ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

KOHALPUR-MACHHAGADH DISTRIBUTION LINE SUBPROJECT

SUBSTATION (33/11 KV) AND DISTRIBUTION LINE (33 KV)

BANKE & BARDIYA DISTRICT, LUMBINI PROVINCE

NEPAL ELECTRICITY AUTHORITY

DISTRIBUTION AND CONSUMER SERVICE DIRECTORATE

DISTRIBUTION SYSTEM UPGRADE AND EXPANSION PROJECT (DSUEP)

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ABBREVIATIONS

ACSR Aluminum Conductor Steel Reinforced

AIIB Asian Infrastructure and Investment Bank

BES Brief Environment Study

COVID-19 Corona Virus Disease

CDP Community Development Program

CPA Core Project Area

DCSD Distribution and Consumer Services Directorate

DHM Department of Hydrology and Meteorology

DL Distribution Line

DSUEP Distribution System Upgrade and Expansion Project

EHS Environment, Health and Safety

EIA Environmental Impact Assessment

EPA Environment Protection Act

EPR Environment Protection Regulation

EMF Electromagnetic Field

ESP Environmental and Social Policy

ESMF Environmental and Social Management Framework

ESMP Environmental and Social Management Plan

ESP Environmental and Social Policy

ESSs Environmental and Social Standards

GHG Green House Gas

GIS Geographic Information System

GoN Government of Nepal

GRM Grievance Redress Mechanism

IEE Initial Environmental Examination

IP Indigenous People

IUCN International Union for Conservation of Nature

IUSGS International Union of Geological Sciences

LPG Liquid Petroleum Gas

MDB Multilateral Development Bank

MoEWRI Ministry of Energy, Water Resources and Irrigation

MHT Main Himalayan Thrust

NEA Nepal Electricity Authority

PPE Personal protective equipment

RM Rural Municipality

RoW Right of Way

SPA Surrounding Project Area

SPM Suspended Particulate Matter

SWM Solid Waste Management

US EPA United States, Environment Protection Agency

USGS United States Geological Survey

VC Vulnerable Community

Unit

% Percent/ Percentage

CO₂ Carbon dioxide

dB Decibel

g Gram

ha Hectare

HHs Households

Kg Kilogram

Km Kilometer

kV Kilovolt

kWh Kilo Watt Hour

ltr Liter

LV Low Voltage

m Meter

masl Meter Above Sea Level

mm Millimeter

MVA Mega Volt Ampere

MW Megawatt

NRs. Nepalese Rupees

°C Degree Centigrade

sq.m. Square Meter

EXECUTIVE SUMMARY

Description of Project: Nepal Electricity Authority (NEA) under Ministry of Energy, Water Resources and Irrigation is responsible for the implementation of the Distribution System Upgrade and Expansion Project (DSUEP). DSUEP will enhance the distribution system to improve reliability and quality of electric supply in the Karnali Province, Lumbini Province and Sudurpashchim Province. The proposed **Kohalpur–Machhagadh Distribution Line Subproject** is located within Kohalpur Municipality, Ward No. 3, 4, 5, 6, 8, 10 and 15, Baijanath Rural Municipality (RM), Ward No. 5, 6 and 8 and Badhaiyatal RM, Ward No. 4 of Banke District and Bansgadhi Municipality, Ward No. 3, 5, 6 and 8 of Bardiya District in Lumbini Province. The Subproject requires 1.03 ha of land (Private Land) for the construction of the substation. The 33 kV distribution line of 25.57 km passes along the Right of Way (RoW) of the road and private land with installation of poles at the edge of the farm land. The proposed subproject is financed with a loan by Asian Infrastructure Investment Bank (AIIB).

Description of Environment

Physical Environment: The proposed Subproject (substation and distribution line) area lies in Terai region of Banke and Bardiya Districts. The proposed substation lies at Latitude 28°15'27.35" N, Longitude 81°28'59.68"E, and elevation of 165 masl. The climate of the Subproject area is sub-tropical. The temperature at the project area varied from 2.5°C to 41.2°C. The average annual rainfall is estimated at approximately 1667 mm per year. The air quality and noise level of the SPA was found within the range of the National Ambient Air Quality Standard and Noise Quality Standard, respectively. There is no any water sources recorded within the distribution line (33 kV) and nearby the substation area.

Biological Environment: The proposed Subproject (substation and distribution line alignment) does not lie in any protected area, although it is located within the Chure region without any induced impact to the biological environment. The proposed Subproject distribution line passes from the edge of Sati Community Forest (CF) and Rampur CF. The surrounding environment of the Subproject area contains sparse vegetation with species common to the area. The vegetation species recorded during the screening field visit are Sal (Shorea robusta), Saj (Terminalia elliptica), Sisau (Dalbergia sissoo), Teak (Tectona grandis), Jamun (Syzygium cumini), and Rohini (Mallotus philippensis). Similarly, wild animal recorded during the public consultation are Rhesus Monkey (Macaca mulatta), Golden Jackel (Canis aureus), and Indian Hare (Lopus nigricollis). Altogether five species of birds were noted around the surrounding project area are House Crow (Corvus splendens), Western Spotted Dove (Spilopelia suratensis), Red-vented Bulbul (Pycnonotus cafer), Rock Dove (Columba livia), and Western Koel (Eudynamys scolopaceus). All these bird species are of the least concern under IUCN categorization.

The proposed Kohalpur–Machhagadh 33 kV distribution line passes through the 2 different community forests as shown in **Table 3-3**. A total of 0.72 ha of the forest area will be occupied by RoW of proposed 33 kV distribution line. The estimated number of trees to be cleared from the Core Project Area of the distribution line alignment passes along different community forests are 189.

Socio-Economic Environment: The major ethnic compositions within the surrounding project area i.e., Ward No. 3, 4, 5, 6, 8, 10 and 15 of Kohalpur Municipality, Ward No. 5, 6

and 8 of Baijanath RM, Ward No. 4 of Badhaiyatal RM are Tharu (38.6%), Chhetri (19.9%), Brahman (10.1%), Kami (8.9%), Magar (5.9%), and Thakuri (4.4%) of total population of 92,293. The implementation of the Subproject will increase the electricity beneficiaries to 30,675 HHs, 119 commercial purposes and 11 industries. Kohalpur is the nearest business market nearby the Subproject area. The transportation facilities in this local level seem to be satisfactory. Tube-well and tap/piped water is the main source of drinking water in the surrounding Subproject area. People of the Subproject have access with communication facilities mainly through mobile telephone services. The nearest and easily accessible health facility nearby the proposed Subproject area is Nepalgunj Hospital in Kohalpur located at 2 km distance from tapping point and Janasewa Medical Hall is at distance of 1.5 km from the proposed substation site. The main occupation of people in the area is agro base with nearly 70% contribution followed by small trade and business/enterprises and services.

Potential Impacts and Mitigation Measures: Civil works will be involved with temporary impacts on air, noise and water quality and occupational and community health and safety; particularly related to working with electricity and in the context of the COVID-19 pandemic. Long-term impacts, although insubstantial, during operation and maintenance include occupational and community health and safety risks related to the presence of electricity infrastructure. The potential environmental issues and mitigation measures identified in screening and the preparation of the ESMP report will be addressed during the compliance monitoring carried out by the safeguard team. There will be no issues of land requirements for the pole erection and for the distribution line people have suggested to install poles at the edge of farm-lands, without affecting any private structures along the distribution line. But the proposed substation land is private land, so there is necessity of land acquisition which issues will be fulfilled by Resettlement Plan. The implementation of the proposed Subproject needs 0.72 ha of forest area with estimated loss of 189 trees. The total enumeration of the loss trees and mitigation cost will be incorporated in the Brief Environmental Study (BES) report. The compensatory plantation will be done as per Forest Regulation (2022) in the ration of 1:10. The ESMP cost estimated for the Subproject is NRs 13,00,000.00 associated with mitigation measures and monitoring activities. NEA Project Implementation Unit has agreed on the estimated cost for the mitigation measures and monitoring activities.

Environmental and Social Management Plan: The ESMP serves as a guide to implement environmental and social mitigation measures and the responsibility of the concerned agencies during the construction and operations of the Subprojects. Monitoring and inspection of the environmental and social activities will be carried out by the Environment and Social Management Unit and the Project Supervision Consultant of PIU. ESMP will be an integral part of the contractor's Bidding document which will be updated by the contactor during the sub-project construction period.

Institutional Arrangements: To ensure full compliance with the ESMP, an institutional arrangement for monitoring and reporting has been proposed. All the resources needed for the implementation of ESMP for the construction and operation phase will be provided by the PIU. Project Supervision Consultant's with Environmental and Social Safeguard Specialist will be responsible for compliance monitoring activities during the construction phase. The Environment and Social Management Unit of NEA will provide regular updates to the site offices regarding the implementation of ESMP. The contractor shall prepare an Environment,

Health, and Safety (EHS) plan approved by the PIU before field mobilization. The contractor should mobilize a safety officer at each work site during the construction period.

Public consultation: Public consultations have been conducted in the Subproject area. People in the Subproject area noted that electricity service is poor with frequent interruptions. People have suggested installing poles at the edge of farm-lands, and project components should not affect any houses and structures along the line. The impacts on the crops while stringing lines should be minimized. Prospective electricity consumers and people to be affected are supportive and have recommended quick implementation of the project.

Grievance Redress Mechanism (GRM): A three-tier Grievance Redress Mechanism (GRM) has been established to receive, evaluate, and facilitate the resolution of affected people's concerns, complaints, and grievances about the social and environmental issues at Subproject level. In each Subproject, two levels i.e., Tier-I and Tier-II of the Grievance Redress Mechanism have been established. During the ESMP study period, NEA has disseminated letters to the local level stakeholders regarding the formation of the GRM at the Subproject level.

Conclusion: The environmental impacts envisaged from the implementation of the proposed Subproject are site-specific, short-term, temporary and reversible in nature. The Subproject will provide significant benefits to people and the economy by providing a reliable and improved electricity supply. The implementation of the proposed Subproject needs 0.72 ha of forest area with estimated loss of 189 trees. The total enumeration of the loss trees and mitigation cost will be incorporated in the Brief Environmental Study (BES) report. This ESMP is considered sufficient to mitigate the environmental and social issues identified for the Subproject and will be updated during the Subproject construction stage.

1. INTRODUCTION

1.1 Project Background

The proposed Distribution System Upgrade and Expansion Project (DSUEP) will enhance the distribution system to improve the reliability and quality of electric supply in the Lumbini Province. The project aims improvement in voltage level and reduction in power loss which in turn will improve Nepal Electricity Authority's (NEA) financial health, improve electricity supply reliability, and reduce dependence on petroleum-fueled accessories. The government of Nepal (GoN) has envisaged DSUEP to extend the reach of 33 kV and 11 kV distribution lines "to achieve affordable electricity fulfilling the demands at the local levels for all the households by 2022". Asian Infrastructure Investment Bank (AIIB) is financing a loan to upgrade existing and build new distribution systems in L Lumbini Province, Karnali Province and Sudurpashchim Province of Nepal. This ESMP is prepared for Kohalpur–Machhagadh distribution line Subproject of DSUEP.

This Subproject has three major components:

Component 1: construction, extension and augmentation of distribution lines and substations, especially 33 kV lines and 33/11 kV substations.

Component 2: construction of 11 kV lines, distribution transformers, and Low Voltage (LV) lines for new power distribution facilities.

Component 3: Capacity Building, Project Implementation Support, and Technical Assistance.

1.2 Scope of Study

This study ensures that the project meets the requirements of Nepal Government's Environmental Regulations, and Environmental and Social Policy (ESP) & Environmental and Social Standards (ESSs) of AIIB. This report provides the measures for environmental and social management, monitoring, and reporting of the project.

1.3 Objective of ESMP

The Environment and Social Management Plan aims to sets out the measures required to maximize the benefits of the project; and to avoid, minimize and mitigate any adverse environmental and social impacts caused by the project. The objectives of this ESMP are to:

- Describe the existing natural and socio-economical resources in and surrounding Subproject area;
- Based on existing environmental conditions, identify and assess potential significant impacts during project preconstruction, construction, and operation & maintenance stages;
- Identify and recommend mitigation measures to minimize any potential impacts caused by Subproject activities;
- Identify the local concerns on environmental and social issues and address them;
- Develop environmental management plan and monitoring plan including cost;

 Recommend institutional arrangement, including capacity building to ensure proper environmental and social safeguards implementation during construction and operation phases.

1.4 Legal Provision for the ESMP

According to the E & S safeguard Screening report, safeguard risks/issues identified for this Subproject fall under Category III (ESMF), which triggers the preparation of ESMP to execute the Subproject. This Subproject has minimal or no adverse environmental and social impact; does not physically displace any family; and does not result in economic displacement of more than 10% of productive assets for any family.

Pertaining to Section 3 (1), Environment Protection Act (EPA), 2019 describes completing Environmental Studies as per Schedule 1 or 2 or 3 under Environment Protection Regulation (EPR) 2020 (First Amendment in 2021/05/24 on Nepal Gazette), detailed environmental studies Brief Environmental Study (BES), or Initial Environmental Examination (IEE), or Environmental Impact Assessment (EIA) is required. For this Subproject, pertaining to Section 3(1), EPA (2019) describes to complete Environmental Studies as per Schedule 1(Cha) Energy, Water Resources and Irrigation Sector (1) under EPR (2020) state "use of forest area for the electricity distribution line project up to 66 kV". The proposed Subproject will intercept the Subproject will use the of Sati Community Forest (CF), and Rampur CF land area for the purpose of 33 kV distribution line extension and substation construction. Thus, as per EPR (2020), a BES is mandatory for the proposed Subproject.

1.5 Methodology for the ESMP

The methodology that was followed while conducting the ESMP study is as follows:

- i. Literature Review: Published literature of government institutions and international organizations were reviewed to collect information on project surroundings. The Municipality/Rural Municipality (RM) and its Ward profiles are used to collect the socio-economic baseline information of the Subproject. National policies, legislative frameworks and Multilateral Development Bank (MDB) policies were reviewed to understand the priorities and any legally binding requirements were studied that should be complied with while implementing the project. The Legislative provisions relevant to the project are listed in **Annex 4**.
- ii. Field Survey and Investigation: Field surveys were conducted to generate information on the physical, biological and socio-economic environment of the project area. The physical environment; air quality data was monitored by Temtop Airing-1000 PM Detector, noise level by UNI-T UT 353 Mini Sound Meter (dB) and water quality by EXTECH ExStik II DO600. Field observation of the core project area and the surrounding vicinity of the project footprint area was applicable for the biological assessment. A circular quadrate of radius 12.5m was used for the estimation of the number of trees presence within the RoW of the proposed distribution line. A total of 3 different sample quadrates were used and trees numbers were estimated by extrapolation within RoW. The total enumeration of the trees to be cleared for the implementation of the Subproject will be estimated during the BES study. The tree

clearance approval is made once the Brief Environment Study (BES) is approved from the Ministry of Energy, Water Resources and Irrigation. Priority was given to the consultation with local communities at substation sites and the settlement areas that benefit from the project. Pertaining to Forest Act (2076) and Forest Regulation, (2079), BES report will be prepared and as per Forest Act (2076) Section 42 and Forest Regulation (2079) Rule 87 to 90, NEA/PIU must take approval from Government of Nepal, for the use of forest on the implementation phase. As per Rule 93 (5) and (6), the compensatory ratio for the loss of trees should be made in the ratio of 1:10 and require care, maintenance and upkeep of the planted trees before handover to concerned forest office after 5 years.

- iii. Data Analysis: All potential Subproject impacts on physical, biological, socioeconomic and cultural resources were integrated and assessed using best practice of
 Multilateral Development Banks, and also complied with national requirements. The
 Geographic Information System and SW Maps were used for the field assessment
 and analysis of the CPA and SPS data and presentation of the maps in the ESMP
 report. The project foot print Ward and Municipality/RM are considered for the
 collection of socio-economic and baseline information.
- iv. Impact Evaluation: The significance of impacts was evaluated on the basis of reversibility, nature, magnitude, extent and duration of the impact. Identification of magnitude, extent and duration is as provided in the National EIA Guidelines, 1993 of Nepal. While evaluating the impacts and prescribing mitigation, maximum efforts were made to get expert opinion and input from the DSUEP's technical and safeguard consultant team.
- v. Public Consultation: As per the Government of Nepal EPA and the AIIB Environmental and Social Policy (ESP), pre-notifications with the subject of consultation, venue, and time were given at Subproject foot-print area, local level and affected Ward office in presence of the concerned local stakeholders. Consultations were conducted in the Subproject area, at substations and the distribution line system settlement areas with local stakeholders.
- vi. Report Format: The ESMP report is prepared as per the Environmental and Social Policy (ESP) of the AIIB, which contains an executive summary, a main report, and annexes as appropriate, including one on the nature and findings of consultations undertaken. All the comments and suggestions from the field consultation are mentioned in the ESMP report.

1.6 Classification of Impact Area

The National EIA Guidelines (GoN, 2050) have mentioned on the "Core Project Area", and "Surrounding Project Area" based on the proximity and magnitude of the impacts due to the construction and operation of the proposed project.

Core Project Area (CPA) refers to the temporary and permanent area for the proposed project construction and associated activities. It is the area where direct impacts can be seen. For the Kohalpur-Machhagadh Distribution Line Subproject, the proposed

substation area with 1.03 ha and RoW of 33 kV distribution line with 25.57 km length is considered as CPA. The Subproject components are located within Ward No. 3, 4, 5, 6, 8, 10 and 15 of Kohalpur Municipality, Ward No. 5, 6 and 8 of Baijanath RM, Ward No.4 of Badhaiyatal RM of Banke District, Ward No. 3, 5, 6 and 8 of Bansgadhi Municipality of Bardiya. The major settlements in the Subproject area are Channawa, Samjhana Bazar, Uttarbhakari, and Matyariya. The distribution line stringing route passes and along the Right of Way (RoW) of the road alignment (0+000 to 14+250, along the forest area (14+250 to 14+700), and along the Sikta Canal (2+400 to 10+600, 15+250 to 25+600).

Surrounding Project Area (SPA) is the immediate vicinity of the footprint location of the proposed Subproject site. SPA is the moderate and indirect impact area. For this Subproject the 33 kV distribution line will be located within the Ward No. 3, 4, 5, 6, 8, 10 and 15 of Kohalpur Municipality, Ward No. 5, 6 and 8 of Baijanath RM, Ward No.4 of Badhaiyatal RM of Banke District, Ward No. 3, 5, 6 and 8 of Bansgadhi Municipality of Bardiya and along with these Wards, the adjoining Wards; Ward No. 4 of Bansgadhi Municipality and Ward No. 7 and 9 of Kohalpur Municipality of Banke district being considered as SPA. The SPA will have impact on the beneficiary's area of 11 kV lines and Low Tension (LT) lines service. The impact area showing the CPA and SPA area is presented in the google map **Figure 1-1**.



Figure 1-1: Core Project Area (CPA) and the Surrounding Project Area (SPA) Wards of the Kohalpur–Machhagadh DL Subproject

2. DESCRIPTION OF THE SUBPROJECT

2.1 Subproject Location and Accessibility

The proposed **Kohalpur–Machhagadh Distribution Line Subproject** is located within Kohalpur Municipality, Ward No. 3, 4, 5, 6, 8, 10 and 15, Baijanath RM Ward No. 5, 6 and 8 and Badhaiyatal RM, Ward No. 4 of Banke District and Bansgadhi Municipality Ward No. 3, 5, 6 and 8 of Bardiya District in Lumbini Province. The tapping point of Subproject lies in existing line 33 kV Kohalpur Substation, Kohalpur Municipality Ward No. 10, Banke. The proposed distribution line (33 kV) is 25.57 km in length and runs by the RoW of access road. There is access to road transport within the proposed Subproject ward area. The Subproject location and the accessibility are presented in the map below **Figure 2-1**. The main features of the Subproject are presented in **Table 2-1**.

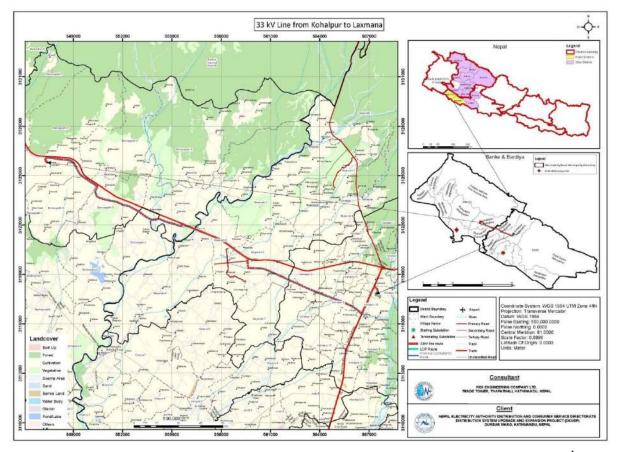


Figure 2-1: Location and Accessibility Map of Kohalpur–Machhagadh Subproject¹

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¹ Source: Department of Survey, 1995 and Field Study 2022

Table 2-1: Technical Description of the proposed Subproject

Description	Features			
Proponent	Nepal Electricity Authority			
·	Distribution System Upgrade and Expansion Project			
Project	(DSUEP)			
Subproject	Kohalpur-Machhagadh Distribution Line Project			
Funding Agency	AIIB			
Project Location	Kohalpur Municipality, Ward No. 3, 4, 5, 6, 8, 10 and 15, Baijanath Rural Municipality Ward No. 5, 6 and 8 and Badhaiyatal Rural Municipality, Ward No. 4 of Banke District and Bansgadhi Municipality Ward No. 3, 5, 6 and 8 of Bardiya District in Lumbini Province			
	Distribution Line			
33kV Line Starting Point	Tapped from Existing 33 kV Kohalpur Substation, Kohalpur Municipality Ward No. 10, Banke. Co-ordinate: Lat 28°11'3.39"N and Long 81°41'13.18"E			
33kV Line End Point	Laxmana Substation (Proposed) at Laxmana, Bansgadhi Ward No. 8 Bardiya, Co-ordinate: Lat 28°15'27.35"N, Long 81°28'59.68"E			
Land type	Government/Private			
System Voltage	33 kV			
Max, Min System Voltage	36, 30 kV			
Climatic Condition	Wind Speed: As per IS 802-1-1 Maximum Ambient Temperature: 41.2 °C			
	Altitude (Min, Max): 154, 170 masl			
Length of Line/ No. of Pole	25.57 km/ 550 Poles			
Right of Way	6 m			
Number of Circuit	1			
Conductor	ACSR Dog			
Line Capacity/Thermal Limit (approx.)	13.4 MW at 0.9 power factor			
Туре	Steel Tubular Pole with 11m/13m Height			
Pole Configurations	Single Pole Structures, H-Pole Structures etc. (With and without Stay Sets)			
Diameter of a Single Pole (approx.)	0.22m (As per IS 2713-3)			
Planting Depth of Pole	2.2m			
Insulators	Porcelain Disc and Pin Insulator			
	Substation			
Location	Laxmana Substation (Proposed) at Laxmana, Bansgadhi Ward No. 8 Bardiya, Co-ordinate: Lat 28°15'27.35"N, Long 81°28'59.68"E Elevation:165 masl			
Land type	Private			
Voltage Level	33/11 kV			
Substation Capacity	8 MVA			
Number and Capacity of Transformer	1 no., 8 MVA			
Type of Transformer	3 Phase, ONAN/ONAF, Mineral Oil			
Type of Substation	AIS (33 kV) and Indoor (11 kV)			
Number of 33 kV Line Bays	1			
Number of 33 kV Transformer Bays	1			
Number of 11 kV Feeders	4			
Substation Area	1.03 ha			

2.2 Subproject Components

The major components of the Subproject are the 33/11 kV substation and 33 kV distribution line (DL). The 33 kV DL is tapped from an existing 33 kV network line and acts as a source feeding to the proposed 33/11 kV substation. 11 kV distribution feeders emerge from the substation, eventually supplying the electricity to the consumers. The structures of the Subprojects are briefly described below.

