

# Environmental Monitoring Report

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## Semi Annual Report

Project Number: 41155-013

Loan/Grant Number: L2808 NEP/G0270 NEP/G0271 NEP

Period covered: (Jan-Jun) 2020

July 2020

## NEP: Electricity Transmission Expansion and Supply Improvement Project (ETESIP)

Prepared by Nepal Electricity Authority for the Asian Development Bank.

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# Environmental Compliance Monitoring Report

## Semi-Annual Report

Project Number: 41155-013

Loan Number: L2808 NEP/G0270 NEP/G0271 NEP

January – June 2020

## Nepal: Electricity Transmission Expansion & Supply Improvement Project

Prepared by the Government of Nepal for the Asian Development Bank.

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## NOTES

(i) The fiscal year (FY) of the Government of Nepal and its agencies ends on 16 July. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY 2019 ends on 16 July 2020.

(ii) In this report, "\$" refers to US dollars.

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## CURRENCY EQUIVALENTS

30 June 2020

Currency unit – Nepalese Rupee (NRs)

NRs. 1.00 = \$ 0.0084

US \$ 1.00 = NRs. 119.4250

**ACRONYMS AND ABBREVIATIONS**

ADB	Asian Development Bank
CF	Community Forest
CFUGs	Community Forest User Groups
CSR	Corporate Social Responsibility
CPP	Compensatory Plantation Plan
DFCC	District Forest Coordination Committee
DoF	Department of Forest
DFO	Division Forest Office
EM	Entitlement Matrix
ESMU	Environmental and Social Management Unit
ESSD	Environment and Social Studies Department
ETESIP	Electricity Transmission Expansion and Supply Improvement Project
GoN	Government of Nepal
GRC	Grievance Redress Committee
Ha	hectare
HH	Household
HPP	Hydro Power Project
IEE	Initial Environmental Examination
IP	Indigenous People
IR	Involuntary Resettlement
LF	Leasehold Forest
LRO	Land Revenue Office
NF	National Forest
NEA	Nepal Electricity Authority
PAF	Project Affected Family
PCC	Plain Cement Concrete
PTDEEP	Power Transmission and Distribution Efficiency Enhancement Project
RAP	Resettlement Action Plan
RCC	Reinforced Cement Concrete
RM	Rural Municipality
RP	Resettlement Plan
RoW	Right of Way
RRM	Random Rubble Masonry
SDFO	Sub-divisional Forest Office
SPS	Safeguard Policy Statement
TKTLP	Tamakoshi-Kathmandu 220/400kV Transmission Line Project
TL	Transmission Line

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## 1.0 Introduction

### 1.1 Background

Electricity Transmission Expansion and Supply Improvement Project (ETESIP) was approved on 15 November 2011 with its loan closing date on 31 December 2017. However, due to certain changes/adjustments on the scope of Tamakoshi-Kathmandu Transmission Line Project (TKTLP) and substation projects, the project has been extended till 31 March 2020 which has been further revised to 31 December 2021. The ETESIP is a \$128 million project with financial assistance of 44% loan and 34% grant support from Asian Development Bank (ADB), Government of Norway, Nepal Electricity Authority (NEA) and Government of Nepal (GoN). The project also has an approved fund of \$2 million for capacity development assistance. The project comprises of following three major integrals:

- Transmission line expansion, including new transmission lines and substations
- Distribution system expansion
- Rehabilitation of hydropower stations

Based on these major integrals, the project has following components:

- Tamakoshi-Kathmandu 220/400kV TL
- Rehabilitation of 640kV Sundarijal HPP
- Rehabilitation of 1MW Tinau HPP
- Augmentation of distribution Services (East i.e. Jare, Gaur, Nijgadh, Chandraghadhi and Belbari)
- Augmentation of Distribution Services (West i.e. Parasi, Amuwa, Taulihawa, Krishnanagar, Gorkha, Mirm and Gaddachowki)
- Expansion of Chapali SS, Kohalpur-Mahendranagar 132kV second circuit
- Upgradation of distribution lines at Kathmandu, Bhaktapur, Kavrepalanchowk, Sindhupalchowk, Dolakha, Sindhuli and Ramechhap Districts

Among above components, TKTLP is in its initial phase of construction. The TKTLP is divided into two sections: i) Khimti-Barhabise section (Package I) which includes construction of double circuit 220/400 kV TL from Khimti, Ramechhap to Barhabise, Sindhupalchowk and ii) Barhabise-Kathmandu section (Package II) which includes construction two different TL a) construction of double circuit 220/400 kV TL from Barhabise, Sindhupalchowk to Lapsipedi, Kathmandu and b) construction of double circuit 132 kV TL from Lapsipedi, Kathmandu to Changunarayan, Bhaktapur.

Some changes have been occurred in the ETESIP due to shifting of three substations under Power Transmission and Distribution Efficiency Enhancement Project (PTDEEP) from ETESIP. The scope of acquisition, compensation and other associated activities of the mentioned three substation components have also been transferred under the PTDEEP. The shifted substations are: i) Barhabise SS, Sindhupalchowk, ii) Lapsipedi SS, Kathmandu and iii) Changunarayan SS, Bhaktapur.

### 1.2 Overall Progress Status of the Project

The overall progress status of sub-project components are summarized as follows.

**Table-1: Overall Progress Status of the Project**

SN	Name of the Project	Project Details	Progress Status	Completion Schedule
1.	Tamakoshi – Kathmandu 220/400 kV Transmission Line Project - ETESIP			
a.	Khimti - Barhabise section (Package I)	Construction of double circuit 220/400 kV TL from Khimti, Ramechhap to Barhabise, Sindhupalchowk	i. Initial contract awarded on 26 September 2016 cancelled and recently the new contract agreement has been awarded on 20 May 2019 with the date effective from 20 July 2019 ii. Route Alignment finalized and check survey has been progressively undergoing iii. Enumeration of trees to be cut in Ramechhap, Dolakha and Sindhupalchowk Districts has been completed and accordingly Tree cutting approval has been granted from the Cabinet and hence the agreement has been	12 October 2021

SN	Name of the Project	Project Details	Progress Status	Completion Schedule
			<p>done between Department of Forest (DoF) and NEA; based on which the letter has been sent to the respective Division Forest Office (DFO).</p> <p>iv. After the recipient of tree cutting approval letter from DoF, the hammer seal process is undergoing before felling of trees in coordination with the respective DFO</p> <p>v. Social and environmental public awareness campaign via installation of 30 hoarding boards at 30 different locations</p> <p>vi. ESMU team has been mobilized</p> <p>vii. Check survey completed for 114 tower locations</p> <p>viii. Cadastral survey completed and report submitted to NEA (28 towers) &amp; under process for 45 towers</p>	
b.	Barhabise – Kathmandu section (Package II)	Construction of double circuit 220/400 kV TL from Barhabise, Sindhupalchowk to Lapsiphedi, Kathmandu	<p>i. Contract awarded on 13 June 2017 with the date effective from 13 August 2017</p> <p>ii. Check survey completed</p> <p>iii. Social and environmental public awareness campaign via installation of 30 hoarding boards at 30 different locations</p> <p>iv. Enumeration of trees to be cut in Sindhupalchowk, Kavrepalanchowk and Kathmandu Districts has been completed and accordingly Tree cutting approval has been granted from the Cabinet and hence the agreement has been done between Department of Forest (DoF) and NEA; based on which the letter has been sent to the respective DFO.</p> <p>v. After the recipient of tree cutting approval letter from DoF, the hammer seal process is undergoing before felling of trees in coordination with the respective DFO</p> <p>vi. Tower foundation construction under progress (44 foundation completed &amp; 19 under construction)</p> <p>vii. Tower erection in under progress (9 erection completed)</p> <p>viii. Tower protection work under progress (3 tower location)</p>	Initially, 13 April 2020, which has been further renewed to 31 March 2021
		Construction of double circuit 132 kV TL from Lapsiphedi, Kathmandu to Changunarayan, Bhaktapur	<p>i. Contract awarded to L&amp;T, that has been included as a complete package within Package II</p> <p>ii. Detailed survey has been completed for 14.13 km (50 towers)</p> <p>iii. Check survey completed for 50 towers</p> <p>iv. Contouring completed</p> <p>v. Land parceling/Cadastral survey report submitted to NEA duly verified by survey and land revenue department (36% = 18 Locations)</p> <p>vi. Enumeration of trees to be cut in Kathmandu and Bhaktapur Districts has been completed and accordingly Tree cutting approval has been granted from the Cabinet and hence the agreement has been done between Department of Forest (DoF) and NEA; based on which the letter has been sent to the respective DFO.</p> <p>vii. Cadastral Survey Report submission to CDO for publication of notice (Pending location 60A/0 (Kathmandu) &amp; 60B/0 (Bhaktapur) in 132</p>	



SN	Name of the Project	Project Details	Progress Status	Completion Schedule
			KV D/C are disputed due to changes in District Boundary. Joint Field visit by both survey department from respective districts is required.)	
<p><b>**All the works and related activities were halted since 24<sup>th</sup> March 2020 in the complete TL section and substations due to the LOCK DOWN of GoN to fight and mitigate the havoc created around the globe due to NOBEL CORONAVIRUS (COVID-19) Pandemic, however, with the written consent and approval from the respective municipalities, the work has been started in few locations within TL section with strict precaution, maintaining isolation and distances between the workers; and is now expected to forge ahead after the Government notice and ease of LOOSEDOWN and official re-opening of the concerned agencies / organizations.</b></p>				

*(Source: Field visit, compensation disbursement data sheet, project document and consultation with project staffs)*

### 1.3 Implementation Status

NEA has established a separate Project Management Directorate (PMD) to expedite decision making process for the timely implementation of all ADB funded projects and other subsequent projects. PMD is headed by Deputy Managing Director (DMD) responsible for preparation, procurement, construction and supervision of ADB funded projects.

