

Environment Monitoring Report

Semiannual Report
July – December 2017

NEP: Electricity Transmission Expansion and Supply
Improvement Project
Loan/Grant:2808/0270/0271

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Currency Equivalents

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Currency Unit	-	Nepalese Rupees (NPR)
NPR. 1.00	-	\$ 0.0097
US \$ 1.00	-	NPR 102.49 ¹

Note: In this Report \$ refers to US dollars

ABBREVIATIONS

ADB	Asian Development Bank
DDR	Due Diligence Report
DFO	District Forest Officer
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ETESIP	Electricity Transmission Expansion and Supply Improvement Project
GIS	Gas Insulated Substation
GoN	Government of Nepal
GWh	Giga Watt Hour
IEE	Initial Environmental Examination
Km	Kilometer
MOE	Ministry of Energy
MOF	Ministry of Finance
MoPE	Ministry of Population and Environment
MVA	Mega Volt Ampere
MW	Mega Watt
NEA	Nepal Electricity Authority
RoW	Right of Way
SPS	Safeguard Policy Statement 2009 (SPS)
S/S	Substation
TL	Transmission Line
V	Volt

¹ <http://www.nrb.org.np/>

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1. Background

1.1 Electricity Transmission Expansion and Supply Improvement Project

Electricity Transmission Expansion and Supply Improvement Project (ETESIP) is a \$ 128,050,000 project with 44% loan and 15% Grant while rest of the funds is shared by Government of Nepal and Norway. These figures have been proposed with the objective of improvement of electricity supply capacity. The ETESIP comprises of three major components:

- Transmission Line
- Distribution System
- Rehabilitation of hydropower stations

This project was approved on 15th November 2011 with the completion time on 30th June 2017 and loan closing on 31st December 2017. The current assessments indicate the project through meeting its targets is entitled for successful implementation for latter two components only and one Transmission Line (Kohalpur Mahendranagar 132kV Single Circuit Stringing Project). The other Transmission Line Component Khimti Kathmandu Transmission Line safeguards monitoring activities for construction has not begun. However, Initial Environmental Examination (IEE) has been prepared in abidance with ADB Safeguard Policy Statement 2009. This is in compliance to following its category B designation.

2. Environmental Safeguards

The environmental assessment for the proposed development interventions is a chief component in ensuring minimal adverse environmental impacts.

2.1 Environmental Safeguards

The transmission line projects are screened to be of Category B. However, only Khimti-Kathmandu 220/400kV TL (Transmission Line) has IEE with EMP and has approval from ADB and GoN through in line ministry.

Kohalpur Mahendranagar 132kV second stringing: The transmission although crosses over Bardiya National Park and Suklaphanta Wildlife Reserve (also part of the Terai Arc Landscape) is considered not have a major impact as the stringing will be on existing NEA maintained Right of Way (RoW). At present the second stringing of the 190km line is complete. Wild Elephants caused serious damages to a Power Transmission Tower in Kohalpur and Kushum Areas on December 22nd 2017. This resulted in power cuts to areas between Attariya to Kohalpur.

Khimti Kathmandu TL Line: This transmission line conceived for a 220/400kV transmission capacity will avoid any environmentally sensitive sites. A section approximately 16km 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 RoW clearance. The work for the transmission line is in progress where Contractors have been mobilized and Environment and Social Management Unit (ESMU) are already in their respective site office at Charikot as well as Barhabise. These two site offices are in preparations to study environment and social baseline updates of the approved IEE Report. The tagging of trees for the Khimti Barhabise section of the transmission line is complete and is awaiting approval.

Distribution System: Altogether 9,000 domestic consumers were to be connected within 2017 in the project area. In the eastern part 48.6MVA substations augmentation has ensured completion of distribution services likewise at the western site it is mostly complete. Moreover, 100% of poling and 100% of stringing works have been completed. The distribution system in 11 towns in the eastern and western consisting of 50km of 400V is to be rehabilitated. In both the eastern and western areas NEA land is adequate for rehabilitation works. No major environmental issues are observed for these lines. Similarly, for rebuilding of 11kV feeders, relevant low-voltage networks, and associated facilities in pilot areas all components have been completed except for Mirmire which is behind schedule.

Rehabilitation of Hydropower stations: Major environmental issues realized have been community health and safety issues while decommissioning of the equipment as well as materials. These have been assured to be either reused or disposed in compliance with national and international norms. This has resulted in 1.14MW of additional generation capacity providing 4GWh of energy. On one hand Bidding for Tinau Hydro was in progress but the project has stopped and no progress has been made. On the other hand Sundarjal Hydro Contract has been awarded and work is in progress mainly in the headworks region of the power plant. The project also supports the used discharge for drinking water supply. For both the hydro projects NEA premises are adequate for repair and replacements.

