 and Package-2. The procurement process of contracting agency is ongoing for both the packages. The evaluation and shortlisting of contracting agency has been completed for package 1 and the signing of contract is likely to be completed by July, 2015.

2.2 Consultancy Services to support PMU

In accordance to concurrence received from ADB, the procurement of consultancy services for technical support has been completed. Considering the limitation of human resources with expertise in safeguard implementation within APDCL, the already engaged individual national consultant in Tranche 1 has been requested to submit their financial proposal. The evaluation of financial proposal and negotiation is likely to be completed by June, 2015.

3.0 ADB Safeguards Policy

ADB affirms that environmental and social sustainability is a cornerstone of economic growth and poverty reduction in Asia and Asia Pacific region. ADB's Strategy 2020 therefore emphasizes assisting DMCs to pursue environmentally sustainable and inclusive economic growth. In addition, ADB is committed to ensuring the social and environmental sustainability of the projects it supports. In this context, the goal of the ADB's SPS, 2009 is to promote the sustainability of project outcomes by protecting the environment and people from projects' potential adverse impacts.

The objectives of ADB's safeguard policy is to:

- i. Avoid adverse impacts of projects on the environment and affected people, where possible;
- ii. Minimize, mitigate, and/or compensate for adverse project impacts on the environment and affected people when avoidance is not possible; and
- iii. Help borrowers/clients to strengthen their safeguard systems and develop the capacity to manage environmental and social risks

3.1 Project Safeguard Review

3.1.1 Social Safeguard

As per the Resettlement Plan prepared (August, 2014) for the project has envisaged social impacts due to acquisition of land for sub-stations construction and damages to crop due to poles erection and stringing of distribution line. The RP has indicated that of the total 20 substations (Table 1.0), 6 substations are proposed on private land belong to various individual owner/household, 9 sub-stations are proposed on tea estate land and 5 sub-stations are proposed on government land. The private land which are owned by individual owner will be acquired through mutual negotiation. The RP has also indicated that the construction schedule for construction of distribution line will be done during the off season, thereby minimising crop damages.

Table 1.0: Details on Land Requirements and Ownership for 33/11 kV Substation
(as per RP, August 2014)

SI No	Sub-project (33/11 kV substation)	Area (Ha)	Ownership	Name of the Owner
1	33/11kV Bindukuri	0.2	Tea Estate Land	Tezpur & Ghara TE
2	33/11kV Borjuli	0.134	Government Land	Not Applicable
3	33/11kV Bedeti	0.3	Tea Estate Land	Bihali TE
4	33/11kV Singri	0.268	Government Land	Not Applicable
5	33/11kV Rakhyshhari	0.268	Government Land	Not Applicable
6	33/11kV Borsola	0.268	Government Land	Not Applicable
7	33/11kV Baghjan	0.268	Tea Estate Land	Baghjan TE
8	33/11kV Gangabari	0.45	Private Land	Md. Samad Ali
9	33/11kV Mahakali	0.134	Private Land	Chandradhar Malakar
10	33/11kV Dholla	0.268	Tea Estate Land	Dholla TE
11	33/11kV Gelapukhuri	0.134	Private Land	Mr. Mrinal Dohutia
12	33/11kV Philobari	0.268	Tea Estate Land	Philobari TE
13	33/11kV Pawoi	0.132	Tea Estate Land	Pawoi TE
14	33/11kV Borhat	0.162	Government Land	APDCL
15	33/11 kV Napuk	0.159	Private Land	Md. Asfik Ali
16	33/11kV Gharamara	0.201	Private Land	Naresh Chandra Dev
17	33/11 kV Namsung	0.201	Private Land	Jagat Ray Ghatwar
18	33/11kV Radhabari	0.258	Tea Estate Land	Radhabari TE
19	33/11kV Nahorbari	0.408	Tea Estate Land	Naharbari TE
20	33/11kV Dayang	0.194	Tea Estate Land	Dayang TE

Source: Resettlement Plan Document (August 2014), Prepared by: APDCL, GoA

As per the Resettlement planning documents, the land requirements for the proposed new 33/11kV sub-station will require a total of 4.68 Ha. The construction of six sub-stations is likely to need for acquisition of 1.28 ha of private land thereby economically displacing six households. No non-titleholders were identified and impacts on any structures or buildings is not recorded at sub-station location area.