### 1.4 Reporting Period

The semi-annual environmental compliance monitoring report is prepared for the period of January- June, 2020.

### 1.5 Monitoring Requirements and Frequency of Submission

The Semi-Annual Environmental Compliance Monitoring Report has been prepared by NEA and submitted to ADB as per the reporting guidelines and compliance with ADB requirements.

The report has been prepared to cover and evaluate the environmental activities conducted by Environment and Social Management Unit (ESMU) for the month of January - June, 2020.

## 2.0 Compliance status with Applicable Statuary Requirements

The environmental safeguard related regulatory compliance requirements are as given in **Annex- 1**. Similarly, environmental compliance status with loan and grant covenants are presented in **Annex- 2**, whereas the health & safety and environmental safeguard related project activities are in compliance with contract clauses as given in **Annex- 3** and **Annex- 4**.

## 3.0 Environmental Safeguards

The environmental assessment with mitigation, corrective and compensatory measures for the proposed development interventions is a major component in ensuring minimal adverse environmental impacts. According to Environmental Protection Act (EPA), 2019 and Environmental Protection Rules (EPR), 2020 of GoN and ADB Safeguard Policy Statement (SPS), 2009 Initial Environmental Examination (IEE) is mandatory for the electricity transmission line projects. However, if the transmission line passes from protected areas (national park, wildlife reserves, conservation areas), environmental impact assessment (EIA) is mandatory according to schedule 2 of EPR 2020. With the promulgation of EPA 2019 and EPR 2020, EPA 1996 and EPR 1997 has been dissolved, however the IEE of the project was prepared as per then EPR 1997. Moreover, considering National Energy Crisis Alleviation and Electricity Development Decade concept note, Ministry of Energy, Water Resources and Irrigation has issued "IEE and EIA Working Procedures for Hydropower and Transmission Line Project, 2073 BS" effective from 2073 Kartik 4 (20 October 2016) to simplify and expedite environmental assessment approval process by assigning authority to Department of Electricity Development (DoED).

### 3.1 Planning Status of the Project

The transmission line projects are screened to be of Category B. This Khimti-Kathmandu 220/400kV TL has IEE with approval from ADB and GoN through the in line ministry. The TL will avoid any environmentally sensitive sites. A section approximately 16 km that is to pass through forest areas of Chanrawati Watershed (area set aside for carbon sequestration pilot site) although not a legally protected area has been proposed for offsetting the Right of Way (RoW)

clearance. The work for the transmission line is in progress where contractors have been mobilized and ESMU is established. The details of the project planning is provided in **Annex-5**.

### **3.2 Construction Approach**

The construction approach will be applied with focus on reducing adverse environmental effects, costs and promoting local jobs. The preventive and corrective measures on handling hazardous chemicals, oils, occupational health and safety requirements are incorporated as per the safeguard requirements.

### **4.0 Institutional Arrangement**

#### **4.1 Establishment of Safeguard Unit**

The site office for ESMU has been established at Charikot, Dolakha for Khimti-Barhabise TL section (Package I) and Khadichaur, Sindhupalchowk for Barhabise – Kathmandu TL section (Package II). Since the establishment of the site office, the Environmental and Social Monitoring teams are in site for regular monitoring, supervision and implementation of Environmental and Social safeguard activities.

#### **4.2 Establishment of Grievance Redress Mechanism**

There is a Grievance Management Department (GMD) headed by director within NEA. The preparation of grievance redress mechanism acceptable to ADB will be complied. Moreover, under the PMD a separate department to overlook the safeguard implementation is being formed. The issues raised in local consultative meetings are first handled and solved in the field level Grievance Redress Committee (GRC) chaired by local elected representative and other representation from project personnel, PAFs, contractor, ESSD. The issues not solved will then be forwarded GMD.

The establishment of GRC for all the affected RMs and Municipalities are in the process of formation. Out of 25 GRCs to be formed in Barhabise-Kathmandu TL section 10 GRCs (40%) has been formed. Since, the group meetings and gatherings has been restricted as per the issued protocols and circulars by GoN to safeguard citizens from the virulence of COVID-19 global pandemic, GRC formation process has been halted from 24 March 2020, onwards. The process will be commence as soon as the government grants the permission, however informal discussions, consultations are being conducted maintaining the social distances and safety precautions.

#### **4.3 EMP Implementation, Monitoring and Reporting**

Monitoring mechanism in each project has been established for regular compliance monitoring. Report will be prepared on monthly, quarterly and biannual basis. During monitoring and consultation meetings will be conducted with the contractors and contractor's supervisor and also with the labors/staffs employed in construction works; through informal meetings in a group and individually. The consultative process aimed to obtain required information feedback and advice from the participants i.e. Contractors and labors/staffs engaged for the civil construction to assess the actual scenario of the labor issues and concerns.

### **5.0 Compliance with Environmental Safeguard Measures**

#### **5.1 Tree Marking and Tree Cutting Status**

The enumeration of trees to be cut has been completed in Ramechhap, Dolakha, Sindhupalchowk, Kavrepalanchowk, Kathmandu and Bhaktapur districts. The then obtained enumeration list has been submitted to the respective agency i.e. Department of Forest. The total number of trees to be cut is counted as 28,788 with the total timber volume of about 441,674.527 cft.

The tree cutting approval has been approved from the cabinet of ministry and the authorized letter from the concerned agency/authority (Department of Forest) has been dispatched. The request letter for approval of tree cutting had been submitted to respective DFO, in Dolakha, Sindhupalchowk and Kavrepalanchowk by Project Office and the respective DFO is in official procedure in dispatching supporting letters to the concerned local/Ilaka forest offices for the hammer seal process of the trees that need to be felled before felling down of those trees.

The work has been halted because of LOCKDOWN by government to cope with COVID-19 global pandemic. However, the work is expected to speed up after the LOOSEDOWN and re-opening of the government offices.

### **Khimti-Barhabise TL Section**

After the agreement between DoF and NEA, the letter has been dispatched to respective DFO, from where the required letter and approval for hammer seal process is under way in Dolakha area.

### **Barhabise-Kathmandu TL Section**

The enumeration list shows more trees to be cut than expected from the IEE report and thus IEE has to be updated, in the portion of Sindhupalchowk Forest area, especially in Balephi RM. After the agreement between DoF and NEA, the letter has been dispatched to respective DFO, from where the required letter and approval for hammer seal process is under way in Sindhupalchowk and Kavrepalanchowk area. However, the complete cadastral survey has not been finished in Lapsipedi-Changunarayan section and thus the further process for tree marking and cutting has not been proceed further in this section.

### **5.2 Status of Compensatory Plantation Plan**

The final Compensatory Plantation Plan (CPP) will be prepared once the final tree cutting and tree tagging approval from District Forest Office will be received and the tree tagging will be completed providing the exact data of the trees to be cut from the respective forest areas.

### **5.3 Consultation with Community**

The regular consultation with the local peoples, PAFs and relevant stakeholders is conducted whenever needed. Information regarding project activities is shared with them and any questions/queries is answered. While implementing the RP, IR activities a meaningful consultation, group discussions programs is carried out with the PAFs. There were 7 public consultations held during this reporting period with the total participant numbers 104 (Male – 74 and Female – 30). Among those consultations, environmental related consultations are presented below: Since, most of the consultations were informal, hence lacks proper minuting.

**Table-2: Public Consultation Details**

SN	Location and Date	Major Issues in Discussion	Participant			Remarks
			Male	Female	Total	
1.	Balephi- 8 (AP 13/1, AP 14/0) (2020/01/22)	<ul style="list-style-type: none"> <li>Discussion on tree cutting inside community forest for tower pads &amp; RoW</li> <li>Discussion on tree cutting inside community forest for access road</li> </ul>	10	1	11	
2.	Mandan Deupur Municipality- 4 (2020/03/19)	<ul style="list-style-type: none"> <li>Discussion about the request for cabling of distribution line</li> <li>Monitoring of the disturbed irrigation canal and its renovation</li> </ul>	15	9	24	Request with proper application letter to DCS, NEA

(Source: Field visit)

Since, the work has been halted from 24 March 2020, because of LOCKDOWN by government to cope with COVID-19 global pandemic, the queries and questions arise by the communities & PAFs are answered and addressed via telephonic discussion. However, the regular field visit, consultation and interaction has continued after the notice of government LOOSEDOWN.

### **5.4 Monitoring Visits and Discussion**

The monitoring, supervision and implementation of environmental and social safeguard activities is conducted regularly by ESMU field team.

The ADB external team field monitoring visit and discussion about the issues and obstacles were conducted on 20<sup>th</sup> January 2020 in Barhabise SS and on 23<sup>rd</sup> January 2020 in Changunarayan SS. The visit was mainly focused on the monitoring of the ongoing construction, CSR activities and the discussion about the different social issues raised during the land acquisition and construction activities of PTDEEP. The team involved in the visit were

the external monitoring team of ADB, ESMU field staffs, Contractors & sub-contractors field staffs. The team visited Barhabise SS where they had a discussion with the PAF Ms. Goma Poudel about her issue (Requesting PO to acquire her land) and also visited the Changuanarayan SS.