2.2.1 33 kV Distribution Line (DL)

The 33 kV DL serves as the pathway for feeding electricity to the proposed substation. Aluminum Conductor Steel Reinforced (ACSR) type conductors are stringed on Steel Tubular Pole from the starting point of the line. In general, the 33 kV lines comprises of the Steel Tubular Poles, Insulators, Conductors and Supporting Stays.

Steel Tubular Poles: Steel tubular poles will be installed in this Subproject. 11 m and 13 m long poles shall be used depending upon the location of the poles and the number of circuits used in the line. The poles to be erected will be supported by stays wherever necessary. Insulators will be installed at cross arms to support the conductor from the poles. The length of the proposed 33 kV distribution line is 25.57 km and the total number of steel tubular poles to be erected is estimated as 550.

Insulators: The insulators provide insulation to the poles from the high voltage in the conductors. Pin-type insulators will be employed for suspension poles whereas disc types will be employed for tension poles. Porcelain-type insulators will be used owing to their dielectric strength, better compressive strength, higher resistance to degradation, suitability for extreme climate, and environment friendly characteristics over its counterparts.

Conductor: ACSR Conductor – Aluminum Conductors Steel Reinforced, conductors with stranded layers of aluminum and steel will be used for 33 kV lines. Aluminum strands carry the current whereas the steel in between provides the mechanical strength for the conductor. Typically, 100 sq. mm conductors are used in 33 kV line for this Subproject which is also known as ACSR DOG conductor.

Stay/Guy Sets: Stay Wires are used to support or provide the balancing tension to the poles. These are made up of steel materials and can be used in multiples for a single pole, depending upon the requirements.

2.2.2 Substation

The proposed substation 33/11 kV is of capacity 8 MVA. The substation plays the role of lowering the 33 kV voltage level to 11 kV, which will then be strung as a distribution feeder to supply the consumers. The major component of the substation is the power transformer, which is supported by the switchgear components and Civil Structures. The facility and components sample pictures are shown in **Annex 3**.

Transformers: Transformer is the major component of the distribution substation. It transforms power from higher voltage to lower voltage for distribution purpose. Power

Transformers are used for the 33/11 kV substations. These transformers are mineral oil based with ONAN/ONAF (Oil Natural Air Natural/Oil Natural Air Forced) cooling mechanisms. In existing practice, the transformers used for 33/11 kV substations in Nepal are typical of 1 MVA, 3 MVA, 8 MVA and 16 MVA depending upon the load supplied by the substation. This Subproject comprises of power transformer of 8 MVA ONAF type.

Electrical Switchgear: Electrical Equipment comprising of Circuit Breaker, Earth Switch, Current Transformer, Potential Transformers, etc. installed in the substation is called Electric Switchgear. They facilitate the objective of power conversion.

Civil Structures: A control building is essential for the operation of the substation. It houses the operating station, along with battery systems. Guard House and Staff Quarter are other essential buildings for the smooth operation of the substation.

Switchyard, Boundary, Roads, Drainage and Essentials: The outdoor civil structure in the proposed substation includes the boundary wall, main entrance gates and Switchyard. The power transformer and components of the power system are laid in the switchyard based on prudent engineering practice. Steel structures are used to support the components as per component-wise requirements. Roads are paved within the boundary as essential for the transport of power transformers and other components. The substation location also serves as a site store for the storage of distribution system components.

2.2.3 11 kV Lines and LT Lines

11 kV lines and LT lines take the access of electricity to the consumer households. It is why the construction of those lines is always encouraged by the local people. The line route, thus the installation of poles and lines, is envisaged to go through the edge of local roads. If any line route passes through any private lands, permission from the corresponding land owner will be taken before the construction of those lines.

The detailed line route survey for 11 kV and LT lines has not been done yet. A separate screening will be prepared for 11kV lines. The scope of detailed survey is in the scope of the construction Contractor. The construction Contractor will conduct Pre-Construction Survey (PCS) to finalize the line route of 11 kV lines and LT lines for the construction. PCS will prepare the detailed line route of those lines and submit it to PIU for approval. After the detailed line route is submitted by the Contractor and approved by PIU, the E&S team of the Project Supervision Consultant (PSC) will conduct an E&S study and submit the findings that

- Do the lines pose any adverse Environmental or Social issues?
- If there are any Environmental or Social issues, how can they be resolved? If the lines do not pose any adverse Environmental or Social issues, the lines will be cleared by PIU after seeking concurrence from AIIB.
- If the solution measures are not implementable in the field, PCS will suggest any other way to divert or reroute the lines If yes, PCS will propose an alternative line route. The lines will be cleared by PIU after seeking concurrence from AIIB, given that the lines do not pose any adverse Environmental or Social issues.

2.3 Major Construction Activities in the Subproject

Activities in the Subproject area can be sub-divided into three categories viz, Pre-Construction Phase, Construction Phase and Operation Phase. For the proposed Subproject, trees and bushes in the Right of Way (RoW) of 33 kV lines have to be cleared whereas, no trees and bushes within the proposed substation boundary have to cleared for the construction work. The proposed Kohalpur–Machhagadh Line Subproject intercepts forest area of 0.72 ha. The estimated loss of trees species in the RoW of 33 kV lines are 189.

- I. Preconstruction phase: The activities to be carried out before the construction phase are:
 - Demarcation of land area for the proposed substation
 - Receive public opinion
 - Make clearance of the substation land area permanently
 - Distribution line route selection
 - Approval to cut down trees from the concerned government authorities
- II. **Construction phase**: The activities to be carried out during the construction phase are:
 - Assign the land area for the temporary storage of construction materials
 - Transportation of construction materials
 - Leveling of land area for the proposed substation
 - Cutting down of trees in RoW of 33 kV lines
 - Construction of substation structures
 - Pole erection work for 33 kV, 11 kV and low-tension distribution lines
 - Stringing of 33 kV, 11 kV and low-tension distribution line
- III. **Operation phase**: The activities to be carried out during the operation phase are:
 - Maintenance of the substation and 33 kV distribution line route

2.4 Energy to be used

During the construction period, diesel fuel will be used to power construction equipment and transport vehicles, which emit air pollutants and greenhouse gases in insignificant quantities. Use of firewood is restricted in the labor camp, whereas the Contractor shall supply LPG for cooking foods to the workers.

2.5 Land Required

The **Kohalpur–Machhagadh Subproject** will require about 1.03 ha land for building the proposed substation. The land is private land and will be managed by NEA to construct the substation in the designated area. The 33 kV distribution line is 25.57 km length of which pass by RoW of Ratna Rajmarga Road and follow the edge of Sikta Irrigation Canal till to Bankatawa and passes through RoW of Mahendra Highway (East-West Highway), private farm lands and community forest till to the proposed substation. Poles shall be installed at the edge of farm lands, which will not affect the usability and valuation of the lands.

2.6 Material Requirement and Sources

A 33/11 kV substation, 33 kV, 11 kV and low-tension distribution lines will be constructed for this Subproject. Minimal excavation at the pole locations will be done to erect steel tubular poles of 11 m and 13 m. The depth of burial for 11 m (approximately 256 kg) and 13 m (approximately 343 kg) poles are 1.8 m and 2.17 m respectively. The construction works for the substation will not produce a significant amount of spoils and thus it will not require a spoil-dumping site. Similarly, excavation works carried out for digging pit holes for poles produces insignificant spoils which do not require the management of earthworks.

Civil construction works will involve excavation the foundation of the substation, steel reinforcement, cement, coarse aggregates and fine aggregates (sand). Materials will be procured from legally operating markets. The design team has provided the following estimate of construction materials required for 33 kV distribution line and the substation.

Table 2-2: Approximate Quantity of Material for 33 kV line

SN	Particular	Unit	Requirement
1	Amount of Steel	Ton/Km	5800
2	M15 concrete for Pole base	Cum/Km	12.5

Source: Design Report, DSUEP

Table 2-3: Approximate Quantity of Material for 33/11 kV Substation

SN	Particular	Unit	Support Structures, Road, Drainage	Control Building	Staff Quarter	Office Building	Guard House
1	M15 Concrete	Cum	100	25	224	120	5
2	M25 Concrete	Cum	300	170	125	75	27
3	Reinforcement bar	Ton	7	27	20	12	4

Source: Design Report, DSUEP

2.7 Major Equipment and Power Requirements

Major types of equipment used during the Project implementation are:

One Excavator, One Roller, One Drilling Machine, One Crane, one Grid Supply of 100 kVA Distribution Transformer, and two 50 kVA capacity diesel generators.

2.8 Workforce Requirement

Local people in the surrounding Subproject area will be encouraged for the employment. Based on the skills (skilled, semi-skilled and unskilled labor), local people will be used for the construction in such a way that both males and females will get an equal opportunities during construction. The number of human resources required depends upon the complexity of the project as well as the geographical location of the project. In case of construction of 33

kV lines and 33/11 kV substations, the workforce typically varies from terai to hilly to the mountain region. The expected number of manpower employed is enlisted hereunder.

Table 2-4: Human Resource Required for construction of 33 kV line and substation in a day of Construction

SN	Human Resource/Day	Human Resource/Day For Distribution Line	
1	Engineer (No.)	1	2
2	Supervisor (No.)	2	4
3	Foreman (No.)	3	5
4	Skilled (Lineman/Electrician) (No.)	5	5
5	Helper (No.)	2	10
6	Labour (No.)	12	15

Source: Design Report, DSUEP

2.9 Construction and Implementation Schedule

Implementation of the proposed Subproject comprises the construction of a new 33/11 kV substation, 33 kV lines, 11 kV lines, low tension lines, and installation of distribution transformers. It includes the construction and installation of components as mentioned in subsection 2.2. The estimated completion period is 24 Months.

Table 2-5: Construction Schedule of Project Implementation

SN	Activities/ Months	Months (After the completion of Detailed Survey Study)					
SIN		1-3	4-6	7-10	11-15	16-20	20-24
1.	Invitation for tender, evaluation, and award						
2.	Implementation of Environmental and Social Safeguards						
3.	Erection of Poles						
4.	Stringing of conductor						
5.	Construction of substation						
6.	Charging and Testing						

Source: Design Report, DSUEP

3. DESCRIPTION OF THE ENVIRONMENT

3.1 Physical Environment

3.1.1 Topography and Land Use

The Subproject area lies in Ward No. 3, 4, 5, 6, 8, 10 and 15 of Kohalpur Municipality, Ward No. 5, 6 and 8 of Baijanath RM and Ward No. 4 of Badhaiyatal RM of Banke District and Ward No. 3, 5, 6 and 8 of Bansgadhi Municipality of Bardiya District in Lumbini Province. The Subproject components are located within the Chure Range of Nepal. The tapping point is situated at Latitude 28°11'3.39"N and Longitude 81°41'13.18"E, with an elevation of 158 masl. The proposed distribution line (33 kV) of 25.57 km passes through the RoW of Ratna Rajmarga Road and follow the edge of Sikta Irrigation Canal till to Bankatawa and passes through RoW of Mahendra Highway (East-West Highway), private farm lands and community forest.

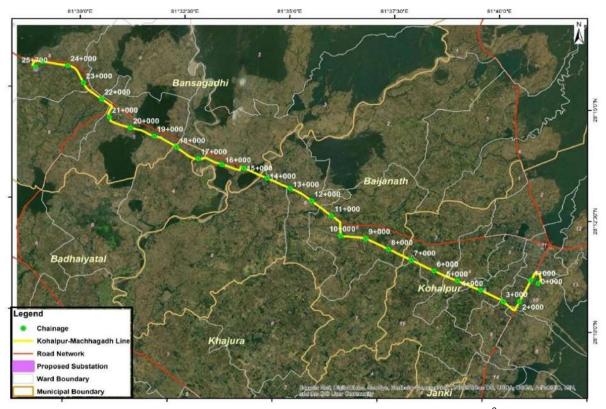


Figure 3-1: Location map and Land use details of the Subproject²

The substation lies at Latitude 28°15'27.35" N, Longitude 81°28'59.68"E and elevation of 165 (masl). The site lies in depressed flat land. It is barren land. The proposed substation boundary lies within a 1.03 ha area. None of the private and public entities will be affected due to the implementation of the proposed Subproject, as it will be installed within the RoW of the existing road, barren land and the edges of the cultivated land. The land use map details with the components of the Subprojects are presented in **Annex 2**.

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² Source: Topographic Map, Department of Survey, 1995 and Field Study 2022



Figure 3-2: Kohalpur Substation, Kohalpur Municipality Ward No. 10, Banke



Figure 3-3: Kohalpur–Machhagadh Proposed Substation Area View

3.1.2 Geology

The Subproject area is situated on the upper Terai region of the Indo-Gangetic plains with the Siwalik hills to the north. The types of deposits are of quaternary type. The line will then run from the soil is silty clay and the land is slanted, necessitate the use of a concrete foundation to prevent pole tilting, whereas the rest of the area is composed of silty loamy soil, which is highly fertile. Sometimes, the high rainfall causes the flood in nearby stream and can risk to the nearby settlement and the landform. So, necessary care should be taken during the formation of structure in the distribution line.

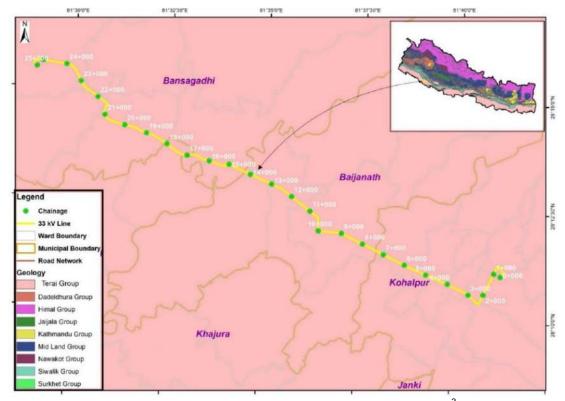


Figure 3-4: Geological Map of proposed Subproject Area³

³ Source: Department of Mines and Geology (DMG), 2020

3.1.3 Seismology

The entire country of Nepal is in a seismically active zone caused by the subduction of Indian tectonic plate under the Tibetan Plate. According to the National Seismological Center of Nepal several big earthquakes have been felt in Nepal, the earthquakes of magnitude 6 to 7 are mostly confined to the Main Himalayan Thrust (MHT) between the foot hills and the Higher Himalaya. Moreover, earthquake generation is confined to the crustal depth of 20 km. However, shallow earthquakes at depths down to 6 km are generated as a result of strikeslip faults. Therefore, the substations and distribution lines of this Subproject will be designed and operated per seismic design requirements and best engineering practice. The seismic activity in Nepal between 1964 and 2019 as in the IUSGS portal is shown in **Figure 3-5**.

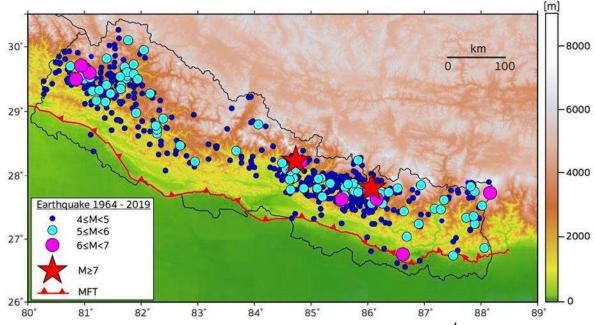


Figure 3-5: Seismicity map of Nepal from 1964 -2019⁴

3.1.4 Climate

The climate of the Subproject area is sub-tropical type. According to DHM 2021, the temperature at the project area varied from 2.5°C to 41.2°C. The average annual rainfall is estimated at approximately 1,667 mm per year. Almost 80% of rainfall occurs during monsoons (June to September).

3.1.5 Air, Noise, Water Quality and Polluting Sources

The major air polluting sources recorded are only vehicular emission and dust problem from plying of vehicles and high wind velocity. Noise-polluting sources noted at the time of field study are similar to the air polluting sources. Unnecessary honking along the access road of the site is the source of noise generation. The following table shows the real-time quality of air and noise during a field study.

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⁴ Source: USGS catalogue, 2019

Air Quality⁵-Temtop Airing-1000 PM Detector Noise Level -UNI-T UT 353 $(\mu g/m^3)$ Mini Sound Meter (dB) Location/ SN **Average Time** Chainage Ref.6 $PM_{2.5}$ Level PM₁₀ Level Measured Area of Measurement Tapping 1. 30.3 35.9 48.3 Residential **Point** 100 50 200 1-hour Area Substation 2. 29.6 31.8 30.6

Table 3-1: Ambient Air and Noise Quality within the Proposed Subproject Site

Source: Field Visit, 2022

The air quality and noise level of the SPA were found within the range of the National Ambient Air Quality Standard and Noise Quality Standard, respectively.

Kiran Nala, Man Khola, Dundawa Khola and Sikta Irrigation Canal are the water bodies near proposed distribution line. There are not any water bodies lie near bay extension substation point 33 kV distribution line. Distribution line crosses Kiran Nala, Man Khola, Dundawa Khola and Sikta Irrigation Canal, which are connected by natural water sources. The construction activities of the Subproject components will not have impact to the local stream.

3.1.6 Solid Waste Management

Wastes were found littered in front of HHs and along the side of the access road near the Subproject area. People in the nearby area were found managing organic wastes within the household premises. Recyclable waste (large quantities) was sold to scrap collector occasionally. The estimated quantity of solid waste generation from the labor camp is shown in **Table 3-2**.

SN Description Calculation Remarks 1. Total Labors within the Campsite = 20 Labors 2. Total Waste Generation to be = 20 * 123.62 g/capita/day Expected = 2472.4 g/capita/day = 2.4724 kg/day3. Composition Organic Waste = 1.26 kg/dayAssuming Responsible for Foul Smell, and 51% Rodents organic waste

Table 3-2: Estimated Daily Solid Waste Generation from Campsite

The rest of the other waste is recyclable, and non-decomposable which could be stored for long period and have less impact on the environment if properly managed. The amount of organic waste is manageable within the Subproject site as organic waste per day will be expected to be only 1.26 kg/day.

-

⁵ National Indoor Air Quality Standard, 2009

⁶ National Ambient Sound Quality Standard, 2012

3.2 Biological Environment

The proposed substation area land is private land. The land is barren and no issues of tree loss in substation area. The proposed Subproject 33 kV distribution line passes from the edge of Sati Community Forest (CF) and Rampur CF. The proposed Subproject lies at an elevation below 1,000 (305-470) masl in the tropical bioclimatic zone. The proposed Subproject development site does not lie within any protected area or conservation area, although it is located within the Chure region without any induced impact to the biological environment.

The vegetation species recorded during the screening field visit are Sal (*Shorea robusta*), Saj (*Terminalia elliptica*), Sisau (*Dalbergia sissoo*), Teak (*Tectona grandis*), Jamun (*Syzygium cumini*), and Rohini (*Mallotus philippensis*). Similarly, wild animal recorded during the public consultation are Rhesus Monkey (*Macaca mulatta*), Golden Jackel (*Canis aureus*), and Indian Hare (*Lopus nigricollis*). Altogether five species of birds were noted around the surrounding project area are House Crow (*Corvus splendens*), Western Spotted Dove (*Spilopelia suratensis*), Red-vented Bulbul (*Pycnonotus cafer*), Rock Dove (*Columba livia*), and Western Koel (*Eudynamys scolopaceus*). All these bird species are of the least concern under IUCN categorization.

The proposed Kohalpur–Machhagadh 33 kV distribution line passes through the 2 different community forests as shown in **Table 3-3**. A total of 0.72 ha of the forest area will be occupied by the RoW of proposed 33 kV distribution line. The estimated number of trees to be cleared from the Core Project Area of the distribution line alignment passes along different community forests are 189.