Table 2: Summary of Impacts

SI No	Impacts	Unit	Quantity
			RP (August, 2014) of Tranche – 4
1	Land area Requirement		
a	Total area of agriculture private land	Ha	1.28
b	Total area of Tea Garden private land	Ha	2.30
c	Total area of Community land	Ha	-
d	Total area of government land	Ha	1.10
e	Total Land Area Requirements	Ha	4.68
2	Total number of economically displaced family	No.	6
3	Total number of vulnerable households	No.	1

3.1.2 Environmental Safeguard

A review of IEE has categorised the project as Category 'B' as per ADB's SPS 2009. In addition, some of the key environmental safeguard related matter reported in the IEE includes of:

- The project needs to comply with the requirements provided for by the GoI acts, rules, notifications, standards, and policies and other state level guidelines that apply to the project.
- Land requirement identified for 20 sub-stations but do not require land for laying of distribution line;
- Identified 7 sub-stations whose location (Table 3) is within 10km radius from boundary of environmentally sensitive areas¹;
- No sub-station locations are on forest land;
- Forests areas and thick vegetation areas are avoided wherever possible;
- The distribution lines will also pass through degraded forest areas but avoided any national park or sanctuary, wetlands and geologically unstable areas, which can also pose foundation related problems;
- No endangered or protected species of flora or fauna are reported at the sub-project sites. Adequate provisions have been made for the environmental mitigation and monitoring of predicted impacts, along with their associated costs. Adverse impacts if noticed during implementation will be mitigated using appropriate design and management measures.
- Construction activities will cause minimal environmental impacts which are temporary in nature. The EMP and the EMoP have been prepared for the project and responsibilities for implementation assigned. The anticipated environmental impacts can be easily mitigated through implementation of EMP.

Table 3: Details of National Parks in Assam and distances from Sub-stations
(as per IEE, August 2014)

SNo	Name	Notability	Electrical Circle	Substation	Approximate Distance of village from boundary of National Park/Protected Area (in km)
1	Dibru-Saikhowa		Tinsukia	Baghjan	10
			Tinsukia	Gangwari	16
			Tinsukia	Mahakali	27
			Tinsukia	Dholla	8
			Tinsukia	Gelapukhuri	10
			Tinsukia	Philobari	8
			Tinsukia	Pawoi	50
			ShivaSagar	Borhat	100
			ShivaSagar	Napuk	100
			Dibrugarh	Gharamara	50
			Dibrugarh	Namsung	50
2	Kaziranga	Indian rhinoceros, UNESCO World	Golaghat	Radhabari	55
			Golaghat	Nahorbari	51
			Golaghat	Doyang	70
3	Manas	UNESCO World Heritage Site			
4	Nameri	Tiger project	Sontipur	Bindukuri	66 km
5	Orang	Bird Sanctuary	Sontipur	Borjuli	40 km

¹ Environmentally-sensitive areas include National Parks, Wildlife Sanctuaries, Bio-reserve zones, Eco Sensitive Zones, or wetlands as declared by GoI and areas declared as heritage sites. Environment and wildlife Department's approval is required for right-of-way and sites located in reserved forests, wildlife preserves, national parks, and other designated sensitive areas.

SNo	Name	Notability	Electrical Circle	Substation	Approximate Distance of village from boundary of National Park/Protected Area (in km)
			Sontipur	Bedeti	8 km
			Sontipur	Singri	10 km
			Sontipur	Rakhysmari	10 km
			Sontipur	Borsola	40 km

Source: IEE Report (August 2014), Prepared by: APDCL, GoA

Policy, Legal, And Administrative Framework

The IEE reports has detailed out various environmental regulations (Table 4) that are applicable and whose compliance needs to be ensured during project implementation.