The ADB external team field monitoring visit and discussion about the issues and obstacles were conducted on 25<sup>th</sup> February 2020 in Lapsipedi SS. The visit was mainly focused on the monitoring of the ongoing construction, CSR activities and the discussion about the different social issues raised during the land acquisition and construction activities of PTDEEP. The team involved in the visit were the external monitoring team of ADB, ESMU field staffs, Contractors & sub-contractors field staffs.

## 5.5 Implementation of Mitigation Measures

### 5.5.1 Material Storage Yards and Workshop

The storage yard and workshop have been set up by contractor of Barhabise-Kathmandu TL section at Kuntabesi close to Cha Khola at Mandandeupur Municipality of Kavrepalanchowk District approximately 56km away from Kathmandu and 10km from Zero Kilo on a rented land. Currently, including a security guard there are 5 full time staffs in the yard.

Similarly, the storage of construction materials at different construction sites are kept adjacent to the site. However, the storage of those materials at each site are satisfactory. However, the contractors are regularly advised for proper storage of these materials at the designated sites. The detail description of the status of construction material on each site is described below:

**Table- 3: Status of Storage of Construction Materials at each site**

Transmission Line	Construction Material	Storage Type	Condition
Khimti-Barhabise TL section	Construction yet to start		
TKTLP (Barhabise – Kathmandu section)	Cement	Open air storage covered by Plastic and also inside the rented houses on few locations	Moisture and water proofing was done and the condition was satisfactory
	Sand	Open storage	Direct piling on simply labelled land, covering with simple plastics as a water proof layer, bordered by small boulders to restrict foreign material, however not enough separation distance from aggregate, however satisfactory condition
	Aggregate	Open storage	Direct piling on semi-labelled land, no water proof layer however bordered from direct runoff and foreign material, not enough separation distance from sand, however satisfactory condition
	Reinforcement Bars	Open air storage	Storage provided without sufficient clearance from ground, no water proofing layer, not satisfactory condition
	Aggregate	Open storage when needed	Direct piling on semi-labelled land, no water proof layer however bordered from direct runoff and foreign material, not enough separation distance from sand, however satisfactory condition

(Source: Field visit)

### 5.5.2 Establishment of Labor Camps/Camp Site Management

The construction work has only been started in Barhabise SS and Barhabise-Kathmandu TL section. Labor camps have been established inside the site at Barhabise SS. The camps have maintained proper drinking water, toilets and waste management. However drainage system, medical bay, emergency communication mechanism have not been managed. Also the contractor need to make arrangements for at least basic accommodation (warm cloths, bed and lodging sets, mosquito nets and insect repellent). The contractor (M/S JV of Guangxi

Transmission and Substation Construction Company and Shenzhen Clou Electronics Co. Ltd.) has been advised. In TKTLP, the contractor (Larsen & Toubro Ltd.) has been advised to make proper arrangements immediately for at least basic accommodation (warm cloths, bed and lodging sets, mosquito nets and insect repellent). Similarly, light/power system and drinking water system seem necessary in labor colony.

The 63.28 % of labors mobilized by contractor in SS were found to be local. Likewise, 49.07 % of labors were local in all the sections of transmission line during this monitoring period. The detail employment data record is described below:

**Table- 4: Employment Data Record**

Reporting month	Reporting station/TL	Total No. of labor (Men & Women)	No. of local labor	No. of local men labor	No. of local women labor	Type of labor for women	
						Skilled/ Semiskilled	Unskilled
January 2020	TL Khimti – Barhabise section	No progress					
	TL Barhabise – Kathmandu section	302	161	161	1	0	1
February 2020	TL Khimti – Barhabise section						
	TL Barhabise – Kathmandu section	221	109	107	2	0	2
March 2020	TL Khimti – Barhabise section						
	TL Barhabise – Kathmandu section	226	110	108	2	0	2
April 2020	TL Khimti – Barhabise section						
	TL Barhabise – Kathmandu section	121	59	59	0	0	0
May 2020	TL Khimti – Barhabise section						
	TL Barhabise – Kathmandu section	138	47	47	0	0	0
June 2020	TL Khimti – Barhabise section						
	TL Barhabise – Kathmandu section	111	63	63	0	0	0
Total		1296	661	657	8	0	8
Percentage (%)		100	51.00	50.69	0.62	0	0.62

(Source: Field visit)

### 5.5.3 Occupational Health and Safety Measures

#### Khimti-Barhabise TL Section

No issues has been made

#### Barhabise-Kathmandu TL Section

Health and Safety Officers have been recruited by the contractor for compliance in order to prevent potential harm to labor/ staffs while construction activities and regular trainings about occupational health and safety, use of Personnel Protective Equipment (PPE). The construction workers and field staffs have been provided with PPEs and safety gears like helmet, facemasks, goggles etc. Health and Sanitation to the construction workers have been installed and first aid kit box arranged in the sites.

Also, the contractor has been requested to submit the Operational Health and Safety Measures and Plans for the continuation of work to abide the protocols and circulars issued by GoN after the nationwide lockdown since 23 March 2020 due NOBEL CORONAVIRUS (COVID-19) global pandemic.

The detail safety safeguard compliance status and issues along with corrective actions for the all the sub-projects are presented in **Annex- 6** and **Annex- 7**.

**5.5.4 Slope Stabilization and Bio-engineering work****Khimti-Barhabise TL Section**

No Progress/issues has been made.

**Barhabise-Kathmandu TL Section**

The TL passes through private and community land along with public structures and utilities. Similarly, precaution and special measures for protection of foundations are needed for towers and poles located in mountainous and rough terrain. However, very few tower foundation has been constructed so far with zero problem of slope instability the construction of tower foundation protection wall will be started after the completion of all the pits of the specific tower. The construction will be done before labeling of the excavated debris/spoils and erection of the tower.

The slope stabilization and tower protection work has been started in few locations to mitigate and control erosion, surface runoff and slope instability. Those construction works are being done after the approval from NEA Project Office on the design and types of walls designed by the contractor in support of their external consultant. During this reporting period the tower protection work is being undergoing in following locations:

AP 15/0, AP 37/0 and AP 40/0

**5.5.5 Debris Management****Khimti-Barhabise TL Section**

No Progress/Issues has been made.

**Barhabise-Kathmandu TL Section**

Debris and spoil due to excavation of tower foundation have been partially managed in the project areas. The contractors are regularly advised to manage safe spoil dumping site with no adverse environmental and social effect. Also the contractor has been advised to put separate bins for degradable garbage, plastic, glass and metal to dispose properly in labor camps.

**5.5.6 Drainage Management****Khimti-Barhabise TL Section**

No progress/Issues has been made during this reporting period.

**Barhabise-Kathmandu TL Section**

Since the construction of tower foundation has not affected the drainage pattern yet, however, the contractor has been advised to arrange entertainment facility and install waste management facility, barricade (Reflective and hard) the construction site, drainage system, safety sign and restriction zones/compartments etc. promptly when required.

**5.5.7 Firewood Use**

The construction work has been initiated and the EMSU monitoring team is stationed at respective rented site office houses. Contractors and labors are using liquid petroleum gas (LPG) for cooking purpose. Firewood has not been used. However, in few tower pad locations firewood has been used by labors for few hours in the evening for burning fire to warm their bodies and those firewood were either provided by sub-contractor or purchased by labors with the locals.

No issues/progress has been seen in this reporting period.

**5.5.8 Safety Gear**

The compliance of safety gear or PPE will being monitored as the construction work is progressing. Both the contractor from Barhabise SS and Barhabise – Kathmandu TL has submitted their approved Environment Health and Safety (EHS) plan which includes health safety as well as PPE requirements whereas the contractor from Lapsipedi SS and Changunarayan SS has submitted their EHS plan to NEA and is in the process of approval.

Despite the halt in work almost along the whole TL section, construction activities in few location has been started after the permission from local government agencies with strict precaution and safety measures, maintaining the proper isolation and distances.

**5.5.9 Livelihood Restoration and Enhancement**

No issues/progress has been seen in this reporting period.

**5.5.10 Environmental and Social Awareness**

ESSD prepared and installed 60 hoarding boards in TKTLP, during the period of April 30, 2019 to May 07, 2019. The board consists of public awareness messages including environmental protection, bio-diversity conservation, health & safety issues, project information and general rules and regulations.

No issues/progress has been seen in this reporting period.