		Chainage	Chainage		Municipality/	Ward
S.N.	Name of Forest	from	to	District	RM	No.
					Bansgadhi	
1	Sati CF	14+400	14+800	Bardiya	Municipality	3
					Bansgadhi	
2	Rampur CF	19+400	19+800	Bardiya	Municipality	5

Table 3-3: The community forest along the proposed 33 kV distribution line

3.3 Socio-economic Environment

Demography and Ethnic Compositions: The proposed Subproject area lies in Ward No. 3, 4, 5, 6, 8, 10 and 15 of Kohalpur Municipality, Ward No. 5, 6 and 8 of Baijanath RM, Ward No.4 of Badhaiyatal RM of Banke District, Ward No. 3, 5, 6 and 8 of Bansgadhi Municipality of Bardiya District. Kohalpur is the nearest business market nearby the Subproject area. The general demographic information of the affected Municipality and RM is presented in **Table 3-4**. The major ethnic compositions within the surrounding project area i.e., Ward No. 3, 4, 5, 6, 8, 10 and 15 of Kohalpur Municipality, Ward No. 5, 6 and 8 of Baijanath RM, Ward No.4 of Badhaiyatal RM are Tharu (38.6%), Chhetri (19.9%), Brahman (10.1%), Kami (8.9%), Magar (5.9%), and Thakuri (4.4%) of the total population of 92,293. Majority of people follow the Hinduism and rest follow Buddhism and Christianity. The Core Project Area (CPA) of the Subproject will not affect any indigenous people.

S.N.

Baijanath RM

Badhaiyatal RM

Bansghadi Municipality

Population Local Level Ward No HH Male **Female** Total Kohalpur Municipality

Table 3-4: General Demographic Characteristic of Subproject Municipality

Source: (CBS, Rural Municipality-Municipality Profile of Banke and Bardiya District, 2018)

Road Accessibility: Subproject-Ward No. 3, 4, 5, 6, 8, 10 and 15 of Kohalpur Municipality, Ward No. 5, 6 and 8 of Baijanath RM, Ward No. 4 of Badhaiyatal RM, Ward No. 3, 5, 6 and 8 of Bansgadhi Municipality are connected to Mahendra Highway (East-West Highway) and Ratna Rajmarga Road Section. The transportation facilities in this locality are good. It is 20-25 minutes to reach affected Municipality and RM office from the Subproject area.

Electricity Beneficiaries: The implementation of the Subproject will increase the electricity beneficiaries to 30,675 HHs, 119 commercial purposes, and 11 industries. This will expand the electricity supply in the Subproject area with clean energy sources.

Water and Sanitation: Tube-well and tap/piped water is the main source of drinking water in the surrounding Subproject area. The people living in the plain area have tube-well and the side area is facilitated by the tap water system. Almost all the houses in the area have some sort of toilet facility.

Health Facility: The nearest and easily accessible health facility nearby the proposed Subproject area is Nepalgunj Hospital in Kohalpur located at a distance of 2 km from tapping point and Janasewa Medical Hall is about 1.5 km from the proposed substation site.

Communication: People of the Subproject have access to communication facilities mainly through mobile telephone services. In the Subproject area, people have access to local and national FM Radio networks and local newspaper facilities.

Occupation: Agriculture is the main occupation of people in the Subproject area with nearly 70% contribution; small trade and business/enterprises and services are other occupations

of people in the Subproject area. Intermittent tripping and voltage drop of electricity were adversely affecting the irrigation of crops and daily household chores activities.

COVID-19: The coronavirus (COVID-19) pandemic has been defined as a global health crisis; the virus has spread in almost all parts of Nepal. Heedful of its vulnerabilities, the Government of Nepal enforced a nationwide lockdown in 2020/2021 and activated its federal, provincial and local level mechanisms to respond to the crisis. In case of any sudden surge or outbreak of COVID-19, quarantine facilities and immediate health supports should be provided to the workers and personnel involved in construction.

Other seasonal and minor diseases like dengue, fever, sneezing, cough, gastritis, diabetes and mental disorder have been reported within the Subproject area.

4. ANTICIPATED ENVIRONMENTAL AND SOCIAL IMPACTS AND MITIGATION MEASURES

The environmental and social impacts predicted during the construction of the proposed Subproject are discussed in this chapter. National Environmental Impact Assessment Guidelines (GoN, 2050) have been referred for the predicting magnitude, extent, and duration of the project-induced environmental impacts in the Subproject area. This chapter identifies the basic environmental and social impacts in the Subproject area that will arise during the construction. The detailed impacts of each domain of environmental and social safeguards have been addressed in this chapter.

4.1 Anticipated Beneficial Impacts

Construction Phase

4.1.1 Local Employment

Local employment will be created during the construction phase. As mentioned in section 2.8 Workforce Requirement, the typical construction team will have 19 skilled manpower and 47 unskilled manpower for the period of 10-12 months for the erection of poles and stringing the distribution lines and 16-18 months for building the substation. Local people within the SPA and OPA will be encouraged for employment during construction phase. Both males and females will get equal opportunities during the construction. Based on the skill levels (skilled, semi-skilled and unskilled labor) local people will be used for the construction as far as possible. The magnitude of impact is considered moderate, the extent is local, and the duration is short-term.

Operation Phase

4.1.2 Local Economy and Enhancement in Rural Electrification

The local economy will benefit through improved reliability of electricity supply, which is a necessary condition for economic growth. Different industries within/nearby the proposed Subproject area will be established. Intermittent tripping and voltage drop problems nearby the settlement area will be reduced. Upgrading and expansion of electricity distribution help to way-out many electricity-related issues and promotes the use of new types of home appliances, the use of electric motors for irrigation, and the establishment of small and large industries. The magnitude of impact is considered high, the extent is local, and the duration is long-term.

4.1.3 Greenhouse Gas Emission Balance

Net Green House Gas (GHG) emissions resulting from the Subproject area are expected to be low as the distribution lines will improve and expand the electricity supply from clean energy sources. It will reduce the emission of GHG from traditional source like Guitha (made from cow dung), firewood and timber along with commercial fuel Kerosene for cooking/lighting, heating, and diesel for water pumping. The magnitude of impact is high, the extent is local, and the duration is long-term.

4.2 Anticipated Adverse Impacts

A. Physical Environment

Construction Phase

4.2.1 Change in Land Use

The Subproject requires about 1.03 ha of land for the substation. The proposed substation land area is private land. The land will be converted to the substation area surrounded by proper boundary wall. Distribution Line passes through the RoW of Ratna Rajmarga Road and follow the edge of Sikta Irrigation Canal till to Bankatawa and passes through RoW of Mahendra Highway (East-West Highway), private land and community forest till to the proposed substation. The construction of the Subproject will bring change in land use permanently. Potential impacts caused by distribution lines will be limited to approximately 0.22 m of land for each pole, at the edge of roads and cultivated lands. *The impacts due to the use of land will be moderate in magnitude, site-specific and long-term in duration*.

Mitigation Measures

- Steel Tubular Pole for distribution lines will be planted at the right way of the existing road without hampering traffic movement. In the case of cultivated land, minimal land will be used at the edge for planting the poles.
- Cr A cropping calendar will be followed while planting poles and stringing conductors so that standing crops will not be damaged.
- In case of loss of standing crops, compensation will be made to the respective land owner as per the prevailing market rate.

4.2.2 Air Quality

The impact on air quality during the construction period is expected to be insignificant, as site clearance, excavation, stockpiling of construction materials, waste burning at camp sites and equipment installation are localized and short-term. Transportation of the materials and movement of construction crew and equipment will have a minor impact on air quality. The impact on air quality will be minor in magnitude, site-specific in terms of extent, and of short duration.

Mitigation Measures

- Contractors' vehicles and equipment should meet Nepali vehicle emissions standards.
- Dust emissions will be controlled with using water sprays on earthen roads nearby settlements in the substation area.
- Open burning of wastes should be strictly prohibited.
- Construction workers should use face masks at all times.
- All dust-generating loads carried in open trucks should be covered.

4.2.3 Noise

Noise is inevitable during construction. As noted in section 3.1.5, noise is less around the substation area as the area is rural and settlement is sparse. Construction-related noise will be limited to vehicular movement and inside-the-fence construction activities at substations sites; construction-related noise is not expected to exceed acceptable levels. The impact on noise level will be minor in magnitude, site-specific in terms of extent, and of short duration.

Mitigation Measures

- Contractors will be required to monitor noise during construction.
- For the substation site, boundary walls serve as a noise barrier, and they should be constructed as early as possible.

4.2.4 Drainage and Water Quality

Substation sites of 1.03 ha will result in a slight alteration of drainage patterns, although the alterations in drainage will not be quantifiable. Interference with drainage patterns will be temporary during the construction phase only. The impact on water quality during the construction period is expected to be insignificant. Water will be used primarily as a cement additive for the construction of substation foundations and boundary walls, and to control dust. The magnitude of impact is considered low, the extent is site-specific, and the duration is short-term.

Mitigation Measures

- Storm water run-off from substation sites will be minimized and controlled by bundling temporary dikes (constructed boundary walls will also help contain run-off water).
- Proper management of ground drainage from camps as a preventive measure against the breeding places of mosquitoes, and other pests.

4.2.5 Soil and Muck

As the proposed substation land's ground level is low, filling of soil is necessary. The required filling materials shall be purchased from a nearby authorized crusher plant approved by the local government. For distribution lines the excavation activity will be insignificant. The magnitude of impact is low, the extent is site-specific, and the duration is short-term.

Mitigation Measures

- Soil required for filling shall be purchased from the nearby authorized crusher plant under local government.
- Soil shall be covered with tarpaulin while transporting it from earth-borrowing areas.
- Simultaneous water sprinkling and compaction of spoil shall be done using the roller.

4.2.6 Solid Wastes

The wastes generated during construction within the Subproject area are cement bags, iron bars, and other leftover construction materials, and waste generated by the labor camp. It might cause an adverse impact if not properly managed. Organic wastes generated from labor camps may give a foul smell and attract rodents if not manage properly. Inorganic wastes generated during implementation shall be managed through source segregation. The magnitude of impact is low, the extent is site-specific, and the duration is short-term.

Mitigation Measures

• Source segregation of organic and inorganic wastes in different storage areas or facilities in the designated location.

- The organic waste generated from the campsite shall be managed within the substation premises, through composting in the bin or by constructing a ground pit and covered by a thick layer of soil on daily basis.
- Reusable waste like debris, broken brick pieces, sand, stone, waste cement, and sand mix shall be used as refills for ground leveling.
- Packing materials used for casing components should be recyclable.
- Recyclable wastes like left out/non-usable reinforcement bars and packing materials shall be sent or sold to scrap vendors.
- Chemical waste generated from the transformer shall be collected in leakage-proof, corrosion-free, specially designed containers and sealed carefully.
- Effective coordination shall be done with the local level government for proper waste management during the construction period.

Operation Phase

4.2.7 Electric and Fire Hazard

Employees performing servicing or maintenance of substations may be exposed to electric shock, burns and injuries from the unexpected energization or release of stored energy in the equipment. The magnitude of impact is considered moderate, the extent is site-specific, and the duration is long-term.

Mitigation Measures

For this, the following mitigation measures will be practiced:

- Use of insulation, guarding, grounding, electrical protective devices, and safe work practices are advised.
- Boundary walls and security fences around the substation are recommended to prevent unauthorized access.
- Only trained and authorized personnel shall be allowed for electrical work.
- · Warning signs shall be installed.

B. Biological Environment

The proposed Subproject avoids forest area and other sensitive biodiversity area. Hence, there will be no significant impact to biological environment because of construction of substation and distribution lines.

Construction Phase

4.2.8 Loss of Habitat

As the proposed substation area is a barren land, whereas the 33 kV distribution line passes through the edges of road alignments, farm lands and forest areas. The total area of the forest area that will be occupied within RoW of the proposed 33 kV distribution line is 0.72 ha. The estimated number of trees to be cleared from the Core Project Area of the distribution line alignment passes along different community forests are 189. The possible use of firewood should be restricted during the construction activities. *The magnitude of impact is moderate, the extent is site-specific, and the duration is long-term.*

Area (ha) Name of species No. of trees 33 kV line Substation Total 33 kV line Substation 0.72 0.72 Dalbergia sissoo 68 Terminalia elliptica 10 Mallotus philippensis 10 Tectona grandis 38 Syzygium cumini 17 Vachellia nilotica 11 17 Baspatay Cinnamomum tamala 7 Shorea robusta 10 Total 189

Table 4-1: Detail of impacted forest area and trees loss

Mitigation Measures

- Compensatory plantation shall be done as per Forest Regulation, 2079 (2022).
- Compensatory plantation to be made in the ratio 1:10, including cost for sapling and management cost for 5 years.
- Workers and staffs should be restricted to use firewood for cooking.
- · Providing LPG based stoves in Labor camp.
- Labors and staff shall be made aware to avoid illegal activities in adjoining forest.

Operation Phase

4.2.9 Bird electrocution and collision

The Subproject area is located in a semi-urban area and there is no presence of critical habitat of avian fauna. Electrocution is a risk to bird species that perch on power line infrastructures (substations and distribution lines). List of birds presented in section 3.2, may collide to distribution lines and substation. Minimizing bird collision and electrocution risk is therefore a win-win for biodiversity and the power sector. The magnitude of impact is low, the extent is site-specific, and the duration is long-term.

Mitigation Measures

• Bird guards should be installed above the poles and white spirals in the conductors to improve visibility electrical structures.

C. Socio-Economic and Cultural Environment

The anticipated impacts regarding the socio-economic and cultural environment associated with Subproject are discussed below:

Construction Phase

4.2.10 Land Requirement

The land required for the proposed substation area is 1.03 ha, is the private land that will be managed by NEA later. This has been confirmed officially through Ward Office, Bansgadhi Municipality. NEA is given the right to use the land to build and operate a substation. There will be no issues of land requirements for the pole erection and for the distribution line people have suggested to install poles at the edge of farm-lands, without affecting any private structures along the distribution line. But the proposed substation land is private land, so there is necessity of land acquisition which issues will be fulfilled by Resettlement Plan. For the construction of distribution lines, owners of private land along the route have assured and committed for necessary help and support during implementation. They have agreed on NEA's proposal that poles shall be installed on the edge of cultivated lands and appropriate compensation for the loss of crops shall be given (Annex 5). Compensation shall be made based on crop types and quantity of loss equivalent to the market price. The impacts will be low in magnitude, site-specific, and long-term in duration.

Mitigation Measures

- A distribution pole of diameter 0.22 m should be installed on the edge of cultivated land making no loss of standing crops.
- If there is a loss of crops, appropriate compensation shall be made.

4.2.11 Public Health

Construction activities will be of small scale, causing no significant adverse impact to existing quality of air, water and sound. Local people except the workers do not involve in construction activities. Considering the COVID-19 pandemic as an example, workers will be advised to avoid unnecessary contact with local people. The magnitude of impact is low, the extent is site-specific, and the duration is short-term.

Mitigation Measures

- Contractors shall implement health and safety plans.
- Awareness of HIV/AIDS and other sexually transmitted disease should be provided to the labors.
- Awareness of basic sanitation and waste management should be provided to the labors.
- For coronavirus (COVID-19) pandemic situation, contractor needs to handle the situation in case of any sudden surge and standardize the quarantine facilities with health aid to the labors.

4.2.12 Occupational Hazards and Safety of workers

Occupational health hazard and the safety of workers is the major issue during the construction period. Working without adopting safety measures during excavation work, spoil management work, mechanical and electrical equipment handling activities, chemical handling, etc. during construction may call the risk of accident. The primary victims are the workers involved in the construction. So, the envisaged direct impact is high in magnitude, site-specific in extent, short-term in duration.

Mitigation Measures

- The contractor shall prepare the Environmental, Health and Safety plan and take approval from the Client (NEA/PIU). The contractor shall employ Safety officer during the construction period.
- All employees shall be provided with the necessary training, and safety equipment as required for their responsibilities and duties. The Contractor will adhere to labor Act 2074 and Labor Rules 2075.
- The basic facilities of drinking water, sanitation & clean resting place, canteen, and first aid are required for the campsite.
- All the workers shall have health insurance throughout construction.
- Installation of warning signs (High Voltage, Fire Safety Signs, and Emergency Signs) as shown in **ANNEX 7**.
- NEA will be responsible to supervise the EHS performance of the construction Contractor, and workers' health and safety.

4.2.13 Child Labor, and Gender Issues

During the construction period, people employed on daily wages for excavation, transportation of construction materials, and other construction-related works should avoid the involvement children and should avoid gender discrimination. Gender discrimination may occur as the Contractor may not be sensitive towards gender equity. Contractors should equally pay men and women workers. Construction area should be gender friendly with required facilities. The envisaged impact is high in magnitude, site-specific in extent, and short-term in duration.

Mitigation Measures

The Subproject will ensure to:

- Provide equal wage to male and female for similar nature of work.
- Prohibit the use of child labor i.e., below 16 years of age (which is as per government and ILO guidelines).
- Provide female friendly construction environment with separate cabins and toilet for women in the camp.
- · Prepare suitable work categorization for women.

4.2.14 Socially Undesirable Activities

The workers may use alcohol and other forms of intoxication, gamble and quarrel with locals, disrespect local culture and religion, and may promote socially undesirable activities in and around the project area. So, the envisaged impact is low in magnitude, local in extent, and short-term in duration.

Mitigation Measures

- Restrict movement of workers out of camp after dinner time at the night.
- Prohibit the use of alcohol and gambling in the camp.
- Supply water supply, daily consumable items, and communication facility in the camp so as not to create additional pressure on the local services.
- Orient workers to show respect for local tradition and culture.
- Prepare a code of conduct for all project staff, orient them and monitor that these are effectively followed by all.

- Assign a public relation officer to keep close and regular consultation and coordination with local communities.
- Regular monitoring of workers' behavior and taking appropriate measure on rule violators.

Operation Phase

4.2.1 Hazards and Safety

Occupational health hazard and the safety of staff are the major issues during the operation phase of the substation. The possible electric shock and fire hazard might cause injury or death to working staff thus protection measures should be taken all the time. The envisaged direct impact is high in magnitude, site-specific in extent, and long-term in duration.

Mitigation Measures

- There will be the use of insulation, guarding, grounding, electrical protective devices, and safe work practices.
- Boundary walls and / or security fences around substations to prevent unauthorized access
- Only trained and authorized personnel will be allowed for the electrical works.
- · No electric wire shall be stringed above the house.
- · Security fences around the substation.
- · Establishment of warning signs
- Shutdown shall be taken during work on the DL route

4.2.2 Electric and Magnetic Field Effect

Electric power distribution lines create electric and magnetic fields together, referred to as electromagnetic fields (EMF). Electrical flux density declines in inverse proportion to the square of the distance and magnetic fields decline in inverse proportion to the cube of the distance; so, there will be no impact outside of the substation boundaries. ⁷ Research on the long-term effects of EMF associated with distribution lines is inconclusive for health risks. As noted in the World Bank EHS guidelines for transmission and distribution systems, there is no empirical data demonstrating adverse health effects from exposure to typical EMF levels from power transmission lines and equipment.

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 $^{^{7}}$ E.g., at a distance of 10 meters from a single distribution line or conductor, electrical flux density drops to 1% of the field strength at a distance of 1 meter from the conductor: 1/(10*10) = 1%. Likewise, the magnetic field drops to 0.1% of the field strength at the conductor: 1/(10*10) = 0.1%.

5. INFORMATION DISCLOSURE, CONSULTATION, AND PARTICIPATION

5.1 Methodology in Information Disclosure, Consultation and Participation

The following methodologies were followed for information disclosure, consultation and participation:

i. Identification of the stakeholders is important to understand how the Subproject activities will relate different institutions/groups/individuals. Stakeholders are the groups that might be affected by the Subproject or might influence Subproject outcomes. The identified stakeholders are considered into three groups (**Figure 5-1**).

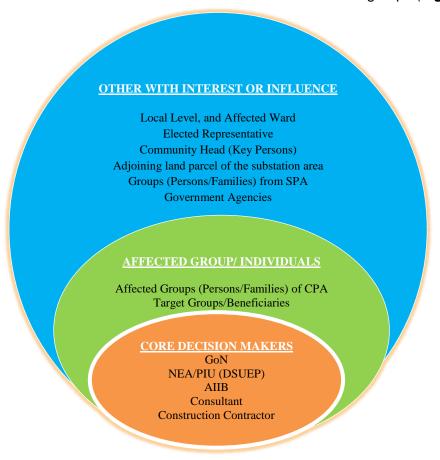


Figure 5-1: Identified Stakeholder in the Subproject⁸

- ii. The notices with the subject of consultation, venue, and time were pasted at the Subproject footprint area, local level and affected Ward office in presence of concerned local stakeholders. People were explained about the notices and their views were noted and agreed upon as Minutes.
- iii. Study team members visited all the local government offices within the Subproject influence area. Representatives from each local body were also consulted. All local governments were given request letters for their active support in project

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⁸ Referenced Meaningful stakeholder engagement: a joint publication of the MFI working group on environmental and social standards / Reidar Kvam, PP-19, 2019.

implementation. Municipalities were requested to provide written suggestions. The deed of inquiry (Muchulkas) and Letter of Declaration from the stakeholders are presented in **Annex 6**.

- iv. Local communities nearby the substation area and along the distribution line routes were consulted and were briefed about the Subproject activities and likely benefits with their suggestions (included in the Minutes).
- v. During the Subproject construction phase, booklets informing about the Subproject activities, likely impacts, and mitigation measures together with the complaints handling mechanisms will be developed and distributed in the Subproject area.

5.2 Consultation and Information Disclosure

The consultation aims to encourage the participation of stakeholders and communities of the Subproject area in the identification of issues, comments, and suggestions. The Subproject affected groups (persons/families) were given more emphasis during the field consultations. Public consultations were conducted at Kohalpur Municipality, Ward No. 15, Channawa on 18th February, 2022, Baijanath RM, Ward No. 6, Samjhana Bazar on 18th February, 2022, Basgadhi Municipality, Ward No. 3, Uttarbhakari on 18th February, 2022, Basgadhi Municipality, Ward No. 4, Matyariya on 19th February, 2022 (**Figure 5-2**). The concerns expressed and issues/ raised during the consultation were documented as in the form of minutes (**Annex 5**).