Table 4: Indian Regulations Applicable for Power Sector projects

Sl. No.	Name of Regulation	Applicability
ENVIRONMENTAL REGULATIONS		
1	National Green Tribunal Act, 2010	Yes
2	The Environment (Protection) Act; 1986 and Environment (Protection) Rules 1986 and amendments	Yes
3	EIA Notification 2006 - Environmental Clearance and Public Consultation	Yes
4	Environmental Statement as per Rule 14 to the Environment (Protection) Rules, 1992	Yes
5	The Hazardous Waste (Management, Handling and Trans-boundary Movements) rules, 2008	Yes
6	Batteries (Management and Handling) Rules, 2001 and further amendments	Yes
7	Ozone Depleting Substances (Regulation) Rules, 2000 as amended in 2005	No
8	Forests (Conservation) Act, 1980 and Rules 1981	Yes
9	The Wildlife (Protection) Act, 1972	Yes
10	The Biodiversity Act, 2002	Yes
11	The Air (Prevention and Control of Pollution) Act, 1981 Including Rules 1982 and 1983	Yes
12	Noise Pollution (Regulation and Control) Rules, 2000 and the Noise Pollution (Regulation and Control) (Amendment) Rules, 2010	Yes
13	The Water (Prevention and Control of Pollution), Act, 1974 including Rules, 1975 (as amended up to 1988)	Yes
14	The Water (Prevention and Control of Pollution), Cess Act, 1977 including Rules 1978 and 1991	Yes
15	The Indian Forest Act 1927	Yes
16	The National Environmental Appellate Authority Act, 1997	Yes
17	The Bio-medical Waste (Management and Handling) Rules, 1998	Yes
SOCIAL REGULATIONS (REGULATIONS RELATED TO LAND AND LABOUR)		
1	The Land Acquisition Act, 1894 and 1984 amendments	Yes
2	The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 & rules 2007	Yes
3	The Provision of the Panchayats (Extension to the Scheduled Areas) Act, 1996	Yes
4	The Indian Telegraph Act, 1885	No
5	Indian Treasure Trove Act, 1878 (as modified upto September 1949)	Yes
6	The Antiquities and Art Treasures Act, 1972	Yes
7	The Child Labour (Prohibition and Regulation) Act, 1986	Yes
8	The Bonded Labour (Abolition) Act 1976	Yes
9	The Trade Union Act, 1926	No
10	Minimum Wages Act, 1948	Yes
11	Workmen's Compensation Act, 1923	Yes
12	The Contract Labour (Regulation & Abolition) Act, 1970 and Rules	Yes
13	The E.P.F. and Miscellaneous Provisions act, 1952	Yes
14	Factories Act 1948	Maybe
15	ESI Act, 1948 (Employees State Insurance Act, 1948)	Yes
16	Payment of Gratuity Act, 1972	Yes
17	Employers' Liability Act No. 24 of 1938	Yes
18	Building and Other Construction Workers Act 1996	Yes
19	Interstate Migrant Workers Act 1979	Yes
20	State Specific Shops and Establishment Act	Yes

Sl. No.	Name of Regulation	Applicability
OCCUPATIONAL HEALTH AND SAFETY		
1	The Indian Factories Act, 1948 and State Rules	May be
2	The Shops and Establishment Act and State Rules	Yes
3	The Petroleum Act, 1934 and the Petroleum Rules	Yes
4	Gas Cylinder Rules and Static and Mobile Pressure Vessels (Unfired) Rules, 1981	Yes
5	Central Electricity Authority (Safety Requirements for Operation, Construction and Maintenance of Electric Plants and Electrical Lines) Regulations 2008	Yes
6	CGWA Notification No.21-4/ Guidelines/ CGWA/ 2009-832 dated 14th October 2009	Yes
7	Indian Electricity Act	Yes