#### **5.5.11 Number of Grievances (Documented, resolved and under processing)**

The grievances raised on the substation and transmission line are being received and recorded. The GRC are in the process of formation in local levels, however, the GRC formation progress and recording of grievances has been suspended because of the Lockdown by government and the strict rule avoiding group meetings and gatherings; and is expected to speed up after the notice of government LOOSEDOWN. From the starting of the project there are in total 34 grievances recorded till this reporting period. Among those recorded grievances 24 grievances are being resolved and remaining 10 are under process. The recorded environmental related grievances are presented below in the table:

**Table- 5: List of Grievances and its status**

SN	Location	Issues	Recorded (Type/Date)	Action
Tamakoshi-Kathmandu 220/400kV Transmission Line Project, Barhabise-Kathmandu section				
1.	TL -Thulo Sirubari section	Request for additional support projects (1- temple construction, 1- water lifting pump, 3- Drinking water reservoir construction)	Written (2019/05/14) Verbal Follow up 2019/07/02, 2019/08/05 & 2020/03/18)	ESSD has completed the survey and design estimate, however due to high budget there is a need for further discussion with PAFs. The PAFs, in presence of GRC members are ready to negotiate but the final decision is still pending, due COVID-19 LOCKDOWN
2.	Lapsipedi SS and AP 54C/0	Locals are not willing to have too many transmission lines above and adjacent to their settlement areas, Health and safety issues (Lines form TKTLP, lines from MCC project)	Verbal & Written (2020/01/15)	Letter has been dispatched for discussion to MCC Project Office by locals with reference from Shankarapur Municipality. The issues has also been shared with Project Office, TKTLP by ESMU.
3.	TL –Balephi-8 section	Discussion about the cutting/felling of trees in access road during construction of tower pads, inside government forest	Verbal (2020/01/22)	Despite the approval from Ministry & Central Department of Forest has been received, the District Forest Office is in process to circulate the letter to Local Forest Office.
4.	Irkhu, AP30A/2	Request for the maintenance of the obstructed and ruined irrigation canal during construction of tower	Written (2020/06/08)	<b>SOLVED.</b> The canal was cleared and restored by contractor.

(Source: Field visit, project staffs)

#### **6.0 Automated Safeguard Monitoring (ASM) System**

ASM System has been recently customized. The safeguard implementation performances of the project have been collected from the field level safeguard team and uploaded in the automated system quarterly. For the regular input in the application the safeguard unit and the field level team will be oriented with the automated application. The details are presented below in **Annex- 8, Annex- 9 and Annex- 10**.

#### **7.0 Safety Assurance as per the Contractor's Safety Plan**

The objectives of the contractor's safety plan are as follow:

- To identify certain critical activities, assess the risk associated therein and suggest precautionary measures to avoid accidents
- To integrate Health, Safety and Environmental friendly work practice
- To create EHS awareness to every individual associated with the project

- To provide the necessary EHS inputs
- To formulate and effectively maintain the accident prevention program of the project
- To achieve the prime objective of “**ZERO ACCIDENT**”

### 8.0 Issues and Follow up Actions

The table below shows the main environmental issues and follow up actions for the effective implementation of environmental safeguard measures.

**Table- 6: Major issues and Follow up actions**

SN	Major Issues	Action Taken
1.	Temporary labor camp improvement	Contractor, safety officer has been advised to take action for proper management of toilet, drinking water supply, mosquito nets and insect repellent
2.	Use of PPEs	Contractor has been used to provide enough PPEs to the labors
3.	Proper management of excavated materials/spoils dumping	Contractor and sub-contractors has been regularly advised to prevent spoils leakage, haphazard dumping and excavation without proper precautions.
4.	OHS plan to abide the Protocols and Circulars issued by GoN to safeguard workers/direct stakeholders from the virulence of COVID-19 pandemic	The contractor has been asked to prepare, update and submit the Operational Health and Safety Measures ASAP.

(Source: Field visit)

### 9.0 Achievement on Major Items of Focus on Previous Report

The detail status of the items and activities focused in previous report are presented in the table below along with the suggested corrective actions.

**Table- 7: Achievement on Major Items of Focus on Previous Report**

SN	Location	Item of Focus	Status	Description	Corrective action plan
<b>B Tamakoshi-Kathmandu 220/400kV Transmission Line Project, Barhabise-Kathmandu section</b>					
1.	Khimti-Barhabise TL section	Construction has not been started yet			
2.	Barhabise – Kathmandu TL section	Consultation meeting with PAFs, contractors, community and project authorities whenever required	Ongoing		
		Monitoring of environmental components regarding landslide, debris fall, soil loss, health and safety of labors, sanitation, PPE, first aid and labor site conditions etc	Ongoing		
		Compliance monitoring	Ongoing		
		Follow-up about the construction of supported sub-projects in Irkhu	Achieved	Construction of temple, staircase to temple, school ground protection wall, road pavement in front of school	
		Follow-up & Formation of GRC in the areas where the letter has already been dispatched	Ongoing	GRC formed in Mandan Deupur- 4 (Public gathering has been restricted by GoN due COVID-19 Pandemic)	Formation will take a leap once GoN ease in public gathering

### 10.0 Proposed Major Item of Focus for Next Report

The following activities are proposed for the next month monitoring in the project sites:



**Table- 8: Major items of Focus for Next Report**

SN	Location	Activities
1.	Barhabise – Kathmandu TL section	<ul style="list-style-type: none"> <li>• Consultation meeting with PAFs, contractors, community and project authorities whenever required</li> <li>• Monitoring of environmental components regarding landslide, debris fall, soil loss, health and safety of labors, sanitation, PPE, first aid and labor site conditions etc</li> <li>• Compliance monitoring</li> <li>• Follow-up on Operational Health and Safety Measures</li> <li>• Follow-up &amp; Formation of GRC in the areas where the letter has already been dispatched (Shankarapur Municipality, ward no-5, Changunarayan Municipality, ward no 6, Balephi RM ward no-6, Mandan Deupur Municipality wards)</li> <li>• Speeding up the process for hammer seal of trees to be cut in coordination with respective Divisional forest Office</li> <li>• Preparation of CPP</li> </ul>
2	Khimti-Barhabise TL Section	<ul style="list-style-type: none"> <li>• Public Consultation and GRC formation</li> <li>• Involvement with the survey team for the finalization of CF</li> <li>• Monitoring on Health and Safety Measures</li> <li>• Speeding up the process for hammer seal of trees to be cut in coordination with respective Divisional forest Office</li> </ul>

# **ANNEXES**

## Annex- 1 Regulatory Compliance Requirements

SN	Legal Requirements	Applicable Attributes	Project's Compliance Status
1.	Forest Act 1993	<ul style="list-style-type: none"> <li>This act is applicable when a project requires a national forest area. Prior approval has to be received before the construction of the project. In addition to this it provides insights on prohibitive activities</li> </ul>	<ul style="list-style-type: none"> <li>Cabinet and DoF has approved and granted permission for tree cutting and the letter has been dispatched to respective DFO, The hammer seal and tree marking process in under way.</li> </ul>
2.	Plant protection Act 1973	<ul style="list-style-type: none"> <li>This act lists protected plant species name which needs to be protected during any intervention work in forest areas</li> </ul>	<ul style="list-style-type: none"> <li>Cabinet and DoF has approved and granted permission for tree cutting and the letter has been dispatched to respective DFO, The hammer seal and tree marking process in under way.</li> </ul>
3.	Forest Rules 1995	<ul style="list-style-type: none"> <li>Government has enlisted 13 plant species in protection list of which it has banned felling, transportation and export of tree species</li> <li>Provides procedure of marking trees, measuring timber, and firewood and calculating their volume, determination of value and transportation of timber</li> </ul>	<ul style="list-style-type: none"> <li>Cabinet and DoF has approved and granted permission for tree cutting and the letter has been dispatched to respective DFO, The hammer seal and tree marking process in under way.</li> </ul>
4.	Then Environmental Protection Act 1997	<ul style="list-style-type: none"> <li>This Act provides details of compensation in section 17 of the act in case of not abiding by the rules of the acts. Also it directs a compensatory ratio of 1:25 for trees to be felled</li> </ul>	<ul style="list-style-type: none"> <li>Cabinet and DoF has approved and granted permission for tree cutting and the letter has been dispatched to respective DFO, The hammer seal and tree marking process in under way.</li> </ul>
5.	EPA 2019 and EPR 2020 has repealed EPA 1996 and EPR 1997	<ul style="list-style-type: none"> <li>This Act provides details of compensation in section 35 of the act in case of not abiding by the rules of the acts. Also it directs a compensatory ratio of 1:10 for trees to be felled.</li> </ul>	<ul style="list-style-type: none"> <li>Cabinet and DoF has approved and granted permission for tree cutting and the letter has been dispatched to respective DFO, The hammer seal and tree marking process in under way.</li> </ul>
6.	Use of National Forest area for National Priority Projects 2076 BS	<ul style="list-style-type: none"> <li>Requirement of IEE along with mitigation measures in EMP for utilization of National Forest area</li> <li>Permission letter from DoF, CFUG</li> <li>Provision for providing compensatory land, compensatory plantation at the ratio of 1:10 and protection cost for five years or enough fund as per CPP incorporating all those activities</li> </ul>	<ul style="list-style-type: none"> <li>IEE completed before initiation of project</li> <li>Permission and approval of tree cutting from cabinet and DoF obtained</li> <li>CPP preparation under process</li> </ul>
7.	Bill for construction and development of Nation Priority Projects in Fast track, 2075 (मसौदा)	<ul style="list-style-type: none"> <li>Preparation of report in coordination with respective forest office incorporating tree enumeration list to be cut during construction National Priority projects</li> <li>Responsibility for compensatory plantation and its protection cost for five years or equivalent fund to respective forest office</li> <li>Hammer seal process before tree cutting, stacking and handing over</li> <li>Conducting IEE before initiation of project, consultation with environmental experts and environmental protection and bio-engineering during construction phase</li> </ul>	<ul style="list-style-type: none"> <li>IEE completed before initiation of project</li> <li>Permission and approval of tree cutting from cabinet and DoF obtained</li> <li>CPP preparation under process</li> <li>Environmental expert consultation and environmental team in field</li> </ul>

