

# Environment and Social Management Framework (ESMF)

## Distribution System Upgrade & Expansion Project (DSUEP)

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# ABBREVIATIONS & ACRONYMS

Acronym	Full form
AIIB	Asia Infrastructure Investment Bank
ARAP	Abbreviated / Resettlement Action Plan
CDC	Compensation Declaration Committee
CDO	Chief District Officer
CFUG	Community Forest User Group
CITES	Convention on International Trade in Endangered Species
COI	Corridor of Impact
DBH	Diameter at Breast Height
DCC	District Coordination Committee
DFO	District Forest Office
DoA	Department of Agriculture
DSUEP	Distribution System Upgrade and Expansion Project
DT	Distribution Transformer
E&S	Environmental and Social
EHS	Environmental, Health, and Safety
EHV	Extra High Voltage
EIA	Environmental Impact Assessment
EMF	Electromotive Force
EMP	Environment Management Plan
ESMP	Environment and Social Management Plan
EPA	Environment Protection Act
EPR	Environment Protection Rules
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework



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Acronym	Full form
ESMU	Environmental and Social Management Unit
ESP	Environmental and Social Policy
ESS	Environmental and Social standards
ESSD	Environmental and Social Studies Department
FI	Financial Intermediary
FY	Financial Year
GAP	Gender Action Plan
GIIP	Good International Industry Practice
GoN	Government of Nepal
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
HCI	Health Care Institution
HT	High Tension
HV	High Voltage
IEE	Initial Environmental Examination
ILO	International Labour Organization
IP	Indigenous People
IPDP	Indigenous Peoples Development Plan
IUCN	International Union for Conservation of Nature
LA	Land Acquisition
LAA	Land Acquisition Act
LARC	Land Acquisition Resettlement and Compensation
LCF	Local Consultative Forum
LT	Low Tension
LV	Low Voltage
MDG	Millennium Development Goals
MoEWI	Ministry of Energy, Water Resources and Irrigation
MoPE	Ministry of Population and Environment

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Acronym	Full form
MVA	Mega Volt Ampere
MW	Mega Watt
NEA	Nepal Electricity Authority
NEFIN	Nepal Federation of Indigenous Nationalities
NGO	Non-Government Organization
NHRC	Nepal Health Research Council
NRS	Nepali Rupees
PAP	Project Affected People
PIC	Project Information Center
PIU	Project Implementation Unit
PMU	Project Management Unit
PPTA	Project Preparation Technical Assistance
PSF	Project Preparation Special Fund
RAP	Resettlement Action Plan
RMS	Rural Municipalities
SA	Social Assessment
ToR	Terms of Reference
UN	United Nations
VCDP	Vulnerable Community Development Plan

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# EXECUTIVE SUMMARY

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This Environmental and Social Management Framework (hereinafter referred to as “the Framework or “ESMF”) is prepared for addressing environmental and social safeguard issues in “Distribution System Upgradation and Expansion Project (DSUEP) of NEA. The ESMF sets out the principal, rules, guidance, steps, responsibility and procedures for assessing and addressing environmental and social risks and impacts as part of the process of preparation of the sub-projects (33/11kV substations and distribution line) to be implemented under DSUEP through the support of international financing institutions (IFIs). Likewise, the ESMF aligns with environmental and social provisions of the Government of Nepal (GON) and constitutes a common framework for environmental and social (E&S) safeguard provisions of the Asian Infrastructure Investment Bank (AIIB) and the European Investment Bank (EIB), collectively called the “Financiers.”

This ESMF guides the NEA / PIU and stakeholders in the process of selection, screening and categorization of environmental and social risks that require further assessment and preparation of specific instruments such as an Environmental and Social Management Plan(ESMP), Initial Environmental Examination (IEE), Environmental and Social Impact Assessment (ESIA), Resettlement Action Plan (RAP), and/or Indigenous Peoples Development Plan (IPDP) as per the safeguard requirements of the Financiers and GoN.

This ESMF (i) provides an overview of DSUEP and its components; (ii) explains the generally anticipated E&S impacts and mitigation measures for the DSUEP sub-projects; (iii) specifies the requirements that will be followed in relation to E&S screening, categorization, E&S assessment, institutional arrangements for implementation of the ESMF, monitoring, meaningful consultation with project affected people and relevant stakeholders, and information disclosure requirements; (iv) specifies the safeguard criteria that determine the required E&S instruments to be prepared for each sub-project; (v) assesses the adequacy of the borrower’s capacity to implement national legal requirements and the safeguard standards of the Financiers and identifies the need for capacity building; (vi) specifies ESMF implementation procedures, including required resources and capacity development support; and (vii) describes the responsibilities of the borrower/executing agency (EA) in relation to the preparation, implementation, compliance monitoring and reporting of overall safeguards implementation.

Through its contractual relationship with the Financiers, NEA will ensure E&S provisions are included in agreements with contractors, consultant firms and individual experts. If involuntary resettlement and land acquisition are required within sub-project areas, a Resettlement Action Plan (RAP) will be prepared. Through implementation of the ESMF, emphasis will also be placed on identifying potential presence of affected indigenous people and vulnerable communities in subproject areas. In such a case, an Indigenous Peoples Development Plan (IPDP) shall be prepared for the specific sub-project. The ESMF includes a process of assessing sub-projects in accordance with the Financiers’ safeguard

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standards<sup>1</sup> and Nepal government's environmental regulations. Documents, such as EIA/IEE, ESMP, RAP and IPDP, will be prepared for each sub-project as per the Financier and guidelines of GoN. It is required to have a public consultation process to encourage participation of stakeholders in identification of impacts and mitigation measures. In order to maintain transparency, information disclosure of project activities with stakeholder shall be encouraged. Grievance redress mechanism shall be established by NEA/PIU to resolve project related issues affecting the beneficiaries. Potential environmental and social impacts may arise from construction of new substations and associated facilities. The potential environmental and social impacts are predicted to be temporary and reversible and easily mitigated through adherence to national and international standards, design criteria, and the Environmental and Social Management Plan (ESMP).

The environmental and social management plans will include mitigation costs to ensure proper implementation of mitigation measures and compliance monitoring during the sub-project construction stage. NEA / PIU will be responsible for ESMP implementation. The PIU shall prepare quarterly reports on environmental and social monitoring including RAP and IPDP implementation as applicable, which shall be reviewed by NEA management at quarterly intervals. These reports shall also be shared with the Financiers during the construction stage. The implementation status will be followed up during the Financiers' review missions. Contractors will be required to comply with the ESMP during pre-construction and construction stages under close monitoring of project supervision consultants, NEA/PIU. The ESMP shall be updated as necessary if unanticipated impacts are identified during implementation.

## Potential risks and impact

The preliminary E&S survey carried out by the project has identified the anticipated E&S impacts related with DSUEP sub-projects (33 / 11 kV substations, 33 kV lines, 11 kV lines and LT lines). The identified location and associated risks and impact of sub-projects will be further assessed following E&S screening. The project components are as follows –

Component 1 - Construction of 33kV supply lines and 33/11kV substations (including upgrade of existing facilities where needed)

Component 2 –Construction of 11kV lines, distribution transformers, low-voltage (LV) supply lines including consumer connections

Component 3 - Capacity building, project implementation support and technical assistance

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<sup>1</sup>AIB's Environmental and Social Policy (ESP) and Environmental and Social Standards (ESS); EIB's Environmental and Social Safeguard



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There is a possibility that most of the new sub-projects may be located on private land and community forests. E&S risks associated with sub-projects may also involve labour and working conditions during the construction, community health and safety issues, potential impact on physical and cultural resources, indigenous people and effects on livelihood. In sub-projects which involve these aspects, an Environment and Social Impact Assessment (ESIA) will be conducted to mitigate / offset the potential risks.

## Responsibility of key stakeholders for E&S risk management

There shall be adequate systems, procedures and capacity for identifying, managing and monitoring risks and impacts corresponding with the type, scope and nature of sub-projects financed. ESMF outlines key steps in the Environmental and Social Due Diligence process for the project to ensure adequate environmental and social consideration.

Table 1 - Key Stakeholders and their role and responsibilities

Functions	Individual E&S experts, Consulting firm	NEA / PIU (DSUEP)	Financiers
Initial Screening (identification of E&S risks and impacts)	Support to collect necessary information, prepare reports, initial screening and submit report to NEA/PIU on potential E&S issues and recommend for the next action	Review the initial screening reports and make decisions on eligibility of sub-projects	Review, provide advice and approve sub-projects and their respective categorization (with regard to E&S aspects)
E&S assessment	Prepare E&S assessment reports in line with the requirements of GoN and Financiers. For example: ESIA/ IEE, ESMP, RAP, and IPDP, or equivalent management plans..	Review E&S instruments (ESIA/IEE, ESMP, RAP, IPDP etc.) for all DSUEP sub-projects	Review, support and advise NEA/PIU in managing the process
Review and clearance of E&S instruments for each sub-project	Ensure clearance is obtained from NEA/PIU for all sub-projects	Provide clearance of E&S instruments prepared by consulting firm for all sub-projects. Ensure adequate legal covenants are included in all agreements between NEA and bank.	Provide clearance for E&S instruments prepared by consultant for all sub-projects.
Sub-project supervision & performance monitoring	Prepare site specific E&S safeguard compliance monitoring reports, identify non-compliances of contractors, monitoring implementation of E&S safeguard mitigation measures	Observe the E&S monitoring process and guide contractor to implement E&S safeguard mitigation measures, ESMPs, ESIA / IEE ESMP, RAP, IPDP or equivalent management plan, and share copy of E&S compliance monitoring	Conduct supervision support activities

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Functions	Individual E&S experts, Consulting firm	NEA / PIU (DSUEP)	Financiers
		report with the Bank, issuing non-compliances against contractors, ensuring monitoring of the implementation of these measures by the E&S experts	

## E&S Risk Management Process

### Environment and social screening and categorization of sub-project

The DSUEP project will support construction of 33/11kV substations and distribution line activities which may incur minimal level of impacts. However, construction of new sub-stations and distribution lines may require Environmental Assessment like IEE as per National Requirements EPR, 1997.

All the proposed sub-projects/activities will undergo screening as one of the foremost and important steps to identify the environmental and social issues. The screening will also ascertain the instrument required for the management of the environmental and social issues. Environmental and social screening checklist (Annexure 1) will be used for assessment and categorization of the risks. The screening shall take into consideration both the National requirements and the safeguard policies of the Financiers – this can be done by using different checklists / or different sections for GoN requirements and financiers' requirements.

### Environmental Screening criteria

Project screening is done to identify the impacts of project and its severity. On the basis of impacts and severity the level of environment and social study such as EIA, IEE, ESMP etc. requirement will be identified. Once the project is screened, the sub-projects will be categorized as per the following –

**Category I (Exclusion List):** Sub-projects under this category will not be funded and must be excluded from the project.

- Sub-projects with any measurable adverse impacts on critical habitat or environmentally sensitive areas. This includes national parks, wildlife reserves, conservation areas, world heritage sites, and known religious and archaeological sites as defined by GoN and the requirements of the Financiers.
- Sub-projects under this category are likely to have potentially significant environmental impacts on ecosystem, natural habitat, cultural area such as National Parks, Conservation Area, World Heritage Area, Recognized Cultural and Archaeological Area etc.
- Sub-projects requiring EIA as per GoN and those classified as Category "A" under the Financiers' safeguard standards.
- The Bank requires the Client to conduct an environmental and social impact assessment (ESIA) or equivalent environmental and social assessment, for each Category A Project and to prepare an ESMP or ESMPF, which is included in the ESIA report for the Project.

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**Category II (IEE/ESIA with ESMP):** Sub-projects under this category are likely to have less significant and site-specific impacts, which may include impacts to forest area, wetlands, or other natural habitat. As per GoN (EPR, 1997) the project which passes through national and community forest and construction of distribution lines with capacity more than 132 kV is categorized as B. These sub-projects are typically classified as Category “B” under the Financiers’ safeguard standards and will require either an Initial Environmental Examination (IEE) with ESMP under GoN regulations, or a limited Environmental and Social Impact Assessment (ESIA) with ESMP in accordance with the Financiers’ safeguard standards.

**Category III (DDR with ESMP):** Sub-projects under this category are likely to have environmental risks and impacts that are easily addressed through an ESMP, such as increased air emissions or noise pollution near village areas. These sub-projects are typically classified as Category “B” or “C” under the Financiers’ safeguard standards and require only preparation of a Due Diligence Report (DDR) with ESMP.

#### Category IV (FI):

A Subproject is categorized FI if the financing structure involves the provision of funds to or through a financial intermediary (FI) for the Project, whereby the Bank delegates to the FI the decision-making on the use of the Bank funds, including the selection, appraisal, approval and monitoring of Bank-financed subprojects. These subprojects are classified as Category FI as per AIIB and EIB E&S framework. The Bank requires FI Client to screen and categorize subprojects as Category A, B or C, review, conduct due diligence on, and monitor the environmental and social risks and impacts associated with the Bank-financed subprojects, all in a manner consistent with this ESP. This can be achieved through implementation of appropriate environmental and social policies and procedures. Projects categorized as FI are also subject to: (a) the Environmental and Social Exclusion List and applicable host country national laws for all the Bank-financed subprojects; and (b) the applicable ESSs for the Bank-financed. Some or all of the Bank-financed subprojects that are classified as Category B subprojects).

## Social Screening Criteria

**Category I (Exclusion List):** sub-projects under this category are likely to have potentially significant social impacts and displace 50 or more families in the mountain region, 75 or more families in the hills, and 100 or more families in the terai plains due to involuntary land acquisition. This includes both physical and economic displacement. All project activities causing physical displacement shall be excluded from the project. Additionally, any sub-project that needs an EIA according to GoN regulations shall be classified as Category I and excluded from the project.

**Category II (IEE/ESIA with ESMP):** Sub-projects under this category have less significant and site-specific impacts and economically displace less than 50 families in the mountain region, less than 75 families in the hills, and less than 100 families in the terai plains due to involuntary land acquisition (unless such impacts, in the judgment of NEA / PIU, are exacerbated by other contributing factors). In these cases, sub-projects are required to conduct an ESIA (including social baseline) commensurate with the impacts, and prepare an RAP and/or Indigenous Peoples Development Plan (IPDP), or equivalent management plan, if needed. A sub-project may also be required to prepare an IEE as per GoN regulations, which can be supplemented with a social assessment as required by

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the Financiers safeguards. As per AIIB policy, ARAP is only applicable if affected persons are fewer than 200 people, not physically displaced and / or less than 10% assets are lost.

**Category III (DDR with ESMP):** Sub-projects are likely to have 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. A brief Environmental and Social Management Plan (ESMP), including a RAP and/or IPDP if needed, shall be prepared.

### Assessment and risk management instruments for sub-projects

NEA/PIU will be responsible for reviewing and approving the screening report in consultation with Financiers. On the basis of findings of screening and the criteria mentioned EPR, 1997 of GoN, required environmental assessment such as EIA, IEE etc. will be recommended. According to the Financiers' safeguard standards, all sub-projects are required to prepare either an ESIA (including an ESMP) or prepare an ESMP (ESMP, RAP, VCDP / IPDP) only.

Preparation of ESMP involves establishing and maintaining a process for identifying the E&S risks and impacts of each sub-project. The type, scale, and location of the sub-project guides the scope and level of effort devoted to the risk and impact identification process. Assessment of E&S risks and impacts will be carried out in E&S assessment studies and ESMP, RAP, VCDP, IPDP preparation of sub-projects will be carried out by consulting firm with support from NEA/PIU.

Environmental and Social Assessment are an integral part of the project cycle beginning with project identification to operation stage. All subprojects shall undergo screening, identification of impacts, preparation of action plans for mitigation of adverse impacts, implementation of action plans, monitoring, evaluation, and auditing of the project. The main aim of planning is to address the environment and social impacts properly. However, planning includes activities from the beginning of identification and pre-feasibility study to post construction phase. A short summary of project planning including stages, steps in the assessment process and responsibility is presented in the table below

Table 2 - Planning and Implementation Mechanism

Stage in Project	E&S activities	Responsibility
Project Identification	Selection of subproject: Brief outline of environment and social issues/problem with initial consultation of stakeholders.	DSUEP PIU/NEA
Project Screening	Operate Environmental and Social Screening together categories and recommendation of appropriate interments (EIA via ESIA, IEE via ESIA, EMP, RAP, IPDP) require  Submission of Screening Report to PIU/NEA	Consulting firm
Appraisal and Approval	Review of environmental and social screening	PIU/NEA and Financiers
Project Design	Site Specific EIA, IEE, EMP, RAP, IPDP/VCDP etc	PIU/NEA, Consulting firm

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Stage in Project	E&S activities	Responsibility
Implementation phase	Implementation the Site Specific) EIA, IEE, EMP, RAP, IPDP/VCDP etc	PIU/NEA Individual consultant and NGOs Contractor
Monitoring Phase	Monitoring Implementation of EIA, IEE, EMP, RAP, IPDP/VCDP etc	Financiers PIU/NEA, Individual consultant
Operation Period	Environmental and Social Audit	Third party anchors

### Resettlement Plan Framework

Each proposed subproject site will be screened for social impacts before it is selected for inclusion in the Project. If the social screening findings show involuntary resettlement impacts, a social impact assessment will be conducted, and a resettlement action plan prepared.

The RAP will include a statement of involuntary resettlement objective and strategy, scope of land acquisition and resettlement, socio-economic condition, information disclose public consultation, grievance redressal mechanism, legal framework, and other relevant information.

The RAP shall be accompanied by an entitlement matrix addressing impacts identified during the social impact assessment such as loss of land, loss of residential and commercial structures, loss of income generating sources and assets, additional support to vulnerable groups, loss of common property resources, and other unanticipated impacts.

### Indigenous Peoples Development Framework

If the social screening process undertaken for each subproject determines that Indigenous Peoples are present in, or have collective attachment to, the subproject area, and are likely to be affected by the Project, an Indigenous Peoples Development Plan will be prepared.

A social impact assessment shall be carried out for the subproject and shall include: a baseline demographic, socioeconomic, cultural, and political profile of the affected indigenous groups in the project area and project impact zone; assessment of land and territories that Indigenous Peoples have traditionally owned or occupied; assessment of natural resources (including biodiversity and eco-system services) on which Indigenous Peoples depend; assessment on their access to and opportunities they can avail of the basic and socio-economic services; assessment of the short and long term, direct and indirect, positive and negative impacts of the project on each group's social, cultural and economic status; assessing/validating which indigenous groups will trigger the Indigenous Peoples policy principles; assessing the subsequent approaches and resource requirements for addressing their concerns and issues in relation to the projects that affect them.

An Indigenous Peoples Development Plan will be prepared based on findings from the social impact assessment to address the concerns and issues of indigenous peoples. The Indigenous Peoples Development Plan shall include: discussion on aspirations, needs, and preferred options of the affected Indigenous Peoples; local social organization, cultural beliefs, ancestral territory, and resource use patterns among the affected Indigenous Peoples; potential positive and negative project impacts; measures to avoid, mitigate, or compensate for the adverse project effects; measures to



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ensure project benefits will accrue to them; measures to strengthen executing agency capacity to address their issues; the possibility of involving local organizations and NGOs with expertise in Indigenous Peoples issues; their budget allocation; Indigenous Peoples' monitoring with a timeframe.

### Review and Clearance of Environmental and Social Instruments

Following preparation of E&S assessment and management instruments, and in accordance with sub-projects' E&S categorization described above, the process will be as follows:

- NEA/PIU will be responsible for review of all E&S assessment and management instruments (ESIAs, ESMPs, RAPs, IPDPs, etc.) for quality and completeness
- NEA / PIU will also provide formal clearance in case of DSUEP sub-projects categorized as Category III and IV (Environmental Screening). In case of Category II, NEA/PIU will be responsible for obtaining clearance from Government of Nepal and share copy of clearance to the Financiers. However, ESMPs will be shared to the Financiers for review.

### Environmental and Social Monitoring

To ensure effective implementation of environmental and social (E&S) safeguards, compliance monitoring will be conducted internally by NEA / PIU based on the compliance monitoring indicators. The Financiers and NEA / PIU shall be responsible for carrying out monitoring during different stages of the project cycle i.e., construction and operational phases of sub-projects. At sub-project level, individual consultants / Experts shall be hired who would be responsible for implementing and monitoring E&S safeguard documents, preparing monthly reports of each sub-project and submitting to NEA / PIU. Central level individual experts shall be responsible for monitoring of activities of sub-project consultant and reviewing each subprojects' monthly reports and prepare quarterly monitoring report to submit to financiers. The Financiers shall conduct periodic review missions, which shall include a review of safeguard implementation.

### Public consultation and engagement strategy

Key objectives of stakeholder engagement are two-fold –

- a) Keep all stakeholders informed of the project activities, benefits, and potential adverse impacts
- b) Ensure that the stakeholders actively participate in all levels of the project cycle and come up with mitigation plans to minimize potential negative impacts of the project

These will ultimately contribute towards narrowing down the gaps between project and its beneficiaries and help to create a conducive environment to mitigate adverse E&S impact through cooperation.

Public outlines engagement through project development phase and recommends a set of stakeholder engagement activities to be carried out throughout the project implementation phase through -

- Public meetings in the project influence areas
- Information/awareness campaigns by locally formed clubs, groups, and NGOs
- Interviews /surveys in project affected households
- Focused group discussions

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- Formulation of committees and/or groups including stakeholders at various stages of the project
- Development of grievance redress mechanism
- Disclosure/dissemination of project information including decision making process and how the grievances of PAPs will be addressed

### Stakeholder mapping and analysis

It is important to engage stakeholders in meaningful and productive ways and boost willingness and ability to work with them. Firstly, stakeholder mapping has to be carried out so that different type of stakeholder may be identified in terms of one or several of the following categories –

- Affected household, individuals and communities
- All project beneficiaries in the target areas of DSUEP
- Government agencies at various levels of responsibilities (Centre, District and Local), concerned ministry or department
- Elected representative of local district, province and federal level
- Concerned NGOs, CBOs, and user committee
- Political party representatives
- Local influence from the affected areas like, community head, school teachers, healers, social and religious leaders
- Civil society, marginal groups and workers
- Project proponents themselves

### Stakeholder Engagement Plan

Report will reflect the findings of the mapping and analysis exercise, and describing all planned future communication between the project and its stakeholders. Stakeholder Engagement Plan includes below elements:

#### Primary and secondary stakeholders:

- Differentiate on the basis of primary (communities - IP and non-IP, project affected people, vulnerable groups and construction workforce) and secondary (civil society organizations, media, government, local businesses, etc.) stakeholders
- Description of respective communication strategies

### Information Disclosure, consultation and participation

Consultation and discussion with the project affected people and communities is a continuous activity throughout the project cycle. It will be applied in the ongoing pre-construction phase, will be followed in construction phase and can continue in the operation phase as per project need. The project will own and disseminate relevant project information to and from stakeholders in the various stages of project cycle. Project Information Center (PIC) will be established at each site office for disseminating information, recording local-level grievance, activation and functioning of LCF (Local Consultative Forum). Project related information material shall be distributed prior to construction work in the proposed sub-project to all project related stakeholders. Such information shall include entitlement

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matrix frameworks, various periodic information sheets, project time frames etc. Meetings and workshops shall be conducted to disseminate critical and useful information. Local media like FM radio, newsletters and TV etc. shall be used for disseminating information regarding DSUEP – cost of the same shall be allocated in ESMP. All project documents will be uploaded on the NEA/PIU ([www.nea.org](http://www.nea.org)) and the Financiers' websites.

#### Disclosure of information

- One-way communication, with the objective of informing the public on project milestones, expected nuisances and mitigation measures
- Mainly on construction related nuisances
- During operation if and when necessary

#### Public consultation & participation

- Two-way communication with the objective of achieving a social license to operate

#### FPIC

- Deep and culturally appropriate communication, with the objective of achieving consent

### Process of meaningful consultation

Consultation is a two-way dialogue process between project execution agency and stakeholders. The mechanism of meaningful consultation shall be ensured with involvement of women, indigenous people, minorities etc. at pre-construction and construction of sub-project cycle. This shall include –

- Well targeted and inclusive consultation process
- Prior intimation shall be ensured about venue, time and subject for consultation
- Use of understandable language suited to the sub-project area
- Engagement with the stakeholder early in the development process
- Consultation shall be continued throughout the project cycle

### Grievance Redress Mechanism

Local Consultative Forum (LCF) shall be formed at affected wards as the first level Grievance Redress Mechanism (GRM). These shall focus on grievances related to any aspect of land acquisition, compensation, resettlement requirements and other project-related issues. Many grievances can be resolved by providing correct and complete information early in the sub-project development process at village level and municipality/rural municipality ward level. If not resolved, it can be referred to E&S team of NEA/PIU. If it still remains unsolved, the grievance can be registered at CDO office. In case complainants are not satisfied with the solution, legal redress may be sought through Nepal's judicial system or appropriate administrative system.

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# I.0 PROJECT BACKGROUND

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## I.1 Background

Nepal has a population of around 29 million of which about 78% have access to electricity. The installed generating capacity including IPPs is around 1074 MW and the transmission network at 220 and 132 kV is concentrated mainly across an east-west corridor. The power supply situation was plagued with a lack of generation capacity, but a number of generation projects carried out recently have resulted in considerably improved power availability. While the provinces have varying degrees of electrification with some having better coverage than others, provinces 5, Karnali (6) and Sudur Pashchim (7) have the least coverage. To redress this situation, the government of Nepal is planning a project to extend supply lines to the western and far western areas as a part of its program “to achieve affordable electricity for all by 2022”. The government and the Nepal Electricity Authority (NEA) have applied for financing from the Asian Infrastructure Investment Bank (AIIB) and European Investment Bank toward the cost of financing the proposed project.

The electricity supply has been growing significantly, with large investments in new generation capacities and increasing electricity imports from India. However, upgrading and expansion of electrical transmission and distribution networks have not kept pace with the supply growth. As a result, Nepal experiences high system losses over 15 percent and excessive voltage drops, due to the overloading and extended feeder lengths of the existing networks. Sizeable investments are needed to relieve the T&D bottlenecks in Nepal so as to ensure efficient and reliable delivery of electricity to consumers.

NEA has identified 21 districts of the Provinces 5, Karnali (6) and Sudur Pashchim (7) and anticipates the establishment of 37 new 33/11 substations. The project consists of construction of around 770 km of 33kV distribution line and 4089 km of 11 kV distribution line. This will also include installation of distribution transformers; placement of LV capacitor banks, regulators where needed; and connecting new consumers to the grid.

Accordingly, under DSUEP, it is intended to carry out a network planning study, followed by a detailed engineering design and feasibility study analysis together with environmental and social impact assessment to identify appropriate development options that will be suitable for the intended electrification program.

The objective of the sub-project is to carry out a planning exercise and detailed engineering design, including electric distribution system development program and economic analysis with a view to the socio-economic upliftment of the rural people living in the areas selected for the electrification services leading to a feasibility level identification of the proposed project.

Project objective - The objective of the project is to increase electricity access and improve supply quality and efficiency in western Nepal.

The following districts covering province 5, 6 and 7 have been selected for the project –

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Table 3 - Districts selected for DSUEP

Province	Districts selected
Province: 5	Parasi, Rupandehi, Palpa, ,Rolpa, Dang, Banke, Bardiya, Rukum East
Province: Karnali (6)	Surkhet, Salyan, Jajarkot, Kalikot, Dolpa, Jumla, Mugu, Rukum West, Humla
Province: Sudur Pashchim (7)	Bajhang, Bajura, Baitadi

## I.2 Description of the project

DSUEP proposes construction of 35 33 / 11 kV substations, 33 kV lines, 11 kV lines, LT lines and facilities in 20 districts viz -Parasi, Rupandehi, Palpa, Rukum East, Dang, Rolpa, Banke and Bardiya in province No. 5, Salyan, Jajarkok, Surket, Rukum west, Jumla, Humla, Kalikot, Mugu and Dolpa lies in Karnali Province and, Bajura, Bajhang and Baitadi in in Sudur Pashchim Province.

The total fund under the project is around \$200 million (from AIIB and EIB). Work to be carried out under proposed sub-projects has been summarized in below –

Table 4 -Details regarding 33 / 11 kV substation locations capacity and Length NEA

Sl. No.	33/11KV Substations			33/11KV Substations Capacity & Length			
	Name	District	(MVA)	33 kV (km)	11 kV (km)	LT line (km)	No. of DTs
1	Khajura	Banke	24	0.5	28	33.5	20
2	Machhagadh	Bardiya	24	27	56	61.5	30
3	Mukundadanda	Dang	8	4	23	36	20
4	Hapur	Dang	8	5	47.6	52	26
5	Jamnibas	Dang	8	12	38	51	32
6	Bhaluwang	Dang	8	0.8	26	43	26
7	Murkute	Dang	8	27	82	84	30
8	Dhikichour	Palpa	8	7	32.5	60	24
9	Hakui	Parasi	24	15	19.5	26	15
10	Ghartigoun	Rolpa	8	3	147.8	235.7	80
11	Thabang	Rolpa	8	7	122	176.3	59
12	Kankri	Rukum East	3	20	156.3	187.5	64
13	Rukumkot	Rukum East	3	40	183.9	160.8	70
14	Marchawar	Rupandehi	24	18	30	32	25
15	Mangalapur	Rupandehi	24	1.5	21.5	35	20
16	Badaban	Jajarkot	3	20	210	230	81
17	Sermaila	Jajarkot	3	30	104	124.5	42
18	Mangri	Mugu	3	20	85	51	26
19	Khayad	Mugu	3	30	111.5	137.5	50



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Sl. No.	33/11KV Substations			33/11KV Substations Capacity & Length			
	Name	District	(MVA)	33 kV (km)	11 kV (km)	LT line (km)	No. of DTs
20	Badki	Jumla	3	1.5	203	230.5	106
21	Raskot	Kalikot	3	30	81.6	132.2	48
22	Nagma	Kalikot	3	2	81.8	105.7	39
23	Piple Lekhgaun	Salyan	3	20	155.2	178	73
24	Tharmare	Salyan	3	2.5	127	197.5	66
25	Budhe Bapar	Surkhet	3	22	151	135	64
26	Badichour	Surkhet	3	1	138	125.6	64
27	Vampuchaur	Rukum West	3	13	102	129.5	51
28	Dunai	Dolpa	3	18	51.5	45	20
29	Simikot	Humla	3	85	64.5	85	31
30	Sillegada	Baitadi	3	2.5	240.5	81.5	32
31	Musya	Baitadi	3	8	571	144.5	98
32	Kalinga	Bajhang	3	20	140	152.5	64
33	Budhiganga	Bajura	3	5	203.5	156.5	64
34	Kolti	Bajura	3	35	188.5	182.4	78
Total			247	553.3	4,023.7	3,898.7	1,638

Source: Technical design of DUSEP project document

## I.3 Objectives of ESMF

The overall propose of 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.).

The main objectives of ESMF are as follows:

- Analysis and summarization of potential E&S impact assessment process that would be associated with sub-project activities
- Analysis the GoN policies and the Financiers' safeguard standards and identify the gaps
- Present the legal and institutional framework related to E&S context in the energy sector that will be supported by DSUEP
- Introduce the E&S due diligence process to present methodologies, instruments and responsibilities for E&S management
- Define E&S management principles and guidelines for implementation of the project
- Establish the roles and responsibilities of all parties involved in project E&S management

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- Describe mitigation measures that shall be implemented to avoid or mitigate adverse environmental impact
- Specify approach to risk mitigation measures under various circumstances

## I.4 Rational for ESMF

This ESMF has been prepared with the aim to provide a guideline and clear vision to the implementation team regarding legal requirement of E&S study, likely impacts and their mitigation measure. The ESMF will guide the DSUEP implementation team to identify potential environmental and social impacts before their occurrence. The ESMF will also provide effective and efficient mitigation measures to counter the potential impacts. The rational of this study are:

- Review existing laws, regulations, policies and institutional arrangement to address and mitigate the environmental impacts of project.
- To provide a reference document to designer, engineer, decision maker and supervision team to identify and mitigate the issues.
- It provides an overview of national, regional and international policy requirements for environmental and social management that a proponent needs to address during project preparation and implementation.
- It presents a screening and assessment methodology for potential projects to allow for environmental and social risk and impact identification and classification and specifies the appropriate roles and responsibilities of stakeholders. To guide the team in impact identification and take appropriate mitigation measure.
- Subprojects construction activities may bear the risks on potential environmental impacts likely to occur in the physical, biological, social, cultural, and sometime archeological shapes. Losses of private / public land and structures, natural resources and other common public facilities are among the major impacts resulting from construction subprojects that need to address in project design and construction phase, incorporating E&S proven mitigation measures that will bring adverse effect down to acceptable level.

## I.5 Scope of DSUEP and safeguards

### I.5.1 Scope of DSUEP

Scope of DSUEP shall comprise of the following components –

- Component 1: Construction of 33kV supply lines and 33/11kV substations (including upgrade of existing facilities where needed). This component comprises activities relating to the construction of new primary substations, facilitating the enhancement of the distribution network. It consists of extension to the 33kV network providing supply to the new 33/11 kV substations and the construction of these substations and related facilities. In some instances,

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where needed, the existing 33kV lines would be augmented by the increase of conductor size or number of circuits.

- Component 2: Construction of 11kV lines, distribution transformers, low-voltage (LV) supply lines including consumer connections. This component comprises activities related to the new power distribution facilities required to bring the power supply to the ultimate consumers. It consists of new 11kV feeders, installation of distribution transformers, development of the LV network and service connections to consumers.
- Component 3: Capacity Building, Project Implementation Support, and Technical Assistance. This component focuses on improving the capacity of NEA's distribution planning and analyzes the network performance of the proposed project components. This component will also independently supervise and monitor the PIU needed for project implementation.

### 1.5.2 Scope of Safeguards

At the initial stage of the project, a screening exercise based on the location and context of each sub-project shall be carried out. The area where 33 / 11 kV substations are likely to be located, 33 kV lines, 11 kV lines, LT lines and facilities etc. shall be screened and classified. The E&S screening exercise is only meant to pre-identify the likelihood and nature of E&S impacts associated with the planned sub-project activities at each project phase. The E&S screening process at this stage is best performed by categorizing the risks first. Thereafter, an assessment shall be conducted in the sub-project area of influence to identify direct, indirect, cumulative and induced risks and impacts related to physical, biological, socio-economic and cultural resources. This will also include environmental health, natural resources, land, water and ecosystems, livelihoods, , Indigenous Peoples and other vulnerable groups, gender, employment or labour works, community health and safety. Mitigations measures of risks& impacts, due diligence, monitoring and supervision shall be devised to meet the following parameters –

1. Involuntary resettlement and mitigation
2. Indigenous peoples
3. Stakeholder engagement & gender-inclusive participation
4. Disclosure of information and grievance redress
5. Monitoring & supervision
6. Reporting

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## 2.0 BASELINE INFORMATION

DSUEP concentrates on increasing coverage of electricity access in the western and far western regions of Nepal. Most of the project districts are in hilly and mountain regions, whereas Parsi, Rupandehi, Dang, Banke, Bardiya and Surkhet are situated in terai (plains) and inner terai belt. The living standards are different between terai, hilly and mountain areas. The socio-economic condition and accessibility to services are poor in hilly and mountain districts compared to terai and inner terai areas. Accessibility to quality healthcare, roads, quality education, gender empowerment, and overall poverty indexes are lower in the project districts compared to rest of Nepal.

An E&S safeguard baseline survey has been conducted for each sub-project location. This survey covers physical verification of the substation locations and distribution line corridors.

Major castes found in the project sites are as follows –

Table 5 - Major castes in project areas

Group	Major castes
Dalits	Damai, Kami, Sarki, Lohar, etc.
Indigenous people	Tharu, Yadab, Raute, Majhi, Bote, Tamang, Bhujel, Kumal, Bhote, Darai, Magar Gurung, Limbu, Sherpa, Thakali, Banshi, Thami, Newar, Rai etc.
Others	Brihnin, Kshtri, Thakuri, Dasnami, etc.

As per the Census 2011, the total HH in project districts is 1078670 covering HH is 570,889. The total population is 5725415 is in project districts and includes 30,09,468 females (53%) and 27,15,947 males (47%). On average, currently the rural electrification connects only 53% HH to national grid in project districts. The coverage from national grid of electricity supply is very low in mountain and far western districts comparing with Terai areas and some hilly districts.

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Table 6 - Power distribution in household under project districts

S.N	Districts	Total HH	Power & fuel usually used for lighting											
			Electricity		Kerosene		Bio gas		Solar		Others		Not Stated	
			HH	%	HH	%	HH	%	HH	%	HH	%	HH	%
1	Palpa	59,260	43,249	73	9,065	15	120	0.0	4,537	8	2,112	4	177	0
2	Parasi	128,760	104,202	81	15,297	12	247	0.0	5,411	4	2,844	2	759	1
3	Rupandehi	163,835	132,073	81	29,451	18	349	0.0	388	0	322	0	1252	1
4	Rolpa	43,735	9,395	21	2,180	5	107	0.0	20,747	47	11,127	25	179	0
5	Rukum	41,837	6,181	15	2,349	6	118	0.0	19,291	46	13,782	33	116	0
6	Salyan	46,524	6,760	15	8,697	19	32	0.0	16,075	35	14,595	31	365	1
7	Dang	116,347	75,181	65	26,023	22	313	0.0	4,867	4	9,394	8	569	0
8	Banke	94,693	65,099	69	21,030	22	257	0.0	3,167	3	4,594	5	546	1
9	Bardiya	83,147	52,035	63	18,869	23	213	0.0	2,424	3	9,427	11	179	0
10	Surkhet	72,830	31,716	44	2,955	4	222	0.0	9,952	14	27,526	38	459	1
11	Jajarkot	30,468	1,225	4	713	2	41	0.0	12,545	41	15,827	52	117	0
12	Dolpa	7,466	1,720	23	94	1	1	0.0	3,770	50	1,861	25	20	0
13	Jumla	19,291	5,656	29	62	0	4	0.0	8,548	44	4,899	25	122	1



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S.N	Districts	Total HH	Power & fuel usually used for lighting											
			Electricity		Kerosene		Bio gas		Solar		Others		Not Stated	
			HH	%	HH	%	HH	%	HH	%	HH	%	HH	%
14	Kalikot	23,008	2,674	12	328	1	9	0.0	8,545	37	11,314	49	138	1
15	Mugu	9,600	1,332	14	74	1	3	0.0	5,353	56	2,730	28	108	1
16	Humla	9,437	2,959	31	10	0	0	0.0	2,138	23	4,320	46	10	0
17	Bajura	24,888	5,667	23	273	1	0	0.0	5,582	22	13,170	53	196	1
18	Bajhang	33,773	5,902	17	4,281	13	284	0.1	13,345	40	9,647	29	314	1
19	Baitadi	45,167	11,232	25	17,981	40	64	0.0	8,080	18	7,615	17	195	0
<b>Total</b>		<b>1,054,066</b>	<b>564,258</b>	54	<b>159,732</b>	15	<b>2,384</b>	0.23	<b>154,765</b>	15	<b>167,109</b>	16	<b>5,821</b>	1

Source Census 2011, Note: Rukum East and West districts are counted together

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The above table shows that the existing condition of grid power supply. In project districts, only 53 % HH are covered, remaining HH use other alternative power like kerosene 16%, Biogas 0.2%, Solar 15%, others and unspecified 16 % and 1% respectively. The quality and reliability of power supply is poor the distribution system is suffering from issues of voltage fluctuation, low voltage and erratic load schedule. Thus, construction of new 33 / 11 kV substations, 33 kV lines, 11 kV lines and LT lines are the need of the hour.

## 2.1 Socio-Economic Profile

The DSUEP project mainly focus on for un-electrified areas and reinforcement the existing power supply where the people are facing and suffering from the problem of low voltage, voltage fluctuation and interrupted load schedule etc. The problem can be solved by construction of new substation as per technical requirement. The 33 / 11 kV substations, 33 kV lines, 11 kV lines and LT lines are mostly proposed to be constructed in rural areas. The main occupation is agriculture. 73% population depends on it. Hardly 3% are involve in government private service, 7% are involve in business and nominal 2% involve self-employment in vegetable farming, livestock poultry firm, beekeeping etc. Rest 15% are dependent upon foreign employment - 60% youth are interested for expatriate jobs.

Table 7 - HH wise Occupational status in subproject areas

S. N. = Serials Numbers, HH= Household, Agr= Agriculture, Self EMP = Self employment, F. Emp Foreign Employment

S. N	Substation, distribution lines	Settlements			Occupation diision HH			
		Nos	HH	Agr	Service	Business	Self EmP	F. Emp
1	Khajura	20	2625	1512	262	300	250	301
2	Machhagadh	30	4625	3468	250	231	45	631
3	Mukundadanda	20	4090	2657	54	205	41	1133
4	Hapur	26	3703	2577	82	169	34	841
5	Jamnibas	32	1807	1098	84	90	20	515
6	Bhaluwang	26	3155	1528	215	450	250	712
7	Murkute	30	3070	1839	52	126	25	1028
8	Dhikichour	24	2137	1056	84	177	35	785
9	Hakui	15	1619	700	250	300	50	319
10	Ghartigaun	80	4637	3458	215	450	50	464
11	Thabang	59	3781	2553	55	304	23	846
12	Kankri	70	2652	1865	47	273	34	433
13	Rukumkot	64	3299	2296	60	154	30	759
14	Marchawari	25	2590	980	125	900	200	385
15	Manglapur	20	2687	975	254	700	150	608

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S. N	Substation, distribution lines	Settlements			Occupation diision HH			
		Nos	HH	Agr	Service	Business	Self EmP	F. Emp
16	Badaban	81	5867	5280	25	54	84	424
17	Sermaila	42	3922	3015	31	115	43	718
18	Mangri	26	1694	977	84	515	12	106
19	Khatyad	50	3729	3000	70	85	37	537
20	Badki	106	10589	8941	120	720	454	354
21	Raskot	48	2807	1498	69	435	40	765
22	Nagma	39	2198	1225	94	425	42	412
23	Piple Lekhgaun	73	3028	1586	291	245	29	877
24	Tharmare	66	4304	2922	65	572	24	721
25	Budhe Bapar	64	3201	1525	68	125	25	1458
26	Badichour	64	2779	1746	85	109	21	818
27	Vampuchaur	51	3428	2256	73	175	25	899
28	Dunai	20	1870	1530	80	82	12	166
29	Simikot	31	1521	730	250	150	165	226
30	Silegada	32	4075	2826	78	225	27	919
31	Musya	98	19130	16894	82	913	180	1061
32	Kalinga	64	10110	8250	120	580	225	935
33	Budiganga	64	10185	8957	95	125	122	886
34	Kolti	78	8020	6566	25	422	85	922
Total		Nos	148934	108286	3894	10901	2889	22964
		%	100	73	3	7	2	15

Note, HH = Household, Agri = Agriculture, Service = Government & Private Job, Self Emp = Self Employment, F. Emp = Foreign Employment, If the distribution lines and substation change cause by IEE and technical design the base line data will change. in that situation ESMF may be needed to Update S. N. = Serials Numbers,

## 2.2 Population, Caste and Ethnicity

The subproject coverage of HHs are 130,427, Total population are 704,648 and percent of female and male are 51% and 49% respectively. The major caste is Brahmin, Chhetri, Magar, Gurung, Tharu, Madesi, Muslim and Dalit, 26% population are Janjati in overall subproject districts and 56% are Brahmin, Thakuri, Dasnami and Chhetri, 14 % Dalit population and 4% Madhesi and Musilim are found in Terai region.