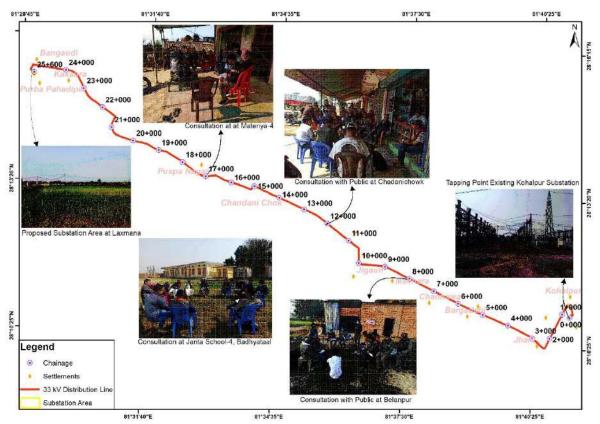


Figure 5-2: Consultation with the stakeholders and communities in the Subproject Area.9

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⁹ Field Study, 2021. Used SW Map and GIS

Major benefits expected from the implementation of the Subproject through the perspective of local people were identified from public interaction, and that included improvement in the rural electrification facilities ensuring uninterrupted electricity in the households and better functioning of industries in the locality. The issues, comments and suggestions received in the consultation are presented in **Table 5-1**.

5.3 Comments and Suggestion Received

Table 5-1: Summary of issues, comments and suggestions received in Consultations

Source: Field Visit, 2022

Date	Location	Issues, comments and suggestions received	Participants
18 th February, 2022	Kohalpur Municipality, Ward No. 15, Channawa		16,0F-16M
18 th February, 2022	Baijanath RM, Ward No. 06, Samjhana Bazar	 The local people should be given priority for the employment based on the knowledge and skill in the construction of the project. This project does not directly affect their professions, customary rights, religion, values, etc. If it affects 	20,3F-17M
18 th February, 2022	Basgadhi Municipality, Ward No. 03, Uttarbhakari	 project should take measures to manage the issues. There is no electricity supply in most of the house in this area. It is requested that the project should start its construction immediately to ensure reliable electricity service to the local people. 	19,2F-17M
19 th February, 2022	Basgadhi Municipality, Ward No. 04, Matyariya	 It is informed that there are no any places of ritual and cultural importance in the project area. The construction of this proposed sub-project will have the support and cooperation of stakeholder. 	19,4F-15M

INSTITUTIONAL ARRANGEMENT AND GRIEVANCE REDRESS MECHANISM

6.1 **Institutional Arrangement**

The Ministry of Energy, Water Resources and Irrigation (MEWRI) is responsible for the overall planning and execution of the plans for the overall development of the water and energy sector in Nepal. Nepal Electricity Authority (NEA) under MEWRI is the responsible agency for the implementation of the DSUEP. The project comes under the Distribution and Consumer Services Directorate (DCSD) of NEA. Project Implementation Unit (PIU) under DSUEP is the implementing unit of the project. The Environment and Social Management Unit will be within PIU. All the resources needed for the EMP implementation for the construction and operation phase will be provided by the PIU. The site offices under PIU will have a supervision consultant with an environmental and social safeguard specialist, who will be responsible for compliance monitoring activities during the construction phase. He will also provide technical support in preparing the monitoring report.

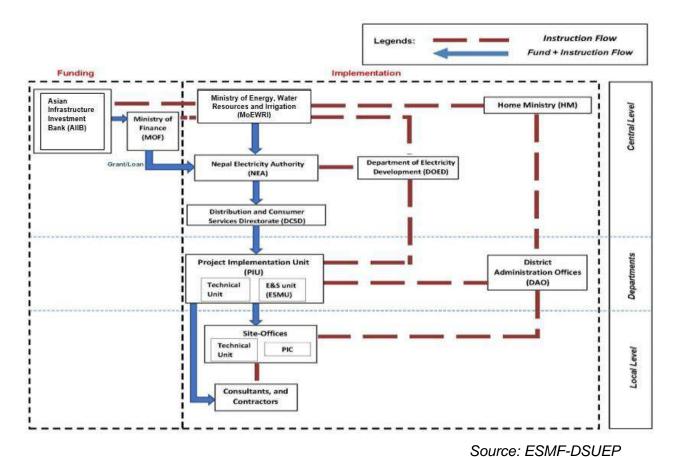


Figure 6-1: Institutional Arrangement for Environmental and Social Management

The contractor shall have the main responsibility to ensure compliance. The Contractor shall prepare an Environment, Health and Safety (EHS) report that would be approved by DSUEP/PIU before field mobilization. They need to strictly follow the EHS plan requirements. The contractor shall urgently comply with corrective actions for any noncompliance as instructed by PIU. The ESMU of PIU shall provide safeguard compliance orientation to all environment monitors and safeguard team of the contractor, one month before the construction works start.

6.2 Grievance Redress Mechanism

The Grievance Redress Mechanism (GRM) has been established to receive, evaluate, and facilitate the resolution of affected people's concerns, complaints, and grievances about social and environmental-related issues at the subproject level. The GRM is designed to be simple, transparent, and responsive. GRM shall address only the concerns arising due to the project implementation activities, mainly during the construction stage. Social Comment Addressed -In each subproject, three levels of Grievance Redress Mechanism will be established. During the ESMP study period, NEA disseminated letters to the local level stakeholders regarding the formation of the GRM at the subproject level. To date, NEA has established Tier-I and Tier-II GRM has been established at the local wards level and Municipality/RM level. Tier-II will be established before construction work starts.

GRM process entails the concerned party submitting a grievance either in-person, via phone, letter, or email to the Site-Engineer or the concerned Municipality Chief or the concerned Ward Chair. The Site-Engineer will record the complaint. In cases where Ward Chair has received such a grievance, he/she should forward the grievance to the field office Engineer. The Site-Engineer shall notify the committee members of Tier-I and arrange a meeting to resolve the received grievances. If not resolved such grievances will be carried to Tier II and Tier III. The three levels of GRM will be based on time-bound schedules as mentioned in **Table 6-1**. The subproject will carry the regular meeting for Tier-I, once a month to follow up if any grievances are received or not and to resolve the grievances received and update its status to PIU. **Figure 6-2** describes the Workflow Diagram of GRM for the Subprojects.

Table 6-1: Levels of Grievance Redress Mechanism Based on Time Bound

5			Levels of Grieva	nce Redress Mechai	nism	
Provisions	First Level	(Tier-I)	Second Level (Tier-II)	Third Level (Tier-III)	
Level	Local Level		Project Manager Office (PMO) headed by the Project Manager (PM) at Project Implementation Unit (PIU)		District Level	
Supervisory	NEA Site-Engineer		PMO		Chief District Officer (CDO)	
Assistance	Chief/Mayor of Concerned Chairperson/ Representat Construction Contractor's and Project Supervision C Safeguards Officer	tive of Ward, (CC) Representative	NEA Site-Engineer and PSC's Construction Contractor	Social Expert, and	PMO, affected persons, representative from Municipality/Municipality, Site-Engineer, PS If deemed necessary, representative from F representative from Land Revenue Office, a from Land Survey Office are invited.	C's Social Expert. Forest Office,
Days for Resolving Complain	7 days of receipt of a com	plaints/ grievance	15 days of complaints forwards	ed by Site-Engineer	15 days	
	Committee Member	Designation	Committee Member	Designation	Committee Member	Designation
	Municipality Chief	Coordinator	Project Manager	Coordinator	Chief District Officer (CDO)	Chair
	Site-Engineer-NEA	Member secretary	Site-Engineer	Member Secretary	Project Manager	Coordinator
Committee	Safeguards Expert from Consultant	Member	Municipality Chief	Member	Site-Engineer	Member Secretary
Members	Contractor Engineer	Member	Safeguards Expert from Consultant	Member	Municipality Chief/Ward Chair	Member
	Ward Chair	Member	Contractor Engineer	Member	Safeguards expert from consultant	Member
					Contractor Engineer	Member
					Representative from affected people	Member

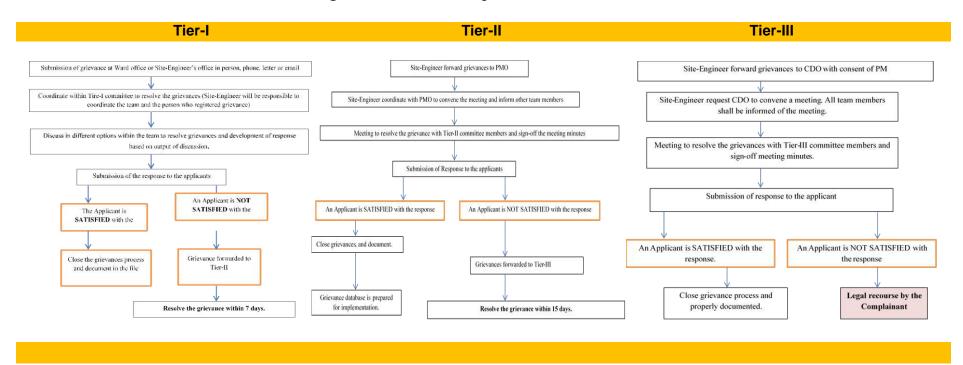


Figure 6-2: Workflow Diagram for GRM from NEA¹⁰

* Affected People (AP) have the right to refer the grievances to appropriate courts of law if not satisfied with the redress at any stage of the process i.e., the AP will have the choice to approach country's judicial system.

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Grievance Redress Mechanism (GRM) Prepared for the sub-projects financed by Asian Infrastructure Investment Bank (AIIB) under Distribution System Upgrade and Expansion Project (DSUEP), Nepal Electricity Authority (NEA), May 2021.

7. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

7.1 Environmental and Social Management Plan and Mitigation Measures

Table 7-1. The ESMP will be implemented in three stages: (i) pre-construction (ii) construction, and (iii) operations and maintenance. This ESMP is a living document and will be updated and modified under the supervision of ESMU of PIU.

Table 7-1: Environmental and Social Management Plan (ESMP)

			Mitigation Cost	Respons	sibility
Project Activity	Environmental and Social Issues	Management/Mitigation Measures		Planning and Implementation	Supervision and Monitoring
Pre-construction Ph	nase				
Approvals, permits and clearances	Installation of poles along the edge of private farm lands	Site office and the contractor must inform the community prior to the installation of poles and stringing of the line along DL route	Cost will be included in the Resettlement plan	Site Office/ Contractor/	DSUEP (PIU)/NEA
Construction Phase	•			•	
	Inadequate/unsafe working conditions	Appropriate contract clauses to ensure satisfactory implementation of contractual environmental, health, and safety measures.		Site Office/Contractor	PIU/NEA
Construction work in substation area and distribution line alignment	Accident may arise if the pit hole (depth-2m and diameter-0.22 m) prepared for steel tubular poles remains open for long time	 Pit holes for the steel tubular pole shall not be left open and should be filled instantly by erecting poles and concrete-cement around the base, should be used to strengthen the pole erection Contractors should follow the guideline provided by the PIU 	Project Cost	Contractor/ Site Office	PIU/ESMU/ PIU
	Dust emission - transportation of materials and movement of construction crews and equipment will	Water sprays to be used for dust control as necessary in the earthen roads of the settlements nearby the substation area and proper storage of the construction materials (sand, cements, aggregates and spoil) to be stored in substation area.	Air Quality Monitoring- 1,50,000.00 (NRs.) Sprinkling water (Dust Management) 2,00,000.00 (NRs.)	Contractor/ Site Office	PIU/ESMU

cause minor i	Steel poles firstly stocked in the surface and secondly in the open barr in coordination with Municipalities are Municipalities. No social and enviroses issues for the stockpiling of the steep and stringing wires	en area nd Rural nmental		
Noise emit Construction related noise be limited vehicular movement inside-the-fen construction activities substations si	emissions and noise control standar	early as national Provision of PPE in Project	Contractor/ Site Office	PIU/ESMU
Interference drainage pa will be tempore substation construction p	ry at dikes Try at dikes	nimized mporary Project Cost eventive	Contractor/ Site Office	PIU/ESMU
substation	 Organic waste generated from the constant be managed within the surpremises, through composting in the by constructing a ground pit, and construction pit and construction	bstation e bin or covered, Solid wastes management – 1,00,000.00 (NRs.) and the fills for n-usable	Contractor/ Site Office	PIU/ESMU

		 be sent or sold to scrap vendors. Effective coordination with the local level government for the proper waste management 			
	Illegal fishing and bird hunting by the labors	 Discouraged by supplying adequate food item (poultry) requirement within the camp. Awareness of legal provisions upon illegal hunting of biodiversity need to be disseminated 	Project Cost	Contractor/ Site Office	PIU/ESMU
	 About 0.72 ha of forest area occurs within RoW of the proposed distribution line Estimated number of trees that need to be cleared from the Core Project Area of the proposed DL alignment are 189 	 Compensatory plantation shall be done as per Forest Regulation, 2079 (2022). Compensatory plantation to be made in the ratio 1:10, including cost for sapling and management cost for 5 years. 	The total enumeration of the loss trees and mitigation cost will be incorporated in the Brief Environmental Study (BES) report	Contractor/ Site Office	PIU/ESMU
	Use of firewood from nearby forests	 Workers and staffs should be restricted to use firewood for cooking. Providing LPG based stoves in Labor camp. 	Project Cost	Contractor/ Site Office	PIU/ESMU
	Loss of standing crops at pole installation locations (depth- 2m and diameter- 0.22 m)	 Poles are to be installed at the edge of cultivated land making no loss of standing crops. Need to make prior consultation with landowners before installation of the poles. If there is a loss of crops, appropriate compensation shall be provided. 	Project Cost	Contractor/Site Office	PIU/ESMU
Environment, Health and Safety	Injury and sicknesses workers and members of	Contractor shall prepare the Environmental, Health and Safety plan and take approval from the client. Provision of a safety officer		Contractor/Site Office	PIU/ESMU

Management of	the public Potential fecal coliform contamination in drinking water Possible spills	 in the work team shall be made during the construction period. All employees shall be provided with the necessary training, and safety equipment as required for their responsibilities and duties. Basic facilities of drinking water, sanitation & clean resting place, canteen, and first aid shall be made available for the campsite. Provision of health insurance to employees. Security fences around the substation. Installation of warning signs (High Voltage, Fire Safety Signs, and Emergency Signs). Awareness of HIV/AIDS and other sexually transmitted disease. Awareness of providing basic sanitation facilities and waste management control to the labors. For coronavirus (COVID-19) pandemic situation, Contractors should arrange for quarantine and health services for infected workers. Chemical waste generated from the 	Establishment of Labor Camp with basic facilities – In Project Cost EHS Awareness Trainings - 1,50,000.00 (NRs.) COVID-19 measures 2,00,000.00 (NRs.)		
electric equipment, toxic materials of chemical wastes	resulting in contamination of soil, water, and air	transformer shall be collected in leakage- proof, corrosion-free, specially designed containers, and sealed carefully	1,00,000.00 (NRs.)	Contractor/ Site Office	PIU/ESMU
Operation and Main	tenance Phase				
Electric shock and fire hazard	Injury or death to the workers and public	 Use of insulation, guarding, grounding, electrical protective devices, and safe work practices. Boundary walls and / or security fences around substations to prevent unauthorized access. Only trained and authorized personnel shall be allowed for the electrical works. 	Project Cost	NEA	NEA

		No electric wire is to be strung above the house.Installation of warning signs.			
Routine operations and maintenance	Potential disturbance to other utility functions and vehicular traffic.	 Maintain warning / advisory signs in the good and visible condition Visual and technical inspection 	Project Cost	NEA	NEA
Oil spillage	Contamination of land/nearby water bodies	Substation transformers should be stored within secure and impervious bundled areas with a storage capacity of at least 110% of the capacity of oil in transformers and associated reserve tanks.	Project Cost	NEA	NEA
Bird electrocution and collision	Electrocution can cause a risk to bird species that perch on power line infrastructures	Provision of bird guards above the poles and white spirals on the conductors to improve visibility	Project Cost	NEA	NEA

(The provision of an environment and social management cost should be included in the project cost making each items visible in BOQ of bidding document for the safeguard compliance by the construction contractor)

7.2 Proposed Monitoring Plan

The monitoring proposed in **Table 7-2** will be of value primarily for establishing baseline conditions in the Subproject area, and then for ambient quality monitoring.

Table 7-2: Minimum Provisions for Environmental Monitoring

Parameters to be	Location	Measurements	Frequency	Responsibility
Monitored				
Clearing of	Substation	• Field inspection of	Clearing and	Contractors to implement
construction	boundaries	Subproject Sites and	restoration: Weekly	corporate EHS plan, drainage
site		ensuring that appropriate		management and solid waste
		safety measures are		control in the substation area.
		implemented		
Use of forest area and loss	33 kV DL alignment	• Field inspection of	Prior to the construction work	Contractor responsibility under
of trees		Subproject sites and		the supervision of PIU/DFO
		ensure the compensatory		
		plantation of 1:10		
		 Related approval 		
		document for tree		
		clearance		
Air: SPM,	Substation boundaries	Spot check for noise and	Air, and noise:	Contractors need to conduct air
Noise: dB	and nearest receptor	dust using a portable	quarterly during	and noise monitoring during the
	to substation	monitoring device	construction	construction period at the
			period	substation location

Construction wastes: on-site inspection	Visual inspection of active construction areas, including equipment staging areas and camps	 Spot check / visual inspection of solid waste (spoil, muck etc.) generation and disposal. Analysis of transformer oils to determine if polychlorinated biphenyls are present. 	Monthly spot checks for construction waste management	PIU safeguard officers to provide oversight via regular field inspections, and submit monitoring reports to the Bank
Occupational health and safety	Substation boundaries	 No. of Toolbox talk and safety orientation to the workers No. of workplace accidents Use of PPE by workers 	Daily Inspection during construction Monthly Inspection during the operation phase	Inspection of the construction site by the safety officer and PIU safeguard officer
Child involvement in construction work (needs to be prohibited)	Substation work	Spot inspection at construction sites	Monthly Inspection during construction	Site Office

7.3 Environmental and Mitigation and Monitoring Cost

Preliminary cost estimates for the ESMP implementation are shown in **Table 7-3**. These estimates cover the basic monitoring activities and the mitigation measures to be complied from the contractor's side. The ESMP cost estimated for the **Kohalpur–Machhagadh Distribution Line** is NRs 13,00,000.00. The community support activities and the costs will be presented in the Community Development Plan (CDP). NEA has agreed to the effective implementation of the mitigation and monitoring cost items as mentioned in table below.

Table 7-3: Mitigation Measures and Monitoring Activities Cost Estimates

SN	Budget Items	Unit	Rate (NRs.)	Estimated Amount for Monitoring (NRs)-Lump Sum
1	Air Quality Monitoring (at substation)	6 (Times)	25,000.00	150,000.00
2	Noise Level Monitoring (at substation)	6 (Times)	8,334.00	50,000.00
3	Sprinkling of water to be used for dust control necessary in the earthen roads of the settlements nearby the substation area and proper storage of the construction materials (sand, cements, aggregates and spoil)	200 (Times) During Excavation and Civil works	1000.00	2,00,000.00
4	Management of electric equipment's, toxic materials of chemical wastes	•	L.S.	1,00,000.00
5	Segregation and management of solid wastes	-	L.S.	1,00,000.00
6	COVID-19 measures (considering pandemic situation) standardize the quarantine facilities with health aid to the labors	-	L.S.	200,000.00
7	EHS Awareness raising training to the labors	10 (Events)	15,000.00	1,50,000.00
8	Meeting of Safeguard Desk and Grievance Redress Committee at Field Level	24 (Months)	14,583.00	3,50,000.00
	Total			13,00,000.00

8. CONCLUSION

Potential environmental impacts of this Subproject are not diverse and are all site-specific i.e., confined to the Core Project Area. Civil works will have minimal temporary impacts on air, noise and water quality. Erection of poles during construction shall follow the RoW of existing roads and the edge of farmlands. The PIU should give prior information before the installation of the poles. In the ESMP consultations conducted in the settlement area, people have agreed for the implementation of the Subproject and have suggested installing poles on the edge of farm-lands, without affecting any private structures along the distribution line. If there is a loss of crops, appropriate compensation shall be provided. The implementation of the proposed Subproject needs 0.72 ha of forest area with estimated loss of 189 trees. The total enumeration of the loss trees and mitigation cost will be incorporated in the Brief Environmental Study (BES) report. Mitigation measures are suggested in this ESMP to avoid any possible environmental and social impacts. The total ESMP cost for this Subproject is NRs. 13,00,000.00. NEA Project Implementation Unit has agreed to implement the estimated cost for the mitigation measures and monitoring activities.

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ANNEXES

Annex 1: SAMPLE NOTICE FOR PUBLIC CONSULTATION AND GRM FORMATION LETTER TO STAKEHOLDERS



नेपाल विद्युत प्राधिकरण

(नेपाल सरकारको स्वामित्व)

फ्याक्सः ०१-४१५३१४४ फोन नं : ०१-४१५३१४५ दरवारमार्ग, काठमाण्डौ ।

वितरण तथा ग्राहक सेवा निर्देशनालय

नेपाल वितरण प्रणाली स्त्रप्रेजन्ती स्था विस्तार आयोजना

नेपाल वितरण प्रणाली स्तरोन्नाति स्थानिक अध्ययन प्रतिवेदन तयारी सम्बन्धि सूचना

सूचना प्रकाशन मिति:
प्रदेश
सार्वजनिक छलफल हुने स्थान, मिति र समय: स्थान: मिति:
भनि स्थानीय सरोकारवालाहरु सँग छलफल गर्न आयोजना क्षेत्रका सम्पूर्ण सबै सरोकारवालाहरुको निम्न स्थान तथा समय उपस्थितिका लागि यो सूचना प्रकाशित गरिएको छ । सार्वजनिक छलफल हुने स्थान, मिति र समय: स्थान:



फ्याक्स: ०१-४१५३१४४

मिति: २०७८/१०/०७



(नेपाल सरकारको स्वामित्व)

वितरण तथा ग्राहक सेवा निर्देशनालय

नेपाल वितरण प्रणाली स्तरोन्नती तथा विस्तार आयोजना

(ए.आई.आई.बि.)