## Annex- 2 Environmental Compliance Status with Loan and Grant Covenants

Schedule	Para No	Description	Compliance Status	Type	Responsibility
5	17	The Beneficiary shall ensure, and cause of NEA to ensure that preparation, design, construction, implementation, operation and decommissioning of the project, the subprojects and all project facilities comply with (a) all applicable laws and regulations of the beneficiary relating to environment, health and safety; (b) the Environmental Safeguards; and (c) all measures and requirements set forth in the IEE, the EMP and any corrective or preventative actions set forth in a Safeguards Monitoring report.	Complied with:		NEA, Contractor
5	18	The Beneficiary's environmental laws, regulations and procedures shall apply in addition to the Safeguards Policy Statement. The Beneficiary shall ensure through NEA that no construction work of any kind under the project (including any subprojects) shall be commenced until all applicable environmental clearances have been obtained and that all the above requirements are incorporated in the bidding documents and civil works contracts to ensure compliance.	Complied with:		NEA
5	19	The Beneficiary shall ensure, or cause NEA to ensure that all the land and all rights of way required for the subproject are made available to the works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the beneficiary relating to the land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; and (c) all the measures and requirements set forth in the relevant RP, and any corrective or preventive measures set forth in a Safeguards Monitoring report.	Complied with:		NEA
5	20	Without limiting the applicable of the Involuntary Resettlement Safeguards or the relevant RP, the Beneficiary shall ensure or cause of NEA to ensure that no physical or economic displacement takes place in connection with the subprojects until: (a) compensation and other entitlements have been provided to the affected people in accordance with RP; and (b) a comprehensive income and livelihood restoration program has been established, where relevant, commensurate with the size, scale and significance of the project impacts, in accordance with RP	Complied with:		NEA
5	21	The Beneficiary shall ensure that the Project does not have any impact on Indigenous Peoples within the meaning of the Safeguard Policy Statement. In the event that the Project does not have any such impact, the Beneficiary shall ensure or cause of NEA to ensure that preparation, design construction, implementation and operation of the relevant Subprojects comply with (a) all applicable laws and regulations of the Beneficiary relating to Indigenous peoples;(b) the Indigenous Peoples	Complied with:		NEA

Schedule	Para No	Description	Compliance Status	Type	Responsibility
		Safeguards; and (c) any corrective of preventative actions set forth in a Safeguards Monitoring Report. Where impacts on IPs groups are identified a foreseen during the planning, preparation or construction phases of the project development, an IPP will be prepared, implemented and monitored in alignment with the SPS and the requirements set forth in PAM			
5	22	The Government shall make available or case of NEA to make available necessary budgetary and human resources to fully implement the EMP and RPs.	Complied with:		NEA
5	23	The Beneficiary and NEA shall ensure that Works contracts and bidding documents under the project include specific provisions requiring contractors to comply with all (a) applicable labor laws and core labor standards on (i) prohibition of child labor as defined in national legislation for construction and maintenance activities.(ii) equal pay for equal works of equal value regardless of gender ,ethnicity, or caste and (iii) elimination of forced labor, and (b) the requirement to disseminate information on sexually transmitted diseases including HIV/AIDS to employees and communities surrounding the Facility sites. Such contracts shall also include clauses of termination by NEA in case of any breach of the stated provisions by the contractors.	Complied with:		NEA
5	24	The Beneficiary shall ensure that NEA implements the GESI in a timely manner over the entire project implementation period, and that adequate resources are allocated for this purpose. In particular, the Beneficiary and NEA shall ensure that the targets stated in the GESI are achieved. NEA shall conduct training on GESI implementation for all staff involved in the project. The Beneficiary and NEA shall ensure that implementation of GESI is closely monitored, and progress is prepared to ADB in accordance with GESI and the PAM	Complied with:		NEA

## Annex-3 Compliance Status in terms of General Conditions of Contract Clauses

Contract Clause	Sub-Clause	Specification	TKTLP	
			Current Status	Action Taken By
Volume-1, Section-7, General Conditions of Contract				
22.2 Labor	22.2.1 Engagement of Staff and Labor	a. Except as otherwise stated in the specification, the Contractor shall make arrangements for the engagement of all staff and labor, local or otherwise, and for their payment, housing, feeding and transport.	Complied with:	
		b. The Contractor shall provide and employ on the Site in the installation of the Facilities such skilled, semi-skilled and unskilled labor as necessary for the proper and timely execution of the Contract. The Contractor is encouraged to use local labor that has the necessary skills.	Complied with:	
		c. The Contractor shall be responsible for obtaining all necessary permit (s) and/or visa (s) from the appropriate authorities for the entry of all labor and personnel to be employed on the Site into the country where the site is located. The employer will, if requested by the Contractor, use his best endeavors in a timely and expeditious manner to assist the Contractor in obtaining any local, state, and national or government permission required for bringing in the Contractor's personnel.	Complied with:	
		d. The Contractor shall at its own expense provide the means of repatriation to all of its and its sub contractor's personnel employed on the Contract at the Site to the place where they were recruited or to their domicile. It shall also provide suitable temporary maintenance of all such persons from the cessation of their employment on the Contract to the date programmed for their departure. In the event that the Contractor defaults in providing such means of transportation and temporary maintenance, the Employer may provide the same to such personnel and recover the cost of doing so from the Contractor.	Complied with:	
	22.2.2 Person in the Service of Employer	The contractor shall not recruit, or attempt to recruit, staff and labor from amongst the Employer's Personnel.	Complied with:	
	22.2.3 Labor Laws	a. The Contractor shall comply with all the relevant labor Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights. b. The contractors shall, in all times during the progress of the Contract use its best endeavors to prevent any unlawful, riotous or disorderly conduct or behavior by or amongst its employees and the labor of its Subcontractors. c. The Contractor shall, in all dealings with its labor and the connected with the Contract, pay due regard to all recognized festivals, official holidays, religious or other customs and all local laws and regulations pertaining to the employment of labor.	Complied with:	
	22.2.4 Rates of Wages and	a. The contractor shall pay rates of wages and observe conditions of labor, which are not lower than those established for the trade or industry where	Complied with:	

Contract Clause	Sub-Clause	Specification	TKTLP		
			Current Status	Action Taken By	
Volume-1, Section-7, General Conditions of Contract					
	Condition of Labor	<p>the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.</p> <p><b>b.</b> The Contractor shall inform the Contractor's Personnel about their liability to pay personal income taxes in the Country in respect of such of their salaries, wages and allowances as are chargeable under the Laws for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws.</p>			
	22.2.5 Working Hours	<p><b>a.</b> No work shall be carried out on the Site on locally recognized days of rest, or outside the normal working hours stated in the SCC, unless</p> <ul style="list-style-type: none"><li>i. Otherwise stated in the Contract,</li><li>ii. The Project Manager gives consent, or,</li><li>iii. The work is unavoidable or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Project Manager</li></ul> <p><b>b.</b> If and when the contractor considers it necessary to carry out work at night or on public holidays so as to meet the Time for Completion and requests the Project Manager's consent thereto the Project Manager shall not unreasonably without such consent.</p> <p><b>c.</b> This Sub-Clause shall not apply to any work which is customarily carried out by rotary or double-shifts.</p>	Complied with:		
	22.2.6 Facilities for the Staffs and Labor	<p><b>a.</b> Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall also provide facilities for the Employer's Personnel as stated in the Specification.</p> <p><b>b.</b> The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.</p>	Complied with:		
	22.2.7 Health and Safety	<p><b>a.</b> The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractors and Employer's Personnel and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.</p> <p><b>b.</b> The Contractor shall appoint an accident prevention officer at the site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority</p>	Partially Complied with: Although the first aid kit has been provided it need to be replaced if losses, broken or medicine are expired	The contractor needs to ensure the availability of properly dated medicine in safety box.	
			Complied with:		
			Complied with:		

Contract Clause	Sub-Clause	Specification	TKTLP	
			Current Status	Action Taken By
Volume-1, Section-7, General Conditions of Contract				
		to issue instructions and take protective measures to prevent accidents. Throughout the performance of the Contract, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.		
		c. The Contractor shall send, to the Project Manager, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Project Manager may reasonably require.	Complied with:	
	22.2.8 Funeral Arrangement	In the event of the death of any of the Contractor's personnel or accompanying members of their families, the Contractor shall be responsible for making the appropriate arrangements for their return or burial, unless otherwise specified in the SCC.	Complied with:	
	22.2.9 Record of the Contractor's Personnel	The Contractor shall keep accurate records of the Contractor's personnel on the Site and the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis in a form approved by the Project Manager and shall be available for inspection by the Project Manager. Until the Contractor has completed all work.	Complied with:	
	22.2.10 Supply of Foodstuffs	The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with Contract.	Complied with:	
	22.2.11 Supply of Water	The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.	Complied with:	
	22.2.12 Measures against Insect and Pest Nuisance	The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce their danger to health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.	Complied with:	
	22.2.13 Alcoholic Liquor or Drugs	The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift barter or disposal by Contractor's Personnel.	Complied with:	
	22.2.14 Arms and Ammunition	The Contractor shall not give, barter or otherwise dispose of, of any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.	Complied with:	
	22.2.15 Prohibition of All Forms of Forced	The Contractor shall not employ "forced or compulsory labor" in any form "Forced or compulsory labor" consists of all work or service, not voluntarily performed, that is extracted from an individual under threat of force or	Complied with:	