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Table 8 - Demography data with caste and ethnicity (Beneficiaries)

Sr. N	Substation, distribution lines	Settlements					Caste	Household			
		Nos	HH	Pop	Fe	M		Janajati	Dalit	Others	Madesi Muslim
1	Hakui	15	1619	7455	3818	3637	Madesi, Tharu, Gurung, Magar, Dalit, Muslim and others, as	540	110	131	838
2	Manglapur	20	2687	14348	7294	7054	Madesi, Tharu, Gurung, Magar, Dalit, Muslim and others,	1180	105	400	1002
3	Marchawar	25	2590	21953	11162	10791	Madesi, Tharu, Gurung, Magar, Dalit, Muslim and others,	53	73	137	2327
4	Dhikichour	24	2137	10685	5556	5129	Gurung, Magar, Dalit, and others,	1527	215	395	
5	Kankri	64	3299	16495	8353	8142	Brahmi, Chhetri, Thakuri, Magar and Dalit	780	273	2246	0
6	Rukumkot	70	2652	13260	6877	6383	Brahmi, Chhetri, Thakuri, Magar and Dalit	765	299	1588	0
7	Hapur	26	3703	17598	9131	8467	Tharu Gurung, Magar, Dalit, and others, Madesi Muslim	2800	373	453	77
8	Dhikpur	20	4090	19223	10057	9166	Tharu Gurung, Magar, Dalit, and others, Madesi Muslim	3200	613	77	200
9	Jamnibas	32	1807	8660	4303	4357	Tharu Gurung, Magar, Dalit, and others, Madesi Muslim	900	107	600	200
10	Bhaluwang	26	3155	13705	7195	6510	Tharu Gurung, Magar, Dalit, and others, Madesi Muslim	1880	140	1067	68
11	Murkute	30	3070	13912	7237	6675	Tharu Gurung, Magar, Dalit, and others, Madesi Muslim	2000	178	892	0
12	Thabang	59	3781	18905	10220	8685	Kham Magar Dalit	3351	105	325	0
13	Ghartigoun	80	4637	23185	12700.3	10484.8	Magar, Gurung, Brahmin, Chetri, Gharti and Dalit	3206	356	1075	0
14	Khajura	20	2625	13387	6596	6791	Madhesi, Muslim Tharu Gurung, Magar, Dalit, and others,	994	193	1106	332
15	Machhagadh	30	4625	23763	12115	11648	Muslim Tharu Gurung, Magar, Dalit, and others,	3000	200	1125	300
16	Odaltal	64	2779	13337	6556	6781	Gurung, Magar, Kumal, Darai, Ghatri, Dalit, Badi and others,	857	268	1654	0
17	Bijaura	64	3201	15360	7513	7847	Gurung, Magar, Kumal, Darai, Dalit, Badi, Ghatri and others,	948	275	1978	0
18	Nagma	39	2198	11430	5454	5975.6	Brahmin, Kshetri, Thakuri, Magar and Dalit	70	649	1479	0
19	Raskot	48	2807	15363	7303	8060	Brahmin, Kshetri, Thakuri and Dalit	1570	873	364	0

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Sr. N	Substation, distribution lines	Settlements					Caste	Household			
		Nos	HH	Pop	Fe	M		Janajati	Dalit	Others	Madesi Muslim
20	Samaila	42	3922	21964	11404	10560	Brihmin, Chhetri, Magar, Gurung, Bhujel, Kumal and Dalit	1568	785	1569	0
21	Badaban	81	5867	32744	16532.5	16211.5	Brihmin, Chhetri, Magar, Gurung, Bhujel, Kumal and Dalit	1801	276	3790	0
22	Pipal Lekhgaun	73	3028	15740	8029	7710.6	Brhamin, Chhetri, Magar, Newar, Dalit and Thakuri	1648	467	913	
23	Tharmare	66	4304	22376	11379	10997	Brhamin, Chhetri, Magar, Dalit and Thakuri	1300	635	2369	
24	Vampuchaur	51	3428	17371	8704	8667	Brahmin, Kshetri, Thakuri, Magar and Dalit	1018	340	2070	
25	Badki	106	10589	57932	27860	30072	Brihmin, Chhetri, Thakuri, Dalit and Few are Bhote	45	2129	8415	0
26	Dunai	20	1870	8976	4398	4578	Brahmin, Kshetri, Thakuri, Magar, Bhote and Dalit	559	374	937	0
27	Tribeni									0	
28	Khatyad	50	3729	18645	9486.6	9158.4	Brahmin, Kshetri, Thakuri and Dalit	0	749	2980	0
29	Mangri	26	1694	8470	4404	4167	Bhote Chhetri and Dalit	1484	40	170	0
30	Simokot	31	1521	7605	3650	3955	Brahmin, Kshetri, Thakuri, Bhote and Dalit	110	450	961	
31	Budiganga	64	10185	55207	27020	28187	Chehetri, Bhrihmin, Thakuri, and Dalit	0	1476	8709	0
32	Kolti	78	8020	43238	20747	22491	Brihmin, Chhetri, Takuri, Bhote and Dalit	0	1590	6430	0
33	Kalinga	64	10110	54391	28278	26113	Brhamin, Chehtri, Dalit and Thakuri	0	1531	8579	0
34	Musya	98	19130	106010	54299	51711	Brhamin, Chehtri, Dalit and Thakuri	0	3418	15712	0
35	Silegada	32	4075	22590	12198.6	10391.4	Brhamin, Chehtri, Dalit and Thakuri	0	1161	2914	0
Total		1638	148934	785282	397830	387553	Total	39154	20826	83610	5344
				100	50.7	49.4	%	26	14	56	4

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

## 2.3 Land Use pattern for the substations

Most of the substation sites are in private land some are in forest land and some are public land. Public land mostly barren land not private ownership and local level government can be use freely. On an average minimum land is require for a distribution line, Pole and substation is 2000 Sq.m/Km, 0.56 Sq.m/Pole and 4000 Sq.m/substation. respectively as per the technical design.

Table 9 - Land-use pattern for substations

Name & Location of proposed of Substation												
Province	Address						33/11kV				Land Substation	Remarks
	District	S.N	Substations Place	Municipality & Ward			Line KM & Feeder Nos.					
				Name	Category	No	Capacity	33 kV	11 kV	Nos.		
5	Parasi	1	Hakui	Ramgram	Municipality	15	24 MVA	15	19.5	4	Private	
	Rupendehi	2	Manglapur	Tilottama	Municipality	7	24 MVA	1.5	21.5	4	Government	Tilottama Municipality Ward Provided Land to NEA
		3	Marchawar	Kotaimai	Rural Municipality	7	24 MVA	18	30	4	Irrigation Department	Tree clearance for substation of public land
	Palpa	4	Dhikichour	Ribdikot	Rural Municipality	7	8 MVA	7	32.5	3	Community Forest	Ribdikot Community Forest
	Rukum East	5	Kankri	Bhume	Rural Municipality	2	3 MVA	20	156.3	2	Private	
		6	Rukumkot	Sisne	Rural Municipality	6	3 MVA	40	183.9	2	Private	
	Dang	7	Hapur	Ghorahi	Sub Metropolitan	12	8 MVA	5	47.6	3	Government	Land Donated by Ghorahi sub Metropolitan City, Ward no:12



# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

Name & Location of proposed of Substation													
Province	Address						33/11kV					Remarks	
	District	S.N	Substations Place	Municipality & Ward			Line KM & Feeder Nos.				Land Substation		
				Name	Category	No	Capacity	33 kV	11 kV	Nos.			
		8	Mukundanda	Ghorahi	Sub Metropolitan	9	8 MVA	4	23	3	Government	Land is public donate by Ghorahi Sub Metropolitan	
		9	Jamnibas	Gadahawa	Rural Municipality	7	8 MVA	12	38	3	Community Forest	Sarbodaya Community forest	
		10	Bhaluwang	Rapti	Rural Municipality	1	8 MVA	0.8	26	3	Private		
		11	Murkute	Banglachuli	Rural Municipality	4	8 MVA	27	82	3	Private	Tree clearance for 33 kV distribution lines on public land	
	Rolpa	12	Thabang	Thabang	Rural Municipality	1	8 MVA	7	122	2	Private		
		13	Ghartigoun	Madi	Rural Municipality	2	8 MVA	3	147.8	2	Community Forest	Shanti samrakshana community Forest Land	
	Banke	14	Khajura	Khajura	Rural Municipality	4	24 MVA	0.5	28	4	Government		
	Machhagadh	15	Machhagadh	Bara Bardiya	Rural Municipality	9	24 MVA	27	56	4	Private		
	Karnali (6)	Surkhet	16	Badichour	Barahatal	Rural Municipality	10	3 MVA	1	138	2	Community Forest	Samjhana CFUG Committed to provide land to NEA
			17	Bhude Bapar	Chaukubne	Rural Municipality	4	3 MVA	22	151	2	Community Forest	Kula Karnali CFUG committed to provide land

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### Environment & Social Management Framework

Name & Location of proposed of Substation												
Province	Address						33/11kV					Remarks
	District	S.N	Substations Place	Municipality & Ward			Line KM & Feeder Nos.				Land Substation	
				Name	Category	No	Capacity	33 kV	11 kV	Nos.		
Province	Kalikot	18	Nagma	Tila	Rural Municipality	1	3 MVA	2	81.8	2	Private	
		19	Raskot	Raskot	Rural Municipality	6	3 MVA	30	81.6	2	Private	
	Jajarkot	20	Sermaila	Kuse	Rural Municipality	7	3 MVA	30	104	2	Private	
		21	Badaban	Chhedaghat	Rural Municipality	6	3 MVA	20	210	2	Private	
	Salyan	22	Piple Lekhagaun	Kalimati	Rural Municipality	4	3 MVA	20	155.2	2	Private	
		23	Tharmare	Tharmare	Rural Municipality	2	3 MVA	2.5	127	2	Public	
	West Rukum	24	Vampuchaur	Baffikot	Rural Municipality	6	3 MVA	13	102	2	Private	
	Jumla	25	Badki	Hema	Rural Municipality	3	3 MVA	1.5	203	2	Private	
	Dolpa	26	Dunai	Thulo Bheri	Municipality	9	3 MVA	18	51.5	2	Private	
	Mugu	28	Khatyad	Khatyad	Rural Municipality	7	3 MVA	30	111.5	2	Private	
		29	Mangri	Mugukyamarung	Rural Municipality	8	3 MVA	20	85	2	Private	
Humla	30	Simikot	Simikot	Municipality	9	3 MVA	85	64.5	2	NEA		
Bajura	31	Budhiganga	Badimalika	Rural Municipality	5	3 MVA	5	203.5	2	Community Forest	Maure Community Forest (SS Location not fixed)	

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Name & Location of proposed of Substation													
Province	Address						33/11kV					Remarks	
	District	S.N	Substations Place	Municipality & Ward			Line KM & Feeder Nos.				Land Substation		
				Name	Category	No	Capacity	33 kV	11 kV	Nos.			
		32	Kolti	Budinanda	Rural Municipality	1	3 MVA	35	188.5	2	Private		
	Bajhang	33	Kalinga	Bungol	Municipality	4	3 MVA	20	140	2	Private		
	Baitadi	34	Musya	Surnaiya	Rural Municipality	6	3 MVA	8	571	2	Private	Sova Community forest 33kV TL	
		35	Sillegadha	Dagdakedar	Rural Municipality	7	3 MVA	2.5	240.5	2	Private		
	Total								569.3	4039	86		

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

## 2.4 Baseline conditions

### 2.4.1 Environmental baseline

#### Baseline (or existing) conditions

The 'baseline' essentially comprises of factual understanding and interpretation of existing environmental, social and health conditions of where the business activity is proposed. The consultant has conducted a baseline survey and collected information on the existing physical, biological, socio-economic and cultural environment of the proposed sub-project areas. As the entire DSUEP project was divided into two stages, stage 1 baseline survey has already been conducted while stage 2 is in progress.

#### Physical Environment

##### Land use

The existing land uses in the project shall be recorded during E&S base line before implementation of project so that the change in land use pattern after implementation of project can be evaluated. Land use types include agriculture, horticulture, domestic settlement, and industries. For example, the land before construction may be used for agriculture, forest, settlement or could be barren land but after construction the area will be converted in to built-up area substations. Similarly, forest land along distribution line route shall be cleared.

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

Table 10 - Minimum Land Required for Sub-Station

Province	District	S.N	Address				33/11 kV SS & distribution lines Land Required					
			Substations Place	Municipality & Ward			Distribution line length in KM Row in m.		Permanent Sqm			
				Name	Category	No	Length	Row	Distribution lines Area Sqm	Pole Area	SS Areas	
5	Parasi	1	Hakui	Ramgram	Municipality	15	15	2	60000	174.375	4000	
	Rupendehi	2	Manglapur	Tilottama	Municipality	7	1.5	2	6000	28.125	4000	
		3	Marchawar	Kotaimai	Rural Municipality	7	18	2	72000	208.125	4000	
	Palpa	4	Dhikichour	Ribdikut	Rural Municipality	7	7	2	28000	84.375	4000	
	Rukum East	5	Kankri	Bhume	Rural Municipality	2	20	2	80000	230.625	4000	
		6	Rukumkot	Sisne	Rural Municipality	6	40	2	160000	455.625	4000	
	Dang	7	Hapur	Ghorahi	Sub Metropolitan	12	5	2	20000	140.625	4000	
		8	Makaundanda	Ghorahi	Sub Metropolitan	9	4	2	16000	163.125	4000	
		9	Jamnibas	Gadahawa	Rural Municipality	7	12	2	48000	208.125	4000	
		10	Bhaluwang	Rapti	Rural Municipality	1	0.8	2	3200	13.5	4000	
	Rolpa	11	Murkute	Banglachuli	Rural Municipality	4	27	2	108000	320.625	4000	
		12	Thabang	Thabang	Rural Municipality	1	7	2	28000	455.625	4000	
			13	Ghartigaun	Madi	Rural Municipality	2	3	2	12000	39.375	4000

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Address							33/11 kV SS & distribution lines Land Required				
Province	District	S.N	Substations Place	Municipality & Ward			Distribution line length in KM Row in m.		Temporary	Permanent Sqm	
				Name	Category	No	Length	Row	Distribution lines Area Sqm	Pole Area	SS Areas
	Banke	14	Khajura	Khajura	Rural Municipality	4	0.5	2	2000	11.25	4000
	Machhagadh	15	Machhagad	Bara Bardiya	Rural Municipality	9	27	2	108000	309.375	4000
Karnali (6)		16	Badichour	Barahatal	Rural Municipality	10	1	2	4000	11.25	4000
	Surkhet	17	Budhe Bapar	Chaukubne	Rural Municipality	4	22	2	88000	253.125	4000
		18	Nagma	Tila	Rural Municipality	1	2	2	8000	28.125	4000
	Kalikot	19	Raskot	Raskot	Rural Municipality	6	30	2	120000	343.125	4000
		20	Sermaila	Kuse	Rural Municipality	7	30	2	120000	455.625	4000
	Jajarkot	21	Badaban	Chhedaghat	Rural Municipality	6	20	2	80000	253.125	4000
		22	Piple Lekhgaun	Kalimati	Rural Municipality	4	20	2	80000	230.625	4000
	Salyan	23	Tharmare	Tharmare	Rural Municipality		2.5	2	10000	28.125	4000
	West Rukum	24	Vampuchaur	Bafukot	Rural Municipality		13	2	52000	230.625	4000
	Jumla	25	Badki	Hema	Rural Municipality	3	1.5	2	6000	22.5	4000
	Dolpa	26	Dunai	Thuli Bheri	Rural Municipality	2	18	2	72000	568.125	4000
Mugu	27	Khatyad	Khatyad	Rural Municipality	7	30	2	120000	343.125	4000	



## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Address							33/11 kV SS & distribution lines Land Required					
Province	District	S.N	Substations Place	Municipality & Ward			Distribution line length in KM Row in m.		Permanent Sqm			
				Name	Category	No	Length	Row	Distribution lines Area Sqm	Pole Area	SS Areas	
		28	Mangri	Mugukyamarung	Rural Municipality	8	20	2	80000	230.625	4000	
	Humla	29	Simikot	Simikot	Municipality	9	85	2	340000	793.125	4000	
		30	Budhiganga	Badimalika	Rural Municipality	5	5	2	20000	455.625	4000	
	Bajura	31	Kolti	Budinanda	Rural Municipality	1	35	2	140000	455.625	4000	
	Bajhang	32	Kalinga	Bungol	Municipality	4	20	2	80000	230.625	4000	
		33	Musya	Surnaiya	Rural Municipality	6	8	2	32000	39.375	4000	
	Baitadi	34	Sillegadha	Dagdakedar	Rural Municipality	7	2.5	2	10000	151.875	4000	
Total Land Required								553.3		1,530,400	8,153	148,000

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

#### Water Quality

The information on the quality of water near the project shall be collected and analyzed. During construction stage, disposal of soil, waste for camp site and also washing of machinery and equipment will pollute the water quality. The collected baseline data shall provide the level of pollution due to project and immediate mitigation needed.

The list of water resources which lies along and near the subproject area are listed below:

Table 11 - List of water bodies lying along and near project area

S.N	Substation	Tapping Point	River/Stream	Remarks
1	Hakui	Suryabasti	The distribution lines cross Jharai River	
2	Marchawar	Mainahiya	The distribution lines cross Tinau River	
3	Makaundanda	DubichourDanda	Location near Hapur River	
4	Jamnibas	Lamahi	route cross Rapti River	
5	Bhaluwang	Bhaluwang	Rapti River	
6	Machhagudh	Kohalpur	Alignment cross DundawaKhola	
7	Badki	Badki	Himal River	
8	Khatyad	Gothijuella (Kanaka Sundari)	Mahendra Madi Khola Route	
9	Mangri	Gangadi	180 (Mugu Krnali river and crosses ChimatKhola )	
10	Kalinga	Baghthala	KhalangaKhola, RaruKhola	
11	Budhiganga	Badimalika-5	Budiganga	
12	Badaban	Sibalaya RMP-1, Chheraghat	Chhera, Shiva, Rida, Salma Khola	
13	Raskot	Manma	Karnali River and Sannigad	
14	Thabang	Thabang bazar, Thaban RMP-1	Tabang River and cross PhibhaiKhola	
15	Piple Lekhgaun	MalaraniGarbakot RMP-3	Sharada Khola and cross Thule Jhaluke & Chiuribas Khola	
16	Tharmare		Sharada Khola	
17	Kolti	Badimalika Municipality - 09, Martadi	AnaiKhola, BauliKhola, JilliKhola, RajatolaKhola, ChuthiKhola, SyalkatiaKhola& BaddiKhola	

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

#### Noise Level

Implementation of construction activities utilize construction activities which produces high noise level. The baseline study should identify the noise sensitive location and define baseline background noise level in those area. The level of noise by the project should be monitored during construction and should be controlled to fall within permissible range.

#### Geology of Area

During baseline survey, existing geological information shall be captured. The level of geology survey depends on the nature of project. For example, construction of heavy structure like tall poles etc. For small project, secondary data about soil, rock may be sufficient whereas for larger projects, a detailed geological survey and mapping may be necessary. The information shall help to screen suitable location to support the proposed structure.

#### Ground Water

Percolation of surface water contributes to ground water level. The ground water flows through porous soil strata to reach the streams or ponds /lakes. The interception of ground water during slope cutting or foundation excavation shall disturb the ground water movement. Also, water leakages arising out of such activity shall hamper construction activities. Pre-identification of ground water level shall help to avoid flooding issues in the activity area.

#### Emissions and Effluents

The total amount of solid, liquid or gaseous pollutants emitted into the atmosphere from a given source within a given time, as indicated, shall be monitored. For example, in grams per cubic meter of gas or by a relative measure, upon discharge from the source.

### 2.4.2 Biological Environment

#### Forest land Clearance

Implementation of project may require acquisition of forest land for construction of 33 / 11 kV substations 33 kV lines, 11 kV lines and LT lines. To make the room for construction activities the land area needs to be cleared. The list of forest area that will be affected by the sub project are as follows.

Table 12 -- List of affected forest for 33 / 11 kV substations 33 kV lines, 11 kV lines and LT lines

S.N.	Substations	Sub Project Location			Land Substation	Remarks
		District	Municipality/Reural Municipality	Ward No.		
1	Marchawar	Rupandehi	Kotaimani RMP	7	Irrigation Department	Tree clearance for substation of public land
2	Dhikichour	Palpa	Ribdikot RMP	7	Community Forest	Ribdikot Community Forest
3	Jamnibas	Dang	Gadhawa RMP	7	Community Forest	Sarbodaya Community forest

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

S.N.	Substations	Sub Project Location			Land Substation	Remarks
		District	Municipality/Reural Municipality	Ward No.		
4	Murkute	Dang	Banglachuli RMP	4	Private	Tree clearance for 33 kV distribution lines of public land
5	Ghartigaun	Rolpa	Madi RMP	2	Community Forest	Shanti samrakshana community Forest Land
6	Baddichaur	Surkhet	Barahatal RMP	10	Community Forest	Samjhana CFUG Committed to provide land to NEA
7	Budhe Bapar	Surkhet	Chaukune RMP	4	Community Forest	Kula Karnali CFUG committed to provide land
8	Sermaila	Jajarkot	Kuse RMP	7	Private	Distribution lines passes forest ares
9	Badaban	Jajarkot	Shi		Private	Distribution lines passes forest ares
10	Piple Lekhgaun	Salyan	Kalimati RMP	4	Private	Distribution lines passess forest ares
11	Tharmare	Salyan	Bagchaur	2	Public	Community forest land of SS
12	Budhiganga	Bajura	Budiganga MP	5	Community Forest	Maure Community Forest (SS Location not fixed)
13	Kolti	Bajura	Budinanada MP	1	Private	Distribution lines passess forest ares
14	Musya	Baitadi	Surnaya RMP	6	Private	Sova Community forest 33kV distribution lines
15	Simikot	Humla	Simikot		NEA	
16	Mangalapur	Rupandehi	Tillotama MP	7	Government	Tilottama Municipality Ward Provided Land to NEA
17	Kankri	Rukum East	Bhume RMP	2	Private	
18	Rukumkot	Rukum East	Sisne RMP	6	Private	
19	Hapur	Dang	Ghorahi SMPC	12	Government	Land Donated by Ghorahi sub Metropolitan City, Ward no:12
20	Makaundanda	Dang	Ghorahi SMPC	9	Government	Land is public donate by Ghorahi Sub Metropolitan
21	Bhaluwang	Dang	Rapti RMP	1	Private	
22	Thabang	Rolpa	Thabang RMP	1	Private	
23	Khajura	Banke	Khajura RMP	4	Government	
24	Machhagadh	Bardiya	Barbardiya MP	9	Private	
25	Nagma	Kalikot	Tilagupha MP	1	Private	
26	Raskot	Kalikot	Raskot	6	Private	
27	Vampuchaur	Rukim West	Bafikot RMP	6	Private	
28	Badki	Jumla	Himal RMP	3	Private	
29	Dunai	Dolpa	Thulobheri RM	9	Private	

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S.N.	Substations	Sub Project Location			Land Substation	Remarks
		District	Municipality/Rural Municipality	Ward No.		
30	Khatyad	Mugu	Khatyad RMP	7	Private	
31	Mangri	Mugu	Mugum Kamarung RMP	8	Private	
32	Kalinga	Bajhang	Bungal MP	4	Private	
33	Sillegadha	Baitadi	Dogadakedar RMP	7	Private	
34	Hakui	Parasi	Ramgram MP	15	Private	

### Biological diversity

The variety of life forms - different plants, animals and micro-organisms, together with the genes they contain, their ecosystem, etc. constitute the biological diversity of the project area. It is usually considered at three levels: genetic diversity, species diversity and ecological diversity.

### Ecosystems

A dynamic, complex relationship of plants, animals, fungi and microorganism communities and associated non-living environment interacting as an ecological unit form the ecosystem.

### Endangered species

Species in danger of extinction and whose survival is unlikely if the existing conditions continue to operate. This also includes species whose numbers have been reduced to a critical level or whose habitats have been so drastically reduced that they are deemed to suffer from immediate danger of extinction. Endangered species also includes those listed by IUCN - Vulnerable, Endangered, Critically Endangered.

### Vegetation

The information about the type of vegetation coverage in the project area should be collected. Some project which passes through forest land may need clearance of trees and vegetation. To assess the total losses of trees and vegetation and propose mitigation measures, the total losses must be determined first. The number, size, type and coverage of trees must be determined during baseline survey.

## 2.4.3 Social Baseline

Project shall conduct social baseline survey of sub-project areas to collect the primary and secondary in very beginning. Risks and impacts on land, structures, livelihood, cultural values, rituals, public place and utilities etc. shall be clearly defined. A socio-economic survey shall be initiated to measure the existing condition and status, of household or communities as well as risks and impacts. This will help to solve or mitigate adverse impacts using appropriate methods/tools. Checklist developed for baseline screening is attached as Annexure 1.

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### Environment & Social Management Framework

- a. **Land use:** Types include agriculture, horticulture, settlement and public land barren, Government land, forest land, etc.
- b. **Structures:** Types include house, boundary and shed, office building, public structure etc.
- c. **Livelihood:** Types includes small business, teashops, traditional occupations, production / cottage industry, individual or community base, etc.
- d. **Cultural and archeological importance:** The types are - cultural heritage structures, historical, religious, sentimental or aesthetic value, etc.
- e. **Community infrastructures:** The types are - irrigation cannels, community building, water supplies, waiting places, traditional mills (Ghatta), play grounds etc. specially run by community.
- f. **Socio-economic:** Types include castes, households, population, literacy, income, expenditure, access etc. of the project affected people
- g. **Public involvement / public consultation:** A range of techniques that can be used to inform, consult or interact with stakeholders such as indigenous people, women, affected / to be affected by a proposal.
- h. **Reversible impact:** An environmental impact that recovers either through natural process or with human assistance.
- i. **Stakeholders:** Those who may be potentially affected by a proposal, e.g. local people, the proponent, government agencies, non-governmental organizations, donors and others, all parties who may be affected by the project or to take an interest.



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#### 2.4.4 Baseline of Environmental and Social Management Plan

The finding of baseline has been found in initial survey mainly shows the existing condition of 33 / 11 kV substations 33 kV lines, 11 kV lines and LT lines . The following matrix has been present the baseline risk and impact and mitigations measures.

Table 13 - Baseline of Environmental and Social Management Plan

Province	Address						Potential Impacts		Mitigation measure	Land Ownership
	District	S.N	Substations Place	Municipality & Ward			Social	Environmental		
				Name	Category	No				
5	Parasi	1	Hakui	Ramgram	Municipality	15	land is private, loss of agriculture production.	No Significant loss in physical, biological and socio - economic environmental.	Process follow for acquire private land compensate to land owners. EMP, RAP and VCDP will be required	Private
	Rupendehi	2	Manglapur	Tilottama	Municipality	7	Land is public Some household are using the land for agriculture propose.	No Significant loss in physical, biological and socio - economic environmental and socio - economic environmental. The route about 500 m. is not clear RoW for 33 kV line at Keulani -7 near SS	Tilottama Municipality will provide public land for SS. The proposed Unclears RoW areas need to be undergrounding at Keulani -7 of 33/11 kV line. EMP and VCDP will be require and implementation	Government

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Province	Address						Potential Impacts		Mitigation measure	Land Ownership
	District	S.N	Substations Place	Municipality & Ward			Social	Environmental		
				Name	Category	No				
		3	Marchawar	Kotaimai	Rural Municipality	7	Land is public. No significant social impacts.	No significant physical and biological environmental impact under the proposed 33 / 11 kV substations 33 kV lines, 11 kV lines and LT lines.	Kotaimai Municipality and public will provide the land for substation, Row is clear to and from substation for 33/11 kV line. EMP, VCDP will be required for mitigation measure.	Irrigation Department
	Palpa	4	Dhikichour	Ribdikot	Rural Municipality	7	Land is Private loss of agriculture production. Livelihood loss of land owners, No significant impact in Livelihood and community utilities	No significant impact in physical and biological environment	Process follow for acquire private land compensate to land owners. EMP, RAP and VCDP will be required	Private
	Rukum East	5	Kankri	Bhume	Rural Municipality	2	Land is Private loss of agriculture production. Livelihood loss of land owners, No significant impact in	No significant impact in physical and biological environment	Process follow for acquire private land compensate to land owners. EMP, RAP and VCDP will be required	Private

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Province	Address						Potential Impacts		Mitigation measure	Land Ownership
	District	S.N	Substations Place	Municipality & Ward			Social	Environmental		
				Name	Category	No				
							Livelihood and community utilities			
		6	Rukumkot	Sisne	Rural Municipality	6	Land is Private loss of agriculture production. Livelihood loss of land owners, No significant impact in Livelihood and community utilities	No significant impact in physical and biological environment	Process follow for acquire private land compensate to land owners. EMP, RAP and VCDP will be required	Private
	Dang	7	Hapur	Ghorahi	Sub Metropolitan	12	Land is public. No significant social impacts.	No significant impact in physical and biological environment	Land owned by Ghorahi Municipality	Government
		8	Makaundanda	Ghorahi	Sub Metropolitan	9	Land is public. No significant social impacts.	No significant impact in physical and biological environment	Land owned by Ghorahi Municipality	Government

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Province	Address						Potential Impacts		Mitigation measure	Land Ownership
	District	S.N	Substations Place	Municipality & Ward			Social	Environmental		
				Name	Category	No				
		9	Jamnibas	Gadahawa	Rural Municipality	7	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Likelihood.	Land is forest using by Sarboday Forest community forest group.	Require IEE for mitigation potential physical, biological and socio-economic impacts. EMP, VCDP is needed to prepare.	Community Forest Land
		10	Bhaluwang	Rapti	Rural Municipality	1	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Likelihood.	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private
		11	Murkute	Banglachuli	Rural Municipality	4	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No	Land is forest using by Lahareni, Sawarikot, Jalapa Devi, Talu, gadi, Lwage Bhatkule, Lalakundi & Baraha Forest community forest group.	Require IEE for mitigation potential physical, biological and socio-economic impacts. EMP, VCDP is needed to prepare.	Private

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## Environment & Social Management Framework

Province	Address						Potential Impacts		Mitigation measure	Land Ownership
	District	S.N	Substations Place	Municipality & Ward			Social	Environmental		
				Name	Category	No				
							significant impact in Likelihood.			
Rolpa		12	Thabang	Thabang	Rural Municipality	1	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Likelihood.	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private
		13	Ghartigoun	Madi	Rural Municipality	2	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood.	Land is forest using by Shanti janasaramkshana community forest group.	Require IEE for mitigation potential physical, biological and socio-economic impacts. EMP, VCDP is needed to prepare.	Community Forest Land

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Province	Address						Potential Impacts		Mitigation measure	Land Ownership
	District	S.N	Substations Place	Municipality & Ward			Social	Environmental		
				Name	Category	No				
	Banke	14	Khajura	Khajura	Rural Municipality	4	Land is public. No significant social impacts.	Need to clearance Mango Tree in propose SS site.	The propose site is belongs to local government (Khajura municipality). Local level coordination, consultation and approval is required. EMP VCDP is also required for mitigation potential E&S risk.	Government
	Bardiya	15	Machhagadh	Bara Bardiya	Rural Municipality	9	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood and no relocation of irrigation canal	No significant physical and biological environmental risks	Follow the acquisition process private land, structures provide compensation of loss. Rehabilitation of 500 meters road and public irrigation canal. Required EMP, RAP, VCDP and community development plan (CDP)	Private

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Province	Address						Potential Impacts		Mitigation measure	Land Ownership
	District	S.N	Substations Place	Municipality & Ward			Social	Environmental		
				Name	Category	No				
Karnali (6)	Surkhet	16	Baddichaur	Barahatal	Rural Municipality	10	No significant social impact	Land is forest using by Samjhana, Masina & Deurali community forest group. Loss of tree Sall and Salla	Require IEE for mitigation potential physical, biological and socio-economic impacts. EMP, VCDP is needed to prepare.	Community Forest Land
		17	Budhe Bapar	Chaukubne	Rural Municipality	4	No significant social impact	Land is forest using by Kulla Karnali, Majhigau, Birtri, Chulidanda, Duliwadanda, Deurali, Mahila, Dad Chamidada Mayaral, Baspani & Kundalki community forest group. Loss of tree Sall.	Require IEE for mitigation potential physical, biological and soci-economic impacts. EMP, VCDP is needed to prepare.	Community Forest Land
	Kalikot	18	Nagma	Tila	Rural Municipality	1	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood.	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private



## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Province	Address						Potential Impacts		Mitigation measure	Land Ownership
	District	S.N	Substations Place	Municipality & Ward			Social	Environmental		
				Name	Category	No				
Jajarkot		19	Raskot	Raskot	Rural Municipality	6	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood. .	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private
		20	Sermaila	Kuse	Rural Municipality	7	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood. .	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private
		21	Badaban	Chhedaghat	Rural Municipality	6	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

Province	Address						Potential Impacts		Mitigation measure	Land Ownership
	District	S.N	Substations Place	Municipality & Ward			Social	Environmental		
				Name	Category	No				
							significant impact in Livelihood. .			
Salyan		22	Piple Lekhgaun	Kalimati	Rural Municipality	4	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood. .	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private
		23	Tharmare	Tharmare	Rural Municipality		Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood.	No significant impact in physical and biological environment	Land owned by Tharmare Rural Municipality	Government

## Distribution System Upgrade & Expansion Project

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Province	Address						Potential Impacts		Mitigation measure	Land Ownership
	District	S.N	Substations Place	Municipality & Ward			Social	Environmental		
				Name	Category	No				
	West Rukum	24	Vampuchaur	-	Rural Municipality		Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood.	No significant impact in physical and biological environment	-	-
	Jumla	25	Badki	Hema	Rural Municipality	3	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood.	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private
	Dolpa	26	Dunai	-			Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No	No significant impact in physical biological environment.	-	-

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### Environment & Social Management Framework

Province	Address						Potential Impacts		Mitigation measure	Land Ownership
	District	S.N	Substations Place	Municipality & Ward			Social	Environmental		
				Name	Category	No				
							significant impact in Livelihood.			
Mugu		27	Khatyad	Khatyad	Rural Municipality	7	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood.	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private
		28	Mangri	Mugukamarung	Rural Municipality	8	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood.	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private
	Humla	29	Simikot	-	-		Land is NEA, No significant impact in Livelihood.	No significant impact in physical biological environment.	-	-

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### Environment & Social Management Framework

Province	Address						Potential Impacts		Mitigation measure	Land Ownership
	District	S.N	Substations Place	Municipality & Ward			Social	Environmental		
				Name	Category	No				
	Bajura	30	Budiganga	Badimalika	Rural Municipality	5	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood. .	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private
		31	Kolti, Pipaldali	Budinanda	Rural Municipality	1	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood. .	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private
	Bajhang	32	Kalinga	Bungol	Municipality	4	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

Province	Address						Potential Impacts		Mitigation measure	Land Ownership
	District	S.N	Substations Place	Municipality & Ward			Social	Environmental		
				Name	Category	No				
							significant impact in Livelihood. .			
	Baitadi	33	Musya	Surnaiya	Rural Municipality	6	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood. .	No significant impact in physical biological environment.	Follow the acquisition process of private land, properties provide compensation of loss. Required EMP, RAP, VCDP and	Private
		34	Sillegadha	Dagdakedar	Rural Municipality	7	Land is Private loss of agriculture production and small structure. Livelihood loss of land owners, No significant impact in Livelihood. .	Land is forest using by Samjhana community forest group.	Require IEE for mitigation potential physical, biological and socio-economic impacts. EMP, VCDP is needed to prepare.	Private

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#### 2.4.5 E&S impacts

DSUEP project has the following components:

Table 14 - Components of DSUEP

Sl. No.	Component	Description
1	Component 1	Construction of 33kV supply lines and 33/11kV substations (including upgrade of existing facilities where needed).
2	Component 2	Construction of 11kV lines, distribution transformers, low-voltage (LV) supply lines including consumer connections.
3	Component 3	Capacity Building, Project Implementation Support, and Technical Assistance.

Component 1: Construction of 33kV supply lines and 33/11kV substations (including upgrade of existing facilities where needed).

This component comprises activities relating to the construction of new primary substations, facilitating the enhancement of the distribution network. It consists of extension to the 33kV network providing supply to the new 33/11 kV substations and the construction of these substations and related facilities. In some instances, where needed, the existing 33kV lines would be augmented by the increase of conductor size or number of circuits.

Component 2: Construction of 11kV lines, distribution transformers, low-voltage (LV) supply lines including consumer connections.

This component comprises activities related to the new power distribution facilities required to bring the power supply to the ultimate consumers. It consists of new 11kV feeders, installation of distribution transformers, development of the LV network and service connections to consumers.

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

This component focuses on improving the capacity of NEA's distribution planning and analyzes the network performance of the proposed project components. This component will also independently supervise and monitor the PIU needed for project implementation.

#### 2.4.5 Environmental safeguard issues

Generally, in development related projects, physical and biological issues/impacts are the most common ones. However, these are not exhaustive, and many issues are site-specific based on the existing environment. Before implementing development activities, the likely environmental impacts must be assessed and mitigated by proper measures.



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The biodiversity sensitivity area such as Banke national park, Bardiya national park, She-Phuksundo national park, Rara national park, Khaptad national park and Apinappa reservation area lies in sub-project districts. However, the distribution line and substation does not lie in these sensitive areas and does not have major impacts in biodiversity. The project area mostly lies in hilly region which is susceptible to land slide and erosion due to fragile nature of hills.

The E&S risks associated with sub-projects may involve influx of labour for construction activities. Labour working conditions, therefore, has potential impacts on physical, cultural and social environment. Moreover, there are risks related to transportation and access roads near sites (although access roads are not anticipated at this time). This aspect will be taken into account during the assessment process for each sub-project.

In terms of DSUEP sub-projects, adverse environmental impacts are anticipated to be temporary in nature, like labour camps and contractor camps. Landslide, soil erosion, safety hazards, construction disturbance, disposal of debris, worker health and safety and irritation from dust and noise in the sub-project site are some of the impacts which occur during the construction stage -with short-term negative impacts. These impacts can be minimized to an acceptable level in accordance with the Financiers' safeguards and good environmental practices. The above adverse impacts are separately listed in environmental and social category.

### Environmental & social Issues

The following issues are largely foreseen –

- Terrestrial habitat alteration
- Aquatic habitat alteration
- Hazardous Materials
- Electric and magnetic fields
- Forest and wildlife disturbance
- Landslide
- Erosion
- Impact on community and leasehold forests
- Impact on places of cultural and archeological importance
- Environmental issues related to labour mobilization
- Live power lines
- Working at height
- Exposure to chemicals
- Electrocutation
- Electromagnetic interference
- Visual amenity

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- Noise

## 2.4.6 Environmental & Social Issues/Impacts

### Beneficial Impacts

The following are the beneficial impacts caused by the implementation of the proposed project during construction and operation phases –

#### Employment Opportunities

One of the major benefits of DSUEP implementation for the local project affected people is the generation of job opportunities. Construction activities require both skilled and unskilled labour during project implementation. Priority will be given to the locals during labor selection. This will enhance the income of local people and enhance living standards in the project areas. Growth in employment can be tracked through compliance monitoring during implementation stage such as number of local persons involved in project, Number of new industries established etc.

#### Enhancement of local skills in rural areas

The development of DSUEP will require advanced equipment and a host of technical expertise that will be carried out in the project area. As the local people will be involved in the construction activities as per their qualification and skill, this technical expertise shall be passed on to local people. Over time, it will boost the quest for technical knowledge and result in overall growth of knowledge quotient. This experience not only enhances the conventional skills at local level, it also helps the local people to get engaged in similar projects elsewhere in Nepal.

#### Increase in trade and infrastructure

Electrification will help to increase trade and business through opening of business centers, new industries, hotels, shops, etc. Availability of electricity will increase income and production levels, thereby enhancing the spending capacity and boosting business growth.

#### Utilization of local commodities

Construction activities increase the disposable income of human resources in the project area thereby increasing the consumption of local commodities. Further, the construction activities require different construction materials like aggregate, sand, cement, steel etc. These materials shall be bought from the locally available market centers.

#### Enhancement in Rural Electrification

The implementation of DSUEP shall help to supply electricity to remote, rural areas of province 5, 6 and 7. It will also help to meet the government's target of 100 % electrification.

#### Formation of forest fire line zone

The construction of distribution line needs clearance of trees lying beneath and within RoW for sustainable operation. Such clearance of tree underneath the distribution line will create the open ground forming the fire line zone. Such clear zone prevents spreading of forest fire and protects flora and fauna within the forest area

#### Enhancement of Education and Health Sector

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The education and healthcare facilities in rural areas is not as good as in urban areas. This is mainly due to lack of proper infrastructure and availability of electricity required for the operation of necessary equipment.

As there is no access to electricity, currently the students in these areas lack the awareness of technological changes brought about in the last few decades. Computer skills have become fundamental and basic for students elsewhere. However, students in the project lack these skills because their villages have been hitherto unconnected to the national grid.

Similarly, in healthcare sector many technological innovations such as X-ray machines, sonograms, MRI machines, etc. are being used in the urban areas. However, people in rural areas do not have such access, and in many cases, this results in fatality. This is the unfortunate consequence of lack of proper health instruments due to lack of access to electricity.

### Enhanced Productivity

Nepal is rich in resources such as natural herbs, agricultural products etc. which are the raw materials for the pharmacy industry. These materials are found in abundance in rural areas. Due to lack of industries for processing the raw material into finished product which can be sold to urban centers, the resources are not being utilized.

### Adverse Impacts

#### Physical Impacts

##### Construction Phase - Land Use Change

The line and substation construction will require NEA to acquire the land and change its use type. Construction in agricultural land shall change its utilization from agriculture to buildup area. On an average the distribution line and substation will require 2000 Sq.m/Km and 4000 Sq.m respectively.

- The area below distribution line will be clear and vegetated area will be clear,
- Similarly, construction of substation on agricultural land and access road to substation will convert the agricultural line into built up area.

##### Construction Phase - Land Pollution

Land pollution as discussed here, is the consequence of soil erosion, landslide, stockpiling of construction material on temporary land, waste and spoil disposal. The impacts on the land due to implementation of sub-projects are:

- The foundation excavation works will disturb the soil and rock condition of limited areas.
- The excavation for poles as well as substation foundation may lead to soil erosion and siltation issues in the vicinity. Besides the clearance of forest areas might involve erosion and siltation contaminating the nearby water bodies.
- Haphazard storage of construction material like storage of sand and gravel over fertile land will reduce the fertility of land

##### Construction Phase - Losses of standing crops

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The construction of lines and stringing of distribution line will cause disturbance to the agricultural produce due to reduced productive land. This will affect farmers and their income. Operation of construction activities during cultivation period will damage the crop and hamper farmer economy.

#### **Construction Phase - Impact due to land stability and soil erosion**

Particularly construction of distribution lines and substation require excavation works. Construction of distribution lines on hilly slope area may destabilize the slope which shall trigger landslides due to percolation of rain water through loosened excavated earth. Further, the soil will be more prone to erosion due to rain, wind after excavation activity.

#### **Construction Phase - Earthquake stability of line and substation location**

Nepal is one of the most earthquake -prone countries. Earthquake can occur at any time and lack of proper or timely precaution might cause large scale damage of physical structure and life. Any structure (line or Substation) construction in hilly slope increases the surcharge load in the land so any small shaking of land might cause sliding and damage of structure

#### **Construction Phase - Impact due to stockpiling of construction material on temporary land**

Unmanaged and haphazard stockpiling of construction material during construction period on temporary land will cause adverse impact on the land environment since the soil composition may change in presence of cement etc. Stockpiling of construction material in fertile land will degrade the fertility value and reduce the agricultural production level. Such as storing of construction material like sand, gravel, cement etc. on the fertile land will form a layer of deteriorate material will over the previous fertile land and will affect the root of plant. Further, the store material will be sweep by the rainwater and deposit on the low land and natural stream. Which block/reduce the flow of natural stream?

#### **Construction Phase - Impact due to waste disposal**

Construction activities will produce the different waste material such as construction debris, solid waste from camp site. The nature of waste will be different on the basis of source. Construction wastes are mainly non-biodegradable solid waste and waste from camp sites are mainly decomposable.

- Haphazard disposal of construction waste will degrade the soil value and production level.
- The distribution wires, fittings, metals will cause injury to the local people if thrown haphazardly on the road and field.
- Unmanaged disposal of solid waste from camp site will cause water pollution, nuisance etc.

#### **Construction Phase - Air Pollution**

Dust particles are likely to be emitted during excavation for foundation works and breaking activities. Furthermore, the movement of vehicles for the hauling of materials and supervision works will also affect air quality of the project area. Since most of the area of distribution line and substation is accessible only by rural road and use of equipment is also minimum, the likely impact on air quality is insignificant.

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#### Construction Phase - Water Pollution

For various construction activities, water will be used from the nearby rivers, rivulets etc. Inappropriate waste disposal of debris, solid wastes such as cement slurry, other construction material and human wastes from camp site may deteriorate the river water quality. There is the general trend of disposing of organic material and washing/cleaning of equipment in water bodies which will pollute the water resources.

#### Construction Phase - Noise and Vibration Pollution

Construction of distribution lines and substation will be done by semi-mechanized method such as manual excavation will be done, manual cable stretching using simple hand tools. Most of the area of distribution line is accessible only by foot track and use of equipment is also minimum. The workforce involved and machines used for the construction activities like excavation, concreting etc. will produce insignificant noise and vibration of low intensity. Therefore, the likely impact on noise and vibration is considered insignificant.

#### Operation & Maintenance Phase - Air Pollution

Air pollution during operation is due to emission of harmful gases from distribution line. The impacts are significant for high voltage distribution line. The efferent of corona are:

- Corona discharges from the distribution lines generate minute quantities of ozone ( $O_3$ ), nitric oxide (NO) and nitrogen dioxide ( $NO_2$ ).
- In general, the effects of Corona also include the production of ozone gas surrounding the distribution line conductors.

The proposed distribution lines are of 33 and 11 kV so the impact is not much significant.

#### Operation & Maintenance Phase - Noise and Vibration Pollution

The noise and vibration produced in the distribution lines may cause impacts near settlement and wildlife habitat area. The audible level of corona in distribution line is usually measured at the edge of the RoW i.e. 10 m approximate from the outer conductors.

#### Operation & Maintenance Phase - Impact due to interference of distribution line with roads, other lines and infrastructure

The distribution lines will follow the RoW of roads, river-side and boundary of forest area. The likely impacts are:

- The construction of distribution line near road will reduce available sight and stopping distance of road.
- Furthermore, any infrastructure lying along the route of distribution line and in substation needs to be removed to facilitate the construction activities. Therefore, during distribution line route and substation location selection, information of existing infrastructure shall be collected and the route with minimum disturbance to facilities shall be selected.

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#### Biological Environment

##### Construction Phase - Impact on Vegetation

When distribution lines pass through forest land, trees lying within the RoW need to be clear for sustainable operation and easy in maintenance. The clearance of RoW will cause loss of vegetation and trees.

##### Construction Phase - Possible collection of forest product for firewood and timber

The labour in the construction site and their dependents will increase the demand of fuel such as wood for their use and timber for making temporary sheds. However, it is assumed that priority will be given to local labour force which will reduce the fuel wood demand.

##### Construction Phase - Disturbance to wildlife and wildlife habitat

During construction period movement of labour and transportation of equipment and material at site will create threat to the wildlife and disturb their movement near work site. Further clearance of trees will reduce the availability of habitat for mammals and birds. The impact of loss or fragmentation of habitat varies in different animals.

##### Construction Phase - Habitat fragmentation

The degree of impact on wild animals depends entirely on the species present, forest type and abundance of food. Clearance of vegetation within RoW will create the break line and divide the forest which will disturb their movement across the distribution corridor and break their natural route.

##### Construction Phase - Rare, endemic, threatened, endangered, protected plants due to site clearance

No significant impact is expected on rare, endemic, threatened, endangered, protected plants due to site clearance during construction period of the proposed project. This has been confirmed during baseline survey.

##### Construction Phase - Impact on aquatic life

No significant impact is expected on natural habitats and communities due to construction of the proposed project as there is no water in dry season as well the construction work is not carried out in the rainy season.