फोन नं : ०१-४१५३१४५ दरवारमार्ग, काठमाण्डौं।

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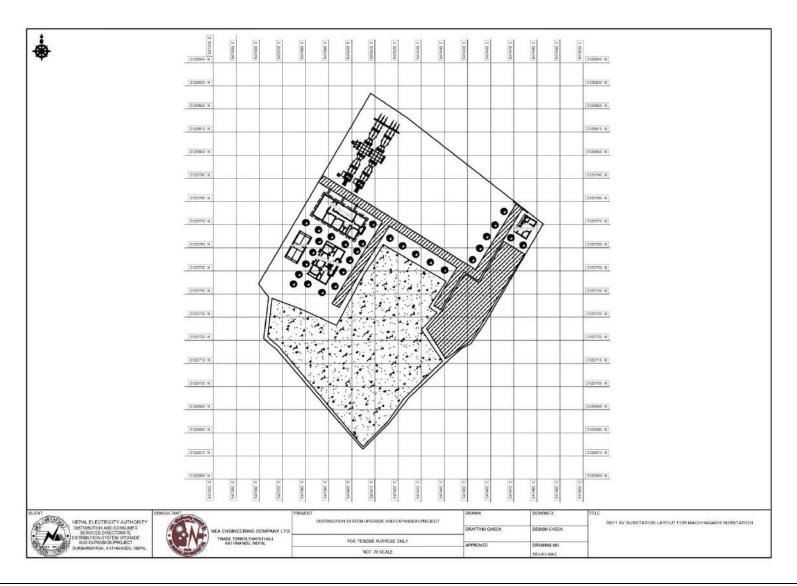
प.सं. ०७८/७९: 93 ८.

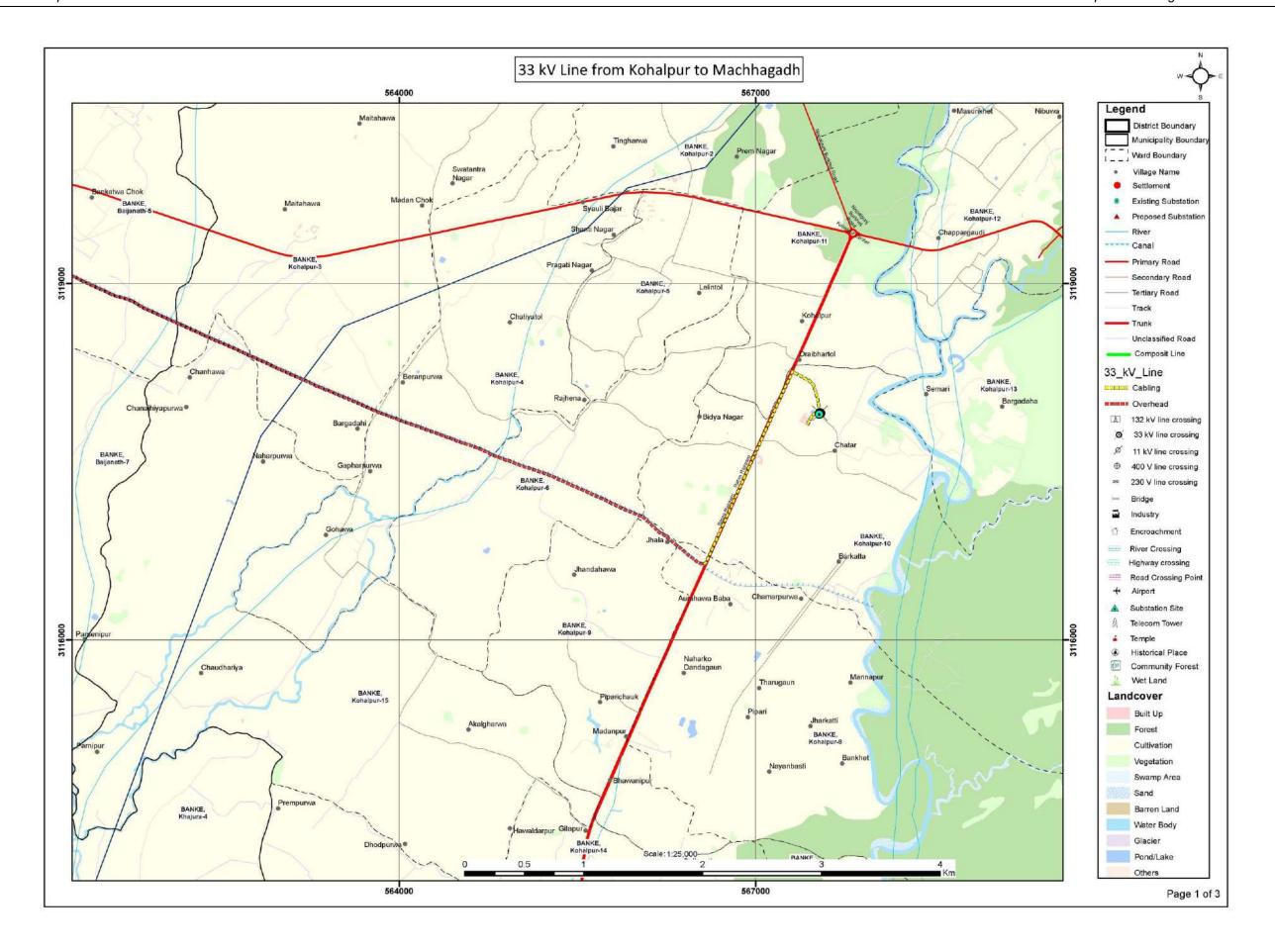
विषयः गुनासो समाधान संयन्त्र गठन भएको सम्बन्धमा ।

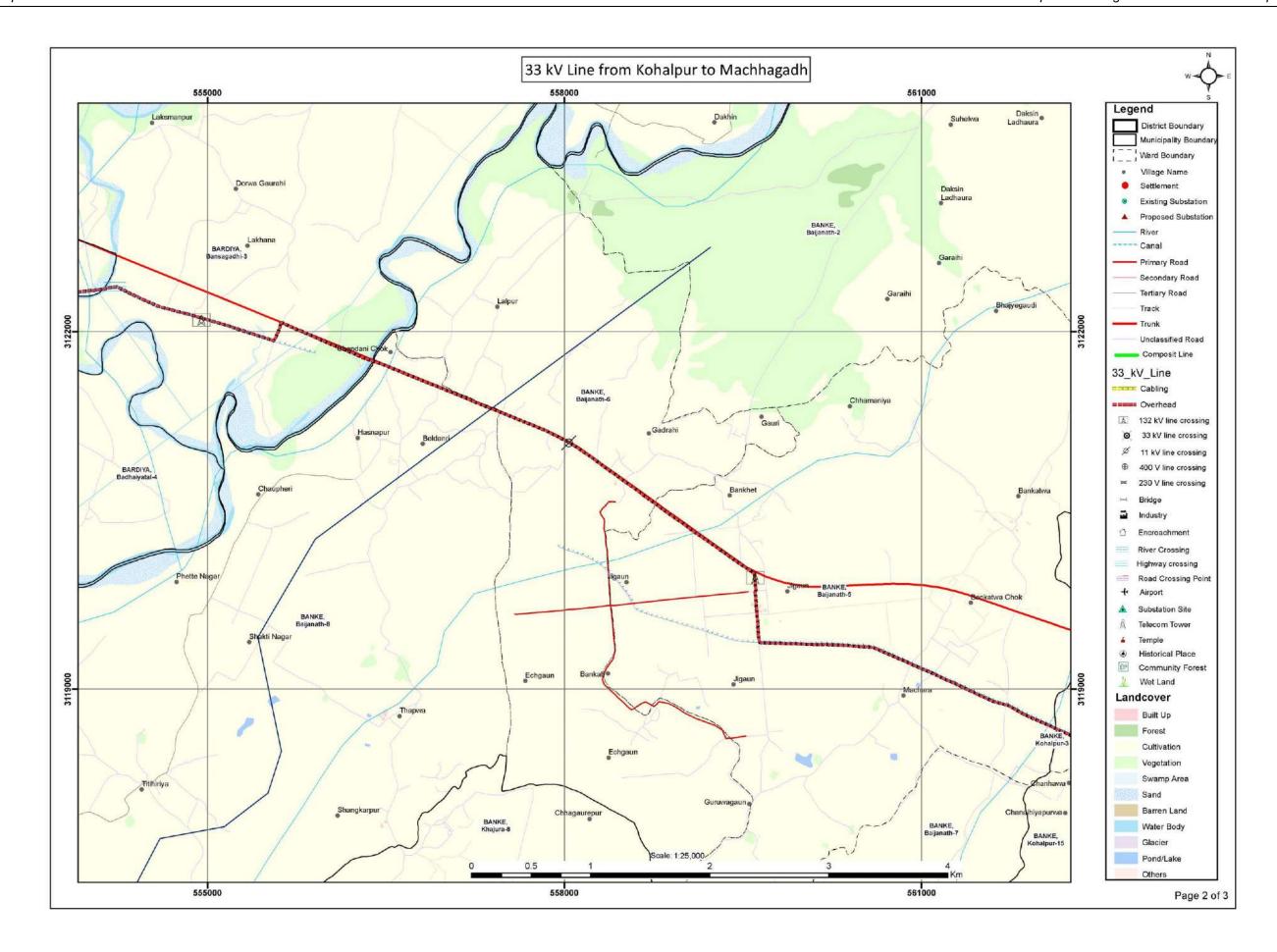
उपरोक्त विषयमा एसियन इन्फ्रास्ट्रकचर इन्वेस्टमेन्ट बैंक (ए.आई.आई.बि.) को ऋण-सहयोगमा नेपाल विद्युत प्राधिकरण, वितरण तथा ग्राहक सेवा निर्देशनालय, वितरण प्रणाली स्तरोन्नित तथा विस्तार आयोजना (ए.आई.आई.बि.) प्रस्तावक रही कार्यान्वयन गर्न लागिएको आयोजना अन्तर्गत नेपाल सरकारको पूर्ण-विद्युतीकरण गर्ने लक्ष्य बमोजिम तहाँ वडा/गाउँपालिका/नगरपालिका/उप-महानगरपालिकामा ३३/११ के.भी. सब-स्टेशन, ३३ के.भी. लाईन, ११ के.भी. लाईन, ४०० भी. लाईन, आदि निर्माण कार्यहरू हुने भएकोले सो कार्यहरू गर्दा स्थानीय सरोकारवालाहरूको कुनै गुनासो भए सो गुनासोको समाधान गर्न गुनासो समाधान संयन्त्र निर्माण गरिएको छ । अतः संलग्न गुनासो समाधान संयन्त्र दस्तावेज बमोजिम आफ्ना गुनासोहरु दर्ता गर्न र सोही दस्तावेजमा भनिए बमोजिम गुनासोको समाधान हुने व्यहोरा सम्पूर्ण सरोकारवालाहरुलाई जानकारी गराइन्छ।

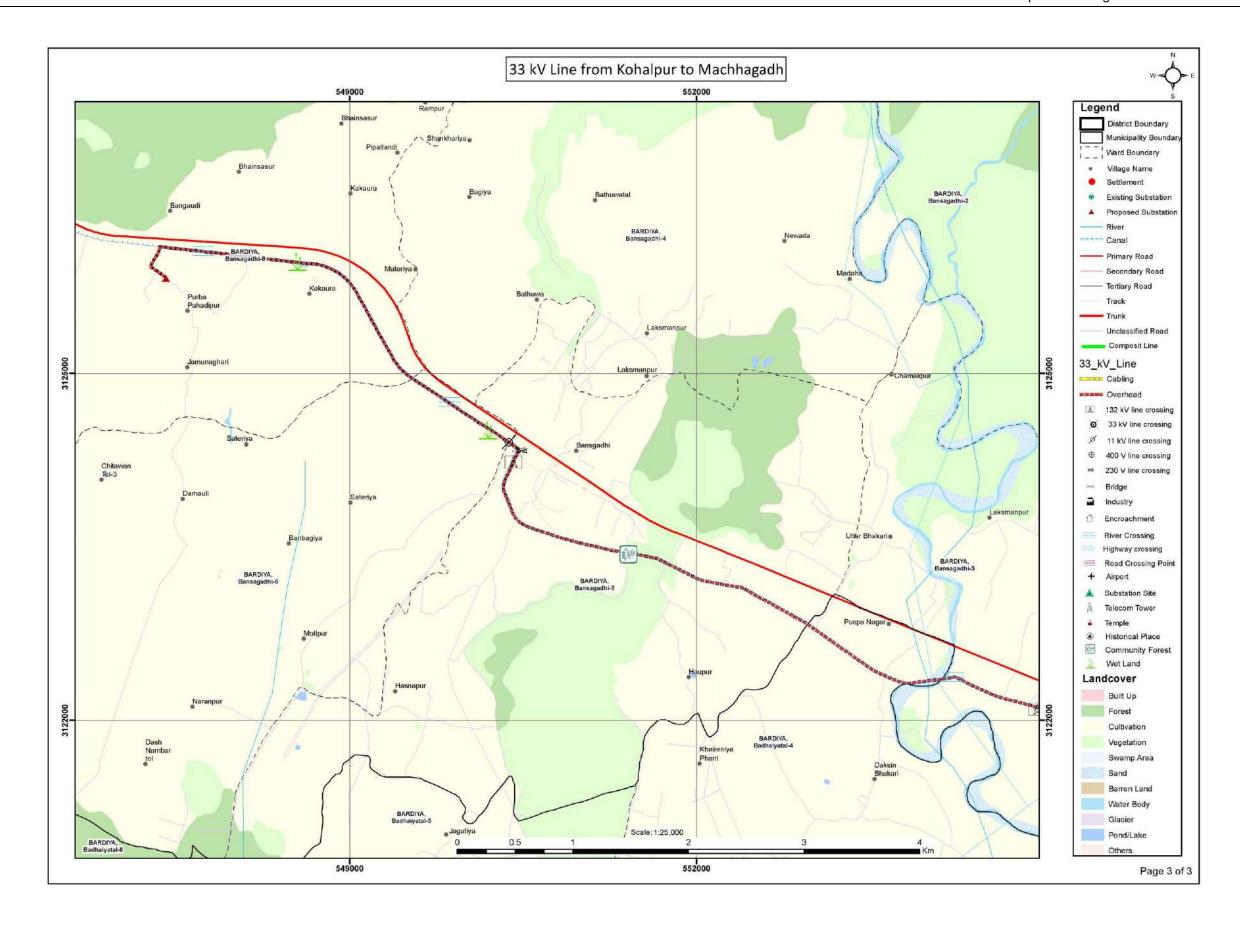
आयोजना प्रमुख

Annex 2: LAYOUT MAPS OF SUBSTATION AND DISTRIBUTION LINE ALIGNMENT







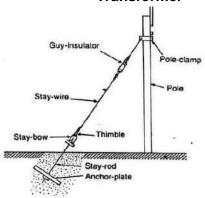


Annex 3: FACILITY AND COMPONENTS



Transformer





Stay/Guy Sets



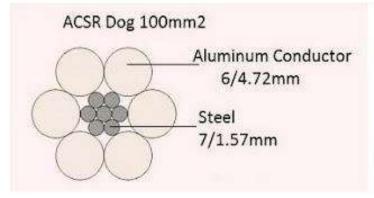
Steel Tubular Pole



Insulator

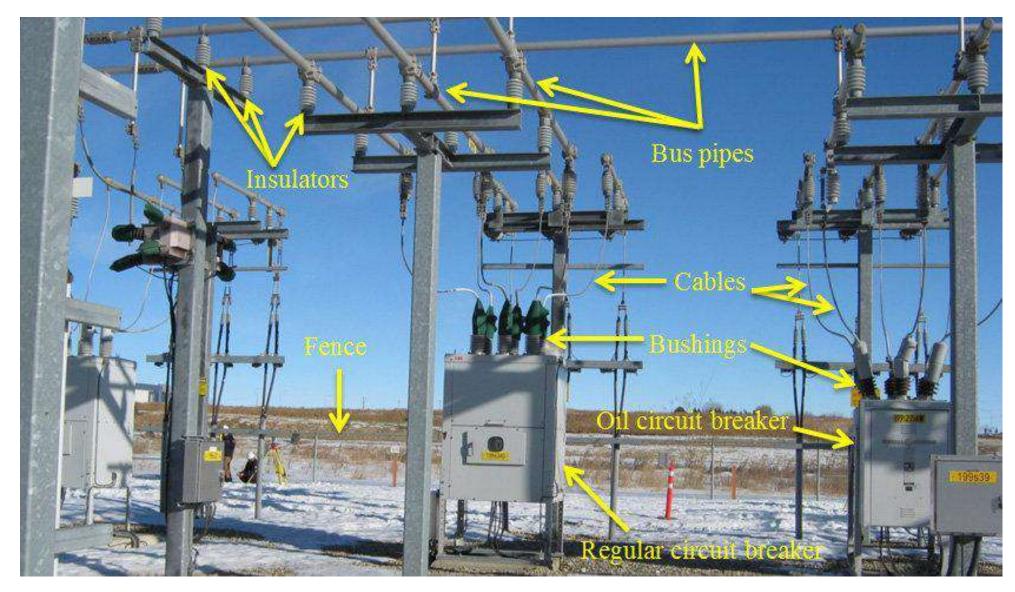


Civil-Structures Supporting Electrical Components



Conductor



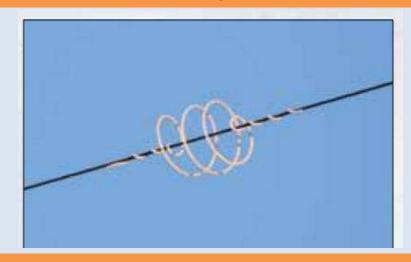


Possible components within 33 kV/11 kV Substation



Bird Diverting Reflector





White Spiral in Wire Improves Visibility of Wire



Construction of Nest at Poles also divert Brid not sitting at Wires

Annex 4: LEGISLATIVE PROVISIONS

S	Legal Provisions	Description	Relevancy
N		·	concerning Project
1.	Constitution of Nepal	 The Constitution of Nepal is the main legal document, which emphasizes the right to a clean environment of the people, natural resources protection, preservation, and its prudent use. Rights regarding the clean environment, under article 30: It includes making multi-purpose development of water resources, while according priority to domestic investment based on public participation to ensure a reliable supply of energy affordably, and easily, and make proper use of energy for the fulfillment of the basic needs of citizens, by generating, and developing renewable energy in article 51 (g). 	DSUEP helps to fulfill the rights of people to live in a clean environment along with fulfilling the basic needs by providing access to sufficient energy.
2.	Environment Protection Act 2076 (2019 AD)	 Section 3 of the Act requires the proponent to conduct environmental studies concerning the prescribed proposals of any developmental works. Subsection 2 of this act provides the framework for the environmental study report prepared according to sub-section (1) shall, in fulfillment of the process as prescribed, be submitted to the relevant bodies of the Government of Nepal for approval. 	Environmental Studies, and approval of the report from the authorized body before construction of any project is mandatory to minimize the negative impacts in Nepal which is addressed in EPA, 2076.
3.	Environmental Protection Rule, 2077 (2020 AD) [First Amendment	 Under the Environmental Protection Rules (2020) first amendment (2021), rule (3) as mentioned in annex (1), Section (F) (Energy, Water Resources, and Irrigation Sector) subsection (1), a proponent shall be required to carry out the Brief Environmental Studies for construction of transmission line project less than 66 kV in forest land for another purpose. Pertaining to Rule 3(1), Environment 	This rule provides the overall guidance to what type of environmental studies is required according to the project by the Government of Nepal. The proposed
	on 2078 (2021)]	 Pertaining to Rule 3(1), Environment Protection Act (EPA), 2019 describes to complete Environmental Studies as per Schedule 1(Cha) Energy, water resources and irrigation sector (1) under Environment Protection Regulation 2020 (First Amendment in 2021/05/24 on Nepal Gazette) state "use of forest area for the electricity distribution line project up to 66 kV" 	The proposed Subproject will use the of Sati Community Forest, and Rampur Community Forest land for the purpose of 33 kV distribution line extension and substation

			construction. For which, BES is mandatory.
4.	Nepal Environmental Policy, and Action Plan, 2050(1993)	 The aims of NEPAP are: To manage natural, and physical resources efficiently, and sustainably To balance the development efforts, and environmental conservation for sustainable fulfillment of basic needs To preserve endemic, and endangered species, and their habitats; the promotion of private, and public institutions for biological resources inventory, and conservation To safeguard national heritage To mitigate the adverse environmental impact of development projects, and human actions To integrate environment, and development through appropriate institutions, adequate legislation, and economic incentives, and sufficient public resources 	DSUEP should follow the aims of NEPAP to protect, and conserve the physical, biological, and social environment during the construction of a 33 kV distribution line along with a substation.
5.	Forest Act 2076 (2019)	 Pertaining to the chapter 12, Section 42(1), if there is no other alternative to the using of forest area for the operation of a national priority project, plan of which investment is approved by the Investment Board, project of national pride and it appears from the environment examination referred to in the prevailing law that the operation of such plan does not result in significant adverse effects on the environment, the Government of Nepal may give approval, as prescribed, to use any part of the national forest for the purpose of operating such plan, Similarly, In providing the forest area for the operation of a plan pursuant to sub-section (1), to the extent possible, a land that is adjoining to the national forest area near the project site and situated in the same geographical and ecological belt and has such landscape where forest can be developed shall be provided for the purpose of planting trees at least in the area equal to the forest area that has to be used. 	 About 0.72 ha of forest area occurs within RoW of the proposed 33 kV distribution line Estimated number of trees that need to be cleared from the Core Project Area of the proposed DL alignment are 189. Total estimation of tree and approval of tree clearance will be proceeded after the approval of BES report.
6.	Work Policy with the Guideline of National Forest Land Area to be Use for National Priority Plan, 2076 (2019)	 Pertaining to Section 4 (1), environmental study report should be prepared if the project needs the use of national forest area, Section 7 require the approval of Government of Nepal, for the use of forest on the implementation of project Section 17 (3) require plantation of trees in the ratio of 1:10 in the area given by the concerned 	 About 0.72 ha of forest area occurs within RoW of the proposed 33 kV distribution line Estimated number of trees that need to be

		forest office as a compensation for the removal trees during the project implementation Section 17 (4) require care, maintenance and upkeep of the planted trees and handover to concerned forest office after 5 years.	cleared from the Core Project Area of the proposed DL alignment are 189. Total estimation of tree and approval of tree clearance will be proceeded after the approval of BES report.
7.	Electricity Act 1992	 No person shall be entitled to conduct survey, generation, transmission, or distribution of electricity without obtaining a license under this act. The Electricity Act of 1992 has the provision of land procurement for the development of Subprojects that involve electricity generation, transmission, or distribution. The Act states that the licensee may apply to GoN to purchase the land or house of any person if it is required for the generation, transmission, or distribution of electricity. Upon the receipt of such an application, GoN may make the land or house, so requisitioned, available to any corporate body under the prevailing laws. 	The main goal of this project is to distribute a sufficient amount of electricity by constructing a 33 kV line, and substation by surveying to minimize the impacts.
8.	Rural Energy Policy, 2006	The rationale of formulating, and implementing this policy is to create a conducive environment that will self-motivate, and mobilize local institutions, rural energy user groups, non-government organizations, cooperatives, and private sector organizations for the development, and expansion of rural energy resources. The government will facilitate, and promote to involve private development, and expansion of new technologies. It has also envisioned subsidy provision for the promotion of such renewable energy technologies.	This project helps to improve the distribution and motivate use the of electricity in rural areas of western Nepal.
9.	Labor Act, 2074 (2017 AD)	This labor Act was made under the management of parliament under sub-clause 1 of clause 296 of the Constitution of Nepal. Sub-section 3 of Section 2 states that the employees should not be compelled to other work other than they are assigned for. In addition, Sub-section 5 of Section 2 states about the prohibition of child labor in any organization, and sub-section 6 of Section 2 states that there should not be any	The construction of a project is only possible when the rights of labor are secure. In this project, the Contractor should follow this act strictly.