Contract Clause	Sub-Clause	Specification	TKTLP	
			Current Status	Action Taken By
Volume-1, Section-7, General Conditions of Contract				
33. Loss of or Damage to Property; Accident or injury to Workers; Indemnification:	or Compulsory Labor	penalty.		
	22.2.16 Prohibition or Harmful Child Labor	The Contractor shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, Spiritual, moral, or social development.	Complied with:	
	33.1	Subject to GCC Sub-Clause 33.3, the Contractor shall indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, in respect of the death or injury of any person or loss of or damage to any property other than the Facilities whether accepted or not, arising in connection with the supply and installation of the Facilities and by reason of the negligence of the Contractor or its Subcontractors, or their employees, officers or agents, except any injury, death or property damage caused by the negligence of the Employer, its contractors, employees, officers or agents.	Complied with:	
34. Insurance	34.1 (c) Third Party Liability Insurance:	Covering bodily injury or death suffered by third parties including the Employer's personnel, and loss of or damage to property occurring in connection with the supply and installation of the Facilities.	Complied with:	
	34.1 (e) Workers' Compensation:	In accordance with the statutory requirements applicable in any country where the Contract or any part thereof is executed.	Complied with:	
38. War Risks	38.2	Notwithstanding anything contained in the Contract, the Contractor shall have no liability whatsoever for or with respect to a) Destruction of or damage to Facilities, Plant, or any part thereof; b) Destruction of or damage to property of the Employer or any third party; or c) Injury or loss of life If such destruction, damage, injury or loss of life is caused by any War Risks, and the Employer shall indemnify and hold the Contractor harmless from and against any and all claims, liabilities, actions, lawsuits, damages, costs, charges or expenses arising in consequence of or in connection with the same.	Complied with:	

## Annex-4: Compliance Status in terms of Special Conditions of Contract Clauses

Contract Clause	Sub-Clause	Specification	TKTLP	
			Current Status	Action Taken By
Volume-1, Section-8, Special Conditions of Contract				
22.2 Labor	22.2.1 Engagement of Staff and Labor	a) The Contractor shall comply with (i) the measures and requirements set forth in the resettlement plan to the extent it concerns impacts on affected people during construction; and (ii) any corrective or preventive actions set out in safeguards monitoring reports that the Employer will prepare from time to time to monitor implementation of the resettlement plan. The Contractor shall allocate a budget for compliance with these measures, requirements and actions.	Complied with:	
	22.2.3 Labor Laws	d) The Contractor shall not make employment decisions based upon personal characteristics unrelated to job requirements. The Contractor shall base the employment relationship upon equal opportunity and fair treatment, and shall not discriminate with respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment or retirement, and discipline. The Contractor shall provide equal wages and benefits to men and women for work of equal value or type.	Complied with:	
	22.2.4 Rates of wages and Conditions of Labor	c) The Contractor shall follow all applicable labor laws of Nepal. The Contractor shall i. Not use children as labor;	Complied with:	
		ii. Follow legally mandated provisions of labor, health, safety, sanitation, and welfare and working conditions; and	Partially Complied with: Contractor was unable to comply with minimum PPE's requirements, timely health checkup, sanitary working environment and their accommodation standards.	Field Officers - Contractor was frequently awoken for the issues.
		iii. Take steps to ensure priority employment for female headed households. Breach of these provisions by the Contractor shall cause termination of the contract.	Not Complied with: No any local women labor has shown any interest for work	Contractor was advised to hire local labors, when needed.
22.2.7 Health and Safety	d) The Contractor shall throughout the contract (including the Defect Liability Period): (i) Conduct Information, Education and Consultation Communication (IEC) campaigns, at least every other month, addressed to all the Site staff and labor (including all the Contractor's employees, all Sub-	Partially Complied with:	The contractors are advised to disseminate information and conduct	

Contract Clause	Sub-Clause	Specification	TKTLP	
			Current Status	Action Taken By
Volume-1, Section-8, Special Conditions of Contract		Contractors and Employer's and Project Manager's' employees, and all truck drivers and crew making deliveries to site for construction activities) and to the immediate local communities, concerning the risks, dangers and impact, and appropriate avoidance behavior with respect to of Sexually Transmitted Diseases (STD)—or Sexually Transmitted Infections (STI) in general and HIV/AIDS in particular;		campaigns.
		(ii) Provide male or female condoms for all Site staff and labor as appropriate; and	Not Complied with:	The contractor should provide male or female condoms for the site staff and labor and same is notified to the contractor.
		(iii) Provide for STI and HIV/AIDS screening, diagnosis, counseling and referral to a dedicated national STI and HIV/AIDS program, (unless otherwise agreed) of all Site staff and labor. The Contractor shall include in the program to be submitted for the execution of the Facilities under Sub-Clause 18.2 an alleviation program for Site staff and labor and their families in respect of Sexually Transmitted Infections (STI) and Sexually Transmitted Diseases (STD) including HIV/AIDS. The STI, STD and HIV/AIDS alleviation program shall indicate when, how and at what cost the Contractor plans to satisfy the requirements of this Sub-Clause and the related specification. For each component, the program shall detail the resources to be provided or utilized and any related sub-contracting proposed. The program shall also include provision of a detailed cost estimate with supporting documentation. Payment to the Contractor for preparation and implementation this program shall not exceed the Provisional Sum dedicated for this purpose.	Partially Complied with:	The contractor are advised to conduct program as per the contract clause.
		(iv) The Contractor shall disseminate information on the risks of socially and sexually transmitted diseases, including HIV/AIDS and malaria, to its employees during Project implementation and shall implement the HIV/AIDS and Human Trafficking Prevention and Sensitization Program among its employees for the duration of the Contract.	Partially Complied with:	The contractor are advised to conduct program as per the contract clause 22.2.7 (iv)
		22.2.16 Prohibition of Harmful Child Labor	"Child" means a child below the statutory minimum age specified under applicable national, provincial or local law of Nepal. • The Contractor shall comply with all applicable national, provincial, and local environmental laws and regulations. • The Contractor shall (a) establish an operational system for	Complied with:
	46.		Complied with:	

Contract Clause	Sub-Clause	Specification	TKTLP	
			Current Status	Action Taken By
Volume-1, Section-8, Special Conditions of Contract				
		managing environmental impacts, (b) carry out all of the monitoring and mitigation measures set forth in the Initial Environmental Examination ("IEE") and Environmental Management Plan ("EMP") and (c) allocate the budget required to ensure that such measures are carried out. The Contractor shall submit semi-annual reports on the carrying out of such measures to the Employer.		
		<ul style="list-style-type: none"><li>• More particularly, the Contractor shall comply with (i) the measures and requirements set forth in the IEE and the EMP and (ii) any corrective or preventative actions set out in safeguards monitoring reports that the Employer will prepare from time to time to monitor implementation of the IEE and the EMP.</li></ul>	Complied with:	
		<ul style="list-style-type: none"><li>• The Contractor shall allocate a budget for compliance with these measures, requirements and actions.</li></ul>	Complied with:	

## Annex- 5: Environmental Safeguard Planning Status

S. N.	Name of Project / Subproject	Environmental screening is carried out? (Yes or No)	Environment category of the project / subproject (A/B/C/FI)	EIA/IEE/DDR with EMP is prepared (Yes/No)	ADB approved EIA/IEE with EMP (Yes / Under Review / Not Yet Due/Over Due)	Government approved EIA/IEE with EMP (Yes / Under Review / Not Yet Submitted)	Safeguard monitoring and coordination mechanism established (Yes/No)	GRC is established (Yes/No)	Automated safeguard monitoring system customized (Yes/No)	EMP cost in approved document is included in BOQ as an individual item (Yes/No)	Remarks
1.	Khimti- Barhabise 220/400kV TL										
2.	Barhabise- Kathmandu 220/400 kV Transmission Line	Yes	B	Yes	Yes	Yes	Yes	Yes (10- GRCs formed till this reporting period)	Yes	Yes	
<b>Note:</b> EIA- Environmental Impact Assessment; IEE- Initial Environmental Examination; DDR- Due Diligence Report; EMP- Environmental Management Plan; GRC- Grievance Redress Committee; BOQ- Bill of Quantity											

## Annex- 6 : Compliance Monitoring Status of Safety Facilities available to Labors

S.N.	Project Components	Availability of Safety Kits					Presence/ Absence Status of Other Facilities				
		Helmet	Boots/ Shoes	Gloves	Belts	Glass	Mask	First Aid Kit	Toilet	Drinking Water facility	Child Labor
TKTLP											
1.	Khimti-Barhabise TL section										
2.	Barhabise-Katmandu TL section	S	S	S (Partially complied)	S	NP	S	S	P	S	A
<b>Remarks:</b> Safety shoes/gloves have been provided to the Contractor's personnel, however they were found to be used partially during the monitoring. NA*:- Since, the work has been halted, no workers are present <b>Action:</b> Safety shoes/gloves and mask, glass need to wear during the work time and same is notified during the monitoring to the worker, supervisor of contractor and project too. <b>Note *:</b> <b>S:</b> Satisfactory, <b>NA:</b> Not applicable, <b>U:</b> Unsatisfactory, <b>NP:</b> Not Provided, <b>P:</b> Present, <b>A:</b> Absent											

(Source: Field visit)