##### Construction Phase - Forest fire hazard

The project area and the vicinity have a thick and dense forest which are prone to forest fire. Similarly, the current carrying wire shall be have high chances of lightning. Improper precaution against lightning shall damage the distribution line and cause fire.

## 2.4.7 Mitigation Measures

### Beneficial impact enhancement measures

With the implementation of DSUEP the local rural people of province 5, 6 and 7 will be benefited. Key benefits are - rural electrification, employment opportunity, income generation, opening of new small- and large-scale industry, enhancement of education and health sector, operation of industry etc.

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DSUEP shall give priority to local workforce while selecting labor for the project. This will increase the employment of local people. The availability of jobs at local level shall garner local support for DSUEP. This is essential for the sustainability of any project. The job opportunities will increase their income level and enhance their living standards.

DSUEP will provide the equipment operation training which will be used in project which will further help to enhance the technical skill. The knowledge of distribution line and substation construction form DSUEP will help the skill people to get job in for similar other projects.

### Adverse Impact Mitigation Measures

#### Physical Impacts

##### Construction Phase - Land Use Change

Construct of distribution lines and substation structure will change the land use pattern. The project might affect agriculture land, forest land, Market Area or dense settlement and change their use pattern. Key steps to minimize the impact shall be taken while selecting the route for distribution line alignment. If possible, line alignments shall pass through barren land or RoW of existing road without hampering traffic movement, etc. Following mitigation measures shall be adopted to minimize the adverse impacts –

- Selecting line route which required least land acquisition.
- Wherever possible the line route will avoid forest and wet land
- To the extent of possible, barren land will be selected for line route and for construction of substation
- Wherever possible, the proposed line will be aligned along the existing RoW of road without hampering traffic movement.

##### Construction Phase - Land Pollution

Land pollution discussed here is the consequence of soil erosion, landslide, stockpiling of construction material on the temporary land, waste and spoil disposal.

- The foundation works may disturb the soil and rock condition of limited areas
- The excavation for poles as well as substation foundation may lead to soil erosion and siltation problems in the vicinity
- Clearance of forest areas might involve erosion and siltation to the nearby water bodies

##### Construction Phase - Losses of standing crops

The construction of lines and stringing of distribution line will cause disturbance to the agricultural produce due to reduced productive land. This will affect farmers and their income.

The following measures shall be followed to minimize the impacts –

- Stringing of the line and other construction activities will be done in off-farming season
- the proposed line will be aligned along the existing RoW of road and edges of the fields
- The affected farmers shall be suitably compensated of standing crops and fruits on the basis district agriculture rate valuation by district agriculture office.



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#### Construction Phase - Impact due to land stability and soil erosion

Excavation work in the hills will cause further losses the slope. The exposed surface water can percolate easily reducing the strength and stability of hilly slope. Therefore, proper precaution shall be taken during excavation.

To minimize the possibility of landslide and soil erosion at working site following mitigation measure will be adopted:

- The pole location identified for distribution line should be stable and in flat ground if possible.
- Proper geological study shall be conducted to determine the ground conditions if necessary.
- The excavation shall not be done during rainy season in hilly slope.
- Construction of line may over-burden the slope land and may trigger the slide. Therefore, soil bearing capacity and strength of slope land shall be checked before construction of lines and substation.

Similarly, Improper dumping of debris will cause soil erosion in rainy season and impacts lower land in hill area, agriculture land and increase sediment flow in river.

- The debris generated from excavation will be removed from the site immediately or will be reused at the site. If possible, the debris shall be used for backfilling which reduce the need of dumping site.
- The debris will not be left at the site under any circumstances. Proper spoil dumping site will be located before start of the project.

#### Construction Phase - Earthquake stability of line and substation location

Nepal is one of the most earthquake -prone countries. Earthquake can occur at any time and lack of proper or timely precaution might cause large scale damage of physical structure and life. Any structure (line or Substation) construction in hilly slope increases the surcharge load in the land so any small shaking of land might cause sliding and damage of structure.

- To minimize the possible impacts, structure shall be properly designed to resist earthquake load and also the stability of land shall be duly checked.
- The pole will not be constructed in fracture and crack rock mass and fault area without proper design and ensuring stability.

#### Construction Phase - Impact due to stockpiling of construction material on temporary land

The project will apply high priority to safety and management of construction material. Materials like cement, aggregate, soil, electric wires, metals etc. shall be used in construction of lines and substations. Improper management may increase the wastage of construction material and pollution of land, water and air. Erosion of piled soil, sand and aggregate may damage the road, agriculture land, silting issues in nearby natural streams. Similarly, the wind causes dust issues in soil and sand stored in open ground without cover.

Therefore, these hazards can be minimized by adopting following measures to large extent –

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- The construction material stockpiling yard will be identified before start of construction activities and will be approved by site engineer
- The selected yard site will be barren land as far possible
- The land for storing the construction material shall be far from the agriculture land and water bodies
- Prior permission from the local stakeholders shall be taken before commencing the stockpiling of material
- Construction materials shall be covered with tarpaulin during stockpiling to prevent rain water and dust emission generated from the stockpiling site. It should be encircled with side barriers and cover so that incidence of mix up with deleterious materials is imminent
- Stockpiles shall be kept wet by sprinkling water or covered so that erosion by wind causing dust does not occur
- Haphazard disposal of construction materials shall be strictly prohibited

#### Construction Phase - Impact due to waste and spoil disposal

Careful management of waste produced from construction activities and camp site is very essential. Chances of erosion of spoil during rainy season is high due to flooding. This may damage the agriculture land and also deposition of spoil in water sources affects aquatic life. Following mitigation measures shall be followed to mitigate the likely impacts –

- The Contractor shall prepare a detailed site-specific Environmental Management Plan (EMP) including suitable disposal locations for spoils/wastes and that shall be approved by the Supervision Consultant
- Locations for disposal will be selected with the consent of local community, RMS representatives, and the sites shall be located at least 1 km away from the settlements, schools, hospitals, religious and cultural sites, water sources including other sensitive areas from environmental point of view
- The Contractor shall use such spoils/wastes for construction purposes as far as possible
- Proper drainage facility shall be provided around spoil disposal site
- Similarly, waste from camp site will be properly managed and disposal in river and open ground will be prohibited and shall be monitored
- Pit toilet facility will be provided at camp site and open defecation will be prohibited
- The organic solid waste from camp site will be decomposed in compost bin or by constructing pit ground and covered by the sufficient thick layer of soil
- The un-decomposed solid waste will be managed by the contractor and will not be allowed to seep through in water sources, forest land, agriculture land, etc.

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#### Construction Phase - Air Pollution

Air pollution occurs mainly due to the emission of dust particles during excavation, transportation of spoil and construction material. Appropriate mitigation measure shall be adopted and will be included in the EMP to compel contractor to follow mitigation measures as follows –

- The vehicle plying on the road for transportation of construction material and spoil will be properly checked and proper condition and as per government law shall be ensured
- The construction material and spoil will be covered by tarpaulin during transportation
- Construction materials shall be covered with tarpaulin during stockpiling to prevent rain water and dust emission generated from the stockpiling site. It should be encircled with side barriers and cover so that incidence of mix up with deleterious materials as imminent
- At the work site, dust emission will be controlled by regular sprinkling of water

#### Construction Phase - Water Pollution

The main impacts on the water source is due to disposal of excavated spoil, solid and liquid waste from camp site. Proper arrangement shall be made at site for proper management of waste –

- The solid waste generated by workforce shall be disposed-safely away from water resources
- Onsite sanitation facility will be provided at the camp site
- Good construction practices and site management will be adopted to avoid impacting soil and ground water, and pollution of water bodies from accidental spills from fuels and lubricants etc.
- The construction equipment and vehicles shall not be allowed to wash and clean in the water bodies near site. Maintenance and cleaning will be carried out in garage.

#### Construction Phase - Noise and Vibration Pollution

The noise pollution and vibration occur at site during excavation works and civil works for substations. Therefore, these activities will be properly scheduled for site near settlement. The noise level above 90 dB will cause disturbance for animal and humans. So, noise level at work site shall be regularly monitored and maintain well below standard.

- The vehicle being used for transportation of construction material and spoil shall be regularly checked and kept in good condition. Vehicles producing high sound will not be allowed to move on the road and near working site
- Drilling equipment with low sound emission shell be used and if possible, sound trapping machine like silencer will be attached
- The drilling and excavation work will be carried out during day time and not allowed in night time

#### Operation & Maintenance Phase - Noise and Vibration Pollution

The noise and vibration level produced from 33 kV, 11 kV and LT distribution lines are very low. According to available information, for line voltages below 345 kV, corona amplitude modulated (AM) levels are of little or no significance.

- Corona noise levels decrease rapidly with distance from the 33 kV, 11 kV and LT distribution line and in the presence of trees or buildings

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- Some noise is also expected in the substation area but will be within the permissible limit
- Transformers usually produce some moderate noise in the substation area, though it is generally less than 85 decibels, the overall magnitude is insignificant.

#### Operation & Maintenance Phase - Impact due to interference of 33 kV, 11 kV and LT distribution line with road, other lines and infrastructure

The infrastructure particularly road, building along the 33 kV, 11 kV and LT distribution line is significant when the structure is constructed near the infrastructure. The following mitigation measures shall be followed to minimize the impacts –

- 33 / 11 kV substation, 33 kV line, 11 kV line and LT line locations will be kept sufficiently away from road edge - not to hamper the setback and sight distance.
- 33 / 11 kV substation, 33 kV line, 11 kV line and LT line locations will be away from water source.
- While installing electric distribution lines of more than 11 kV across the road in a densely populated area, the double insulator system shall have to be used
- No electric wire shall be carried above the house

#### Operation & Maintenance Phase - Electromagnetic fields hazards

Electric and magnetic fields known as electromagnetic field (EMF) are created by the presence of voltage and current near to the power apparatus in a substation. The height of distribution lines will be made sufficiently high to ensure the proper ground clearance and away from structure to minimize the chance of EMF hazard.

Table 15 - Minimum distance which ought to be from the wire to the house and tree

S. No.	Standard of Voltage of Electricity	Minimum Distance to be from house and tree (m)
1	Standard 230/400 V to 11 kV	1.25
2	From 11 kV to 33 kV	2.00

Table 16 - Minimum distance which ought to be from wire to the ground

S. No.	Standard of voltage of electricity	While crossing the road (m)	On the side of the road (m)	In other places (m)
1	Standard 230 / 400 V to 11 kV	5.8	5.5	4.6
2	From 11 kV to 33 kV	6.1	5.8	5.2

Source: Electricity Rules, 1993

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### Biological Environment

#### Construction Phase - Impact on Vegetation

During construction of 33 / 11 kV substation and distribution lines, the following measures will be considered to minimize the impacts on vegetation:

- To the extent of possibility, 33 / 11 kV substation location and the distribution line route will be selected on barren land to minimize the need for vegetation losses
- Different alternative routes will be studied and the route with minimum requirement of tree losses will be selected
- The losses of trees and vegetation shall be compensation as per the prevailing rule of 1:10.
- The prior clearance approval from Department of Forest (DoF) in coordination with District Forest Office (DFO) and Community Forest User Group (CFUG) will be taken as per Forest Act.
- Only the trees lying on the distribution line route and 33 / 11 kV substation location as needed and approved by DoF will be cleared and the work will be monitored by the DFO, CFUG, supervision consultant or agencies.
- Unnecessary movement of vehicles in the forest land will be prohibited.
- Wood and other forest products extracted as part of the site clearance from the forest will be handed over to the concerned forest user groups / DFO office.

Table 17 - Plant Species and Forest products protected under the Forest Regulations, 1995 (amended 2001)

S,N.	Botanical Name of Forest resource	Vernacular Name	IUCN Status	CITS Code
<i>Species banned for collection and export</i>				
1	Dactylorhiza hatagirea	Panch Ounle		II
2	Picrorhiza scrophulariiflora	Kutki		
3	Juglans regia (bark)	Okhar		
<i>Species banned for export without processing</i>				
1	Abies spectabilis	Talis patra		
2	Cinnamomum glaucescens	Sugandhakokila		
3	Cordyceps sinensis	Yarsa gomba		
4	Lichen species	Jhyau		
5	Nardostachys grandifloral	Jatamansi		
6	Rauvolfia serpentina	Sarpagandha, (harbaruwa)	V E	II
7	Taxus buccata sub-sp. Wallichiana	Loth salla		
8	Valerina jatamansii	Sugandabala		II
<i>Timber tree banned for felling, transportation and export</i>				
1	Acacia catechu	Khayer		
2	Bombax ceiba	Simal	T	
3	Dalbergia latifolia	Satisal		
4	Juglans regia	Okhar		

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S,N.	Botanical Name of Forest resource	Vernacular Name	IUCN Status	CITS Code
5	Michelia champaca	Champ		
6	Petrocarpus marsupium	Bijaya sal	E	
7	Shorea robusta	Sal, Sakhuwa		
* Products processed in the country can be exported with special permission from the MFSC. IUCN Threat categories: E = endangered, T = threatened, V = vulnerable.				

#### Operation & Maintenance Phase - Possible collection of firewood and timber

Establishment of camp sites near forest will cause collection of forest resources like wood for fire and cooking, Chances of timber collection for camp site construction cannot be neglected. To minimize the chances of forest resource collection, following mitigation measures shall be followed –

- Contract documents shall include provisions to restrict workforces with regard to forest resources and wildlife exploitation and trade
- Contract documents must include provisions to instruct contractor to arrange alternate energy sources such as kerosene or LPG for labour
- The contractor must prevent illegal cutting of forest wood by labour force. The firm also shall be liable to penalize violators
- Equally, collection of non-timber forest resources (e.g. bamboo, medicinal plants, mushrooms) by workforce must be prohibited and enforced
- PIU should instruct the project officials, labour force, contractors, consultants and other stakeholders not to indulge in such activities and abide by the forest act and its regulations

#### Operation & Maintenance Phase - Disturbance to wildlife and wildlife habitat

The impacts are very significant when distribution lines pass through dense forest and national parks. When the distribution line route pass through forest and the trees lying on the route is cleared, the route previously and naturally followed by the wildlife may get destroyed and movement of wildlife will be hampered.

To minimize the impacts following mitigation measures shall be followed –

- Distribution line route and 33 / 11 kV substation location shall be chosen in such a manner during screening that without disturbing their path and habitat will be determined
- The forestland will be avoided as far possible but where required to use forest land barren, thin forest location will be use.

#### Operation & Maintenance Phase - Hunting and Poaching

It shall be strictly prohibited for workforce to carry out hunting and poaching practices in the project area. The workforce/labour will be prevented from entering inside forest by developing a fencing mechanism and peer information network to identify incidents of non-adherence. To minimize the impacts following measure will be adopted:

- The labor camp will be established away from forest area.

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- The hunting activities will be done for meat so the required food product will be supply from market by the contractor on need basis.
- To aware the contractor to prevent labor from hunting and trapping of wildlife appropriate clause will be mention in tender document (contract document).

#### Operation & Maintenance Phase - Habitat fragmentation

The impacts will be significant if the area along the line route will be cleared completely and the line passes through national park and dense forest which are habitats of various wild species.

- Attempt shall be carried out to minimize the clearance of trees and vegetation
- The cables/ wires / conductors can be strung in horizontal and vertical alignment. Poles will be used instead of towers which required less land coverage
- The cleared space can be planted with small shrubs which will link the forest on both side of RoW

#### Operation & Maintenance Phase - Rare, endemic, threatened, endangered, protected plants and animals due to site clearance

National parks, conservation areas, wetland and dense forests are the habitat of rare and endangered species. Once disturbed, habitat may not be again used by the wildlife and forces the species to migrate which affects ecosystem of that particular area. To minimize the impacts following measures will be adopted:

- The distribution line will not be passes through wildlife sensitive area like national park, wetland, conservation area etc.
- The habitat of wild animal will be avoided.

#### Operation & Maintenance Phase - Impact on aquatic life

The impact will be caused due to erosion of excavated spoil by the rain water and deposited in the river bed. Siltation problems is more significant when distribution line is near water bodies and management of spoil is not effective.

- The labor force will be prohibited for fishing activities.
- The flow of mud and spoil form construction site shall be properly checked by the construction of proper sized drain.
- Similarly, the excavated spoil should be immediately removed from site and dumped at identified location.

#### Operation & Maintenance Phase - Forest fire hazard

During dry seasons, dry leaves of this vegetation may catch fire from a small fire like match stick or cigarette butts. This could create immense fire hazard. Therefore, any fire related activities inside forest shall be prohibited.



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Similarly, the cable carrying electricity may be struck by lightning and cause fire hazard in the forest area. Therefore, to minimize the impact all kinds of metallic supports under high voltage system will be permanently and effectively earthed by using perpetual earth wire.

Further, there may be sparking due to leakage of current and the catching of these spark by the dry leaves and grass may initiate forest fire. To minimize the effect minimum recommended clear distance between the phase will be maintained as per NEA standards tabulated as follows –

Table 18 - Minimum Clearance between the wires for HT

S. No.	Standard of voltage of electricity	Horizontal distance between lower two wire (m)	Vertical distance between center of lower channel and top phase (m)
1	For 11,000	1.14	0.75
2	For 33,000	1.90	1.00

Table 19 - Minimum Clearance between the wires for LT

S. No.	Standard of voltage of electricity	Vertical distance between two adjacent phase (m)
1	400 V and 230 V	0.3

## 2.5 Social safeguard issues

Generally, gender, indigenous people, poverty, land, private structures, livelihoods, community facilities, healthcare and sanitation, wages related issues are common in development projects. In spite of these, particular issues in sub-projects shall be mutually exclusive depending on nature of the project.

### 2.5.1 Land impact

Every construction work shall occupy some land either private or public. Loss of production and vegetation are main issues regarding land. The land value under the distribution line alignment usually shows a decreasing trend. The land owner's area for agricultural produce will decrease as a result.

### 2.5.2 Impact on livelihood

Project construction activities may disturb and affect the existing livelihood pattern. However, these issues are nominal in DSUEP sub-projects. The impact is likely to impact the livelihood permanently as well as temporarily by the project activities in private and community properties.



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#### 2.5.3 Impact in community infrastructure and utilities

The issues regarding community properties are likely to be disturbed permanently as well as temporarily. Common impact areas may be the irrigation canals, playgrounds, waiting places, access trails/roads, community buildings, etc.

#### 2.5.4 Impact on aesthetics, cultural and places of historical importance

These issues shall manifest itself on project sites especially along the alignment site.

#### 2.5.5 Impacts on vulnerable people and communities

Vulnerable people and communities living in remote locations are commonly landless and marginal farmers. These are impacted due to indigenous people, occupational caste, women headed, elder and disability person affected by the sub-projects.

#### 2.5.6 Others

The other issues likely to occur in the sub-project areas are - change in demographic profile due to the contractor employee increase, business by the project activities. The healthcare and safety issues will be raised mainly in sub projects construction phase All of the above issue shall address by the preparing Abbreviate/Resettlement Action Plan (A/RAP), Indigenous Peoples Development Plan and Vulnerable Community Development Plan (VCDP). The other local issue will be address through Grievance Redress Committee (GRC). Land acquisition process shall be followed. SIA will be carried out properly. Grievance redress mechanism shall be established as per the recommendation by ESMF. Information will be disclosed timely. Meaningful consultation will be conducted with concern stakeholders. Land Acquisition Resettlement and Compensation (LARC) process shall be followed as per GoN and Financiers' requirements.

#### 2.5.7 Mitigation measures

The mitigation measures are compiled by the project for unavoidable adverse social impacts. DSUEP follows the country's law and regulation, practices conventions agreements and the Financiers' safeguard standards to mitigate undue harm to people during the development process when identifying and designing a project, the safeguard policies will help to assess and mitigate the potential risks and impacts (positive or negative) associated with a development intervention,

Table 20 - Summary of Mitigation Measures

Impact/ Issue	Mitigation measure	Standard Guideline	Time	Implementation Agency	Monitoring Authority Agency
Impact in land, livelihood, crops and trees.	<ul style="list-style-type: none"> <li>Impacts Assessment</li> <li>Preparation of SIA report</li> <li>Conduct detailed measurement survey</li> </ul>	LA other relevant Act, Preparation and implementation	Pre-construction of sub-projects	NEA/PIU /ESMU	Third party monitors

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Impact/ Issue	Mitigation measure	Standard Guideline	Time	Implementation Agency	Monitoring Authority Agency
	<ul style="list-style-type: none"> <li>• Consultation with concerned project affected people</li> <li>• Declaration of compensation to make CDC decision</li> <li>• Compensation to project affected people (PAPs)</li> </ul>	n of RAP and IPDP			
Impact on community infrastructure and utilities	<ul style="list-style-type: none"> <li>• Case by case assessment</li> <li>• Compensation</li> <li>• Reconstruction and rehabilitation</li> </ul>	Technical assessment, preparation of report/plan and implement	Construction phase	NEA/PIU /ESMU	NEA/Consultant
Impact on aesthetics, places of cultural and historical importance	<ul style="list-style-type: none"> <li>• Case by Case Study</li> <li>• Approval from Department of Archeology</li> <li>• Reconstruction</li> </ul>	Prepare Separate technical assessment report/ plan	Construction phase	NEA/PIU /ESMU	NEA, Department of Archeology
Change in demographic profile	<ul style="list-style-type: none"> <li>• Contractor shall consult the local people during construction</li> </ul>	ESIA / ESMP	Construction phase	NEA/PIU /ESMU	NEA, Consultant, Contractors
Employment	<ul style="list-style-type: none"> <li>• The contractor shall recruit local people to the extent possible</li> <li>• Skill development training shall be provided to local people</li> </ul>	As per ESIA provision / ESMP	Construction phase	Contractor	NEA Consultant, Contractors
Health and Safety	<ul style="list-style-type: none"> <li>• Provide adequate health and safety equipment and kits</li> <li>• Construction areas shall be fenced off at entry point to avoid disturbance &amp; risk</li> <li>• Adequate personal protection equipment shall be provided by the contractor</li> </ul>	Contract Documents	During construction	Contractors	NEA, Consultant, Contractors
Gender and Vulnerable community	<ul style="list-style-type: none"> <li>• Contractor shall give priority to gender equity in providing employment including PAPs</li> </ul>	Contract documents ESIA EMP Child labour	During the construction and operation	Contractors	NEA, Consultants, Contractors

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Impact/ Issue	Mitigation measure	Standard Guideline	Time	Implementation Agency	Monitoring Authority Agency
	<ul style="list-style-type: none"> <li>• Most priority will be given to vulnerable community family including PAPs for employment</li> <li>• Prohibit recruiting child labour</li> </ul>	prohibition acts 1999 and rule, VCDP			

All of the above issues shall be addressed by preparing Abbreviated/Resettlement Action Plan (ARAP) and Indigenous People Development plan / Vulnerable Community Development Plan (IPDP / VCDP). The other local issues shall be addressed through Grievance Redress Committee (GRC). Land acquisition process shall be followed. SIA will be carried out properly. Mechanism shall be established properly. Information will be disclosed timely. Meaningful consultation will be conducted with concern stakeholders. Land Acquisition Resettlement and Compensation (LARC) process shall be followed properly.

## 2.6 Beneficial impacts

Project beneficiaries are mostly rural women, indigenous, disadvantaged groups Dalit, marginalized people, school children, pregnant women, senior citizens, service provider, organizations GoN organizations and private service holders, farmers and marginal farmers, small and cottage industries, smalls firms, businessmen big investors etc. from rural electrification.

DSUEP envisages construction and system reinforcement of 33 / 11 kV substations 33 kV lines, 11 kV lines, LT lines and facilities will enhance access of electricity supply to local people through 33/11kV distribution lines, which shall directly contribute to increased socio-economic wellbeing with improved access to different types of services and facilities. It ultimately aims to reduce poverty with and uplift the existing level of livelihood accompanied by increased income, employment and access to digital services. Considering the nature and scope of the project there can be multitude of environmental and social impacts –

- To help and achieve the Millennium Development Goal (MDG) targets directly or indirectly
- Helps poverty reduction through rural electrification
- Reduce dependency on natural resources
- Helps to decrease work load of women, marginal people and occupational castes
- Helps school children for in better education
- Provides all servicers providers quality service
- Helps to establish small business firm, other business activities and market economics related to the access of electricity

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- Helps to strengthen national economy through modernization in agriculture system and to establish agriculture-based industries

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## 3.0 POLICY & FRAMEWORK

### 3.1 National Laws and Regulations

#### 3.1.1 Relevant National Laws and Regulations

The Government of Nepal (GoN) has a well-established legal framework for environmental assessment of development projects. Assessment of development projects, the most relevant national policies, acts and guidelines of the GoN concerning environmental safeguards, which are relevant to the proposed project, are discussed below –

#### Constitution of Nepal

The Constitution of Nepal is the main document that secures the right of people. It guarantees the fundamental rights of all citizens of Nepal, including the enjoyment of rights, privileges and immunities with regard to life, liberty and property. Article 30 of the Constitution of Nepal has provided that –

- 1) Every citizen shall have the right to live in a clean and healthy environment
- 2) The victim shall have a right to obtain compensation, in accordance with law, for any injury caused from environmental pollution or degradation
- 3) This Article shall not be deemed to prevent the making of necessary legal provisions for a proper balance between the environment and development, in development works of the nation

Article 18. Right to equality (1) All citizens shall be equal before law. No person shall be denied the equal protection of law. (2) No discrimination shall be made in the application of general laws on grounds of origin, religion, race, caste, tribe, sex, physical condition, condition of health, marital status, pregnancy, economic condition, language or region, ideology or on similar other grounds. (3) The State shall not discriminate citizens on grounds of origin, religion, race, caste, tribe, sex, economic condition, language, region, ideology or on similar other grounds. Provided that nothing shall be deemed to prevent the making of special provisions by law for the protection, empowerment or development of the citizens including the socially or culturally backward women, Dalit, indigenous people, indigenous nationalities, Madhesi, Tharu, Muslim, oppressed class, Pichhada class, minorities, the marginalized, farmers, labour, youths, children, senior citizens, gender and sexual minorities, persons with disabilities, persons in pregnancy, incapacitated or helpless, backward region and indigent Khas Arya.

Article 25 Right relating to Property, states that “(1) Every citizen shall, subject to law, have the right to acquire, own, sell, dispose, acquire business profits from, and otherwise deal with, property. Provided that the State may levy tax on property of a person, and tax on income of a person in accordance with the concept of progressive taxation. Explanation: For the purposes of this Article,

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"property" means any form of property including movable and immovable property and includes an intellectual property right. (2) The State shall not, except for public interest, requisition, acquire, or otherwise create any encumbrance on, property of a person. Provided that this clause shall not apply to any property acquired by any person illicitly. (3) The basis of compensation to be provided and procedures to be followed in the requisition by the State of property of any person for public interest in accordance with clause (2) shall be as provided for in the Act. (4) The provisions of clauses (2) and (3) shall not prevent the State from making land reforms, management and regulation in accordance with law for the purposes of enhancement of product and productivity of lands, modernization and commercialization of agriculture, environment protection and planned housing and urban development. (5) Nothing shall prevent the State from using the property of any person, which it has requisitioned for public interest in accordance with clause (3), for any other public interest instead of such public interest."

Article 42 Right to social justice (1) The socially backward women, Dalit, indigenous people, indigenous nationalities, Madhesi, Tharu, minorities, persons with disabilities, marginalized communities, Muslims, backward classes, gender and sexual minorities, youths, farmers, labour, oppressed or citizens of backward regions and indigent Khas Arya shall have the right to participate in the State bodies on the basis of inclusive principle.

Further, Article 51(g) describes policies relating to protection, promotion and use of natural resources, inter alia, includes proclamation to protect, promote and make environmental friendly and sustainable use of forests, wildlife, birds, vegetation and biodiversity, by mitigating possible risks to environment from industrial and physical development, while raising awareness of general public about environment cleanliness, to maintain the forest area in necessary lands for ecological balance, to adopt appropriate measures to abolish or mitigate existing or possible adverse environmental impacts on the nature, environment or biological diversity, to pursue the principles of environmentally sustainable development such as the principles of polluters pays, of precaution in environmental protection and of prior informed consent.

## Acts and Regulations

### Environment Protection Act, 1997

The *Environment Protection Act 1997* has provisions to institutionalize the integration of environmental aspects in development projects including energy sector, and empowers the Ministry of Population and Environment (MoPE) to approve EIA report. In terms of IEE level study, the line Ministries, which is the Ministry of Energy (MoEn) for the proposed sub-projects, is authorized to approve the Final IEE Report.

Realizing the interrelationship between development and the environment, the EPA shows concerns for minimizing the impacts of environmental degradation and its effect on people, animal, and plant species and their physical surroundings. The Act obliges the proponent to undertake IEE and EIA of proposal, plans or projects, which may cause changes in existing environmental condition and authorizes the MoPE to clear all EIA and line ministries for IEE study. It empowers the ministry to prohibit the use of any matter, fuel, equipment or plant, which has adverse impacts on the

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environment. The Act has provisions to compensate affected persons influenced from polluting activities and polluters or liable persons for environmental and private property damage are responsible to provide compensation. The Act empowers GoN to provide additional incentives to any industry, occupation, technology or process, which has positive impacts on environmental conservation. Moreover, it has provision to establish an Environmental Protection Fund to be used for environmental protection, pollution control and heritage conservation, and provides authority to the government to declare specific areas as environmentally protected area.

### Environment Protection Rule, 1997

The *Environment Protection Rule 1997* has been enforced in the process of implementing EPA 1997 effectively. EPR has provisions on the process to be adopted during the preparation and approval of projects that requires EIA and IEE, which includes preparation of scoping document, Terms of Reference (ToR), requirement of information dissemination, public consultation and hearing, and environmental monitoring and auditing. The EPR has provisions to conduct public consultation prior to the preparation of scoping document and ToR and to carry out public hearing prior to the approval of EIA Report. The EPR empowers line Ministry to monitor the environmental activities including mitigation measures and the MoPE for environmental auditing. For IEE, the line Ministry is authorized to approve the Final IEE Report. The EPR also lists the types of development activities that require IEE or EIA. Moreover, EPR provides an outline of content of Terms of Reference, IEE and EIA Report. Schedule 1 and 2 of Rule 3 of EPR 1997 details out proposal requiring IEE and EIA level of studies respectively. IEE should be carried out for projects involving deforestation, clearing or forest area up to 5 hectares.

### Electricity Act 1992

Any person or corporate body who wants to conduct survey for generation, transmission or distribution of electricity over 1000 kW is required to obtain a license under Section 3 of the *Electricity Act 1992*. Majority of sub-projects will not be larger than 1000 kW, thus applications will not be required for them. However, certain information must be provided to the prescribed officer for the sub-projects having capacity from 100-1000 kW before generating, transmitting or distributing hydro-electricity. Under Section 3 of the Electricity Regulation 1993 the following particulars must be provided –

- Detailed description of the project
- Map of the project (showing main structure/s)
- Source of water and quantity of water to be utilized
- Area where electricity is to be distributed and estimated number of consumers to be benefited
- Whether the water resource to be utilized has already been utilized by another or not, if so, particulars of the same
- Other necessary particulars



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The Electricity Act of 1992 has provision of land procurement for the development of projects that involve electricity generation, transmission or distribution. The Act states that the licensee may submit an application 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.

### Land Acquisition Act 1977

The *Land Acquisition Act 1977* authorizes the Government of Nepal to acquire any land in any place for any public purpose as long as compensation is provided for. The government may decide to acquire land for an institution upon its request to construct residential quarters for its staff, to operate a project or to construct a warehouse for the storage of any commodity. According to the act, public purposes include functions undertaken in the interest of or, for the benefit or use of, the general public as well as functions to be undertaken by GoN. With respect to the resettlement policy framework, the following legal provisions outlined in the Land Acquisition Act is relevant:

- The acquisition and compensation of privately-owned assets are undertaken according to a formal procedure, consisting of (a) initial procedures, (b) a preliminary investigation process, (c) acquisition notification, (d) compensation notification, and (e) appeal procedures.
- Compensation Determination Committees (CDC) are established (at district level) to ascertain compensation rates for land and other assets.
- Compensation must be paid (a) for damages caused as a result of investigations during the preliminary investigation process, and (b) for land and assets permanently acquired by the project (including, standing crops, trees and houses).
- Compensation must take depreciation for salvage materials into account.
- Compensation must be in cash (lump sum), although titleholders who have lost all of their landholdings may be given replacement land, if available.
- Compensation will be made to the person who has the right to claim for the compensation; to be entitled to compensation for land, a person must submit an official land registration certificate at the time of compensation.
- Titleholders are required to submit compensation claims or complaints within a specified period after the land acquisition notice had been issued by the Local Authority (Chief District Officer). Compensation for land is paid after determination of rates and verification of the list of entitled applicants by the CDC.
- Two separate rates of compensation can be paid i) to titleholders who lose all their land and ii) to titleholders who lose only some part of their land.
- In determining the compensation amount, the committee has to consider relevant periodic guidelines of GoN and the loss suffered by persons due to acquisition of land, shift of residence or place of business to another place.
- While determining the compensation amount, the CDC has to consider price of the land prevailing at the time of notification of land acquisition, price of standing crops and structure,



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and damage incurred by persons being compelled to shift their residence or place of business due to land acquisition.

#### Land Revenue Act 1977

Land acquisition for the project involves change of ownership of land. Article 8 of this act states that registration, change in ownership, termination of ownership right, and maintenance of land records is done by Local Land Revenue office. Similarly, article 16 affirms, if land revenue is not paid by the concerned owner for long period of time, the revenue can be collected through auction of the parcel of land for which revenue has been due. In any case, the details of land acquisition and ownership transfer involved during acquisition and payment of compensation are directly or indirectly guided by this act.

#### Labour Act, 2017

The Labor Act 2074 (2017) has set out the duties of employer towards workers which include making appropriate safety and health arrangement, arrangements ensuring no adverse effect on workers from use, operation, storage or transport of chemical, physical or biological liquids, disseminating necessary notice, information and training related to safety and health arrangements. On top of this, the act has made provisions of medical and accidental insurance, defined the working hours, enumeration and leave etc. for employee.

#### Forest Act, 1993

The Forest Act, 1993 recognizes the importance of forests in maintaining a healthy environment. The Act requires decision makers to take account of all forest values, including environment services and biodiversity, not just production of timber and other commodities. The basis of Act is resource oriented rather than use oriented.

The Forest Act, 1993, contains several provisions to ensure the development, conservation, management and sustainable use of forest resources, based on approved work plan. The work plan should contain a list of activities that should be implemented in the different forest categories - national forests, community forests, leasehold forests, private forests, and religious forests. Section 23 of the Act empowers the government to delineate any part of the national forest, which has 'special environmental, scientific or cultural importance', as a protected forest. Section 49 of the Act prohibits reclaiming lands, setting fires, grazing cattle, removing and damaging forest products, felling trees of plants, wildlife hunting and extracting boulders sand and soil from the National forest without the prior approval. However, the government may enforce Section 68 of the Forest Act to provide parts of any type of forest for the implementation of a national priority plan with the assurance that it does not adversely affect the environment significantly. As provisioned under the Act, while clearing the forest on the RoW of road, the implementing authority will co-ordinate with the District Forest Office. If necessary, the compensatory re-plantation will also be carried out at the rate of 1:25 under the provision of the Act.

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#### Forest Rule, 1995

The Forest Rules 1995 further elaborate legal measures for the conservation of forests and wildlife. The Rule also stipulates that the entire expenses for cutting and transporting the forest products in a forest area to be used by the approved project shall be borne by the proponents of the project.

#### Soil and Watershed Conservation Act, 1982

Soil and Watershed Conservation Act makes provision to control floods landslides (watershed conservation rules, 1985). The watershed conservation office is authority and district watershed conservation committee must implement watershed conservation practices and public participation for soil and land protection.

#### Plant Protection Act, 2029 BS (1972 AD)

As per the act, 'Plant' means all living or dead plants or part thereof and it includes stem, branch, corm, bulb, tubers, barks, root, leaf, fruits and seed. The act Prohibit the importation of any plant or plant product from any country, unless found necessary. A person who desires to export or import any plant or plant product, should submit an application to the plant quarantine officer.

#### Child Labour (Prohibition and Regulation) Act, 2056 BS (2000 AD)

The Child Labor (Prohibition and Regulation) Act 2000 is the main legal document to prohibit the engagement of children in laborious activities and to make necessary provisions with regard to their health, security, services and facilities while engaging them in other activities.

Under the Section 3 of the Act, child having not attained the age of 14 years is strictly prohibited to be engaged as a laborer. Section 3 of the act prohibits a child from engaging in work, sub clause 1 of the clause 3 states "Nobody shall engage in work a child who has not completed fourteen years of age as a labour and sub-clause 2 states "Nobody shall engage a child in a risk full occupation or work set forth in the Schedule". The section 4 states "Child not to be engaged in work against his will by temptation or fear or pressure or by any other means".

#### Solid Waste Management Act, 2011

The Act is related for sustainable management of garbage and to minimize the negative impacts of garbage on environments and public health. Chapter-2 section 3(1) of the act outline the responsibility to conducts and operate the infrastructure required for the collection, final disposal, and processing of solid waste, including construction of any transfer station, landfill site, processing plant, compost plant, and bio-gas plant for the management of solid waste shall rest with the Local Body. Likewise, section 4(2) define responsibility for the processing and management within the set standard of harmful waste, health institution related waste, chemical waste or industrial waste shall be of the individual or body producing such solid waste.

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#### Ancient Monument Act, 1956

According to the *Ancient Monuments Preservation Act 1956* (5th amendment 2052), "Ancient Monument" means temple, monument, house, abbey, cupola, monastery, stupa, bihar etc. which have their importance above one hundred year, from the point of view of history, arts, science, architectonics or art of masonry, and this word shall also mean the site of the monument as well as the human settlement or place, and remnant of ancient human settlement, relies of ancient monument, cave etc. having specific value from the national or international point of view irrespective of the fact that such settlements or places are adjoining with each other or are separate in the same area..

#### CITES Act, 2017

Section 1, Rule 3 of the acts prohibit for the treat and business of sample of endanger species. However, Sub-Rule 2 of the Rule 3 has allowed for the export and import of endanger species for certain circumstances mention under sub-rule after taking approval. The Section 5 of the acts state the provision of punishment for the unauthorised import, export and provision mentioned in Section 3.

#### Local Governance Operation Act, 2017

The Local Self Governance Operation Act 2017 empowers the local levels for the conservation of soil, forest and other natural resources and implements environmental conservation activities. The Act provides the local levels (current Municipalities and Rural Municipalities) a legal mandate to formulate and implement programs related to protection of environment and bio- diversity.

#### National Parks and Wildlife Conservation Act 1973

The *National Parks and Wildlife Conservation Act 1973* deals with the conservation and management of wildlife and habitat. Any sub-project proposed in national parks has to comply with the provision made in this Act. The Act restricts entry into national parks without prior permission of the concerned authority. Article 5 of the Act prohibits hunting of animals or birds, building or occupying houses, shelters or structures, occupying, clearing or planting or growing in any part, cutting, felling, removing or overshadowing any tree and removing any quarry or any other activities in national parks. Under the *National Parks and Wildlife Conservation Regulation 1974*, permission is required for entry into designated national parks. Section 22 of the Regulation deals with the permission required to prepare an inventory of plants and animals in national parks and wildlife conservation areas. Under Section 6 of the *Wildlife Reserve Regulation, 1977*, entry, construction of houses or sheds, clearance of forest and forest products, quarrying and overnight stay in a reserve area is prohibited unless authorized in writing by the relevant GoN authority. Section 11 of the Regulation restricts surveys and research works in these areas without prior written approval. All vehicles and persons passing through reserve areas are subject to security check.

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#### National Foundation for Upliftment of Adivasi/Janjati Act 2002

This act is made to provide for the establishment and operation of National Foundation for upliftment of *Adivasi/Janjati* for social, economic and cultural development and for their equal participation in the mainstream of national development. The act has further defined the *Adivasi/Janjati* in section 2 clause a as “a tribe or community as mentioned in the Schedule having its own mother language and traditional rites and customs, distinct cultural identity, distinct social structure and written or unwritten history”. The act also intends to formulate, implement or cause to be implemented the programme necessary for promotion and preservation of the language, script, literature, history, arts, culture, traditional skill and technology of the *Adivasi/Janjati*.

#### Buffer Zone Management Regulation 1996

The *Buffer Zone Management Regulation, 1996* has mandatory requirement to have permission of Warden to carry out following activities within a buffer zone area:

- Occupying any land without legal ownership or cutting trees, clear forest or cultivate forestland
- Any activity damaging forest resources or setting fire in the forest
- Excavating stone, earth, sand or mine or removing minerals, earth or other such materials
- Using any harmful poison or explosive substances into the river, stream or source of water flowing in the buffer zone, and
- Hunting illegally and any act damaging to the wildlife.

#### Plans and Policies

##### Fourteenth Plan 2016-2019

The recent three years plan has emphasized on reducing dependence on conventional energy and emphasizing promotion of renewable energy. While talking about environment protection, the plan considered environmental management as an integral component of development related projects. The plan has aim to increase the installed capacity of electricity to 3,301 MW and increase the electricity coverage to 87%. Hydropower is defined as the main source of energy in the country and planned for the development of large and medium scale hydropower and distribution lines.

The Plan has given emphasis in implementing different types of income generation supportive programs targeting the poor and vulnerable people. It is also recognized in the Plan that some *Dalits* being occupied as *kami* (blacksmith), *damai* (tailor) and *sarki* (cobble) have suffered in recent years from losing traditional markets for their products due to the increasing import of cheaper goods from urban foreign markets. Towards solving this problem, it seems necessary to design and implement different types of skill training programs aiming at specified groups.

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#### Rural Energy Policy, 2006

The main rationale of formulating Rural Energy Policy is to create conducive environment that will self-motivate and mobilize local institutions, rural energy user groups, non- government organizations, cooperatives and private sector organization for the development and expansion of rural energy resources. The government will act as facilitator and promoter for involving private development and expansion of new technologies. It has also envisioned subsidy provision for promotion of such renewable energy technologies.

#### Legal Framework and Policies Focusing on Vulnerable Groups

Nepal does not have a standalone plan and policy on vulnerable and indigenous people. However, the groups potential to vulnerability such as children, elderly citizens, disabled, landless and small farmers, women, *Dalits* and marginalized, aboriginal and ethnic groups etc. are covered under different headings in the Tenth Plan, which has been reiterated in 14th national plan (FY 2073/74 – 2075/76) too.

Some of the other related acts on various vulnerable communities are (i) National Foundation for Upliftment of Adivasi/Janjati Act, 2058 (2002) (ii) Bonded Labour Abolition Act, 2058, (iii) Children related Act, 2048 and (iv) Child Labour (abolition and regulation) Act, 2056. However, detailed plan and policies on vulnerable communities in Nepal is yet to be developed particularly on involuntary resettlement for the vulnerable communities.

#### National Environmental Impact Assessment Guideline 1993

National Environmental Impact Assessment Guideline, 1993 is the first formal guideline on environmental study in Nepal. The *Environment Protection Act 1997* and the *Environment Protection Rules 1997* are the legal documents, which have made the environmental protection as the legal requirement in implementation of the development projects.

In the IEE process, Terms of Reference for the Study will have to be endorsed by the concern ministry. With respect to 33 / 11 kV substations 33 kV lines, 11 kV lines and LT lines of sub-projects, the concerned ministry is Ministry of Energy sub-projects, the concern ministry is MoPE. IEE study will have to be carried out with the active participation of the stakeholders of the sub-projects which are project affected people and the local institutions. People's participation has been ensured not only by 15 days public notice in the national daily newspaper but also by making the deed of public appraisal (muchulka) of the notice in the project area and the collection of recommendations from the local bodies (RMs / municipalities).

In terms of the sub-projects that requires EIA level of study, the scope of work of the EIA study is determined with the active participation of the stakeholders, which include the project affected people. Publication of public notice in the national daily newspaper and collection of issues and suggestions ensures the participation of the stakeholders in the scoping exercise. Based on the scoping exercise, Terms of Reference for the EIA study is prepared and endorsed from the Ministry of Population and

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Environment. Endorsement of ToR is done through review committee that comprises number of reputed environmentalists.

The EIA study will address four major environmental issues - physical, biological, socio-economic and cultural. It suggests to identify the environmental parameters under these four environments, predict and evaluate the impacts due to the project implementation at the different phases such as pre-construction, construction and operation. Each of the identified adverse impact will have to be mitigated or compensated whereas the possible and practical benefit enhancement measures will have to be proposed for the beneficial impacts. Environmental Management Plan (EMP) is developed to ensure the implementation of the proposed mitigation measures, which includes the implementation mechanism of the proposed mitigation measures and environmental monitoring plan, responsibilities and cost.

### Land Acquisition, Resettlement and Rehabilitation Policy for Infrastructure Development Project, 2015

This policy intends to improve social and economic status of project affected families by providing fair and adequate compensation, appropriate resettlement and rehabilitation assistances/allowances while acquiring land for infrastructure development projects and projects of public interests. It has also categorized the project as High Risk, Medium Risk and Low Risk based on magnitude of development project impact. Similarly, it also envisaged about land acquisition process such as Voluntary Land Donation, Direct Negotiation, Land development Programme and Expropriation, if land couldn't be acquired through any of these approaches, the required land will be acquired by providing compensation and other benefits as per the provisions of the prevailing land acquisition act.

### Guidelines and Manuals

#### National Environmental Impact Assessment Guidelines, 1993

The main Guidelines are the National Guidelines (1993) developed by the National Planning Commission in conjunction with IUCN which set out the process for environment review and management of infrastructure projects in all sectors and the respective roles of GoN agencies and project proponents. Schedules attached to the Guidelines include:

- Schedule 1: Projects Requiring an Initial Environment Examination Report (IEE)
- Schedule 2: Projects Requiring an Environment Impact Assessment Report (EIA)
- Schedule 3: Environment Impact Assessment Based on Projects Sites
- Schedule 4: Format of Terms of Reference
- Schedule 5: Environment Impact Report Format
- Schedule 6: Format for EIA Appendices



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#### Forestry Sector EIA Guidelines-1995

The Forestry sector EIA Guideline is based on National EIA Guidelines and according to this guideline IEE study is sufficient for the distribution line project which affects less than 5 ha area of National forest or Community forest.