Apart from above listed national environmental regulations, the regulation of the Government of Assam that are relevant include:

- a. Assam Ancient Monuments and Records Act, 1959.
- b. Assam Forest Regulation, 1891 (Assam Regulation 7 of 1891) as applied vide Meghalaya Forest Regulation (Application & Amendment) Act, 1973 (Meghalaya Act 9 of 1973).
- c. Assam National Park Act, 1968.
- d. Assam Land and Revenue Regulation, 1886.
- e. Assam Irrigation Act, 1983.
- f. Assam Fishery Rules, 1953.
- g. Assam Forest Policy, 2004.
- h. Assam Government's Guidelines for Compensatory Afforestation, 2000.
- i. Assam Panchayat Act, 1994.
- j. Assam Khadi and Village Industries Board Act, 1955.
- k. Assam Forest Protection Force Act 1986.
- l. Assam Cooperative Agriculture and Rural Development Act 1960.

3.2 Safeguards Implementation Status

3.2.1 Social Safeguard Activities

The site for construction of 20 sub-stations has been identified and process has been initiated to acquire private land and transfer of government land. Mutual negotiation process is ongoing with three private land owners and is yet to start in case of three private land. The concern implementing agency is coordinating with concerned government department and revenue department for transferring and taking possession of government land. While for the distribution line, safeguard activities will start after the mobilisation of the contracting agency.

3.2.2 Environmental Safeguard Activities

- a. Policy, Legal, And Administrative Framework

In context of project, the status of various environmental regulation relevant during the pre-construction has been described below.

- i. Forests (Conservation) Act, 1980 and Rules 1981

The land identified for sub-stations construction has ownership of various government departments or individual in case of private land. Hence, no diversion of forest land is required for sub-stations construction. In case of distribution line alignment is mostly traversing through agriculture lands, but in instance where

felling/pollarding/pruning of trees if required to maintain the electrical clearance will be done with the permission of the local forest officer.

ii. EIA Notification September 14, 2006 and amended in December 22, 2014

The paragraph 2 of the EIA notification, 2006 has set forth the requirement for prior environmental clearance of projects or activity listed out in the 'Schedule' to this notification. All Category 'A' projects or activity shall be referred to Ministry of Environment and Forests and at State level the State Environment Impact Assessment Authority (SEIAA) for matters falling under Category 'B' in the said Schedule.

With respect to the project involves construction of sub-stations which also involves construction of building for office and control rooms. As a result, item '8a' (building and construction projects) of the Schedule to EIA notification, 2006 will get triggered. The applicability of 'General Conditions' has been relaxed for the 'building and construction projects' as per the latest amendment of the EIA notification date December 22, 2014. The extract of the EIA notifications are given in Table 4.3 for understanding.

Table 5: Extract of 'Building and Construction Projects' extract in EIA notifications (amended till date)

Notification Year	Project or Activity		Category with threshold limit		Conditions if any
			A	B	
	(1)	(2)	(3)	(4)	(5)
14 th September, 2006	8(a)	Building and Construction projects		≥20000 sq.mtrs and <1,50,000 sq.mtrs. of built-up area#	#(built up area for covered construction; in the case of facilities open to the sky, it will be the activity area)
22 nd December, 2014	8(a)	Building and Construction projects		≥20000 sq.mtrs and <1,50,000 sq.mtrs. of built-up area	The term "built up area" for the purpose of this notification the built up or covered area on all floors put together, including its basement and other service areas, which are proposed in the building or construction projects. Note 1 - The projects or activities shall not include industrial shed, school, college, hostel for educational institution, but such buildings shall ensure sustainable environmental management, solid and liquid waste management, rain -water harvesting and may use recycled materials such as fly ash bricks. Note 2 - "General Conditions" shall not apply.
General Conditions:					
Any project or activity specified in Category 'B' will be treated as Category A, if located in whole or in part within 10 km from the boundary of: (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries.					