		kind of discrimination among the employee's regard of religion, ethnicity, gender, origin, language, or intelligence or other kinds of characters.	
10.	Child Labor (Prohibition, and Regulation) Act, 2056 (2000 AD)	As per section 3 of this act, no child has not attained the age of 14 years shall be engaged in works as a laborer.	Child labor is strictly prohibited in this project, and Contractors should follow this act.
11.	Solid Waste Management Act, 2068 (2011 AD)	This act has been formulated to minimize solid waste products from the target area by setting rules, and regulations on solid waste management (SWM) in the country to develop a better environment for the systematic, and effective management of solid waste, and to involve all the concerned stakeholders in SWM practice. The main features of this act are the discussion of the 3R principle (Reduce, Reuse, and Recycle). 3R principle seems to be very beneficial as it not only increases the life of landfill site but also saves the money which could be used for other infrastructure development. Section 4 of the act assigns the local body to manage or use the solid waste discharged or dumped in the collection center, transfer station, or treatment plant or collected during cleaning.	These acts provide the overall framework to manage the solid waste generated from households to the project level. Also, the proponent should manage the waste generated during construction.
12.	Solid Waste Management Rules, 2070 (2013 AD)	The solid waste management rule was formulated as per the provision made in article 50 of the Solid Waste Management Act, 2068. This regulation has emphasized the segregation of waste at source, and mentioned that the responsibility of proper disposal, and management of source belongs to the producers themselves. Section 3 of the rule describes the segregation, and management of solid waste. It has been mentioned that it is essential to segregate degradable, and non-degradable solid waste at the source.	These rules provide the overall framework for how to reduce the volume of waste disposed of at the source during the construction of the substation.
13.	Fifteenth Plan	The vision of the 15th plan is to contribute to the prosperity of the nation through sustainable, and reliable development of hydropower by setting the goal which is to ensure energy security through intensifying hydropower	This 5-year interim plan sets the goal about the generation, and distribution of hydroelectricity in

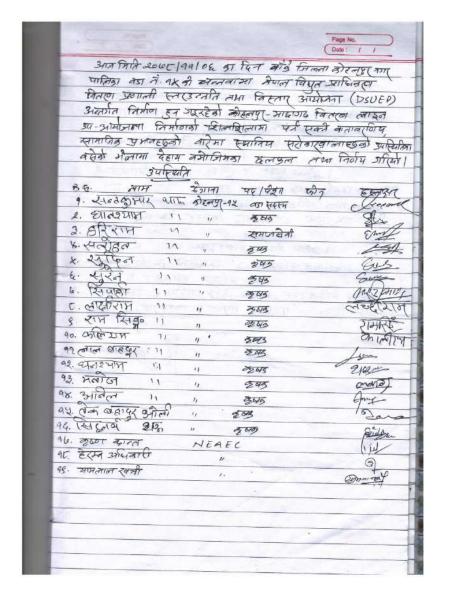
		generation. In addition, one of the strategies of the government of Nepal in the 15th plan is to make the distribution system effective, and reliable to increase energy efficiency, and increase power consumption by expanding access to electricity by formulating the required policies:	Nepal which is directly related to this project.
14.	United Nations Framework Convention on Climate Change (UNFCCC), 1992	UNFCCC, Signatories: 165. Parties: 195. (1), Article (4), commitment (f) states climate change considerations into account, to the extent feasible, in their relevant social, economic, and environmental policies, and actions, and employ appropriate methods, for example, impact assessments, formulated, and determined nationally, to minimize adverse effects on the economy, on public health, and the quality of the environment, of Subprojects or measures undertaken by them to mitigate or adapt to climate change. After it entered into force on 21 March 1994, it mandates the individual state for prioritization of resource conservation with development.	The goal of this project is to replace the traditional form of energy with clean energy i.e. electricity which ultimately reduces air pollution, and smoke.
15.	ILO 169	The main objective of this convention is to secure the rights of indigenous, and tribal people along with the gender equality, and non-discrimination of workers during work. Article 1 on the First Part of this convention mainly focused on the following points: (a) the social, cultural, and economic conditions of tribal peoples in independent countries differentiate from other parts of the national community, and their status is managed fully or partially by their customs or traditions or by special laws or regulations; (b) peoples in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonization or the establishment of present state boundaries, and who, irrespective of their legal status, retain some or all of their own social, economic, cultural, and political institutions. • Self-identification as indigenous or tribal shall	Nepal is the part of ILO convention that's why ILO 169 should strictly follow during construction, and implementation of any types

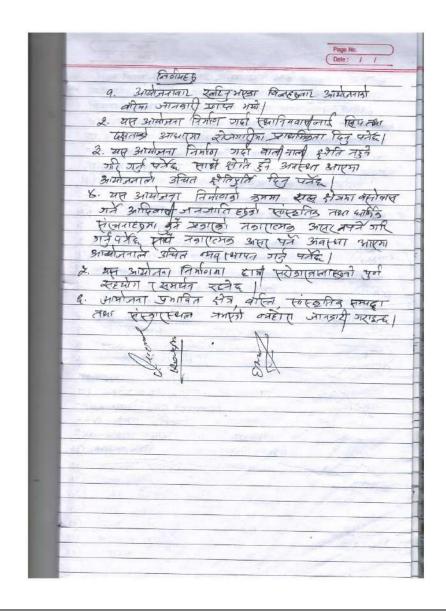
		 be regarded as a fundamental criterion for determining the groups to which the provisions of this Convention apply. The use of the term people in this Convention shall not be construed as having any implications as regards the rights which may attach to the term under international law. 	
16.	Environment and Social Management Framework	 ESMF is to guide DSUEP sub-projects in the area of E&S management using appropriate instruments, methodologies, procedure and responsibilities during the project cycle. NEA and the project partners shall apply during design and development of the sub-projects in order to comply with the Government of Nepal E&S regulations and the Financiers' standards on E&S assessment and management, Involuntary Resettlement, Indigenous People, Gender, etc.). 	Main guiding document for E&S study to identify issues and recommending appropriate practical augmentation/ mitigation measures
17.	Environmental and Social Policy (ESP)	 This policy speaks for the mandatory E&S requirements for each Project like, screening, DDR, E&S Assessment, ESMP, ESMF, Information Disclosure, Consultation and Monitoring and Evaluation. 	Mandatory requirement for ESMP study
18.	Environmental and Social Standards of AIIB	 Three associated mandatory environmental and social standards (ESSs) set out more detailed environmental and social requirements relating to the ESMP 	ESMP requirement

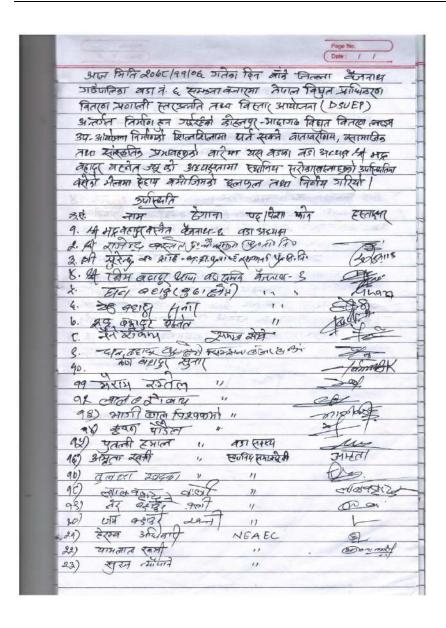
¹¹ https://www.aiib.org/en/policiesstrategies/download/environmentframework/20160226043633542.pdf

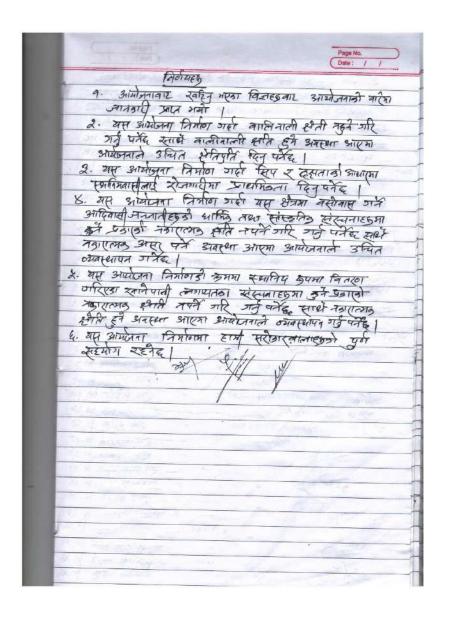
Distribution System Upgrade and Expansion Project (DSUEP)

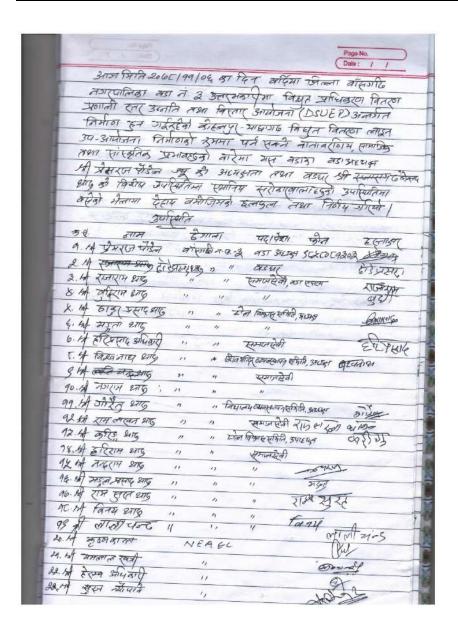
Annex 5: CONSULATATION MEETING MINUTES

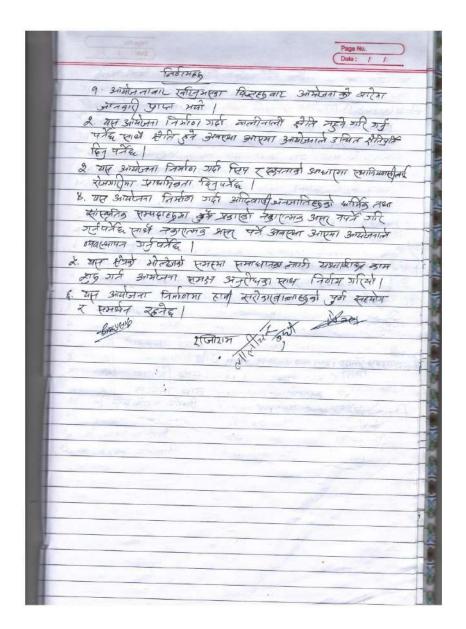


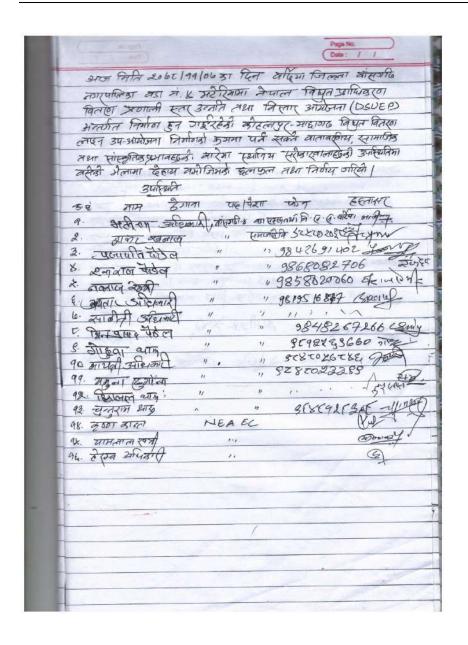


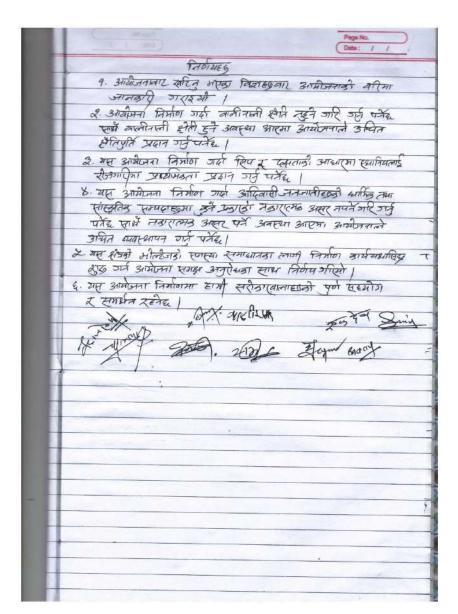












Annex 6: DEED OF INQUIRY (MUCHULKAS)





४ नं वडा कार्यालय बनकटस्कूबॉके लुम्बिनी प्रदेश नेपाल

प.सं. :- २०७८ / ०७९ च.नं. :- & ESX

मिति:- २०७८।११।०८

भी नेपाल विद्युत प्राधिकरण

नेपाल वितरण प्रणाली स्तरोन्नती तथा वितरण आयोजना

दरवामार्ग,काठमाडौं

विषय :- आयोजनाले आदिवासी जनजातीलाई अंसर गर्ने नगर्ने सम्बन्धमा ।

उपरोक्त विषयमा नेपाल विद्युत प्राधिरण वितरण तथा ग्राहक सेवा निर्देशनालय,वितरण प्रणाली सारोन्नती आयोजनाद्धारा कार्यन्वयन गर्न कोहलपुर- माछागढ विद्युत वितरण लाईन आयोजना अर्न्तगत यस बैजनाथ गाउंपालिका वडा नं. ५ हुदै वितरण लाईन जाने प्रत्यक्ष प्रभावित क्षेत्रमा आदीवासी जनजातीको वसोवास नभएता पनि निजकको वस्तीमा आदिवासी जनजातीहरुको वसोवास रहेको तर आयोजना कार्यन्वयन गर्दा उनीहरुको सामाजिक,धार्मिक तथा संस्कृतीमा कुनै असर नपर्ने व्यहोरा जानकारीको लागि अनुरोध गरिन्छ।

मन वहार्क खेंगा मन बहार्क खेंगा वर्का अध्यक्ष

website: www.baijanathmun.gov.np

email: ward5.baijanathmun@gmail.com



बैजनाथ गाउँपालिका



य.सं. :- २०७८/०७९ त.नं. :- *२८९*७

मिति :- २०७८।१९।०८

ी नेपाल विद्युत प्राधिकरण

नेपाल वितरण प्रणाली स्तरोन्नती तथा विस्तार आयोजना

दरवारमार्ग,काठमाडौं

विषय :- गुनासी समाधान संयन्त्र गठन भएको जानकारी सम्बन्धमा ।

प्राचुत विषयमा ताहां कार्यालयको च.नं. १३२ मिति २०७८।१०।०६ गतेको प्राप्तपत्रानुसार कोहलपुर-माञ्जगढ विद्युत वितरण लाईन आयोजनाको गुनासो सामाधान संयन्त्र गठन भएको व्यहोरा प्राप्त भएको जानकारी गराईन्छ ।

> मन वहादर खेत्री मन वहादुर खेत्री वडाग्डास्थ्रक्ष्मथ्र

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बैजनाथ गाउँपालिका

५ नं वड्डा कार्यालय बसकद्यी बाँके लुम्बिनी प्रवेश; नेपाल

प.सं. :- २०७८/०७९ च.नं. :- *च ८९६*

मिति :- २०७८।१९।०५

श्री नेपाल विद्युत प्राधिकरण नेपाल वितरण प्रणाली स्तरोन्नती तथा विस्तार आयोजना दरवारमार्ग,काठमाडौं

विषय:- सुचना टांसको जानकारी सम्बन्धमा।

उपरोक्त विषयमा तहाँ कार्यालयको च.नं.१३२ मिति २०७८।१०।०६ गतेको प्राप्त पत्रानुसार कोहलपुर-माछागढ विद्युत वितरण लाईन जाने यस वडा कार्यालयको बस्तीहरुमा वातावरणीय तथा सामाजिक योजना प्रतिवेदन तयारी सम्वन्धि छलफलको सुचना यस कार्यालयको सुचना पाटीमा मिति २०७८।१९।०५ गते टाँस गरिएको व्यहोरा जानकारीको लागि अनुरोध छ ।

> मन वहाँदुर खत्री मन्द्राबश्चीस्पृश्चित्री वहा अध्यक्ष

website: www.baijanathmun.gov.np

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बैजनाथ गाँउपालिका Baijanath Rural Municipality द नं. वडा कार्यालय 8 no. Ward Office

टिटिहिरिया बाँके Titihiriya Banke लुम्बिनि प्रदेश नेपाल Lumbini Province Nepal

पत्र संख्या/fiscal year :- २०७८/७९(2078/79) चलानि नं. Ref. No. : 2390



मिति:२०७८/११/०८

श्री नेपाल विद्युत प्राधिकरण

नेपाल वितरण प्रणालि स्तरोन्नती तथा विस्तार आयोजना दरवारमार्ग काठमान्डौ

विषयः गुनासो समाधान संयन्त्र गठन भएको जानकारी सम्बन्धमा ।

प्रस्तुत विषयमा तहाँ स्थित कार्यालयको मिति २०७८/१०/०७ च.नं. १३८ को पत्र बाट कोहलपुर-माछागढ विद्युत वितरण लाइन आयोजनाको गुनासो समाधान संयन्त्र गठन भएको जानकारी पत्र प्राप्त भएको जानकारी गराइन्छ ।

> ध्यान **थार** वडा **अध्य**ाम्



बैजनाथ गाँउपालिका Baijanath Rural Municipality द नं. वडा कार्यालय 8 no. Ward Office

टिटिहिरिया बाँके Titihiriya Banke लुम्बिनि प्रदेश नेपाल Lumbini Province Nepal

पत्र संख्या/fiscal year :- २०७८/७९(2078/79) चलानि नं. Ref. No.: 2300



मितिः२०७८/११/०८

श्री नेपाल विद्युत प्राधिकरण नेपाल वितरण प्रणालि स्तरोन्नती तथा विस्तार आयोजना दरवारमार्ग काठमान्डौ

विषयः आयोजनाले आदिवासि जनजातिलाई असर गर्ने नगर्ने सम्बन्धमा ।

प्रस्तुत विषयमा नेपाल विद्युत प्राधिकरण वितरण तथा ग्राहक सेवा निर्देशनालय वितरण प्रणालि स्तरोन्नती तथा विस्तार आयोजना द्धारा कार्यन्वयन गर्न लागिएको कोहलपुर-माछागढ विद्युत वितरण लाइन आयोजना अन्तर्गत यस बैजनाथ गाँउपालिका वडा नं. ८ हुदै वितरण लाइन जाने बस्तिहरुमा आदिवासि जनजातिहरुको वसोबास नरहेको तर नजिकको वस्तिहरुमा आदिवासि जनजातिहरुको वसोवास रहेको भएतापिन आयोजना कार्यन्वयन गर्दा उनिहरुको सामाजिक धार्मिक संस्कृतिमा कुनै पित प्रकारको असर नगर्ने व्यहोरा सिफारिस साथ अनुरोध छ ।



वैजनाथ गाँउपालिका Baijanath Rural Municipality द नं. वडा कार्यालय 8 no. Ward Office

टिटिहिरिया बाँके Titihiriya Banke लुम्बिनि प्रदेश नेपाल Lumbini Province Nepal

पत्र संख्या/fiscal year :- २०७८/७९(2078/79) चलानि नं. Ref. No.: 2299



मिति:२०७८/११/०८

श्री नेपाल विद्युत प्राधिकरण नेपाल वितरण प्रणालि स्तरोन्नती तथा विस्तार आयोजना दरवारमार्ग काठमान्डौ

विषयः सुचना टाँस सम्बन्धमा ।

प्रस्तुत विषयमा तहाँ स्थित कार्यालयको मिति २०७८/१०/०६ को प्रत्न अनुसार बैजनाथ गाँउपालिका वडा नं. ८ मा वातावरणीय तथा सामाजिक प्रतिवेदन तयारीका लागि हुने छलफल कार्यक्रमको सुचना टाँस मिति २०७८/१०/०६ मा गरीएको व्यहोरा सिफारिस साथ अनुरोध छ ।

वडा **अध्यस्**

बितरण प्रणाली स्तरउन्नित तथा विस्तार आयोजना अन्तर्गतका उपआयोजनाहरुको वातावरणीय तथा सामाजिक ब्यबस्थापन योजना (Environmental and Social Management Plan) प्रतिवेदन तयारी सम्बन्धी सार्वजनिक सूचना टाँस को मुचुल्का