SN	Activity		Current Status	Action Taken By
I. TKTLP (Barhabise – Kathmandu TL section)				
A. Health Plan				
1.	Occupational Health & Hygiene Inspection, frequency shall be minimum once in a month		Partially Complied with:	Contractor has been advised to follow the plan strictly
2.	Health Campaign, at least once in six months		Complied with:	Contractor has been advised to follow the plan strictly
3.	Drinking water, available in accommodation facilities with clearly marked “Drinking Water Only”, have tight fitting lids and be equipped with a tap, kept clean and free of contamination		Complied with:	
4.	Pest Control, EHS engineer disseminated the knowledge of handling, transporting, precautionary measures to be adopted for the chemical		Complied with:	
5.	First Aid, provided in prominent places, evacuation & action plan in case of accident, contingency plan formulated after the mobilization, only first aider will provide the first aid treatment		Complied with:	
6.	Hazardous Materials, information contained in the MSDS shall be incorporated, supervised by a qualified person		Complied with:	
B. Personnel Protective Equipment (PPE) “NO PPE, NO ENTRY”				
PPE MATRIX				
	Activity	Workmen Category	PPEs Recommended	Complied with: (but is not in satisfactory condition, EHS officer/Contractor has been advised for proper implementation and regulation)
	General-Entry into work premises	All Employees	Safety Helmet & Safety Shoe	Complied with:
	Working at Height/ Tower- More than 2.0 meters	All	Safety belt with Double lanyard	Complied with:
	Involved with cement lime and line mortars	All	Gum Boots & Rubber Hand Gloves	Complied with:
	Breaking of ceramics & Agglomerate materials	Chippers	Eye protection – Clear Goggles	Complied with:
	Welding & Gas Cutting	Welders & Cutters	Leather gloves, Safety shoe, Welding shield with proper number	Complied with:
	Working with slush	Unskilled & Excavation gang	Gum Boots	Complied with:
	Forming and Making shuttering materials	Carpenters and Wood workers	Face shield & Nose mask	Complied with:
	Rebars handling & working	Bar benders	Cotton/Leather Gloves	Complied with:
	Scaffolding	Scaffolders	Cotton hand gloves	Complied with:
	Painting	Painters	Clear goggles	Complied with:
	Rock Drilling	Rock Drillers	Nose mask of appropriate type	Not Complied with:
				Construction not begun

SN	Activity		Current Status	Action Taken By
	Erection	Riggers	Hand gloves, Double Lanyard Safety Belt	Construction not begun
	DG Operators & Other Noise prone areas	Operators	Ear muff	
	Electrical Maintenance & Repairs	Electricians	HV Rubber hand gloves	
	Concrete Batching Plant	Operators & Loaders	Nose mask	
	Handling of Boulders with sharp edges (Quarry)	Loaders	Hand gloves, Safety shoes	
C. Checklist for Tower Foundation				
1.	Check construction materials are stacked at safe place and also does not cause any danger. (Away from pit 105m or half the depth of the pit, whichever is more)		Complied with:	
2.	Check arrangement of illumination at construction site. (if required)		Complied with:	
3.	Ensure life saver arrangements has been made during construction of well foundation in river bed. (when necessary)		Complied with:	
4.	Check that the concreting mixer machine is placed at safe place. (not very near to pit)		Complied with:	
5.	Check proper/adequate arrangement is made for extension of electricity supply. (proper size of cable, use of fuse, no loose connection for dewatering pumps/illumination/electric compressors active applicable)		Complied with:	
6.	Ensure lying of temporary cable used during construction should not cause any danger for electrocution of workmen.		Complied with:	
7.	Inspection of excavation shall be made by a competent person every day. In case possible cave in/slide in is apparent, all working in the excavation shall cease until the necessary precautions have been taken to safeguard the possible cave-in/slide.		Complied with:	
8.	Jacks and vertical supports shall be positioned in such a manner that the vertical loads are distributed equally and do not exceed the capacity of the jacks and the jacks are placed away from pit edge etc.		Complied with:	
9.	Proper jacking arrangement is made to take the entire load of template.		Complied with:	
10.	In case of long template in stub setting more jacks has been provided and to check that the jacks are placed on levelled and hard surface to avoid the unbalancing and fallen.		Complied with:	
11.	Wire mesh rolls shall be secured in order to prevent dangerous recoiling action.		Complied with:	
12.	Lone worker should not be allowed to work in the excavated area.		Complied with:	
13.	Check that sufficient strong ladder of suitable length is available for ingress/outgress of persons in the pit.		Complied with:	
D. Checklist for Tower Erection				
1.	Check proper communication facility is available at site during tower erection(if required)		Complied with:	
2.	Check damages or uneven settlement of foundation.		Complied with:	
3.	Ensure the derrick used before tower erection has been checked for adequate strength/ size. Ensure for copy of test certificate for all lifting machines and tackles.		Complied with:	
4.	Ensure that the pulleys used before tower erection has been checked for adequate strength / proper size (diameter), also in case of open type pulleys proper locking arrangements like providing of safety pin is made, Ensure for copy of test certificate for all lifting machines and		Complied with:	



SN	Activity	Current Status	Action Taken By
	tackles.		
5.	Ensure the ropes used before tower erection has been checked for adequate strength /physical condition (free from break of strands and knots etc.)	Complied with:	
6.	Check that the lifting tools and tackles i.e. Winch machine, Chain Pulley Block, Trifor, D-Shackle etc. are in healthy condition and has been tested periodically.(Attach a copy of test certificate)	Complied with:	
7.	Ensure permission has been obtained from Aviation Authority for erection of special towers.(Where Necessary)	Complied with:	
8.	Ensure permission has been obtained from Aviation Authority for erection of special towers which comes in the vicinity of flying zone (Where necessary)	Complied with:	
9.	Check that the safety measures has been taken before undertaking for the road /Rail / River Crossing jobs involving likewise stretches.	Complied with:	
10.	For rail or road crossing check whether written working plan is available at site with specific reference to safety eg. Local earthlings, skilled and experienced manpower, proper T&P, strength and height of scaffolding to maintain the required clearance etc.	Complied with:	
11.	Ensure that all the members and proper size of nuts and bolts of lower section are fitted properly before erection of the upper section of tower is taken up.	Complied with:	
12.	Check that the anti-climbing devices are provided in the tower after erection job.	Complied with:	
13.	Check that the danger plates have been provided.	Complied with:	
14.	Check only erection team members are allowed to stand near the tower while the erection is in progress and should wear the safety helmet / Safety shoes.	Complied with:	
15.	Working area of the tower has been demarcated during erection.	Complied with:	
16.	Check proper guying arrangement has been made. And also to see that proper size of the crowbars has been used which has been fixed at hard surface in case of sandy or loose soil.	Complied with:	
17.	Check that the proper arrangement is made while lifting tower members and fixing them at height i.e. proper size and strength of the hook used for lifting the tower members.	Complied with:	
18.	Check sufficient members of guys are made while lifting the assembled cross arm and also avoiding use of single sheave pulleys while lifting the assembled cross arm / heavy load.	Complied with:	
<b>E. Checklist for Conductor Stringing</b>			
1.	All drivers and plant operators are holding the valid driving license.	The work has not been started yet.	
2.	Check the permit has been obtained from the competent Authority for stringing of conductor while crossing through Road /Rail /River / Vulnerable areas etc. (Where necessary )		
3.	Check that required painting has been made on tower falling in the vicinity of aviation zones. (Where necessary)		
4.	Check that all the safety measures has been taken during string of conductor crossing the EHV / HV / LT lines (Earthing of existing)		
5.	Ensure proper size of nuts and bolts are rigidly tightened and punching /tacking /tack welding is done in towers before undertaking stringing job.		
6.	Ensure proper scaffolding arrangements made during stringing of conductor (While road crossing /power line crossing etc.		
7.	Ensure that all members are fitted in tower before undertaking conductor stringing work.		
8.	Check that the back filling of the foundation has been done as per specifications.		
9.	Ensure that the discharge rod is electrically tested before use,		

SN	Activity	Current Status	Action Taken By
10.	Stringing machine / Tension puller machine is properly earthed.		
11.	Check the brake arrangement of the TSE Machines is working.		
12.	Ensure that the pulleys used before conductor stringing is been checked for adequate strength /proper size (diameter ) also in case of open type pulleys proper locking arrangements like providing of safety pin is made. Ensure for copy of test certificate for all the lifting machines and tackles.		
13.	Ensure the ropes used before conductor stringing has been checked for adequate strength /physical condition ( Free from break of strands and knots etc. )		
14.	Check that the lifting tools and tackles i. e. Winch machine, Chain pulley Block, Trifor, D-Shackle etc. are in healthy condition and has been tested periodically. (Attach a copy of test certificate)		
15.	Check for the brake arrangement of the Drum reel of conductor during laying / paying out of conductor.		
16.	Check proper communication facility is available at site during stringing of conductor (if required)		
17.	Whether tower has been permanently earthed.		
18.	Check that Sag Board is provided at two locations.		
19.	Check that the Sag Board arrangement is made by the experienced / trained persons.		
20.	Check approved Sag tension chart is available and followed at site.		
21.	While clamping of conductor / Earth Wire to be done, check for earthing.		
22.	Ensure sending signal to puller to stop when last layer of conductor /EW being pulled.		
23.	Check tension applied on the dynamometer dial and check values with approved data.		
24.	Before stringing starts check that the villagers do not come underneath the job of the concerned section		
25.	Only nylon or polypropylene ropes should be used during conductor stringing gin vicinity of live overhead lines.		
26.	Ensure that PTW has been taken from the concerned authority.		
27.	Ensure that Winch, Pulleys etc. are properly earthed.		
28.	For LT lines, whether special persons are posted at each point of isolation till return of permit (PTW )		
29.	Whether the network of LT lines has been thoroughly checked and precautions taken Against inadvertent charging.		
30.	Check that proper arrangement is made / available for development and use of portable Earthing and Short-circuiting Devices which can be engaged and disengaged to and from the LT lines, keeping away from LT lines until all operations on the same are completed and all men and materials are removed from LT lines.		
31.	Check the provision and proper positioning for the guying and back staying ( Where necessary)		
32.	Check demarcation of feeder is done for D/C Line		
33.	Ensure that all the insulator strings are thoroughly checked for availability and proper fixing of cotter / split pins before hoisting the same.		
<b>F. Checklist for General (General points common for all activities during Excavation, Casting of foundation, Erection of tower and stringing of conductor)</b>			
1.	Check whether the contractor has procured required quantity of PPE considering maximum numbers of erection gangs deployed at site.	<b>Partially Complied with:</b>	The contractor has been advised to provide enough