Though the need for EC is not envisaged, the finalisation of detailed design and built-up area of sub-station building is prime important to decide on the necessity for initiating the EC process. The processing of EC will be required only if the built-up area of sub-station building is more than or equal to prescribed threshold limit of 20,000 sq.mt.

iii. The Wildlife (Protection) Act, 1972

As per IEE prepared for the project has reported propose site for 33/11 kV Baghjan, 33/11 kV Dholla, 33/11 kV Gelapukhuri, 33/11 kV Philobari, 33/11 kV Bedeti, 33/11 kV Singri, and 33/11 kV Rakhysmari sub-station is located within the 10km radius from boundary of environmentally sensitive areas. However, the necessity for wildlife clearance would be decided in consultation with officials of Wildlife Department, Govt. of Assam.

- iv. The list of environment regulations has many acts and rules that will get after the mobilisation of the contractor. The compliance to various regulations applicable during various stages of project will be monitored once works is started.

b. Environmental Management Plan

The mobilization of the contractor has not happened during the reporting month. The implementation status of environmental measures will be reported after mobilization of contractor and commencement of works at site.

c. Environmental Monitoring Plan

No activity has happened.

4.0 Grievance Redress Mechanism

The project administration manual of the project has indicated the need for establishing Grievance Redress Committee cell at circle level with an aim of providing affected people a platform to bring their grievances for resolving at Project level. In line with existing GRC established for Tranche 3, the establishing of GRC for tranche 4 will be initiated.

5.0 Consultations and Disclosure

The implementing agency is interacting and informing about the project to the local peoples of the villages where the sub-stations land has been identified. However, due to other technical engagement proper documentation will be commence after the mobilization of Individual National Expert for Implementation Support for Social & Environmental Activities.

6.0 Compliance to Loan Agreement

The safeguard covenants compliance will be ensured once works at site starts.

7.0 Project Implementation Schedule

Currently, emphasise is on taking over of possession of land for sub-stations. The detailed implementation schedule will be submitted from next bi-annual report.

8.0 Conclusion

Environmental and Social Safeguards are integral part of the 'Loan Agreement' and EA is abide by and to ensure compliance with conditions in the covenant. All environmental and social safeguards activities are in various stages of advancement and will further ensure project has minimum environment and social impacts.

Package 1: Construction of New 33/11kV Sub-Stations, 33kV & 11kV Lines, 33kV Terminal Equipment and 33kV & 11kV Railway/River Crossings

LOT-1

A- Tinsukia Electrical Circle:

- i) 7 nos. New 2X5 MVA, 33/11kV Substations;
- ii) New 33kV Lines (108.35km);
- iii) New 11kV Lines (62km);
- iv) 1 no. Railway track crossing in the 33kV Line;
- v) 3 nos. Railway track crossing in the 11kV Line;

LOT 2

B- Dibrugarh Electrical Circle:

- i) 2 nos. New 2X5 MVA, 33/11kV Substations;
- ii) 15 km 33kV Line on GI STP with AAAC Wolf conductor form Namrup substation and 10km from Tingkhong substation to Kaliapani substation with terminal equipment at Namrup substation & Tingkhong substation.
- iii) New 11kV Lines (22km);

C- Sivasagar Electrical Circle:

- i) 2 nos. New 2X5 MVA, 33/11kV Substations;
- ii) New 33kV LILO Lines (18km);
- iii) New 11kV Lines (35.1km);
- iv) 1 no. Railway track crossing in the 33kV Line;
- v) 3 nos. Railway track crossing in the 11kV Line;

D- Golaghat Electrical Circle:

- i) 3 nos. New 2X5 MVA, 33/11kV Substations;
- ii) New 33kV Lines with terminal equipment (76km);
- iii) New 11kV Lines (76km);
- iv) 1 no. Railway track crossing in the 33kV Line;
- v) 1 no. River crossing in the 33kV Line.
- vi) 4 nos. Railway track crossing in the 11kV Line;

LOT 3

E- Tezpur Electrical Circle:

- i) 6 nos. New 2X5 MVA, 33/11kV Substations;
- ii) New 33kV LILO Lines (20km)
- iii) New 33kV Lines with terminal equipment (131km)
- iv) New 11kV Lines (125km)

F- Mangaldoi Electrical Circle:

- i) 1 no, 33kV strengthening of River crossing span at Ghola river in between 33kV line from Rowta-Kasubil with rail pole.