था विस्तार आयोज	.वडामा ं नेपाल विद्युत प्रार्ग नना "को वातावरणीय तथा र प्रतिबेदन तयारी सम्बन्धि	प्रामाजिक व्यबस्थापन य	ोजना (Environme	
nanagement Plan) S	प्रातबदन तथारा सम्बान्ध गाउँ/नगर पालि	सावजानक सूचनायस ।काबार्डनं ?	लेड माना	- मा
आज २०७८ । त.२.१० ४. गरिदियौं ।	गाउँ/नगर पालि गते हामी तपसिलका व्य	क्तिहरूको रोहवरमा टाँर	न गरिएको प्रमाणित	गर्दै यो मुचुल्का
	<u> </u>	ग्पसिल		
क.स. नाम	ठेगाना	पेशा	सम्पर्क नम्बर	हस्ताक्षर
	गुप्तम - ब्राह्मण	~9	।। ना वाड, अहपद्र	985 8081308
भ दे <u>ड्, नाश</u>	अंबी "	*	स्वानीय	PLT?
	जैब्री (थोड्रो)			



बाँसगढी नगरपालिका (Bansgadhi Municipality)

८नं. वडा कार्यालय

(8 No. Ward Office)

ककौरा, बर्दिया (Kakaura, Bardiya) ल्म्बिनी प्रदेश नेपाल (Lumbini Province, Nepal)

7F4X+V3 BANSGADHI प.स. २०७८/०७९ च.नं. (Issue No

मिति २०७८/११/०८

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श्री नेपाल विद्युत प्राधिकरण वितरण प्रमाणि स्तारउन्नती तथा विस्तार अग्निक्तिक दरबारमार्ग, काठमाण्डौं

विषय: सिफारिस सम्बन्धमा।

प्रस्तुत विषयमा तहाँ कार्यालयको च.नं १३७ मिति :२०७८-१०-०७ गतेको पत्रअनुसार व्यहोरा अवगत भयो सो सम्बन्धमा यस बाँसगढी नगरपालिका वडा नं ८ मा रहेका स्थानिय आदिबासि जनजातिलाई सो आयोजना कार्यन्वयन गर्दा क्नै पनि नकारात्मक असर नपर्ने हुदाँ तहाँ कार्यालयले नियमानुसार कार्य गर्न् हन सिफारिस साथ अनुरोध द्वार



🝙 ९८५८०८१३०८, वेबसाईट:- www.Bansgadhimun.gov.np ईमेल: bansgadhimun8@gmail.com,

फेसबुक :- facebook.com/bansgadhimunward8

श्री नेपाल विद्युत प्राधिकरण । वितरण प्रणाली स्तरजन्नति तथा विस्तार आयोजना, दरबारमार्ग, काठमाण्डौ, नेपाल ।

विषयः सूचना टाँस गरिएको सम्बन्धमा ।

उपरोक्त सम्बन्धमा त्यस वन्मपुनीको मिति २०७८/१०/०६ को प्राप्त पत्रानुसार कुरिक ती. प्रदेश का प्राप्त पत्रानुसार जिल्ला, किन्त कर्म गापानपा विद्यात प्राप्तिकरण द्वारा प्रस्तावित पित्तरण प्रणाली स्तरजन्ति तथा विस्तार आयोजना को वातावरणीय तथा सामाजिक व्यवस्थापन योजना (Environment and Social Management Plan) प्रतिबेदन तथारी सम्बन्धि सार्वजनिक सूचना यस प्रदेश प्रदेश जिल्ला, गाउँनगर पालिका बार्ड नं ६० मा अवस्थित यस कुर्म कुर्मा क्रांस्थित वो सूचना पाटिमा २०७८ कुर्मा पति यस प्रदेश यस कुर्म कुर्मा जनस्थित वो सूचना पाटिमा २०७८ कुर्मा पति वास राहिस प्रदेश

मदः कटा अस्थित

कार्यालय/संस्थाको छाप



बढैयाताल गाँउपालिका

४नं, वडा कार्यालय

प.सं. :- ०७८/०७९ चलानी नम्बर : १,२%० बैरेनी, बर्दिया

मिति २०७८/११/०८

विषय :सुचना टाँस गरिएको सम्बन्धमा ।

श्री नेपाल विद्युत प्राधिकरण वितरण प्रणाली स्तरउन्नित तथा विस्तार आयोजना दरबारमार्ग काठमाण्डौ ।

प्रस्तुत बिषयमा तँहा कार्यलयको मिति २०७८/१/६ को गतेको पत्रानुसार कोहलपुर माछागढ विद्युत बितरण लाईन आयोजनाको बातावरण तथा सामाजिक ब्यबस्थापन योजना प्रतिबेदन तयारी सम्बन्धि सार्वजनिक सुचना यस वडा कार्यलयको सुचना पाटीमा मिति २०७८/ ११ /०५ गते टाँस गरिएको •यहोरा जानकारीका लागी अनुरोध छ ।



बैजनाथ गाउंपालिका

Baijanath Rural Municipality

६ नं. वडा कार्यालय 6 no Ward Office

> सम्भाना, बाँके Samjhana, Banke लुम्बिनी प्रदेश, नेपाल Lumbini Province, Nepal मिति / Date : २०७८ । ११ । ०६

विषय:- सिफारिस सम्बन्धमा।

श्री/Shree: नेपाल विद्युत प्राधिकरण

पत्र संख्या / fiscal year :०७८।०७९

चलानी नं./Ref. No.: ३६४४

वितरण तथा ग्राहक सेवा निर्देशनालय

दरबारमार्ग, काठमाण्डौ

प्रस्तुत विषयमा तहाँ कार्यालयको चलानी नं. १३७ मिती २०७८।१०।०७ को पत्रानुसारको व्यहोरा प्राप्त भयो सो सम्बन्धमा यस बैजनाथ गाउँपालिका वडा नं. ६ मा रहेका स्थानीय आदिवासी जनजातीहरुलाई सो आयोजना कार्यान्वयन गर्दा कुनै पिन प्रकारको नकारात्मक प्रभाव नपर्ने भएको हुँदा तहाँ कार्यालयको नियमानुसार सो कार्य संचालन गर्नहुन सिफारिस साथ अनुरोध छ।

Website: www.baijanathmun.gov.np email:info@baijanathmun.gov.np, ward8.baijanathmun@gmail.com



मिति : २०७८।१०।१२

विषयः सुचना टांस सम्बन्धमा।

श्री नेपाल विद्युत प्राधिकरण दरवारमार्ग,काठमाण्डौ

उपरोक्त सम्बन्धमा ताहाँ कार्यालयको च.नं.१३२ मिति २०७८।१०।०६ गतेको पत्रसाथ प्राप्त सुचनालाई यस कार्यलयको सुचना पाटिमा मिति २०७८।१९।०५ गते टांस गरिएको व्यहोरा अनुरोध गरिन्छ ।

धर्मराज न्यौपाने प्रसुख प्रशासकीय अधिकृत



बढैयाताल गाँउपालिका

४नं वड़ा कार्यालय

प.सं. :- ०७८/०७९ चलानी नम्बर : १२१८

मिति २०७८/११/०८

विषय : सिफारिसं सम्बन्धमा ।

श्री नेपाल विद्युत प्राधिकरण वितरण प्रणाली स्तरउन्नित तथा विस्तार आयोजना दरवारमार्ग काठमाण्डौ ।

प्रस्तुत विषयमा तँहा कार्यलयको च.न. १३७ मिति २०७८/१०/०७गतेको पत्रानुसार न्यहोरा अवगत भयो सो सम्बन्धमा यस बढैयाताल गाँउपालिका वडा न.४ मा रहेका स्थानिय आदिबासी जनजातीलाई सो आयोजना कार्यन्वयन गर्दा कुनै पनि नकारात्मक असर नपर्ने हुदा तहा कार्यलयको नियमानुसार सो कार्य गर्नु हुन सिफारित साथ अनुरोध छ।

का.बा.अध्यक्ष



बाँसगढी नगरपालिका Bansgadhi Municipality ३ तं. वडा कार्यालय

Office Of ward No.3

गौडी, बर्दिया Gaudi Bardiya



Lumbini Province

मिति : २०७८ १९९ १०८

चलानी नं. (Ref No.):- 95

पत्र संख्या (L.No.):- २०७८ १०७९

विषय :- सिफारिस सम्बन्धमा ।

श्री नेपाल विद्युत प्राधिकरण वितरण प्रणाली स्तरउन्नित दरवारमार्ग काठमाण्डौ ।

प्रस्तुत बिषयमा तँहा कार्यंनयको २०७८।०९।०६ गतेको पत्रानुसार कोहनपुर माधागढ विधु'त वितरण लाईन आयोजनाको बातावरण तथा सामाजिक ब्यबस्थापन योजना प्रतिबेदन तयारी सम्बन्धि सार्वजनिक सुचना यस वडा कार्यालयको सुचना पाटीमा मिति २०७८।११।०६ गते टास गरिएको व्यहोरा जानकारीका लागी अनुरोध छ

> व्रमराज पौडेल वडा अध्यक्ष

९८५८०८१३०३, वेबसाईट:- พพพ.Bansgadhimun.gov.np ईमेल: bansgadhimun3@gmail.com,

फेसबुक :- facebook.com/bansgadhimunward3



बाँसगढी नगरपालिका Bansgadhi Municipality

३ नं. वडा कार्यालय Office Of ward No.3

गौडी, बर्दिंसा Gaudi Bardiya



Lumbini Province

पत्र संख्या (L.No.):- २०७८ १०७९ चलानी नं. (Ref No.):-7498



मिति : २०७८ ११९ १०८

विषय :- सिफारिस सम्बन्धमा ।

श्री नेपाल विद्युत प्राधिकरण वितरण प्रणाली स्तरउन्नित दरवारमार्ग काठमाण्डौ ।

प्रस्तुत विषयमा तहा कार्यलयको च.न. १३७ मिति २०७८ १०५ १०७ गतेको पत्रानुसार त्यहोरा अबगत भयो सो सम्बन्धमा यस बाँसगढी नगरपालिका वडा नं. **३** मा रहेका स्थानिस आदिवासी जनजावीलाई सो आयोजना कार्यन्वसन गर्दा कुनै पनि नकारात्मक असर नपर्ने हुदां तँहा कार्यंनयको नियमानुसार सो कार्यं गर्नुं हुन सिफारिस साथ सादर अनुरोध छ ।

वडा अध्यक्ष

बितरण प्रणाली स्तरउन्नित तथा विस्तार आयोजना अन्तर्गतका उपआयोजनाहरुको वातावरणीय तथा सामाजिक ब्यवस्थापन योजना (Environmental and Social Management Plan) प्रतिवेदन तयारी सम्बन्धी सार्वजनिक सूचना टाँस को मुचुल्का

anagement Plan)	प्रतिबेदन तयारी सम्बन्धि स	।।र्वजनिक सूचना या	योजना (Environme	जिल्ला	
ाज २०७८. ।.१.५ .१.८ रिदयौँ ।	गाउँ/नगर पालिव a.g_ गते हामी तपसिलका व्यक्ति	क्तेहरुको रोहवरमा टाँ	स गरिएको प्रमाणित	गर्दे यो मुचुल्का	
	<u>त</u> र	<u>।सिल</u>			
स. नाम	ठेगाना	पेशा	सम्पर्क नम्बर	हस्ताक्षर	
	विदेश जासम्ही र याद जासमही त			863 ATTATI	TM A
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				863 ATTOM	TA



बाँसगढी नगरपालिका Bansgadhi Municipality **०५ नं वडा कार्यालय**

Office of Ward No. 05

Office of Ward No. US बाँसगढी (Bansgadhi) लुम्बिनी प्रदेश, नेपाल (Lumbini Province, Nepal)



मिती: २०७८/११/०८

प.स. (I.No.)- ०७८/०७९ चलानी नं. (Ref.No) 989

श्री नेपाल विद्युत प्राधिकरण , वितरण तथा ग्राहक सेवा निर्देशनालय दरवारमार्ग, काठमाण्डौ

विषय : जानकारी सम्बन्धमा ।

उपरोक्त सम्बन्धमा ताहा कार्यालयको च॰न॰ १३२ मिति २०७८-१०-०६ गते पत्रानुसारको सुचना टाँस गरिएको ब्यहोरा जानकालागी

अनुरोध गरिन्छ ।

नरेन्द्र गिरि वडा अध्यक्ष

078079-11-08-10-89-60

इमेल: bansgadhimun5@gmail.com

वडा सचिव: ९८५८०८१४०५

वडा अध्यक्षः ९८५८०८१३०५



Bansgadhi Municipality ०५ नं वडा कार्यालय

Office of Ward No. 05

बाँसगढी (Bansgadhi)

लुम्बिनी प्रदेश, नेपाल (Lumbini Province, Nepal)

र्ग.वडा का क कारमधी, का का कुम्बन प्रदेश,



मिती: २०७८/११/०८

प.स. (I.No.)-०७८/०७९ चलानी नं. (Ref.No) 989 b

श्री नेपाल विद्युत प्राधिकरण , वितरण तथा ग्राहक सेवा निर्देशनालय दरबारमार्ग, काठमाण्डौ

विषय : सिफारिस सम्धमा ।

उपरोक्त सम्बन्धमा ताहा कार्यालयको च॰न॰ १३७ मिति २०७८-१०-०७ पत्रानुसारको ब्यहोरा अवगत भयो, सो सम्बन्धमा यस बॉसगढी नगरपालिका वडा नं॰ ५ मा रहेको स्थानीय आदिवासी जनजातीलाई सो आयोजना कार्यन्वयन गर्दा कुनै पनि नकरात्मक असर नपने हुँदा तहा कार्यालको नियमानुसार सो कार्य गर्नुहुन सिफारिस साथ अनुरोध गरिन्छ ।

> नरेन्द्र गिरि वडा अध्यक्ष वडा अध्यक्ष

इमेल: bansgadhimun5@gmail.com

वडा सचिवः ९८५८०८१४०५

वडा अध्यक्षः ९८५८०८१३०५



बाँसगढी नगरपालिका Bansgadhi Municipality 🧝 नं. वडा कार्यालय

Office Of ward No.4

बतुवा, बर्दिया Bathuwa Bardiya



Lumbini Province

मिति- २०७८-११-०८

विषय- सिफारीस सम्बन्धमा

श्री नेपाल विद्युत प्राधिकरण

पत्र संस्न्या (L.No.):- २०७८ १०७९ टाजानी जे. (Ref No.):- 9 5 8 6

वितरण प्रमाणि स्तरउन्नती तथा विस्तार आयोजना

दरबारमार्ग, काठमाण्डौँ

उपरोक्त सम्बन्धमा तहा कार्यालयको च.न. १३७ मिति-२०७८-१०-०७ गतेको पत्राअन्सार व्यहोरा अवगत भयो सो सम्बन्धमा यस बाँसगढि नगरपालिका वडा न. ४ मा रहेका स्थानिय आदिबासि जनजातिलाई सो आयोजना कार्यान्वयन गर्दा कुनै पनि नकारात्मक असर नपर्ने हुदा तहाँ कार्यालयले नियमानुसार सो कार्य गर्नुहुन सिफारीस साथ सादर अनुरोध गरिन्छ।



🕋 9858081304 वेबसाईट:- www.Bansgadhimun.gov.np ईमेल: bansgadhimun4@gmail.com,

फेसबुक :- facebook.com/bansgadhimunward4



कोहलपुर नगरपालिका **८ नं वडा कार्यालय**

प.सं. : ०७८/०७९

च.नं. : १४४४

लुम्बिनी प्रदेश

मिति :२०७८।१९।०५

श्री नेपाल विद्युत प्राधिकरण

वितरण तथा ग्राहकसेवा निर्देशनाल

नेपाल वितरण प्रणाली स्तरोन्नति तथा विस्तार आयोजना

दरवारमार्ग, काठमाण्डौं

विषय:-जानकारी सम्बन्धमा ।

प्रस्तुत विषयमा तहाँको प.सं.०७८।०७९ च.नं.१३७ मिति २०७८।१०।०७ को प्राप्त पत्रानुसार यस क्षेत्रमा कार्यान्वयन गर्न लागिएको कोहलपुर-माछागढ विद्युत वितरण लाइनबाट यस वडा अन्तरगत रहेका स्थानीय आदिवासी जनजातिहरुको परम्परागत रहनसहन ,धर्म ,भाषा ,संस्कृति आदिमा कुनै असर नपर्ने ब्यहोरा जानकारीका लागि अनुरोध छ ।

2061 वर्षाप्र कार्यवाहक अध्यक्ष



कोहलपुर नगरपालिका १० नं.वडा कार्यालय

कोहलपुर, बाँके लुम्बिनी प्रदेश, नेपाल स्थि २०७३

प.सं. : ०७८/०७९ च.नं. *968-9*

फोन नं. : ०८१-५४१६०६

मिति:-२०७८।११।२

श्री नेपाल बिद्युत प्रधिकरण, नेपाल बितरण प्रणलीस्तरोन्नती तथा बिस्तार आयोजना, दरवारमार्ग काठमाण्डौ ।

बिषय:- जानकारी।

उपरोक्त बिषयमा तहांको प.सं.०७८/०७९च.नं.१३२ मिति २०७८।१०।०६ को प्राप्त पत्र साथ प्राप्त हुन आएको यस वडाको क्षेत्रमा कार्यन्वयन गर्न लागीएको कोहलपुर माछागढ बिद्युत बितरण लाईन कार्य बाट यस वडा अन्तरगत रहेका स्थानिय आदीबासी जनजातीहरुको परम्परा गत रहनसहन,धर्म,भाषा,संस्कृति आदीमा असर पर्ने नपर्ने बारेको सूचना यस कार्यालयको सूचना पाटीमा टांस गरीएको व्यहोरा जानकारीको लागी अनुरोध गरीन्छ।

हरि प्रसाद थारु का.बा. वडा अध्यक्ष

ार्गि (०७८) प्रताप १००६ को प्रास्त वार्गाएको कोहलपुर मास्त्रपट वार्गाएको स्थानिय आदीखसी वसर पर्ने नपर्ने कार्यक वार्गाएको स्पर्ने सार्यक

"सक्षम निजामित प्रशासन : विकास सम्बृद्धि र सुशासन ।"



कोहलपुर नगरपालिका १० नं.वडा कार्यालय

कोहलपुर, बाँके लुम्बिनी प्रदेश, नेपाल स्था २०७३

प.सं. : ०७८/०७९ च.नं. *०७६/०*

फोन नं. : ०८१-५४१६०६

मिति:-२०७८।११।४

श्री नेपाल विद्युत प्रिधिकरण, नेपाल बितरण प्रणलीस्तरोन्नती तथा बिस्तार आयोजना, दरवारमार्ग काठमाण्डौ ।

बिषय:- जानकारी।

उपरोक्त बिषयमा तहांको प.सं.०७८/०७९च.नं.१३२ मिति २०७८।१०।०७ को प्रप्त पत्रानुसार यस वडाको क्षेत्रमा कार्यन्वयन गर्न लागीएको कोहलपुर माछागढ बिद्युत वितरण लाईन कार्य बाट यस वडा अन्तरगत रहेका स्थानिय आदीबासी जनजातीहरुको परम्परा गत रहनसहन,धर्म,भाषा,संस्कृति आदीमा कुनै असर नपर्ने व्यहोरा जानकारीको लागी अनुरोध गरीन्छ।

> हरि प्रसाद **थारु** का.बा. वडा अध्यक्ष

"सक्षम निजामित प्रशासन : विकास सम्बृद्धि र सुशासन ।"



कोहलपुर नगरपालिका ८ नं बड़ा कार्यालय कोहलपुर बाके स्था २०७४

प.सं. : ०७८/०७९

च.नं. : १४०७

लुम्बिनी प्रदेश

मिति :२०७८।१९।०२

श्री नेपाल विद्युत प्राधिकरण

वितरण तथा ग्राहकसेवा निर्देशनालय

नेपाल वितरण प्रणाली स्तरोन्नति तथा विस्तार आयोजना

दरबारमार्ग,काठमाण्डौ

विषय:-सूचना टाँसको जानकारी पठाएको बारे ।

प्रस्तुत विषयमा तँहाको च.नं.१३२ मिति २०७८।१०।०६ को मिति २०७८।१९।०२ मा यस कार्यालयमा प्राप्त पत्रसाथ संलग्न सूचना थान -१ यस कार्यालयको सूचना पाटीमा आजैका दिन टाँस गरिएको ब्यहोरा जानकारीका लागि अनुरोध छ ।



कोहलपुर नगरपालिका

८ नं. वडा कार्यालय

पत्र संख्या :- ०८२/०*६९* चलानी नं. :- - ८१४

मिति: 2067 199 102

श्री नेपाल विद्युत कार्रिक्रण वितर्श तथा जाहत्र सेवा निरंशातालय हरवार्मार्ज , कार्रमार्जी

विषय: सिमारिस सम्बन्धमा

मरहेत विषयमा तंहा कार्यालयको न्य. तं. 936 मिति : २०६२) १००० । जोको प्या नुसारको ०महोरा कावजत कार्या सो सम्बद्धमा व्यव को हलपुर तज्यात्मका वडा मे. ४ मा रहेका स्थानिय कारियाती जाति वासी जातातीलाई सो बनायो जाता कार्यर व्या ने कुने पाने तकरात्मक कासर तपने ईदा तंहा कार्यालयको नियामा नुसार सो कार्या जाने इत

951 25 621 4

तिर्व राम गाँउ

तिरथराम थारु वडा अध्यक्ष श्री नेपाल विद्युत प्राधिकरण -वितरण प्रणाली स्तरउन्नति तथा विस्तार आयोजना, दरवारमार्ग, काठमाण्डौ, नेपाल ।

विषयः सूचना टाँस गरिएको सम्बन्धमा ।

उपरोक्त सम्बन्धमा त्यस वन्मनीको मिति २०७८/१०/०६ को प्राप्त पत्रानुसार	
्यानिकरी प्रदेश, व्यान जिल्ला ना दिला	
विद्याल विद्याल विद्याल प्राप्तिकाचा वाग प्रकाशिक विद्याल का प्रका	
तथा विस्तार आयोजना" को बातावरणीय तथा सामाजिक व्यवस्थापन योजना (Environment and Social	
Management Plan) Thiscar and make mit to a second control of the second second	
Management Plan) प्रतिबेदन तयारी सम्बन्धि सार्वजनिक सूचना यस 🥎 पिवानी प्रवेश	. 4
अर्चे जिल्ला, गाउँनगर पश्चिका वार्ड नं 💉 मा अवस्थित	
यसव.र.।	
भारतका व्यवस्था जानकारीका लाग असराध दर ।	