#### Forest Products, Collection, Sale/Distribution Guidelines-2003

The guideline clauses 3 to 10 have specified various procedure and formats for getting approvals for vegetation clearance, delineation of lands for vegetation clearance, evaluation of wood volume etc., and government offices and officials responsible for the approval. These provisions have a direct relevance to the development of the projects and need compliance to these provisions.

#### Community forest inventory guidelines-2005

The guidelines for inventory of community forests advise to classify the forests into timber trees; pole sizes trees and regeneration on the basis of diameter. It has recommended using 20X25 m<sup>2</sup> size of quadrant for timber trees, 10X10 m<sup>2</sup> for shrubs and 5X5 m<sup>2</sup> for regeneration plots in the community forests. Plants having DBH (diameter at breast height, i.e. 1.3 m above ground) greater than 30 cm is considered as trees. Trees having DBH between 10 cm to 29.9 cm are categorized as poles and plants having less than 10 cm DBH belong to regeneration species. Furthermore, an area with 50% or more crown cover of timber species is classified as timber stratum.

#### Community forest guidelines-2001

This guideline has been prepared by including amendments of acts, rules by officials of government of Nepal and related experts. Through these guidelines, persons involved in the development of community forest like facilitators, user groups and others will get help to understand about the process and stages of development of community forest.

#### Working procedures of forest related with the use of forest land for other purposes - 2007

This guideline has been prepared by including amendments of acts, rules by officials of government of Nepal and related experts. Through these guidelines, persons involved in the development of community forest like facilitators, user groups and others will get help to understand about the process and stages of development of community forest.

#### National Health Care and Waste Management Guidelines-2002

The guidelines were prepared by Nepal Health Research Council (NHRC) for the sound management of Health Care Institutional (HCI) Waste. This focuses on strategic issues –

- Waste management, committees, plans and waste audits
- Waste minimization, avoidance, segregation, recycling and reuse

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- Waste labeling and containment
- Proper waste handling
- Storage and transport
- Proper waste treatment and safe disposal

### Guideline with the Criteria for using Land of National Forest for National Priority Project (Rastrya Prathamikta Prapta Youjanako Lagi Rastrya Van Chhetra Prayog Garne Sambandhi Mapdanda Sahitko Karyabidhi) 2076 B.S

As per rule 3 sub-rule 1 the concern ministry should select the project excluding the national forest as far possible during feasibility study. As per rule 3 sub-rule 2, if the use of forest land cannot be excluded then the project with minimum forest land acquisition or minimum vegetation clearance shall be selected and the concerned ministry shall prepare EIA / IEE as per EPA and EPR. The concerned ministry should take the approval from Ministry of Forest before approval of EIA. As per the rule 8, if the project has to acquire the forest land permanently the project has to compensate the land not less than acquired land near to the project area and in similar topography. However as per rule 9, if the project is unable to compensate the land than the project can request the ministry with application mentioning the reason and can compensate the equivalent amount.

As per rule 17 sub-rule 1, on receive of approval for clearance vegetation/tress the project has to clear all the vegetation/trees on own cost and handover the vegetation/trees to the forest office. As per sub-rule 3, the project has to planted tree sapling not less than 1:10 of clear the trees number.

### Criteria Regarding Clearance of Government trees, 2071 B.S

The criteria were approved on 2069/12/02 for easing the government trees clearance procedure for the development project, social beneficial etc. As per the clause 5, the trees on the government office land can be cleared as per the recommendation by the committee, form as per the clause 10, and approval of District Forest Office (DFO).

As per the clause 6, if the trees are found to be cleared for the protection of public life and property from the land having no land ownership certificate and owned by the government offices, Organization, Committee, Public the concern office can request the DFO for approval of clearance and can clear on getting approval from DFO on their own cost. The tree product obtain form clearance shall be transport and handover to DFO.

Similarly, as per the clause 7, if trees from the land owned by the Municipality, except forest land, the project need to request the concern present RMP/Municipality for clearance and as per clause 10 a committee will be formed to examine and evaluate the clearance. The committee after examination if found necessary recommend DFO for clearance and the project can clear the trees on getting trees clearance approval from DFO with complementary tree plantation at the ratio not less than 1:10 on the land specify by the present RMP/Municipality.



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#### International Conventions

##### International Convention on Biodiversity 1992

The Parliament of Nepal ratified the International Convention on Biodiversity in 1993 to become its party. The convention was enforced in Nepal on 21 February 1994. Article 14 of the Convention urges Parties to introduce appropriate procedures requiring IEE of the proposed project that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures. The convention also focuses on reducing trans-boundary impacts on biodiversity.

##### Ramsar Conservation, 1971

The convention on wetlands of International importance especially as waterfowl habit, adopted in 1971, entered into force in 1975 and currently has 170 parties. The convention provides a framework for international cooperation for the conservation and wise use of wetlands of international importance, to formulate and implement their planning so as to promote the conservation of wetlands includes in the list and the wise use of wetlands in their territory. As of May 2018, 2,331 wetlands of international importance have been designated covering 2.1 million sqkm. As of 2016 there are 18 transboundary Ramsar sites, and 15 Ramsar regional initiatives covering regions of the Mediterranean, Asia, Africa and South America. For a comprehensive approach to the national implementation of the conventions, Nepal has developed national wetlands policies. At present, an integration of EIA/IEE in developed projects has become legally binding through the enforcement of the Environment Protection Act, 1997 and Environment Protection Rules, 1997.

##### Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1975

Nepal became party to Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1975 to control the trade of endangered wild flora and fauna to further endangering of their survival. The Convention urges Parties not to allow trade in specimen of species included in the CITES Appendices I, II, and III except in accordance with the provisions of the Convention.

Pursuant to Section 10 of the National Park and Wildlife Conservation Act 1973, the hunting of animal protected under Schedule 1 is prohibited throughout Nepal. Most of these species are also listed in CITES appendices. Under this Act, it is illegal to collect, obtain or keep any part of a dead animal protected under Schedule 1 without a certificate, and such goods are prohibited for sale, purchase or disposal. Pursuant to Section 26, any person illegally killing, wounding, purchasing, selling or transferring a protected animal, or keeping as a trophy, selling or purchasing any part thereof, will incur a fine or imprisonment or both.

##### ILO convention on indigenous and tribal peoples, 1989 (No.169)

Nepal is signatory of ILO Convention on Indigenous and Tribal Peoples, 1989 (No.169) which deals with the safeguard of indigenous people and their social interest. Similarly, United Nations Declaration on the Rights of Indigenous Peoples was adopted by the United Nations General Assembly during its

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61st session on 13 September 2007. The non-binding declaration outlines the individual and collective rights of indigenous peoples, as well as their rights to identity, culture, language, employment, health, education and other issues. The UN describes it as setting an important standard for the treatment of indigenous peoples that will undoubtedly be a significant tool towards eliminating human right violation against the indigenous people and assisting them in combating discrimination and marginalization.

### General environmental health and safety guidelines

The General Environmental Health and Safety Guidelines<sup>2</sup> contain information on cross-cutting environmental, health, and safety issues potentially applicable to all industry sectors. The Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). When one or more members of the World Bank Group are involved in a project, these EHS Guidelines are applied as required by their respective policies and standards. These General EHS Guidelines are designed to be used together with the relevant Industry Sector EHS Guidelines, which provide guidance to users on EHS issues in specific industry sectors. The general EHS guidelines covers four different concerns; Environment, Occupational Health and Safety, Community Health and Safety, and Construction and Decommissioning.

## 3.2 Financiers' safeguard policies and standards

### 3.2.1 Policies and standards of Asian Infrastructure Investment Bank (AIIB)

The Asian Infrastructure Investment Bank is an international organization that provides a multilateral regional financing and investment platform for infrastructure development and enhanced interconnectivity in Asia.

#### Environmental and Social Policy (ESP)

This comprises mandatory E&S requirements for each project, such as –

- Screening and categorization
- Environment and social due diligence

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<sup>2</sup>[http://www.ifc.org/wps/wcm/connect/topics\\_ext\\_content/ifc\\_external\\_corporate\\_site/sustainability-at-ifc/policies-standards/ehs-guidelines](http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines)

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- Environmental and social assessment
- Assessment, documentation and instruments
- Environmental and social management plan
- Environmental and social management framework
- Use of country & corporate system
- Special circumstances
- Information disclosure
- Consultation
- Monitoring and reporting

### Environmental and Social standards

Three associated mandatory environmental and social standards (ESSs) set out more detailed environmental and social requirements relating to the following -

- Environment and Social Assessment and management
- Involuntary Resettlement
- Indigenous people

The detailed AIIB Bank's policy and standards(ES & ESS1) can be found at <https://www.aiib.org/en/policiesstrategies/download/environmentframework/20160226043633542.pdf>

### 3.2.2 EIB Standards and Principles

The EIB's social standards are based on a human right approach. Social standards are intended to promote outcomes to the benefit of individual well-being, social inclusion and sustainable communities.

The Bank's key principle require, that adverse impacts on livelihoods should be mitigated at an improved level, or at minimum restored at the pre-project level for any loss incurred. To address physical or economic displacements the preparation of an acceptable Resettlement Action Plan is required, which should apply a due process of meaningful and culturally appropriate consultation and participation, including that of host communities.

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Active consultation and participation are regarded as crucial and requires significant local ownership and support through informed involvement. It also supports AHs in their rights particular concerning entitlement rights in combination with GRMs. Therefore, public consultation is a basic requirement.

The objectives of this Standard are to:

- Avoid or, at least minimize, project-induced resettlement whenever feasible by exploring alternative project designs.
- Avoid and/or prevent forced evictions and provide effective remedy to minimize their negative impacts should prevention fail.
- Ensure that any eviction which may be exceptionally required is carried out lawfully, respects the rights to life, dignity, liberty and security of those affected who must have access to an effective remedy against arbitrary evictions.
- Respect individuals', groups' and communities' right to adequate housing and to an adequate standard of living, as well as other rights that may be impacted by resettlement.
- Respect right to property of all project affected people and communities and mitigate any adverse impacts arising from their loss of assets, or access to assets and/or restrictions of land use whether temporary or permanent, direct or indirect, partial or in their totality. Assist all displaced persons to improve, or at least restore, their former livelihoods and living standards and adequately compensate for incurred losses, regardless of the character of existing land tenure arrangements (including title holders and those without the title) or income-earning and subsistence strategies.
- Uphold the right to adequate housing, promoting security of tenure at resettlement sites.
- Ensure that resettlement measures are designed and implemented through the informed and meaningful consultation and participation of the project affected people throughout the resettlement process.
- Give particular attention to vulnerable groups, including women and minorities, who may require special assistance and whose participation should be vigilantly promoted.

Special attention should be paid to the rights of vulnerable groups which can include indigenous people, ethnic minorities, women, migrants, the very young and the very old. In particular for vulnerable groups the livelihoods are especially sensitive to socio-economic changes and their dependency on access to essential services and participation in decision making.

Rights and interest of vulnerable groups have the following objectives:

- Affirm, respect, and protect the rights and interests of vulnerable individuals and groups within the designated operational scope, throughout the project lifecycle. Such rights include the right

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to non-discrimination, the right to equal treatment between women and men and the rights of indigenous peoples.

- Adopt a gender-sensitive approach to the management of environmental and social impacts, that takes into account the rights and interests of women and girls, men and boys, including specific attention to the differentiated burden of impacts that women and girls might face.
- Identify and avoid adverse impacts of EIB operations on the lives and livelihoods of vulnerable individuals and groups, including women and girls, minorities and indigenous peoples. Where avoidance is not feasible, to reduce, minimize, mitigate or effectively remedy impacts.
- Ensure that vulnerable individuals and groups are duly and early on identified in EIB operations and that engagement is meaningful, taking into account individuals' and communities' specificities, and delivered in an appropriate form, manner and language.
- Enable vulnerable groups, including women and girls, minorities and indigenous
- Peoples to benefit from EIB-financed operation

EIB requires that projects in Nepal be consistent with the classification provided by EU legislation, as well as the national environmental and social legislation and applicable international best practice.

#### ANNEX I

Construction of overhead electrical power lines with a voltage of 220 kV or more and a length of more than 15 km. These projects require an EIA in accordance to the EIA Directive (Directive 2014/52/EU amending the EIA Directive 2011/92/EU <https://ec.europa.eu/environment/eia/eia-legalcontext.htm>)

#### ANNEX II

The following projects require information to be supplied to determine if an EIA is required or not:

- Industrial installations for carrying gas, steam and hot water; distribution of electrical energy by overhead cables (projects not included in Annex I)
- Any change or extension of projects listed in Annex I or this Annex, already authorised, executed or in the process of being executed, which may have significant adverse effects on the environment (change or extension not included in Annex I)

Usually, all component I, II and III projects fall under the scope of Annex II. Extensions / and rehabilitation of substations transforming the electric voltage does not fall under this project category, unless the extension fits into the framework of the construction of overhead cables for distribution of electrical energy.

For those projects that require information to be supplied to determine if an EIA is required or not, the information should include:

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1. A description of the project, including in particular –
  - a. a description of the physical characteristics of the whole project and, where relevant, of demolition works;
  - b. a description of the location of the project, with particular regard to the environmental sensitivity of geographical areas likely to be affected
2. A description of the aspects of the environment likely to be significantly affected by the project.
3. A description of any likely significant effects, to the extent of the information available on such effects, of the project on the environment resulting from:
  - a. the expected residues and emissions and the production of waste, where relevant
  - b. use of natural resources, in particular soil, land, water and biodiversity

### ANNEX III

#### Characteristics of projects

The characteristics of projects must be considered, with particular regard to -

- (a) the size and design of the whole project
- (b) the cumulation with other existing and/or approved projects
- (c) the use of natural resources, in particular land, soil, water and biodiversity
- (d) the production of waste
- (e) pollution and nuisances
- (f) the risk of major and/ or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge
- (g) risks to human health (for example due to water contamination or air pollution)

#### Location of projects

The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to –

- a) the existing and approved land use
- b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground
- c) Absorption capacity of the natural environment, paying particular attention to the following areas:

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- a. wetlands, riparian areas, river mouths
- b. coastal zones and the marine environment
- c. mountain and forest areas
- d. nature reserves and parks
- e. areas classified or protected under national legislation
- f. densely populated areas
- g. landscapes and sites of historical, cultural or archaeological significance

#### Type and characteristics of the potential impact

The potential likely significant effects of projects on the environment must be considered in relation to criteria set out in points 1 and 2 of this Annex, and having with regard in particular to the impact of the project on the factors specified in Article 3(1), taking into account:

- a) Magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected)
- b) nature of the impact
- c) Trans-frontier transboundary nature of the impact
- d) Magnitude, intensity and complexity of the impact
- e) Probability of the impact
- f) Expected onset, duration, frequency and reversibility of the impact
- g) Accumulation of the impact with the impact of other existing and/or approved project
- h) possibility of effectively reducing the impact

Based on the above the EIB would require each applicable component to have information supplied to the EIB to screen if an EIA is required in accordance to the Bank's Standards.

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#### Policy gaps between GoN and Financiers

A comparative analysis of the national laws, AIB and EIB policies on involuntary resettlement/land acquisition with identified gaps and limitations of the national legal and policy framework have been analyzed. The main gaps and limitations of the national legal and policy framework are –

National law makes provision for compensation to the titled landholder only and, by default, omits all other PAPs, including non-registered tenant farmers, landless farmers, squatters, agricultural laborers, shopkeepers, artisan groups and Dalits.

National law does not make any provision for landless, encroachers or squatters regarding to the entitlement for compensation. There is no provision for rehabilitation assistance for such vulnerable groups.

When GoN requires assets, national law does not specify about the provision of mandatory replacement cost.

The Land Acquisition Act, 1977 does not emphasize transparency and stakeholders' participation for various decisions (Participation of PAPs especially in LA Act has no provision to participate in CDC (Compensation Declaration Committee) that directly affect the long-term wellbeing of PAPs.

Lack of consideration of the apparent time gap between notification of acquisition and the payment of compensation is another limitation of the existing legal framework.

Lack of consideration to acquired land of right of way (RoW) of 33/11 kV lines. The NEA has not been practices to provide compensation in 33/11kV lines of RoW and pole/ location

Following are the policy recommendations to fill up the identified gaps and limitations –

A project affected person needs to be defined as a person or household whose livelihood or living standard is adversely affected through loss of land, housing and other assets, income, or access to services as a consequence of the implementation of the project, causing a change in land use.

Entitlements should be established for each category of loss covering both physical loss and economic loss.

Special attention should be given to protect the interest of vulnerable groups. With a census date as cut-off date, no fraudulent encroachments after this date should be considered eligible for entitlements of compensation. Non-land assets should be compensated at replacement value. Support for vulnerable groups should be provided to improve their livelihood.

Practical provisions must be made for the compensation of all the lost assets to be made at replacement cost without depreciation or reductions for salvage materials. Efforts must be made to assess the real replacement costs of land to the extent possible.



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There must be legal provision of PAPs and local representatives of Rural municipalities/Municipalities for participation in settling the resettlement issues related to compensation and livelihood restoration.

First avoid RoW and pole impacts. Distribution line will follow existing right of way.

Livelihood restoration programs require becoming viable and sustainable. Thus, the Project will implement for restoring PAPs' incomes. The Program shall focus on immediate assistance and will include the following (as provided in the Entitlement Matrix).

- a) Compensation for land and structures paid in before acquisition.
- b) Financial and life skills training.
- c) Subsidized inputs for meter installation.
- d) Temporary employment in construction activities.
- e) Special assistance to the vulnerable PAPs.

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Table 21 - Policies Gap Between Government and Financiers

Category	GON Policy	Financiers' Policy	The GAP	Recommendations to Bridge Gaps
A. Environment (Natural Habitat, & Forest including terrestrial and aquatic	<p>Development Project falling under EPR criteria should be subjected to IEE/EIA. According to EPR sectoral provision distribution line projects with capacity less than 132 kV does not required IEE/EIA. But cross sector provision: Forest sector and investment limits may attract IEE/EIA assessment, particularly for above 132 kV new distribution line of Component 1. In case the forest areas affected by 11 kV distribution line, which is very unlikely for the component 1, Forest regulation requires permission from related authorities (DFO, CFUG etc.) for any intervention in forested area. Compensatory re-plantation 1:25 ratio is defined for projects.</p> <p>National Park and Wildlife Conservation Act, demands permission from Ministry of Forest and Environment. The DSUEP is not affecting</p>	<p>Environmental Assessment has to be carried out for identifying potential risks and adverse impacts, mitigation measures and environmental management plan. When natural habitat and forest policies are triggered Environmental assessment and environmental management plan (EMP) will adequately address the relevant issues.</p>	<p>Activities listed in EPR Schedule I, particularly cross sectoral provisions related forest and investment limits is likely to requires an IEE, and those listed in Schedule II requires EIA. The Schedule I and II is based on activity type, Potential risk is not formally considered for screening.</p>	<p>In order to fill the gap between JFPs and GON requirements/approach, environmental screening is must for each subproject, and consider potential environmental risk: project Environmental Screening Format includes this. An Environmental Management Plan (EMP) shall be prepared for each contract during detail engineering design phase.</p> <p>The plan aims to address adverse environmental impacts arising due to project intervention. The project will strictly follow re-plantation as per the ratio of plantation in the forest guideline 2006.</p>

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Category	GON Policy	Financiers' Policy	The GAP	Recommendations to Bridge Gaps
	the national parks and conservation areas			
B. Physical-Cultural Resources	Clause 28 of EPR states that physical and cultural resources shall not be disturbed or damaged without the prior approval of concerned authority.	Environmental assessment has to be carried out in case such resources are found to be affected by the subproject.	Chance find is not covered by the EPR requirements but is stipulated in Ancient Monument Protection Act.	ESMP shall address such issues following GoN and WB policy.
C. Land and Structures	<p>Clause 3 of this Land Acquisition Act states that any asset that is required for public purposes shall be acquired by providing compensation. Compensation Fixation Committee will establish the Compensation rates.</p> <p>Guthi Corporation Act, 2033 (1976). Section 42 of this Act states that Guthi (religious trust land) acquired for a development must be replaced with other land, rather than</p> <p>Land Reform Act (LRA) 2021 (1964). This Act establishes the tiller's right on the land, which he is tilling. The LRA additionally specifies the compensation entitlements of registered tenants on land sold by the owner or</p>	<p>Replacement cost for lost assets shall be provided according to asset types and location.</p> <p>Resettlement and Rehabilitation assistance to project affected people to enable them to improve their living standard. As per JFPs community</p> <p>assets need to be replaced in consultation with the community all those who are affected needs to be assisted including, tenants and sharecroppers. Squatters and encroachers will be provided compensation at replacement value for their structures as well as other assistances.</p>	The Land Acquisition Act of Nepal only provides for cash compensation based on degree of loss. It does not take into account vulnerability of the land affected person.	. Though chances are minimal, in some cases areas access to the project site may entail land acquisition for component 1. Similarly, for 11 kV distribution s line may also have to be passed through private property. roads right of way will be used for distribution line.

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Category	GON Policy	Financiers' Policy	The GAP	Recommendations to Bridge Gaps
	acquired for the development purposes			
D. Indigenous Community	The Interim plan encourages each development program to incorporate infrastructure and income generation program targeted to indigenous community.	<p>Ensures free, prior, and informed consultation (FPIC) with the affected indigenous people to obtain broad community support to the project. Social Assessment will be carried out to identify potential effect and prepare plan to ensure that indigenous peoples receive social and economic benefits that are culturally appropriate.</p> <p>Nepal does not have a standalone policy on Indigenous Peoples and other vulnerable communities. These acts have been placed significant emphasis on delivering basic services to the disadvantaged and indigenous people, Dalits, women, disabled and other vulnerable groups</p> <p>These acts and plans include policies for the development of Adivasi/Janjati and other disadvantaged groups:</p> <ul style="list-style-type: none"> <li>creating an environment for social inclusion;</li> <li>participation of disadvantaged groups in policy and decision making;</li> <li>developing special programs for disadvantaged groups;</li> <li>positive discrimination or reservation in education, employment, etc.;</li> </ul>	<p>Though GoN's interim plan encourages development programs to incorporate income generation schemes for IPs, there is no mention of broad consent from the IPs. At the same time GoN has also ratified ILO 169 and United Nations Declaration of Rights of Indigenous People (UNDRIP), and is in the process of</p> <p>preparing National Action Plan for implementation of these international commitments</p>	Project will carry out free prior informed consultations with the indigenous community and other vulnerable communities to obtain broad consent for the project. Project will prepare Vulnerable Community Development Plan (VCDP) based on community needs of indigenous as well as other vulnerable communities.

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Category	GON Policy	Financiers' Policy	The GAP	Recommendations to Bridge Gaps
		<p>protection of their culture, language and knowledge;</p> <p>proportional representation in development process; and</p> <p>making the country's entire economic framework socially</p>		
E. Loss of Crops and Income Source	Compensation shall be provided for loss of crop damage/income source.	Full compensation shall be provided		Livelihood assistance shall be provided for business losses (if any, land or access required during implementation shall be fully compensated.
F. Screening Guideline	Screening of the project is done as per the Schedule I and II of EPR 1997 based on the type, nature and scale of the project.	Screening is done considering the nature, location, sensitivity and scale of the project	<p>Screening of project shall be easily done using the GoN guideline;</p> <p>whereas level of risk, impact and nature need to identify to screen the project as per Bank guideline.</p>	Detailed screening shall be conducted to determine the level of risk
G. Environment and Social Assessment	As per the EPR 1997, project falling in Schedule I required IEE to be prepared and approved by concerned ministry. And project falling in Schedule II required EIA to be prepared and approved by Ministry of Forest and Environment	Category A and B project required ESIA to be prepared, but ESIA for category B project will be narrower than category A project. Similarly, category C project does not require environment and social assessment.	GoN guideline clearly define the level of study required as per the screening.	The ESIA study for Category A project shall be considered as equivalent to EIA of GoN guideline. Similarly, ESIA study for Category B project shall be considered as equivalent to IEE of GoN guideline

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## 3.3 E&S assessment and management

An administration structure, NEA has established Project Implementation Unit (PIU), to manage DSUEP project management of technical, environmental and social aspects under NEA umbrella organization. It is responsible in every activity of planning, implementation and monitoring financed by AIIB. E&S framework suggests to manage identified E&S risks and impact assessment and management for project sustainability.

Project screening is done to identify the impacts of project and its severity. On the basis of impacts and severity the level of environment and social study such as EIA, IEE, ESMP etc. requirement will be identified. Once the project is screened, the sub-projects will be categorized as per the following:

### 3.3.1 Environmental Screening Criteria

#### Category I (Exclusion List)

Sub-projects under this category will not be funded and must be excluded from the project.

- a) Sub-projects with any measurable adverse impacts on critical habitat or environmentally sensitive areas. This includes national parks, wildlife reserves, conservation areas, world heritage sites, and known religious and archeological sites as defined by GoN and the requirements of the Financiers.
- b) Sub-projects under this category are likely to have potentially significant environmental impacts on ecosystem, natural habitat, cultural area such as National Parks, Conservation Area, World Heritage Area, Recognized Cultural and Archaeological Area etc.
- c) Sub-projects requiring EIA as per GoN and those classified as Category "A" under the Financiers' safeguard standards.
- d) The Bank requires the Client to conduct an environmental and social impact assessment (ESIA) or equivalent environmental and social assessment, for each Category A Project and to prepare an ESMP or ESMPF, which is included in the ESIA report for the Project.

#### Category II (IEE/ESIA with ESMP)

Sub-projects under this category are likely to have less significant and site-specific impacts, which may include impacts to forest area, wetlands, or other natural habitat. As per GoN (EPR, 1997) the project which passes through national and community forest and construction of distribution lines with capacity more than 132 kV is categorized as B. These sub-projects are typically classified as Category "B" under the Financiers' safeguard standards and will require either an Initial Environmental Examination (IEE) with ESMP under GoN regulations, or a limited Environmental and Social Impact Assessment (ESIA) with ESMP in accordance with the Financiers' safeguard standards.

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#### Category III (DDR with ESMP)

Sub-projects under this category are likely to have environmental risks and impacts that are easily addressed through an ESMP, such as increased air emissions or noise pollution near village areas. These sub-projects are typically classified as Category “B” or “C” under the Financiers’ safeguard standards and require only preparation of a Due Diligence Report (DDR) with ESMP.

### 3.3.2 Social Screening Criteria

#### Category I (Exclusion List)

Sub-projects under this category are likely to have potentially significant social impacts and displace 50 or more families in the mountain region, 75 or more families in the hills, and 100 or more families in the terai plains due to involuntary land acquisition. This includes both physical and economic displacement. All project activities causing physical displacement shall be excluded from the project. Additionally, any sub-project that needs an EIA according to GoN regulations shall be classified as Category I and excluded from the project.

#### Category II (IEE/ESIA with ESMP)

Sub-projects under this category have less significant and site-specific impacts and economically displace less than 50 families in the mountain region, less than 75 families in the hills, and less than 100 families in the terai plains due to involuntary land acquisition (unless such impacts, in the judgment of NEA / PIU, are exacerbated by other contributing factors). In these cases, sub-projects are required to conduct a limited ESIA (including social baseline) and prepare an abbreviated RAP and/or Indigenous Peoples Development Plan (IPDP) if needed. A sub-project may also be required to prepare an IEE as per GoN regulations, which can be supplemented with a social assessment as required by the Financiers’ safeguards. As per AIIB policy explicitly states that ARAP is only applicable if affected persons are fewer than 200 people not physically and severally affect (loss above 10% assets) are lost.

#### Category III (DDR with ESMP)

Sub-projects are likely to have 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. A brief Environmental and Social Management Plan (ESMP), including a RAP and/or IPDP if needed, shall be prepared. The Bank requirements for paragraph 12 of Category B, project is likely to have minimal or no adverse E&S impacts and E&S assessment is mandatory project conduct the review of the E&S implements of projects.

#### Category IV

A Subproject is categorized FI if the financing structure involves the provision of funds to or through a financial intermediary (FI) for the Project, whereby the Bank delegates to the FI the decision-making on the use of the Bank funds, including the selection, appraisal, approval and monitoring of Bank-financed subprojects. These subprojects are classified as Category FI as per AIIB E&S framework. Bank requires the FI Client, through the implementation of appropriate environmental and social policies and procedures, to screen and categorize subprojects as Category A, B or C,

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review, conduct due diligence on, and monitor the environmental and social risks and impacts associated with the Bank-financed subprojects, all in a manner consistent with this ESP.

As per the GoN rule, when the project does not fall under the projects mention in Schedule 1 and 2 of EPR, 1997 the project is categories as per financial structure. If the total project cost is between NRs. 50 to 250 million, IEE is required for the project. Similarly, if the total project cost is more than NRs. 250 million, EIA is required for the project.

### 3.3.3 Required instruments for E&S assessment and management

After identifying the category, another assessment shall be conducted for management of instruments. Following document shall be prepared base on categorization of sub-projects -

#### Environmental Impact Assessment (EIA)

Environmental Impact Assessment (EIA) is a process of evaluating the likely environmental impacts of a proposed project or development, taking into account inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse. As per GoN, EIA is mandatory for all project falling within Schedule-II. As per the JFP's policies, category A project require preparation of ESIA which is equivalent to EIA. The impacts of the project have wider range outside project area also. The impacts of the project will be irreversible, cumulative, diverse or unprecedented. ESIA shall be carried out as per EIB's Environmental and Social Standards. Whereve a comprehensive environmental and social impact assessment is required, the promoter shall prepare an environmental and social study that will, at a minimum, include:

- Current knowledge and methods of assessment, as well as the applicable laws and regulations of the jurisdictions within which the project operates and that relate to environmental and social matters. Gap analysis between the relevant national legislation and standards and the applicable international framework
- Description of the methodologies applied in the assessment
- The characteristics, technical capacity and location of the project, alternatives to the proposed project and the extent to which certain matters (including the evaluation of alternatives) are more appropriately assessed at different levels (including planning level - using the outcomes of the SEA, if applicable), or on the basis of other assessment requirements (e.g. biodiversity assessment, human rights impact assessment, etc.)
- The description of the baseline scenario – adequate and appropriate quantitative and qualitative, primary and secondary data on the relevant aspects of the existing state of the environment and social context and the likely evolution thereof without implementation of the project, paying attention to any area of particular environmental and social importance and the use of natural resources
- The description of the environmental and social aspects likely to be affected by the proposed project<sup>11</sup> and the assessment of the significance of the identified impacts based on clear and predetermined criteria articulated in the assessment methodology



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- Assessment of the likely significant effects of the proposed project on environmental and social aspects, including human rights, resulting from inter alia the existence of the project, the use of natural resources<sup>12</sup>, the risks to human well-being, cultural heritage or the environment, and the cumulation of effects with other projects and/or activities. The description should cover the direct effects and any direct, secondary, cumulative, transboundary, short-, medium- and long-term, permanent and temporary, positive and negative effects of the project
- Description and justification of the measures foreseen to prevent, reduce and where possible, compensate/remedy any significant adverse effects on the environment and human well-being, and where appropriate any proposed monitoring arrangement or post-project analysis as part of the overall promoter's environmental and social management plan
- Arrangements for monitoring and evaluation of the effectiveness of impact management measured as part of the overall promoter's environmental and social management plan and system, which shall include appropriate qualitative and quantitative indicators and draw on feedback from both internal and external sources, including affected stakeholders
- Comprehensive and context-specific stakeholder identification and analysis, including identification of individuals and communities actually and potentially impacted by the project, in particular vulnerable individuals or groups, as well as other relevant stakeholders. Description of the precise engagement and consultation activities undertaken with different groups of impacted individuals, communities and other relevant stakeholders as part of the impact assessment process, including details on information sharing, timing and formats of engagement, numbers and types of stakeholders consulted, feedback received and details on how feedback was taken into consideration in the identification and assessment of impacts, design of project alternatives, impact mitigation and monitoring (see Standard 10 for further guidance)
- Arrangements for grievance mechanisms and for steps that will be taken to ensure effective access to remedy for affected stakeholders
- Description of information sharing, reporting and disclosure undertaken as part of the impact assessment
- Assessment of the natural, man-made disaster and accidental risks to which the project could be vulnerable and, where appropriate, descriptions of the measures foreseen to prevent such risks, as well as measures regarding preparedness for and response to emergencies (see Standard 9), to be included as part of the overall promoter's environmental and social management plan
- A non-technical summary of the information provided under the above-mentioned headings

Projects involving involuntary resettlement, impacts on vulnerable groups, Indigenous Peoples, minorities and/or cultural heritage will require an assessment in line with Standards 5-7 respectively, in addition to any other environmental or social assessment studies that may be required.

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#### Initial Environmental Examination (IEE)

IEE is environment assessment tools use to study the consequences of the project implementation in the environment and its surrounding. As per GoN, IEE is mandatory for all project falling within Schedule-I. For category B project, ESMP will be included in ESIA report. For category B only ESMP (may also include IEE) is required. This shall contain all the required mitigation and monitoring measures (including indicators to measure performance) to be implemented during construction, operation and maintenance phases. The ESMP will specify the institutional responsibilities for carrying out each measure or action as well as management arrangements, timelines, budget, and required capacity building measures for their implementation. The ESMP will contain sub-plans as appropriate to cover specific issues.

#### Environment Management Plan (EMP)

For minor level project which have minimal or no major environmental and social impacts, EMP will be prepared as E&S study to predict and mitigate minor impacts. Project which does not lies in the Schedule I and II of EPR, 1997 and Category C project as per JFP requires EMP to be prepared by the consultant and approved by the client. The EMP includes mitigation measures, implementation cost and organization responsible for implementation and supervision.

#### Resettlement Action Plan (RAP)

Resettlement Acton Plan (RAP) shall be prepared whether the DSUEP subprojects affected private land and properties. All impacts will be identified and mitigate through land acquisition and resettlement, of complying with GoN, EIB and AIIB requirements Laws and policies. The RAP shall contain an inventory survey of physical and economically impacts, 100% census survey will be conducted in affected household and populations, questionnaire is attached in Annexure 8. Review of relevant legal policies, entitlement plans for livelihood restoration and resettlement, follow the grievance redress mechanism established proper institutional arrangement and monitoring mechanism. If impacts on the entire affected population are minor or less than 200 people are affected (category B) *an abbreviated* resettlement action plan will be prepared. An outline of Resettlement Action plan is given in Annexure 5. AIIB and EIB will review the RAPs for all subprojects.

#### Indigenous Peoples Development Plan (IPDP)

It is anticipated that sub-project areas will be inhabited by several indigenous communities classified and officially recognized by the GoN, A social assessment will be carried out and based on which an IPDP shall be prepared. It will contain measures to avoid or minimize adverse impacts and maximize positive impacts on these communities. Vulnerable Community Development Plan (VCDP) shall be prepared in the absence of IPDP.

#### Community Development Plan

The outline and concept of a Community Development Strategy will serve as basis for the preparation of the Community Development Plan (CDP) for the 5 community development program areas. The CDP will not be limited to the DSUEP affected households only, but also include non-affected households, aiming at rehabilitation and complementary/new livelihood support measures. The five areas are not limited to the RAP defined mitigation measures for PAHs, but extend its

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support for local socio-economic development to all villages in wards located in the DSUEP subproject areas, so that all residents would have the opportunity to actively participate in the CDP defined interventions for:

- Education.
- Health (and water supply, sanitation, hygiene).
- Gender.
- Social inclusion (ethnic and vulnerable groups).
- Local economic development (Livelihood promotion through Agriculture and forest related activities).

## 3.4 Involuntary Resettlement (Rationale / Policy principles / RPF)

It is the physical and/or economic displacement of people, not of their own will, from their property which impacts assets, source of income and livelihood in the project corridor of impact (COI), Involuntary resettlement may result in any or combination of the following - loss of land and other fixed assets, loss of income and/or employment, relocation, separation of family members, communities etc. Unless appropriate and adequate mitigation measures are carried out, involuntary resettlement will result into further hardship and impoverishment among the PAPs, specially the marginal sector of society. These adverse social impacts of development projects are often borne by PAPs not of their own desire but involuntarily.

### 3.4.1 Rationale

The rationale for this involuntary settlement policy originates from the fact that specific sub-project sites and activities are yet to be identified to understand the exact nature and scale of their impacts. Thus, this Resettlement Plan Framework (RPF) has been developed to guide detailed resettlement planning to address land acquisition and resettlement impacts. This framework establishes the involuntary resettlement and compensation principles, organizational arrangements and design criteria to be applied to meet the needs of the people who may be affected by the DSUEP subproject activities resulting due to land acquisition, assets or livelihoods, and/or loss of access to economic resources.

### 3.4.2 Objective

- To avoid involuntary resettlement wherever possible
- To minimize involuntary resettlement by exploring alternatives
- Wherever avoidance of involuntary resettlement is not feasible, to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels

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- To improve the overall socio-economic status of the displaced poor and other vulnerable groups
- To conceive and implement resettlement activities as sustainable development programs to enable the persons displaced by the Project to share in Project benefits.
- Providing sufficient resources to enable the persons displaced by the project to share in project benefits
- As per AIB Environmental and Social Standard 2 paragraph 1: Involuntary Resettlement Objectives is to avoid Involuntary Resettlement wherever possible; to minimize Involuntary Resettlement by exploring Project alternatives; where avoidance of Involuntary Resettlement is not feasible, to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-Project levels; to improve the overall socioeconomic status of the displaced poor and other vulnerable groups; and to conceive and implement resettlement activities as sustainable development programs, providing sufficient resources

### 3.4.3 Scope and Application

#### Scope

The scope of involuntary resettlements is to address impacts to PAPs by 33 / 11 kV substations 33 kV lines, 11 kV lines and LT lines. AS per AIB ESS 2 applies if the Project's screening process reveals that the Project would involve Involuntary Resettlement (including Involuntary Resettlement of the recent past or foreseeable future that is directly linked to the Project). Involuntary Resettlement covers physical displacement (relocation, loss of residential land or loss of shelter) and economic displacement (loss of land or access to land and natural resources; loss of assets or access to assets, income sources or means of livelihood) as a result of: (a) involuntary acquisition of land; or (b) involuntary restrictions on land use or on access to legally designated parks and protected areas. It covers such displacement whether these losses and involuntary restrictions are full or partial, permanent or temporary.

#### Application

The sub-projects are not expected to have major impact on involuntary resettlement under any components (33 / 11 kV substations 33 kV lines, 11 kV lines and LT lines) of the DSUEP sub-project. However, the sub-project (33 / 11 kV substations 33 kV lines, 11 kV lines and LT lines) may involve involuntary resettlement/land acquisition compensation process. Involuntary resettlement will be limited to economic displacement which includes loss of land tree, crops, secondary structures or access to land and natural resources; loss of income sources or means of livelihood. If adverse (I) impacts from subproject activities involving loss of land access to assets or resources, such impacts are avoided first, or when avoidance is not feasible, they are at least minimized, mitigated, or compensated for, through involuntary resettlement under DSUEP sub-projects. If these impacts are found to be adverse at any stage of the project, the NEA/PIU is required to develop resettlement action plan and implement to restore the livelihoods of affected persons to at least pre-project level or better.

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#### Principles

The following key principle will be followed –

- Involuntary land acquisition and resettlement impacts will be avoided or minimized carefully in planning & designing stage of the sub-project
- In case it is not possible to avoid and minimize the involuntary land acquisition and resettlement impacts, project will be accorded compensations and assistance/replacement cost to PAPs for their resettlement, so that they shall be as well-off as without the sub-project.
- Project team will fully inform and consult with PAPs during the design and implementation, particularly land acquisition and compensation options.
- An absence of formal legal title to land will not be bar to compensation for house structures and fruit/fodder/bamboo/crops etc. and attention will be paid to vulnerable groups and appropriated assistance will be paid to them to improve their status.
- Land acquisition, compensation and assistance distribution will be completed before award of civil work contract of sub-projects. The rehabilitation activities will continue in during construction phase.
- Land acquisition and rehabilitation will be considered a part of sub-project and cost related to resettlement will be included in the project cost.

#### Legal and policy framework related to involuntary resettlement and land acquisition

The resettlement principles adopted in this DSUEP Subprojects reflect the national Land Acquisition (LA) Act (1977), Land Reform Act, the entitlement benefits as listed in the Draft National Policy on Land Acquisition, Compensation and Resettlement in Development Projects in Nepal, AIIB, EIB Safeguards Policy Standards. This Chapter outlines the GoN and the co-financiers' policies, legal requirements, and guiding principles under which this DSUEP subprojects will be prepared.

#### Constitutional Guarantees

Article 25 of the Constitution of Nepal, Right relating to Property, states that "(1) Every citizen shall, subject to law, have the right to acquire, own, sell, dispose, acquire business profits from, and otherwise deal with, property. Provided that the State may levy tax on property of a person, and tax on income of a person in accordance with the concept of progressive taxation. Explanation: For the purposes of this Article, "property" means any form of property including movable and immovable property and includes an intellectual property right. (2) The State shall not, except for public interest, requisition, acquire, or otherwise create any encumbrance on, property of a person. Provided that this clause shall not apply to any property acquired by any person illicitly. (3) The basis of compensation to be provided and procedures to be followed in the requisition by the State of property of any person for public interest in accordance with clause (2) shall be as provided for in the Act. (4) The provisions of clauses (2) and (3) shall not prevent the State from making land reforms, management and regulation in accordance with law for the purposes of enhancement of

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product and productivity of lands, modernization and commercialization of agriculture, environment protection and planned housing and urban development. (5) Nothing shall prevent the State from using the property of any person, which it has requisitioned for public interest in accordance with clause (3), for any other public interest instead of such public interest."

### Land Acquisition Act 2034 (1977)

It is the act to acquire land for the public purposes. Government can acquire land at any place in any quantity by giving the compensation pursuant to the act for the land required for any public purpose or for the operation of any development project initiated by government (Clause 3 and 4). To decide the amount of compensation, there shall be a CDC chaired by CDO. CDC includes Land Administrator or Chief of the Land Revenue Office, a representative of the Concern Municipally or Rural Municipalities and Project Chief. CDC is the main responsible body to determine the compensation of land. It has full authority to determine the amount of compensation payable to landowners. Any person who is not satisfied with the amount of compensation may file a complaint with the Ministry of Home Affairs, the Government of Nepal within fifteen days from the date of the issue of the notice of fixation of compensation, and, in such cases, the decision of the Ministry of Home Affairs, the Government of Nepal shall be final determine the amount of compensation payable (Clause 25 sub-clause 7). CDO is the original jurisdiction in respect to offenses punishable under this act. CDO decision can be appealed in High Court.

The Land Acquisition Act, 2034 (1977) is the core legal document to guide the process related to land acquisition and relocation in Nepal. The clause 03 of the Act states that land could be acquired for a public purpose, subject to the award of compensation. According to clause 04 of the Act, institutions seeking land acquisition may also request the Government to acquire land subject to the payment of compensation by such institutions. Clause 27 of the Act provides for land acquisition through mutual agreement between a plot owner and a government department or agency, where the process of involuntary land acquisition outlined in the Act does not apply. The Act grants the project proponent the right to choose between a mutual agreement process and the formal process for land acquisition (as described below). Where clause 27 is applied and the plot owner is not satisfied with the compensation offered by the state, under the agreement, the owner could file a complaint with the Ministry of Home (clause 18 (sub clause 2) for a redress. As per the regulatory provision, before acquiring private land for a public purpose, the Government forms a Compensation Determination (Fixation) Committee (CDC) under the chairmanship of the Chief District Officer (CDO). The chief of the land revenue office (LRO) and a representative from the concern Municipality / Rural Municipality representatives and the Project Manager are the other members. A representative of affected persons is also usually invited to participate in the Committee discussions. The project manager functions as the member secretary of the Committee. The CDC determines the amount of compensation considering the following factors: current price of land value, value of standing crops, houses, walls, sheds or other structures, loss incurred as a result of shifting residence or place of business. The CDC takes also into consideration the relevant Acts and Guidelines of the government in this exercise. According to clause 06, if the land has to be acquired for institutions other than the local government bodies and government institutions, the Committee considers the following in determining compensation: (i) price of land prevailing at the time of notification of land acquisition; (ii) price of standing crops and structures; and (iii) loss incurred by the PAP by being compelled to shift his or her residence or place of business as a consequence of the acquisition of land.



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As stated in clause 09, subsection 03 of the Act, the duration of compensation payment days will be determined by CDC. Clause 37 of the Act illustrates that the Committee may extend the period by additional 3 months, if compensation is not collected by those entitled. After the extended 3-month period, the amount will be deposited in a government's account. The compensation for acquired land is generally paid in cash as per current market value. However, there is also a provision under clause 14 to compensate land-for-land, provided Government land is available. The Act also provides for the possibility of paying two separate rates of compensation, distinguishing between households who lose all their land and those who lose only some part of their land. As stipulated in clause 10, affected households could take the crops, trees, and plants from acquired land, and salvageable materials. Clause 39 states that affected households could take all salvageable assets and the value of such assets will not be deducted from compensation.

Any grievance and objection regarding the above will be referred to the grievance redress committee (GRC) as per clause 11 of the Land Acquisition Act, 2034 (1977).

The Act assigns the CDO the sole responsibility of overseeing land acquisition process and activities and to deal with the grievances related to land acquisition and compensation.

Clause 20 of the Act entitles the legal tenant to 100% compensation for the structures built by him on the land with the permission of the landowner.

CDO chairs CDC, which consists of representatives from district administration, land revenue department, the project office and the representatives from the Municipality / Rural Municipality and affected HHs are normally invited to participate in the CDC meeting as invitees. At the request of the EA, the Government makes a decision to have the land acquired (for the specified purpose), and an officer from the EA is appointed by the government to undertake the preliminary actions which include, among others, undertaking the survey of land to be acquired, and preparing the documentation to be submitted to the CDC. EA issues the first notice of intent for land acquisition. The survey information (i.e., draft resettlement/indigenous peoples plan) is then submitted to CDC providing relevant details such as the number of land parcels to be acquired, land use pattern, affected land owners, uses/land types, quantity of land to be acquired. The CDC reviews this information and based on the same issues the final notice for acquisition with details of land parcels to be acquired. Simultaneously, CDC/EA starts contacting the affected landowners/users and initiates the process of negotiation on land value (for acquisition). Once the negotiation process is complete, the CDC finalizes the value for acquisition of various properties and discloses the same to the affected persons. The district administration office (DAO) then invites the affected households to collect forms, duly fill and submit the same to DAO for collection of their compensation. The EA deposits the requisite amounts of cash for compensation with DAO. All compensation, either in cash or check, is disbursed through DAO to the project affected people.

### Land Reform Act, 2021 (1964)

Another key legislation in Nepal related to land acquisition is the Land Reform Act (LRA) 2021 (1964). This act establishes the tiller's right to the land, which he/she is tilling. The LRA additionally specifies the compensation entitlements of registered tenants on land sold by the owner or acquired for development purposes. The most recent Act Amendment (2001) established a rule that in case the state acquires land under tenancy, the tenant and the landlord will each be entitled to 50% of

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the total compensation amount. Tenants are verified through a record of tenancy at the land revenue office.

### Land Revenue Act 2034 (1977)

Acquisition of land for development projects (i.e., public interest) involves transfer of land titles for which directly or indirectly the Land Revenue Act 2034 (1977) comes into force. Article 8 of this Act states that registration, change of ownership, termination of ownership right and maintenance of land records are done by local Land Revenue (Malpot) Office. Likewise, according to article 16 if the concerned owner did not pay land revenue for long period of time the government can collect revenue through auction of the concerned parcel. Land registration, transfer of titles and record keeping in the kingdom are governed by this Act

### Land Acquisition, Resettlement and Rehabilitation Policy for Infrastructure Development 2015

The GoN approved a Policy on Land Acquisition, Resettlement and Rehabilitation for Infrastructure Development in March 2015, however its implementation is not mandatory.

The policy outlines the need to conduct an economic and social impact assessment (SIA) of the development project, which was not a requirement under the LAA 1977. Based on this assessment, projects are categorized as high, medium, and low-risk. The act also provisioned for the project affected families to be entitled to compensation if works like installation of distribution infrastructure, telephone and underground drinking water pipe lines affect livelihood. And in case the projects affect yields of registered commercial crop, fruit or flower producers, compensation equivalent to five years of revenue must be given in cash.

The policy adds that all expenses related to land acquisition, compensation and the implementation of resettlement and rehabilitation plans should be considered as project cost and interest should be paid on compensation amount depending on the days it took to release funds to those affected by the project. The interest calculation begins from the day a formal decision was taken to operate the project, says the policy.

The compensation amount for those affected by the project will be fixed by a five-member compensation committee formed under the chief district officer. The committee can form a technical team to determine the compensation amount. This team should derive the compensation amount as close as possible to the minimum market rate by working closely with members of families that are likely to be displaced.

Those not satisfied with land acquisition, resettlement and rehabilitation processes can lodge complaints at a body formed at the project office and complaint hearing offices at district and regional levels. If verdict issued by the regional level complaint hearing office is also deemed unsatisfactory, the person makes an appeal to the appellate court.



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#### Asian Infrastructure Investment Bank

The Asian Infrastructure Investment Bank (Bank) is an international organization that provides a multilateral regional financing and investment platform for infrastructure development and enhanced interconnectivity in Asia.

#### Environmental and Social Policy (ESP)

This comprises mandatory E&S requirements for each project, such as –

- Screening and categorization
- Environmental and social assessment
- Assessment, documentation and instruments
- Environmental and social management plan
- Environmental and social management framework
- Special circumstances
- Information disclosure
- Consultation
- Monitoring and reporting

#### Environmental and Social standards

Three associated mandatory environmental and social standards (ESSs) set out more detailed environmental and social requirements relating to the following -

- Involuntary Resettlement

The detailed AIIB Bank's policy and standards (ESS2) can be found at <https://www.aiib.org/en/policies-strategies/download/environment-framework/Final-ESF-Mar-14-2019-Final-P.pdf>

#### EIB Standards and Principles

The EIB's social standards are based on a human right approach. Social standards are intended to promote outcomes to the benefit of individual well-being, social inclusion and sustainable communities

The Bank's key principle require, that adverse impacts on livelihoods should be mitigated at an improved level, or at minimum restored at the pre-project level for any loss incurred. To address displacements the preparation of an acceptable Resettlement Action Plan is required, which should apply a due process of meaningful and culturally appropriate consultation and participation, including that of host communities.

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Active consultation and participation are regarded as crucial and requires significant local ownership and support through informed involvement. It also supports AHS in their rights particular concerning entitlement rights in combination with GRMs. Therefore, public consultation is a basic requirement

The objectives of this Standard are to:

- Avoid or, at least minimize, project-induced resettlement whenever feasible by exploring alternative project designs.
- Avoid and/or prevent forced evictions and provide effective remedy to minimize their negative impacts should prevention fail.
- Ensure that any eviction which may be exceptionally required is carried out lawfully, respects the rights to life, dignity, liberty and security of those affected who must have access to an effective remedy against arbitrary evictions.
- Respect individuals', groups' and communities' right to adequate housing and to an adequate standard of living, as well as other rights that may be impacted by resettlement.
- Respect right to property of all project affected people and communities and mitigate any adverse impacts arising from their loss of assets, or access to assets and/or restrictions of land use whether temporary or permanent, direct or indirect, partial or in their totality. Assist all displaced persons to improve, or at least restore, their former livelihoods and living standards and adequately compensate for incurred losses, regardless of the character of existing land tenure arrangements (including title holders and those without the title) or income-earning and subsistence strategies.
- Uphold the right to adequate housing, promoting security of tenure at resettlement sites.
- Ensure that resettlement measures are designed and implemented through the informed and meaningful consultation and participation of the project affected people throughout the resettlement process.
- Give particular attention to vulnerable groups, including women and minorities, who may require special assistance and whose participation should be vigilantly promoted.

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#### Process for Measurement and Valuation of assets

The following methods / approaches will be followed for the valuation of assets - i) method adopted by the Government, ii) community consensus valuation, and iii) direct negotiation. For the purpose of this project, the community consensus valuation method for land and asset valuation will be adopted, which includes determining the valuation of assets in consultation with the community. As part of this method, meetings with the local community members and representatives of the project affected households on the valuation of land and assets are held. Based on the same, a consensus is arrived at for valuation of assets, making it a more transparent process. This process works through CDC for which the Project Manager or his/her designate (Senior Officer) or its environment and social development or management section in charge takes all the initiatives with consent from the CDC. In the final negotiations, CDC approves the proposal.

Table 22 - Land Acquisition Process as per Land Acquisition Act 2034 (1977)

Steps	Detailed Action	Agency /Person Responsible
Step I: The Beginning	<ul style="list-style-type: none"> <li>Sectoral agency decides to execute a development project of public interest at a particular location</li> <li>The Agency requests the Government to acquire land specifying objectives and committing payment of compensation and other expenses</li> <li>The Government approves and orders to initiate acquisition process specifying the Officer in Charge to initiate the process</li> <li>Compensation Fixation Committee activated as per LAA 2034</li> </ul>	Sectoral agency (for DSUEP who is sectoral agency.....)
Step II: Initial Process	<ul style="list-style-type: none"> <li>Public notification is issued at public places in the proposed project area, respective Municipality or Rural Municipality Office, and to the affected households</li> <li>Necessary basic surveys / investigations including boundary demarcations are done after 3 days of the issuance of notification</li> <li>Any damage / losses of crop, structures, trees incurred during preliminary investigations, are compensated by the officer designated. PAPs can file complaint, if not satisfied with the compensation paid by officer designated, within 15 days of the fixation of compensation, to Chief District Officer (CDO)</li> <li>CDO addresses the grievances and its decision is final</li> <li>The officer designated (Project Chief, in this case) submits report to CDO (Local government Officer) on total area required. This report contains the loss details and the compensation amount determined for payment. The task of preliminary investigation should be completed within 15 days of the initiation of surveys</li> </ul>	Chief District Officer (CDO) / Compensation Fixation Committee.
Step III: Notice of Acquisition	<ul style="list-style-type: none"> <li>CDO issues notice of land (and asset) acquisition including details like location, plots with area, owner, boundary, etc. together with the purpose of acquisition. The timeframe to transport salvage material or other assets are also specified in the notification</li> <li>All land transactions within the notified area are banned</li> <li>Legally, this is the cutoff date</li> </ul>	Chief District Officer (CDO) / Compensation Fixation Committee

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Steps	Detailed Action	Agency /Person Responsible
Step IV: Compensation, eligibility and procedure	<ul style="list-style-type: none"> <li>Land and asset valuation and negotiation process takes final shape</li> <li>Asset owner fills-up forms to claim entitlement with documents within 15 days of notification (as of 9 above). Compensation payment takes place</li> </ul>	Sectoral agency / Chief District Officer (CDO) / Compensation Fixation Committee
Step V: Grievance Redress	<ul style="list-style-type: none"> <li>The PAPs can file complaint within 7 days of notification excluding travel days to Government of Nepal through CDO</li> <li>The government i.e., Ministry of Home Affairs, will address the grievances within 15 days of the receipt of complaint. The Home ministry is endowed with legal power as of District Court</li> <li>The appeals if any, are addressed by the government or after lapse of such</li> </ul>	Chief District Officer (CDO) / Government of Nepal (Ministry of Home Affairs)

*Note - In case of leasing of land for project activities and temporary purposes like contractor camps, storage of materials etc., the annual rates to be paid will be determined through negotiations with the land owners, and the lease agreements signed between the EA and affected persons. For the first years, the lease will be upfront before acquiring the land.*

### Screening Exercise

Every proposed site will be subjected to social screening process before it is selected for inclusion in the project. The social screening process will be undertaken in the sub-project area to determine the magnitude of adverse impact and prospective losses, identify vulnerable groups, and ascertain losses other than land acquisition. It shall also suggest the level of social assessment required.

### Social Impact Assessment (SIA)

If the social screening findings show adverse social impacts, the sub-project will undertake a fresh SIA incorporating 100% socio-economic survey will be conducted of affected persons and their families for RAP proposes. Relevant information about PAPs (Project Affected Persons) shall include – (i) demographic characteristics (ii) an inventory affected assets, facilities and resources, (iii) landownership, usage and productivity (iv) socio-economic status of PAPs and assessment of their risks including income (v) social and gender issues including prevalence of indigenous people (vi) stakeholders and their activities (vii) people’s interest and expectations including their attitude towards the project, and (viii) impact minimization/ mitigation measures based on community consultation. The Social impacts Assessments (SIA) helps in determining magnitude of displacement, prospective losses, better targeting of vulnerable groups, ascertaining magnitude of the resettlement and costs, preparing and implementing resettlement and other plans as required.

The SIA will identify measures to avoid, minimize or mitigate involuntary resettlement risks. Vulnerability assessment of PAPs will be part of SIA and a list of vulnerable PAPs will be prepared and finalized in consultation with local community. The SIA will also assess opportunities for income restoration/economic rehabilitation, and any need of special assistance for vulnerable groups. Based on this information, the eligibility criteria and entitlement for compensation / assistance will be established and appropriate Resettlement Action Plans (RAP) will be prepared.

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#### Resettlement Action Plan (RAP)

Resettlement Action Plan (RAP), a sample outline of which is attached in Annexure 5 is a major planning document, which is based on their information gathered from census survey of project affected people and inventory of lost assets. The contents of RAP should include a statement of involuntary resettlement objective and strategy with scope of land acquisition and resettlement, socio-economic condition, information disclose public consultation, grievance redress mechanism, legal framework, and other relevant information. The RAP should establish an eligibility cut-off date<sup>3</sup>. If the impacts are minor<sup>4</sup> and fewer than 200 people and are not physically and severally affect (loss above 10% assets) are lost an *Abbreviated RAP*<sup>5</sup> (ARAP) will be prepared. ARAP covers the following minimum elements

- A census survey of all affected household and valuation of assets
- Description of compensation and other resettlement assistance to be provided
- Consultation with displaced people about acceptable alternatives
- Institutional responsibility for implementation and procedures for grievance redress
- Arrangements for monitoring and implementation
- A timetable and budget

#### Broad principles of Involuntary Resettlement policy

The policy aims to resettle and rehabilitate the affected persons on account of its sub-projects in a manner that they do not suffer from adverse impacts and shall improve or at the minimum retain

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<sup>3</sup>Cut-off Date for Eligibility criteria, This refers to the date prior to which the occupation or use of the area makes residents/users/occupants of the same eligible to be categorized as AP. In this project, the cut-off date coincides with the final day of the census of PAPs and Inventory of Losses (IOL) and which is preceded by a public consultation (conducted by CDC) or announcement. Persons not covered in said census are not eligible for compensation and other entitlements, unless they can show proof that:

1. They have been inadvertently missed out during the census and the IOL; or
2. They have lawfully acquired the affected assets following completion of the census and the IOL and prior to the conduct of the detailed measurement survey (DMS). In view thereof, the final list of PAPs is determined during the DMS. The establishment of cut-off date for eligibility is intended to prevent the influx of ineligible non-residents who might take advantage of project entitlements and speculate on land values and to prevent speculation by eligible PAPs.
3. Impacts are considered 'minor' if the project affected people are not physically displaced and less than 10 percent of their productive assets are lost.

<sup>5</sup>Project may, prior approval of bank for ARAP.

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their previous standard of living, earning capacity and production levels. The resettlement shall minimize dependency and be sustainable socially, economically and institutionally. Special attention shall be given to the improvement of living standards of marginalized and vulnerable groups.

The following key principles will be followed in RAP preparation and implementation –

- Acquisition of land will be minimized attempting to avoid any direct impact on homestead land, residential structures that may lead to temporary and / or permanent physical displacement
- Minimize the use of productive land with a preference to purchase lower productive land
- When possible, resettlement plans should be conceived as development opportunities, so that those affected benefit from project activities.
- Lack of legal rights does not bar displaced persons in peaceful possession from compensation or alternative forms of assistance. Compensation rate refers to amount to be paid in full to the individual or collective owner of the lost asset, without deduction for any purpose.
- Compensation of the affected homestead and associated structures will be provided at current market price.

When cultivated land is acquired, it is often preferable to arrange for land-for-land replacement. In some cases, as when only small proportions of income are earned through agriculture, alternative measures such as payment of cash or provision of employment are acceptable if preferred by the persons losing agricultural land.

Replacement of house plots, sites for relocating businesses, or redistributed agricultural land should be of equivalent use value to the land that was lost.

Transition periods should be minimized. Compensation should be paid prior to the time of impact, so that new houses can be constructed, fixed assets can be removed or replaced, and other necessary measures can be undertaken before displacement begins.

Displaced persons shall be consulted during the planning process, so their preferences regarding resettlement arrangements are considered and resettlement plans are disclosed in a publicly accessible manner. The previous level of community infrastructure and services and access to resources shall be maintained or improved after resettlement.

Physical works will not commence on any portion of land before compensation and assistance to the affected population have been provided in accordance with the policy framework.

The borrower is responsible for meeting costs associated with land acquisition and resettlement, including contingencies.

Resettlement plan includes adequate institutional arrangement to ensure effective implementation of resettlement measures.

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Compensation and other assistance are to be paid as per the compensation declaration committee (CDC) and follow the entitlement matrix which attach in Annexure 3. If additional resettlement impacts are identified, provisions of compensation and assistance will be updated to include them based on the above-mentioned principles and policies of entitlement. The description of entitlement are as follows-

#### Compensation

Compensation shall be provided to the PAPs for all types of losses incurred as a result of the Project. It should be noted that the entitlements and valuation procedures concerning acquisition of assets described in the following sections are based on the provisions of the Land Acquisition Act 2034 (1977). The Act also allows acquisition of assets to take place through direct negotiations and agreement between the Project and the owner. However, in cases where in a large number of plots must be acquired by the Project and/or if no agreements can be reached during direct negotiations, acquisition will take place following standard procedures of the Land Acquisition Act.

#### Loss of Land (agricultural, residential, commercial and forestry)

Land in Nepal is grouped into different types and classes, which in turn, form the basis for the calculation of land taxes. The main land types are khet, bari and ghaderi. Khet is irrigated land, generally situated in valleys and mainly used for paddy rice and wheat production. Bari is non-irrigated land mostly situated on hill slopes and is used mainly for rain-fed production of crops such as millet and maize. Ghaderi is homestead (including kitchen gardening) land. Khet, barim and ghaderi are in turn subdivided into the following land classes: Abal (class 1 land); Doyam (class 2 land); Sim (class 3 land); and Chahar (class 4 land) mainly in Hillside. Biga Kathha Dur in Tarai, and somewhere measure land in Sq.m.

Those who lose privately owned land due to project activities are entitled to compensation. Such entitled persons include titleholders (owner cum cultivator), absentee landlords, registered tenants and non-registered tenants (legalizable). The type of compensation entitlement for them are enumerated in the Entitlement Matrix of *Annexure 3*.

Non-registered tenant farmers will be assisted to become registered tenants wherever possible. This requires a formal agreement to be signed between the tenant and the titleholder. If the agreement is formalized, the tenant will be entitled to compensation as a registered tenant.

Those who remain non-registered tenants (i.e. those with non-legalizable claims to the land) and who have cultivated the affected land for at least 3 years prior to the cut-off date (to be validated by Rural/Municipalities) and do not have title to any other land, will be entitled to allocation of land if ailani or other government land is available, as determined by the concerned authority in the district. This group will also be entitled to rehabilitation assistance. Wherever possible, the spouse of PAPs (households) should be present during the compensation payment. In addition to compensation for their lost assets, the PAPs incurring significant impacts will also be entitled to rehabilitation measures and other assistance.

The Project will assist vulnerable HHs for reinvestment of their compensation in other productive assets, specifically with the identification and purchase of suitable privately-owned cultivation land in the vicinity. The Project will follow the objective to improve the standard of living of vulnerable peoples at least to the national minimal



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In order to restore the loss of farmland, if any PAPs purchase farmland in another place within 1 year from the date of receiving compensation, the land registration fee for the purchased replacement land of equal amount or price, shall be paid by the Project. This option will be equally applicable in urban areas as well.

For temporarily acquired land for the construction works of the Project, the Project will consider a temporary occupation contract with PAPs, according to their capability and qualifications. The contract will specify the details of the occupancy period, conditions for use and returning of the land, and the amounts of compensation to be paid. Compensation and restoration of land, if already temporarily acquired for some works, will be made retroactively. The temporary occupation of any land will be compensated at the replacement cost for the losses incurred due to temporary occupation. On completion of occupation, the land will be restored at least to its initial condition or better prior to handing it over to the owner.

Owners of Guthi (trust) land will be compensated according to the Guthi Corporation Act 2033. Replacement land will be provided if ailani (unclaimed arable land) or other government land is available. Otherwise monetary compensation (cash or cheque) at full replacement cost will be provided. Marginal losses will be compensated by means of cash compensation.

### **Entitlements for Leaseholders at Disposal Sites**

DSUEP will sign a formal lease agreement with each titleholder whose land is being leased. An annual leasing arrangement for an annual fix payment will be negotiated with each of these landowners. A format of the lease agreement will be prepared by the help of legal advisers.

In case, the titleholders do not agree to lease their land, the DSUEP shall acquire the land on negotiated market replacement rate of the land. DSUEP will fully restore the leased land to its original condition and return it to the leaseholder at the end of leasing period.

DSUEP will ensure that persons (other than the landowners) affected as a result of leasing of land for the Project are also compensated for the loss of income incurred due to the leasing of land. Mutually agreed leasing rates will be paid by DSUEP to the titleholder annually. The first payment will be done before the land is taken over by the DSUEP. All costs related to land leasing and restoration will be borne by DSUEP.

### **Loss of Residential and Commercial Structures (houses) and Other Structures**

Owners of affected houses and other structures such as goth (sheds), separate kitchen, walls and other structures shall be compensated in cash, for full or partial losses, at replacement cost as determined by the CDC. This will include titleholders and tenants on private land, and encroachers and landless squatters occupying public land at the time of the eligibility cut-off date for each project component and sub-component. In case there are structures that could be reinstalled at a new site, the transport and re-installation cost shall be provided by the project. Furthermore, structures that are only partially affected shall be entitled to the cost of structure repair along with compensation for affected materials at replacement cost.

Compensation for land and structures would be paid in one lump sum. It would be paid on the spot so that PAPs do not have to travel to the district office for the same. The affected asset owners will



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have the right to salvage materials from the affected buildings. The value of salvaged materials will not be deducted from the final compensation amount.

#### Loss of Crop and Other Natural Resources

Construction works would as far as possible be planned to allow for the harvesting of non-perennial and perennial crops before land is acquired. Where crops cannot be harvested, or the destruction of crops is unavoidable, compensation will be paid, based on market value of crop at the time of compensation, as determined by the CDC. All other resources from privately owned trees (e.g. timber/fuel wood) would remain the property of the concerned owner. For land under registered tenancy, the amount of compensation for standing crops and permanent crops such as bamboo, timber and fruit trees shall be divided equally between the landowner and the tenant.

For land occupied by non-registered tenants, the amount of compensation for standing crops shall be divided according to lease or sharecropping agreement between tenant and landowner. However, compensation for loss of permanent crops such as bamboo, timber and fruit trees shall be provided only to the owner.

The Departments of Agriculture & Cooperatives and Forest & Soil Conservation shall be consulted for assisting affected owners with the restoration of new trees/perennial crops. Where necessary, the support to such programs will be funded by the Project.

#### Loss of Community Facilities and Resources

Affected community buildings and facilities shall be restored to their previous condition or replaced in areas identified in consultation with affected communities and the relevant authorities. The community facilities include schools, temples, health posts, waiting sheds (thanti), water points, irrigation canals, trails/footpaths and bridges, graves and/or ghats.

Where communal grazing lands are affected, under the current government regulations, the Department of Agriculture (Pasture Development Section) shall be requested to assist communities for adequately mitigating the impacts on grazing area. Likewise, where community owned trees are acquired, the Department of Forestry will be consulted to advice forest user groups regarding future production losses and compensation modalities. User groups shall be assisted with the re-establishment of new trees/perennial crops and the establishment or improvement of community forestry programs. The aim of these support programmes shall be the improvement of remaining communal areas and resources to ensure that pre-project levels of supplied resources are maintained or improved upon. Where required, these support programs shall be funded by the Project. In addition, advance notice shall be given to harvest resources from the affected areas. Any loss of trees in the area of influence shall be mitigated by means of afforestation exercises to be undertaken by the Project in consultation with local communities and the Department of Forestry.

#### Other Individual and Group Losses

Vulnerable social categories and others such as porters and other providers of non-vehicular transport along the direct project affected area who lose income indirectly as a result of the project shall be identified, based on monitoring results, in consultation with local government and

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representatives. The rehabilitation assistance based on the extent of loss shall be provided as determined by the CDC.

The loss of water for irrigation or for water mills due to diversion for electricity generation would be mitigated before it can affect farmers and concerned property owners. The mitigation measures shall be based on findings of baseline information in the Environmental Management Plan. The affected group shall be entitled to be paid for the cost of construction of any necessary mitigation measures. If such measures are also required in subsequent years, the affected owners would be entitled to funds from a revolving fund to restore access to water for the affected systems. Similar provisions shall be made if other indirect impacts (e.g. on fisheries) prove to cause severe impacts to certain groups of PAPs.

### Damages caused during Construction

Extreme care would be taken by contractors to avoid damaging public and private property during construction. In case of damages to public or private property as a result of construction works, the contractor shall be required to pay compensation immediately to PAPs, vulnerable groups, communities, or government agencies for damages to crops and trees. Damaged land, structures and infrastructure shall be restored immediately to their former condition.

### Government Property

Government infrastructure and facilities including utilities affected by the Project shall be repaired and/or replaced in consultation with the relevant departmental authorities. The Government forested areas, if required, shall be acquired in consultation with the Department of Forestry and any loss of trees therein shall be mitigated by means of afforestation exercises undertaken by the project as far as possible.

### Displacement Assistances/ Allowances

In addition to compensation for lost assets,

Households whose landholdings are no longer economically viable as a result of land losses e.g., less than 0.5 ropani in rural areas, or 2.5 ana in urban area, as defined in this resettlement plan, shall receive a cultivation disruption allowance equal to one season's production on the area lost. The amount payable shall be based on published district production Figures, land type (i.e. irrigated and non-irrigated) and market prices for crops for the year in which the land is acquired. The allowance will be paid at the time of compensation payment.

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#### Additional Support to Vulnerable Persons

Apart from the provision of displacement allowances, the rehabilitation of PAPs from vulnerable groups<sup>6</sup> in the vicinity of the Project area shall also be supported through the following measure:

- a) Assessment of current economic activities and potential for improvement of these activities.
- b) Assessment of alternative income-earning opportunities.

PAPs from vulnerable groups will need special assistance in addition to compensation and resettlement assistance so as to at least restore but preferably improve their lives and livelihoods. Such special assistance will include the following:

- a) Preferential access to project construction employment opportunities.
- b) Skill training: Among PAPs who are not qualified for employment at project sites; the Project shall encourage construction contractors to provide on-the-job training to select PAPs in turn enabling them to earn a living from the Project. The need to train local people in required skills to work at project sites will be included in bidding documents and contracts.
- c) Training/Counselling on financial literacy and/or cash management / saving schemes.
- d) Counselling regarding project impacts, compensation alternatives and risks and resettlement options (where required).

The Project shall undertake consultations with contractors and local communities to establish mutually agreeable conditions for employment of the local population, especially the ones who belong to vulnerable groups. Person from vulnerable affected HH will be given preference to attend project sponsored vocation training program that would help them in obtaining employment and/or earning livelihood as far as possible. Efforts shall be made to link trainings with definite employment opportunities.

PAPs that undergo training as rehabilitation assistance shall be supported by the Project. The project will facilitate the assessment and, where feasible, establishment of small-scale income-generating schemes for PAPs from households incurring significant impact in the Project. Similarly, the Project would investigate the potential for co-ordination with existing to national poverty alleviation and credit programs in order to provide access to the same.

PAPs from vulnerable groups shall have access to agricultural extension services to increase production on their remaining agricultural and other land. The Department of Agriculture and Forest

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<sup>6</sup>Vulnerable groups are those groups who are physically or economically affected from the project and being indigenous people, above 70 aged people below poverty line HH, women headed HH severally affected HH and Dalits

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and Soil Conservation shall be requested to assist PAPs of the Project. Any costs incurred in the same shall be borne by the project.

### Specific measures to be followed while dealing with Vulnerable Groups

Specific measures for vulnerable groups including indigenous peoples, Dalits, minor ethnic communities, women, and powerless communities are outlined below:

- a) Ensure awareness raising, active participation and capacity building of the vulnerable communities
- b) Ensure participation in awareness campaigns, project implementation and monitoring of vulnerable groups
- c) Ensure equal wages for similar work during implementation
- d) Launch project information campaign to inform the target groups about the key features of the project and the DSUEP investments interventions implemented.
- e) Assess and analyze the presence of indigenous and Dalits in the areas where DSUEP components investments are implemented
- f) Treat and support indigenous people, Dalits and other vulnerable communities preferentially
- g) Involve IPs and Dalits in beneficiary groups as needed to increase their participation.
- h) Ensure the identified needs and priorities of vulnerable people are taken into account in the DSUEP investments interventions
- i) Conduct project related meetings in indigenous and vulnerable community areas to encourage their participation. Ensure a quorum which includes representation from IP groups.
- j) Encourage interventions providing targeted assistance/training aimed at vulnerable groups to enhance livelihoods and participation
- k) Build capacity of indigenous peoples, Dalits and other vulnerable communities to enhance their knowledge and skills to participate in the project activities
- l) Encourage capacity development through trainings on skill enhancement (agriculture, veterinary, vocational training in different fields) of local people as part of the DSUEP interventions

### General Information Dissemination and Counselling

General information and counselling will be provided to all PAPs within the project areas to inform them regarding project impacts, construction schedules and acquisition dates, cut-off dates, valuation, compensation and grievance resolution mechanisms, construction employment procedures and local development initiatives.

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#### Other Unanticipated Impacts

Unforeseen impacts will be documented and mitigated based on the principles agreed upon in the resettlement framework. The EA will deal with any unanticipated adverse impacts arising from Project intervention or associated activity during or after project implementation. The affected individual or households will be entitled for receiving compensation and/or assistance for such unforeseen adverse impacts.

#### Cut-off Date

The cut-off dates are related to the period of conducting the DMS. Those who encroached into the subproject area after the cut-off date will not be entitled to compensation or any other assistance. All project-affected persons will be notified of cut-off date.

The Entitlement Matrix attach annexure 3 and summarizes the main types of losses and corresponding entitlements, which reflect the Nepal laws and regulations safeguard policies of AIB and EIB. The standard entitlements listed in the entitlement matrix have been maintained as per Resettlement Framework approved earlier. However, entitlements for leased land were not included in the Resettlement Framework. As a result, attempt has been made to enhance and further detail out the entitlements in this ESMF.

A comparative analysis of the national laws EIB and AIB policies on involuntary resettlement/land acquisition with identified gaps and limitations of the national legal and policy framework have been analyzed. The main gaps and limitations of the national legal and policy framework are –

- National law makes provision for compensation to the titled landholder only and, by default, omits all other PAPs, including non-registered tenant farmers, landless farmers, squatters, agricultural laborers, shopkeepers, artisan groups and *Dalits*.
- National law does not make any provision for landless, encroachers or squatters regarding to the entitlement for compensation. There is no provision for rehabilitation assistance for such vulnerable groups.
- When GoN requires assets, national law does not specify about the provision of mandatory replacement cost.
- The *Land Acquisition Act, 1977* does not emphasize transparency and stakeholders' participation for various decisions (Participation of PAPs especially in LA Act has no provision to participate in CDC (Compensation Declaration Committee) that directly affect the long-term wellbeing of PAPs.
- Lack of consideration of the apparent time gap between notification of acquisition and the payment of compensation is another limitation of the existing legal framework.
- Lack of consideration to be acquire land of right of way (RoW) of 33/11 kV lines. The NEA has not been practices to provide compensation in 33/11kV lines of RoW and pole/ location

Following are the policy recommendations to fill up the identified gaps and limitations –

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A project affected person needs to be defined as a person or household whose livelihood or living standard is adversely affected through loss of land, housing and other assets, income, or access to services as a consequence of the implementation of the project, causing a change in land use.

Entitlements should be established for each category of loss covering both physical loss and economic loss.

Special attention should be given to protect the interest of vulnerable groups. With a census date as cut-off date, no fraudulent encroachments after this date should be considered eligible for entitlements of compensation. Non-land assets should be compensated at replacement value. Support for vulnerable groups should be provided to improve their livelihood.

Practical provisions must be made for the compensation of all the lost assets to be made at replacement cost without depreciation or reductions for salvage materials. Efforts must be made to assess the real replacement costs of land to the extent possible.

There must be legal provision of PAPs and local representatives of Rural municipalities/Municipalities for participation in settling the resettlement issues related to compensation and livelihood restoration,.

First avoid RoW and pole/ impacts.. Distribution line will follow existing right of way

Livelihood restoration programs require becoming viable and sustainable. Thus, the Project will implement for restoring PAPs' incomes. The Program shall focus on immediate assistance and will include the following (as provided in the Entitlement Matrix).

- Compensation for land paid in before acquisition.
- Financial and life skills training.
- Subsidized inputs for meter installation.
- Temporary employment in construction activities.
- Special assistance to the vulnerable PAPs.

### **Specific measures to be followed while dealing with Vulnerable Groups**

Specific measures for vulnerable groups including indigenous peoples, Dalits, minor ethnic communities, women, and powerless communities are outlined below:

- Ensure awareness raising, active participation and capacity building of the vulnerable communities
- Ensure participation in awareness campaigns, project implementation and monitoring of vulnerable groups
- Ensure equal wages for similar work during implementation

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- Launch project information campaign to inform the target groups about the key features of the project and the DSUEP investments interventions implemented.
- Asses and analyze the presence of indigenous and Dalits in the areas where DSUEP components investments are implemented
- Treat and support indigenous people, Dalits and other vulnerable communities preferentially
- Involve IPs and Dalits in beneficiary groups as needed to increase their participation.
- Ensure the identified needs and priorities of vulnerable people are taken into account in the DSUEP investments interventions
- Conduct project related meetings in indigenous and vulnerable community areas to encourage their participation. Ensure a quorum which includes representation from IP groups.
- Encourage interventions providing targeted assistance/training aimed at vulnerable groups to enhance livelihoods and participation
- Build capacity of indigenous peoples, Dalits and other vulnerable communities to enhance their knowledge and skills to participate in the project activities
- Encourage capacity development through trainings on skill enhancement (agriculture, veterinary, vocational training in different fields) of local people as part of the DSUEP interventions

## 3.5 Indigenous Peoples

Nepal is a culturally and ethnically diverse country, populated by numerous castes and ethnic groups. The original inhabitants of the country are migrants of various ethnic groups and the migration process can be traced back to 2000 years. Major castes found in the DSUEP sub-project areas are as follows -

Table 23 - Major castes in project areas (Source – E&S screening survey)

Group	Major castes/ethnicity
Dalits	Damai, Kami, Sarki, Lohar, etc.
Indigenous people	Tharu, Yadab, Raute, Majhi, Bote, Tamang, Bhujel, Kumal, Bhote, Darai, Magar, Gurung, Limbu, Sherpa, Thakali, Bansi, Thami, Newar, Rai etc.
Others	Brihnin, Kshtri, Thakuri, Dasnami, etc.

The indigenous people are classified into five different categories as follows –

- Endangered - Raute
- Highly marginalized – Majhi, Bote, Thami



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- Marginalized – Tharu, Tamang, Bhujel, Kumal, Bhote, Darai
- Disadvantaged - Magar, Gurung, Limbu, Sherpa, Bansi, Rai, Yadab
- Advantaged groups – Thakali, Newar

### 3.5.1 Indigenous people screening exercise

If the social screening process undertaken for each project determines that Indigenous Peoples are present in, or have collective attachment to, the subproject area, and are likely to be affected by the Project, an Indigenous Peoples Development Plan is required to be prepared. EIB Standard 7 requires a process of Free, prior and Informed Consent (FPIC) in case IP communities are affected by the project.

Social screening shall include whether activities under the project would: (i) have impacts on land and natural resources subject to traditional ownership or under customary occupation or use; (ii) cause relocation of Indigenous Peoples from land and limitations on access to natural resources subject to traditional ownership or under customary occupation or use; or (iii) have significant impacts on Indigenous Peoples cultural heritage. In such cases the process for FPIC will be prepared and approved by the Financiers. <sup>7</sup>

Securing consent of Indigenous Peoples is a requirement prior to any subproject activities. subprojects that are unable to obtain consent from affected indigenous groups will be excluded from financing.

### 3.5.2 Indigenous Peoples and Vulnerable Communities Development Framework (IP-VCDF)

This Indigenous Peoples and Vulnerable Community Development Framework (IP-VCDF) is developed to guide the preparation of DSUEP investments to ensure better distribution of the benefits of the project activities with a focus on the *Adivasi /Janjati* and other disadvantaged social groups located in areas in which DSUEP civil works take place. The IP-VCDF is developed based on the national policies/strategies as well as the Co-financers' Indigenous Peoples Policies. The principal objectives of the IP-VCDF are to:

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<sup>7</sup> An updated IP Framework incorporating FPIC process shall be prepared and considered as one of the conditions for loan effectiveness.



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Ensure that the project pursues free, prior, and informed Consent (FPIC) approach with adversely affected Indigenous Peoples communities, to the extent possible leading to broad community support for the project, with particular attention to vulnerable groups

Ensure that project benefits are accessible to the vulnerable communities living in the project area

Avoid any kind of adverse impact on vulnerable communities to the extent possible and if unavoidable ensure that adverse impacts are minimized and mitigated

Ensure vulnerable peoples' participation in the entire process of preparation; implementation and monitoring of the sub-project activities as embodied in IPDP or VCDP

Minimize further social and economic imbalances within communities

Develop appropriate training / income generation activities in accordance to their own defined needs and priorities

## 3.6 Relevant Policies on Indigenous Peoples and other Vulnerable Communities

### 3.6.1 Constitution of Nepal

#### Article 18 Right to equality

(1) All citizens shall be equal before law. No person shall be denied the equal protection of law. (2) No discrimination shall be made in the application of general laws on grounds of origin, religion, race, caste, tribe, sex, physical condition, condition of health, marital status, pregnancy, economic condition, language or region, ideology or on similar other grounds. (3) The State shall not discriminate citizens on grounds of origin, religion, race, caste, tribe, sex, economic condition, language, region, ideology or on similar other grounds. Provided that nothing shall be deemed to prevent the making of special provisions by law for the protection, empowerment or development of the citizens including the socially or culturally backward women, Dalit, indigenous people, indigenous nationalities, Madhesi, Tharu, Muslim, oppressed class, Pichhada class, minorities, the marginalized, farmers, labour, youths, children, senior citizens, gender and sexual minorities, persons with disabilities, persons in pregnancy, incapacitated or helpless, backward region and indigent Khas Arya.

#### Article 42 Right to social justice

(1) The socially backward women, Dalit, indigenous people, indigenous nationalities, Madhesi, Tharu, minorities, persons with disabilities, marginalized communities, Muslims, backward classes, gender and sexual minorities, youths, farmers, labour, oppressed or citizens of backward regions and indigent Khas Arya shall have the right to participate in the State bodies on the basis of inclusive principle.

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#### National Foundation for Development of Indigenous Nationalities (NFDIN) Act of 2002

In year 2002, NFDIN was registered under the NFDIN Act-2002 by Government of Nepal to work for the welfare of Indigenous Nationalities for their overall development. According to census 2011, there are 125 distinct languages spoken and 123 different ethnic groups in Nepal. NFDIN Act 2002 has identified 59 indigenous groups in a country which constitute 35.4% out of the total population of nearly 26.5 million. In lack of proper information, deprived and marginalized communities and groups including indigenous nationalities are still not able to benefit from nation's inclusion policy.

NFDIN's major goal is to ensure the satisfaction of present and future generations and the availability of better quality of life for all indigenous people of Nepal without any discrimination. NFDIN has tried to draw attention on several important issues of indigenous people working along with Government of Nepal and indigenous people's organization to preserve, promote and improve the livelihood as an integral part of their economic and social development.

#### UN Declaration on the Rights of Indigenous Peoples (UNDRIP) - adopted by Nepal in 2007

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) delineates and defines the individual and collective rights of Indigenous peoples, including their ownership rights to cultural and ceremonial expression, identity, language, employment, health, education and other issues. It emphasizes the rights of Indigenous peoples to maintain and strengthen their own institutions, cultures and traditions, and to pursue their development in keeping with their own needs and aspirations. It prohibits discrimination against indigenous peoples, and it promotes their full and effective participation in all matters that concern them and their right to remain distinct and to pursue their own visions of economic and social development.

The goal of the Declaration is to encourage countries to work alongside indigenous peoples to solve global issues, like development, multicultural democracy and decentralization. According to Article 31, there is a major emphasis that the indigenous peoples will be able to protect their cultural heritage and other aspects of their culture and tradition in order to preserve their heritage from over controlling nation-states.

#### ILO Convention 169 on Indigenous and Tribal Peoples - ratified by Nepal in 2006

Nepal is a signatory to ILO convention on Indigenous and Tribal Peoples, 1989 (No.169). Besides that, Nepal does not have a standalone policy on Indigenous Peoples. However, in the Three-Year Interim Plan (TYIP) (2007-2010), or the Tenth Plan, significant emphasis has been placed on delivering basic services to the disadvantaged and Indigenous People (IPs), women, disabled and vulnerable communities (VCs) such as *Dalits* and *Adivasi / Janjati*. One of the main objectives of the Tenth Plan is the implementation of targeted programs for the uplifting, employment and basic security of *Dalits*, indigenous people and disabled peoples. The policy provision also outlines that the Government should pilot strong and separate packages of programs for the basic security of the vulnerable sections of society. The Three-Year Interim Plan (TYIP) (2007- 2010) includes the following policies for inclusive development of *Dalits*, *Adivasi / Janajatis* and other vulnerable groups:

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- Creating an environment for social inclusion
- Participation of disadvantaged groups in policy and decision making
- Developing special programs for disadvantaged groups
- Positive discrimination or reservation in education, employment, etc.
- Protection of their culture, language, and knowledge
- Proportional representation in development
- Making the country's entire economic framework socially inclusive

### 3.6.2 AIIB Environmental and Social Policy (ESP)

This comprises mandatory E&S requirements for each project, such as –

- a) Screening and categorization
- b) Environmental and social assessment
- c) Assessment, documentation and instruments
- d) Environmental and social management plan
- e) Environmental and social management framework
- f) Special circumstances
- g) Information disclosure
- h) Consultation
- i) Monitoring and reporting

### Environmental and Social standards

Three associated mandatory environmental and social standards (ESSs) set out more detailed environmental and social requirements relating to the following -

Environmental and Social Standard 3: Indigenous Peoples The detailed AIIB Bank's policy and standards (ESS2) can be found at <https://www.aiib.org/en/policies-strategies/download/environment-framework/Final-ESF-Mar-14-2019-Final-P.pdf>

### 3.6.3 EIB Standards and Principles

Special attention should be paid to the rights of vulnerable groups which can include indigenous people, ethnic minorities, women, migrants, the very young and the very old. In particular for

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vulnerable groups the livelihoods are especially sensitive to socio-economic changes and their dependency on access to essential services and participation in decision making.

Rights and interest of vulnerable groups have the following objectives:

- Affirm, respect, and protect the rights and interests of vulnerable individuals and groups within the designated operational scope, throughout the project lifecycle. Such rights include the right to non-discrimination, the right to equal treatment between women and men and the rights of indigenous peoples.
- Adopt a gender-sensitive approach to the management of environmental and social impacts, that takes into account the rights and interests of women and girls, men and boys, including specific attention to the differentiated burden of impacts that women and girls might face.
- Identify and avoid adverse impacts of EIB operations on the lives and livelihoods of vulnerable individuals and groups, including women and girls, minorities and indigenous peoples. Where avoidance is not feasible, to reduce, minimize, mitigate or effectively remedy impacts.
- Ensure that vulnerable individuals and groups are duly and early on identified in EIB operations and that engagement is meaningful, taking into account individuals' and communities' specificities, and delivered in an appropriate form, manner and language.
- Enable vulnerable groups, including women and girls, minorities and indigenous
- Peoples to benefit from EIB-financed operation

The AIIB & EIB Bank policy on indigenous peoples emphasizes the need to design and implement projects in a way that fosters full respect for indigenous peoples' dignity, human rights, and cultural uniqueness. They advocate gap analysis and gap-filling measures such as but not limited to:

- a) social impact assessment,
- b) preparation of IPDP,
- c) avoidance of impacts,
- d) consultations - FPIC in particular, and
- e) a culturally-appropriate process

## 3.7 Preparation of IPDP / VCDP

The following steps will be followed to assess impacts on IPs and VCs –

- A Social Impact Assessment (SIA) will be carried out for the entire project at the beginning of the activities as part of the pro-poor participatory planning process

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- Then a social screening will be carried out, as part of the SIA, to determine whether IPs and VCs will be affected by the activities as part of the environmental and social screening for the DSUEP investments carried out at the identification stage

### 3.7.1 Social Impact Assessment (SIA)

The information to be gathered for the SIA should include –

- a) A baseline demographic, socioeconomic, cultural, and political profile of the affected indigenous groups in the project area and project impact zone
- b) Assessment of land and territories that Indigenous Peoples have traditionally owned or occupied
- c) Assessment of natural resources (including biodiversity and eco-system services) on which Indigenous Peoples depend
- d) Assessment on their access to and opportunities they can avail of the basic and socio-economic services
- e) Assessment of the short and long term, direct and indirect, positive and negative impacts of the project on each group's social, cultural and economic status
- f) Assessing/validating which constitutionally recognized indigenous peoples are present in the substation districts and to what degree they are affected.
- g) Assessing the subsequent approaches and resource requirements for addressing their concerns and issues in relation to the projects that affect them.
- h) Assessing whether or not the three FPIC-requiring circumstances are present in each of the subproject districts.

The information should be gathered through a process of meaningful consultation that is culturally-appropriate. Involvement of all Indigenous Peoples groups in consultation process should be ensured by informing, inviting and participating during consultation process in each step of project cycle - assessment, planning, implementation and monitoring and evaluation. There should be clear provision for participation of Indigenous Peoples (percentage among the total participants / beneficiaries) in different stage of project implementation such as but not limited to (labor, general consultation, representation in different activities, etc.).

The team that conducts the social impact assessment should have a thorough understanding of the SIA process, as well as a deep knowledge of the local Indigenous Peoples cultures, systems, norms and values. To the extent possible, Indigenous Peoples should be involved in facilitation of the consultation process. Communication with Indigenous Peoples will need to take place in their own language.

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Discussions should focus on potential positive and negative impacts of the subproject activities; measures to enhance the positive impacts; and strategies/options to minimize and/or mitigate negative impacts.

Based on the SIA findings, the project or project component can develop appropriate mitigation measures including socio-economic and livelihood enhancement activities for Indigenous Peoples. If FPIC process is carried out, the process shall inform the preparation of the IPDP.

Screening will involve identifying IPs belonging to the area where the DSUEP investments interventions for components activities will be undertaken, their population (number and ratio), and their characteristics as compared to the main population in the project area through primary and secondary data collection. Outline of Indigenous People Plan is provided in Annexure 6.

The social screening will provide necessary information to determine impact including: (i) the beneficiary population living within the impact zone of the DSUEP components investments (ii) the extent of land required (even temporary) and number of land owners affected (if applicable); (iii) impacts on IPs including needs and priorities for social and economic betterment; (iv) other social impacts. The screening report for each subproject will provide adequate information about the potential losses and damages to the IPs which will be crucial to decide whether further works regarding impact assessment and mitigation plans. Components will be categorized according to the level of impacts on IPs. The categorization will be determined by the type, location, scale, nature, and presumed magnitude of potential impacts on IPs. DSUEP investments will be categorized as per the following table using the information in the IPs Impact Screening criteria & categorization form presented in Annexure 7.

Table 24 - Categorization of Project on the Basis of IPs

Category	Determination of the type of Social Assessment needed
Category A	DSUEP components investments expected to have significant impacts that require an Indigenous People (IPDP)
Category B	DSUEP investments expected to have limited impacts that require specific action for IPs in the form of social action plans (IPDP or VCDP)
Category C	DSUEP investments expected to have no impacts on IPs and, therefore, do not require special provision for IPs

*\*Note: Categorization and corresponding instruments will be further reviewed by the Financiers after the initial subproject screening*

The impacts on IPs will be considered 'significant' or Category A if the DSUEP affects positively or negatively:

- Affects their customary rights of use and access to land and natural resources,
- Changes their socio-economic status,
- Affects their cultural and communal integrity,

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- Affects their health, education, livelihood, and social security status, and/or
- Alters or undermines the recognition of indigenous knowledge and cultural heritage.

In case of impacts (falling in categories A and B) on IPs, the PIU by itself or through the appointed consultant(s) will submit the IPDP to the co-financiers for clearance. A sample outline structure of an IPDP is presented in Annexure 7. Short IPDPs prepared as a part of 'less impact' or 'no impact' category will be internally evaluated. The Financiers will review these documents.

### 3.7.2 Free Prior and Informed consents (FPIC)

Consultation and discussion shall be made with Indigenous Peoples from the same territory for free prior informed consents (FPIC) prior construction of 33 / 11kV substations and distribution lines when the indigenous people are adversely affected by the DSUEP subprojects under the three circumstances described in section 3.5.1. The Indigenous People (IP) will be given priorities to their employment in the projects works on the basic of their skills. The process shall be followed by the projects. An independent party IPO/ NGOs / consulting firm or civic society will be hired to facilitate the FPIC process with the Indigenous peoples. A sample format for decision making process is attached in Annexure 9 and subject to further review by the Financiers.

The process to be followed for conducting FPIC is -

- a) Formally inform affected IPs and other concerned stakeholders<sup>8</sup> indicating the location, agenda and time.
- b) Discuss with local FPIC villages the proper procedure for determining how consent will be recognized; formalize this in a "Consent Process Agreement (CPA)" agreed to by the community.
- c) Make them fully aware about their right under Nepal and international law..
- d) Ensure that the project has informed them about the project and projects activities
- e) Ensure that the project has informed them about the positive and adverse impacts by the projects

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<sup>8</sup>Stakeholder are local level Rural/Municipality chief or representative IPs District level committee chairperson or representative, Project affected IPs locals IPs peoples, local Level NGOs district level IPs federation representatives local, social worker, local media, etc.



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- f) Ensure that the project has informed them about the benefits to mitigate the adverse impact
- g) Conduct a series of consultations at the local community level; Formal attendance and minutes will be noted in a separate register
- h) Freely discuss about the about IPs concern and note their grievances, including any legacy issues regarding the project.
- i) Ask about the concerned IPs and note their concerns
- j) Following the CPA and multiple consultation rounds, seek a consent decision from the IPs regarding the project and a package of mitigation and benefit sharing measures.
- k) Note all the comments and consent in the register and take joint signature at the end of the minutes from them
- l) Include in the IPP a mechanism for the project to address their concerns and issues during the project phase
- m) Preparation of a Consent Statement (CS) which includes: i) the IPDP, ii) other issues that the affected communities may wish to continue discussing with the Project, and iii) an implementation plan which details the responsibilities of local communities, the project, and hopefully local government authorities in carrying out the IPDP

IPDP will be prepared based on the findings from social assessment to address the concerns and issues of indigenous peoples. The IPDP shall include mitigation measures of potential negative impacts through modification of sub-project design and development assistance to enhance distribution of benefits. The sub-project shall ensure that their rights shall not be violated and that they shall be compensated for the use of any part of their land or property in a manner that is socially and culturally acceptable to them, if land acquisition or structural losses involve in vulnerable communities. The sub-projects shall follow the compensation measures prescribed in RPF.

### 3.7.3 Indigenous Peoples Development Plan (IPDP)

IPDP will be prepared based on the findings from social assessment and through inputs gathered during the FPIC process (if applicable) to address the concerns and issues of indigenous peoples. The IPDP shall include mitigation measures of potential negative impacts through modification of sub-project design and development assistance to enhance distribution of benefits. The sub-project shall ensure that their rights shall not be violated and that they shall be compensated for the use of any part of their land or property in a manner that is socially and culturally acceptable to them, if land acquisition or structural losses involve in vulnerable communities. The sub-projects shall follow the compensation measures prescribed in RPF.

The main components of an IPDP includes –

- a) Discussion on aspirations, needs, and preferred options of the affected Indigenous Peoples, local social organization, cultural beliefs, ancestral territory, and resource use patterns among the affected Indigenous Peoples

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- b) a summary of the ESIA, including potential risks, and positive and negative project impacts measures to avoid, mitigate, or compensate for the adverse project effects
- c) measures to ensure project benefits will accrue to them
- d) measures to strengthen executing agency capacity to address their issues
- e) governance structure which builds in local communities' co-participation and management of the IPDP implementation their budget allocation, financing and timetable for IPDP implementation
- f) Indigenous Peoples' participatory monitoring and evaluation with a timeframe
- g) Transparency measures including periodic monitoring reports on the IPDP progress

The executing agency will submit the IPDP to the Financiers for review and approval prior to commencement of any civil works. A sample outline of IPDP is shared in Annexure 6.. In case impacts to IPs can be covered under a RAP, AIIB and EIB may accept a combined Resettlement and Indigenous Peoples Development Plan (RIPP) or a corresponding management plan may be considered.

The IPDP will follow consultation and information disclosure as per Chapter 6 of the ESMF. A formal and ongoing engagement process with indigenous communities will take place throughout the project life cycle (i.e. project design and planning, project construction and operation and post-project review), through consultation and participation to ensure that indigenous communities' views, concerns and solutions are being heard and addressed. This can be best accomplished if built into the governance and implementation measures of the IPDP.

In case FPIC is triggered, documentation will be required on the process and outcome of consultations with affected indigenous communities and any agreement resulting from such consultations for the project activities and safeguard measures addressing the impacts of such activities. Information disclosure should be carried out in a culturally sensitive manner, taking into account the local social and cultural context and diversity.

### 3.7.4 Grievance Redress Mechanism

In areas where Indigenous Peoples are present and in case these indigenous communities are impacted by the sub-project, the GRM must have indigenous representation, including at least one woman to represent women's interests, leaders of the tribe(s) or a member of the tribal council as traditional arbitrator(to ensure that traditional grievance redress systems are integrated) and an NGO working with indigenous people groups.

Participatory monitoring system will also be used with the involvement of Indigenous Peoples, Indigenous Peoples institutions, Indigenous Peoples leaders and other concerned stakeholders. Details on E&S safeguard monitoring and reporting are shared in chapter 7 of this document.

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## 3.8 Community development plan

The Community Development Plan shall be integrated in applicable social management plan (RP, IPDP, or VCDP) for the project and take into consideration the improvement of living conditions within the Project Area. It shall specifically target Project Affected Population (PAPs) due to construction of 33 / 11 kV substations, 33 kV lines, 11 kV lines and LT lines. The Project's main objective is to make more benefited by the rural electrification in rural areas people where un-electrified and improvement of power supply in electrified areas in province 5, 6 and 7 project districts. The following activities will be implemented through the community development plan.

### 3.8.1 Training on Livelihood and Skills Development

Training needs assessment will be conducted to identify the various training and skills development needed by the PAP households at the census survey period. The training can focus on educational type for beneficiaries and skill development training for PAPs as per their choices to subprojects areas PAPs and vulnerable communities' peoples.

- livelihood and income generating activities
- gender development and women's rights
- improved agriculture practices and integrated pest management
- fish culture and hatchery
- cattle, goat fattening and poultry rearing
- business management
- eco-agro-tourism home-stay program, etc.

### 3.8.2 Awareness generation

It is important that the PAP Households and people within the subproject area are aware of the various subproject activities in order for them to participate meaningfully in the development process. Information dissemination will be conducted on relevant topics and issues such as the Resettlement Plan, Project Resettlement Policies, Grievance Redress Mechanism, Construction Policies, Employment and Business opportunities, Schedule of Project implementation and other project concerns. The PAPs will be informed through various means such as the holding of meetings, through distribution of leaflets and brochures, announcement in radio, newspaper, television and text messages through mobile phone. Posters and notices can also be posted in public and strategic places.

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### 3.8.3 Improvement of Community Infrastructure and Facilities

Proper handling of places with cultural and historical significance will be done by the implementing Agency. Religious and cultural practices will be given due respect and proper handling such will be accorded. Indigenous Peoples and marginalized groups will be consulted on cultural and religious practices that have to be performed.

### 3.8.4 Employment Generation for PAPs IPs and Vulnerable Groups

Employment in the various areas such as masonry, driving, as labour, security guards, etc. can be allocated to PAPs, IPs and vulnerable groups. There should be an agreement between the implementing Agency and Construction Contractors to assign priority to PAPs and local people for hiring as labour and skilled workers. Women and PAPs from Vulnerable groups such as Dalits, IPs and those living below poverty line, and severally affected should be given an opportunity for employment as per interest to work and their skill level.

The community development plan (CDP) focusses on those groups who are affected by sub-project to indigenous, women headed, marginal family / farmers disabled, voiceless, dalits etc. Main activities to be carried out by the project are the skill transfer, orientation, educational training, meaningful participation in decision making process etc.

The project would focus on issues that are directly related to their involvement in activities and accessing to project benefits. The main objective of the Indigenous people including vulnerable community would be, therefore, to ensure that the Indigenous and vulnerable people are actively involved with the project activities and they have access to project benefits at par with the rest of the community. The strategy also aims at minimizing any negative impacts like creating further causes of social and economic imbalances between communities.

Table 25 - Possible strategies and activities for the development of vulnerable communities

Issue	Strategy	Proposed activities
Social inequity within and between different groups	Facilitate intra-social group interaction to lessen the effect of rigid class, gender and caste hierarchies	<ul style="list-style-type: none"> <li>Including men and women from disadvantaged ethnic groups and castes through a social mobilization process</li> <li>Organize awareness campaigns by involving all Indigenous &amp; Dalit people for public awareness to share development benefits equitably</li> <li>Create social space for all to have their say in the decision-making process, and in benefit sharing</li> </ul>
Lack of inclusion and equitable participation in planning and implementation of development projects	<ul style="list-style-type: none"> <li>Encourage the participation of these groups in community and traditional decision-making structures</li> </ul>	<ul style="list-style-type: none"> <li>The project shall be designed to ensure the inclusion and participation</li> <li>Engage the vulnerable groups in a process of free, prior, and informed consultation throughout the project cycle</li> </ul>

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Issue	Strategy	Proposed activities
	<ul style="list-style-type: none"> <li>• Incorporate a mechanism for regular consultation with vulnerable groups</li> <li>• Increase awareness regarding the negative consequences of discriminatory rules</li> <li>• Ensure that Dalits, small landholders and the poor are granted employment opportunities on a preferential basis</li> <li>• Ensure that there is no discrimination on employment opportunities and wages on the basis of gender</li> </ul>	<ul style="list-style-type: none"> <li>• Work with the community groups to adopt a quota system and ensure adequate representation of these groups in the community groups</li> <li>• Provide leadership trainings to members of the community groups</li> <li>• Work with community groups and these groups to change discriminatory rules</li> <li>• Reserve certain number or percentage of employment opportunities to these groups during the construction period</li> <li>• Offer relevant trainings for semi-skilled jobs</li> <li>• Work with the contractors to ensure wages are equivalent to the amount of work conducted and not pre-determined by gender, caste or ethnicity</li> <li>• When project requires contribution in kind from members, those from the vulnerable communities should be provided a certain percentage of their daily wage, based on participatory well-being ranking to identify the poor households in the catchment area so that they too can contribute their labour</li> </ul>
Lack of awareness on potential livelihood improvement measures/skill training based on local resources	Awareness / training on local resources and their commercialization through promoting indigenous skills and knowledge	<ul style="list-style-type: none"> <li>• Vocational training to the groups based on traditional indigenous skills, knowledge and local resources</li> <li>• Linkage development with market and financing institutions</li> </ul>
Limited networking & wider communities/groups and local development organizations/service providers	<p>Explore market opportunities for products and services that are produced using skills/trainings</p> <p>Provide trainings on marketing, financial literacy</p> <p>Provide employment opportunities to locals (IPs, poor, women) where possible.</p>	<ul style="list-style-type: none"> <li>• Assist to find and use local resources and products as substitute of imported materials.</li> <li>• Create linkage with other line agencies / financial institutions / micro finance intermediaries / saving credit cooperatives for long term credit support</li> </ul>

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## 4.0 E&S SAFEGUARD APPROACH

### 4.1 Environmental and Social Screening

An E&S screening is being carried out to identify potential risk and impact of sub-projects by using E&S checklist (Annexure 1). Screening helps to categorize sub-projects into 3 categories, I, II and III as high risk, medium risk and low risk respectively. The environment and social impact assessment will derive as per the risk and impact volume of sub-project EIA will require in high risk sub-projects (category I), IEE will be required in medium risk sub-projects (category II) and only ESMP will be required for Low – risk (category III) sub-project.

E&S screening shall be conducted as per the checklist attached in Annexure 1 by the consulting firm. The categorization takes into consideration the nature, location, sensitivity and scale of the sub-project, and is proportional to the significance of its potential environmental and social risks and impacts.

#### 4.1.1 Categorization of activities (sub-project related)

As an element of the categorization process, the Bank may conduct field-based review of the Project to provide for a refined understanding of the environmental and social risks and impacts and support the Client's preparation of a site-specific approach to assessment of these risks and impacts. The Bank may adjust the categorization during the life of the Project, if warranted by changes in the environmental and social risks and impacts.

#### 4.1.2 Environmental and Social due diligence

The main objective of the E&S due diligence process is to review any potential environmental and social risks associated with the activities related to the sub-projects. E&S due diligence involves the systematic identification, quantification and assessment of environmental and social risks associated with the proposed sub-projects. Moreover, the process helps to identify the mitigation measures that will minimize any E&S risk identified during the assessment. The extent of E&S due diligence and detail will be based on the E&S risk category. The process is presented in as per AIB ESP&ESS.

#### 4.1.3 An Element of Appraisal

The Bank conducts environmental and social due diligence as an integral element of its appraisal of the Project, and in a manner that is: (a) appropriate to the nature and scale of the Project; and (b) proportional to the level of the Project's potential environmental and social risks and impacts. This element of the appraisal supports decision-making by helping the bank decide whether to finance the Project and, if so, the manner in which it requires the client to address environmental and social risks and impacts in the planning and implementation of the Project. The Bank's due diligence may involve both field-based and desk review, which may be supplemented by the use of independent consultants.

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#### 4.1.4 Review Process

As part of its due diligence, the Bank reviews the Client's environmental and social assessment and documentation in order to determine the extent to which –

- All key potential environmental and social risks and impacts of the project have been identified
- Effective measures to avoid, minimize, mitigate, offset or compensate for the adverse impacts are incorporated into the Project's design and ESMP
- The Client understands the requirements of the ESP and ESSs and has the commitment and capacity, or has made arrangements to strengthen its capacity, necessary to manage the Project's environmental and social risks and impacts adequately
- The role of third parties is appropriately defined in the ESMF Consultations with project affected people are conducted in accordance with requirements of the ESP and ESSs. The Client is responsible for ensuring that all relevant information is provided in a timely manner to the Bank so that the Bank can fulfill its responsibility to undertake environmental and social due diligence in accordance with the ESP.

#### 4.1.5 Application of ESP and ESSs

Also, as part of its due diligence, the Financier

- assesses whether the Project can be implemented in accordance with the ESP and ESSs
- assesses the Project's potential reputational risks to the Bank
- considers the costs and responsibilities for mitigation and monitoring measures
- reviews the timing of mitigation and monitoring activities in the schedule for implementation of the Project. The Bank may retain independent consultants to assist in its due diligence.

#### 4.1.6 Review of Information

The Financiers recognize that projects may have different levels of information regarding the environmental and social risks and impacts available at the time the Bank carries out its due diligence. In such circumstances, as part of its due diligence, the Bank assesses the risks and impacts of the proposed Project based on the information that is available to it, together with an assessment of –

- The risks and impacts inherent in projects of the type proposed for financing and the specific context in which the proposed Project will be developed and implemented
- The capacity and commitment of the Client to develop and implement the Project in accordance with the ESP and ESSs. The Bank assesses the significance of the gaps in information, and the potential risk this may present to achieving the objectives of the ESP



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and ESSs. The Bank reflects this assessment in the Project documents at the time the proposed financing is submitted for approval.

#### 4.1.7 Supplemental Measures

The Bank's due diligence responsibilities include, as appropriate

- Reviewing the information provided by the Client relating to the environmental and social risks and impacts of the Project,<sup>9</sup> and requesting additional and relevant information where there are gaps that prevent the Bank from completing its due diligence
- Providing guidance to assist the Client in developing appropriate measures to address environmental and social risks and impacts in accordance with the ESP and ESSs.

If the Bank determines that the assessment and planning processes or the documents require further work to comply with the requirements of the ESP or ESSs, the Bank requires client to undertake some or all of the following actions

- Carry out supplemental environmental and social assessments or studies
- Strengthen existing assessments or studies
- Improve the required environmental and social documentation. This process may also require the Client to undertake supplemental consultations.

#### 4.1.8 Projects under Construction or with Permits

If the Project is under construction, or permits for the Project have been obtained, including approval of the national environmental and social impact assessment or other relevant documentation, AIIB conducts, as part of its environmental and social due diligence of the Project, a gap analysis of the Project's design and implementation against the ESP and ESSs, to identify whether any additional studies or mitigation measures are required to meet the requirements of the ESP or the ESSs.

#### 4.1.9 Project Changes

Changes may occur in the nature and scope of the Project following the Bank's approval and signing of the legal agreements governing the Project's financing. Such changes may have material environmental or social risks and impacts. In such circumstances, the Bank carries out

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<sup>9</sup> For example, pre-feasibility studies, scoping studies, national environmental and social assessments, licenses and permits.

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environmental and social due diligence of the proposed changes and if it determines, on the basis of this due diligence, that any additional assessment, stakeholder consultations or environmental and social risk mitigation measures are required to meet the ESP and ESSs, it requires the Client to incorporate these measures in the Project. The Bank may also require the Project to be re-categorized.

#### 4.1.10 Adaptive Management

In the case of Project changes, the Bank may require the Client to use adaptive management measures. The adaptive management process will be defined in the ESMP. The process specifies how such changes or circumstances are to be managed and reported. In such case, the Bank requires the Client to prepare, provide to the Bank for approval, and implement the approved adaptive management measures to address proposed Project changes or unforeseen circumstances. If there are material changes to the scope, design, implementation or operation of the Project that are likely to result in additional environmental or social risks or impacts, the Bank requires the Client to carry out an additional assessment of such changes and stakeholder engagement in accordance with the ESP and ESSs, provide to the Bank for approval mitigation measures, as appropriate, in accordance with the findings of such assessments and consultation, and then implement the approved mitigation measures. The Client is required to disclose the Project changes and mitigation measures in the manner required of it under paragraph 57 of this ESP.

#### 4.1.11 Independent experts and advisory panels

In the case of a Project that the Bank deems to be highly risky or contentious because of its potential environmental or social risks and impacts (or both), the Bank may require the Client to engage one or more suitably qualified and experienced internationally recognized independent experts, not affiliated with the Project, to advise the Client during preparation and implementation of the Project. Such experts may, depending on the Project, form part of an advisory panel or be otherwise employed by the Client, and provide independent advice and oversight to the Project. The Bank reviews and, following consultation with the Client, approves the appointment of each expert and all members of each independent advisory panel before they begin their tasks.

## 4.2 Environmental and Social Assessment

### 4.2.1 Introduction

This section provides the overall methodology and procedure involve in the E&S assessment study. The project involves different stages from proposal identification to implementation. The E&S study start from the very beginning of the project to make the project environmentally and socially sustainable.

This framework set up a process dealing with potential effects of physical, biological and socio-economic environment coursed by project construction works and suggests the methods to avoid, minimize and mitigate/offset of risk and impact properly not being worst before the project start. The screening will be carried out to identify potential risk and impact of sub-projects at first by using E&S checklist. The environment and social impacts shall be assessed based on the risk and impact volume of sub-project. For example, EIA is required in high risk sub-projects (category I), IEE will

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be required in medium risk sub-projects (category II) and only ESMP will be required for Low – risk sub-projects (category III).

#### 4.2.2 Criteria and Procedure of EIA and IEE Study

The procedure of environmental study is carried out as per the EPR, 2054 set by the GoN. Different donor agencies have also set their study criteria. These criteria along with GoN rules are used in DSUEP project.

Table 26 - Criteria of EIA and IEE study

Project	Environmental Study Required as per EPR, 2054	Environmental Study Required as per AIB Guideline
Construction of transmission line with capacity 132 kV or above	IEE	As per country Rule
Construction of outdoor substation by tapping from existing 220 kV or higher capacity Transmission line	IEE	
Construction of Hydropower with installed capacity between 1 to 50 MW	IEE	
Construction of Hydropower with installed capacity more than 50 MW	EIA	
Project requiring deforestation, clearing or forest area	IEE	
Any project which has to be constructed within sensitive area like Historical, Cultural and Archaeological, Ecological and Wetland area, National Park, Wildlife Conservation Area, area that are main source of water supply)	EIA	
Project with investment cost of NRs 50 million to 250 million	IEE	
Project with investment cost of more than 250 million	EIA	
Water resource development project requiring permanent resettlement/displacement of between 25 and 100 people	IEE	
Water resource development project requiring permanent resettlement/displacement of more than 100 people	EIA	
Any project which has to be constructed within sensitive area like Historical, Cultural and Archaeological, Ecological and Wetland area, National Park, Wildlife Conservation Area, area that are main source of water supply)	EIA	

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#### 4.2.3 Prepare E & S Assessment Reports in line with the Requirements of Government of Nepal & Financiers

##### Environmental and Social Assessment as per Government of Nepal

##### Project scoping

Scoping is mandatory of all projects requiring EIA as per Rule 4 of EPR 1997. EIA scoping will be undertaken in accordance with the EPR-1997 and EPA-1997 to inform stakeholders about the proposed project and to receive their comments on relevant environmental issues and identify priority issues for environmental assessment. Scoping exercise, besides review of project feasibility report and other project related literature, included publication of 15 days Public Notice inspections of project construction site, and discussions with local people, stakeholders and concerned government officials. The environmental issues of priority concerns in the scoping document were based on the experiences of the consultants on the similar type of projects incorporating the concern received during formal and informal deliberations with local people and other concerned stakeholders.

The issues identified in the scoping document will be incorporate in the ToR. The ToR will be prepared as per the Schedule-4 of EPR1997 pertaining to Rule-4 and Rule-5. The EIA will be focused on the detailed analysis of the environmental issues mentioned in the approved ToR.

##### Terms of Reference (ToR) for EIA study

ToR for IEE also represents the scoping process to some extent and for EIA, ToR carries out after scoping study. ToR should be presented here for the purpose of reference. The proponent should develop a ToR to be submitted to DoED and MoWR for approval.

If the proposed project falls within Schedule (1) of EPR, the ToR is required to provide specific guidelines for IEE study. ToR preparation assists in –

- Systematizing the working procedure
- Delineating the specific activities to be implemented
- Fitting the IEE study into the context of existing polices, rules and administrative procedures
- Accomplishing the work within a specified time frame
- Giving emphasis to the most important elements for study
- Providing technical guidance in delineating the specific environmental aspects for study

ToR shall be approved by the Financiers

##### Format for ToR (as per Schedule (3) of EPR)

Name and address of the person / institution preparing the report -

General introduction

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#### relevancy of proposal

1. Procedures to be adopted while preparing the report
2. Policies, acts, rules and manuals to be taken into account
3. Preparation of the report:
  - Time
  - Estimated budget
4. Delete in first amendment (1999)
5. Specific impacts of implementation of the proposal on the environment
  - Physical and chemical
  - Biological
  - Socio-economic
  - Cultural
6. Alternatives for the implementation of the proposal
  - Design
  - Project site
  - Technology, procedures of operation, time schedule, raw materials to be used
  - Other matters
7. Prevention of impacts on the implementation of the proposal on the environment
8. Matters to be monitored while implementing the proposal
9. Other necessary matters

*Note: The general practice in socioeconomic environment and cultural environment is combined as "Socioeconomic and Cultural Environment. Also, physical and chemical environment is termed "Physical Environment".*

After the approval of ToR by the concerned (Line) Ministry 15 days' notice will be published in national daily newspaper requesting local stakeholders for the suggestion and recommendation in the project and any advice.

#### Site inspection and field visit

After approval of Scoping and ToR team will be mobilize to the identified site. Primary and secondary data and necessary information will carry on, process following site observation, focus group discussion, key informant interview, with project affected people, indigenous people, women civic society and other stakeholders.

The mobilized team conduct the walk-through survey. During the survey the team collect all the necessary baseline data of physical, socio economical and biological environment and also verify the secondary collected. The formed checklist will be filled at site and the data will be process at office. The consultation meeting with local stakeholder and concern government office will be conducted and recommendation and issues, if any, raise will be incorporate in the study report.

#### Public hearing

As per EPR 1997 Rule 7 public hearing is mandatory for EIA level study. After preparation of draft report, the proponent should conduct a public hearing to collect the suggestion on the prepared draft report and issues if any.

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#### Report preparation

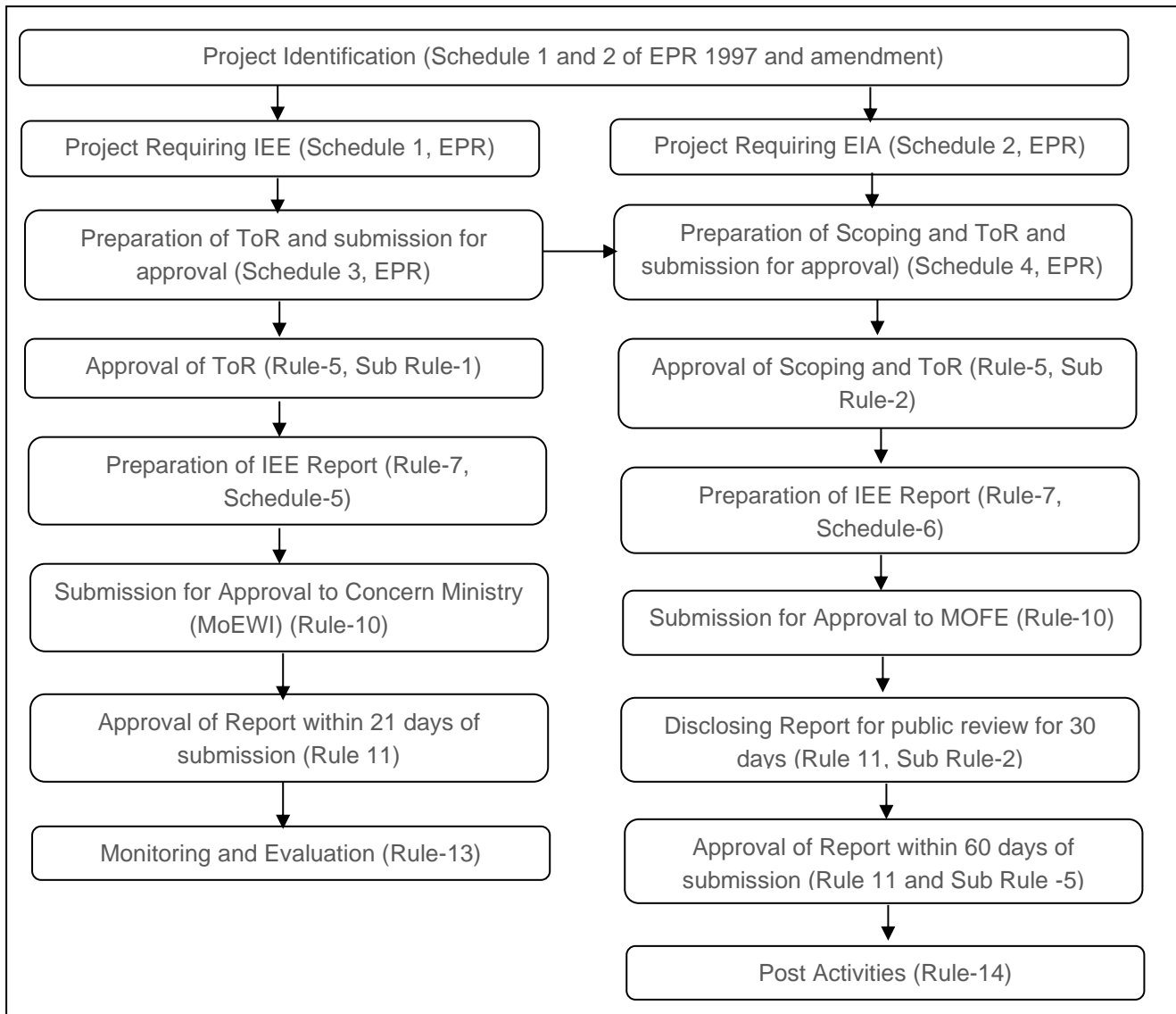
The final report incorporating all the comments and suggestion for local stakeholder will be prepared. The final EIA/IEE will be prepared as per the approved ToR and format mention in schedule 5 for IEE and as schedule 6 for EIA.

After preparation of final report, the prepared report will be submitted to concern ministry MoEWI for IEE and MoFE for EIA for approval as per Rule 10 of the Regulation.

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Figure 1 - Procedure / steps of EA study





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#### Post EIA Activities

Two years after the commencement of \*Service, distribution and production relating to the implementation of a proposal requiring an environmental impact assessment, the Ministry, shall carry out an environmental examination of the environmental impact of the implementation of the proposal and the measures adopted for reducing such impact etc. and maintain updated records thereof.

Table 27 - E&S Safeguard stages involved in Project Cycle

Stage in project cycle	Step activities	Description	Responsibility		Duration
			Work	Approval/ Review	
<b>Step -1 E&amp;S screening &amp; categorizing</b>					
Identification pre-feasibility	Under taking Screening and Categorizing (Schedule 1 for IEE and Schedule-2 for EIA)	Prepare a document containing environmental and social information covering potential environmental/social risk and impacts, mitigation measures, evidence of public consultation etc.  Recommend to Prepare ESIA (AIIB requirement)	Consulting Firm	ESMU (NEA)	1 weeks
<b>Step 2: E&amp;S scoping to identify type and scope of E&amp;S assessment</b>					
Feasibility Study	Scoping Issues (Rule 4, EPR, 1998)	Identify, by using checklists and based on preliminary field examination the necessity to conduct an IEE or an EIA, as per EPR 1997  Produce Environmental/Social related document to competent authority for approval	Consulting Firm	MoFE	3 Week
<b>Step 3: Terms of Reference for ESIA Studies</b>					
Feasibility Study	Preparation of ToR (Sc-3 for IEE & Sc-4 for EIA) Rule 5. Approval for ToR as per Sub Rule-2	Define the main Environmental/Social concerns and issues related to proposed sub-project, which must be addressed by ESIA. Produce Environmental / Social related document to competent authority for approval.	Consulting Firm	MoEWI for IEE and MoFE for EIA	4 Week
<b>Step 4: Baseline Data Collection and identification of E&amp;S impacts</b>					
Detailed Design/ Assessment and Estimate	E&S team formation, Primary and secondary source of information, initiation, interaction & consultation.	<ul style="list-style-type: none"> <li>• Team formation as per ToR</li> <li>• E&amp;S baseline survey</li> <li>• Public consultation and information dissemination</li> <li>• Carry out ESIA</li> </ul>	Consulting Firm	ESMU (NEA)	2 – 4 weeks

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Stage in project cycle	Step activities	Description	Responsibility		Duration
			Work	Approval/ Review	
		<ul style="list-style-type: none"> <li>Fine-tune work plan on basis of desk studies.</li> </ul>			
<b>Step 5: Field work and Public Consultation</b>					
Data Analysis and interpretation	Identification of Environmental/Social Impacts Impacts predictions Assessment sufficiency of impact E&S management Plan Environmental and Social Management Plan	<ul style="list-style-type: none"> <li>Establish what E&amp;S impacts will occur as a result of interaction of environmental setting, sub-project construction and operation activities.</li> <li>Establish the extent of E&amp;S impacts of the sub-project construction and operation.</li> <li>Prepare ESMP to ensure the implementation of mitigation measures.</li> </ul>	Consulting Firm	ESMU (NEA)	4 weeks
<b>Step 6: Preparation and Submission of E&amp;S Report</b>					
Design Phase	Preparation draft report and Public Hearing as per Rule-7 Submission as per Rule 10 of EPR	Report will be prepared (IEE schedule-5 and EIA Schedule-6) incorporating all issues and suggestion received. Report will be submitted to concern ministry of approval of IEE and MoFE for approval of EIA.	Consulting Firm	MoEWI for IEE and MoFE for EIA	4 weeks
<b>Step 7: Prepare / finalize ESIA Report and corresponding risk management instruments (ESMP, RAP, IPDP, as needed)</b>					
Detailed Design/ Assessment		Summarize all information obtained, analyzed and interpreted in a report form suggested by the approving authorities.	Consulting Firm NEA / PIU		
<b>Step 8: Review and Approval of the E&amp;S Report</b>					
Project Appraisal/Approval	Review and Approval of ESIA Report	Decide if project should proceed, or if further alternatives must be examined. Approval of ESIA Report/Rejection	Consultant Firm and ESMU (NEA)	MoEWI for IEE and MoFE for EIA	IEE- 7 week EIA- 8 week
<b>Step 9: Preparation of Preparedness Report</b>					

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Stage in project cycle	Step activities	Description	Responsibility		Duration
			Work	Approval/ Review	
Implementation Phase	To prepared a checklist	Preparedness for camp site, spoil and waste disposal site, stockpiling yard, quarry site identification and crusher plant location approval for the project.	Consultant Firm	ESMU (NEA)/Donor Agency	
<b>Step 10: Prepare of Updated Environmental Management Action Plan (EMAP) and Resettlement Action Plan (RAP)</b>					
Implementation Phase	Preparation of Updated EMAP  Preparation of Updated RAP	The Environmental Management Plan and Resettlement Plan prepared during design phase will be updated to incorporate any issues/impacts occur/identify during construction phase.	Consulting firm	ESMU (NEA)/Donor Agency	
<b>Step 11: Environmental and Social Monitoring</b>					
Implementation Plan		Determine compliance with ESMAP and of impacts. Monitoring includes also impact monitoring (on the bio-physical and social environment, to be measured by objectively verifiable indicators as described in the ESMAP). This section must define schedules and respective responsibilities for monitoring and supervision activities.	Consulting firm	NEA/Donor Agency	
<b>Step 12: Environmental and Social Audit</b>					
Post-Construction Activities & Audit	Auditing	Environmental/Social Audit: conducted by MoFE after two years of construction. Additional independent audit to be conducted by NEA / PIU during implementation.	MoFE for EIA Study		During Operation period

Note: Please reduce the contents of Text and would like to suggest to present project cycle and activities in diagram.

### Social impact assessment for Resettlement Plan

Social impact assessment includes socio-economic condition survey, census of all project affected people, and an inventory of land and assets. The following definitions shall be followed in case of social impact assessment –

#### Census

The Census shall register and document the status of all affected persons (100%) within the project's corridor of impact. It shall quantify the possible social impact in terms of loss of land, assets, private business and other sources of income. It will provide a demographic and

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geographic overview of the affected household, and include details of affected assets, as well as impacts of land acquisition.

### Inventory of Assets

Based on the detailed design, an inventory of affected assets (land and structure) will be conducted and will include: (a) total and affected areas of land by type of land assets, (b) total and affected areas of structures, by type of structure (main or secondary), (c) legal status of affected land and structure assets and duration of tenure and ownership, (d) quantity and types of affected crops and trees, quantity of other losses; (e) quantity/ area of affected common property, community or public assets by type, and (f) quantity/area of affected private businesses.

The survey will cover the following: (i) boundaries of the site identified for the proposed subproject elements in case of subprojects involving new interventions, (ii) proposed ROW boundaries irrespective of titleholders and non-titleholders, (iii) current users of the subproject site including businesses, vendors, whether titleholders or otherwise and experience temporary disruptions during construction, and (iv) losses of affected persons.

### Environmental and Social Management Plan

Environmental and Social Management Plan (ESMP) is the tool prepared to ensure that all the adverse impacts as the consequences of project implementation are timely addressed and mitigated while beneficial impacts of the project are enhanced.

The ESMP is a part of the EA study. ESMP is a site-specific plan developed to ensure that the project is implemented in a sustainable manner and the environmental parameters do not get deteriorate. It includes all the site-specific impacts likely to arise during implementation of proposal and their proper mitigation measure. ESMP provides detail action plan needed to mitigate the impacts including institution responsibility and cost of implementation and monitoring. ESMP includes the baseline, impacts, compliance monitoring requirements, mitigation measures, costs, accountability, reporting and review mechanism.

### Baseline monitoring

Helps to compare the deviation of environmental parameter from baseline data due to project implementation. It indicates the parameters to be monitored, their baseline value, institute responsible, where and when to be monitor.

### Impact monitoring

During the project phase focuses on pre-identified (in the ESMP) indicators of impacts to assess whether the impacts have been accurately predicted, and whether the mitigation measures are sufficient and effective. Impact monitoring will be carried out to assess actual level of impact due to project construction. The impact monitoring includes –

- Monitoring of the impacts of the project on physical, biological and socioeconomic & cultural environment of the area

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- Monitoring of the accuracy of the predicted impacts
- Identifying the emerging impacts due to project activities or natural process and develop remedial action
- Monitoring of the effectiveness of mitigation measures

### Compliance monitoring

Provides a look on how the ESMP are being implemented in the project. The mitigation measures proposed in ESMP should be implemented in the project. Compliance monitoring employs a periodic sampling or continuous recording of specific environmental quality indicators to ensure that project complies with recommended ESMP.

The compliance monitoring will be conducted to monitor the compliance of the proposed mitigation measures and monitoring activities. The compliance monitoring will mainly focus on –

- Compliance of the tender clause
- Compliance of the mitigation measures including payment of cash assistance/compensation, number of grievances filed and resolved, etc. and compensatory tree plantation
- Timely and adequately implementation of Environmental Management Plan

Environmental and Social Trimester Monitoring Report Template is shared as Annexure 10.

Table 28 - Monitoring Plan

S.N.	Parameter	Indicators	Method	Location	Schedule
A	Construction Monitoring				
Impact Monitoring					
Physical Environment					
1	Air Quality	Dust around the project area	Observation	Settlements near to the distribution line and substation	Twice in a season
2	Noise Quality	Decibel (dBA) as per GoN Standard	Measurement of noise using sound level meter	Settlements near to the distribution line and substation	Twice in a season
3	Waste Management	Unpleasant aesthetics of labour camps, unregulated waste disposal and associated visual impact	Observation	Labor camp/ construction sites	Monthly during construct

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S.N.	Parameter	Indicators	Method	Location	Schedule
4	Land use	Changes in land use	Observation	Near poles	Once during construct
5	Construction related transportation and hauling of materials	Use of water spray and placement of hoarding board around the construction sites	Direct observation	Construction area	Construct period
6	Occupational Health and Safety issues including labor camp and, avoid use of child labor	Impacts on health of the workers; No. of accidents; use of personal protective instrument by the workers	Inspection of the construction place; Records of diseases and accidents	Sub-project area (construction sites)	Continuous during construct period
Biological Environment					
7	Vegetation Clearance and felling of trees	No of trees felled for RoW clearance	Discussions with Users Group, local people and DFO and Observation of the area and tree counting.	All sub-project sites	During construction period
7	Wildlife	Wildlife habitat and clearance	Observation, discussion with local people, keeping records on wildlife, birds and reptiles killed.	All sub-project sites	During construction period
Compliance Monitoring					
1	Provision of clauses related to environmental and social safeguard mitigation measures in tender document and allocation of adequate budget for implementation of environmental mitigation measures identified in ESMP and monitoring works	Yes/No	Review, inquiry and consultation	Kathmandu Office	Preconstruction phase

### 5.0 OPERATIONALIZATION OF ESMF

The table below presents the summary of roles and responsibilities of Key stakeholders, in environmental and social operationalization process during different stages of the sub-project cycle with description of activities and estimated time.

#### 5.1 Roles and Responsibility of AIIB, EIB and NEA / PIU

The project Distribution System Upgrade and Expansion (DSUEP) is under Nepal Electricity Authority (NEA) called Client. NEA has established Project Implementation Unit (PIU). PIU is responsible for overall management of project. This project has been financed by Asian Infrastructure Investment Bank (AIIB) and European Investment Bank (EIB). The concerned ministries, AIIB, EIB and NEA itself involve in different mode of decision making, design, implementation and supervision and reporting of the sub-project.

##### 5.1.1 Roles and responsibility

The following Role and Responsibility has presented in table -5 of NEA, Bank, and other Key stakeholders for E&S Risk Management.

Table 29 - Roles and responsibility matrix

Organization	Role and Responsibilities
Ministry of Ministry of Energy, Water Resources and Irrigation (MoEWRI)	<ul style="list-style-type: none"> <li>As NEA’s line ministry, MoEWRI will provide oversight to NEA/ PIU</li> <li>Recommend members of steering committee</li> <li>Mandated to formulate and implement environmental policies, plans and programs at national level. No direct responsibility in the project. It has the role of facilitation as and when needed on environmental and social safeguards.</li> </ul>
Ministry of Finance	<ul style="list-style-type: none"> <li>Budget approval</li> </ul>
AIIB & EIB Bank	<p>In terms of sub-project E&amp;S instruments, AIIB &amp; EIB Bank’s role will be as follows</p> <ul style="list-style-type: none"> <li>Compliance monitoring to ensure effective implementation of E&amp;S risk management measures for the project</li> <li>For Cat III and sub-projects, Bank will review and provide non-objection/concurrence on E&amp;S instruments (ESIAs, ESMPs, RAPs/IPDPs, as required, of individual sub-projects submitted to prepared by NEA/ PIU</li> <li>Bank will also take part and support NEA / PIU in enhancing E&amp;S capacity PIU</li> </ul>



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Organization	Role and Responsibilities
Nepal Electricity Authority (NEA)	<ul style="list-style-type: none"> <li>• NEA is the project implementing agency and Project Implementing Unit (PIU) is associated unit within NEA</li> <li>• PIU team shall constitute key members of steering committee</li> <li>• Participate in the decision-making process</li> <li>• Information dissemination, coordination with Bank and Government of Nepal</li> <li>• Coordinate with concern Ministers of GoN</li> <li>• Approve the Project Budget other relevant documents</li> </ul>
DSUEP Implementation Unit (NEA / PIU)	<p>PIU is authorized project implementing unit associated with NEA. The key responsibilities of PIU are –</p> <ul style="list-style-type: none"> <li>• Lead and manage E&amp;S screening and scoping processes for sub-projects</li> <li>• Determine Sub-project E&amp;S risk category based on screening and scoping process (to be confirmed after risks and impacts assessment)</li> <li>• Support and monitor to implement E&amp;S risk management measures commensurate with their responsibilities under ESMF and ESMP</li> <li>• responsible for an overall supervision, monitoring and evaluation of the activities and coordination</li> <li>• responsible to verify that E&amp;S documents are reflected correctly and clear in all legal documents in the Nepal DSUEP Project structure- such as the bidding documents</li> <li>• Coordinate with Bank and NEA authority, MD, Ministry of MoEP and DoEP</li> </ul>
Center level Individual Expert (Environmental Specialist & Social Specialist)	<ul style="list-style-type: none"> <li>• Support to PIU to implement of the EIA/IEE/EMP, RAP and IPDP</li> <li>• Establish close coordination/relation with NEA / PIU and AIIB / EIB</li> <li>• Support to PIU preparation semiannual reports</li> <li>• Support to PIU for advisory service in preparation, implementation and monitoring the projects</li> <li>• Provide the inputs to PIU E&amp;S related issue and support for decision making process</li> <li>• Suggest to PIU for overall implementation of E&amp;S documents</li> <li>• Support to update the E&amp;S related documents</li> <li>• Supervision and support implementation of EMP, RAP, IPDP and provide the feedback to Consulting firm, NEA / PIU</li> </ul>
Consultants or Center level Individual Experts (Environmental Specialist & Social Specialist)	<ul style="list-style-type: none"> <li>• Determine whether EIA or IEE are required as per GoN regulations; ensure and conduct proper required studies and obtain EIA or IEE clearances from GoN, where required</li> <li>• Ensure and conduct ESIA studies as per AIIB / EIB Bank requirements</li> <li>• Review ESIA studies, ESMPs, other relevant documents and provide clearance as follows</li> <li>• For medium and low risk DSUEP sub-projects, clearance will be provided by NEA (and no objection is sought from AIIB / EIB)</li> <li>• For high risk DSUEP sub-projects, NEA will review and submit the ESIA studies for clearance by AIIB / EIB</li> <li>• Take part in public consultations and other activities related to E&amp;S aspect as conducted in project cycle</li> <li>• Support to project to implement E&amp;S activities</li> <li>• Supervision of EMP implementation</li> </ul>

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

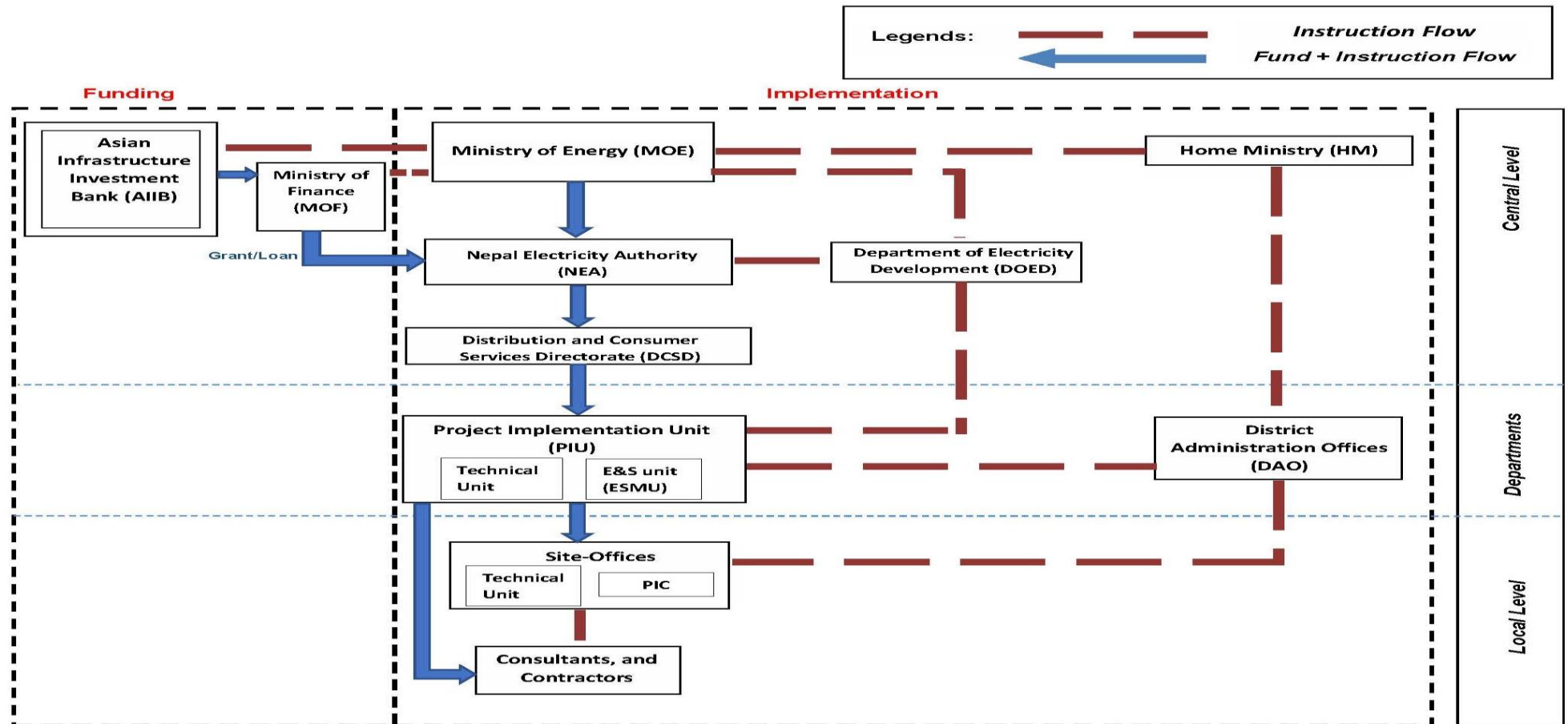
Organization	Role and Responsibilities
	<ul style="list-style-type: none"><li>• Implementation of IPDP</li></ul>
NGO (or any identified specialists by NEA, or NEA may get it done in-house)	<ul style="list-style-type: none"><li>• Coordination with the NEA, PIU, Consulting firm, Expert and other stakeholders</li><li>• Selection of training participants</li><li>• Conducted skill development training</li><li>• Consultation with PAPs Indigenous people, women and others stakeholders</li><li>• Completion of IPDP implementation of all sub-projects</li><li>• Reporting works to project authority and concern stakeholders</li><li>• Provide training certificate to participants.</li></ul>

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

### 5.1.2 Institutional Responsibilities & Arrangement

Figure 2 - Organizational Flow Chart



# Distribution System Upgrade & Expansion Project

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PIU will be staffed with a senior Community Relations Manager (CRM), who will guide NEA on how to best set up a team of local Community Liaison Officers in all three provinces to carry out general stakeholder mapping and stakeholder engagement, as well as with a senior Indigenous Peoples Safeguard Officer (IPSO) who will be overseeing, monitoring and reporting on indigenous peoples' safeguards.

## 5.2 Implementation schedule

Project implementation will go through various phases such as design phase, Pre-Construction Phase, Construction Phase and Operation and Maintenance phase.

### 5.2.1 Design Phase

During this phase the design of the project will be finalized including preparation of ESMF, and Environmental and Social documents finalization based in design stage, Preparation of ESMF, Resettlement Action Plan, Indigenous Peoples Development Plan, Vulnerable Community Development Plan, Initial Environment Examination are the basic document for management of E&S Risk and Impacts. Land acquisition, resettlement and compensation works will be completed before the contract award of civil works. VCDP, IPDP, EMP and CDP will be implemented the during the construction phase. The ongoing monitoring of project activities will be conducted in venous stage of project cycle.

### 5.2.2 Pre-Construction Phase

During this Phase, Review and planning of environmental and social safeguard activities began. The implementation of land acquisition, rehabilitation and compensation work of assets will be started and completed for 33/11 kV substations. However, for 33 and 11 kV distribution lines will be consider after the mobilization of contractor because of distribution line route may change during the construction phase. Safeguard monitoring will be initiated with focus on pre-construction work. This phase will be started in Dec 2019 and is expected to extend up to the 4<sup>th</sup> quarter 2020.

### 5.2.3 Construction Phase

This includes mainly construction works of the major component on the DSUEP subprojects in 3 province districts This also includes implementation of the environmental and social safeguards activities and mitigation measures, implementation EMP, VCDP / IPDP and CDP which will be updated during this phase. The current estimated construction time of the project is 12 months, but can be subject of change due to technical, design and engineering review of contractor's designs. The 4<sup>th</sup>quarter 2020 is the currently envisaged start of the construction works.

### 5.2.4 Operation and Maintenance Phase

It covers the operation and maintenance of the DSUEP related project facilities including the training of DSUEP operating engineers. This also includes environmental and social M&E and implementation

## Distribution System Upgrade & Expansion Project

### *Environment & Social Management Framework*

of corrective measures as required. O&M Phase will be scheduled and should have some overlapping with the Construction Phase.







# 6.0 CONSULTATION & INFORMATION DISCLOSURE

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## 6.1 Mode of Public consultation

Consultation is the method to get and disseminate the information to and from the public and the project is also called two-way communications. The consultation mainly adopted in development projects are focus group discussion, Key informant interview, Stakeholders consultation or engagement, survey with questionnaire etc. The projects will apply the adequate public consultation in the different stage of project cycle. The consultation will help to find the real issue and will help to solve issue and maintain transparency.

PICs will be established each site office. PIC staff will be responsible for all types of consultation, handle the grievances and information disclosure in local level.

The Framework recommends a set of public consultation activities and information dissemination to affected people. Public consultation will include both local government and civic society where the PAPs would be regularly provided with information on the project, the resettlement process prior to and during the preparation for resettlement actions. Mechanism of consultation and participation will include –

- Public Meeting in sub-project area
- Information awareness campaigns through third party
- Interview/survey in project affected household
- Focus group discussion
- Formation of community group including stakeholders at various stage of project
- Development of grievance redress mechanism in the sub-project premises

In the early stage, project will initiate the consultation in process to collect the relevant primary and secondary data by using focus group discussion and key informant interviews.

During the process of preparing RAP the public consultation will be made with the directly affected families, similarly affected institutions, communities' facilities representative and Rural Municipality or Municipality or related wards office representative to find their view and share the information.

The public consultation will be made with PAPs as well as other stakeholders including Gender and indigenous people will be requested to participate during the process of preparing IPDP.

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

It is important to engage the concern stakeholders in meaningful and the project's willingness and ability to work with them. Through stakeholders mapping, different type of stakeholders will be identified in terms of one or several of the following categories.

- Project Affected people/household, communities or organization.
- Project beneficiaries
- Government Agencies and their representatives
- Elected representative of District Coordination Committee (DCC), Municipalities and wards representative and rural municipality and related ward representative.
- Concern Business people and entrepreneurs.
- Concern NGOs and, CBOs and user groups
- Political Parties representatives.
- Informal or traditional head, community head, teachers, local healers (Dhami) social and religious leaders and other notable women, men and cast and ethnicity who can influence in sub-project areas.
- Health works
- Social works and marginal groups.
- The project developers/proponents themselves.

### 6.1.1 Process of Meaningful Consultation

The consultation is two-way communication process between project authority and stakeholders. The project affected people or communities should be continually consulted by the project management to identify upcoming needs, constraints, priorities and what kind of social and environmental corrective measure need to be required during the different phase of projects. The process will follow of meaningful public consultation.

- Engagement with stakeholder early in the development process.
- Public meeting in sub-project areas
- Appropriate timing and venue of consultation for the different groups
- Use the local language sign language, local facilitators including female.
- Information dissemination in collaboration with community groups
- Focus groups discussion
- Formation of committee and groups including stakeholders prescribe as per project documents or requirements.
- Consultation will be continued through the project life

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

A separate process of consultation shall take place if and when it is determined that FPIC process needs to take place.

All relevant aspects of project planning and development shall be discussed with both primary and secondary stakeholders of the project. Different techniques of consultation shall be used with stakeholders during project preparation, viz., in-depth interviews and focus group discussions etc. Consultations shall be organized with directly displaced population to understand their concerns and elicit their suggestions on the types of mitigation measures that need to be considered in the project. Particular attention shall be paid to the needs of disadvantaged or vulnerable groups, especially those who are below the poverty line, the landless, the elderly, female-headed households, women, and those without legal title to land.

### 6.1.2 Primary Stakeholders

The Project stakeholders can be divided into the primary and secondary stakeholders. The primary stakeholders of the Project comprise of those directly affected by the various components of the Project either as affected by the loss of land, house or other livelihood assets or those who are beneficiaries of the Project. The primary stakeholders in this project include:

- Residents and property owners of project components 33 / 11 kV substations, 33 kV lines, 11 kV lines and LT lines
- Project concerned committees comprised of the project affected people.
- The users of community facilities and forest affected by the project.
- Sub Project affected villages, the Rural/Municipality, Wards Also, Elected representatives, community leaders, and representatives of community – based organizations.
- Government agencies and departments.
- Affected organizations and indigenous groups/peoples.

### 6.1.3 Secondary stakeholders

Secondary stakeholders are those people and institutions that are not directly affected by the Project but show their concern in one-way or the other in the Project. The Secondary stakeholders include:

- Ministry of Energy and other Ministries and Departments of Government of Nepal (the government).
- District Coordination committee Committees of subproject districts
- District offices of various ministries at Subproject areas

- Local voluntary organizations, NGOs, CBOs.
- Local social and cultural institutions in the Project Rural/Municipality and in the district.
- Donors such as AIIB and EIB.

#### 6.1.4 LARC Consultation and Participation

The consultations and discussions with the project affected people and communities is a continuous activity throughout the project cycle. It starts during the Project Preparation Technical Assistance (PPTA) phase, is applied in the ongoing pre-construction phase, will be followed during the construction phase, and can continue in the operation phase. PAPs and non-PAPs shall be kept informed about the impacts, compensation and assistances, as well as the mitigation measures through applicable social management plans.

#### 6.1.5 Pre-Construction Phase

The applied consultation (i) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to PAPs, (ii) is undertaken in an atmosphere free of intimidation or coercion, (iii) is gender inclusive, (iv) enables the incorporation of all relevant views of PAPs and other stakeholders into project design and implementation, and (v) ensures the participation of AHs in planning, implementation, and monitoring and evaluation. The feedback of people consulted through different type of meetings has been considered by the preparation and implementation of LARC activities.

This communication approach is in line with the CDS defined overall participatory approach to be used to engender community involvement, ownership and empowerment. A participatory approach will be used in implementing all Project interventions, from planning to execution and monitoring. The CDS will place special emphasis on ensuring women, girls and socially excluded groups and to encourage their participation in program interventions. Participation of both genders is expected and encouraged to ensure that women and men work towards common goals and objectives within their own communities and that women's new roles knowledge and status is equally respected and tolerated. During implementation, synergy will be built with existing government and non-government initiatives and programs implemented across the project area.

DSUEP will continue the implementation of LARC requirements in close consultation with the Primary stakeholders. Women's and other vulnerable group's participation will continue to be ensured by involving them in public consultation throughout the Project implementation also through arrangements, which would enhance their ability to attend consultation meetings and getting them involved in active participation. DSUEP does ensure that views of PAPs, particularly those vulnerable, women and IP related to the resettlement process, are looked into and addressed. This will be ensured through group discussion and multi stakeholders' meetings to be continued in the project area. All such meetings and consultation will be documented for future references.

#### 6.1.6 Information disclosure

The Constitution of Nepal has ensured to every citizen the right of information. Project is responsible to provide the information to concern stakeholders. Most often the development project, including socio-economic and environmental setting, falls due to lack of information or misinformation. The management team must share all information obtained about the proposed activities and their expected result with the affected and interested public for the success of given program. In Collaboration with different stakeholders like, CBOs, NGOs, local authorities and other groups, the project need to disclose all the relevant information to PAPs in the various stages of project cycle. The project relevance information will disclose by using various means like mass media, website, brochures, leaflet, Local FM, etc. inform by meeting/workshop, distribution of project documents etc.

The project will manage and set up the channel for disseminating information and will establish PIC center in each project site office. The project center office (PIU) will manage the PIC properly. PIC is responsible to disseminate information in district sub-projects areas stakeholders. NEA/PIU and other relevant stakeholders will disclose the documents ESMF, RAP and IPDP/VCDP information through their website [www.nea.org](http://www.nea.org) and co-financers' websites ([www.aiib.org](http://www.aiib.org) and [www.eib.org](http://www.eib.org)) besides other information dissemination methods such as pamphlets and radio. RAP and IPDP/VCDP will follow consultation and information disclosure as per chapter 6 of this document.

#### 6.1.7 Grievance Redress Mechanism

The grievance redress mechanism will be established to hear the voice of voiceless, to address the deprive community issue and to mitigate project affected people and community properties losses that would be affected by the project. The ESMF has set up a 4 - stage mechanism to escalate grievances. The PAPs will have access to all level of grievances redress procedure, especially the GRM such as on-site provision of compliances hearing allows project affected persons to get fair treatment on time regarding land acquisition, compensation, resettlements requirements and other project related issues. PAPs can register or note to the project staff means by written or verbal or others like phone, SMS etc. The local consultative forum will be established in wards level to handle the first level grievances. The committee will be formed are as following members and handled by PIC office.

- Chairperson's wards or chairpersons' relative wards of sub-projects
- Women representative members of concerned wards' nominee
- Member secretary of NEA/PIC E&S person
- Two people from PAPs Representatives (from affected family - one Indigenous & one Women)

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### First Step

LCF will be responsible to deal first level process and PIC and supervision consulting firm facilitated to LCF which will be the first level of intervention to address grievances and complaints. Many grievances can be resolved by providing contract and complete information. Complaints of PAPs and communities on any aspect of compensation, relocation or un-address losses of private and community properties shall in first instance be settle verbally or in written from the field at the PIC level. The LCF and PIC/Supervision consulting firm will be responsible to listen and provide information to PAPs and resolve their issue. The LCF may ask for the assistance of the project E&S safeguard staff to help resolve the issue. The PIC records the details of grievance Name of persons, address, phone number, date of received complaints, location, complaint resolution (if resolved). PICs try to resolve the grievances within 10 days. If not resolved province level PIC will forward to DSUEP-PIU safeguard unit.

### Second Step

If the grievance remains unsolved the LCF forward the complaints to the safeguard unit through PIC. Including E&S expert and safeguard unit of DSUEP-PIU will notify and review further steps. Safeguard unit endorse with executive agency (EA) of DSUEP. EA will answer quires and find resolution for grievance regarding the various issue of social and environmental within 7 days. The project E&S specialists will undertake the corrective measure in such cases.

### Third step

If the grievance remains unsolved it will be referred Grievance Redress Committee (GRC). Compensation Declaration Committee is also Grievance Redress Committee itself. Project Manager is the secretary of CDC and also secretary of GRM in this step. GRM will give the opportunity to present her/his concern and GRC will suggest corrective measure within 10 days. The project social safeguard specialist will be responsible for processing and placing all paper before the GRC recording, decision, issuing minutes of meeting and taking follow up action to see that formal order are issued and formal decision are carried out.

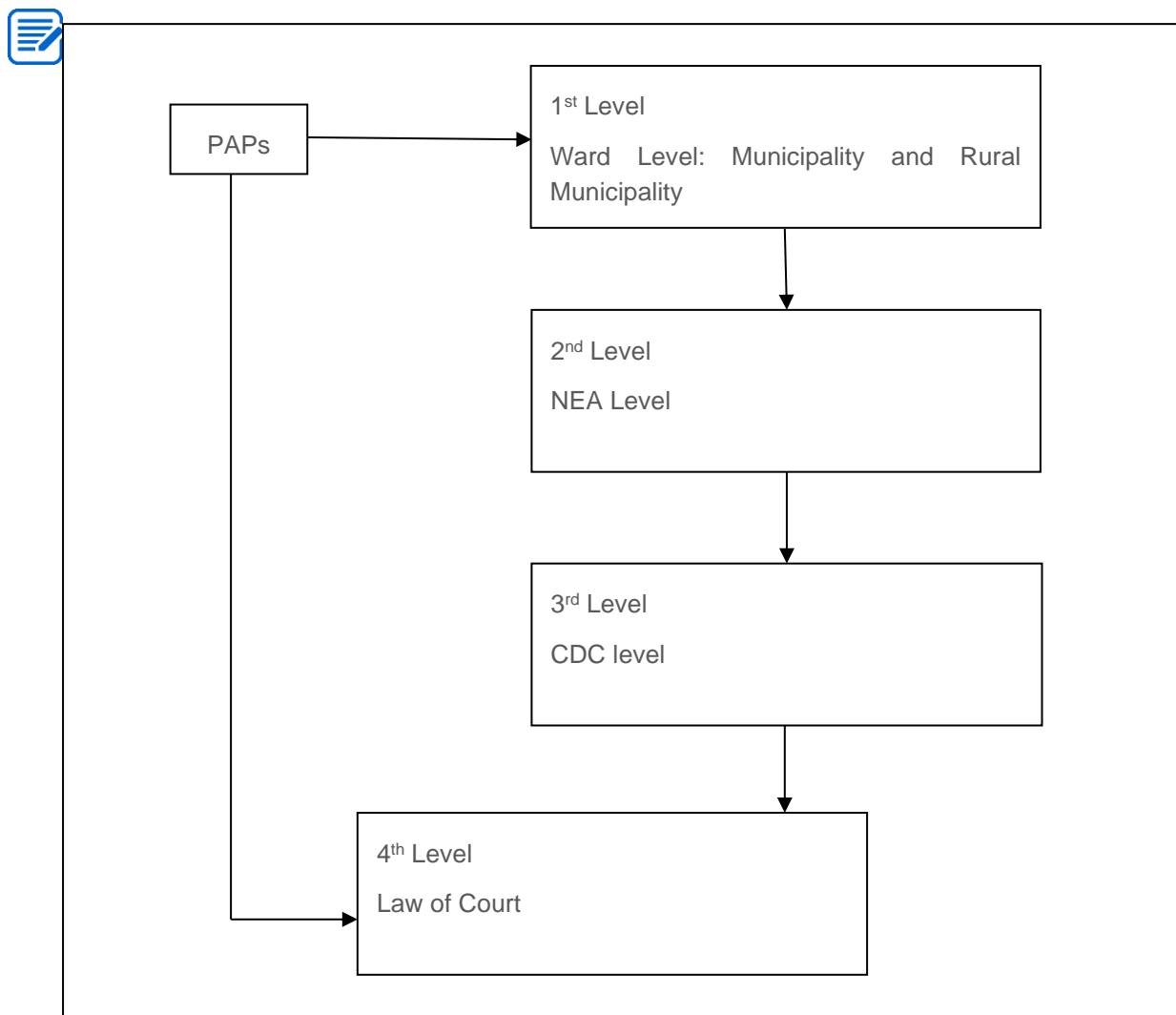
### Fourth Step

If the all of the resolution methods fail, a legal redress mechanism can be adopted through Nepal Judicial or appropriate administration system. Every stakeholder is always freedom to appeal court without process of above step.

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

Figure3 - Grievance redress mechanism flowchart



### 7.0 E&S SAFEGUARD MONITORING

The different stakeholders join in the different responsibility. NEA, Project itself, Bank, E&S expert or specialist, line agencies etc. will monitor the project activities directly or indirectly. The monitoring scopes are land acquisition resettlement and compensation of environmental and social safeguard components. The documents, EIA/IEE/EMP, RAP, and IPDP/VCDP will be prepared for the project. These all plan are required to implement by the project in different phase of project Mostly RAP will implement preconstruction phase. EMP and IPDP will implement in construction phase. Participatory monitoring approach will also be followed with the involvement of Indigenous Peoples, Indigenous Peoples institutions, Indigenous Peoples leaders and other concerned stakeholders in external monitoring.

A Monitoring & Evaluation (M&E) system will be established for the project, and safeguard compliance will be integral part of the project M&E. Both an internal and periodic external monitoring is proposed to ensure ESMF implementation. Internal monitoring will be carried out by the candidate site Management Office regularly and periodically by central DSUEP PIU office, focusing on outcomes, outputs and implementation progress for each DSUEP candidate sites and components. The candidate site management office will submit to central PIU office NEA and Co-financers regular bimonthly (once in two months) reports during implementation.

Similarly, periodic external monitoring will be carried out by independent consultant or agency using quantitative and qualitative methods and review of information and site visit. The ESMF evaluation will be mid-term and end term and both have to be third party evaluation.

The table showing indicators, methods, and responsibilities for social and environmental safeguard

Table 31 - Monitoring indicators methods and responsibility

Indicators	Methods	Responsibility
Number of land and property owners affected by subprojects	Review report, on the group field verification	Candidate site Management Office
Adherence to ESMF requirements including number of screening carried out for subproject selection	Review of report, direct observation	Candidate site Management Office
Adherence to mitigation measures (social and environmental) during planning and design (preparation of documents)	Review of report, field verification	Candidate site Management Office
ESMF requirements incorporated in tender and bidding documents as needed	Review of tender/contract document	PIU/ Consultant
No. of complaints filed and grievances handled/ managed	Review periodic reports	PIU/ Consultant



# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

Indicators	Methods	Responsibility
Mitigation measures deployed to address the adverse impacts and enhance beneficial impacts including compensation payment, R&R assistances, skill training and livelihood restoration of PAPs	Review periodic reports, site visit and consultations	PIU/ Consultant
Use of internal and external/ independent experts/ agency for monitoring and reporting	Review of contract documents and published/ unpublished reports	PIU/ Consultant

Responsibility of Monitoring: The environmental and social expert of PMU is responsible for central level periodic internal monitoring of ESMF. The mid-term and end term monitoring shall be done by external experts.

### 7.1 Monthly Monitoring (Preparation Phase)

Supervision consultants, E&S specialists, E&S unit, project itself will monitor in appropriate time. The E&S unit and it under supervision consultants will be responsible monthly monitoring and reporting to project in this phase.

### 7.2 Trimester Monitoring (Implementation Phase)

The project center level E&S unite consultants is responsible and will prepare the trimester report for Bank. Project review and send to the Banks.

### 7.3 Third Party monitoring

An external monitoring will be carried out by independent consultant or agency using quantitative and qualitative methods, review of information and site visit. The ESMF shall be evaluated by third party at mid-term and end-term intervals.

### 7.4 Capacity Building

NEA has its own Environmental and Social Studies Department (ESSD) and has experience with the implementation of World Bank-funded projects. However, due to large numbers of sub-projects within NEA, ESSD often falls short of required human resource capacity to design and implement ESMF. Therefore, the ESMF has included capacity strengthening measures for the members of PMU and Manager of candidate sites.

### 7.5 Training

Training is an important component for developing capacities. Appropriate and timely training to the officials with regard to various issues can bring a positive change in the functioning of the staff. Apart

from training in generic areas such as human resource management, information management, government functionaries require training in handling certain specialized tasks pertaining to environmental and social issues. The Project's consultant will identify the training need assessment for PIU and staff of Candidate Sites and suggest the training packages including their modality of operation.

Potential training areas are:

- a) General Introduction to EA and adverse social and environmental impacts;
- b) Orientations on ESMF and awareness raising about Project and management/ mitigation of impacts;
- c) Orientations on legal requirements including grievance filing by PAPs;
- d) Preparing EMPs/Social Action Plans through participatory approach;
- e) Hazardous waste management, including handling, storage and disposal, and
- f) Construction related hazards in DSUEP and related occupational and safety issues and their management.

## 7.6 Training on Preparing Communication Strategies

A well-developed communication strategy needs to be in place to realize better results and outcomes with effective implementation of the project activities. The PIU will have to develop and effectively implement their own consultation and communication strategy. Successful implementation of DSUEP components would depend, to a large extent, on the ability to maintain close contact with the PAPs, communities and other stakeholders in the candidate project sites. For this purpose, the PIU central office and site office needs to develop consultation and communication strategies and materials to help improve better communication and understanding of social problems, awareness raising about project impacts and, effective conflict resolution and grievance redressing. Training modules may be developed to help PIU central and site office draft and implement appropriate consultation strategies. Project's Experts will assist the PMU in preparing and imparting training.

## 7.7 Information Dissemination and ESMF Trainings

Prior the beginning of the work, DSUEP/NEA will develop an ESMF information packages and disseminated in the stakeholders of project sites. The packages include the ESMF requirements, roles and responsibilities of implementing agencies, contractors. The ESMF training will be provided to DSUEP staff and contractors prior the beginning of the construction

### 8. ESMF BUDGET

Each RAP, IPDP/VCDP (or RIPP) will have its own budget, taking into account all the activities associated with the formulation and implementation of the IPDP (or RIPP) and engagement of a qualified expert in case an FPIC process is triggered. Tentative Budget will be required for the implementation of ESMF which has been dealt in the following sections.

#### 8.1 Cost for Compliance Level Monitoring

The environmental monitoring of distribution lines and substations during the construction phase shall concentrate on the major identified potential impacts including slope stability, vegetative cover, water pollution, drainage. NEA shall undertake a 6-monthly inspection of the distribution lines and substations related features over the initial year following the completion of construction. Standard report covering environmental features will be completed by NEA following each inspection. The estimated cost for environmental monitoring and evaluation during construction and operation phase will be included in EMP. The social cost covers from the following details.

#### 8.2 Environmental & Social safeguard cost

The BoQ of the project shall include all the cost for essential for environment safeguard like cost for safety gadget (Helmets, boots, gloves etc.), cost for supplementary plantation, bioengineering, relocation of public infrastructures etc. This exercise will be undertaken and executed in parallel with design works by incorporating it in bid document. In instead of BOQ item need for the cost for implementation of the following plans and activities which is estimated are as table – 20 for the following E&S safeguard components,

Table 32 - E&S tentative Budget Breakdown sheet

Team and descriptions		Cost in NRs	Cost in USD	
Private owner	Private assets	Land for substations	600,000,000.00	5,454,545.45
		Structure major & minor	10,000,000.00	90,909.09
		Tree	5,000,000.00	45,454.55
		Crops	5,000,000.00	45,454.55
Assistance				

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Team and descriptions			Cost in NRs	Cost in USD
	Vulnerable	Encroacher allowance	1,000,000.00	9,090.91
		Cash assistance to Vulnerable AHs	50,000,000.00	454,545.45
		Business loss allowance	10,000,000.00	90,909.09
<b>Local development</b>	Community development	subproject specific local economic development and livelihood	200,000,000.00	1,818,181.82
	IPDP Implementations	Subproject Specific local economic development and livelihood of IPs	50,000,000.00	454,545.45
<b>EMP Documents Implementation</b>		Plantation, caring, and other mitigation cost	26,450,000.00	240,454.55
<b>Monitoring cost</b>	Haring Consultant and NGOs		30,000,000.00	272,727.27
	Individual Experts and Specialist		20,000,000.00	181,818.18
<b>Consultation and other</b>	GRM Consultation and others consultations		10,000,000.00	90,909.09
	Staff Training		20,000,000.00	181,818.18
<b>Total</b>			<b>1,100,000,000.00</b>	<b>10,000,000.00</b>

Note: This budget is based on Nepal Government internal sources.

## 8.3 Environmental and Social Exclusion List

- i. Forced labor or harmful or exploitative forms of child labor
- ii. The production of, or trade in, any product or activity deemed illegal under national laws or regulations of the country in which the Project is located, or international conventions and agreements, or subject to international phase out or bans, such as:
  - o Production of, or trade in, products containing polychlorinated biphenyl (PCBs)
  - o Production of, or trade in, pharmaceuticals, pesticides/herbicides and other hazardous substances subject to international phase-outs or bans (Rotterdam Convention, Stockholm Convention)
  - o Production of, or trade in, ozone depleting substances subject to international phase out (Montreal Protocol)
- iii. Trade in wildlife or production of, or trade in, wildlife products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- iv. Trans-boundary movements of waste prohibited under international law (Basel Convention)

## Distribution System Upgrade & Expansion Project

### *Environment & Social Management Framework*

- v. Production of, or trade in, weapons and munitions, including paramilitary materials.
- vi. Production of, or trade in, alcoholic beverages, excluding beer and wine
- vii. Production of, or trade in, tobacco
- viii. Gambling, casinos and equivalent enterprises
- ix. Production of, trade in, or use of unbonded asbestos fibers
- x. Activities prohibited by legislation of the country in which the Project is located or by international conventions relating to the protection of biodiversity resources or cultural resources, such as, Bonn Convention, Ramsar Convention, World Heritage Convention and Convention on Biological Diversity
- xi. Commercial logging operations or the purchase of logging equipment for use in primary tropical moist forests or old-growth forests
- xii. Production or trade in wood or other forestry products other than from sustainably managed forests
- xiii. Marine and coastal fishing practices, such as large-scale pelagic drift net fishing and fine mesh net fishing, harmful to vulnerable and protected species in large numbers and damaging to marine biodiversity and habitats
- xiv. Shipment of oil or other hazardous substances in tankers that do not comply with IMO requirements (IMO, MARPOL, SOLAS and Paris MOU)

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### Activities excluded from EIB lending

Types of activities	Typical examples	Comments / clarifications
1) Ammunition and weapons, military / police equipment or infrastructure		Includes explosives and sporting weapons
2) Projects which result in limiting people's individual Rights and freedom, or violation of human rights		The EIB statement of environmental and social principles and Standards, in particular: 6, 46, and 47
3) Projects unacceptable in environmental and social terms	Projects in protected areas, critical habitats and heritage sites, without adequate compensation / mitigation	The EIB statement of environmental and social principles and standards, in particular: 58, 71, and 72
4) Ethically or morally controversial projects	Sex trade and related infrastructure, services and media; animal testing*); gambling and related equipment, hotels with in-house casinos; tobacco (production, manufacturing, processing, and distribution)	*) existing EIB practice; activities involving live animals for experimental and scientific purposes are eligible insofar as in compliance with the "directive 2010/63/eu of the European Parliament and of the council of 22 September 2010 on the protection of animals used for scientific purposes"
5) Activities prohibited by national legislation (only where such legislation exists)	Genetically modified organisms (GMO); abortion clinics; nuclear energy; etc.	Applicable national law

### EIB loans under specific mandates outside the EU

All the above types of investments are excluded. Moreover, loans under the mandates may be further restricted to specific sectors and activities to comply with the EIB lending policies, as agreed by the board of Directors, as well as priorities attached by the respective EU co-operation objectives or the lending mandate.

### Other exclusions

- a. Certain costs, such as recoverable VAT, are excluded
- b. The bank does not finance projects with a political or religious content

## REFERENCES

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- ADB (2009) *Safeguard Policy Statement 2009*, Asian Development Bank
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### Annexure 1 E&S Checklist

#### Checklist for Environmental and Social Assessment

(33 / 11 kV substations, 33 kV lines, 11 kV lines and LT lines)

#### A. Details of Project Location

Name of Sub Project:			
Province Number (tick the correct one)	5	6	7
District:			
Rural Municipality / Municipality:		Ward No:	

S.no	Item	Response
1	Proposed 33 kV, Route Name, Road Name & Distance Km	Tapping Point Location: End Point of distribution line: Line Route:
	Proposed 11 kV, Route Name, Road Name & Distance Km	Name of Settlement to be served:

#### B. Environment and Social Setting of Project Area

Physical and Biological Environmental Impacts checklist				
B.1	Protected Areas and/or Forest ( <i>Are there any Protected Areas or Forest on the sub project sites? If yes, please provide relevant information such as Name of forest, size, species found, and ownership type, Problems and causes of problems.</i> )			
	Yes	No	If yes, Tentative area of forest land required (Ha)	Name of National Park, Conservation Area, Community Forest, National Forest etc.
Substation				
11 KV				
33 KV				
If No in B.1, the land is Public or Private.			<i>Please mention the ownership and actual use of public land.</i>	



## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

B.2	Informational on Vegetation and Wildlife found in the National Park, Conservation Area, Community Forest, National Forest etc.						
	Trees	Medicinal Herbs	Wild Animals	Remarks (Protected Species and Wildlife, if any)			
Substation							
11 KV							
33 KV							
B.3	Is there any requirement of surface and ground water diversion/drainage system or catchment treatment?						
	Location in relation to site	Description: Present conditions including tentative area to be affected by construction works, risky areas:					
Substation							
11 KV							
33 KV							
B.4	Are there any water sources within or near the Subproject area						
	Type of Water Source	Substation		11 KV		33 KV	
	a. Perennial Spring source b. Stream c. Drainage outlet/Irrigation canal discharge	Yes	No	Yes	No	Yes	No
	If yes, explain existing condition: Aquatic life (Name of water source, aquatic species found in water source)						
Substation							
11 KV							
33 KV							
B.5	Are there any built structures within the subproject sites/boundary? (Tick Mark)						
	Yes	No	If (Yes) Description-of the structures including ownerships and relocation need:				

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Substation			
11 KV			
33 KV			
B.6	Does it require relocation or damages public / Community properties (water supply pipe, access road, temple, Pati, Pauwa, Chautara irrigation cannel etc.) due to construction works:		
	Yes	No	If yes, Description
Substation			
11 KV			
33 KV			
B.7	Are there any Historical / Religious / Cultural areas on the sub project sites? (Tick Mark)		
	Yes	No	If yes, please provide following information (Name of Historical/Religious/Cultural sites, Past and present conditions and values)
Substation			
11 KV			
33 KV			
B.8	Is the site located on asthetically Important Viewpoints? (Tick Mark)		
	Yes	No	
Substation			
11 KV			
33 KV			
If yes, please provide following information			
	Location in relation to site		Description-present conditions and values
Substation			

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

11 KV			
33 KV			
Social Environmental Impacts checklist			
B.9	Is the site located on main settlement and agriculture land area or Bazar area? (Tick).		
	Yes	No	If yes, description (approximate no. of HH and population, nature and special feature /importance / significance)
Substation			
11 KV			
33 KV			
B.10	Is there any requirement of acquisition of private assets (structure/land)?		
	Yes	No	If yes, Describe the number of structures, type of house, & minor structure kitchen toilet shed and tentative land area etc.)
Substation			
11 KV			
33 KV			
B.11	Is there any need of resettlement of affected family due to implementation of subproject?		
	Yes	No	If yes, Provide the tentative number of HH to be relocate.
Substation			
11 KV			
33 KV			
B.12	Dose the projects affect any type of livelihoods of the people and community? Please mention.		
	Yes	No	If yes, Type of Livelihood like Business, firm, small shops, tea shops or indigenous occupations etc.
Substation			
11 KV			
33 KV			
B.14	If yes of B.11 and B.12 please provide the following information		

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Substation	Full Name of affected HH address & family members and if belonging to Indigenous Groups specify		
11 KV	Full Name of affected HH address & family members and if belonging to Indigenous Groups specify		
33 KV	Full Name of affected HH address & family members and if belonging to Indigenous Groups specify		
B.15	Would project cause uncontrolled immigration likely to Affect social sustainability of the project Overload social infrastructure in the project area (e.g. health facilities, schools, water supply)		
	Yes	No	If Yes, please add the description How and where?
Substation			
11 KV			
33 KV			
B.16	Would the proposed project lead to significant increase in population density which could affect social sustainability of the project?		
	Yes	No	If Yes, please the description How and where?
Substation			
11 KV			
33 KV			

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

Beneficiaries Household Data of Sub project Areas 33 / 11 kV substations, 33 kV distribution lines, distribution 11 kV lines and LT distribution lines

Note, HH = household, TP Total Population, Fe = Female, M= Male, J= Janjati, D= Dalit, O = others, MM = Madhesi Muslim

S.N.	Settlements	Household & Population				Caste & ethnicity <small>Include number of genous groups the proportion to the population</small>	Household			
		HH	TP	Fe	M		J	D	O	MM
	Total									

### Economic condition of the Subproject Areas

S. N. = Serials Numbers, HH= Household, Agri= Agriculture, Self EMP = Self-employment, F. Emp Foreign Employment

S. N	Name of Settlements	Total HH	Occupation division HH				
			Agri	Service	Business	Self Emp	F. Emp

### C. Finding of E&S Study Requirement (To be Filled by Office)

C.1	Check country's legal requirement (including sensitivity criteria)
As per EPR 1997	
As per AIIB's Safeguard policy	

Screening check list completed by:

Name:

Designation:

Date:

Checklist reviewed and approved by:

Name:

Designation:

Date.

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

### Annexure 2- Environmental and Social Management Plan Format

Environmental Issues	Beneficial/Adverse Impacts	Environmental Mitigation Measures	Mitigation Cost (NRs.)	Institutional Responsibility for augmentation	
				Implementation	Supervision
<b>[B] Adverse Impact Mitigation Measures</b>					
<b>1. Socio-Economic and Culture Environment</b>					
<b>a. Pre-Construction Phase</b>					
i. Land Acquisition and Resettlement and compensation works	<ul style="list-style-type: none"> <li>Loss of properties and land production,</li> </ul>	<ul style="list-style-type: none"> <li>Cash Compensation</li> </ul>	Provide not less than market value of land Tentative cost will be prescribe in ESMP	NEA/PIU	Third party monitoring by independently
<b>b. Construction Stage</b>					
i. Preparation of VCDP and implementation of VCDP/IPDP	<ul style="list-style-type: none"> <li>loss of income and livelihood</li> </ul>	<ul style="list-style-type: none"> <li>Skill development training</li> </ul>	Tentative cost will be prescribed in ESMP	NEA/PIU	NEA/Consultants.
<b>c. Operation Stage</b>					
i. Training	<ul style="list-style-type: none"> <li>Positive action.</li> </ul>	Ongoing training of workers regarding safety and environmental management measures <ul style="list-style-type: none"> <li>(but few staff during operational phase).</li> </ul>	Part of operation cost	NEA/PIU	Audit condition
<b>2. Physical Environment</b>					
<b>a. Construction Phase</b>					

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Environmental Issues	Beneficial/Adverse Impacts	Environmental Mitigation Measures	Mitigation Cost (NRs.)	Institutional Responsibility for augmentation	
				Implementation	Supervision
i. Relocation of Utilities	<ul style="list-style-type: none"> <li>Disturbance in public daily activities.</li> </ul>	<ul style="list-style-type: none"> <li>Alignment with minimum damage to public utility shall be chosen.</li> <li>Public utilities (Tap, Electric and Telephone Pole, water supply line) shall be relocated as fast as possible.</li> </ul>	Contract Cost	Contractor	NEA/PIU
i. Change in land use	<ul style="list-style-type: none"> <li>Loss in agriculture production.</li> </ul>	<ul style="list-style-type: none"> <li>Selecting distribution line route which have less land acquisition requirements</li> <li>Wherever possible the distribution line route will avoid forest and wet land</li> <li>To the extent of possible, barren land will be selected for distribution line route and for construction of substation</li> <li>the proposed distribution line will be aligned along the existing RoW of road without hampering traffic movement</li> </ul>			
ii. Land Pollution	<ul style="list-style-type: none"> <li>Soil Erosion</li> <li>Loss of fertility of soil</li> </ul>	<ul style="list-style-type: none"> <li>Highly vulnerable slope shall be stabilized using retaining walls.</li> <li>Bio-engineering plan shall be prepared and schedule before monsoon</li> </ul>	Contract Cost	Contractor	NEA/PIU
iii. Losses of Standing Crops	<ul style="list-style-type: none"> <li>Loss on agriculture product</li> </ul>	<ul style="list-style-type: none"> <li>Stringing of the distribution line and other construction activities will be done in off-farming season</li> </ul>	Contract Cost	Contractor	NEA/PIU

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Environmental Issues	Beneficial/Adverse Impacts	Environmental Mitigation Measures	Mitigation Cost (NRs.)	Institutional Responsibility for augmentation	
				Implementation	Supervision
	<ul style="list-style-type: none"> <li>Affect the income of farmer</li> </ul>	<ul style="list-style-type: none"> <li>the proposed distribution line will be aligned along the existing RoW of road and edges of the fields</li> <li>The affected farmers shall be suitably compensated of standing crops and fruits on the basis district agriculture rate valuation by district agriculture office</li> </ul>			
iv. land stability and soil erosion	<ul style="list-style-type: none"> <li>Landslide</li> <li>Soil erosion</li> </ul>	<ul style="list-style-type: none"> <li>The pole location identified for distribution line should be stable and in flat ground if possible.</li> <li>Proper geological study shall be conducted to determine the ground conditions if necessary.</li> <li>The excavation shall not be done during rainy season in hilly slope</li> </ul>	Contract Cost	Contractor	NEA/PIU
v. Earthquake stability of line and substation location	<ul style="list-style-type: none"> <li>Damage of Distribution line, pole and Substation</li> </ul>	<ul style="list-style-type: none"> <li>To minimize the possible impacts, structure shall be properly designed to resist earthquake load and also the stability of land shall be duly checked.</li> <li>The pole will not be constructed in fracture and crack rock mass and fault area without proper design and ensuring stability.</li> </ul>	Contract Cost	Design- Consultant Construction Contractor	NEA/PIU



## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Environmental Issues	Beneficial/Adverse Impacts	Environmental Mitigation Measures	Mitigation Cost (NRs.)	Institutional Responsibility for augmentation	
				Implementation	Supervision
vi. stockpiling of construction material on temporary land	<ul style="list-style-type: none"> <li>• Deposition of construction material in lower agricultural land and nearby natural stream</li> <li>• Reduction in fertility of land</li> </ul>	<ul style="list-style-type: none"> <li>• Stockpile should not be located on/near water courses, schools, hospitals or public standpipes; and should not affect locals and their properties.</li> <li>• Stockpiles subject to erosion by wind or water should be covered with tarpaulins. For large stockpiles, it should be enclosed with side barriers and also covered when not in use.</li> <li>• Clean area properly after completion.</li> </ul>	Contract Cost	Contractor	NEA/PIU
vii.waste and spoil disposal	<ul style="list-style-type: none"> <li>• Loss of land productivity.</li> <li>• Water pollution.</li> </ul>	<ul style="list-style-type: none"> <li>• Site shall be located far from settlement.</li> <li>• Barren and unfertile land shall be selected.</li> <li>• The site shall not be located near water body.</li> </ul>	Contract Cost	Contractor	NEA/PIU

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

Environmental Issues	Beneficial/Adverse Impacts	Environmental Mitigation Measures	Mitigation Cost (NRs.)	Institutional Responsibility for augmentation	
				Implementation	Supervision
viii. Noise and Vibration	<ul style="list-style-type: none"> <li>Noise Pollution</li> <li>Lessen the rock strata</li> </ul>	<ul style="list-style-type: none"> <li>The vehicle being used for transportation of construction material and spoil shall be regularly checked and kept in good condition. Vehicles producing high sound will not be allowed to move on the road and near working site</li> <li>Drilling equipment with low sound emission shall be used and if possible, sound trapping machine like silencer will be attached</li> </ul> <p>Drilling equipment with low sound emission shall be used and if possible, sound trapping machine like silencer will be attached</p>	Contract Cost	Contractor	NEA/PIU
ix. Establishment and demolition of construction camp	<ul style="list-style-type: none"> <li>Solid waste generation.</li> <li>Encroachment of land</li> </ul>	<ul style="list-style-type: none"> <li>As far possible, emphasis shall be given to local manpower/ labour.</li> <li>Produce waste shall be managed on site.</li> </ul>	Contract Cost	Contractor	NEA/PIU
x. Impact due to spoil disposal and location of disposal sites	<ul style="list-style-type: none"> <li>Landslide during monsoon.</li> <li>Block drainage flow</li> </ul>	<ul style="list-style-type: none"> <li>Locate disposal sites on stable ground without excessive slope; Avoids water courses and wetlands; that will not promote</li> </ul>	Contract Cost	Contractor	NEA/PIU

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

Environmental Issues	Beneficial/Adverse Impacts	Environmental Mitigation Measures	Mitigation Cost (NRs.)	Institutional Responsibility for augmentation	
				Implementation	Supervision
		instability and result in destruction of property, vegetation and local services.			
xi. Dust Nuisance	<ul style="list-style-type: none"> <li>• Air Pollution</li> <li>• Health impacts.</li> <li>• Reduce aesthetic scenery</li> </ul>	<ul style="list-style-type: none"> <li>• The construction material and spoil will be covered by tarpaulin during transportation</li> <li>• Construction materials shall be covered with tarpaulin during stockpiling to prevent rain water and dust emission generated from the stockpiling site.</li> </ul>	Contract Cost	Contractor	NEA/PIU
<b>d. Operation Phase</b>					
i. Noise and Vibration Pollution	<ul style="list-style-type: none"> <li>• Health hazard of the people living near distribution line route and substation.</li> <li>• Disturbed wildlife activities.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>		NEA/PIU	
ii. interference of distribution line with roads, other lines and infrastructure	<ul style="list-style-type: none"> <li>• Reduce available sight and stopping distance of road.</li> <li>• Increase in road accident</li> </ul>	<ul style="list-style-type: none"> <li>• Distribution lines and substation location will be kept sufficiently away from road edge - not to hamper the setback and sight distance.</li> <li>• The distribution lines and substation location will be away from water source.</li> </ul>		NEA/PIU	

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

Environmental Issues	Beneficial/Adverse Impacts	Environmental Mitigation Measures	Mitigation Cost (NRs.)	Institutional Responsibility for augmentation	
				Implementation	Supervision
		<ul style="list-style-type: none"> <li>While installing electric distribution lines of more than 11 kV across the road in a densely populated area, the double insulator system shall have to be used.</li> </ul>			
<b>3. Biological Environment</b>					
<b>a. Construction Stage</b>					
i. Clearance of shrubs, and tree	<ul style="list-style-type: none"> <li>Loss of vegetation.</li> <li>Loss of wildlife habitat</li> </ul>	<ul style="list-style-type: none"> <li>To the extent of possibility, the distribution line route and substation location will be select on barren land to minimize the need for vegetation losses.</li> <li>The losses of trees and vegetation shall be compensation as per the prevailing rule of 1:25.</li> <li>Only the trees lying on the distribution line route and substation location as needed and approved by DoF will be cleared and the work will be monitored by the DFO, CFUG, supervision consultant or agencies</li> </ul>	Contract Cost	Contractor	NEA/PIU
ii. Collection of forest product for firewood and timber	<ul style="list-style-type: none"> <li>Deforestation.</li> <li>Loss of vegetation.</li> </ul>	<ul style="list-style-type: none"> <li>Contractor shall provide all the fuel requires for the construction.</li> </ul>	Contract Cost	Contractor	NEA/PIU

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Environmental Issues	Beneficial/Adverse Impacts	Environmental Mitigation Measures	Mitigation Cost (NRs.)	Institutional Responsibility for augmentation	
				Implementation	Supervision
		<ul style="list-style-type: none"> <li>Use of forest product as fuel shall be restricted, if found shall be compensated.</li> <li>Contract documents must include provisions to instruct contractor to arrange alternate energy sources such as kerosene or LPG for labour</li> </ul>			
iii. Disturbance of wild and wild life habitat	<ul style="list-style-type: none"> <li>Restrict the animal movement.</li> </ul>	<ul style="list-style-type: none"> <li>Work will be conducted during day time only.</li> </ul>	Contract Cost	Contractor	NEA/PIU
iv. Hunting and Poaching of wildlife	<ul style="list-style-type: none"> <li>Losses of wild animals.</li> </ul>	<ul style="list-style-type: none"> <li>Construction activities will be carried out during day time to prevent disturbance to wildlife.</li> <li>The contractor shall prevent illegal hunting of wildlife for meat.</li> </ul>	Contract Cost	Contractor	NEA/PIU
v. Habitat fragmentation	<ul style="list-style-type: none"> <li>Disturb the movement of wild animal</li> <li>Break the natural route</li> </ul>	<ul style="list-style-type: none"> <li>Attempt shall be carried out to minimize the clearance of trees and vegetation by selecting the route along barren land.</li> </ul>	Contract Cost	Contractor	NEA/PIU
vi. Forest fire hazard	<ul style="list-style-type: none"> <li>Losses of forest species.</li> <li>Deforestation</li> </ul>	<ul style="list-style-type: none"> <li>The proper spacing between the wire and wire and plant shall be kept as per Electricity Act.</li> </ul>	Contract Cost	Contractor	NEA/PIU

### Annexure 3 Entitlement Matrices

Type of Loss	Scope	Who is entitled	Entitlement	Responsible for the Delivery of the Entitlement	Comments
A. Loss of Land					
A.1. Loss of Agriculture Land					
Loss of cultivated wetland by land owners	Land acquired for project-related substation activity	Person(s) with land ownership records	Cash compensation based on replacement cost. All fees, taxes and other charges as applicable under relevant laws and regulations	The EA and CDC to compensate the owner (preferably in joint account of husband and wife, if married and with the consent of the title holder)	Payment will be made in full to the AP before taking possession of the land.
Loss of cultivated dry land by land owners	Land acquired for project-related substation activity	Person(s) with land ownership records	Cash compensation based on replacement cost of the land. All fees, taxes and other charges as applicable under the relevant laws and regulations.	The EA and CDC to compensate the owner (preferably in joint account of husband and wife, if married and with the consent of the title holder)	Payment will be made in full to the AP before taking possession of the land

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Type of Loss	Scope	Who is entitled	Entitlement	Responsible for the Delivery of the Entitlement	Comments
Loss of cultivated common land	Land taken over for a project-related activity	Community or Village where the common land is located	Cash compensation based on replacement cost  All fees, taxes and other charges as applicable under the relevant laws, incurred in the relocation and resource are to be borne by the project.	The EA and CDC to compensate Rural Municipality/Municipality for the affected community common land.	Payment will be made in full to the AP before taking possession of the asset.
Loss of tenanted agricultural land (cultivated wetland, Dry land) by permanent tenants	Land for a project-related activity	Renter or Sharecropper of the affected land	50 percent cash compensation to the share cropper/ tenants of the affected plots as per the prevailing laws (LA Act Clause 20). Other 50 percent to the landowner	The EA and CDC will compensate the tenants for loss of loss of tenancy.	Payment will be made in full to the AP before taking possession of the land.

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### Environment & Social Management Framework

Type of Loss	Scope	Who is entitled	Entitlement	Responsible for the Delivery of the Entitlement	Comments
Leasing of land by the landowners for project purposes.	Land leased for a period of seven years	Person(s) with land ownership records.	<p>NEA will sign a formal lease agreement with each titleholder affected. An annual leasing arrangement for an annual fix payment will also be agreed with each titleholder.</p> <p>The EA will fully restore the leased land to its original condition and return it to the leaseholder at the end of the leasing period.</p> <p>The EA will ensure that persons (other than the landowners) affected as a result of leasing of land for the Project are also compensated for loss of income incurred due to the leasing of land.</p>	The EA will Compensate for leasing of land.	Mutually agreed leasing rates will be paid by the EA to the lease annually. The first payment will be done before the land is taken over by the EA. All cost related to land leasing and restoration will be borne by the EA.
A.4. Temporary Impacts on Land					



## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Type of Loss	Scope	Who is entitled	Entitlement	Responsible for the Delivery of the Entitlement	Comments
Temporary impacts during construction such as damage to adjacent parcel of land due to movement of machinery and plant sites for contractor	Land acquired temporarily by the project contractors	Person(s) with land ownership records or those with other user rights; subject to verification Tenants Community	Contractor to negotiate a contract agreement on a rental rate with the owner or user of the land that will be temporarily acquired.  Project and the contractor to ensure that persons other than the owner affected as a result of temporary acquisition are also compensated for loss of at least 3 months income.  Land should be returned to the owner at the end of temporary acquisition period after fully restoring it to its original condition or improved as agreed with the AP.	Contractors to Compensate for temporary acquisition of land.	Payment will be made in full to the AP by the contractor/the EA, before temporarily taking possession of the land.
<b>C. Loss of Income Generating Sources and Assets</b>					
<b>C.1. Loss of Agricultural Crops and Trees</b>					
Loss of agricultural	Land acquired for a	Owner of crops or trees	Advance notice of 1 month to be provided to PAPs to	Cash compensation for lost crops / trees as per	The EA and CDC will ensure that the payment of

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Type of Loss	Scope	Who is entitled	Entitlement	Responsible for the Delivery of the Entitlement	Comments
crops, fruits and timber trees	project-related activity	(including encroachers, squatters, Sharecroppers, and tenants	<p>harvest their crops.</p> <p>Cash compensation for loss of agricultural crops at current market value of mature crops (if destroyed) based on average production in last 2 years. The unit rates for the same will be determined based on wholesale market and in consultation with the Agriculture Department.</p> <p>Compensation for loss of fruit trees for average fruit production for 5 years to be computed at the current market value based on the whole sale market price. The final unit price will be determined based on wholesale price and in consultation with the Horticulture Department.</p> <p>Compensation for loss of timber trees at current market</p>	rates from Agriculture Department	compensation is made prior to taking physical possession of the land.

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Type of Loss	Scope	Who is entitled	Entitlement	Responsible for the Delivery of the Entitlement	Comments
			value of wood (timber or firewood, as the case may be). The unit price will be determined based on market wholesale price and in consultation with the forest department.		
Impact on commercial fishing	Downstream impacts, if any.	Loss of income earned by commercial fishing any small business activity which are even seasonal in nature	Compensation for annual loss of income based on average income for last 3 years.	Assistance/ compensation for loss of income	The EA, CDC and Supervision Consultant will ensure payment is made.
C.2. Special Assistance for livelihood restoration					

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Type of Loss	Scope	Who is entitled	Entitlement	Responsible for the Delivery of the Entitlement	Comments
Livelihood assistance and skill development training to the family having significant loss of property and income sources	Significantly Affected Families	<p>Family significant loosing land or source of income affected by the project.</p> <p>Absentee landlords will not be eligible for this provision</p>	<p>At least one-person from each affected household will be considered for income generating vocational training and skill improvement options as per their choice.</p> <p>As far as possible temporary employment will be provided to affected households in the project construction work by the project contractor. Preference will be given to project affected people living below poverty line, vulnerable or lost their employment or income generation source due to project impacts.</p>	Income restoration assistance.	The EA, CDC and Supervision consultant will ensure assistance is provided. This will be a long term but time bound activity.

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Type of Loss	Scope	Who is entitled	Entitlement	Responsible for the Delivery of the Entitlement	Comments
Loss of businesses	Business adversely affected by the project	Owner of business	<p>One-time lump sum grant: minimum three-month's income based on the nature of business and type of losses assessed on a case-to-case basis.</p>	Short-term compensation for loss of income	The EA, CDC and Supervision Consultant will ensure payment is made prior to physical displacement.
			<p>One-time cash assistance equivalent to three months of average income based on the nature of businesses for re-establishing the business at an alternative premise.</p> <p>Shifting allowance (transport plus load un loading charges) will be paid to affected businessmen at the rate of NR 50,000 per affected HH.</p> <p>The amount of deposit or advance payment paid by the business tenant to the landlord will be deducted from the payment of the landlord.</p>	Removal or relocation assistance.	The EA, CDC and Supervision Consultant will ensure payment is made prior to physical displacement.

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Type of Loss	Scope	Who is entitled	Entitlement	Responsible for the Delivery of the Entitlement	Comments
Loss of income of small vendors	Business affected temporarily during project construction	Non-mobile business operators on footpaths to project sites	One-time cash assistance: Minimum six months income based on the nature of business and type of losses determined on a case-to-case basis, by the CDC.  Shifting allowance will be paid to the affected (if applicable), on actual cost basis.	Short-term compensation for loss of income.	The EA, CDC and Supervision Consultant will ensure payment is made prior to physical displacement.
Loss of income by agricultural labour / wage earners identified during verification census survey	Work opportunities reduced	Agriculture labour indirectly affected by land acquisition or displacement of employer	One-time financial assistance equivalent to 90 days of wage to be computed on the basis of district wage rates in the district for each category of labour.	Short-term assistance/compensation for loss of income.	The EA, CDC and Supervision Consultant will ensure payments are made immediately after economic displacement.
Loss of wages by employees	Income reduced due to dislocation	Wage earning employees indirectly affected by displacement of commercial structures	One-time financial assistance to hired employees equivalent to 90 days wages to be computed on the basis of local wage rates as determined by CDC.  PAPs who are semi-skilled and unskilled labour will be considered for a priority in employment opportunities in the Project's implementation work.	Short-term assistance/compensation for loss of income.	The EA, CDC and Supervision Consultant will ensure payments are made prior to displacement.

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Type of Loss	Scope	Who is entitled	Entitlement	Responsible for the Delivery of the Entitlement	Comments
<b>D. ADDITIONAL SUPPORT TO VULNERABLE</b>					
Additional assistance to vulnerable groups including <i>Janjati</i> households	Household income affected as a result of project construction	Households categorized as vulnerable namely Women-headed households: disable or elderly person: ethnic/ occupational caste people: PAPs who live under	Cash assistance for 90 days at the local district wage rate. Special assistance of Rs 10,000 to an affected vulnerable household for restoring livelihood. At least one-person from each affected household will be considered for income generating	Income restoration assistance.	The EA, CDC and Supervision Consultant will ensure timely payment The Supervision Consultant would organize this training.

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Type of Loss	Scope	Who is entitled	Entitlement	Responsible for the Delivery of the Entitlement	Comments
		Official poverty line	<p>Vocational training and skill improvement options as per their choice.</p> <p>As far as possible temporary employment will be provided to affected households in the project construction work by the project contractor. Preference will be given to project affected people living below poverty line, vulnerable or lost their employment or income generation source due to project impacts.</p>		The Supervision Consultant shall be responsible for this facility.
<b>E. LOSS OF COMMON PROPERTY RESOURCES</b>					
Loss of cultural and community structures/facilities	Common property resources such as Monasteries, temples, ghat (cremation	Affected community/ Institution responsible for the administration of the property	Replacement or restoration of the affected community facilities (including temples, shrines, <i>ghat</i> , public water stand posts etc.) in consultation with the affected community.	Replacement/ restoration of structure/facility	The EA, CDC and supervision consultant



## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Type of Loss	Scope	Who is entitled	Entitlement	Responsible for the Delivery of the Entitlement	Comments
	site) and community land and/or graveyards affected by the Project.		Or cash compensation for restoring the affected cultural/community structures to the recognized institution/patron/ custodian of the affected structure. Project Assistance to move the structure to a new location		
Loss of structures or any asset which belongs to Municipality/ Municipality or village community	Land on which property stands purchased or reclaimed for Project purpose	Rural Municipality/Municipality or Village groups	Cash compensation at replacement cost.  Municipality/Municipality or village group will be allowed to take salvaged material from the demolished structure at no costs.  Transfer allowance in case of self- relocation to cover cost of shifting on actual cost basis or at the rate of NR 35000 per	Restoration of the structure	The EA and CDC are responsible to pay prior to affecting the assets.

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

Type of Loss	Scope	Who is entitled	Entitlement	Responsible for the Delivery of the Entitlement	Comments
			village.		
<b>F. OTHER UNANTICIPATED IMPACTS</b>					
Unanticipated adverse impacts due to project intervention or associated activity.	The EA and project implementation authorities will deal with any unanticipated impact of the project, during and after project implementation, based on the spirit of the principles agreed upon in RF.				

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

### Annexure 4- ESMP Monitoring template

Types	Parameter	Indicator	Method	Schedule	Location	Responsible Agencies
Baseline Monitoring						
Physical Environment	Land use	Land use change	Observation	Prior to implementation of the project	Project acquired areas	Consultant, NEA
	Land pollution due to soil erosion and landslide	Land Plot	Observation	Prior to implementation of the project	Construction sites	Consultant, NEA
	Air, Noise, Vibration and water pollution	Dust, particulate matter, CO, NO, SO2, Noise level and vibration and water quality.	Sampling and analysis	Prior to implementation of the project	Construction sites	Consultant, NEA
Biological Environment	Forest/vegetation and Rare, endangered, endemic and threatened of flora and fauna	Forest status and vegetation type	Field observation and discussion	Prior to implementation of the project	Proposed project structures and facilities sites	Consultant, NEA, DFO
	Harvesting of non-timber forest product	Loss of non-timber product	Observation	Prior to implementation of the project	Project sites and nearby forest	Consultant, NEA, DFO
Socio-economic/	Cultural and religious values	Change in lifestyle, value and skill transfer	Observation and discussion	Prior to implementation of the project	Local people	Consultant, NEA

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Types	Parameter	Indicator	Method with local people	Schedule	Location	Responsible Agencies
cultural Environment	Local infrastructure	Stress on local infrastructure	Observation and discussion with local people	Prior to implementation of the project	Local people and affected MP/RMP	Consultant
Impact Monitoring for Construction Phase						
Physical Environment	Land pollution due to soil erosion and landslide	Land degradation	Inspection	Quarterly	Construction sites	Consultant, NEA
	Topography and soil	Topographical change	Observation	Quarterly	Project acquired areas	Consultant, NEA
	Stockpiling of construction materials	Environmental nuisance (Land pollution)	Observation	Quarterly	Construction sites	Consultant, NEA
	Solid waste/muck disposal	Disposal of construction and domestic waste (Land pollution)	Observation	Daily whenever there are construction activities.	Disposal sites	Consultant, NEA

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Types	Parameter	Indicator	Method	Schedule	Location	Responsible Agencies
	Air Pollution	Dust particulate matter, CO, NO, SO2	Sampling and analysis	Quarterly	Construction sites	Consultant, NEA
	Watershed/drainage	Depletion of water resources, natural drainage system	Inspection	Quarterly	Project acquired areas	Consultant, NEA
	Noise and vibration	Noise level, vibration	Observation and sampling	Quarterly	Construction sites	Consultant, NEA
Biological Environment	Forest/vegetation	Number of trees removed	Observation and discussion	Monthly	Project sites and facilities	DFO, Consultant, NEA
	Protected flora and fauna	Changes in protected flora and fauna	Observation and discussion with local people	Quarterly	Project sites and facilities	DFO, Consultant, NEA
	Harvesting of forest product	Loss of forest product	Observation	Quarterly	Project site and nearby forest	DFO, Consultant, NEA
	Habitat	Loss of vegetation	Observation	Weekly	Project site and nearby forest	DFO, Consultant, NEA

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Types	Parameter	Indicator	Method	Schedule	Location	Responsible Agencies
	Hunting and poaching by workforce	Movement of wildlife	Observation and discussion	Quarterly	Project site and nearby forest	DFO, Consultant, NEA
Socio-economic and cultural Environment	Loss of land	Compensation and use of it	Observation and discussion with local people	Quarterly	Members of affected families	Consultant, NEA, CDC
	Community Health and sanitation	Occurrence of diseases	Observation and discussion with local people	Quarterly	Affected MP/RMP	Consultant, NEA
	Occupational health and safety	Use of personal protective equipment (PPE), warning and caution sign fencing of construction area	Observation and discussion with local people	Daily	Project construction sites	Consultant, NEA
	Existing law and order situation	Incidence of impact on existing law and order situation	Observation and discussion	Weekly	Local People	Consultant, NEA

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Types	Parameter	Indicator	Method	Schedule	Location	Responsible Agencies
			with local people			
	Local economy due to increased economic activities	Nos. Of local people employed in the project and involvement in other economic activities	Observation and review of records	Quarterly	Project areas	Consultant, NEA
	Gender and vulnerable group including child labour	Likely discrimination	Observation and discussion with local people	Weekly	Local people	Consultant, NEA
Impact Monitoring for Operation Phase						
Physical Environment	Land use	Change in land use pattern	Observation and discussion with local inhabitants	Annual	In the vicinity of project sites	NEA

## Distribution System Upgrade & Expansion Project

### Environment & Social Management Framework

Types	Parameter	Indicator	Method	Schedule	Location	Responsible Agencies
Biological Environment	Losses of forest product	Losses and cutting of tress	Observation and discussion	Annual	Projects sites and nearby forest	NEA
Socio-economic and cultural Environment	Economic opportunity	Status of local economy	Observation and discussion	Annual	Project areas	NEA
	Employment	Nos. of local people employed in operation phase	Observation and cross checking the list of employment	Annual	Project office	NEA
	Quality of rural life	Status of local people	Observation and discussion	Annual	Project affected areas	NEA



### Annexure 5

#### Outline of a resettlement action plan

##### A. Executive Summary

This section concisely summarizes the critical facts, significant findings, an entitlement matrix, and recommended actions specifying responsible parties, deadlines and budget. It also states the resettlement guiding principles and objectives.

##### B. Subproject Description

This section provides a general description of the project and its direct and indirect area of influence, discusses project components that result in land acquisition, involuntary resettlement, or both. It also describes the alternatives considered to avoid or minimize resettlement. Include a table with quantified data and provide a rationale for the final decision.

##### C. Scope of Land Acquisition and Resettlement

This section: (i) discusses the project's potential impacts, and includes maps of the areas or corridor of impact of project components or activities; (ii) describes the scope of land acquisition (provide maps) and explains why it is necessary for the main investment project; (iii) summarizes the key effects in terms of assets acquired and displaced persons, paying special attention to vulnerable groups; and (iv) provides details of any common property resources that will be acquired.

##### D. Socioeconomic Information and Profile

This section outlines the results of the social impact assessment, the census survey, and other studies, with information and/or data disaggregated by gender, vulnerability, and other social groupings, including: (i) define, identify, and enumerate the people and communities to be affected; (ii) describe the likely impacts of land and asset acquisition on people, communities and their livelihoods taking social, cultural, and economic parameters into account; (iii) discuss the project's impacts on the poor, indigenous and/or ethnic minorities, and other vulnerable groups; (iv) the discuss the socioeconomic situation, impacts, needs, and priorities of women; and (v) stipulate the cut-off date for eligibility claims.

##### E. Information Disclosure, Consultation, and Participation

This section: (i) identifies project stakeholders, especially primary stakeholders; (ii) describes the consultation and participation mechanisms to be used during the different stages of the project cycle; (iii) describes the activities undertaken to disseminate project and resettlement information during project design and preparation for engaging stakeholders; (iv) summarizes the results of consultations with project affected people (including host communities), and discusses how concerns raised and recommendations made were addressed in the resettlement plan; (v) confirms disclosure of the draft resettlement plan to project affected people and includes arrangements to disclose any subsequent plans; and, (vi) describes the planned information disclosure measures (including the type of information to be disseminated and the method of dissemination) and the process for consultation with project affected people during project implementation.

##### F. Grievance Redress Mechanisms

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

This section describes mechanisms for the settlement of disputes arising from resettlement related issues. It explains how the procedures are accessible to all affected persons and how they have been designed in a manner allowing easy access to women, vulnerable groups and indigenous people.

### **G. Legal Framework**

This section: (i) describes national and local laws and regulations that apply to project related land and asset acquisition, in particular with regard to valuation/compensation, resolution of conflicts and appeals procedures; (ii) identify gaps between local laws and ADB's and EIB's policy requirements and discuss how any gaps will be addressed; (iii) describes the legal and policy commitments from the executing agency for all types of displaced persons; (iv) outlines the principles and methodologies used for valuations and determining compensation rates at replacement cost for assets, incomes, and livelihoods, but also sets out the compensation and assistance eligibility criteria and how and when compensation and assistance will be provided. (v) describes the land acquisition process and prepare a schedule for meeting key procedural requirements.

### **H. Entitlements, Assistance and Benefits**

This section: (i) defines displaced persons' entitlements and eligibility, and describes all resettlement assistance measures (includes an entitlement matrix); (ii) specifies all assistance to vulnerable groups, including women, and other special groups; and (iii) outlines opportunities for project affected people to derive appropriate development benefits from the project.

### **I. Income Restoration and Rehabilitation**

This section:(i) identifies livelihood risks and prepares disaggregated tables based on demographic data and livelihood sources;(ii) describes income restoration programs, including multiple sustainable arrangements for restoring all types of livelihoods (examples include project benefit sharing, revenue sharing arrangements, joint stock for equity contributions such as land, discuss sustainability and safety nets);(iii) outlines measures to provide social safety net through social insurance and/or project special funds;(iv) describes special measures to support vulnerable groups;(v) explains gender considerations; and(vi) describes training programs.

### **J. Resettlement Budget and Financing Plan**

This section:(i) provides an itemized budget for all resettlement activities, including settlement unit, staff training, monitoring and evaluation, and preparation of resettlement plans during loan implementation.(ii) describes the flow of funds (the annual resettlement budget should show the budget-scheduled expenditure for key items).(iii) includes a justification for all assumptions made in calculating compensation rates and other cost estimates (taking into account both physical and cost contingencies), plus replacement costs.(iv) includes information about the source of funding for the resettlement plan budget.

### **K. Institutional Arrangements**

This section:(i) describes institutional set-up and responsibilities;(ii) includes institutional capacity building program, including technical assistance, if required;(iii) describes role of NGOs, if involved, and organizations of project affected people in resettlement planning and management; and(iv) describes how women, minorities and other vulnerable groupswill be involved in resettlement planning and management,

### **L. Implementation Schedule**

This section includes a detailed, time bound, implementation schedule for all key resettlement activities, including rehabilitation and livelihood restoration. The settlement implementation schedule needs to be closely aligned with the schedule for all relevant works throughout the preparatory and construction phases.

### **N. Monitoring, Reporting and Evaluation**

This section describes the mechanisms and benchmarks for monitoring and reporting, as well as for evaluation of RAP implementation. It also specifies arrangements for participation of project affected people in the preparation and validation of monitoring and evaluation reports.

### Annexure – 6

#### Outline of indigenous people development plan / Vulnerable Communities Development Plan

##### A. Executive Summary

This section concisely summarizes the critical facts, significant findings, and recommended actions specifying responsible parties, deadlines and budget.

##### B. Description of the Subproject

This section provides a general description of the project and its direct and indirect area of influence; discusses project components and activities that may bring impacts on Indigenous Peoples/Vulnerable Communities; and identify project area.

##### C. Social Impact Assessment

This section:(i) reviews the legal and institutional framework applicable to Indigenous Peoples/Vulnerable Communities in the project context; (ii) provides baseline information on the demographic, social, cultural, and political characteristics of the affected indigenous communities; the land and territories that they have traditionally owned or customarily used or occupied; and the natural resources<sup>10</sup> on which they depend.(iii) identifies key project stakeholders and elaborates a culturally appropriate and gender-sensitive process for meaningful consultation with the affected indigenous communities at each stage of project preparation and implementation, with the objective of achieving free, prior and informed consent (FPIC).(iv) assesses risks, vulnerability levels and potential project impacts (both positive and negative), based on free, prior and informed engagement (FPIE) with the affected indigenous communities<sup>11</sup>. (v) includes a gender-sensitive assessment of the affected indigenous communities' perceptions about the project and its impact on their social, economic, and cultural status.

##### D. Information Disclosure, Consultation and Participation

This section:(i) describes the information disclosure, consultation and participation process with the affected indigenous communities that was carried out during project preparation; (ii) summarizes their comments on the results of the social impact assessment and identifies concerns raised during consultation and how these have been addressed in project design;(iii) in case of FPIC being required, documents the process and outcome of consultations with affected indigenous communities and any

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<sup>10</sup>Including biodiversity and ecosystem services.

<sup>11</sup>Critical to the determination of potential adverse impacts is a gender-sensitive analysis of the relative vulnerability of, and risks to, the affected indigenous communities given their particular circumstances and close ties to land and natural resources, as well as their lack of access to opportunities relative to those available to other social groups in the communities, regions, or national societies in which they live.

# Distribution System Upgrade & Expansion Project

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agreement resulting from such consultations for the project activities and safeguard measures;(iv) describes consultation and participation mechanisms to be used during implementation; and(v) confirms disclosure of the draft and final IPDP to the affected indigenous communities.

### **E. Beneficial Measures**

This section specifies clear and detailed benefit-sharing arrangements to ensure that the affected indigenous communities receive social and economic benefits that are culturally appropriate, and gender responsive.

### **F. Mitigation Measures**

This section specifies the measures to primarily avoid adverse impacts on the affected indigenous communities; and where avoidance is impossible, specifies measures to minimize, mitigate or effectively remedy adverse impacts. These measures are to be identified and defined through a process of meaningful consultation.

### **G. Capacity Building**

This section provides measures to strengthen the social, legal, and technical capabilities of (a) government institutions to address Indigenous Peoples issues in the project area; and (b) Indigenous Peoples organizations in the project area to enable them to represent the affected Indigenous Peoples more effectively.

### **H. Grievance Redress Mechanism**

This section describes procedures to address and resolve grievances of affected indigenous communities. It also describes how these procedures are best made accessible for indigenous people, as well as culturally appropriate and gender sensitive. It also takes into account the availability of judicial recourse and customary dispute settlement mechanisms among the indigenous peoples.

### **I. Monitoring, Reporting and Evaluation**

This section describes the mechanisms and benchmarks form on it and reporting, as well as for evaluation of IPDP implementation. It also specifies arrangements for participation of affected indigenous communities in the preparation and validation of monitoring and evaluation reports.

### Annexure 7

#### Ips & Vulnerable Groups Impact Screening & Categorization Form

##### A. IPs Checklist

Name of Subprojects:

##### B. Identification of Impact on IPs/ Vulnerable Group in Sub-project Area

Impact on Indigenous Peoples (IPs)/ Ethnic Minority (EM)/ Vulnerable Group	Not known	Yes	No	Remarks or identified problems, if any
Impact on Indigenous Peoples (IPs)/ Ethnic Minority (EM)/ Vulnerable Group				
Are there Dalits, Janjati, or ethnic minorities present in project locations?				
Do they maintain distinctive customs and traditions and economic activities in their locality?				
Will the project in any way affect their economic and social activity and make them more vulnerable?				
Will the project affect their socioeconomic and cultural integrity?				
Will the project disrupt their community life?				
Will the project positively affect their health, education, livelihood or social security status?				
Will the project negatively affect their health, education, livelihood or social security status?				
Will the project alter or undermine their local knowledge, customary behaviors or institutions?				
Are IP and VC households likely to lose customary rights over, access to land?				
Are IPs and VCs likely to lose shelter/business and be displaced?				
In case no disruption of indigenous community life as a whole, will there be loss of housing, strip of land, crops, trees and other fixed assets owned				

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or controlled by individual indigenous households?				
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### B. Additional Information Required

- Total and affected areas of land, by type of land assets;
- Total and affected areas of structures, by type of structure (main or secondary);
- Legal status of affected land and structure assets, and duration of tenure and ownership;
- Quantity and types of affected crops and trees;
- Quantity of other losses, e.g. business or other income, jobs or other productive assets, estimated daily net income from informal shops;
- Quantity/area of affected common property, community or public assets, by type;
- Summary data on PAP households, by ethnicity, gender of head of household, household size, primary and secondary source of household income viz-a-viz whether household is headed by women, or consists of marginalized ethnic groups (Dalits, Freed Kamaiya), Muslims/religious minorities, elderly, disabled, indigenous people (highly marginalized, marginalized, and, disadvantaged IPs), below poverty line of NRs 3000/month), landless or households losing 50% of total landholdings (particularly those totally dependent on agriculture for livelihood), as well as remote villages.
- Identify whether affected land or source of income is primary source of income; and
- AP knowledge of the subproject and preferences for compensation and as required, relocation sites and rehabilitation measures

### D. Anticipated project impacts on indigenous peoples

Project activity and output	Anticipated positive effect	Anticipated negative effect

### E. Decision on Categorization

After reviewing the above, it is determined that the sub-project is:

Categorized as an A project, an Indigenous Peoples Development Plan (IPDP) is required

Categorized as a B project, a specific action favorable to indigenous peoples is required and addressed through a specific provision in related plans such as a Resettlement Plan, or a general Social Action Plan

Categorized as a 'C' project, no IPDP or specific action required

### Annexure 8

#### Socio – Economic Household Survey Questionnaire

##### Distribution System Upgrade and expansion Project (DSUEP)

1. Project Component tick one (Substation, 33kV, 11kV) HH No.
  - 1.1 Name of 33/11kV substation
  - 1.2 Name of road of the Alignment of 33kV distribution lines and 11 kV distribution lines
  - 1.3 33kV lines
  - .....
  - 1.4 11 kV lines .....
2. General Information.
  - 2.1 District.....
  - 2.2 Rural Municipality / Municipality.....
  - 2.3 Ward No.....
  - 2.4 Village/Tole.....
3. Household Information
  - 3.1 Name of Household Head .....
  - 3.2 Caste a) Dalit, b) Janajati c) Others (Brahmin, Chhetri, Dasnami, Thakuri)
  - 3.3 Religion .....
4. House Facilities. Type Toilet, .....drinking water, ..... electricity, .....
5. How many months do you have food sufficiency from your own production? Months .....
6. Demography details of a Household

S.N	Name	Gender	Age	Occupation	Education	Disability	Interested Training	Remark
								HH



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7. Do you have poverty identify card issued by the Nepal Government? Yes/No If yes please write the Card No ..... Name.....

8. Loss of land and market value of Land.

Name Land owner	Loss of Land Sq.m.				Market Price NRs			
	Khet	Pakho	kharen	Ghaderi	Khet	Pakho	kharen	Ghaderi

9. Total holding Land

Name Land owner	Total Holding Land Sq.m			
	Khet	Pakho	kharen	Ghaderi

10. Loss of private Land, tree, fruits etc. (Substation or Distribution Lines) from (only private land)

Name of owner	Sheet No.	Title No	Unit	Area	No of fodder trees	No of fruits

11. If Structure loss from the Project (Substation or Distribution Lines) (Private & Public Land)

S.N.	Type of House No	Kitchen	Shed	Toilet	wall	others

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12. Agriculture Production.

Land Type	Area Sq.m.	Production Kg							
		Paddy	Wheat	Maize	Millet	pulses	Potato	Vegetable	Mustard
Irrigate									
Un-irrigate									
Grass land									

13. Domestic animals Name:

Livestock	Nos. of Cattle and Aves				
	Buffalo	Cow	Bull	Goat	Chicken
Nos. Kept Nos					
Cells before during the years Nos.					
Total Selling Price NRs					

14. Annual Expenditure. Education in NRs

Education	Health	Food	Fee Mahasul	Festivals	Others

15. What is your main source of income? Mention only one.....

16. Annual Incomes

Agriculture & Livestock	Business a	Trade	Foreign Employment	Pension	Gov & private Service	Pension	wages

17. What type of disease does you has suffered your family during the year? Please write name of disease. ....

18. Please the mention the service centers access.

S.N.	Health	School	Ward	Municipality	Bank	Police office	Market	Road
Distance								
Time								

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19. What type of training will you / your family member want to involve if the project conduct? Age should be 24 to 45 only please tick following only one and writ the Name of person.

- a) House wiring b) welding c) off / season vegetable farming d) livestock - buffalo/goat/pig etc. keeping, e) Poultry farming etc. f) other specify .....

20. What type of compensation do you prefer?

- a) Cash for land, b). Land for land, c). Cash for house d). House for house

21. Do you agree construction this project and provide land for project construction propose?

Tick Yes, or No

22. Agriculture Labour Rate

Items	Skill Rate NRs	Unskilled rate NRs
Mane		
Women		

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework

### Annexure 9

#### Discussion and meaningful consultation with indigenous people for FPIC proposed

1. Call meeting fixing time and place.

a. Date ..... Time.....

b. Place..... Municipality..... ward.....

c.

2 Attendance

i) Focus group Discussion with available indigenous<sup>12</sup>peoples within the project areas for free prior and informed consent

S.N	Full Name	R/Municipality	W/ No.	Gender	Signature

<sup>12</sup>A) Endangered Groups :- Bankariya, Kusunda, Kusbadiya, Raute, Surel, Hayu, Raji, Kisan, Lepech, Meche

B) Highly Marginalized Groups :- Santhal, Jhagad, Chepang, Thami, Majhi, Bote, Dhanuk (Rajbansi), Lhomi (Singsawa), Thudamba, Siyar(chumba), Baramu, Danuwar,

C) Marginalized Groups :- Sunuwar, Tharu, Tamang, Bhujel, Kumal, Rajbansi (Koch), Gangai, Dhimal, Bhote, Darai, Tajpuriya, Pahari, Dhokpya (Topkegola), Dolpo, Free, Magal, Larke (Nupriba), Lhopa, Dura, Walung,

D) Disadvantaged Groups :- Jirel, Tangbe (Tanbetani), Hyolmo, Limbu, Yakkha, Rai, Chhantyal, Magar, Chhaintan, TingaunleThakali, Baragaunle, Gurung, Byansi, Marphali, Sherpa.

E) Advanced Groups:- Newar, Thakali.

# Distribution System Upgrade & Expansion Project

## Environment & Social Management Framework


Discussion made about the Free prior and informed consent discussion on Project benefits and need with indigenous peoples in subproject areas, and free make decision to IPs and write consents and signature.at bottom after decision.

.....  
.....

### Annexure 10

#### Environmental and Social Trimester Monitoring Report Template

##### 10.1 Environmental Trimester Monitoring Report

###### Table of Content

1. Introduction
2. Description of Project
3. Progress Status
4. Environmental Category of the Project and Status
5. Institutional Arrangement for Safeguard Implementation
6. Environmental Requirement in Contract Agreement
7. Status of Environmental Safeguard
  - 7.1 Recruitment of Safeguard Staffs
  - 7.2 Overall Compliance with EMP
  - 7.3 Environmental Clearance from Authorized Government Agencies
8. Environmental Monitoring
  - 8.1 On-going Environmental Monitoring
9. Public Consultation and Disclosure
10. Grievance Redress Mechanism
11. Conclusion

### 10.2 Social Trimester Monitoring Report

#### Table of Content

1. The Project Details
  - 1.1 Background of the project
  - 1.2 Institutional arrangement
  - 1.3 Physical Progress of the Project
  - 1.4 Safeguard Progress
2. Objective and Scope of Monitoring
  - 2.1. Objectives of Bi-annual monitoring
  - 2.2. Scope and monitoring requirements
3. Methodology of Monitoring
  - 3.1 Methodological approach
  - 3.2. Qualitative and Quantitative monitoring of data
4. Monitoring Indicators and Parameters
  - 4.1 Key aspects considered in the report
  - 4.2. Monitoring indicators and the parameters as per the RAP, VCDP, IPDP, GAP
  - 4.3 Indicators of monitoring
5. Monitoring Results
6. Corrective Actions for noncompliance and Major Gaps
7. Consultation, Participation and Disclosure
  - 7.1 Consultation and participation
  - 7.2 Information disclosure
8. Proposed Major Item of Focus for Next Report

### Annexure 11 Labour Camp Guidelines

#### Establishing labour camp

The main purpose for the preparation of camp standard is to assist in the effective implementation of Environmental and Social Management Framework (ESMF) and to achieve sustainable development ensuring no any adverse impacts upon environment and society. An attempt has been made to prepare this standard for RAIDP funding rural & agricultural roads and bridge referencing other manuals for environmental and social aspects published by GESU-DOR. The establishment and operation of a camp is likely to produce adverse impacts upon the bio-physical as well as the social and economic environments. It is imperative to safeguard the environment and society and to reduce and mitigate the negative impacts that are likely to be produced for the operation of camps. It is envisaged that a contractor will follow the following guidelines during the operation of camps in the project areas and hope that the project will be accomplished and benefited including local community and labor workers. Similarly, central level monitoring will be executed for the proposed camp sites under the consideration of following guidelines.

After the selection of the camp site by the project, the contractor shall submit to the project a detailed layout plan for development of the construction camp, indicating the various structures to be constructed including the temporary structures to be put up, drainage and other facilities. The plan will include the redevelopment of sites to pre-construction stage.

The contractor shall provide temporary accommodation to all the workers employed by him for such a period as the construction work is in progress. The contractor shall not charge any cost to the resident labour.

#### Lodging facilities

1. For non-local workers, a contractor shall provide adequate lodging/accommodation. Separate compartment shall be provided for male and female workers for their accommodation. If couples live in the camp then they shall be provided with separate compartments
2. The accommodation areas for workers shall be designed, constructed and furnished having regard to the working conditions and the number and gender of the workers
3. Changing rooms shall be provided for workers who are required to wear working clothes. Provision shall be made for separate changing rooms for men and women
4. A contractor shall prevent labor workers to sleep on the open floor. Wooden or bamboo beds shall be provided and elevated at least 12 inches from the floor. If double-deck bunk is used, it shall be spaced not less than 48 inches laterally. The minimum clear space between the lower and upper bunk shall be not less than 27 inches. Triple-deck bunks are prohibited



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### Food and energy

5. The availability and proper storage of quality food and potable water is also the responsibility of a contractor. The quality of food grains and other consumable items and water must be provided. In case labors wish to prepare their own meals, the contractor shall provide adequate cooking facilities. In camps where cooking facilities are used in common, legal source of energy shall be provided. Such kitchen shall be established at least 10m distance from any sort of water sources

6. If a camp is used during cold weather, adequate heating equipment/insulation shall be provided. Camp members shall be provided with adequate bedding material sufficient to prevent cold

7. Workers shall be provided with facilities enabling them to take their meals and rest in satisfactory conditions. If meals are not provided for the workers on the site, they shall be provided with facilities enabling them to preserve the foodstuffs they have brought with them and, if necessary, to heat them

### Water and sanitation

8. Adequate water storage facility shall be provided in a proposed camp site

9. Workers working on a construction site shall be provided with drinking water which meets the standards established for drinking water

10. Lavatories facilities should be adequate for the capacity of a camp. The lavatories to labor ration should not be less than 1:15

11. The lavatories shall be adequately lighted and shall be maintained in a clean sanitary condition at all times. Water shall be provided in or near the lavatories by storage in suitable containers (tank, buckets etc.)

12. If proper sewerage system is not available at the proposed camp site, contractor shall establish eco-friendly toilets with septic tank for the proper disposal of waste. Bamboos and plastic sheets shall be used as encircle material for the establishment of temporary toilets. However, contractor shall ensure that the site is free from open defecation

13. Provision shall be made for separate lavatories for men and women on the camp site and these rooms shall be distinctly marked "for men" and "for women" by signs printed in native language of the persons occupying the camp, or marked with easily understood pictures or symbols. If the facilities for each sex are in the same building, they shall be separated by solid walls or partitions extending from the floor to the roof or ceiling

14. According to the nature of the work, a sufficient number of suitable washbasins or showers with running water shall be provided for workers, meaning not less than one washbasin for every 5-10 workers or one shower for every 10-15 workers. Provision shall be made for separate washbasins for men and women

### Lighting

15. "Lighting" where electric service is available, each habitable room in a camp shall be provided with at least one ceiling-type light fixture. Toilet rooms and rooms where people congregate shall contain at least one ceiling- or wall-type fixture lighting system. Utilization of electricity from a public supply source should not affect its availability and cost to the local population

### Waste disposal

16. Contractor shall provide adequate waste disposal facilities for the storage of garbage and shall be located within 100 ft. of each shelter on a wooden, metal, or concrete stand. Waste disposal management, including burning, should not in any way disturb the neighboring population nor residents of the camp itself

17. Garbage containers shall be kept clean and shall be emptied when full, but not less than twice a week

18. In case garbage is disposed, only biodegradable waste and organic kitchen waste shall be dumped in pit. Non-biodegradable wastes shall be kept in containers and shall be disposed into proper place. Pit shall be at least 150 ft. away from the camp site, whereas contractor shall ensure that diseases will not spread into nearby community and any sort of contamination into water bodies and ambient environment. Contractor shall also ensure that the pit is covered properly after disposal of degradable waste everyday to reduce spread of fly and rodents. Turn wise maintain of Pit shall be carried out by workers for maintain properly

19. Liquid waste generated from the camp site shall not be disposed directly into any surface water bodies. The contractor shall ensure proper management of ground-drainage from camps as a preventive measure against breeding places of mosquitoes and other pests

### Health and first aid

20. Contractor shall provide adequate health services to workers on the site. A permanent health worker is required in large work camps (100 workers or more).

27 Construction sites shall be equipped with First Aid Kit at every construction campsite with essential first aid equipment and stretchers.

28 One person should be assigned as in-charge who shall always be readily available during working hours of the work places.

29 He shall be adequately trained in administering first aid-treatment.

30 The contractor shall ensure that first aid can be provided to workers who have had an accident or have suddenly been taken ill on the site.

31 First Aid Kit, distinctly marked with Red Cross on white back ground and shall contain minimum of the following or similar items:

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- Few Small, medium and large sterilized dressings
- 1 (30 ml.) bottles containing 2% alcoholic solution of iodine
- 1(30 ml) bottle containing salvolatile
- 1 snakebite lancet
- 1 pair sterilized scissors
- 1 copy of first-aid leaflet
- 1-2 leaf of Aspirin, Paracetamol, Diagine, Metronitazol tablet
- Ointment for burns
- A suitable antiseptic solution
- Eyewash, etc.

32 Suitable transport to the nearest approachable hospital should be made available. Formal arrangement shall be prescribed to make motor transport or ambulance available to carry injured person or person suddenly taken ill to the nearest hospital

33 If hospital is far away, proper medical clinic facility should be made available at camp where emergency treatment is available. Thereafter, the injured shall be taken to hospital

34 Effective measures for insect and rodent control shall be taken to prevent infestation by and harborage of animal or insect vectors or pests. Mosquito net shall be provided to workers during summer season

### Fire safety

35 The construction camps shall be equipped with fire-fighting equipment and facilities.

36 Fire extinguishing equipment shall be provided at readily accessible and adequately marked locations at Camp

37 Every worker should be trained in use of fire extinguishing equipment

38 At least one fire extinguisher shall be provided, where flammable liquids or combustible materials are stored, handled or used

39 Proper pictorial posters should be used to indicate to everyone the location of fire-fighting equipment.

40 Fire extinguishing equipment shall be of a suitable type and size to permit the evacuation of workers during a fire.

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41 After a fire extinguisher is used, it shall be refilled or replaced immediately

42 Every fire extinguisher shall be inspected for defects or deterioration at least once a month by a competent worker who shall record the date of the inspection on a tag attached to it

### Other

43 A camp site shall be adequately drained. All temporary camps shall be constructed using tents, and shall be closed from all side to protect from wind and water, while at the same time ensuring ventilation

44 The optimum size for the temporary tent camp should be of 10X8X8 ft. in which no more than 5 workers shall be accommodated

45 Simple alarming system and a communication system shall be established in the vicinity of a proposed camp site for security and to avoid possible dangers

46 The grounds and open areas surrounding the shelters shall be maintained in a clean and sanitary manner and shall be free from rubbish, debris, waste paper, garbage, or other refuse

47 A contractor shall provide separate store room or compartment for the storage of handy construction equipment

48 Play grounds and other recreational and refreshing activities shall be provided in a proposed camp site where a worker could spend his/her leisure