Package 2: Augmentation and R&M of 33/11kV Substations, Construction of 33kV & 11kV Lines and Construction of 11kV ABC Lines:

A- 33kV Lines for system strengthening:

- i) New Lines at Dibrugarh Electrical circle (45km S/C).

- ii) New Lines at Tezpur Electrical circle (20km S/C).
- iii) New Lines at Mangaldoi Electrical circle (0.4km) and Upgrade Lines (33.4km).

B- 11kV Lines for system strengthening:

- i) New Lines at Dibrugarh Electrical circle (32km).
- ii) New Lines at Sivasagar Electrical circle (30.5km).
- iii) New Lines at Golaghat at Electrical circle (156km).
- iv) New Lines at Tinsukia Electrical circle (47km).
- v) New Lines at Jorhat Electrical circle (71.6km).
- vi) New Lines at Tezpur Electrical circle (26km).
- vii) New Lines at Bongaigaon Electrical circle (4km).
- viii) New Lines at Barpeta Electrical circle (21km).

C- Substation Augmentation:

- i) Augmentation of existing 2X2.5 MVA Transformer to 2X5 MVA Transformer at 33/11kV Galeky substation in Sivasagar electrical circle.
- ii) Augmentation of existing 1X2.5 MVA + 1X1.6MVA Transformer to 1X2.5 MVA + 1X5 MVA Transformer at 33/11kV Namti substation in Sivasagar electrical circle.
- iii) Augmentation of existing 1X2.5 MVA + 1X5 MVA Transformer to 2X5 MVA Transformer with provision of Terminal equipment for Namrup-Rajgarh Line at 33/11kV Rajgarh substation Dibrugarh electrical circle.
- iv) Augmentation of existing 2X3.15 MVA Transformer to 2X5 MVA Transformer at 33/11kV Jamuguri substation in Tezpur electrical circle.
- v) Augmentation of existing 1X2.5 MVA Transformer to 2X5 MVA Transformer at 33/11kV Chilapathar substation in Lakhimpur electrical circle.
- vi) Augmentation of existing 2X2.5 MVA Transformer to 2X5 MVA Transformer at 33/11kV Kamalpur substation in Rangia electrical circle.

D- 11kV Arial Bunched Cables (ABC):

- i) New 10km ABC Lines at Sivasagar electrical circle.
- ii) New 16km ABC Lines at Golaghat electrical circle.
- iii) New 4.95km ABC Lines at Guwahati electrical circle-I.

E- Meter Testing Laboratory - Jorhat electrical circle:

- i) Supply and setting up of an independent Energy Meter Testing Laboratory with a semi- automatic 10 position meter test bench at Jorhat engineering college.

F- R&M works of 33/11kV Substations:

- i) 2 nos. Substations at Dibrugarh electrical circle.
- ii) 6 nos. Substations at Tinsukia electrical circle.
- iii) 4 nos. Substations at Sivasagar electrical circle.
- iv) 4 nos. Substations at Nagaon electrical circle.
- v) 1 no. Substations at Cachar electrical circle.
- vi) 2 nos. Substations at Mangaldoi electrical circle.

G- R&M works of 33kV Lines:

- i) 33kV S/C Lines for LTPS-Sonari Line for Napuk substation- PSC Pole, AAA Wolf Conductor, Span 40 M
- ii) 33kV S/C Lines for NTPS-Salkatoni Line for Borhat substation- PSC Pole, AAA Wolf Conductor, Span 40 M