<b>SN</b>	<b>Activity</b>	<b>Current Status</b>	<b>Action Taken By</b>
2.	Supervisors/Workmen have been provided with required healthy PPEs like (Safety helmet/ Safety shoes/ Gum boots as applicable)	<b>Partially Complied with:</b>	PPEs for all labors.
3.	Availability of First Aid box with required medicines at site.	<b>Complied with:</b>	
4.	Instruction register is available at site.	<b>Complied with:</b>	
5.	Ensure Supervisor/ Gang leader always issues instruction to the workmen before start of work.	<b>Complied with:</b>	
6.	All driver and plant operators are holding valid driving license.	<b>Complied with:</b>	
7.	Check the vehicle for rescue is available at site.	<b>Complied with:</b>	
8.	Ensure engaged labor are aware of the job.	<b>Complied with:</b>	
9.	Check that the unskilled laborers are not engaged in skilled job.	<b>Complied with:</b>	
10.	Ensure supervisor/ workmen engaged in the field are aware of First Aid Techniques (such as in case of Electric shock, Fall from the height, Snake bite and the person rescued from buried under the debris etc)	<b>Complied with:</b>	
11.	Check for nearby Hospital/ Doctor in case of emergencies arises.	<b>Complied with:</b>	
12.	While transporting heavy consignment of conductor or earth wire drums from central stores to site by the use of Cranes, Trucks, Tractors, the safety aspect for construction and failure of brake system of moving machinery is to be checked.	<b>Complied with:</b>	
13.	At least one dry powder type of portable fire extinguisher shall be provided especially where explosive or blasting agents are used for excavation.	<b>Complied with:</b>	
14.	Check the competence (Qualification /experience) of supervisor / gang leader of contractor.	<b>Complied with:</b>	

## Annex-8: Status of Environmental Compliance

S.N.	Name of Subproject	Compliance to Environmental Management Plan*												Grievances	Corrective Action Plans are prepared and implemented (Y/N)	Env compliance reporting is maintained (Y/N)	Remarks			
		Physical				Biological		Socio-economic												
1.	Khimti-Barhabise 200/400 kV TL	Spoil Management compliance in %)**	85						Safety Gears are sufficient and used (Y/N)	Labors are insured (Y/N)	Labor and work camps are healthy and have sanitary facilities (Y/N)	Community structures are reconstructed / compensated / (progress in % of total estimated work)***	Others as per EMP (specify)	No. of grievances documented	No of grievances resolved	No of grievances under processing	Corrective Action Plans are prepared and implemented (Y/N)	Env compliance reporting is maintained (Y/N)	Remarks	
		Landslide protection with Bio-engineering (compliance in %)**	5																	
2.	Barhabise – Kathmandu 220/400 kV TL	Drainage Management (compliance in %)**	0																	Spoil are dumped inside tower pad and refilled back to pit.
		Others as per EMP (specify)																		
		Target (Nos.)																		
		Replanted (Nos.)																		
		Compensatory Plantation																		
		Firewood is used for cooking and heating (Y/N)	N	0	Y	Y (Only in working hours)	Y (80%)													
		Others as per EMP (specify)																		
		Occupational Health and Safety																		

**Note:** \* Add field as guided by EMP in EIA/IEE/DDRR; \*\* Write percentage of compliance in a scale of 100%; \*\*\* mention type of community structures

## Annex- 9 Impact Mitigation Compliance on Environmental Issues

SN	Parameters	Indicators/Impacts	Mitigation measures	Compliance	Remarks
<b>Physical Environment</b>					
1.	Land use	Changes in land use patterns	No exposed areas left after excavation, construction activities to be confined in seasons of less agro activities	<b>Complied with:</b>	
2.	Stability	Stability of tower pads	River training works, retaining walls construction	<b>Complied with:</b>	
3.	Waste disposal	Unpleasant odor and visual impact	Construction wastes stored with adequate storage facilities, segregated and disposed properly	<b>Complied with:</b>	
4.	Air / water quality	Visual impact	Maintenance of vehicles and PPE to be used	<b>Complied with:</b>	
<b>Biological Environment</b>					
1.	Vegetation clearance	Observation, no. of trees felled, ground cover	Compensatory plantation, NTFP cultivation, forest based income generation and entrepreneurship training	<b>Complied with:</b>	Tree tagging, cutting and clearance approval from Forest Ministry has been provided, however due LOCKDOWN tree tagging and cutting has not been started yet
2.	Pressure on forest cover	Observation, forest area status before and after construction	Compensatory plantation		
3.	Wildlife	Habitat, clearance, no. of animals seen	Use of screens, wire fencing in towers to discourage monkey climbing, use of optical ground wire and markers to reduce bird collision		
<b>Social Environment</b>					
1.	Settlement/infrastructure	Increase in settlement, migration	Avoid settlements, housing, if necessary provide resettlement	<b>Complied with:</b>	
2.	Compensation	Socio-economic parameters	Compensation, livelihood training	<b>Complied with:</b>	
3.	Land loss	Acquisition of land, temporary disturbances	Compensation	<b>Complied with:</b>	
4.	Health issues	Type of diseases and record outbreaks	Health awareness campaign, training	<b>Complied with:</b>	
5.	Safety	No. of casualties	First Aid, use of PPE	<b>Complied with:</b>	
6.	Employment	No. of local people employed	Employment provided in project work	<b>Complied with:</b>	
7.	Impact on women/children	Status of women and children	Provide employment for women	<b>Complied with:</b>	
8.	Indirect economic benefits	Economic activities in the area	Trade and business, Provide employment	<b>Complied with:</b>	

## Annex- 10 Impact Mitigation Compliance for Construction Stage

S.N	Construction Stage and Impact	Mitigation Measures	Tamakoshi–Kathmandu 220/400 kV TL	
			New Khimti Barhabise section	Barhabise Kathmandu section
1	Surveys, Alternative Analysis, enumeration of trees.	Better Route Alignment	Complied with:	Complied with:
2	Adverse effect on topography from development of Quarry Site and stacking of construction materials	Restoration of exposed areas	Complied with:	Complied with:
3	Tagging of Trees and clearance causing erosion, effect other utility lines, wildlife habitat and corridors during clearing of Right of Way (RoW)	Compensation, restoration and consultation with forest stakeholders on wildlife habitat and corridors	Complied with:	Complied with:
4	Environmental Investigations	Soil investigations to avoid adverse effects on project	Complied with:	Complied with:
5	Pollution of aquatic environment and adverse impact as poaching and felling of tree from temporary workers camp	Adequate cleaning facilities, toilets with soak pits and use of liquefied petroleum gas. Ensure the camp site is cleaned and restored while relocating. Solid waste disposal on pits minimum 500m away from water sources.	Complied with:	Complied with:
6	Soil erosion, wastes and pollution temporarily from unloading of material, storage and workshop in local environment	Avoiding sensitive sites. Recyclable materials such as cement bags, plastics and scrap metals to be segregated and sold for recycling. While decomposable wastes to put in a pit and covered away from surrounding water sources.	Complied with:	Complied with:
7	Adverse impact on local aquatic environment, soil erosion and loss of agricultural land while pit marking and digging of foundation	Compensation, restoration of site and proper maintenance of vehicles used	Complied with:	Complied with:
8	Contamination of Surface and Ground Water, Soil Erosion while construction of foundation and revetment	Restoration of exposed areas, adequate maintenance of engines to prevent oil leakage. Sensitive Sites include AP 9, 11 and 12	Complied with:	Complied with:
9	Disturbance to existing utilities and population during erection process	Rerouting the utility lines, installation of warning signboards, traffic	Complied with:	Complied with:

S.N	Construction Stage and Impact	Mitigation Measures	Tamakoshi–Kathmandu 220/400 kV TL	
			New Khimti Barhabise section	Barhabise Kathmandu section
		management and use of safety equipment or Personal Protective Equipment (PPE). Construction activities to be carried out during dry season when farming activities are minimal		
10	Accidents at tower site and soil run off from exposed surface while installing earth wire or optical ground wire	PPE are worn and exposed surface are covered. Safe Distance are maintained from other power lines as well as power is temporarily cut off scaffolding is used in areas crossing rivers, roads, telecom lines, overhead power lines and other similar structure. The vegetation to be lopped to be quantified		Construction has not begun yet.
11	Snapping of stringing blocks or loose hanging of wires and excessive lopping of vegetation while stringing, final sagging and tensioning earth wire as well as power conductor	Adequate tension is maintained scaffolding is used in areas crossing rivers, roads, telecom lines, overhead power lines and other similar structure. The vegetation to be lopped to be quantified		Construction has not begun yet.

## ***PHOTOGRAPHS***