Chapali Expansion: All the electrical works including the charging of Chapali-Balaju Transmission Line complete.

3. Construction Approach

ETESIP applies construction approach to reduce adverse environmental effects, cost and promote local jobs. This method will reduce construction of access road to the site. Hazardous chemicals and oils are required to be stored separately in polythene drums with prevention in any form to mix in aquatic environment at the vicinity of the work site.

4. Compliance Status with Environmental Covenants

Environmental safeguard related project activities are in compliance with covenants as regular follow up actions are being taken.

5. Institutional Arrangement

There is a Grievance Management Department headed by director within NEA. Preparation of grievance redress mechanism acceptable to ADB has been complied. However, the Khimti Kathmandu TL has yet to form a Grievance Redress Committee.

6. Compliance with Environmental Safeguards Measures

Overall Environmental Compliance will be followed as the construction work for the Khimti Barhabise section of the transmission line begins. The project manager for this project has been transferred and the office will be taken over by new project manager.

The stringing work for Kohalpur Mahendranagar 132kV TL is complete. Likewise, for Khimti Kathmandu 220/400kV TL (Khimti Barhabise Section) counting of trees has been complete. Representatives from ESSD under ESMU have set up site offices at Charikot of Dolakha District and Barhabise of Sindupalchok District ensuring environmental compliance for the Khimti Barhabise and Barhabise Kathmandu sections once the construction work progresses.

3.1 Spoil Management

The work for stringing of the transmission line is complete for Kohalpur Mahendranagar 132kV TL. Likewise for the Khimti Kathmandu TL Line contractors have been mobilized and under ESMU are stationed for monitoring the environmental compliance status of the project for construction work as the project progresses.

Awareness Training

Environmental compliance as instructed by EMP for trainings will be met with during the construction and operation of the Khimti-Kathmandu 220/400kV transmission line.

4.1 Landslide Protection and Bioengineering

The land stability issues are confirmed to be taken into account in full compliance with the EMP and Environmental Safeguards during the construction of the Khimti Kathmandu 220/400kV Transmission Line, once the mobilized contractors start their construction work. Moreover, for the Distribution system as well as the Rehabilitation of Hydropower station for Sundarijal adequate compliance is observed to the safeguard requirements.

5.1 Drainage Management

The 220/400kV Khimti Kathmandu TL safeguard status can be ensured to comply following the EMP provisions and other unanticipated impacts with adequate mitigation measures...

6.1 Compensatory Plantation

The contractors have been mobilized and as of January the tagging of trees has been complete. The compensatory plantation has not begun.

7.1 Firewood Use

The construction work has not begun and the ESMU monitoring team is stationed at respective rented site office houses. Furthermore, when the construction work within the existing facility of the power plant will begin the activities are assured to be carried out in compliance with the environmental safeguards requirements.

8.1 Safety Gear

The compliance of safety gear will be monitored as the construction work progresses once construction begins.

9.1 Labor Issue (Workers Camp, Health and Sanitary Facilities)

Khimti Kathmandu 220/400kV Transmission Line preparatory works for construction is in progress and it has been assured to comply with the Safeguards Requirements.

10.1 Number of Grievances (documented, resolved and under processing)

Even though GRC has not been setup, grievances for the transmission line are being recorded and legally communicated under the leadership of Chief District Officer (CDO). One such incident includes land ownership and its compensation near waterspout at the substation boundary with the access road for Barhabise Substation (the substation component has been transferred under Nepal Power Transmission and Distribution Efficiency Enhancement Project). This issue is under discussion with CDO to be resolved in near future. Other Grievance includes demand for access road to remaining land (post acquisition for Barhabise Substation) by one of the affected land owner.

7. Issues and Way Forward

Table: 1 shows the main environmental issues and way forward for the effective implementation of environmental safeguard measures.

Table 1: Corrective Actions and Way Forward

S.N.	Issues	Way Forward
ETESIP		
1	Issues of tree felling of trees	Expedite such activities within months permitted for the work in coordination with DFO after receiving permission.
2	Mobility of ESMU team	Provision of vehicle for adequate movement of the ESMU team for efficient monitoring
3	Disorientation of work responsibilities	Provision of terms of reference of each individual for respective responsibilities. Initiating with updates of baseline conditions
4	Clarity on legal procedures after formation of federal governments and amendments of EPA as well as EPR.	Updates in Environmental Protection Acts and Regulation as well as Environmental Guidelines to be followed once published. Any unanticipated new regulatory procedures and hurdles to be studied and followed up with.