हस्ताक्षरः रिवर सम्बर्धाम

नामः तिरथे राम थारू पदः वडा अब्यान

कार्यालय/संस्थाको छाप



श्री नेपाल विद्युत प्राधिकरण वितरण प्रणाली स्तरजन्नति तथा विस्तार आयोजना, दरबारमार्ग, काठमाण्डौ, नेपाल ।

विषयः सूचना टाँस गरिएको सम्बन्धमा ।

उपरोक्त ऽपूर्विट	सम्बन्धमा विजी	त्यस क प्रदेश,	म्पनीको मि	ोति २०७८, जिल्ल	/90/08 n ======	को प्राप्त नपुर	पत्रानुसार गापा/नपा
3	ল• ব	ाडामा नेपाल	ा विद्युत प्राधि	करण द्वारा प्रस्त	तावित " बित -	रण प्रणार्ल	स्तरउन्नति
				माजिक व्यबस्था			
Managen	nent Plan) 耵 글	तिबंदन तर	गरी सम्बन्धिः जिल्ला ग	पार्वजनिक सूचन ाउँ/नगर पालिक्र	गयस गवार्डनं	greil 3 ı	प्रदेश, n अवस्थित
यस	डी कार्य	തമു ച്ച്		हो सूचना पाटि	मा २०७८./	99/04	गते टाँस
गरिएको व	व्यहोरा जानक	गरीका लागि	ो अनुरोध छ	1			

नामः सुनिता थारू

पदः जा, वा अध्यदा

कार्यालय/संस्थाको छाप



_{कोहलपुर नगरपालिका} नं.वडा कार्यालय

मदनचोक कोहलपुर, बाँके लुम्बिनी प्रदेश, नेपाल स्था. २०७३

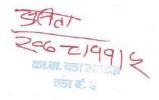
पसं.०७८/०७९ च.न. *988* %

मितिः२०७८/११/०५

श्री नेपाल विधुत प्राधिकरण वितरण तथा ग्राहक सेवा निर्देशनालय दरवारमार्ग काठमाण्डौ ।

विषय:- सिफारिस सम्बन्धमा ।

प्रस्तुत विषयमा तहाँ कार्यालयको च.नं. १३७ मिति २०७८/१०/०७ गतेको पत्र प्राप्त भए अनुसार यस कोहलपुर नगरपालिका वडा नं.०३ मा रहेको स्थानिय आदिवासी जनजातिलाई सो आयोजना कार्यान्वयन गर्दा कुनै पनि नकरात्मक असर नपर्ने भएको हुदाँ तहाँ कार्यालयको नियमानुसार सो कार्य गर्नुहुन सिफारिस साथ अनुरोध छ ।





कोहलपुर नगरपालिका

१५ नं.वडा कार्यालय

अकलघरवा बाँके लुम्बिनी प्रदेश,नेपाल

स्था. २०७३



पत्र संख्याः २०७८।७९

चलानी नं. 9 2 ९

मितिः२०७८।११/०६

बिषय - सिफारीस गरिएको बारे ।

श्री - श्री नेपाल बिधुत प्राधिकरण । बितरण तथा ग्राहक सेवा निर्देशनालय दरबारमार्ग कठमांडौ

प्रस्तुत बिषयमा तहा कार्यालयको च न १३७ मिति २०७८/१०/०७ गतेको पत्रानुसार ब्यहोरा अवगत भयो सो सम्बन्धमा यस क्स कोहलपुर न पा १५ न वडा मा रहेका स्थानिय आदिबासी जनजातिलाई सो आयोजना कार्यनवयन गर्दा कुनै पनि नकरात्मक असर नपर्ने हुदा तहा कार्यालयको नियमानुसार सो कार्य गर्नुहुन सिफारिस साथ अनुरोध गरिन्छ



कोहलपुर नगरपालिका

१५ नं.वडा कार्यालय

अकलघरवा बाँके लुम्बिनी प्रदेश,नेपाल स्था. २०७३



पत्र संख्याः २०७८।७९ चलानी नं. १२९८

मितिः२०७८।११/०५

बिषय - सिफारीस गरिएको बारे ।

श्री - श्री नेपाल बिधुत प्राधिकरण । बितरण तथा ग्राहक सेवा निर्देशनालय दरबारमार्ग कठमांडौ

प्रस्तुत बिषयमा तहा कार्यालयको च.न.१३७ मिति २०७८/१०/०६गतेको प्राप्त पत्रानुसार नेपाल बिधुत प्राधिकरण,वितरण तथा ग्राहक सेवा निर्देशनालय,बितरण प्राणाली स्तरोननती तथा विस्तार आयोजना यस वडाको क्षेत्रको वाताबरण तथा सामाजिक पक्षहरुमा के कस्तो प्रभाव पारदछ भनि स्थानिय सरोकारवाला हरु संग छलफल गर्ने सम्बन्धि सूचना यस वडाको सूचना पाटीमा टाँस गरकों हो भनि जानकारी साथ अनुरोध गरिन्छ ।

महा तं १५ वहा अध्यक्ष



कोहलपुर नगरपालिका ६ नं. वडा कार्यालय

कोहलपुर, बाँके लुम्बिनी प्रदेश, नेपाल स्था. २०७३

प.सं. २०७८/०७९ च.नं. **९४ ४** ७



मिति २०७८/१०/०४

श्री नेपाल विधुत प्राधिकरण वितरण तथा ग्राहक सेवा निर्देशनालय दरबारमार्ग , काठमाण्डौ ।

विषय:- सिफारिस सम्बन्धमा ।

प्रस्तुत विषयमा तँहा कार्यालयको च.नं.१३७ मिति २०७८/१०/०७ गतेको प्राप्त पत्रानुसार व्यहोरा जानकारी भयो । सो सम्बन्धमा यस कोहलपुर नगरपालिका वडा नं. ६ मा रहेको स्थानीय आदिवासी जनजाति बासिन्दाहरुलाई सो आयोजना कार्यान्वयन गर्दा कुनै नकारात्मक असर नपर्ने हुदा तँहा कार्यालयको नियमानुसार सो आयोजना कार्यान्वयन गर्न गराउनुहुन सिफारिस साथ अनुरोध गरिन्छ

राम शरण थार वडा अध्यक्षकार

"हरित संगमस्थल हाम्रो शहर सुन्दर समृद्ध कोहलपुर नगर" Email-word6.kohalpur@gmail.comC:\Users\admin\Desktop\वडा नं ॰६ कार्यातय सम्पुर्ण सिफारिस\विधुत सिफारिस.docx श्री नेपाल विद्युत प्राधिकरण -वितरण प्रणाली स्तरजन्नति तथा विस्तार आयोजना. दरबारमार्ग, काठमाण्डौ, नेपाल ।

विषयः सूचना टाँस गरिएको सम्बन्धमा ।

उपराक्त सम्बन	धमा त्यस दग	पनीको मिति	२०७८/१०/०६		-
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तवा वस्तार आ	य। जना" का दातावर	णीय तथा सामाजिक	ज्यहास्थापन योजना	(Environment	and Conint
Management Pis	an) प्रति बंद न तयार्र	े एखिए वर्जन	E 1117 202	A	and odcial
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हस्ताकरः अस्ति। १९१० के कि

कार्यालय/संस्थाको छाप

श्री नेपाल विद्युत प्राधिकरण -वितरण प्रणाली स्तरजन्नति तथा विस्तार आयोजना. दरवारमार्ग, काठमाण्डौ, नेपाल ।

विषयः सूचना टौस गरिएको सम्बन्धमा ।

उपराक्त सम्बन्धमा त्यस वन्मनीह्यो मिति २०७८/१०/०६ को प्राप्त पत्रानुसा	र
पुरुवात प्रदेश, वार्ष जिल्ला, क्रीहलपुर गामानु १८ त. वहामा नेपाल विद्युत अधिकरण द्वारा प्रस्तावित 'बितरण प्रणालो स्तरउन्नित	Ų.
तथा विस्तार आयोजना" को वातावरणीय तथा सामाजिक व्यवस्थापन योजना (Environment and Socia	Ť
Management Plan) प्रतिबंदन तयारी सम्बन्धि सार्वजनिक सूचना यस प्रकार	
यस	7

हस्ताक्षरः

गमःज्ञासी चयारा पदः वस अव्यन

कार्यालय/संस्थाको छाप

बितरण प्रणाली स्तरउन्नित तथा विस्तार आयोजना अन्तर्गतका उपआयोजनाहरुको वातावरणीय तथा सामाजिक ब्यवस्थापन योजना (Environmental and Social Management Plan) प्रतिवेदन तयारी सम्बन्धी सार्वजनिक सूचना टाँस को मुचुल्का

कोहलप्र		•	<u>जोर्</u> जिल्ल
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. चल्डुमा थ	पु वोहलपु - १५	्र नेडा सुदह	y Seaml
. भानेत्रवा ची	थारी <i>ग</i> १	£81174	ayry
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THE STATE OF THE PLAN S	तिबेदन तयारी सम्बन्धि सा गाउँ/नगर पालिका _ गते हामी तपसिलका व्यक्ति	र्वजनिक सूचना यस । वार्ड नं 🍾	<i>विद्यग</i> , ऋदरीयाभा	जिल्ला — मा
गरिदियौं।	_ गत हामा तपासलका व्यक्ति	व्हरूका सहवस्मा टा	स गारएका प्रमाणित	गद या मुचुल्का
	तर्पा	सिल		
क्र.स. नाम	ठेगाना	—— पेशा	सम्पर्क नम्बर	हस्ताक्षर
	गिट्सकारी व्यामाही न उभी बाखारही इ			
८. न्याता है ३. हिरामान	मिट्रकारी क्षामाही न उमी बायगही व "पारू कामाही द दींट्रेंक बामा	ল দা -ং, ক্রান্তা নাদ্য-ং, ক্রান্তা	. उपभोद्धता स्त्रीमारी पार्विता	
८. न्याता है ३. हिरामान	ग्रेस वासाही चार वासाही	ল দা -ং, ক্রান্তা নাদ্য-ং, ক্রান্তা	. उपभोद्धता स्त्रीमारी पार्विता	
८. न्याता है ३. हिरामान	ग्रेस वासाही चार वासाही	ল দা -ং, ক্রান্তা নাদ্য-ং, ক্রান্তা	. उपभोद्धता स्त्रीमारी पार्विता	

बितरण प्रणाली स्तरउन्नित तथा विस्तार आयोजना अन्तर्गतका उपआयोजनाहरुको वातावरणीय तथा सामाजिक ब्यबस्थापन योजना (Environmental and Social Management Plan) प्रतिवेदन तयारी सम्बन्धी सार्वजनिक सूचना टाँस को मुचुल्का

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Annex 7: SAFETY RELATED SIGNS AND WASTE MANAGEMENT PRACTICES

SIGNAL NOTICE









DANGER SIGNS





खतरा - बुल्ला खाल्डो

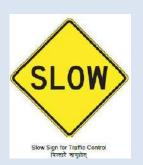




INSTRUCTION SIGNS









SAFETY AND SAFETY INSTRUCTION SIGNS













Annex 8: PHOTOGRAPHS



DL alignment at Kohalpur Municipality, Ward No. 10

DL alignment at Kohalpur Municipality, Ward No. 9



Tapping point (Kohalpur Substation, Kohalpur Municipality Ward No. 10, Banke)



Distribution line alignment along cultivable land



Proposed distribution line alignment along the Sikta Iririgation Canal



Public Notice Pasted at Laxmana Settlement, Basgadhi Municipality, Ward No.8



Proposed area for substation at Bansgadhi Municipality, Ward No.8



Consultation Meeting at Chandani bazaar, Baijnath Rural Municipality, Ward No. 7



Consultation Meeting at Uttarbhakari, Baasgadhi Municipality, Ward No. 03

Annex 9: ENVIRONMENTAL AND SOCIAL SCREENING AND RAPID ASSESSMENT GUIDANCE FOR DISTRIBUTION LINE

9.1 Screening Guidance – to be filled up per subproject (11kV line)

Province:
District/Municipality:
Subproject Name:
Subproject Location: name of locations of distribution line (start from/ward/municipalityend to..... (ward/municipality),
Total length of distribution line:.....km/m

Environmental and Social Screening	Project Requirement
Criteria	
Environmental Impact Assessment Require	rement
EIA/IEE.	
As per national requirement (as per Environn	
subproject require assessment of BES/IEE of	
1.	If "Yes", the subproject needs to prepare
	ESMP as per AIIB requirement.
Natural Habitat	
Defined as the type of natural environment in	
lives. It is characterized by both physical and	
has not essentially changed the main ecologi	
4. Is the subproject located in a legally	If "Yes", please indicate what type of
protected area based on Forestry Map?	permission it will requires
5. Does distribution line route/poles close to	
any touristic view points, wetlands, and	If "Yes" please indicate what impact it will
sites of cultural / religious / archeological /	entail.
historic significance?	
6. Will the subproject significantly make	If "Yes", please indicate what impact it will
impact of degradation or change of the	entails including cutting down trees etc.
natural known habitat/migration movement	
route of protected rare and endangered	
species and/or forest in the protected area,	
proposed protected area or area	
considered with special ecology?	
7. Does the distribution line/ route and	If "Yes" please indicate what impact it will
locations of poles are falling in any	entail.
landslide & erosion prone/ risk spot where	
geological avoidance is not feasible	
Indigenous Peoples (IPs)	
Identification of the existence IPs is aimed to	guarantee that IDs would be treated as well

Identification of the existence IPs is aimed to guarantee that IPs would be treated as well as other community members and given opportunity to participate and get access to the benefit of the project with ways that would not threat their exclusive culture and welfare. The project has to give correct and detail information of the objective and plan (design, schedule etc) of the subproject with consultation with the IPs before any construction activity in the area started.

The term IPs is used generally for an ethnic individual or group that: (i) are considered by

national or local laws or policies as well as anthropological researches/studies as belonging to ethnic minorities or Indigenous Peoples defined by Nepal Federation of Indigenous Nationalities(NEFIN); (ii) identify as being part of a distinct social and cultural group; (iii) self-identify as being part of a distinct social and cultural group; (iv) maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories; (iv) maintain cultural, economic, social, and political institutions distinct from the dominant society and culture; (v) speak a distinct language or dialect; (vi) have been historically, socially, and economically marginalized, disempowered, excluded, and/or discriminated against; (vii) represented as "Indigenous Peoples" or as "ethnic minorities" in any formal decision-making bodies at the national or local levels.

- 7. Is the subproject area affected community:
- (i) Are considered by national or local laws or policies as well as anthropological researches/studies as belonging to ethnic minorities or Indigenous Peoples defined by Nepal Federation of Indigenous Nationalities(NEFIN)?
- (ii) Identify as being part of a distinct social and cultural group?
- (iii) Self-identify as being part of a distinct social and cultural group?
- (iv) Maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories
- (v) Maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?
- (vi) Speak a distinct language or dialect?
- (vii) Have been historically, socially, and economically marginalized, disempowered, excluded, and/or discriminated against?
- (viii) Represented as "Indigenous Peoples" or as "ethnic minorities" in any formal decision-making bodies at the national or local levels?
- 8. Is there any adverse impact on any groups identified (by answering "Yes") on the point 5?

If "Yes" in any of the question no 7, consultation should be conducted as described above. This should be documented as followed: (i) proof of dissemination of the notice for consultation; (ii) notes on when is the consultation being held, who attend the consultation, what is the result, and documentation of every consultation, with list of attendance segregated by gender. The form of attendance list and notes of meeting is attached in Appendix 11

If "Yes", the subproject is not qualified to be included. Realign.

Cultural Resources

Cultural resources include tangible culture (such as buildings, monuments, landscapes, books, works of art, and artifacts), intangible culture (such as folklore, traditions, language, and knowledge), and natural heritage (including culturally significant landscapes, and biodiversity)

9. Is the subproject temporary or permanently causing relocation or any other negative impacts to cultural heritage that has important significance for local, regional or national based on provincial or national list, proposed provincial or national list, and/or just has been identified when the

If "Yes", the subproject is not qualified to be included

public consultation with project affected	
people was held?	
10. Is there any cultural heritage especially	If "Yes", the subproject is not qualified to
with important value for local community	be included
(eg. ancestral tomb) being negatively	
affected by the subproject?	
Land Use	
The development of or erection of distribution	
requirement would be optimized by using gov	
For Right of Way, private land might be affect	
available, and/or necessary to connect to priv	
use of their land and people whose non-land secured using written documentary evidence:	
During the construction phase, there would b	• •
activities. The contractor on behalf of NEA sl	
roadside, and will rent private land with budge	
public land is not available.	ot taken from the construction contract if
11. Is there any land owned by individual or	If "Yes", the consent form has to be filled
organisation to be affected because of the	and collected. Keep all written letter
subproject?	request and filled consent documentation
	in hard copies
12. Is there any subproject activity that	If "Yes", explain briefly why there would be
would restrict or close access to the	restriction and/or closure and what would
community usual activities, facilities and	be the arrangement with the landowners
services, productive assets and natural	and land users.
resources permanently or temporarily?	
	Keep all written filled consent
40 le there are an area and are trace (final)	documentation in hard copies
13. Is there any crops and/or trees (fruit,	If "Yes", explain briefly what would be the
timber or herb) or fixed assets, loss of business or enterprises owned by individual	impacts of the trees and crops, loss of business or enterprises and the
or organisation to be affected because of	arrangement with the landowners,
the subproject?	business owners and land users.
the susproject.	Keep all written filled consent
	documentation in hard copies include
	reference/basis for compensation.
14. Is there any adverse impact on social	If "Yes", explain briefly what would be the
and economic activities arising from change	adverse impacts on social and economic
in land use	activities arising from change in land use
15. Is there restrictions on land and	If "Yes", explain briefly what would be the
resources owned communally or by the	impacts of the restrictions on land and
Government	resources owned communally or by the
	Government
16. Is there any private land to be used	If "Yes", explain briefly:
temporary during the construction phase for	- location(s) of private land to be used
any construction activities?	- evidence(s) that the land would be rented
Sofoty Diotonoo	under contractor's contract
Safety Distance As per Electricity Regulation 2050 (1993)	
, , ,	
17Schedule 12 (Distance which ought to be	If "Yes", for any of the question, the
from wire to the ground)	subproject has to redirect the distribution
	lines plan to follow the safety distance
18. Schedule 13 (Minimum distance which	Note:

•	Keep all plan documented in print-out, any
tree)	change has to be noted in the resource
a.	documents

9.2 Mitigation measures if the impact entails:

	Particulars	Mitigation	Responsibility	Remarks
		measures		
E1.	If route passes through forest area and tree cutting is required.			
E2.	If the distribution line/ route and locations of poles are falling in any landslide & erosion prone/ risk spot where geological avoidance is not feasible.			
E3.	To maintain minimum clearance as per government/NEA standard.			
E4.	If existing transformers are replaced with new one. How to manage to those replaced one			
E5.	Occupational health and safety measures of the works during the erection/installation of poles/cables			
E6.	Issues related to influx of labor/labor camp and sanitation			
E7.	Other if any			

Note: Kindly response mitigation measures with example if any alternative option has been selected/proposed during the survey and design of route. Mitigations measures stated shall be implemented during construction and operation phase.

Each package of the proposal (distribution line) will be subject to environmental screening and environmental compliance monitoring.

9.3 Supporting Form

1	Subproject	
2	Type of Activity (choose in accordance with the activity)	□ Extension of 11 kV distribution lines □ Expansion of distribution lines on existing right of way□ □:
3	Project Description (describe briefly about the project activities from preparation to operation)	
4	Project Location (describe the location of the project in detail, name of sub-village, village district, regency/city and province)	
	Alternatives Considered and Hierarchy of Mitigation Measures applied (for private land and/or land belonging to IPs)	
5	Work Capacity (describe the capacity of the work)	
6	Protected Area (checking whether the project location is in protected location below)	
	a. Protected Area as defined By the Department of National Parks and Wildlife and conservation and Forest Act 2076	□ Protected forest/Types of Forest □ Wetland □ □ □ □ □ □ □ □ □ □ National Park and Wildlife
	c. List of protected	1.
	species/animals based on the International Union for Conservation of Nature (IUCN) List	
7	Land Use – provide explanation for items 12-16 if applicable	
8	IPs Area (checking whether the project location is in IP location or there are presence of IP groups or ethnic minorities in the community)	

^{*} might cross (X) more than one options

Form on Consent of Private Land Owner(s)

Statement Letter

The p	erson signing below,		
Name	:		
	:		
Addre	ess :		
Phone	e Number :		
	ation with the request ing details:	for electricity distribution upgrade and e	expansion of NEA with the
Powe	r :		
Locati	on :		
Geo-t	agging (coordinates):		
from affecto parties	all parties that whosed by the developments on the list below a	e permission for the electricity installate land and non-land assets (like placent for installing the poles, transformed agree for the usage of the land and anches, cutting of trees).	ants and crops) could be er and right of way. The
List of	Name		
No	Name	Address	Signature
1			
2			

....., 202...

Witnesses	Applicant
Ward Chair or Ward Member (other	
authority)	(Legal stamp)
	(Name and signature)
(Name and signature)	

Attachment:

Map of Distribution Network Plan Drawing

For any complaints or request for information, NEA can be contacted via 123.

Notes and List of Attendance of Community Consultations

Notes	of (Comm	unity	Cons	ultations
Mores	OI (JOHIII	ILIIILV	COUS	unanons

Date, time	:
:	
Name of the Village /	Municipality and Ward:
:	
Name of the Province	э:
	:

Note of the Community Consultation:

1.

2.

3.

Name of the notes taker:	:		Signature:
Agreed by Position	:	1.	Signature:
Position	:	2.	Signature:

List of Attendance of Community Consultations

Date, time	:
:	
Name of the Village/	Municipality and Ward:
:	
Name of the Province	e:

No	Name	Gender		Address or Mobile	Signature
		Male (M)	Female (F)	Phone	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Google map of 11kV distribution line

Consent letter of Community Forest User Groups (If route alignment passes through forest)

E & S Screening completed by:
Name:
Designation:
Date:
E & S Screening verified/reviewed by:
Name:
Designation:
Date: