

# Resettlement and Indigenous Peoples Plan

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Project Number: 54107-002  
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## Nepal: Electricity Grid Modernization Project - Additional Financing

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



## **CURRENCY EQUIVALENTS**

(as of 2 April 2021)

Currency unit	–	Nepali rupee/s (Rs)
Rs1.00	=	\$ 0.008548
\$1.00	=	Rs116.99

## **ABBREVIATIONS**

ADB	Asian Development Bank
CDO	Chief District Officer
CDC	Compensation Determination Committee
CFC	Compensation Fixation Committee
CPR	common property resources
SSEMD	Social Safeguard and Environmental Management Department
FGD	focus group discussion
ft	foot / feet (3.28 ft = 1 m)
GESI-AP	Gender Equality and Social Inclusion Action Plan
GRM	grievance redress mechanism
ha	hectare
km	kilometer
kV	kilovolt
MVA	megavolt-ampere
MW	megawatt
NEA	Nepal Electricity Authority
NGO	non-government organization
PIU	Project Implementation Unit
PMU	Project Management Unit
RIPP	Resettlement and Indigenous Peoples Plan
ROW	right-of-way
ft <sup>2</sup>	square feet
m <sup>2</sup>	square meter
TOR	terms of reference

## WEIGHTS AND MEASURES

1 ha	=	2.47 acre
1 ha	=	10,000 m <sup>2</sup>
1 ha	=	1.48 bigha
1 acre	=	100 decimal
1 bigha	=	20 katta
1 bigha	=	6772.63 m <sup>2</sup>
1 katta	=	20 dhur
1 bigha	=	0.68 ha
1 Ropani	=	0.05 ha
16 ana	=	1 Ropani
16 ana	=	0.05 ha

**NOTE:** In this report, “\$” refers to United States dollars.

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## GLOSSARY

**Affected Person.** Any person, affected households, firms or private institutions who, on account of changes that result from the project will have their (i) standard of living adversely affected; (ii) right, title, or interest in any house, land (including residential, commercial, agricultural, forest, and/or grazing land), water resources, or any other moveable or fixed assets acquired, possessed, restricted, or otherwise adversely affected, in full or in part, permanently or temporarily; and/or (iii) business, occupation, place of work or residence, or habitat adversely affected, with or without displacement.

**Affected Household.** All members residing under one roof and operating as a single economic unit, who are adversely affected by the project. For example, those sharing the same kitchen and cooking food together as a single-family unit.

**Assistance.** Support, rehabilitation, and restoration measures extended in cash and/or kind over and above the compensation for lost assets.

**Compensation.** Payments in cash or in kind for assets acquired or affected by a project at replacement cost or current market value.

**Cut-off date.** For landowners, the date of the detailed measurement survey conducted by the Compensation Determination Committee is the cut-off date. For non-titleholders, the date of the field census to identify affected people will be posted in advance of a final field assessment the after detailed measurement survey is completed.

**Dalits.** The group of people defined and recognized by National Dalit Commission Nepal. Dalits refer to "communities, by virtue of atrocities of caste-based discrimination and untouchability, are most backward in social, economic, political and religious fields, and deprived of human dignity and social justice."

**Elderly Headed Household.** The project will adopt the Nepal government definition of senior citizens as elderly (citizens who are 60 or above years in age).

**Eminent Domain.** The regulatory authority of the government to obtain land for public purpose and/or interest.

**Entitlements.** The range of measures comprising cash or kind compensation, relocation cost, income restoration assistance, transfer assistance, income substitution, and business restoration which are due to affected households, depending on the type and degree and/or nature of their losses, to restore their social and economic base.

**Grievance Redress Committee.** The committee established under the projects to document, hear, and resolve the project related grievances and/or concerns.

**Indigenous People.** ADB Safeguard Policy Statement (2009) states that "Indigenous Peoples safeguards are triggered if a project directly or indirectly affects the dignity, human rights, livelihood systems, or culture of Indigenous Peoples or affects the territories or natural or cultural resources that Indigenous Peoples own, use, occupy, or claim as an ancestral domain or asset. The term Indigenous Peoples is used in a generic sense to refer to a distinct, vulnerable, social

and cultural group possessing the following characteristics in varying degrees: (i) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (ii) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories; (iii) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and (iv) a distinct language, often different from the official language of the country or region.” In Nepal, 59 indigenous communities have been officially and legally recognized by the Nepal Government under the National Foundation for Development of Indigenous Nationalities (NFDIN) Act 2002.

**Inventory of Losses.** Assets listed during the survey/census as a preliminary record of affected or lost assets.

**Non-titled.** Persons who have no recognizable rights or claims to the land that they are occupying and includes people using private or public land without permission, permit or grant i.e., those people without legal title to land and/or structures occupied or used by them. ADB’s policy explicitly states that such people cannot be denied resettlement assistance.

**Relocation.** Displacement or physical moving of the affected person from the affected area to a new area/site and rebuilding homes, infrastructure, provision of assets, including productive land/employment and re-establishing income, livelihoods, living and social systems.

**Replacement Cost.** The value of assets to replace the loss at current market price, or its nearest equivalent, and is the amount of cash or kind needed to replace an asset in its existing condition, without deduction of transaction costs or for any material salvaged. The calculation of full replacement cost will consider; (i) transaction costs; (ii) interest accrued, (iii) transitional and restoration costs; and (iv) other applicable payments, if any.

**Replacement Land.** The land affected by the project that is compensated through provision of alternative land, rather than cash, of similar nature and quality and/or productive capacity as the land lost and is acceptable to the affected person.

**Resettlement.** Mitigation of all the impacts associated with land acquisition including restriction of access to, or use of land, acquisition of assets, or impacts on income generation as a result of land acquisition.

**Squatters (Informal settlers).** Non-titled and other households, business, and common establishments on land.

**Structures.** All buildings including primary and secondary structures including houses and ancillary buildings, commercial enterprises, living quarters, community facilities and infrastructures, shops, businesses, fences, and walls.

**Vulnerable Households.** Households that include those that are (i) households headed by women; (ii) household headed by persons with disabilities; (iii) households falling under the

generally accepted indicator for poverty <sup>1</sup> (iv) elderly headed households; (v) indigenous households; (vi) households who are landless, and (vii) who are without legal title to land.

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<sup>1</sup> Nepal's gross domestic product (GDP) per capita reached \$1,034.11 in July 2019 and per capita poverty is 19,261. Central Bureau of Statistics. 2019. National Account of Nepal 2019. Kathmandu.



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## **Executive Summary**

1. This draft Resettlement and Indigenous Peoples Plan (RIPP) is for the proposed additional financing of the Electricity Grid Modernization Project. The project is categorized as B for involuntary resettlement and B for indigenous peoples safeguards. This combined draft RIPP has been prepared to ensure that the project complies with the application of social safeguards requirements under ADB's Safeguard Policy Statement (2009) and prevailing Acts, Laws, Rules and Regulations pertaining to Land Acquisition for infrastructure development by the government agency. The Nepal Electricity Authority (NEA) is the executing agency for the project and is responsible for all project activities.

### **I. Outputs and project scope**

2. The proposed additional financing will yield expansion of output 1 and 2 (transmission and distribution network expansion and strengthening) of the original project. Under output 1, an additional 16 kilometers (km) 132 kilovolts (kV) transmission line from Kohalpur to Nepalgunj and from Chovar to Lagankhel, plus an additional 501 megavolt-amperes (MVA) of substation capacity in Dumkibas, Lagankhel, Mulpani and Nepalgunj will be constructed. Under output 2, an Enterprise Resource Planning (ERP) and a Revenue Management System (RMS) will be implemented with a project supervision consultant firm appointed to enhance supply and system security.

### **II. Outcomes**

3. Project outputs will result in the following outcome: access, reliability, and efficiency of power supply in around Kathmandu Valley and out of Kathmandu Valley will be improved. The project will be aligned with the following impact: reliable and efficient electricity for all by 2030 achieved (National Energy Crisis Reduction and Electricity Development) and Energy trade Infrastructure in South Asia Subregional Economic Cooperation (SASEC) countries improved. Construction of new substations and transmission lines and reinforcement of existing substations under the proposed project will also be helpful to meet the growing demand, to improve the reliability of supply and to accelerate the industrial growth. Directly affected households will be provided skill enhancement training as per need of targeted participants and need of market that will mitigate adverse impacts due to land acquisition and resettlement and till enhance the livelihoods of local communities.

### **A. The Subprojects**

4. Under output 1 and 2 of this additional financing support the proposed subprojects are construction of additional 16 km of new transmission line both underground and overhead and construction and upgradation of three substations with 501 MVA capacity within and outside Kathmandu Valley. The project comprises major 7 subproject components. They are:

<b>Output 1: Electricity Transmission Capacity in Project Areas Strengthened.</b>	
<b>Subproject 1</b>	Construction of 6 km of 132 kV underground line from Chobar to existing Lagankhel Substation for Kathmandu Valley Transmission Reinforcement.
<b>Subproject 2</b>	Construction of 10.46 km of 132 kV overhead transmission line from Kohalpur to Nepagunj.
<b>Subproject 3</b>	Construction of 132/33/11 kV new substations at Janaki Rural Municipality, Nepalgunj, Banke.
<b>Subproject 4</b>	Construction 132/33/11 kV new substations at Dumkibas. East Nawalparasi.
<b>Subproject 5</b>	Construction of 132/11 kV substation in Mulpani, Kathmandu.
<b>Subproject 6</b>	Upgradation of existing substation in Lagankhel with 132/33 kV transfers.
<b>Output 2: An ERP and RMS will be Implemented.</b>	
<b>Subproject 7</b>	An ERP and a RMS will be implemented.

## **B. Anticipated Project Impacts**

5. The additional financing project is not expected to involuntarily acquire significant amounts of land, as most project construction activities will be undertaken within the premises of NEA or on public land. The installation of the new underground lines will follow the right of way (ROW) of the existing roads. The project is carefully designed to avoid and minimize impacts to structures. The findings of the field survey of respective subproject areas shown that the subprojects 2, 3 and 4 will involve the involuntary resettlement impacts and for remaining subprojects anticipated limited, minor and mitigable impacts during construction period. The project will avoid impacts to cultural heritage. The project is located in areas inhabited by Tharu, Tamang, Magar, Gurung, and Newar Indigenous Peoples, as well as other vulnerable and marginalized people. Prevant local dialects include Abadhi and Tharu. The summary of findings from the socioeconomic and census survey of affected households, the anticipated impacts resulting from the project are presented in Table E-1 below.

**Table E-1: Summary of Impacts**

<b>S. No</b>	<b>A. Impacts Due to Permanent Land Acquisition</b>	<b>Quantity</b>	<b>Measure</b>
1	Total area to be acquired permanently for substations and tower pad	6.62	hectares
2	Total households affected due to land acquisition for substations and tower pad	81	households
3	Total population estimated to be affected due to permanent land acquisition	558	persons
4	Total households estimated to be experienced major impacts due to physical displacement from housing and/or losing 10% or more of their productive assets	9	households
5	Total population estimated to be experienced major impacts	50	persons
	Total residential structures affected	9	number
6	Total non-residential structures affected (non-residential building -2, toilets- 7, sheds- 5 and kitchen 1 and community shed-1).	16	number
<b>B. Impacts Due to Limited Restrictions under ROW</b>			
7	Total land falls under ROW areas with limited restrictions in transmission line	18.03	hectares
8	Total households affected only due to limited restriction on transmission line ROW area	87	households
9	Total population estimated to be affected only due to limited restriction in ROW area	600	persons
10	Total households losing land both due to restriction in ROW of transmission line and permanent acquisition for tower pad	67	households
<b>C. Impact on Crops and Trees/Fruit Trees</b>			
11	Total losses of standing/seasonal crops along the ROW of new transmission line and in substations	77.98	metric tons
12	Total affected private trees/fruit timber and grass trees (different species and sizes)	295	number

**6. Subproject 1: New underground Transmission Lines.** Subproject 1 involves the construction of 5 km of 132 kV underground transmission line from Chovar to Lagankhel existing substation. The underground transmission line will be constructed following the existing Roads- Chovar to Ekantakuna and then followed ring road up to Mahalaxmasthan Chock. No additional land will require for underground transmission cable and no adverse impacts due to project intervention anticipated except simple disturbances during construction period. Construction work will be carried out following the footpath and advance technology which produce less sound will be used. Construction work will be scheduled coordinating with local peoples as well as Temple management committee to avoid cultural activities (Mela) around the area. Consultation with local people including representatives of local government has also been conducted and all are found positive for underground transmission line.

7. **Subproject 2: Construction of Kohapur-Nepalgunj 132 kV Transmission Line.** To fulfil insufficient power supply in the Janaki Rural Municipality and surrounding areas where new settlements are rapidly growing, and new industries are also establishing. To feed the required power in the proposed substation in Nepalgunj, power will be trapped from tower no. 19 of Kohalpur-Mahdranagar 132 kV transmission line situated in Baijanath Rural Municipality ward no. 5 of Banke district. From trapping point to Janaki Rural Municipality, this transmission line will pass from Kohalpur Municipality, Baijanath Rural Municipality and Janaki Rural Municipality. Total length of alignment as of engineering design is 10.45 km. The alignment is followed almost agricultural farming land and only 2 private and 1 public structure constructed in government land will fall under transmission ROW and 2 landless households will be relocated due to loss of residential land. Total 40 no tower will be erected (17 angle towers and 23 suspension towers). Almost tower foundation area falls in private land. As of preliminary findings total 154 households anticipated to be affected for maintaining ROW and tower pad. As of engineering design total .57 ha of private land need to be acquired permanently for tower pad area and 18.03 ha of private land will require for maintaining ROW area with limited restrictions. Some sections of transmission route will follow government land.

8. Major crops cultivated in proposed alignment and substations sites are paddy, wheat and in limited amount oilseeds and other pulses are cultivated. During field visit it was observed that big landlords usually planted different types of trees in their land. Only marginal farmers are farming for subsistence. Limited number of trees, fruit trees and saplings either will be trimming or removed within and around ROW of transmission line.

9. **Subproject 3: Construction of 132 kV substation in Janaki RM-4, Nepalgunj.** The Subproject 3 includes construction of new 132/33/11 kV substation at Janaki Rural Municipality, Ward No. 4, Nepalgunj. The proposed site of the substation is in open and farming land and settlement are far from the location. Total 2.71 ha of land will be affected owned by 4 household with 32 population due to involuntary acquisition. No structures and trees will be affected. One season of standing crops will be affected.

10. **Subproject 4: Construction of 132 kV new substation in Dumkibas.** Subproject 4 which includes construction of new 132/33/11 kV substation at Dumkibas, Binayee Ttribeni Rural Municipality, Ward No 2, East Nawalparasi district (East Susta), Gandaki Province. The substation will fulfill the power demand of Madhyabindu Municipality and Binayeetribene Rural Municipality area where new settlements and industries are rapidly growing. The proposed substation site is situated in the north part of East -West Highway and Dumkibas Bazar. This site is under the RoW of existing 132 kV transmission line which is under construction for supplying power to Hogshi Cement industry and power will be trapped from the same transmission line. Total 3.34 ha of land will be acquired permanently from 10 households. Out of the total affected households, 3 households are residing in other places and 7 households will be physically displaced due to lose of entire residential land.

11. **Subproject 5: Construction of new 132 kV substation in Mulpani.** Subproject 5 includes the construction of 132/11 kV substation in Mulpani, Kathmandu. NEA has own land (.81 ha) in proposed substation site and this location is under ROW area of Chapali-Bhaktapur 132 kV transmission line and power will be trapped from that existing line. No adverse impacts anticipated. If unanticipated impacts would arise during construction period RIPP will be updated with appropriate mitigation measures.

12. **Subproject 6: Upgradation of existing substation in Lagalkhel.** The existing 66 kV substation is in Lagankhel, Lalitpur area will be used for construction/upgradation of proposed

132/33 kV substation. All project activities will be carried out within existing areas and no other impacts anticipated.

**13. Subproject 7: Enterprise Resource Planning (ERP) and Revenue Management System (RMS).** These technical improvements will be implemented with a project supervision consultant firm appointed to enhance supply and system security.

### **C. Impacts on Livelihoods and Income Sources**

14. Of the total subprojects proposed under the project's additional financing, only subprojects 2, 3 and 4 will require land for subproject construction and will involve involuntary related impacts and for the rest of the subprojects expected limited, minor and mitigable impacts. Field survey estimated a total of 168 households anticipated to be affected due to permanent land acquisition and limited restrictions to land use for lands along transmission line ROW and Nepalgunj and Dumkibas substations. Census survey of 86 households with 584 persons have been conducted. Out of the total affected households, 9 households will be severely affected due to loss of residential land and houses and among which 7 households are in Dumkibas substations and two are landless (under ROW of Nepalgunj-Kohapur transmission route). The project will consider these households as severely affected households. The livelihoods and income sources of affected households with available households have been assessed, and except severely affected households, the project is not expected to involve significant impacts to the income sources and livelihoods of affected households due to land acquisition for ROW and tower foundation area. Restrictions on the ROW generally do not affect agricultural activities after the end of construction activities and ownership of restricted areas for the ROW remains with landowners. The affected owners of Nepalgunj substation are found supportive of land acquisition by project because they have sufficient land for agricultural activities in that area and they will invest the compensated amount in other productive sectors.

15. Acquired lands and lost assets and limited restricted ROW area will be compensated. The project will also provide additional resettlement assistance based on severity of impacts and vulnerability of affected persons. The project will support affected households by providing livelihood and skill enhancement training and support for income generating activities through which affected people can be self-employed and establish their own businesses or can be upgraded their traditional skill. Budgetary for implementation of livelihoods and income restoration activities has been provisioned in this RIPP and need assessment will be carried out close consultation with severely affected households.

### **D. Severely Affected Households**

16. Total of 9 households will be considered severely affected households. 7 households in Dumkibas substation and 2 in ROW area of Kohalpur-Nepangunj transmission line (constructed in government land) will be displaced physically due to loss of residential houses. Two households who loss residential structures in ROW area occupied government land where they can shift or rebuild their residential structures around the same area outside from center line.

17. Field survey indicates that out of total affected households, only 7 households will loss more than 10% of area of total holding in Dumkibas substation. Loss of land for temporary restriction will not be counted in total lose and land holding, nor it reflect the impacts on livelihoods and source of income of affected household. During survey of displaced households in Dumkibas Substation it was found that however they will lose their entire land, but all 7 households are depending on Remittance, industry, labour work but no one households found depending on

agriculture production. In Dumkibas substation out of 7 households, 2 household's head are working in Indian Army, one is operating cruiser industry, 2 are working aboard, one is operating business and only one household is depending on labor work.

#### **E. Vulnerable Households**

18. A total of 52 households are considered vulnerable under this project. The Indigenous households, elderly and women headed households and the households that fall below poverty line, landless households, households having disable persons will be considered vulnerable households. The project will consider 35 indigenous households, 3 Indigenous women headed household, 3 women headed, 3 households are elderly headed, 2 households are landless and below poverty, 3 Indigenous households are having disable persons and 3 households having disable person to be vulnerable households. The project will be provided additional support to restore livelihoods and to obtain new/additional sources of income to these vulnerable households.

#### **F. Affected Indigenous Households**

19. A total 40 number of Indigenous households with 286 persons will be affected due to involuntary land acquisition for tower pad and ROW of Kohalpur-Nepalgunj transmission route and substation in Dumkibas. Madhesi population are in dominant position in the southern part of Kohalpur-Nepalgunj transmission lines and followed by Tharu and other hill population. In Dumkibas out of 10 households, 6 households belong Indigenous group (5 Tamang and 1 Magar), 3 households are Dalit Caste and remaining 1 is Brahmin caste will be affected due to land acquisition. Out of total affected Indigenous households, out of total 5 households will lose more than 10% of their productive assets in Dumkibas Substation.

20. This combined RIPP has been prepared because findings from the field survey and consultation with indigenous households the project is not expected any adverse impacts on Indigenous Peoples traditional customary rights, cultural identity and dignity, restriction on natural resources, and other cultural practices adopted by Indigenous Peoples. Consultation with directly affected Indigenous Peoples have been made and informed about the project and its likely impacts on land and other productive assets and their own traditional systems including mitigation measures. During the consultation with the indigenous peoples and other vulnerable households they suggested to the project team to implement the appropriate mitigation measures which will be helpful to enhance their livelihood and source of income. In this regard NEA will further assess the need and priority sector of vulnerable households during the RIPP implementation period.



**Table E-2: Socio-Demographic Profile of Severely Affected and Vulnerable Households**

S. No.	Demographic Category	Total Households	Total Population
	<b>Severely Affected Households</b>		
1	Total households displaced	9	50
A	<b>Subtotal</b>	<b>9</b>	<b>50</b>
	<b>Vulnerable Households</b>		
3	Indigenous households	30	224
4	Indigenous women headed households	3	14
5	Women headed households	3	13
7	Elderly headed households	3	18
8	Households with disabled person	4	5
	Indigenous Peoples households with disabled person	2	11
	Indigenous Peoples households displaced	5	37
	Below poverty line and landless	2	13
B	<b>Subtotal</b>	<b>52</b>	<b>335</b>
A+B	<b>Total</b>	<b>61</b>	<b>385</b>

**Source:** Field Survey, March 2021

## **G. Measures to Avoid, Mitigate and Minimize Project Impacts**

21. Technical design alternatives were applied during technical feasibility stage and best options with technically physical alignment and substation sites are selected which helps to mitigate the adverse impact of projects and will be continued to guide the final engineering design of the proposed subprojects under the project's additional financing. Following mitigation measures have been applied and will be continue till the final design period:

- i. Selected the alignment of transmission lines and substation sites ensuring less impacts on land and residential as well as non-residential structures as possible.
- ii. To minimize the number of displaced/affected persons avoided dense settlement areas and selected shortest straight route.
- iii. To minimize the number of displaced/affected persons only one side of road selected for substation site.
- iv. Minimize number of private as well and public structure crossings.
- v. Minimize impacts on livelihoods and income sources of affected people.
- vi. Identify a short, easy, safe and economical route for access roads and easy access for construction and maintenance works.

22. The field study identified that major cropping cycle are paddy and wheat and maize and to minimize the impact on standing crops during implementation period, NEA can schedule the construction period avoiding crop planting and harvesting seasons. Information about the construction schedule will be disseminated to affected households at least 2 months in advance of the start of construction activities and ensure that these disclosures will be documented properly.

23. Preliminary survey of Kohalpur-Nepalgunj transmission lines has identified that almost landowners of affected land are titleholders, with legal rights to land and throughout the alignment only 3 households are residing occupying few government lands since long time and residential structures<sup>2</sup> of two households will be affected due to ROW of transmission line.

24. Alignment is selected avoiding the public or community owned structures, cultural and religious places to the possible extent only one public structure along the transmission alignment found to be affected. Affected public structures (in case of unavoidable condition) will be reinstated as in the previous or better conditions consulting and close coordination with local peoples. Concern Ward Chair of Janaki Rural Municipality was consulted, and he suggested to project to construct same structures outside the ROW area or project need to provide compensation of affected structure.

25. Assistance for affected households will be paid as specified in the Entitlement Matrix. Vulnerable households—including women-headed households and those headed by the elderly, Indigenous Peoples households and landless—will receive cash assistance equivalent to 90 days wage rate plus one time cash assistance to compensate for immediate impacts to livelihoods. For longer-term support, the project will provide vulnerable households with skill enhancement training so that they can commercialize their traditional skill as of demand of market.

## **H. Information Dissemination and Stakeholders Consultation**

26. Project related information have been disseminated verbally during this draft RIPP was prepared for discussion at different locations of transmission line and substations sites. Two rounds of consultation and discussion meetings have been conducted along the transmission alignment. Total 11 number of consultation meetings (for more details see Appendix C) with affected persons conducted from January 24, 2021 to March 21, 2021 and will be continued as per requirement. A total of 126 persons (male 101, female 25) participated in the consultation and discussion meeting were participated. Out of total participants the representation of Indigenous Peoples groups was 45 (35.7%).

27. The draft and updated RIPP will be disclosed as per disclosure requirements laid out in ADB's Safeguard Policy Statement (2009). A Resettlement Brochure (based on the draft RIPP and to be updated for the final RIPP) is contained in Appendix G, which will be translated into Nepalese and in local Tharu and Awadhi languages and distributed to all affected households as well as other general customers to ensure they understand their entitlements and other associated matters. During consultation Tamang Indigenous Peoples affected in Dumkibas substation site confirmed that they cannot speak Tamang Language and can speak and write only Nepali language.

## **I. Entitlements**

28. The impact assessment of subprojects has been carried out using different methodologies and identified project affected households with total population. All affected persons identified before subproject wise cut-off date will be entitled for receiving compensation of their affected assets and will also entitled for receiving resettlement assistance and other measures to restore their livelihood and source of income. Compensation of all affected private and community assets will be paid by NEA prior to physical or economic displacement at replacement cost. Other rehabilitation activities will be put in place during the subproject implementation period. Entitlement matrix for this project is presented in Table 4.1 that sets out the type of loss and the

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<sup>2</sup> The affected residential structures are temporary types constructed using local material (straw and mud).

definition of the entitled person or the unit of entitlement including compensation and rehabilitation measures for each type of loss resulting from the involuntary resettlement.

## **J. Livelihood Enhancement Skill Training**

29. From the field survey of transmission line and substations no one affected persons will lose their livelihoods and source of income due to involuntary resettlement but based on the socioeconomic result identified some households as vulnerable. Based on the vulnerability of the affected households including Indigenous Households and their interest, education, capacity and traditional skill, a livelihood enhancement skill training will be organized. Out of the total affected surveyed households-40 households are Indigenous, 3 are landless, and displaced and 6 households are women headed and project will be considered vulnerable households. At least one participant from each household will receive the training skill training. Training need assessment of targeted participants will be carried out focusing market demand and best possibilities for self-employment or employment in local market as well as in foreign country. NEA will ensure their participation during need assessment and training conduction.

30. Along Kohalpur-Nepalgunj transmission line and Dumkibas substation site the affected persons have shown their interest to receive training if implemented locally and in appropriate time. During consultation meeting the major issues raised by the affected persons were employment in project activities or in local industries. However, along the transmission line and surrounding area of this transmission lines route several industries are operating, and local young generation are employed mostly as labour but their demand was to enhance the skill required in the industries. Types of trainings and number of participants will be finalized after training need assessment with targeted participants. The proposed trainings will be at least Level-I certified by the National Skill Testing Board (NSTB) and the training curriculum prepared by Council for Technical Education and Vocational Training (CTEVT) will be followed. The duration of Level-I training will be 390 hours (about 66 days). Short term income generation types of training will also be organized as per demand of participants. Estimated budget has been proposed.

## **K. Gender Equality and Social Inclusion in the Project**

31. The household survey findings shown that out of the total 86 surveyed households in subproject 2, 3 and 4, women population constitute 247 (42.29%) and 6 household are found headed by women. Some households are having elderly members and 6 households are having differently able persons and Indigenous households is 40. Consultation with women individually or with specific groups have been carried out and discussed on women specific issues and concern. Major issues discussed and identified were opportunities in economic activities and to women and differently able persons will really be designed considering the level of education and capacity of individual. Their demand was financial support from project should be provided with local appropriate skills. Land ownership is primarily owned by men in Nepal but now days it is slowly increasing specially in hill community but in Terai area there are still several socio-cultural barriers for women having access to property specially in Madhesi community. Among the identified different caste groups, the status of women in households level as well as in community level is better in Tharu and other Indigenous caste groups comparing with Madhesi community. In Nepal total 19% women have own land this may be a result of Government of Nepal's progressive policy regarding tax incentives for women owners but the figure in Terai districts is different. Out of total affected land parcel about 95 percent land parcel owned by Men. Similarly, during planning of RIPP ensured participation of women and other vulnerable groups and will be continued during project implementation. Men and women will be equally treated for receiving

compensation and other resettlement assistance including livelihood enhancement skill trainings and project benefits. Priority will be given to women and other vulnerable groups.

#### **L. Grievances Redress Mechanisms**

32. NEA's existing grievance redress mechanism established for the original project loan will be extended to cover the additional financing components for both environment and social safeguards to hear and address the complains related to land acquisition, compensation, and other concerns of affected persons locally. The executing agency will ensure that affected persons have the right to approach courts of law any time during the process of grievances redress.

#### **M. Monitoring and Reporting**

33. NEA will submit reports during construction and semi-annual reports during project implementation concerning the status of Resettlement and Indigenous Peoples Plan implementation and safeguard compliance to ADB. Project monitoring reports will be disclosed on the ADB website. During project implementation period internal monitoring mechanism will be established and regular monitoring will be carried out by the Social Safeguard and Environmental Management Department (SSEMD) under Project Management Directorate (PMD).

#### **N. Institutional Arrangements**

34. NEA will serve as the executing agency and the PMD will be the responsible for overall implementation, monitoring and supervision of all project-related activities. PMD has already set up a SSEMD headed by director level staff. Required human resources will be fulfilled internally and SSEMD will be responsible for implementing and monitoring and supervision of all resettlements related activities in close coordination with PMD and Project Supervision Consultant. PMD will operationalize the recently established Environment and Social Studies Department (ESSD) in PM.

#### **O. Resettlement Budget**

35. The proposed estimated budget is indicative and will be further updated as per requirement during updating of RIPP. The total estimated cost for this RIPP is NPR 914.34 million including 5 percent contingency. Executing agency will manage the required funds from the source of the government of Nepal.

#### **P. Implementation Schedule**

36. The RIPP implementation will take place over 6 years starting from the date of this draft RIPP to payment of compensation and implementation of livelihood restoration measures commencing in 2021 and anticipated to be completed in 2026. The RIPP implementation schedule will be adjusted with the procurement plan and final engineering design. Final engineering design is expected in mid-2021, subsequent to which the project will finalize the census survey of affected people and the government will lead the detailed measurement survey. These activities are scheduled to conclude by mid-2022. The RIPP will be finalized after the detailed measurement survey information is available. Internal Monitoring of this RIPP is the responsibility of NEA through its SSEMD and/or PMD.

## I. INTRODUCTION

### A. Project Description

1. This draft combined Resettlement and Indigenous Peoples Plan (RIPP) is for the proposed additional financing of Electricity Grid Modernization Project. The project is the continuation of Loan 4014-NEP: Electricity Grid Modernization Project,<sup>1</sup> which was approved on 26 November 2020 and is being implemented. The proposed additional financing will further improve the country's transmission and distribution system. The government has sought assistance from ADB to enhance the capacity of the critical transmission and distribution network in line with the Nepal Electricity Authority (NEA) Corporate Development Plan to improve electricity supply in critical load centers. These investments, which could not be accommodated in the original project due to lack of readiness at the time the original project was processed are needed to ensure efficient and reliable delivery of power to reach the target of 700 kilowatt-hours (kWh) per capita energy consumption by 2026. The proposed additional activities are strongly linked to the original project's scope. They can be implemented efficiently under the same implementation arrangements and have high readiness.

2. The project is categorized "B" for Involuntary Resettlement and Indigenous Peoples safeguards. This draft combined Resettlement and Indigenous Peoples Plan (RIPP) under additional financing has been prepared to ensure that the project complies with social safeguards requirements under ADB's Safeguard Policy Statement (2009) and the prevailing land acquisition related Acts, Laws, Rules and Regulation of country of Nepal.

3. The overall objective of the proposed project is to augment transmission and distribution networks to be able to meet the government target of increasing the grid access and meeting the demand of electricity for domestic as well as industrial zones and to improve reliability and quality of electric supply in the project area.

4. The proposed project will finance the construction of new substations and transmission lines and the reinforcement of existing substations inside and outside the Kathmandu valley, which will be helpful to meet the growing demand and reliable power supply of electricity in Kathmandu valley and for establishing and accelerating the industrial growth and other economic activities in the potential areas of the country.

5. The executing agency for the proposed project, NEA, will be responsible for overall management of project activities and the Project Management Directorate (PMD) within NEA headed by a Project Management Director with overall responsibility for executing the project. A Supervision Consultant will be procured to support for implementing project activities including social and environment safeguard components. The Social Safeguard and Environmental Management Department (SSEMD) has already been established headed by director level having 18 number of other supportive staff within PMD and this team will be responsible for updating, implementing and supervision and monitoring this RIPP close coordination with Supervision Consultation.

6. This proposed project is expected to be completed by 2026. The total time for project implementation after loan effectiveness is estimated at 6 years for finalizing detail engineering design, tender preparation, evaluation, and contract award. The government will also set up a

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<sup>1</sup> ADB. [Nepal: Electricity Grid Modernization Project](#).

high-level coordination committee representing key government agencies and other stakeholders to ensure proper coordination during implementation.

## B. Project Outputs

7. The proposed additional financing will yield expansion of two main outputs of the original project: transmission and distribution network expansion and strengthening.

8. **Output 1:** Involves construction of an additional 16 kilometers (km) 132 kilovolts (kV) transmission line from Kohalpur to Nepalgunj and from Chovar to Lagankhel, plus an additional 501 megavolt-amperes (MVA) of substation capacity in Dumkibas, Lagankhel, Mulpani and Nepalgunj. This will help to cater the unserved energy and demand of electricity for domestic as well as industrial consumers.

9. **Output 2:** Implementation of an Enterprise Resource Planning (ERP) and a Revenue Management System (RMS) with a project supervision consultant firm appointed to enhance supply and system security.

## C. Subproject Enumeration

10. The proposed additional financing includes 7 major subprojects. They are:

S. No.	Subprojects	Alignment with Project Outputs
1	Construction of 5 km of underground 132kV transmission line from Chovar to Lagankhel existing Substation for Kathmandu Valley Transmission Reinforcement;	Output 1 (i),
2	Construction of 10.46 km of 132 kV overhead transmission line from Kohalpur to Janaki Rural Municipality of Banke district of Lumbini Province	Output 1 (ii)
3	Construction of 132/33 kV substation in Janaki Rural Municipality	Output 1 (iii)
4	Construction of 132/33 kV substation in Dumkibas	Output 1 ((iv)
5	Construction 132/11 kV substation at Mulpani	Output 1 (v)
6	Construction of 132/33 kV substation at Lagankhel	Output 1 (vi)
7	Implementation of Enterprise Resource Planning (ERP) and a Revenue Management System (RMS)	Output 2

11. The administrative area covered by subprojects under the project including project affected Wards of respective Rural Municipality and Municipality are presented in Table 1.1 below.

**Table 1.1: Subprojects and Administrative Areas Covered**

S. No	Subprojects	Affected Rural/ Municipality	Affected Wards	Old VDCs	Wards No	District	Province
1	6 km of 132 kV underground Transmission Line from Chovar to Lagankhel	Lalitpur Metro Politian City		Lalitpur Sub Metro Politian City		Kathmandu and Lalitpur	Bagmati
		Kirtipur Municipality	6	Kirtipur Municipality			
2	10.46 km 132kV transmission line from Kohalpur to Nepalgunj	Kohalpur Municipality	14,15	Shamshergunj	3,4,5,6,7	Banke	Lumbini
		Bajinath Rural Municipality	5	Banktawa	3,7		
		Janaki Rural Municipality	5, 6	Ganapur	8		
				Belari	7		
3	Construction of 132 kV substations in Nepalgunj	Janaki Rural Municipality	4	Belari	7	Banke	
4	Construction of 132 kV substations in Dumkibas.	Binayee Tribeni Municipality	2	Dumkibas VDC	3	East Nawalparasi	Gandiki
5	Construction of 132 kV substations in Lagankhel	Lalitpur Metro Politian City	5			Lalitpur	Bagmati
6	Construction of 132 kV substations in Mulpani	Kageshwori Manahara Municipality, Mulpani	6	Kageshwori		Kathmandu	
7	Supply and installation of Load Break switches in the Distribution feeders, 11kV and 33kV for the enhancement of distribution network.						Throughout country

**Sources:** ADB (South Asia Department). 2020. NEP (54107-002): Electricity Grid Modernization Project – Additional Financing. Aide Memoire. (internal)  
Nepal Electricity Authority. 2020. Brief Proposal of NEP (54107-002): Electricity Grid Modernization Project – Additional Financing.

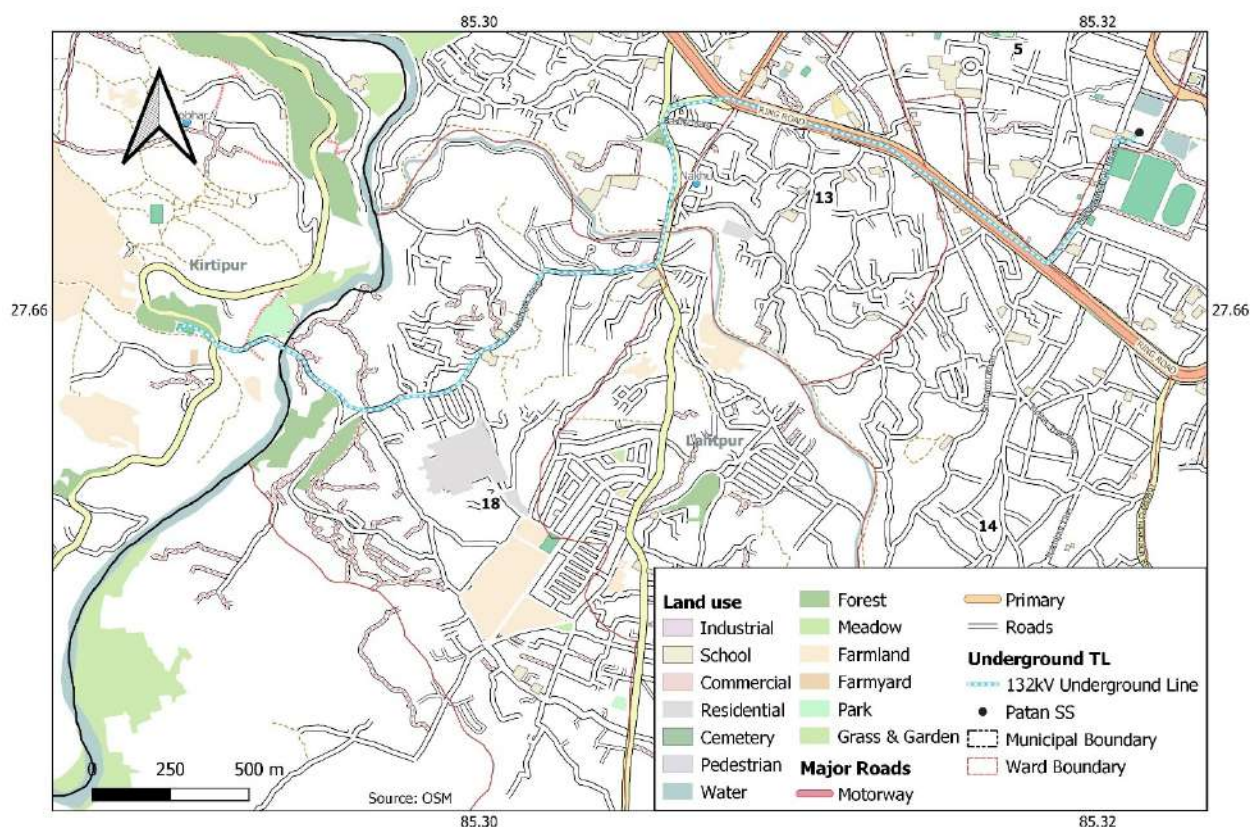
## **D. Subproject Descriptions**

**12. Subproject 1: Construction of 6 km Chovar to Lagankhel underground 132 kV transmission line.** To meet the growing electricity demand of Patan, Lalitpur area, 132 kV underground transmission line will be constructed from Chovar substation to an existing substation at Lagankhel. The Chovar substation is located Chovar (Old Himal Cement Industry area). The route of the underground line starts from Chovar and this line passes from Khokna, Bhaisepati, Medicity International Hospital, Ekantakuna, Mahalaxmasthan chock and ends at Lagankhel substation. The proposed route is crowded and busy in the daytime, but throughout the alignment footpaths (along the ROW of road) are available and construction work can be done within these areas. From starting points Chovar to Lagankhel Substation, no additional land will be

required for underground cabling work and cabinet construction. No adverse impacts are anticipated due to underground cable except disruptions to normal vehicle movement and pedestrians. During peak hours, some areas such as Nakhuchok and Medicity Hospital may be disturbed by increased vehicle traffic. To mitigate the disturbances, construction will be scheduled either in non-peak hours. The contractor team will coordinate with concern traffic police or construction will be scheduled in nighttime. In specific festivals, Mahalaxmi Temple area might be crowded and to avoid the festivals and special occasions of the temple, NEA will coordinate with Temple Management Committee and a construction schedule will be set accordingly. If unanticipated impacts occur during construction period appropriate mitigation measures will be adopted.

13. Alternative route analysis has been carried out for the proposed underground transmission lines. Two potential routes were considered. First route is Chovar-Khokana-Medicity International Hospital-Ekantakuna-Mahalaxmishthan Chock to Lagankhel substation, and second route is Chovar-Balkhuchok-Sanepa-Ekantakuna-Mahalaxmishthan Chock to Lagankhel. Both routes are feasible from the social safeguard point of view. Both routes follow the existing road and footpath. The first route is shortest.

**Figure 1.1: Alignment of Chovar to Lagankhel Underground Transmission Line**



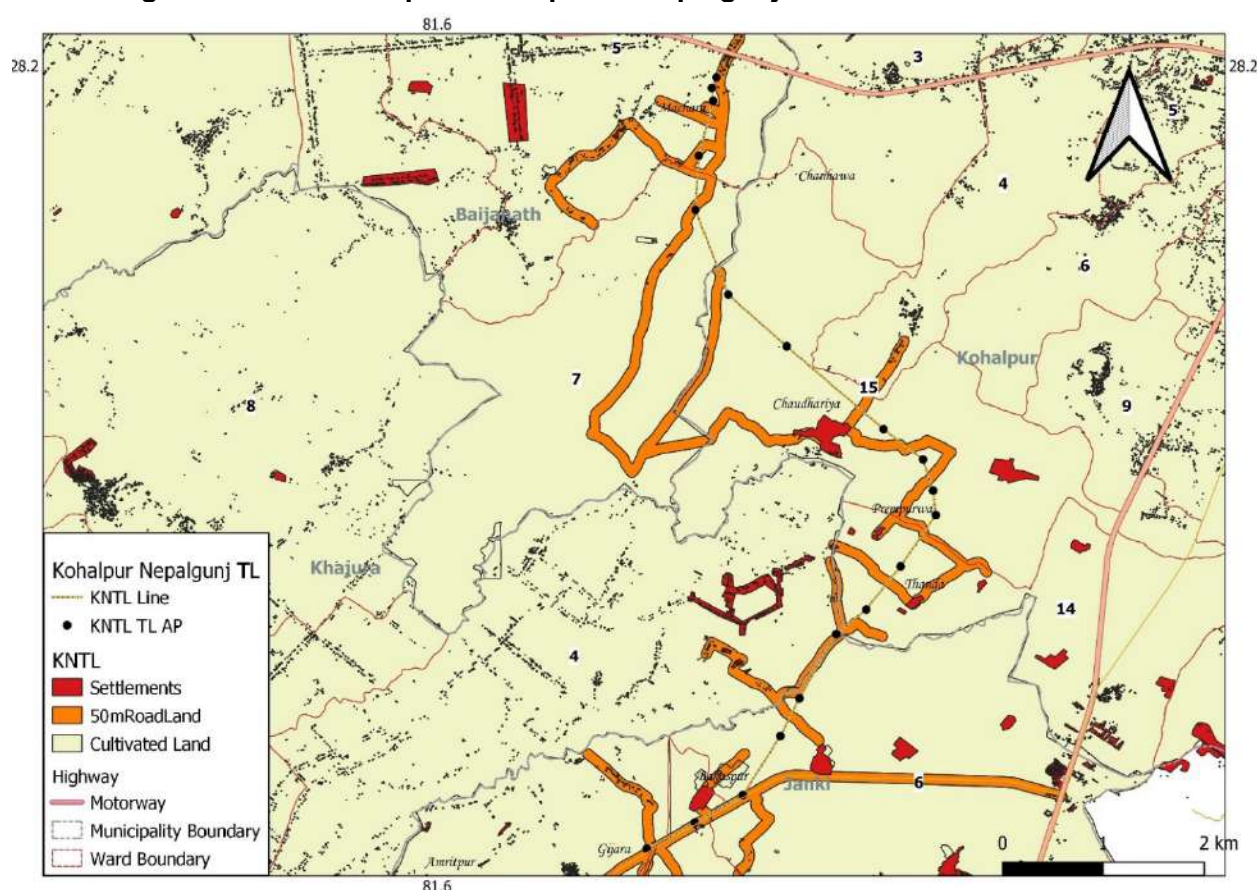
Source: NEA 2021

14. **Subproject 2: Construction of 132 kV transmission line from Kohalpur to Nepalgunj.** The additional financing will scale up investments by including a 10.46 km long transmission line from Kohalpur to Janaki Rural Municipality Ward no 4, Nepalgunj, Banke. The power will be trapped from tower no 19 of Kohalpur to Mahendranagar existing 132 kV transmission line which



is situated in Baijanath Rural Municipality of Ward No 5, Bankatawa, Banke and from trapping point the alignment will pass through Kohalpur Municipality ward no 14 and 15, and Janaki Rural Municipality, Ward No 5 and 6 of Banke district. All sections of the alignment pass from open agricultural farming land as well as government land. As of technical design total 40 towers (17 angle towers and 23 suspension or intermittent towers) will be erected. Due to transmission line only two residential temporary structures and one public shed constructed in government land will be affected for maintaining the ROW of transmission cable. Total 154 households anticipated to be affected due to limited restriction on ROW area and permanently land acquisition for tower pad out of total about 67 households will be affected both due to permanent land acquisition for tower pad area and remaining will be affected because of limited restriction on ROW area. The standard of tower foundation area of angle and suspension tower is 144 sqm (12mx12m and Row of 132 kV transmission line is 18 meters (m) (9 m either side from center line).

**Figure 1.2: Route map of Kohalpur to Nepalgunj 132 kV Transmission Line.**



**Source:** NEA 2021

15. To analyze the comparative likely impacts of this transmission line subproject, alternative route from Kohalpur-Substation to angle tower no. 8 of the proposed overhead routes have been carried out. Though, the length of this underground route reduced by 3-4 km approximately, but underground cabling will not be possible along the irrigation channel and Kohalpur Market area. Because proposed underground area is densely populated, and more people might be displaced. Therefore, NEA select the overhead cabling route from tower no. 19 of Kohalpur-Mahendranagar transmission line to Janaki Rural Municipality Ward No 5 of Banke district.

16. **Subproject 3: Construction of 132/33/11 kV substation in Janaki Rural Municipality, Ward No 4.** This substation is associated substation of Kohalpur-Nepalgunj 132 kV transmission line. After construction of this substation electricity demand of surrounding areas where new settlement and industries are rapidly growing due to open space and accessibility. This substation will also support to feed the power to 33/11 kV substations in Nepalgunj and Khajura areas.

17. Required land for substation construction have been identified and land acquisition process is under progress by NEA. The proposed area is in open agricultural farming land. No structures and other assets will be affected due to land acquisition in proposed substation site. Only seasonal standing crops anticipated to be affected. The proposed location relates to sufficient access road and far from the settlement area. Total 2.71 ha private land will be acquired with 4 households.

18. **Subproject 4: Construction of Substation in Dumkibas: 132/33 kV, 2 x 65 MVA and 33/11 kV 16 MVA Substation.** This proposed substation is situated on northern part of Dumkibas Bazar, Binayee Tribeni Rural Municipality, Ward No 2, East Nawalparasi. The identified location relates to local road and this site is under the RoW of existing 132 kV transmission line which is under construction for supplying power to Hongshi Cement Industry and power will be trapped from the same transmission line. Total 3.34 ha of private land will be acquired with 10 households. Total 22 different types of structures will be affected.

**Figure 1.3: Substation location map of Dumkibas, Binayee Tribeni**



**Source:** NEA 2021



19. **Subproject 5: Construction of Substation in Mulpani.** A new 132/11 kV substation at Kageshwori Manahara Municipality, Ward No 6, Mulpani, Kathmandu will be constructed. NEA has its own land in Mulpani for substation construction. The proposed substation site is located under the ROW of Chapali-Bhaktapur 132 kV transmission line and connected with road having sufficient width. No other impacts anticipated due to substation construction.

**Figure 1.4: Substation location map of Mulpani, Kathmandu.**



Source: NEA 2021

20. **Subproject 6: Substation Construction in Existing Lagankhel Substation.** The existing Lagankhel substations will be upgraded in 132/66/11 kV capacity. Chovar to Lagankhel underground 132 kV transmission will feed the power to this substation. The proposed area is within the existing 66 kV substation compound and additional land will not be required.

21. **Subproject 7: Enterprise Resource Planning (ERP) and Revenue Management System (RMS).** These technical improvements will be implemented with a project supervision consultant firm appointed to enhance supply and system security.

## II. PROJECT CONTEXT

### A. Scope of Land Acquisition

22. This Resettlement and Indigenous Peoples Plan has been prepared based on detail engineering design of subprojects under the project. The scope of land acquisition and resettlement accounts for impacts on land and other assets within the project zone of influence. Impact assessment of underground and overhead transmission line and new and upgradation of substations proposed in different locations have been carried out. The project's subprojects 2, 3 and 4 will involve involuntary land acquisition for construction. The remaining subprojects are anticipated to have limited, minor and mitigable impacts. Construction work will be carried out in NEA's own land for the substation construction in Lagankhel and Mulpani. The 6 km Chovar to Lagankhel 132 kV underground transmission line (subproject 1) will be constructed following the ROW of existing road alignment only temporary impacts are anticipated. Subproject 7 will not involve any physical activities. The project is located in areas inhabited by Tharu, Tamang, Magar, Gurung, and Newar Indigenous Peoples, as well as other vulnerable and marginalized people.

### B. Impact Assessment Methodology

23. To assess the likely impacts of all subprojects, different methodologies have been adopted. This draft RIPP was prepared based on information collected from field through consultation with local peoples, transect walk survey, focus group discussion and rapid walkthrough survey of transmission route and census survey of all affected households. Other relevant qualitative information has also been collected. The field assessment was conducted from 24 January 2021 to 27 April 2021. The objective of this assessment was to identify the likely impacts anticipated due to implementation of all the project's subprojects. Based on the technical design cadastral data and list of landowners of transmission route and substations have been collected from Department of Land Survey and Department of Land Management and Archive and identify the impact on land for tower foundation area and maintaining ROW. A team of experienced field staff facilitated these activities. The following sections discuss subproject-wise social impacts. The team met with 86 of the 168 affected households. 82 households were absent for a variety of reasons, as the survey period was arbitrary are the project team was able to meet only with landowners and/or family members present at the time of the field visit. To the extent available, the project team collected contact information from local government offices for absent households. These remaining 82 households will be contacted, surveyed for impacts, and consulted about their entitlements during project implementation. An update to this RIPP will be issued once all information is available.

24. Census survey of affected household including detailed measurement of affected assets have been carried out in subproject 2, 3 and 4 areas with available households and for the absentee households detailed measurement of affected land has been carried out based on digital cadastral data collected from Department of Land. For the remaining subprojects to assess the likely temporary and minor impacts during the construction period, transect walk survey and consultations and discussion with the people of surrounding areas have also been carried out. Unanticipated involuntary resettlement related impacts and risks will be assessed continuously during implementation. The proposed alignment of subproject 2 (Kohalpur to Nepalgunj 132 kV transmission lines) passes through open farming private and government land. An inventory of all affected assets located within the designated alignment of the facilities including land of various types such as residential, agricultural, and commercial and other immovable property has been made, including in discussion with affected households.

25. The summary of impacts is presented in Table 2.1 below. If unanticipated adverse impacts arise during the construction period due to change of project scope and design, impact assessment will be carried out and RIPP will be updated accordingly.

**Table 2.1: Summary of Impacts**

<b>S. No</b>	<b>A. Project-Affected People</b>	<b>Quantity</b>	<b>Measure</b>
1	Total households affected by the project	168	households
2	Total population affected by the project	1158	persons
<b>B. Impacts Due to Permanent Land Acquisition</b>			
1	Total area to be acquired permanently for substations and tower pad.	6.62	hectares
2	Total households affected due to land acquisition for substations and tower pad.	81	households
3	Total population estimated to be affected due to permanent land acquisition	558	persons
4	Total households estimated to be experienced major impacts due to physical displacement from housing and/or losing 10% or more of their productive assets	9	households
5	Total population estimated to be experienced major impacts	50	persons
	Total residential structures affected	9	number
6	Total non-residential structures affected (non-residential building -2, toilets- 7, sheds- 5 and kitchen 1 and community shed-1).	16	numbers
<b>C. Impacts due to limited restriction under ROW</b>			
7	Total land falls under ROW areas with limited restrictions in transmission line	18.03	hectares
8	Total households affected only due to limited restriction on transmission line ROW area.	87	households
9	Total population estimated to be affected only due to limited restriction in ROW area.	600	persons
10	Total households losing land both due to restriction in ROW of transmission line and permanent acquisition for tower pad (already counted in Section B above).	67	households
<b>D. Impact on crops and trees/fruits trees</b>			
11	Total losses of standing/seasonal crops along the ROW of new transmission line and in substations	77.98	metric tons
12	Total affected private trees/fruit timber and grass trees (different species and sizes)	295	number

**Source:** Field survey, 2021.

### **C. Impacts of 132 kV Underground Transmission Line (subproject 1).**

26. Subproject 1 involves the construction of 6 km long 132 kV underground transmission line from Chovar substation to the existing Lagankhel substation, Lalitpur district. This underground transmission line will be constructed following the existing road ROW. No additional land will be required. From Chovar to Lagankhel substation the proposed alignment will pass Chovar-Khokana-Medicity International Hospital-Nakhu Chock/Ekantakuna Chock-Ringroad-Mahalaxmasthan Road and Lagankhel substation. Throughout the proposed alignment, road footpaths are maintained, and underground work could be done following same footpath. Except

some disturbances to pedestrians will occur during construction along the roadside, no other adverse impacts are anticipated, and foot traffic will be diverted to the opposite side. Transect walk survey and consultation with local shopkeepers (individually) have been carried out and found that all most existing shops are maintained far enough back from the road. Consultation with respective Ward Chairs and with other stakeholders have been conducted and they found very supportive for the project because underground cabling will not affect any person and the beauty of city will remain the same. People also expressed their happiness about the underground electricity transmission cabling and distribution system carried out by NEA in other part of Kathmandu Valley. They further suggested that before starting the construction work, proper coordination with Local Government representatives, local business operators, traffic police should be made to minimize the disturbances to pedestrians and other likely impacts on public utilities due to underground work.

#### **D. Impact for Land from Kohalpur to Nepalgunj 132 kV TL (Subproject 2)**

27. This transmission line will be constructed in Banke district of Lumbini Province. The proposed alignment is in Terrain (flatland) area. The proposed route mostly traverses open agricultural private farming land and government land. All tower foundation areas need to be acquired permanently and for ROW area will be restricted only for constructing permanent structures to maintain ROW under transmission cable for safety purpose, but agricultural farming activities will not be restricted after completion of construction work. Engineering design estimates that a total of 17 angle towers and 23 suspension towers will be erected along 10.46 km. As per standard of tower footing area of 132 kV transmission line, a total .57 ha of land will have to acquire permanently for tower pad and 18.03 ha of land will be restricted temporally for maintaining ROW (9 meter either side from center line and total 18 meter to be maintained). Details of land parcel and total affected area for each tower pad is given in Appendix J. During construction period standing crops and crops harvesting as well as other activities under cable may be impacted for limited period. During the field visit, yearly cropping cycle of zone of impact area are paddy and wheat are cultivated (in monsoon and winter season respectively). The field visits have been carried out in winter season and it was observed that only about 50 percent land found cultivated with wheat crops. The remaining areas were found empty without any crops. This crop cycle clearly indicates that if the construction work will be carried out during the winter and before starting monsoon season the agricultural activities will not be affected, nor will agricultural activities be hampered.

28. Total 154 households comprising of about 1076 persons are anticipated to be affected. Census survey of 72 available households conducted. Affected within the ROW area will be 2 residential houses and associated one hand pump constructed in government land and one public temporary structure. Consultation with affected households found that both affected households are very poor, residing in government land. They are assessed as being easily shifted after receiving the compensation for loss of structure and other assets. Affected public temporary structures include a local playground in Ward 6 of Janaki Rural Municipality. There is sufficient area around the playground to be shifted, and this will be coordinated with Ward representatives.

#### **E. Impact on Land for 132/33/11 kV Substation in Nepalgunj (Subproject 3)**

29. The proposed substation is associated with the Kohalpur-Nepalgunj 132 kV transmission line. The transmission line will be end at the boarder of ward no 5 and 4 of Janaki Rural Municipality and substation will be constructed at the end point of the transmission line. NEA has already identified the required land. A total 2.71 ha will be acquired and total 4 households having 32 persons will be affected. The identified location is in open agricultural farming land and

connected with access road and no structures and other assets will be affected. Seasonal standing crops might be affected.

#### F. Impact on Land for 132/33/11 kV Substation in Dumkibas (Subproject 4)

30. This subproject is designed to improve the loading capacity and voltage stability of Dumkibas and Arunkhola area (Binayee Tribeni Rural Municipality and Madhyabindu Municipality area). The substation is proposed to be constructed 17 km from Bardaghat Substation to Bharatpur substation and is planned to connect to the 132 kV line, which is under construction for supplying the power to Hongshi Cement Industry. The proposed land for the substation is situated within the 132 kV Hongshi Cement line ROW area. The proposed substation site is occupied by 10 households with 50 persons. Total 3.34 ha land will be acquired. Out of total affected households, 7 households will be physically relocated due to loss of entire residential land including their residential structures. Total 22 (7 residential houses, 2 non-residential building, 7 toilets, 5 sheds and 1 kitchen) structures will be affected. Affected households informed that only maize crop is cultivated during the monsoon season due to lack of irrigation facility in that area. So, they were supportive of NEA for acquiring land, provided adequate compensation is provided. Out of 10 households affected, one household comprises 3 owner bought land there for business purposes, to sell construction material to contractors or re-sell this land for profit. The owner lives another place and will not be affected by livelihoods and source of income due to land acquisition.

31. Subproject wise required land to be acquired permanently and land for maintaining ROW and total estimated households and population anticipated to be affected due to land acquisition for subprojects 2, 3 and 4 are summarized in Table 2.2 below. Total area may vary with changes to planned route of transmission line and footing location.

**Table 2.2: Impacts on Land by Subprojects**

Subprojects	Required land (ha)		Estimated No. of Affected Households	Estimated Number of Affected Persons
	Permanent land acquisition (in ha)	Limited restriction area (in ha)		
Permanent land acquisition for Tower pad area of Kohalpur-Nepalgunj 132 kV TL (subproject 2)	.57		67	476
Limited restriction on land for ROW <sup>2</sup> area of Kohalpur-Nepalgunj 132 kV TL (subproject 2)	-	18.03	87	600
Substation construction in Nepalgunj (subproject 3)	2.71	-	4	32
Substation construction in Dumkibas (subproject 4)	3.34	-	10	50
<b>Total</b>	<b>6.62</b>	<b>18.03</b>	<b>168</b>	<b>1158</b>

ha = hectare, kV = kilovolt, TL = transmission line, ROW = right-of-way

**Source:** Field survey, March 2021

<sup>2</sup> Land required for ROW will not be acquired permanently nor the ownership of land for ROW area will transfer but for the safety purpose ROW area is restricted for permanent activities and farmers can continue their agricultural activities in that land and the non-residential structures along the ROW area will not acquire. NEA generally pays only 10% or more of total value for compensation for ROW affected area and full compensation of residential houses. *The ROW of proposed transmission line is 18 meters (9 meter either side from center line).*



### **G. Impacts from 132/11 kV substation in Mulpani (subproject 5)**

32. Subproject 5 includes the construction of 132/11 kV substation in Mulpani, Kathmandu. NEA has own land in proposed substation site and this location is under ROW area of Chapali-Bhaktapur 132 kV transmission line and power will be trapped from that existing line. No adverse impacts are anticipated from sub-project construction. If unanticipated impacts arise during the construction period, the RIPP will be updated with appropriate mitigation measures. The subproject location is near to a settlement area. Construction work will have to be carried out carefully without any disturbance to them. If any unanticipated impacts occur during construction period, appropriated mitigation measures will be implemented accordingly.

### **H. Impacts from 132/66/11 kV substation at Lagankhel Subproject (6)**

33. This proposed substation will be constructed within the premises of existing Lagankhel substation, and no additional land will be required. NEA confirmed that all construction works will be carried out within NEA's compound area and resident of surrounding area will not feel any disturbances.

### **I. Impact on Trees**

34. From the project activities and construction work very small number of timber/fruit trees (295 number) will be affected. Two substations and a transmission line will involve involuntary land acquisition. The proposed Nepalgunj substation site is in open agricultural land and no other assets associated with land will be affected and in Dumkibas substation 2 mango fruit (about 4 years of age) will be affected, owned by one household. Similarly, in the Kohalpur-Nepalgunj Transmission route the landowner planted different types of trees for commercial purpose and in some sections, sapling will fall under ROW area and need to be removed. From the findings of field survey of Kohalpur-Nepalgunj alignment total of 293 fruit and/or trees, timber trees and about 3-year age of sapling (planted by individual) will be affected.

### **J. Impact on Standing Crops**

35. One season of standing crops anticipated to be affected during tower erection and cable string period in transmission line and substation area in Nepalgunj. The dominant cropping pattern in Kohalpur to Nepalgunj transmission line and substation area are paddy and wheat and in very few areas cultivated oilseeds and pulses also. From the consultation with local people and observation of alignment of transmission route big landlords usually planted different types of trees in their land and only in few areas, they cultivated Paddy and Wheat in monsoon and winter season, respectively. It was also observed that small farmers cultivated crops only for the subsistence purpose. Except in some part of the alignment there is no systematic irrigation facility and recently Siktta Irrigation project is under construction and expanding command area for providing irrigation facility to farmers from Rapti River. Therefore, almost farmers depend on monsoon/ rainwater for planting Paddy till now. The household survey data shows that the per ha average production of Paddy and Wheat production is 2.14 and 1.5 metric ton respectively whereas national figure shows 3.99 and 3.14 metric ton per ha in Banke district<sup>3</sup>. Similarly, in Dumkibas proposed substation location, only Maize crops is planted and average per ha production is 2.72. Therefore, total production of crops on affected land will be calculated based

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<sup>3</sup> Average per ha production of Paddy, Wheat and Maize in project affected area in Transmission line and substations is 2.14, 1.5 and 2.72. Metric ton.

average production of affected standing seasonal crops. Table 2.3 below presents the total average production in affected land.

**Table 2.3: Annual Loss of Crops Due to Impact on Land**

Subprojects	Estimated total crops loss		
	Total Paddy	Total Wheat	Maize
Kohalpur-Nepalgunj 132 kV transmission line (subproject 2)	31.24	27.9	-
Substation construction in Nepalgunj (subproject 3)	5.7	4.06	-
Substation construction in Dumkibas (subproject 4)	-	-	9.08
<b>Total</b>	<b>36.94</b>	<b>31.96</b>	<b>9.08</b>
<b>Total of all crops = 77.98 MT</b>			

kv = kilovolt, MT = metric ton

**Source:** Field survey, 2021.

## K. Impact on Structures

36. In Kohalpur-Nepalgunj transmission line route and Dumkibas substation total 24 different types of private residential and non-residential structures and 1 temporary community structure will be affected. Subproject wise details of structures is presented in Table 2.4 below.

**Table 2.4: Subproject Wise Affected Structures Details**

Subprojects	Types of structures						Total
	Residential houses	Non-residential building	Toilet	Shed	Kitchen	Community structure	
Kohalpur-Nepalgunj 132 kV transmission line (subproject 2)	2					1	3
Nepalgunj substation (subproject 3)		-	-	-	-	-	-
Dumkibas substation (subproject 4)	7	2	7	5	1	-	22
<b>Total</b>	<b>9</b>	<b>2</b>	<b>7</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>25</b>

**Source:** Field survey, 2021

## L. Land Loses and Impacts

37. Total 168 households anticipated to be affected due to construction of the transmission line, and two substations. Out of the total affected households, 86 were surveyed and 82 are absentee households during the survey period. The survey result showed that out of total surveyed households, 9 households will be physically displaced, of which 2 households fall below poverty line and who are landless also and 7 households will lose more than 10% of their total holding due to land acquisition for substation construction in Dumkibas. The preliminary survey assessed the livelihoods and income sources of affected households and found that income sources and livelihoods of the affected households will not be affected due to involuntary land acquisition, restrictions on productive agricultural land, or other asset loss. Loss of land and assets will be compensated in replacement cost. The ROW area for transmission lines will be

restricted only for construction of new permanent structures as well as for some other permanent types of activities such as establishing small industries, children playground, establishing schools, small business, etc, but most agricultural farming activities will not be affected, and farmers can continue agricultural activities after construction. Those households who will lose more than 10% of their total land holdings and residential structure will be provided additional one-time resettlement assistance and will also be provided other capacity enhancement activities in the form of livelihood skill enhancement activities. Land loses are grouped between those losing less or more than 10% of their land holdings is presented in Table 2.5 below.

**Table 2.5: Surveyed and Absentee Households and Percent of Land Lost**

Subprojects	Total House holds	Absentee Households	Surveyed Households	Households losing land by % out of total holdings in Tower foundation <sup>4</sup> and substation area	
				<10%	>10%
Kohalpur-Nepalgunj 132 kV transmission line <b>in Tower pad</b>	67	39	28	67	
Kohalpur-Nepalgunj 132 kV transmission line <b>in ROW area</b>	87	43	44	87	
Nepalgunj Substation (subproject 3)	4	-	4	4	--
Dumkibas Substation (subproject 4)	10	-	10	3	7
<b>Total</b>	<b>168</b>	<b>82</b>	<b>86</b>	<b>161</b>	<b>7</b>

**Source:** Field survey, 2021

Sl. No.	Name of Monuments/ sites	Location	District	Distance	Project Component
1	Ashok Stupa	Lagankhel	Lalitpur	216m aerial distance from Lagankhel SS	Chobhar Lagankhel TL
2	Nyu Pokha/Rani Pokhari	Lagankhel	Lalitpur	north of the SS	Chobhar Lagankhel TL
3	Pati/Resting Place and Old Well	Lagankhel	Kathmandu	At the road of the CLTL alignment	Chobhar Lagankhel TL
4	Mahalaxmi Temple	Mahalxmisthan	Lalitpur	25m away from CLTL alignment but	Chobhar Lagankhel TL

<sup>4</sup> In tower foundation area total 72 land plots affected and out of which 2 Government Plots, 6 Unidentified, owner of 39 plots still to be identified and landowner of 24 plots identified and will not loss more that 10% of total land holding.

Sl. No.	Name of Monuments/ sites	Location	District	Distance	Project Component
				the temple gate and office is at the road	
5	Jal Binayak Temple	Chobhar	Kathmandu	52m from CLTL	Chobhar Lagankhel TL
6	Manjushree Park and Underground Cave Systems	Chobhar	Kathmandu	Boundary Wall the road of the CLTL alignment	Chobhar Lagankhel TL
7	Gawat Mata Temple	Bakspurwa	Banke		KNTL
8	Shiva Temple	Chadhariyagaun	Banke		KNTL

### M. Poverty Level of Surveyed Households

38. The socioeconomic survey result showed that out of the total surveyed households, only 2 households fall below the national poverty line. These are landless households residing in government land. During the survey of Kohalpur-Nepalgunj transmission line, it has been observed that almost affected households belong to Kurmi (Madhesi) and Tharu (Indigenous Peoples) family are found economically sound having sufficient land for agricultural production. Most of them are living either in Nepalgunn/Kohalpur cities or in Kathmandu. Along the alignment those Madhesi groups known as Khatik and Dhobi caste are found economically weak, however, they fulfil their food from their own production but for additional sources of income they depend on agricultural wage labour or sharing cropping.

39. The livelihoods and sources of income of the majority of households are farming and non-farming in subproject areas. The survey findings reveal that 81.39% (70) of households have sufficient food for more than 12 months from their own production even they sell their surplus production. 9 households experience food deficits for 3 months each a year. Table 2.6 below presents the level of food sufficiency of surveyed households.

**Table 2.6: Food Sufficiency Level of interviewed Households**

Subprojects	No. of households with food sufficiency level (in month)			Total Households
	> 12	9-12	6-9	
Kohalpur-Nepalgunj 132 kV transmission line (subproject 2)	63	7	2	72
Nepalgunj Substation (subproject 3)	4	-	-	4
Dumkibas Substation (subproject 4)	3	-	7	10
<b>Total households</b>	<b>70</b>	<b>7</b>	<b>9</b>	<b>86</b>

Source: Household survey, 2021

### N. Severely Affected Households

40. From the findings of the survey, a total of 9 households will be experienced major impacts due to permanent land acquisition and loss of residential houses. Out of total displaced

households, the existing socioeconomic condition of 2 households who are landless is very poor and falls below poverty. Field survey indicates that 7 households will lose their entire residential land at the Dumkibas substation site. Along the transmission line total 154 households anticipated to be affected and out of which 67 households will be affected due of permanent land acquisition. Details of affected area, total land holding, and percent of loss for tower pad areas is given in Appendix K.

41. During survey of displaced households in Dumkibas Substation it was found that the 7 households losing entire parcels depend on remittance, industry, and labour work. No households were found depending on agriculture production. Out of 7 households, 2 household's head are working in Indian Army, one is operating cruiser industry, 2 are working aboard, one is operating a business and only one household is depending on labor work for livelihoods and sources of income.

## **O. Indigenous Households**

42. The proposed subprojects traverse Hill, Inner Terai and Terai regions of Bagmati, Gandaki and Lumbini Provinces. Different caste ethnic and indigenous groups including other minority groups live along the transmission route and in around substation locations.

43. The Government of Nepal recognizes 59 indigenous nationalities (equivalent to ADB's definition of Indigenous Peoples) under the National Foundation for Development of Indigenous Nationalities (NFDIN) Act, 2002, and in 2004 the Nepal Federation of Indigenous Nationalities (NEFIN) published a categorization of indigenous nationalities based on their levels of marginalization and vulnerability.<sup>5</sup>

44. From the impact assessment survey of proposed subprojects under the project total 40 Indigenous households comprising 5 groups (Tharu, Tamang, Magar, Gurung, and Newar) will be affected. The population affected Indigenous Peoples is 286 persons.

45. The project is not anticipated affect the traditional customary rights, cultural identity and other cultural practices of Indigenous Peoples. Consultation with affected households, including separate consultations with indigenous households, found that the Indigenous Peoples living around and along the project locations are share socioeconomic and political systems for adjudicating land claims. Surveyed households did not raise concerns for impacts of the project to areas of scared or spiritual value. Compensation and mitigation measures under the main project, including energy-based livelihoods and skill development activities, will be agreed in consultation with affected indigenous households.

46. Field survey confirmed that 5 indigenous households will be affected adversely due to land acquisition for substation, but no household will be affected adversely due to land acquisition for tower foundation and maintaining ROW of transmission line.

47. In Dumkibas substation site five (5) households of Indigenous Peoples (Tamang) will lose residential land and shelter and one (1) household will lose only farming land due to involuntary land acquisition and in Nepalgunj substation no indigenous households will be affected. Kohalpur-Nepalgunj transmission line will affect 34 Indigenous households. Project implementation may

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<sup>5</sup> NEFIN. 2004: *Classified Schedule of Indigenous Nationalities of Nepal* [Prepared by the Janajati Classification Task Force and approved by the Federal Council of NEFIN, March 1, 2004]

involve unanticipated impacts on Indigenous Peoples and other affected people. During consultation and households survey of affected Indigenous Peoples, potential project impacts on physical assets including their dignity, identity, cultural practices, customary rights on natural resources, human rights and other direct and indirect impacts were assessed. No impacts were identified except acquisition of land involuntarily for tower pad area and substation. The project will continue to assess project social impacts as part of RIPP implementation. The project will produce an update to this RIPP that further elaborates on culturally appropriate mitigation measures agreed with affected Indigenous Peoples if unanticipated and unavoidable impacts will be experienced.

48. Details of affected Indigenous People households under this project are presented in Table 2.7 below.

**Table 2.7: Details of Indigenous Peoples Groups and Categorization**

S No.	Indigenous Peoples groups	Indigenous Peoples category	Total households affected	Total population		
				Male	Female	Total
1	Tharu	Marginalization	32	136	115	251
2	Magar	Disadvantage	1	2	1	7
3	Tamang	Disadvantage	5	12	10	22
4	Gurung	Disadvantage	1	1	2	3
5	Newar	Advantage	1	1	2	3
<b>Total</b>			<b>40</b>	<b>154</b>	<b>132</b>	<b>286</b>

**Source:** Field survey, 2021

#### **P. Vulnerable Households**

49. The major 6 categories are considered for vulnerability. They are: 1) indigenous households; 2) elderly headed households; 3) women headed households; 4) households below poverty line; 5) landless and 6) households having disable persons will be considered vulnerable households. Out of the total affected households, 57 households are assessed as having single or multiple vulnerability. NEA will be carried out further analysis of vulnerable household about their needs and priorities for upliftment of their socioeconomic status and project will provide them additional support to restore livelihoods and to obtain new/additional sources of income to these vulnerable households. Table 2.7: below presents the vulnerability and total households.

**Table 2.8: Vulnerability and Households**

S. No.	Vulnerability	Total Households	Remarks
1	Indigenous Households	30	
2	Indigenous Women headed households	3	
3	Women headed households	3	
4	Elderly headed households	3	
5	Households with disabled person	4	
6	IP households with disabled person	2	
7	IP households displaced	5	
8	Below poverty line and landless	2	
	Total	52	

**Source:** Field survey, 2021

#### **Q. Gender Equality and Social Inclusion**

50. Gender Equality and Social Inclusion issues are a critical aspects of project social safeguard planning. The impacts of project to a different level or same level of groups may be different because of vulnerability and other socioeconomic barriers and in some cases excluded groups may not be put their priorities, demand, and specific issues as in main streaming groups. Therefore, project impact assessment sought to be inclusive and gender friendly so that they can put their issues easily. The project will ensure the participation of women, disables, landless, poor, elderly and women headed households, indigenous households and other minorities and excluded groups in the project planning phase and should properly records the concern, issues, and priorities of these groups. During RIPP preparation, Gender Equality and Social Inclusion considerations were given to consultation at different level of and with groups being met jointly and separately. Resettlement related issues were discussed, and people were informed about the likely impacts of project and mitigation measures such as compensation provision and resettlement assistance.

51. Out of the total affected population (584), the female population is 42.29% (247). Among the surveyed households, 6 households are women headed and having elderly members (of which 3 are heading households). There are 6 households having differently able persons. Consultation was made with all persons wherever possible.

52. To record the concern of vulnerable households/groups, consultation with total 135 persons were carried out, and women participation was 19.26% (26). Consultation with women groups was carried out separately and individually. The consultation focused mainly on access to property especially land, decision making power, access to opportunity/occupation and education, women's involvement in community level activities and expectations from the project etc. Land ownership is primarily by men in Nepal but now days it is slowly increasing. Total 19% women in Nepal own land may be a result of Government of Nepal's progressive policy regarding tax incentives for women owners. The affected land plots of this project are almost owned by men.

53. Among the identified different caste groups, the women's status among indigenous and caste groups was observed as being more equal at the household level as well at the community level compared to Madhesi women. There are several sociocultural barriers to Madhesi women for accessing to economic and social activities outside home.

54. In Nepal, property ownership is associated with social status and prosperity, as well as economic and political power. According to data from the population census of Nepal in 2011, women enjoy ownership over land and property only in 19.71% of households in the country and this is only 5% of the total land of Nepal. Of these women only 11% have control over their land. In 2015 the Government changed the law and today, there is a 25-50% discount on the registration fee when the land is registered under to women's name. After the new civil code in 2018 daughters are entitled to keep their share of their parent's property after getting married. That means equal rights for sons and daughters. After a divorce woman are also entitled to their husband's share of property, if the divorce is the husband's fault. This brings a positive change. In a patriarchal country like Nepal, access to land is fundamental to women empower.

55. The land ownership figure in Terai districts is different, though the policy supporting to women but still about 95 percent land parcel owned by men. Similarly, during planning of RIPP ensured participation of women and other vulnerable groups and will be continued during project implementation. Men and women will be equally treated for receiving compensation and other resettlement assistance including livelihood enhancement skill trainings and project benefits. Priority will be given to women and other vulnerable groups.



### III. DESIGN ALTERNATIVES TO AVOID, MITIGATE AND MINIMIZE PROJECT IMPACTS

56. The executing agency will ensure that before finalizing the engineering design of subproject, design alternative will be analyzed to avoid and minimize the subproject's adverse impacts on land and other assets. The following measures have been adopted and will continue to be observed for the design of underground and overhead transmission lines and substations under this project:

- a) Ensure ROW has minimal impacts on land and environment.
- b) Select shortest straight route that minimizes the number of affected people
- c) Avoid dense settlements and productive land to the greatest possible extent.
- d) Avoid permanent residential structures; in case of unavoidable circumstances, explore alternatives.
- e) Minimize number of private as well and public structure crossings.
- f) Avoid displacing affected people and causing involuntary land acquisition.
- g) Minimize impacts on livelihoods and income sources of affected persons.
- h) Identify a short, easy, safe and economical route for access roads and easy access for construction and maintenance works.
- i) Avoids public structures, cultural and religious places.

57. All above measures were adopted carefully and will be continue during implementation period too. If unanticipated and unavoidable consequences arise during implementation RIPP will be updated and appropriate mitigation measures will be adopted.

58. Based on the field survey findings it is anticipated that seasonal standing crops might be affected along the restricted ROW area and at Nepalgunj substation area during implementation period and to avoid the impacts on seasonal crops, construction will be scheduled considering the crop plantation and harvest seasons. Information about the construction schedule to the affected households will be disseminated in time through using appropriate means of information. So, they could be aware of construction schedule. Contractor will also be informed about the cropping cycle and plantation and harvesting season.

59. Total 7 households will be displaced out of 168 affected due to loss of residential land with shelter and in ROW of transmission line and substation site and compensation of affected land and other assets to all affected persons will be provided in full replacement costs. In addition to this, resettlement assistance in cash and other capacity enhancement activities will also be provided and implemented to the vulnerable households based on their demand and need.

60. As of socioeconomic survey findings of transmission alignment two landless households are below poverty line. Major source of income of such households are agriculture labor in surrounding area and industry-based labor in Nepalgunj or in Kohalpur areas. The level of education and living standard is very poor. In Dumkibas substation, total 7 households will be displaced and the major source of income remittance from India and other country. The survey results confirmed that no one households depend on farming for source of income. During final design and implementation period, the count of vulnerable people will be finalized with detailed engineering design. Further assessment of these areas will confirm the direct and indirect impacts of project activities. If households are identified as vulnerable during RIPP updating or during the project construction period, they shall be compensated according to the provisions of the project Entitlement Matrix. Adequate and appropriate support will be provided to vulnerable households.

61. Along the alignment of Kohalpur to Nepalgunj Transmission all most Madhesi caste groups are residing in the southern part and in the northern part mixed cast and ethnic groups are found. Due to the social, cultural, economic, and political discrimination among the different groups and within the same groups are main constraints for access in education, economic activities and health facilities in the rural area of Terai district of Nepal. Social practices such as early marriage, dowry, mobility constraints and very conservative gender and social norms constrain the development of girls and women of this district, especially those of the Madhesi social groups.

62. Targeted programs will be designed to support and empower women and excluded and vulnerable groups of the affected households.<sup>6</sup> In addition, the executing agency will pay special attention during the consultation activities to ensure participation of women and men and of different social groups. Affected households will be informed about resettlement activities and decide what livelihood options would be most suitable for them. Compensation funds and other allowances due to the household for affected assets would be provided to both husband and wife who would open joint bank accounts for this. Orientation regarding the use of compensation funds will be provided to couples and family gatekeepers so that best use of the funds is done by the affected families.

63. However, the transmission line route is in open space and less risks anticipated but affected people will be informed about specific project-related activities and its risks and impacts. 30 days in advance notice will be disseminated to affected households individually and will also be published publicly in ward offices and major settlement area. on 1) on the duration and type of disruption; 2) contractor's actions to prevent income/access loss through provision of access etc; 3) procedures for receiving compensation for lost income, if any, based on one month lost income or minimum wage rates; and 5) project plans for restoration of affected land, structure, utilities, common property resources.

64. If the scope of project changes, affected Madhesi Backward households, women headed households and Indigenous households will be consulted on these changes. The project will also ensure participatory, inclusive and culturally appropriate methods to involve them in project activities. The project will also inform to all affected peoples about the Project Grievance Redress Mechanism and how to access it. Representation of Indigenous Peoples and Madhesi groups in local level GRM mechanism will be ensured.

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<sup>6</sup> Excluded groups refer to those who have either passively or actively been denied full access to various rights, opportunities, and resources, and/or are less likely to receive the benefits of social, economic, and political investments; and vulnerable groups refer to those who cannot access various rights, opportunities, and resources because of their situational disadvantage and not because of their identity alone.

#### **IV. ENTITLEMENT, ASSISTANCE AND BENEFITS**

##### **A. Eligibility**

65. The impact assessment of project has been carried out and all affected households and persons identified as being impacted by project who will be entitled for compensation of their affected lands and other assets and receiving other resettlement assistance. Resettlement assistance includes rehabilitation measures to improve or least maintain the pre-project living standards, income earning capacity and production levels of affected people. The project will publish a cut-off date for eligibility determination. Newly affected households and persons will not be eligible after that date. Those entitled for compensation for losses are:

- a) All affected persons losing land having legal title, without legal titles, no legal titles but recognizable with other supporting documents, traditional rights or without legal status.
- b) Tenants.
- c) Sharecroppers whether written agreement or not;
- d) Squatters
- e) Encroachers.
- f) Owners of buildings, crops, productive trees, or other improvements attached to the land.
- g) Renters and leaseholders (rented land or building) for agreed timeframe.
- h) Affected persons whose income sources or salaries are affected.
- i) Affected persons whose livelihoods area affected.

##### **B. Cut-off Date**

66. Eligibility to receive compensation and resettlement assistance is limited by the cut-off date. For the asset owners who have legal title, the dates of public notice for land acquisition by CDC/concerned District Administration Offices will be treated as the cut-off-date. For non-titleholders, the date of the field census of affected land and other assets and identification of owners who have no legal title conducted when finalizing technical design will be treated as the cut-off date. Notices will be published in local newspapers, project areas, public common places, office of affected Rural/Municipalities and in ward offices and other common places where affected people can see and read the notice easily. Notices will be published in Nepali and noting that the project is willing to with translation to dialects of affected people on request. The persons who settled or constructed new any types of structures in the affected areas after cut-off date will not be eligible for compensation or other resettlement assistance.

##### **C. Asset Replacement**

67. During the 2021 field survey, no household wished for the project to provide asset replacement. Households instead preferred cash and the choice of how and where to invest, provided that they received fair market value for lost assets. If a household changes it views with respect to this decision, the must notify the project of this formally to initiate a discussion and must not have previously accepted compensation for asset loss. Households that have already accepted compensation for lost assets must file a formal appeal through the project GRM, the courts, or an alternative means of remedy.

## D. Compensation

68. During field survey, discussions were held with affected households of Kohalpur-Nepalgunj transmission line and in substations. Affected households were asked to prefer the options of compensation in cash or in land for land replacement of affected area that will be acquired permanently for tower pad and substation construction. All affected households preferred for cash compensation. In case of the ROW area, compensation will be paid in cash for the affected area.

69. Land acquisition and involuntary resettlement impacts will be compensated in accordance with the provisions of the Entitlement Matrix in Table 4.1. In accordance with the preferences of affected people, cash compensation will be paid at replacement cost for permanently acquired agricultural, residential, commercial lands needed for transmission line tower footing and substation areas. Compensation to landowners for restrictions to the project ROW are expected to vary from minimum 10% and maximum 30% of total land value (depending on location and value of land). Compensation of non-land assets will also be paid at replacement cost to the asset owners. If the owners cannot be present, or in the event of death, an authorized family member will be eligible to receive the compensation amount, but process of ownership transfer would require additional legal approvals. If the remaining land parcel after the permanent acquisition is rendered economically inviable for use or too small, then the entire area of plot will be acquired at replacement cost. Ownership of permanently acquired land will be transferred to NEA after compensation. Land restrictions to maintain the ROW will not involve transfer of ownership and continued cultivation of land will be allowed. Entitlement provisions for affected people and households losing land and income and rehabilitation allowance include provisions for permanent or temporary land losses, buildings losses, crops and trees losses, livelihood and income losses, etc.

70. For land acquisition, the process of determining the value of acquired land and other assets affected by involuntary resettlement will follow Land Acquisition Act, 1997 and subsequent amendments. It is noteworthy that, as jurisdiction of the Chairmanship of Chief District Officer (CDO) is limited to the boundary of each respective district, compensation rates will vary by administrative locality as each Compensation Determination Committee (CDC) Chairman is independently tasked with determining rates. Details of the process for determining values for compensation rates of different types of assets are elaborated below.

71. In Nepal, the Land Acquisition Act (LAA), 1977, is the core document guiding resettlement activities, including with respect to determining compensation rates, valuing affected assets, and regulating distribution of compensation. Under LAA 1977 Clause 7, compensation rates for land and assets are determined by a CDC under the CDO of respective district through a process of verifying rates for affected lands.

72. **Decision-Making Authorities.** Generally, compensation rates are determined based on i) Rate duly recorded in Land Revenue Office (government registered rate for tax), ii) transaction rate during for similar assets sold in the latest 6 months that has to verify by formed subcommittee under CDC, iii) rates negotiated with the affected persons. CDC can form a sub-committee for verifying land prices and the committee reviews current market prices through inquiry, documentation, and field verification. Information considered by the Committee includes prevailing land transaction rates in the area, local market rates, productivity of land, etc, and is informed by consultation with relevant stakeholders at local and district levels. Typically, Committees consult with relevant local bodies and representatives of affected families. After an initial level consensus on the rate the process is then formally submitted to the CDC. CDC, which

in turn makes a final determination on compensation rates, with or without amendment on recommended rate.

73. **Process for Valuation of Land.** During fixation of compensation rate of titled lands, the concerned CDC will set replacement cost. The project will facilitate CDC in the valuation process. Project management team shall explain ADB's Safeguard Policy Statement (2009) requirements and project policy on compensation determination to CDC. CDC will ensure that compensation rates are inclusive of transaction, capital gain taxes, fees and duties.

74. **Process for Valuation of Structures.** The project management team will coordinate with competent authority in the local level for assessment and valuation of affected structure. The valuation will follow the replacement cost principle. The valuation shall be done without deducting depreciation and salvaged material. The affected person will be allowed to take salvaged material.

75. **Process for Valuation for Crops and Trees.** Compensation for crops and fruits trees will be based on market price for the current year as calculated by the concerned Agricultural Office. Matured Non-fruit trees or timber bearing trees will follow the norms of transportation cost calculated in cubic meter (height multiplied by girth-in cm) by concerned Forest Offices/Department. For immature or sapling will be calculated in local units with cost of transportation, matured fruit trees will be calculated as average annual production and market price of per unit cost. For the immature fruit trees, harvesting cost will be multiplied by the age of fruit trees plus cost of purchase of seedlings/planning materials required to replace trees. The rate will be followed by the respective Agricultural Office.

76. **Process for Other Common and Private Assets.** Compensation for assets attached to land (such as water supply pipelines, wells, tube-wells, pumps, tanks, irrigation channel etc.) will be based on replacement value. Depreciation will not be factored into the valuation.

## **E. Resettlement Assistance**

77. Assistance for affected households will be paid as specified in Entitlement Matrix, which provides allowances and resettlement assistant beyond asset replacement costs to all affected people and makes special provisions for severely affected and vulnerable households. Cost of deed transfers and other government taxes of affected land will not be incurred to the landowners.

78. The project will also provide for shifting allowances and transitional support to displaced households for the temporary loss of income sources and livelihoods based on duration and severity of impacts. Severely affected and vulnerable households—including women-headed households and those headed by other vulnerable groups, households below poverty line, and Indigenous Peoples households—are entitled to cash assistance equivalent to 90 days wage rate determined by concern Rural/Municipalities or district for each fiscal year plus a one-time cash assistance prior to relocation to offset any unforeseen costs incurred during the transitional period.

## **F. Livelihood Enhancement Skill Training**

79. The project will implement livelihood enhancement skill training to the interested severely affected and vulnerable households. The livelihood improvement program will be fully developed in the final RIPP according to the framework described in this section.

80. The project will undertake training needs assessment (TNA) with affected households and will finalize identification of participants for each type of training offered. TNA will account for

market demands that will support to create opportunities for self-employment, employment in local markets, foreign country, etc., and will be specifically linked to the preferences expressed by severely affected and vulnerable households. The project will reach a final agreement with severely affected and vulnerable groups on training objectives, content, and will enroll participants from each household. The project will also agree to a schedule for conducting trainings and to the total duration of training initiatives.

81. Market assessment and employment opportunities after achieving the proposed trainings will also be assessed by engaging an experienced training expert or organization (training providers). The proposed trainings will be at least Level-I certified by the National Skill Testing Board (NSTB) and the training curriculum prepared by Council for Technical Education and Vocational Training (CTEVT) will be followed. The duration of Level-I training will be 390 hours (about 66 days). These types of training will be organized to help disseminate knowledge on how affected people can restore or improve livelihoods through non-agricultural activities.

## **G. Benefits**

82. During implementation, the project will agree with representatives of affected Indigenous Peoples communities on broad-based community development efforts, such as supporting maintenance, improvements, and extensions of public infrastructure such as school buildings, religious temples, community drinking water supply schemes and irrigation schemes, etc. These benefits will primarily be delivered in terms of livelihood generation activities that are separate from the RIPP targets. A separate process will agree on these benefits. The executing agency will address these using budget allocated for skill and awareness training.

83. Project affected people will also benefit from the activities carried out under the Gender Equality and Social Inclusions Action Plan, as attached to the original EGMP project. These benefits include: (i) representation of women in public consultations, (ii) provision of women-friendly amenities in substations and capacity building for women, (iii) job creation for local women in substations, (iv) commissioning of women staff in distribution command and control centers in Kathmandu, (v) participation of women and excluded and vulnerable groups in awareness events on safe and efficient energy use, (vi) rollout of NEA's GESI Strategy and Operational Guidelines in select provincial offices, (vii) capacity development of NEA staff including women staff, and (viii) engagement of social development (GESI) specialists for the project.

## **H. Confirmation of Compensation, Assistance and Benefits**

84. All project compensation and mitigation measures will be reviewed and confirmed before the construction schedule are being drawn up and prior to any physical and economic displacement. Impacts will be tabulated, and any changes from detailed engineering design will be recorded along with rationale. The project will update the RIPP after finalization of project design. Further consultations with affected persons will be carried out to confirm impacts and to finalize impact mitigation agreements with affected stakeholders. All information will be submitted to ADB when updating the RIPP.

## **I. Appeals-Based Review of Replacement Cost**

85. Affected people are entitled to appeal for ad hoc adjustments to formal project offers for compensation. The aggrieved will be asked to submit a rationale and any evidence supporting their claim. The project will consider appeals on a case-by-case basis.

## **J. Project Payment Mechanism**

86. The disbursement of compensation payment mechanism will have following procedures: Disbursement of compensation payment will have to be completed simultaneously with land acquisition. Payment will be made after the ownership of land will be transferred to NEA's name. The compensation payment will be made through bank cheque or compensation amounts will be deposited directly in the bank account of the affected households. NEA can request landowners to open joint account for husbands and wives. If they do not have a bank account, concerned project staff will support and facilitate affected households to open one.

**Table 4.1: Entitlement Matrix**

S. No	Type of Impact	Application	Entitled Person	Entitlement	Responsibility
<b>Land Acquisition</b>					
<b>EM-1</b>	Permanent land acquisition for titleholders	Agricultural/residential/commercial land and/or any land with legal title.	Persons with legal title or recognized ownership rights	1. Titleholding households receiving cash compensation for loss of land are entitled to replacement value.	NEA/PMU/SSEMD
				2. Titleholding households receiving cash compensation for agricultural lands are entitled to additional allowances for 1 year of the agricultural productive value of lands including all crops in a year. Determination of agricultural production and market price for agricultural products will follow Agriculture Office rates. For titleholders, whose lands are being utilized by tenants/sharecroppers 50% the 1-year productive value compensation amount will be deducted by the project and diverted to payment of the tenants/sharecroppers. For titleholders, whose lands are being utilized by leaseholders, 100% of 1 year of productive value including lease rent will be paid to leaseholders.	NEA/PMU/SSEMD & Concerned Agricultural Office
				3. For households receiving cash compensation, the project will compensate any transaction costs, fees, taxes (including capital gains tax), interest accrued, transitional and restoration costs; and other charges as applicable under	NEA/PMU/SSEMD



S. No	Type of Impact	Application	Entitled Person	Entitlement	Responsibility
				relevant laws and regulation.	
				4. Affected households will receive project resettlement assistance and incase of relocation households will be relocated prior to the start of construction activities.	NEA/PMU/SSEMD
				5. Households being relocated will be notified of a target date to vacate lands when issuing notice to receive compensation. Households will receive at least 60 days advance notice to vacate occupied land/place.	NEA/PMU.SSEMD
<b>Land Use Restrictions</b>					
<b>EM-2</b>	Permanent restrictions to land use (including residential, agricultural, commercial, and other private uses) for titleholders	Lands where restriction are imposed on land use to maintain ROW	Title holders / persons owning land	1. One-time cash compensation for of 10% of the land value to compensation for restricted usage, according to values for land set by CDC under the Electricity Act Nepal. Land value depends on productivity of land (irrigated and non-irrigated land, connected with road, agricultural farming land or in commercial area etc. will be considered).	NEA/PMU/SSEMD & CDC
				2. For titleholders whose lands are being utilized by tenants & sharecroppers, 50% amount will be deducted by the project and diverted to payment of the tenants.	NEA/PMU/SSEMD
				3. For households receiving cash compensation, the project will compensate any transaction costs, fees, taxes (including	NEA/PMU/SSEMD

S. No	Type of Impact	Application	Entitled Person	Entitlement	Responsibility
				capital gains tax), interest accrued, transitional and restoration costs; and other charges as applicable under relevant laws and regulation.	
				4. 60 days advance notice to landowners before start of construction activities	NEA/PMU/SSEMD
EM-3	Permanent restrictions to land use (including residential, agricultural, commercial, and other private uses) for tenants	Lands where restriction are imposed on land use to maintain ROW	Tenants	1. One-time cash compensation for restrictions to land use at 50% of the land value set by CDC formed under Electricity Act of Nepal.	NEA/PMU/SSEMD & CDC
				2. After receiving compensation, 60 days advance notice to before start of construction activities	NEA/PMU/SSEMD
EM-4	Temporary adverse impacts on land due to construction activities for titleholders	Land adversely impacted by activities.	Titleholders/ persons owning land and	1. Compensation equivalent to 1 year of productive value of land assets in compensation for damages to the land incurred during construction.	NEA/PMU & CDC
				2. For titleholders whose lands are being utilized by tenants, sharecroppers, or leaseholders, 50% for areas cleared for new substations and/or transmission line right-of-way equaling 50% of annual productive value of the land, as set by CDC, will be paid to tenants/sharecroppers and for leaseholders 100% loss of disturbance period will be compensated.	NEA/PMU & CDC
				3. 60 days advance notice to before start of construction activities	NEA/PMU/SSEMD

S. No	Type of Impact	Application	Entitled Person	Entitlement	Responsibility
EM-5	Temporary adverse impacts on land due to construction activities for non-titleholders	Land adversely impacted by project activities.	Forest Resource User Groups Tenants/sharecropper and leaseholders	1. Compensation equivalent up to 1 year of productive value of land assets in compensation for damages to the land incurred during construction	NEA/PMU/SSEMD
				2. One-time cash compensation for areas cleared for new substations and/or transmission line right-of-way equaling 50% of annual productive value of the land, as set by CDC formed under Electricity Act <sup>7</sup> , Nepal will be paid to tenant sharecroppers and for leaseholders 100% of loss will be paid as of lease rate of affected areas.	NEA/PMU/SSEMD & CDC
			Squatters / encroachers (defined as those utilizing the land with no recognized legal title)	3. One-time cash compensation for annual loss of household income resulting from land clearing for new substations and/or transmission line right-of-way equaling 1 year of average household income derived from the land.	NEA/PMU/SSEMD
			All Affected Persons	4. 60 days advance notice to before start of construction activities	NEA/PMU/SSEMD
				5. Restoration of the temporarily affected land to its original state.	NEA/PMU/SSEMD
Impacts to Assets					

<sup>7</sup> Electricity Act, 1992, Section (28) and (29) and its subsection (2) and (3) provisioned the compensation of affected assets and based on these sections Electricity Regulation, 1993 in Rule (88) provisioned a Compensation Fixation Committee. This committee can determine the value of the affected assets.

S. No	Type of Impact	Application	Entitled Person	Entitlement	Responsibility
<b>EM-6</b>	Loss of residential, commercial, and non-residential structures for asset owners	Loss of residential, commercial, and non-residential structures (e.g., cow shed), commercial	Owners of structures having legal title; Encroachers (defined as who has a legal title holding to land but illegally extended structured; also applies to those occupying structures on government land)	1. The project will re-confirm the preferences of displaced households for replacement of structure or cash compensation.	NEA/ PMU/ SSEMD
				2. All affected persons titleholders losing structures will receive a one-time shifting grant of NPR 30,000.00 or as per goods transportation rate fixed by Local government (whichever is greater)	NEA/PMU/SSEMD
				3. All households losing residential structures will be provided up to 6 months transitional subsistence allowances to meet the cost of renting for accommodation and other management cost (allowance will be provided based on estimated time for rebuilding the house) at NPR 20,000.00 per months i.e. total 120,000.00 per affected/displaced household.	NEA/PMU/SSEMD
				4. For households receiving cash compensation, structures will be compensated at replacement value determined by CDC (formed under Land Acquisition Act), which considers prevailing market values. Valuation of assets will not be depreciated for structural age or condition. Displaced households will be allowed to reuse salvageable materials.	NEA/PMU/SSEMD & CDC

S. No	Type of Impact	Application	Entitled Person	Entitlement	Responsibility
				5. Owners of affected structures will be notified giving 30 days advanced notice to take their salvageable materials for reuse.	NEA/PMU/SSEMD
<b>EM-7</b>	Loss of cultural & community structures /facilities	Community/ cultural/ religious structures/ resources affected by the project	Temple/Monastery/Religious tree/Graveyard and etc.	1. The project will re-confirm the preferences of displaced community for replacement of structure or cash compensation.	NEA/PMU/SSEMD
				2. Prior to displacement, the project will restore/re-establish the affected structure or provide cash compensation equivalent to replacement value to the affected community or the recognized patron /custodian of communal properties.	NEA/PMU/SSEMD
				3. 30 days advance notice to before start of construction activities	NEA/PMU
<b>EM-8</b>	Loss of crop, fruit, and timber trees	Standing crops, fruits and timber tress	Asset owners (including eligible tenant farmers, forest users, and encroachers who depend on crop, fruit and timber for their livelihoods)	1. For immature, non-bearing fruit/crop trees, asset owners will receive replacement value calculated as the average harvest values and yearly caring value multiplied by the age of non-bearing fruits. Where tenants or leaseholders claim rights to trees, the project will divide compensation payments equally between asset owners and tenants/leaseholders.	NEA/PMU/SSEMD & CDC

S. No	Type of Impact	Application	Entitled Person	Entitlement	Responsibility
				2. For mature fruit trees, asset owners will receive replacement value calculated as average annual harvest values/ yearly production value for lost productive life of the crop plus cost of seedling and required input to replace the asserts; values will be calculated based on rate established by the concerned local level Krishi Gyan Kendra <sup>8</sup> Office and will account for existing market rate.	NEA/PMU/SSEMD & CDC
				3. Matured non-fruit trees or timber bearing trees will follow the rate calculated in cubic meter (height multiplied by girth and diameter) by concerned Forest Offices/Department; market rate including cost of cutting and shifting will be provided. For the immature timber trees cost of seedling and required input to grow and replace new trees will be calculated.	NEA/PMU,SSEMD & CDC
				4. Provision for 60 days' notice to harvest standing seasonal crops. If Harvest is not possible in given time frame, cash compensation for crops/ share of crops equivalent to prevailing market price calculated by concern Local level Krishi Gyan Kendra.	NEA/PMU/SSEMD

<sup>8</sup> Kirshi Gyan Kendra (Agriculture Knowledge Centre). Federal government restructured all district level offices and Kirshi Gyan Kendra is established against District Level Agricultural Office in each Rural/Municipal level to provide services to the farmers directly.

S. No	Type of Impact	Application	Entitled Person	Entitlement	Responsibility
				5. 30 days advance notice to before start of construction activities	NEA/PMU/SSEMD
<b>Impacts to Livelihood</b>					
<b>EM-9</b>	Impacts on livelihoods.	Loss or change of livelihood/ source of income.	All affected people, households, including agricultural workers, business owners, employees, mobile venders, wage laborers.	1. At least one qualified person from each affected household will be eligible to enroll in livelihood enhancement program, according to the preferences of affected persons and aligned to opportunities in the local market. Project-provided skill enhancement trainings will aim at helping affected people to diversify their sources of income. Specific topics will be finalized in consultation with affected households.	NEA/PMU/SSEMD
				2. Affected households losing lands will receive a transitional allowance for the duration of construction activities (period of disruption), which is estimated to last on average for a period 60 days. Amounts will be calculated using the current years' agricultural labor rate fixed by local government or other competent authority or one time cash NRs 60,000 (whichever greater). Households receiving additional cash assistance as a severely affected households or vulnerable households will not be eligible for this assistance.	NEA/PMU/SSEMD

S. No	Type of Impact	Application	Entitled Person	Entitlement	Responsibility
				3. Business affected by construction activities will receive a transitional allowance either one-time cash assistance of NRs 60,000- or 60-days current labor rates or fixed by local government or the equivalent amount will be provided for the duration of construction activities.	NEA/PMU/SSEMD
				4. If any employees of businesses being economically impacted will be paid a transitional allowance equivalent to NRs 60,000, or 60-days current labor rates or fixed by local government for the duration of construction activities.	NEA/PMU/SSEMD
				5. Mobile vendors/hawkers will receive a transitional cash assistance to shift economic activity; this amount will ensure that affected people's livelihoods are not lower than the current agricultural labor rates fixed by concern local government for the duration of construction activities.	NEA/PMU/SSEMD
				6. Contractor's will ensure there no areas being utilized for project activities impede local access to lands and natural resources, etc.	NEA/PMU/SSEMD
				7. 30 days advance notice regarding construction activities, including duration and type of disruption.	NEA/PMU/SSEMD



S. No	Type of Impact	Application	Entitled Person	Entitlement	Responsibility
<b>EM-10</b>	Severely affected households	Households losing residential home and over 10% of their productive land or income sources	Household losing 10% or more of their productive land	1. Severely affected households are entitled to information about the project in a language understandable to them. The project commits to working in good faith with stakeholders to clearly communicate projects impacts, mitigation measures, and entitlements.	NEA/PMU/SSEMD
				2. Severely affected households are entitled to cash assistance equivalent to 90 days of average national minimal wage rate to offset loss of income. Assistance will be paid prior to the start of civil works.	NEA/PMU/SSEMD
				3. Additional one-time cash assistance of Nrs.100,000.00 will be provided to for each severely affected household to offset stresses of resettlement and the help ensure maintenance of daily subsistence during the transitional period. Those households will receive one-time cash assistance in this category will not be eligible for vulnerability assistance.	NEA/PMU/SSEMD
				4. To restore the livelihood of severely affected persons livelihood related skill enhancement training and other income-generating and market-orientated trainings will be provided to one person of each severely affected households as per the need assessment.	NEA/PMU/SSEMD

S. No	Type of Impact	Application	Entitled Person	Entitlement	Responsibility
				5. The project will additionally extend Livelihood Enhancement Skills Trainings—targeting at least one person from each affected household, including severely affected households.	NEA/PMU/SSEMD NEA/PMU/SSEMD
				6. 60 days advance notice to before start of construction activities	NEA/PMU/SSEMD
EM-11	Vulnerable households	All affected vulnerable households	Households headed by women; disabilities; elderly people; households falling under poverty; indigenous households; landless, Dalits and without legal title to land.	1. Vulnerable households are entitled to information about the project in a language understandable to them. The project commits to working in good faith with stakeholders to clearly communicate projects impacts, mitigation measures, and entitlements.	NEA/PMU/SSEMD
				2. All vulnerable households will receive cash assistance equivalent to 90 days local agricultural wages determined by local government or authentic government entity.	NEA/PMU/SSEMD
				3. Additional onetime cash assistance of 60,000 NRs per household.	NEA/PMU/SSEMD
				4. No-cost enrolment of at least one family member in livelihood income generation or skill enhancement training.	NEA/PMU/SSEMD
				5. During construction period, project construction contractors will give preference to vulnerable households for project-related employment and labor	NEA/PMU/SSEMD

S. No	Type of Impact	Application	Entitled Person	Entitlement	Responsibility
				opportunities, according to alignment of job requirements and local skills and capacities	
				6. 60 days advance notice to before start of construction activities	NEA/PMU/SSEMD
<b>Other Entitlements</b>					
<b>EM-12</b>	Unanticipated impacts	Affected households and individuals	Affected households and individuals	1. During construction period if any resettlement related impacts identified mitigation measures will be implemented as provisioned in RIPP.	NEA/PMU/SSEMD

## V. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

### A. Consultation During Project Preparation

87. Consultation with project stakeholders crucial for effective project planning. The objective of consultation with primary stakeholders, and specially with project affected persons is to share information and collect positive and negative views and feedback and to involve affected people and other stakeholders actively in project activities. When preparing this project, consultation with affected persons was conducted from early concept design stages at each subproject level. A total of 19 consultation meetings in all subprojects has been carried out with affected persons and other project stakeholders from 24 January 2021 to 26 April 2021. Total 135 persons participated: 109 men and 26 women; 48 of these participants were from Indigenous People.

88. During the consultations and discussion meetings along the Kohalpur-Nepalgunj transmission line (subproject 2), proposed Nepalgunj and Dumkibas substation (subproject 3 and 4), project information was disseminated verbally. The project team discussed with affected persons as well as local level government representatives about the likely impacts of project on local people residing around and along the subprojects. During consultations, concerned local government official and their representatives, Ward Chairpersons, local peoples, and other interested were informed about the objectives of project, nature and likely impacts of projects on land and other private and community owned assets, possible mitigation measures to minimize adverse impacts, role and responsibilities of local government bodies, etc. Participants' queries and questions of participants were clarified. The project provided a brochure with key information and offered to make further information available local languages (see Appendix G). The venue, date and number of participants of consultation meetings is presented in Table 5.1 below.

**Table 5.1: Consultations by Locations and Participants**

Subprojects	Consultation Date	Location of consultations meetings held	Total	Male	Female	IPs	Total no of consultation
Chovar_ Lagankhel UG 132 kV Transmission line	17 March 2021	Chovar- Kirtipur Municipality Ward No 6, Mahalaxmi Temple area and along the route	9	8	1	3	2
Kohalpur- Nepalgunj 132 kV transmission line (subproject 2)	From 12 February 2021 to 26 March 2021	<i>Bakaspur, Kapasi, Thanda, Shikhapur, Dhordpur, Chhanahawa and Chaudhariya Tole of Janaki Rural Municipality (ward No 5 &amp; 6) and Kohalpur Municipality (ward no 14 and 15)</i>	104	84	20	40	13
Substation construction in Dumkibas) (subproject 4)	February 10, 2021	Dumkibas	9	9	-	5	2
Mulpani and Lagankhel Substation (subproject 5 & 6)	24 January 2021	Mulpani and Lagankhel substation site	13	8	5	-	2
<b>Total</b>			135	109	26	48	19

**Source:** Consultation meetings in substations sites and transmission lines sub-projects, 2021.

## **B. People's Perceptions, Opinions and Suggested Measures**

89. Consultation meetings with affected persons including representatives of local government have been conducted in different locations of the Kohalpur-Nepalgunj transmission alignment and proposed substation location in Dumkibas and Nepalgunj. Participants of the consultation meetings were verbally informed about the objectives of the project, its implementation modality, about the role of local government as well as local people, and likely impacts. Maximum efforts were made to facilitate fruitful and meaningful consultation with affected persons and vulnerable households, including Indigenous peoples. Due to risk of COVID-19 for organizing mass meeting the project team organized consultation meetings in small groups and met individually too.

90. During consultation, the perceptions, opinions, suggestions and feedback affected persons, local government representatives and officials were collected. Stakeholders were found to be generally supportive of the project. The major concerns raised during consultations along the corridor of transmission line and substation locations were adequate compensation of affected land and associated assets, compensation to non-land assets, and employment opportunities, mitigation measures if a commercial land is affected, full compensation of ROW restricted area, etc. Peoples' concerns were clarified by the project team. Ward Chairs and other ward level representatives of affected Rural Municipalities and Municipalities suggested to NEA that the concerns of affected and other local people have to be assessed and addressed early in the project planning stage. They further emphasized that the route of transmission line should avoid productive and dense settlement areas and local government will support to project for implementing the project effectively. All stakeholders consulted were found positive and supportive for transmission line. During the consultation most common demand was electricity supply in farming land with subsidized priced. However, more than 95% of affected households are connected with national grid. Details of issues and suggestions made by participants have been summarized as listed in Appendix C.

## **C. Consultation During Updating of the RIPP**

91. The engineering design of the proposed infrastructure might change and this draft RIPP will be updated accordingly, with compensation and mitigation measures equivalent to or better than those defined in this RIPP. If the scope of project will be changed and further consultation with affected persons will be conducted and detail measurement of affected assets will be carried out. During public consultations, the project will ensure that separate focus groups targeting predominantly female participation are conducted. The project will also engage with civil society organizations when updating the RIPP to discuss opportunities for partnership in the definition and delivery of project benefits-sharing activities.

## **D. Consultation During Implementation of the RIPP**

92. Project implementation will ensure that affected people are adequately consulted about the projects impacts and safeguard avoidance, mitigation, and compensation measures and will soliciting the inputs of affected people on these measures. Based on the nature of project and severity of impacts, the executing agency will need to organize several rounds of consultation meetings and discussion with affected people and communities during implementation period. Consultation and engagement are also important for identifying and addressing any unanticipated impacts and other concerns of affected persons arising during the implementation period. Further consultation will also include providing individual "mini" compensation plans to affect households, presenting the affected assets and compensation for each household with signatures of the

affected people. Attached to these mini plans will be a computation Table (see Appendix E) which displays how their compensation is calculated. For example, how much land affected for tower foundation are and how it was evaluated. Complaints of communities and affected persons may create or arise during implementation for example community may demand more infrastructures or community infrastructures might be affected and will need to reinstate these affected community infrastructures. The project team, including contractor representatives, will require consultation with concern persons and communities. Any unintended issues that arise during RIPP implementation will also involve meaningful consultation. Such consultations will be carried out by the SSEMD team under PMD with support of Social Safeguard Specialist in coordination with field-based staff. During public consultations, the project will ensure that separate focus group discussions targeting predominantly female participation are conducted. The project will also plan public meetings in advance with the cooperation of local government and will ensure that interpreters between Nepali and indigenous languages are available on request. Printed disclosure media will be prepared in Nepali, with transcriptions into indigenous languages made on request and in consultation with affected Indigenous Peoples.

#### **E. Disclosure of the Resettlement and Indigenous Peoples Plan**

93. The draft and final RIPP will be disclosed to affected households in the form of a booklet summarizing the key impacts, entitlements, payment processes, grievances redress procedures and contact information of the project. The booklet will be prepared in Nepali language and provided to all affected households. On request and with appropriate timing to locate qualified translators, this booklet (see Appendix G) may be translated into dialects of project-affected people (Abadhi and Tharu).

94. The draft and final updated RIPP (post DMS) will be disclosed on the executing agency (summary of RIPP should be Nepali) and ADB's website. Semi-annual Resettlement Monitoring Reports will be disclosed on ADB's website.

## VI. BUDGET

96. The resettlement budget is estimated based on technical designs and land requirements calculations for physical components and include compensation for loss of land and other assets, compensation of temporary livelihood losses and assistance for rehabilitation, cost for implementation of project social awareness campaigns, livelihoods improvement trainings, community health and safety trainings, an allocation for resolution of unanticipated and temporary impacts, etc. This resettlement budget is indicative and will be revised based on the actual field scenario and confirmation and verification affected assets, livelihoods and source of income. RIPP updating and budget finalization will be completed before civil works starting in the field. NEA will manage and allocate the required budget available in its annual program for the disbursement of compensation and assistance.

### A. Calculation of Estimated Costs

97. The resettlement budget is estimated according to market rates recorded during consultation with affected persons and bases also taken from the rate of concern Land Revenue Offices, which take into account prevailing market price and rate fixed by each rural municipality / municipality for tax purposes—a process that involves consultation with local peoples. The cost proposed and estimated for RIPP is only indicate and CDC may change this rate.

98. Total cost for land acquisition is summarized below.

**Table 6.1: Summary of Resettlement Budget**

S.No	Items	Measures	Losses	Total Amount (NRs)
<b>A. Compensation</b>				
1	Compensation for permanent land acquisition - tower pad (subproject 2)	ha	.57	30,260,000.00
2	Compensation for permanent land acquisition for two substations (subprojects (3 & 4)	ha	6.62	477,365,000.00
3	ROW restricted area (subproject 2) -30% of total estimation cost.	ha	29.07	319,464,000.00
3	Compensation cost for crops loss <sup>9</sup>	metric ton	77.98	2,236,250.00
4	Compensation cost residential houses and including associated assets (hand pump) in Nepalgunj -Kohalpur Transmission line	structure	2	339,000.00
5	Community infrastructures/ structures reinstate cost	structure	1	100,000.00
6	Compensation cost of residential houses and non-residential building, sheds, kitchen, and toilets in Dumkibas Substations		22	20,391,000.00
7	Compensation cost for private trees	tree	295	585,000.00
8	Compensation for temporary adverse construction impacts	LS		500,000.00
<b>Total of A</b>				<b>851,240, 250.00</b>

<sup>9</sup> Cost of standing crops is calculated based on local price.

S.No	Items	Measures	Losses	Total Amount (NRs)
<b>B. Resettlement Assistance and Vulnerability</b>				
9	Resettlement assistance	households	9	900,000.00
10	Transitional subsistence allowances	households	9	1080,000.00
11	One-time shifting grant	households	9	270,000.00
12	Cash Assistance of 90-day national minimum wage to vulnerable and severely affected households	households	61	2,745,000.00
13	One-time cash Assistance for severely affected households	households	9	900,000.00
14	One-time cash Assistance for vulnerable households	households	52	2,340,000.00
<b>Total of B</b>				<b>8,235,000.00</b>
<b>C. Cost for Conducting Skill and Awareness Training</b>				
15	Project Risk and Impact + GRM Awareness	LS		200,000.00
16	Livelihood Improvement Programs for Affected Households and Communities	LS	61	7,625,000.00
17	Other implementation costs	LS		100,000.00
<b>Total of C</b>				<b>7,925,600.00</b>
<b>D. RIPP Implementation Cost</b>				
18	Ongoing consultation and engagement with affected people	LS		600,000.00
19	Livelihood training need assessment			126,000.00
20	Administrative cost for RIPP implementation (tax, duties, transportation etc).	LS		1,000,000.00
21	GRC management cost	LS		200,000.00
22	Project information disclosure materials	LS		200,000.00
23	Resettlement plan monitoring	LS		500,000.00
<b>Total of D</b>				<b>2,626,000.00</b>
<b>Subtotal of (A+B+C+D)</b>				<b>870,808,850.00.</b>
D. Contingency 5% of total cost				43,540,342.50
Total cost NRS				913,528,192.50
<b>Grand Total Million (NRs)</b>				<b>914.34</b>

GRC = grievance redress committee; GRM = grievance redress mechanism; ha = hectare; LS = longitudinal section; NRs = Nepalese rupee; RIPP = Resettlement and Indigenous Peoples Plan.



**Table 6.2: Estimated Cost for Loss of Land<sup>10</sup>**

Subprojects	Required area in (ha)	Local unit of land (Katha)	Average rate per kattan (NRs)	Total cost (NRs)	Total cost in Million (NRs)
Cost of tower pad of Kohalpur-Nepalgunj 132 kV transmission line (subproject 2)	.57	15.13	2,000,000	30,260,000.00	30.26
Cost of ROW area of Kohalpur-Nepalgunj 132 kV transmission line (subproject 2)	18.03	532.44	2,000,000	319,464,000.00	319.46
Nepalgunj Substation (subproject 3)	2.71	80.03	3,500,000	280,105,000.00	280.105
Dumkibas Substation (subproject 4)	3.34	98.63	2,000,000	197,260,000.00	197.26
<b>Total</b>				<b>8,27,089,000.00</b>	<b>827.08</b>

Source: Field survey, consultation, and estimation, 2021.

**Table 6.3: Compensation Cost for Loss of Crops**

Subproject	Major crops	Crop production losses in (MT)	Total cost for loss (NRs)
Cost of affected crops under ROW and tower pad are of Kohalpur-Nepalgunj 132 kV transmission line (subproject 2)	Paddy	31.24	1,800,000.00
	Wheat	27.90	1,000,00.00
Nepalgunj Substation (subproject 3)	Paddy	5.70	173,700.00
	Wheat	4.06	121,800.00
Dumkibas Substation (subproject 4)	Maize	9.08	140,750.00
<b>Total NRs</b>		<b>77.98</b>	<b>2,236,250.00</b>
<b>Total NRs in Million: 2.34</b>			

Source: Rate of Respective District Agricultural Offices, estimation, 2021.

**Table 6.4: Compensation Cost for Loss of Structures and Other Assets**

Subproject	No. of Structures	Total Cost of structures (NRs)
Kohalpur-Nepalgunj 132 kV transmission line (subproject 2)	2 residential structures	324,000.00
	1 community shed	100,000.00
	1 hand pump	15,000.00
Dumkibas substation (subproject 4)	Residential houses, non-residential building and attached sheds, kitchens, Baranda/openterace	19,681,000.00
	Kitchen separate	100,000.00
	Toilets	230,000.00

<sup>10</sup> Cost of land is calculated based on local unit rate. Total local unit of land under Row is 588.45 (Katta) and per katta market average rate is NRs 2,000,000 and total cost as local unit is NRs 1,176,900,000. 30% of total cost will be the real cost of affected ROW area.

Subproject	No. of Structures	Total Cost of structures (NRs)
	Separate sheds	380,000.00
<b>Total</b>		<b>20,830,000.00</b>
<b>Total (NRs in Million):</b>		<b>20.83</b>

Source: Field survey and discussion with affected households, 2021.

**Table 6.5: Compensation Costs for Private Trees and Fruit Trees**

Types of trees/fruit trees affected	Estimated Number of Trees	Total cost (NRs)
Sapling of Masala trees	250	300,000.00
Fruit trees (matured)	25	125,000.00
Fruit trees immature	10	10,000.00
Timber trees	10	150,000.00
<b>Total</b>	<b>295</b>	<b>585,000.00</b>
<b>Total cost in Million (NRs)</b>		<b>.585</b>

Source: Field survey and estimation, 2021.

**Table 6.6: Estimated Cost for Vulnerability, Severity and Resettlement Assistance**

S. No	Description of cost	Quantity	Rate (NRs)	Total Cost (NRs)
1	Cash Assistance of 90-day national minimum wage to vulnerable and severely affected households	61 households	45,000	2,745,000.00
2	One time Cash Assistance for severely affected households	9 households	100,000	900,000.00
3	One time Cash Assistance for vulnerable households	52 households	60,000	3,120,000.00
4	Shifting grant	9	30,000	270,000.00
	<b>Total</b>			<b>7,035,000.00</b>
<b>Total cost in Million (NRs)</b>				<b>7.03</b>

**Table 6.7: Training Need Assessment of Vulnerable Households**

Training subjects	No of events	Total participants	Total cost in (NRs)	Remarks
Training need assessment (TNA)	Three locations	61	126,000.00	
Conduction of Livelihood training after TNA	3	61	7,560,000.00	In each group 25 trainees will be participated
<b>Total cost of all trainings</b>	<b>3</b>		<b>7,812,000.00</b>	
<b>Total in Million (NRs)</b>			<b>7.8</b>	

Source: Estimated, 2021

## VII. GRIEVANCES REDRESS MECHANISM

99. NEA's existing grievance redress mechanism established for the original loan will be extended to cover the additional financing components for both environment and social safeguards to receive and manage any grievances (complaints) that may arise from the project and facilitate prompt resolution of affected persons' issues, concerns, problems, or claims. Affected persons may include members of the local community or construction workers. The project wide GRM will address both environmental and social safeguard and other related eligible grievances/complaints raised by affected persons, in a timely and culturally appropriate manner.

A **grievance** is an issue, concern, problem, or claim (perceived or actual) that an individual or community group wants to see resolved by the project.

The **Grievance Redress Mechanism** is a locally based, project-specific extra-legal way to deal with and resolve project-related grievances/complaints faster than legal mechanisms and thus enhance project performance standards in terms of environmental and social safeguards.

100. In the original project loan, GRM ensured that:

- a) physically or economically displaced people receive appropriate compensation in accordance with the Resettlement Plan;
- b) the basic rights and interests of every person affected by the environmental and social performance of NEA and their contractors on the project are protected; and
- c) issues, concerns, problems, or claims arising from any poor environmental or social performance of NEA and their contractors during the conduct of pre-construction, construction, operation & maintenance activities are promptly and effectively addressed.

101. Recourse to the project's GRM does not impede access to the country's judicial or administrative remedies. Affected peoples can approach the court of law at any time and independently of the project's grievance redress process. Affected peoples may (subject to eligibility criteria) also access ADB's Accountability Mechanism<sup>11</sup> whereby people adversely affected by ADB-financed projects can express their grievances, seek solutions, and report alleged violations of ADB's operational policies and procedures, including environmental and social safeguard policies.

102. The GRM will be operationalized prior to the commencement of any civil works, including enabling works. PMD and the Contractor will appoint community engagement officers/GRM focal persons (focals): PMD will appoint a full-time project-wide focal, and the Contractors will appoint one full-time focal for each contract package/lot. All staff of NEA, PMD and the Contractors, as well as local and central government and other entities directly involved in the GRM process will receive a training prior to the start of works to fully grasp their roles and responsibilities within the GRM as well as approaches to constructively resolve project-related grievances/complaints.

103. Communities within the project's area of influence will be made aware of this GRM as well as how to access it, including addresses and contact numbers, through (i) community awareness

<sup>11</sup> There are two parts to ADB's Accountability Mechanism, problem solving led by ADB's special project facilitator can assist the aggrieved in finding solutions to their problems, while compliance review, led by a three-member panel, can investigate alleged violations of ADB's operational policies and procedures, including safeguard policies, and recommend corrective actions to ensure project compliance.

raising during community or one-on-one meetings; (ii) pamphlets distributed to the general public in the direct vicinity of the project site, in Nepali and translated in local languages as applicable; (iii) notices on the radio and/or local newspaper; (iv) installation of grievance box at all project locations; (v) installation of notice boards on project-sites providing contact details and procedure on how to file a complaint, in local or indigenous dialects where project works are occurring near to indigenous villages; (vi) at local NEA offices, and on NEA's website etc. Any concerned person or group of people can file a complaint through the project's GRM, at any time and at no cost.

104. PMD's and contractor's focals will actively engage with the affected local communities and construction workers throughout pre-construction, construction and at the onset of operation, providing an opportunity for community members or workers to approach them with any grievance/complaint. Affected peoples may also lodge grievances/complaints online through NEA's website<sup>12</sup>, by phone at numbers provided, by submitting a note in a suggestion box kept on site, by sending a letter, or in person at a project-site office or at the closest NEA office. All staff and workers of NEA, PMD, Contractors and Subcontractors, will also be made aware of the existence of the GRM and must know who to direct any complaint to, if approached regarding a grievance. The local ward chief, District Forest Office, community forest groups, protected area managements, etc. will also be made aware of the GRM and will be able to provide appropriate contacts and redirect people to the focals.

105. The GRM will follow the three-tier structure. Figure 7.1 summarizes the process, while Table 7.1 lists key members and timelines.

106. An exhaustive grievance log must be kept at all times on-site by the contractor's focal. Any grievance/complaint received, whether minor or major, whoever it was first addressed to, must be reported to the contractor's focal and documented, including: name of the person making the complaint; date and time the complaint was received; relation of the aggrieved to the project; nature of the complaint; details of all meetings held, including participants, date, issues discussed and decisions taken; details of all actions taken towards resolution of the grievance; log of all formal communication sent to the aggrieved informing of the evolution of the process etc. Table 7.2 provides a template for a grievance/complaint register; it is recommended that a project-wide grievance handling database be set up by the PMD focal replicating the site logs at project-level.

107. Once a resolution has been proposed to the aggrieved, they will be asked to sign a form acknowledging receipt of that proposal and providing their approval or refusal, as applicable; this form will be added to the grievance/complaint register and once all actions are taken the associated entry will be closed but not deleted.

#### **A. Site-Level Grievance Handling Protocol**

108. The contractors will define a site-level grievance handling protocol, as initial input to the GRM. For any urgent matter, in particular emergency and health and safety issues, the contractor's site-level focal will take note of the grievance/complaint and get immediately in contact with the Environment, Health and Safety (EHS) Officer on site or with the EHS site supervisor for immediate action. Short-term issues (e.g. dust, noise, leaks, inappropriate behavior, conflict, etc.) may be corrected immediately under the direction of the focal, in collaboration with respective construction workers. In case of impending damage to structures, flora or fauna, or physical cultural resources, the focal shall get in immediate contact with the EHS Officer, biodiversity expert, or heritage expert who shall have the power to halt works until

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<sup>12</sup> The PMD web page has a dedicated space to send a message.

corrective action is taken. Whatever the source and the form in which the grievance/complaint is received and its nature, it should be accepted by the focal and registered in the grievance register.<sup>13</sup>

## **B. First Level GRM**

109. The contractor's site-level focal is in charge of the first level GRM. All grievances/complaints will be sorted by the focals for their level of urgency and by nature (suggestions or comments, grievances/complaints related to adverse impacts of the project on an individual or group, violations of law, etc.). The focal will send a formal reply to the aggrieved within 3 working days of the receipt of the grievance/complaint to acknowledge receipt, provide the complaint's registration number, and set up a meeting in presence of the contractor's project manager. Through the first formal reply<sup>14</sup>, the aggrieved will be informed of the process and of his/her possibility to subsequently escalate the complaint in case no resolution was found at this stage; contacts to the second level GRM will be included.

110. During the meeting other participants may be called upon, including but not limited to: contractor's environment, health and safety, biodiversity or heritage officer, subcontractor's representative, PMD's junior EHS officer when on-site, etc. The affected person(s) may come in presence of two representatives of their choice (selected so as to be gender inclusive), including a representative of their Indigenous People group if applicable. The project will offer Indigenous Peoples the option for interpreters to be made available for all verbal meetings. To keep this first level simple, the number of meeting attendees will be kept as much as possible to between 4 and 8, but ideally 4, for flexibility and ease of dialogue.

111. This first meeting shall take place no later than one week after receipt of the grievance/complaint.<sup>15</sup> During the meeting, the aggrieved and contractor's site-level focal will agree on the course of action to be taken and timeline to resolution. Details of the meeting will be documented; minutes of meeting will be signed by both the aggrieved and the contractor's site-level focal and annexed to the grievance's file. If both parties do not agree on a resolution, the complaint may be escalated to the second level of GRM. If both parties agree, the contractor (and subcontractors, as applicable) will take remedial action, keeping the aggrieved informed at each stage or every fortnight, whichever the shortest. Such actions should be taken in the briefest delay, within a maximum timeframe of 30 days. However, all simple complaints, will be resolved within 7 days of the meeting being held. Following resolution, if the aggrieved is not satisfied with the resolution or if no action has been taken within the agreed timeframe, they can escalate the grievance to the second level of GRM.

112. A log of all active complaints, even if resolved within the first level of GRM, must be communicated to PMD's focal fortnightly by the contractor's on-site focal.

## **C. Second Level GRM**

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<sup>13</sup> If the complaint is not eligible, the aggrieved should be informed of the reasons in writing and directed onto other appropriate mechanisms if applicable.

<sup>14</sup> Same template of this first communication is recommended to be followed project-wide.

<sup>15</sup> This timeline may only be extended if the affected person/group requests for a later date for the meeting based on availability. If the aggrieved has difficulty to travel to meeting location upon short notice, the location of the meeting may be flexible.

113. The second level of the GRM is headed by the PMD's project manager, supported by PMD's project-wide focal. If a complaint has not been resolved at the first level of GRM, it is escalated to the second level. If workers wish to file a complaint and are not comfortable logging it with the first level GRM, they can file it directly to this second level of GRM. All complaints will be sorted by eligibility and level of urgency and by nature (suggestions or comments, grievances/complaints related to adverse impacts of the project on an individual or group, violations of law, etc.). Just as for the first level, all grievances will be properly recorded, and the concerned person or group will be informed formally of receipt; timeline; and resolution. PMD's focal will send within 3 days of receipt a letter to the aggrieved acknowledging receipt; within 15 days a meeting should be held, and resolution action plan and timeline agreed upon with the aggrieved.

114. The meeting should aim to have between 4 and 8 members, including PMD's project manager, GRM's focal, the aggrieved who may be accompanied by or represented by two representatives including one Indigenous Peoples representative if applicable, PMD's senior environment, health and safety, biodiversity and/or social officer, as well as other members if applicable, including contractor's representative, local rural office representative, community organization representative etc. As for the first level, the second level may have two outcomes: if the parties found a resolution and the aggrieved signed their approval of the resolution, such actions should be taken in the briefest delay, within a maximum timeframe of 30 days. However, all simple complaints, will be resolved within 7 days of the meeting being held. If no resolution has been reached, the grievance is forwarded to the third level of the GRM.

#### **D. Third Level GRM**

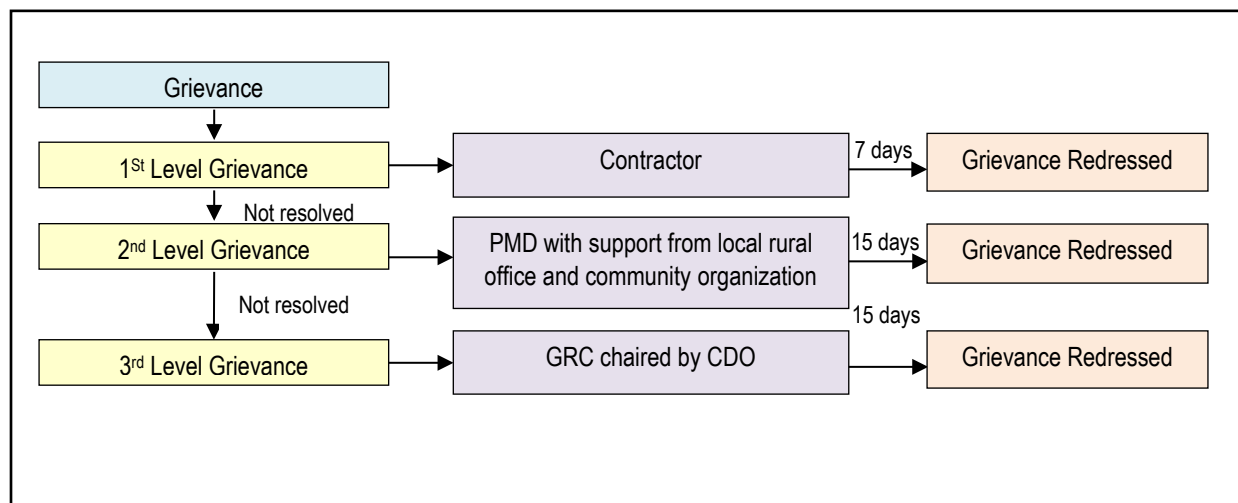
115. The same process of logging the grievance/complaint, communicating with the aggrieved and reporting will be followed. The third level of GRM is handled by NEA's EGMP project manager who will form a grievance redress committee chaired by the Chief District Officer, District Administration Office and made up of PMD's focal and environment or social officers (depending on the nature of the complaint), two representatives of the aggrieved including Indigenous Peoples representative if applicable, as well as, as applicable, a representative of the contractor, government representatives for environment or social issues (such as but not limited to land revenue, survey, forest office, agriculture office, municipality representatives etc.), NGOs or CSOs representatives, etc. For ease of discussion, the meeting will try to gather no more than 10 participants.

116. The grievance redress committee will agree on the resolution approach and action plan, inform concerned parties about actions to be taken and their timeline, and will monitor progress through regular follow-ups. Resolution will be as prompt as possible; receipt of complaint will be acknowledged to the aggrieved within 3 days, the resolution approach agreed upon within 15 days and actions taken within 45 days. However, all simple complaints, will be resolved within 7 days of the meeting being held. Approval of the resolution by the aggrieved will be sought in writing.

117. All entries to the site's grievance/complaints register, whether resolved at initial informal level on site or at any of the three levels of the GRM, along with updates on ongoing or completed actions taken to address the grievance/complaint, will be included in monthly reports by the Contractor to PMD and in periodic monitoring reports from PMD to ADB. PSC will monitor the overall grievance resolution process along with PMD and will recommend any improvements to increase the efficiency, timeliness, and fairness of the process.

118. **Budget.** NEA and the contractor will need to provide staff for and allocate budget for the GRM that will sufficiently cover the costs of its operations including initial awareness raising, capacity development trainings, support services, field inspections, meetings, documentation, and supplies etc.

**Figure 7.1: Grievance Redress Mechanism Process Flowchart**



CDO = Chief District Officer, GRC = Grievance Redress Committee, PMD = Project Management Department

**Table 7.1: GRM Composition and Timeline for Addressing Grievances**

GRM Level	Composition	Maximum timeline
First Level of GRM (site-level)	<p>Responsibility: Contractor's project manager supported by contractor's community engagement officer/GRM focal</p> <p>Other parties involved, as applicable:            2 representatives of affected person (gender inclusive, including 1 representative of Indigenous Peoples group as applicable)            Contractor's representative            Subcontractor's representative            PMD Junior EHS officer when on-site            Total meeting members: 4-8</p>	<p>3 days: confirmation of receipt to the aggrieved</p> <p>7 days: meeting between contractor's project manager and the aggrieved and action plan agreed upon (or escalation to level 2)</p> <p>Maximum 30 days: action taken, and grievance resolved, although any environment safeguard grievances that are an emergency or pose a health and safety risk to workers or community members must be resolved immediately by the contractor</p> <p>Information and reporting to PMD community engagement officer/GRM focal on two-weekly basis by contractor.</p>
GRM Level	Composition	Maximum timeline
Second Level GRM (project-level)	<p>Responsibility: PMD's project manager supported by PMD community engagement officer/GRM focal</p> <p>Other parties involved, as applicable:            1. 2 representatives of affected persons (gender inclusive,</p>	<p>3 days: confirmation of receipt to the aggrieved</p> <p>15 days: meeting between EGMP project manager and the aggrieved and action plan agreed upon (or escalation to level 3)</p> <p>Maximum 30 days: action taken, and grievance resolved</p>



GRM Level	Composition	Maximum timeline
	<p>including 1 representative of Indigenous Peoples group as applicable)  Representative of the contractor  PMD senior environment, health and safety, biodiversity and/or social officer as applicable depending on environment or social issues being resolved  Local rural office and community organization representative</p> <p>Total meeting members: 4-8</p>	<p>Information and reporting to NEA board and management by PMD community engagement officer/GRM focal.</p>
Third Level of GRM (committee-level)	<p>Responsibility: Chief District Officer, District Administration Office as chair; PMD EGMP project manager as facilitator</p> <p>Other parties involved, as applicable:  2 representatives of affected persons (gender inclusive, including 1 representative of Indigenous Peoples group as applicable)  PMD community engagement officer/GRM focal  Representative of the contractor  Government representatives as applicable depending on environment or social issues being resolved (e.g. land revenue, survey, forest office, agriculture office, municipality representative, etc.)  NGOs/CSOs representatives depending on environment or social issues being resolved  Other as applicable</p> <p>Total meeting members: &lt;10</p>	<p>3 days: confirmation of receipt to the aggrieved  15 days: grievance redress committee meeting and action plan agreed upon  Maximum 45 days: action taken, and grievance resolved</p> <p>Information and reporting to NEA board and management by PMD community engagement officer/GRM focal.</p>

CSO = Central Statistics Office; EGMP = Electricity Grid Modernization Project; EHS = environment, health, and safety; GRM = grievance redress mechanism; NEA = Nepal Electricity Authority; NGO = non-governmental organization; PMD = Project Management Directorate.

### Table 7.2: Template for Grievance/Complaints Register Entries

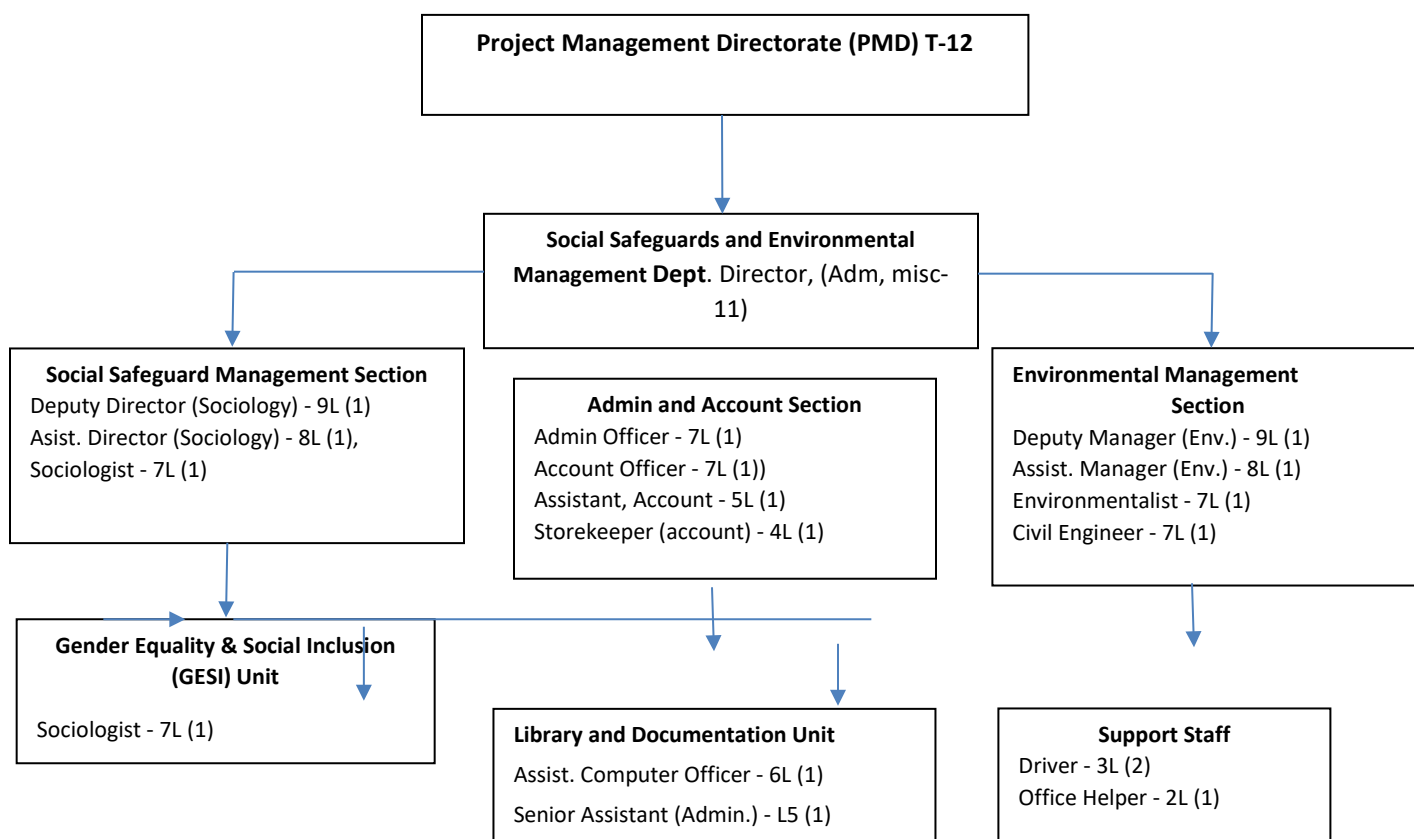
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## VIII. INSTITUTIONAL ARRANGEMENTS

119. The NEA will serve as executing agency and will implement all ADB-funded project components through its Project Management Department (PMD), which is responsible for planning, designing, implementing, monitoring and supervising all NEA projects funded by ADB. PMD will hire its own project-specific Supervision Consultants to supervise and monitor both the technical as well as environmental and social safeguard aspects of projects. Implement the environmental and social safeguard activities more effectively, PMD has its own dedicated Social Safeguard and Environmental Management Department (SSEMD)<sup>16</sup> headed by a director and supported by dedicated environmental and social safeguards, civil engineering, accounting and other support staff. SSEMD will be responsible for implementing and updating the RIPP and monitoring and supervising the environmental and social safeguard related activities.

120. The proposed organizational structure of SSEMD is presented in Figure 8.1 below.

**Figure 8.1: Proposed Organizational Structure**



121. Considering the volume of works carried out by NEA-PMD-SSEMD, additional human resources will also be engaged to support project implementation. Specifically, a Project Supervision Consultant (PSC) to assist NEA in supervising, managing and implementing the project and to ensure that the project will be completed according to the schedule and in compliance with ADB social and environmental safeguard requirements. To support the social

<sup>16</sup> Structure of Social Safeguards and Environmental Management Department (SSEMD) has just approved on 23 February 2021.

safeguards team tasked with RIPP implementation, the PSC will include: a senior international social specialist and senior national social specialist with experience in managing resettlement and consultation with Indigenous Peoples, preferably in linear projects; a national community engagement specialist; and a national safeguards compliance data management specialist to (i) ensure that affected people are adequately consulted; (ii) track project safeguards performance; and (iii) maintain a socio-economic indicators database. Depending on need, SSEMD may also recruit additional expertise at the departmental level and field levels, including via outsourcing to individual consultants or firms. Depending on the size and scope of projects, either key E&S staff or consultants will be deployed to site to seek assurances of project environmental and social performance.

#### **A. Roles and Responsibilities of Social Safeguard and Environmental Management Department**

122. Overall responsibilities of the Social Safeguard and Environmental Management Department (SSEMD) are: (i) effective implementation and monitoring of project specific social and environmental safeguard activities in close coordination with the Project Supervision Consultant; (ii) updating the RIPP to reflect further feedback from affected people, supplemental livelihoods analysis and refinement of performance monitoring frameworks, and reflecting adjustments required during finalization of project engineer designs; (iii) recruiting or hire supplemental experts if internal human resources are insufficient; (v) establish monitoring and reporting mechanism within project as well as within PMD; (vi) preparing quarterly and semiannual social safeguard monitoring report and submit to ADB through PMD.

123. Further details on agencies responsible for RIPP activities are in Table 8.1.

**Table 8.1: Institutional Roles and Responsibilities**

<b>Activity</b>	<b>Responsible Agency</b>
<b>Sub-project Initiation Stage</b>	
Fulfill staff positions of SSEMD	PMD/NEA
Finalization of draft RIPP	SSEMD/PMD-NEA
Disclosure of draft RIPP in appropriate locations including in ADB website	SSEMD/PMD-NEA and ADB
Consultation meetings with affected persons at community/household level	SSEMD and field level staff
<b>Draft RIPP Updating</b>	
Conducting Census Households survey of affected households	SSEMD/PMD/NEA
Conducting FGDs/consultations meetings	Field level staff with guidance of SSEMD
Computation of value of land and other associated assets	CDC with support of SSEMD staff
Categorization of affected persons for finalizing entitlements	SSEMD/Social Safeguard Specialist
Formulating compensation and rehabilitation measures	CDC/SSEMD/Social Safeguard Specialist
Conducting discussions/meetings/consultation with affected persons and other stakeholders	Social Safeguard specialist with support of field level staff
Fixing compensation for land/property with asset holders	PMD/CDC
Finalizing entitlements and rehabilitation packages	SSEMD/Social Safeguard Specialist
Updating RIPP	SSEMD/Social Safeguard Specialist
Disclosure of final entitlements and rehabilitation packages	SSEMD/PMD
Approval of updated RIPP	PMD/NEA

Activity	Responsible Agency
<b>Resettlement Plan Implementation Stage</b>	
Implementation of proposed rehabilitation measures	SSEMD/Social Safeguard Specialist
Distribution of compensation amount to affected persons and deed transfer of affected land	CDC/PMD/Land Survey and Revenue Office/SSEMD
Consultations with affected persons and Indigenous Peoples during implementation of rehabilitation activities	PMD/SSEMD/Social safeguard Specialist
Grievances redressal	SSEMD/PMD/NEA Safeguard Specialist, local government authority, CDO, Land Revenue Office.
Internal monitoring	SSEMD/PMD

CDC = compensation determination committee ; CDO = chief district officer; NEA = Nepal Electricity Authority; PMD = project management directorate; SSEMD = Social Safeguard and Environmental Management Department.

## IX. IMPLEMENTATION SCHEDULE

124. Most of the planned activities proposed in the Resettlement and Indigenous Peoples Plan will be implemented prior to starting civil works in the field and will also be continue during the construction works. The RIPP implementation schedule might be rescheduled as per the other project activities. The project will be implemented over 6 years, with construction activities expected to start from 2022 and be completed by the end of 2026. All activities proposed in this RIPP such as determining and disbursing compensation and entitlements for project land acquisition and involuntary resettlement will be completed prior to economic and physical displacement. Public consultation, internal monitoring, livelihood restoration activities and grievance redress will be undertaken throughout the project duration. The civil works contract for transmission line and substations will start only after all compensation is paid and rehabilitation measures are implemented.

125. The proposed RIPP implementation activities are divided into three broad phases. Project preparation phase; RIPP implementation phase; and monitoring and reporting phase. A tentative implementation schedule of compensation for land acquisition and resettlement activities in the project including various sub tasks and timeline matching with civil work schedule is provided in Table 9.1.

126. **Project Preparation Phase.** The activities to be performed in this phase include fulfilling SSEMD staffing commitments, establishing a field level office with a designated officer in charge of safeguards; updating the RIPP; recruiting the project supervision consultants; and establishing the GRC. The information dissemination and stakeholder consultations will commence in this stage and continue till the end of the project.

127. **RIPP Implementation Phase.** In this phase, key activities will be carried out including payment of compensation for land and other assets including crops and trees; payment of other rehabilitation assistances; livelihood enhancement skill training; needs assessments for other benefits measures and training trainings; and obtaining all necessary site clearance certificate to enable commencement of civil works.

128. **Monitoring and Reporting Phase.** Internal monitoring will commence from the project preparation phase and will continue until the end of RIPP implementation. Monitoring reports will be submitted to ADB and disclosed on ADB website.

### Table 9.1: Tentative Schedule of Resettlement Activities

[illegible]

S. No.	Activities	Timeline																											
		2021				2022				2023				2024				2025				2026				2027			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
A.	<b>Project Preparation Phase</b>																												
5	Compensation Payment for land and other assets																												
6	Payment for resettlement assistance																												
7	Implement livelihood restoration activities																												
C.	<b>Monitoring and reporting Phase</b>																												
1	Internal monitoring																												
2	Semi-annual monitoring																												

Note: Implementation schedule may change depending upon procurement plan of project.



## X. MONITORING AND REPORTING

### A. Overview

129. Monitoring is a major part of the project's safeguards management system to ensure its goals are adequately met. Activities agreed in Resettlement and Indigenous Peoples Plan will have to implement in timely manner with close supervision of SSEMD and performed activities will be monitored internally. The safeguards staff within the SSEMD will implement and monitor all the RIPP activities. Monitoring during project implementation will track the implementation status of RIPP commitments and will ensure that the project collects information about livelihood compositions of affected people to demonstrate that the project is appropriately managing impacts in line with ADB Safeguard Policy Statement (2009) requirements. The progress status will prepare quarterly basis and each quarterly progress reports will be submitted to PMD. These reports will describe the progress of the implementation of resettlement activities and compliance issues, if any, and corrective actions taken to address them. These reports will closely follow the involuntary resettlement monitoring indicators agreed at the time of resettlement plan approval.

130. SSEMD will prepare quarterly reports safeguard monitoring and will submit these reports to PMD. PMD will submit safeguard monitoring report to ADB quarterly during construction and semi-annually during operation the semi-annual social safeguard monitoring report to NEA management and ADB. This report will cover: (i) progress on compensation payments and payments for all types of impacts and losses; (ii) performance indicators data to help assess whether the planned resettlement activities are producing the desired outcomes; (iii) progress of livelihood life skill training; (iv) status of consultations and redress of grievances; (v) consultation, communication and participation with vulnerable groups including affected Indigenous People; and (vi) to make corrective actions if unanticipated impacts or non-compliance will be noted during monitoring and to assess the unanticipated problems raised during project implementation. Monitoring components and performance indicators relevant to social performance monitoring to be addressed in quarterly and semi-annual monitoring reports will be prepared. During the monitoring period both qualitative and qualitative information will be monitored. Resettlement activities to be carried out monitoring indicators for measuring the activities are given in Table 10.1.

**Table 10.1: Monitoring Indicators**

Category	Indicative Indicators	Responsible Party
Consultation, Participation and Disclosure	Is a summary of the RIPP disclosed locally so that all affected households may easily access it, including women and Indigenous Peoples?	SSEMD/PMD/NEA
	Have consultations taken place as scheduled, including personal and household meetings, focus groups, and community forums?	
	Have leaflets about resettlement impacts been prepared and distributed to affected persons in local dialects?	
	How many consultation meetings are being held, and how many people participated, disaggregating by cast, ethnicity, gender?	

Category	Indicative Indicators	Responsible Party
	Have consultations been made separately with Indigenous Peoples and other vulnerable persons?	
	How many Affected Persons are aware of their entitlements?	
	How many Affected Households confirm receipt of the proposed entitlements plan?	
	How many Affected Households agree to the proposed entitlements plan?	
	How many complaints regarding entitlements have been registered in the grievance redress mechanism?	
	How many overall complaints have been registered in the grievance regress mechanism?	
	How has further consultation been carried out during project implementation?	
Compensation disbursement and budget allocation	Have all Affected Persons received compensation as provided under the Entitlement Matrix?	CDC and SSEMD/PMD/NEA
	Have all Affected Persons received compensation for the land of ROW restricted areas?	
	Have all Affected Persons received additional assistances according to type of impact?	
	Have all Affected Persons received payments on time?	
	Was allocated budget sufficient to compensate for loss of land and other assets and to provide resettlement assistance? Were financial resources made available in time?	
Resettlement Assistance and other allowance	Have all vulnerable households, including Indigenous Peoples households and women headed households, received resettlement assistance?	CDC and SSEMD/PMD/NEA
	Have all displaced households received transitional assistance as set out in the Entitlement Matrix	
	Have all severely affected households received cash assistance as provided under the Entitlement Matrix?	
	How many affected households rebuild their residential structures and have received amounts sufficient or not to construct a new and similar building?	
Livelihood and income restoration	How many Affected Persons including severely affected, Indigenous and other vulnerable persons under rehabilitation program received energy-based livelihoods skills training (disaggregated by cast, ethnicity, male, female, vulnerable and Indigenous Persons)?	SSEMD/PMD
	How many persons have been self-employed or become a job holder in local markets after getting the skill training?	
	How many persons started new enterprises after getting livelihood enhancement training (disaggregated by cast, ethnicity, male, female, vulnerable and Indigenous People)?	

Category	Indicative Indicators	Responsible Party
	How many numbers of affected persons are employed in project activities including as targeted in Entitlement Matrix?	
	Have all severely affected households been able to restore their livelihoods and sources of income?	
Grievances Redress Mechanism	Was the project GRM constituted for the resolution of complaints as anticipated in the RIPP?	SSEMD/PMD
	How complaints/grievances have been lodged and resolved?	
	Are the aggrieved satisfied with decisions made and time taken for to resolve grievances through the GRC?	
Institutional arrangement and capacity enhancement of safeguard staff	Have all proposed staff in SSEMD been fulfilled before project implementation?	SSEMD/PMD and ADB
	Have all social safeguard related staff of SSEMD received Capacity Enhancement training on Social Safeguard?	

CDC = compensation determination committee, GRC = grievance redress committee , GRM = grievances redress mechanism, NEA = Nepal Electricity Authority, PMD = Project Management Directorate, RIPP = Resettlement and Indigenous Peoples Plan, SSEMD = Social Safeguard and Environmental Management Department

## B. Reporting Arrangements

131. Reporting of monitoring will be the responsibility of The NEA PMD and SSEMD. Quarterly and semi-annual social safeguard reports will be prepared by SSEMD and submitted to PMD. PMD will review and approve SSEMD reports and will submit to ADB and NEA. The semi-annual monitoring report will be disclosed at the ADB website.

# Resettlement and Indigenous Peoples Plan

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Project Number: 54107-002  
June 2021

## Nepal: Electricity Grid Modernization Project- Additional Financing Appendices

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

## Appendix A: Legal and Policy Framework

### A. Overview

1. The legal and policy framework of the resettlement plan is based on national laws and legislations of Nepal and the ADB Safeguard Policy Statement (2009). This chapter focused on the relevant national legal framework and ADB's policy requirements relevant to the project.

2. **Constitution.** The Constitution of Republic of Nepal (2015) guarantees fundamental rights and duties of citizens. Article 30(1) establishes the right to property for every citizen of Nepal, whereby every citizen is entitled to earn, use, sell and exercise their right to property under existing laws. Article 30(3) states "shall not except in the public interest, requisition, or acquire, or otherwise create any encumbrance on the property of the people. But not apply to any property acquired in an illicit manner". Article 30(4) states "in requisition of private land for public interest according to sub-article (3), it shall be done on the basis of compensation and procedural law". Article 30 (5): "Nothing in sub-articles (3) and (4) shall be deemed to prevent the state in enforcing land reform, management and regulation for the purpose of increasing production and productivity of land, modernization and commercialization of agriculture, environment preservation, organized housing and planned urbanization".

### B. National Laws and Regulations of Nepal

3. **Land Acquisition Act 1997.** The key legal framework for land acquisition in Nepal is the provisions of the Land Acquisition Act 1997 (LAA) and its subsequent amendment in different period specify procedures of land acquisition and compensation. The Act empowers the Government to acquire any land, on the payment of compensation, for public purposes or for the operation of any development project initiated by government institutions. There is a provision of Compensation Determination Committee (CDC) chaired by Chief District Officer to determine compensation rates for affected properties. The Act also includes a provision for acquisition of land through negotiations. It states in Clause 27 "notwithstanding anything contained elsewhere in this Act, the Government may acquire any land for any purpose through negotiations with the concerned landowner. It shall not be necessary to comply with the procedure laid down in this act when acquiring land through negotiations." This Act has been amended and supplemented by the following:

- Administration of Justice Act, 2048 (1977);
- Act Amending Some Nepal Acts, 2048 (1992);
- Act Amending Some Nepal Acts, 2055 (1998); and
- Republic strengthening and Amending Some Nepal Acts, 2066 (2010).
- To make the constitution favorable, Amending Some Nepal Acts 2075 (नेपालको सम्बिधान अनुकुल बनाउन केहि नेपाल एनलाइ सम्सोधन गर्ने एन २०७५).

4. **Land Reform Act 1964.** This act is also relevant when government entities require land acquisition. As per the Act, a landowner may not be compensated for more land than s/he is entitled to under the law. This Act also establishes the tiller's right on the land which s/he is tilling. The land reform act additionally specifies the compensation entitlements of registered tenants on land sold by the owner or acquired for the development purposes. The Act amendment most recently in 2001 has established a rule that when state acquires land under tenancy, the tenant and the landlord will each be entitled to 50 percent of the total compensation amount.

5. **The Land Revenue Act (1977)** also applicable, as the land acquisition involves change of ownership of land. Article 8 of the Act states that registration, change in ownership, termination of ownership right and maintenance of land records are done by Land Revenue Office. Similarly, article 16 says, 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 the land for which revenue has been due.

6. **Guthi Corporation Act 1976.** Land acquisition must also comply with the provisions set out in the Guthi Corporation Act 1976 if Guthi land need to be acquired. The Section 42 of the Act states that Guthi (religious/trust) land acquired for a development must be replaced with other land.

7. **Directive of the distribution use and regulation of digital data, 2069 (2012)** (डिजिटल डाटाको वितरण, प्रयोग र नियमन निर्देशिका २०६९).

8. **The National Policy on Land Acquisition, Resettlement and Rehabilitation in Infrastructure Development Projects (2014)** provides clear guidelines to screen, assess and plan land acquisition and resettlement aspects in development projects. The Policy highlights the need to handle resettlement issues with utmost care and forethought particularly in the case of vulnerable groups. There are provisions for voluntary land donation by non-poor. Voluntary donation will be accepted if a) donation of land is < 10% of the landowner's agriculture land b) the donation is unforced, not the result of community pressure and MOU should be signed and is witnessed by third party c) land donating households should not be from vulnerable groups and poor families d) affected persons are fully consulted informed about their rights. Non-titled (encroachers/squatters) are eligible for compensation for their property except land. Compensation for structure, crops and tree should be calculated scientifically not less than market price.

9. **The Forest Act 1993**, Section 68(1) empowers the Government of Nepal to permit the use of any part of government managed forests, community forests, leasehold forests, etc., if there is no alternative except to use that area for the implementation of a plan or project of national priority without significantly affecting the environment. According to the Forest Act, Community Forest User Groups (CFUGs) will be responsible for the preparation of a management plan that must include forest development conservation, use and management.

10. **Electricity Act 2049 (1992)** and The Electricity Regulation, 2050 (1993): Section 33 of Electricity Act 1992 and Rule 66 of Electricity Regulation 1993 specifies that the impact on local land holders due to project implementation, as well as estimates of displaced population and resettlement and rehabilitation measures, must be elaborated and clearly explained and the amount of compensation at lump sum of such land owners as determined by the compensation fixation committee which is formed as per Rule 88 of Electricity Regulation 1993 should be paid.

11. **Indigenous Peoples.** Nepal does not have a standalone policy on Indigenous Peoples. The Constitution of Nepal 2072 (2015), Article 18, Right to Equality, states that all citizens shall be equal before law. No person shall be denied the equal protection of law. However, the article also mentioned that nothing shall be deemed to bar the making of special provisions by law for the protection, empowerment or advancement of the women lagging behind socially and culturally, Dalits, Adibasi, Madhesi, Tharus, Muslims, oppressed class, backward communities, minorities, marginalized groups, peasants, laborers, youths, children, senior citizens, sexual minorities, persons with disability, pregnant, incapacitated and the helpless persons, and of the citizens who belong to backward regions and financially deprived citizens including the Khas Arya.

12. **International Labor Organization Convention 169 (ratified by Nepal in 2007).** These constitutional, legal and policy provisions are supplemented with the provisions under the United Nations Declaration on the Rights of Indigenous Peoples (2007) and International Labor Organization (ILO) Convention (169), 1989 in 2007 since Nepal is a signatory to these international legal instruments. The ILO Convention no. 169 of 1989 is the most comprehensive legally binding treaty on the rights of Indigenous Peoples. The Convention includes provisions on cultural integrity, land and resource rights and non-discrimination, and instructs states to consult Indigenous Peoples in all decisions affecting them. Articles 1-4 of the United Nations Declaration on the Rights of Indigenous Peoples (2007) ensures the individual and collective rights of Indigenous Peoples, as well as their rights to culture, identity, language, employment, health, education and other issues while implementing any development activities in the traditional territory of the Indigenous People.

13. The NFDIN Act 2002 established the first comprehensive policy and institutional framework pertaining to Adivasis/Janajatis. The act defines indigenous groups or Adivasi Janajati in Nepali as "a group or community having its own territory, own mother tongue, traditional rites and customs, distinct cultural identity, distinct social structure and written or unwritten history". The government, through NFDIN, has identified and officially recognized 59 such indigenous communities. This list was updated in 2009 to include 81 groups for official recognition but yet to be approved by the Government of Nepal.

### **C. ADB Safeguard Policy Statement (2009)**

14. The objectives of ADB's Safeguard Policy Statement (2009) with regard to involuntary resettlement are: (i) to avoid involuntary resettlement wherever possible; (ii) to minimize involuntary resettlement by exploring project and design alternatives; (iii) to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and (iv) to improve the standards of living of the displaced poor and other vulnerable groups. The ADB Safeguard Policy Statement (2009) covers physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. It covers displaced persons whether such losses and involuntary restrictions are full or partial, permanent, or temporary.

15. For any ADB operation requiring involuntary resettlement, resettlement planning is an integral part of project design, from the early stages of the project cycle, taking into account the following basic principles:

16. Involuntary resettlement will be avoided or minimized as much as possible and where involuntary resettlement is unavoidable, displaced persons will be compensated by full replacement cost for their losses;

17. Improve, or at least restore, the livelihoods of all displaced persons and provide physically and economically displaced persons with needed assistance;

18. Carry out meaningful consultations with affected persons, host communities, and concerned nongovernment organizations. Inform all displaced persons of their entitlements and resettlement options. Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status;

19. Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets;
20. Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards.
21. Prepare and disclosure a resettlement plan elaborating on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule; and
22. Conceive and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of project's costs and benefits. Pay compensation and provide other resettlement entitlements before physical or economic displacement. Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports.
23. ADB policy on Safeguard requirement for Indigenous Peoples recognizes the right of Indigenous People to direct the course of their own development. For operational purpose, the term Indigenous People is used by ADB to refer to a distinct, vulnerable, social and cultural group with following characteristics:
  24. Self-identification as members of a distinct indigenous cultural group and recognition of this community by others;
  25. Collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in the habitats;
  26. Customary, cultural, economic, social or political institutions that are separate from those of dominant society and culture, and
  27. A distinct language, often different from the official language of the country or region.
28. According to ADB policy, Indigenous Peoples safeguards are triggered if a project directly or indirectly affects the dignity, human rights, livelihood systems or culture of Indigenous People or affects the territories, natural or cultural resources that Indigenous People own, use, occupy or claim as their ancestral property.
29. The ADB Safeguard Policy Statement (2009) sets out the following principles for Indigenous People safeguards in all projects in which ADB is involved:
  30. Screen early on to determine (i) whether Indigenous Peoples are present in, or have collective attachment to, the project area; and (ii) whether project impacts on Indigenous Peoples are likely.
  31. Undertake a culturally appropriate and gender-sensitive assessment of social impacts or use similar methods to assess potential project impacts, both positive and adverse, on Indigenous Peoples. Give full consideration to options the affected Indigenous Peoples prefer in relation to the provision of project benefits and the design of mitigation measures. Identify social and economic benefits for affected Indigenous Peoples that are culturally appropriate and gender and



inter-generationally inclusive and develop measures to avoid, minimize, and/or mitigate adverse impacts on Indigenous Peoples.

32. Undertake meaningful consultations with affected Indigenous Peoples communities and concerned Indigenous Peoples organizations to solicit their participation (i) in designing, implementing, and monitoring measures to avoid adverse impacts or, when avoidance is not possible, to minimize, mitigate, or compensate for such effects; and (ii) in tailoring project benefits for affected Indigenous Peoples communities in a culturally appropriate manner. To enhance Indigenous Peoples' active participation, projects affecting them will provide appropriate and gender inclusive capacity development. Establish a culturally appropriate and gender inclusive grievance mechanism to receive and facilitate resolution of the Indigenous Peoples' concerns.

33. Ascertain the consent of affected Indigenous Peoples communities to the following project activities: (i) commercial development of the cultural resources and knowledge of Indigenous Peoples; (ii) physical displacement from traditional or customary lands; and (iii) commercial development of natural resources within customary lands under use that would impact the livelihoods or the cultural, ceremonial, or spiritual uses that define the identity and community of Indigenous Peoples communities refers to a collective expression by the affected representatives, of broad community support for such project activities. Broad community support may exist even if some individuals or groups object to the project activities.

34. Avoid, to the maximum extent possible, any restricted access to and physical displacement from protected areas and natural resources. Where avoidance is not possible, ensure that the affected Indigenous Peoples communities participate in the design, implementation, and monitoring and evaluation of management arrangements for such areas and natural resources and that their benefits are equitably shared.

35. Prepare an Indigenous Peoples Plan (IPP) that is based on the assessment of social impacts with the assistance of qualified and experienced experts and that draw on indigenous knowledge and participation by the affected Indigenous Peoples communities.

36. Disclose a draft IPP, including documentation of the consultation process and the results of the assessment of social impacts in a timely manner, before project appraisal, in an accessible place and in a form and language(s) understandable to affected Indigenous Peoples communities and other stakeholders. The final IPP and its updates will also be disclosed to the affected IP communities and other stakeholders.

37. Monitor implementation of the IPP using qualified and experienced experts; adopt a participatory monitoring approach, wherever possible; and assess whether the IPP's objective and desired outcome have been achieved, taking into account the baseline conditions and the results of IPP monitoring. Disclose monitoring reports.

#### **D. Gaps between ADB's Safeguard Policy Statement (2009) and the Legal Framework for Indigenous Peoples.**

38. ADB will not finance the project if it does not comply with its Safeguard Policy Statement (2009) nor will it finance the project if it does not comply with its host country's social and environmental laws. Where discrepancies between the ADB and government policies exist, ADB's policy will prevail. Moreover, ADB Safeguard Policy Statement (2009) applies to all ADB-financed and/or ADB-administered sovereign projects and their components regardless of the source of financing, including investment projects funded by a loan; and/or a grant; and/or other means.

39. Impacts on Indigenous Peoples, whether positive or negative, are anticipated to be the same as those on the mainstream population as temporary displacement impacts. The Indigenous People households impacted have the same socio-economic status and land size as Terai Dalits or poor Madhesi because most Indigenous People livelihoods are the same as for those other groups. There will be no project infrastructure on traditional or customary land. After final engineering design, detail socioeconomic status of Indigenous Peoples will be further assessed, and the extent of impacts confirmed. Indigenous Peoples will be compensated as other displaced persons, with consideration for their vulnerability.

40. Key gaps between ADB's Safeguard Policy Statement (2009) and the legal framework of Nepal center around the preparation, disclosure, supervision and monitoring of an Indigenous Peoples Plan. For this project, a combined Resettlement and Indigenous Peoples Plan has been developed. Other key gaps include assessing social impacts and minimizing and mitigating impacts on Indigenous People. As such, the project has worked to mitigate impacts on IP communities through the design process and incorporated a screening of impacts on Indigenous Peoples in Chapter 2 on the scope of resettlement.

41. Consultation, another gap, will continue to be addressed through meaningful consultation activities outlined in Chapter 4 of this RIPP. In addition, an information booklet (see Appendix G) will be translated into local dialects (including Nepali, Terai languages-Maithili, Bhojpuri) to ensure all affected, including ethnic minorities can understand the project displacement impacts and their entitlements.

42. A grievance redress mechanism for all project impacts will be established as outlined in Chapter 5, which will include measures to ensure Indigenous People households feel comfortable in raising their issues through the project GRM, this will be achieved by discussing on Indigenous People's issues separately with them and in each GRM level one Indigenous Peoples representative will be invited/included.

43. A summary of key gaps with ADB Safeguard Policy Statement (2009) and the applicable legal framework for this project are incorporated in the Table A.1 below.

**Table A.1: Summary of Key Gaps with ADB Safeguard Policy Statement (2009) and Gap Filling Measures**

ADB Safeguard Policy Principles	Legal Framework of Government of Nepal	Gap and Gap filling measures
All title holders and non-title holders will be eligible for receiving compensation and other resettlement assistance including relocation cost to all displacement persons.	Legal ownership is required for compensation eligibility under the LAA; however, tenants registered with the Land Revenue Office are also recognized. Encroachers/Squatters/ illegal occupants/ non-titled are not entitled to compensation.	Provisions are included in the Entitlement Matrix to pay compensation to non-titleholders (informal and non-registered) for their lost (non-land) assets at replacement cost including relocation cost to all.
Provide cash compensation at replacement cost for land and assets that cannot be restored without depreciating the value of lost assets.	The LA Act determines compensation by use of the CDC. Annual government decisions on the value of land are used, this is decided each year via a 'land registration fee' through the publication of a notice of land acquisition under Section 9. There is often a gap with this rates and market value and no consideration for taxes and duties. In order to bridge such gaps, there is also practice of determining based on local market rate by reviewing and accessing current market rate and transaction practices with the support of CDC members.	The calculation of full replacement cost will be based on the following elements- fair market value, transaction cost, interest accrued, transitional and restoration cost and other applicable cost if any will be considered. Provisions have been made in this RIPP to ensure payment of replacement cost, inclusive of all fees and gain tax as per the entitlement matrix.
Depreciation of the value for of the structures and other assets to be acquired should not be taken into account in determining compensation for lost assets.	Depreciation is often included as a practice for valuing structures and other assets.	Provision have been made in entitlement matrix and process of valuing the assets is detailed in this RIPP.
Relocation cost to all displaced persons should be provided.	No provision for relocation related costs.	All displaced persons including tenants, employees are entitled to receive financial assistant to cover physical and economic displacement. Provision have been made for transitional and shifting allowance in this RIPP and financial assistance to tenants and others.
Meaningful consultations with affected persons, host communities and concerned nongovernment organizations.	There are no particular consultation provisions related to meaningful consultation with displaced households.	Consultations with affected communities and households are detailed in chapter 4 and will continue throughout the project cycle ensuring that participation of Affected persons, vulnerable, women, Indigenous Peoples as of requirements for the project benefits
Improve, or at least restore, the livelihoods of all displaced persons.	The Policy on Land Acquisition, Resettlement and Rehabilitation 2015 (Policy 2015) provides for resettlement/ rehabilitation plans for displaced persons ensuring their better living standards at least not inferior to that of their previous conditions. However, implementation of this policy is not	Cash compensation for replacement value will be provided to the affected households for asset losses. Lost assets that cannot be restore, compensation in full replacement cost for these assets will be provided. They will be assisted

ADB Safeguard Policy Principles	Legal Framework of Government of Nepal	Gap and Gap filling measures
	mandatory and there are no other laws that provide consideration for those severely affected by income or more than 10% of land holdings. However, there is also a provision in the LAA, according to which the CDC may fix different compensation rate even in accordance to extent of loss.	additional revenues and services through benefit sharing schemes where possible. So that their economic and social future is as favorable as compared to how it would have been before the project. Provisions have been made in this RIPP for severely affected households, as contained in the entitlement matrix, such that they can restore or improve their livelihoods. Also provisioned that livelihood restoration packages such as skill development trainings and entrepreneurship counselling.
ADB Safeguard Policy Statement (2009) requires that the displaced poor and vulnerable groups have their standards of living improved including women to at least national minimum standards.	As per the Policy 2015, displaced, disadvantaged and deprived groups (Dalit, Aadibasi and Janajati or Indigenous People, single headed women, households headed by senior citizen, households having disabled persons, economically vulnerable households) additional economic rehabilitation/development plan will be incorporated in the resettlement plan. As mentioned previously, implementation of this policy is not mandatory.	Resettlement Plan provisioned that livelihood restoration activities will be implemented to restore and improve the living standard of these group who are below poverty line. For this, project/NEA will made regular follow up and support to vulnerable households for best utilization of received money. These households will also be assisted through providing income generating schemes, skill development training and ensure employment opportunity during the project period based on their skill and capacity.

## Appendix B: Socioeconomic Information of Affected Households

1. This socioeconomic chapter provides the overview of socioeconomic status and profile of the affected households based on the findings of preliminary assessments. Field studies and discussions with households were conducted from 24 January 2021 to 26 March 2021 in 132 kV Kohalpur-Nepalgunj Transmission line and Nepalgunj and Dunkibas substation locations. Further consultations with Affected Persons and other stakeholders will be made during implementation period, if necessary. Household survey have been conducted with affected households using checklist which includes questions about impacts of project, compensation options, mitigation measures to avoid or minimize the adverse impacts, overall socioeconomic status of affected households, gender issues, employment, and livelihoods status of affected households. As of digital cadastral data and landowner list received from Department of Land survey and Department of Land Management and Archive, total 154 house anticipated to be affected in transmission line 7 households from substations. Out of the total affected, socioeconomic survey of 79 households have been conducted and remaining households could not meet in the project locations. Socioeconomic information with absentee households will be collected when they will be available in the village.

2. The proposed subprojects under Electricity Grid Modernization Project – Additional Financing are situated within the Bagmati, Gandaki and Lumbini Provinces which are scattered from Central Region to Mid-eastern Region of the country. Within the three provinces the subprojects have been selected from three districts namely Kathmandu, East Nawalparasi and Banke. As per CBS Census Survey 2011, the demographic characteristics of three provinces are slightly vary. Total population of Bagmati, Gandaki and Lumbini Provinces comprises 5,529,452 (m 45.38% and f 54.62%), 2,403,757 (m 49.69% and f 50.31%) and 4,499,27 (m 47.57% and f 52.43%) respectively and Bagmati is the largest province by population (20.87% of Nepal's total population) and Gandaki and Lumbini province represents 9.07% and 16.98% of countries population. The male and female ratio among three provinces is 83.08, 98.77 and 90.73 respectively in Bagmati, Gandaki and Lumbini Provinces. Likewise, the average household size in three districts is 4.35, 4.16 and 5.08. The average household size of Lumbini province is comparatively high than the national average household size (4.8). The economically active population in the Provinces are 62.88% (Bagmati), 56.88% (Gandaki province) and 55.8% (Lumbini Province) respectively. The economically active age group 15-59 years in Bagmati is almost equivalent with same age group of country's populations (56.96%). Major caste/ethnic groups are Braman, Chhetri, Tamang, Magar, Gurung, Rai, Newar, Thakuri, Tharu, Dalits and other are living there.

3. **Demography characteristics of affected households.** Out of total 168 affected Household, detail socioeconomic survey of 86 available households was conducted throughout alignment and two substations. The total population of the surveyed households is 584 comprising 57.7% male and 42.29% female. The average household size is 6.7 which is very high compared with national average size 4.8 and project districts and provinces. (CBS: Census Survey 2011). The reason of high household size of the surveyed households is the surveyed households are found living joint family specially in Tharu Indigenous Peoples. However, the family members are working in different area, but their property is owned by Household Head. Therefore, during survey they were counted single family. Table B.1 below presents details of demography characteristics of surveyed households.

4. **Population distribution by age group.** In terms of age distribution of the affected households, 43.84% falls within the age group of 17-45 years followed by 15.48% are 46 to 65 years age group. The population of below 5 years of age group is 13.36% and 5-16 years age

5. group represents 14.38%. The senior citizens represent 5.82%. The age-wise distribution of the surveyed household members is given in Table B.1 below.

**Table B.1: Affected Households by Age Group**

Age group	Male	Female	Total	%
Children <5 years	86	33	119	13.36
Children 5-16 yrs	54	30	84	14.38
Adult 17-45 years	132	124	256	43.84
Adult 46-65 years	50	41	91	15.58
Senior Citizen > 65 years	15	19	34	5.82
<b>Total</b>	<b>337 (57.70%)</b>	<b>247 (42.29%)</b>	<b>584</b>	

Source: Field studies, 2021

6. **Population distribution by Caste and Ethnicity.** The proposed sub-projects are scattered in 3 districts of 3 provinces and throughout the alignment of transmission line and substation sites, 4 major different caste and ethnic groups are affected. Out of total 86 surveyed households, the major caste groups and population are Janajati (49%), followed by Madhesi (39.2%), Brahman/Chetries (8.9%) and Muslim(2.9%). Details of caste/ethnicity of affected households is presented in Table B.2 below.

**Table B.2: Household Distribution by Caste and Ethnicity**

S. No	Caste and Ethnicity	Households	Population		Total	Household size
			Male	Female		
1	Braman, Chhetri, Thakuri	10	35	17	52	5.2
2	Janajati	40	154	132	286	7.2
3	Madhesi	34	138	91	229	6.7
4	Muslim	2	10	7	19	8.5
<b>Total</b>		<b>86</b>	<b>337</b>	<b>247</b>	<b>584</b>	<b>6.8</b>

Source: Field survey 2021

7. **Indigenous People.** Indigenous Peoples of Nepal are officially described as Indigenous Nationalities (Adivasi/Janajati). They make up for 35.81 percent of the country's total population (approximately 8.5 million out of the 26 million Nepalese). As per the 2011 census, Nepal has 126 castes and ethnic groups speaking as many as 123 languages. As many as 59 indigenous communities have been officially and legally recognized by the Nepal Government under the National Foundation for Development of Indigenous Nationalities (NFDIN) Act-2002. They live across the country –18 of them is in mountains, 23 in the hills, 7 in Inner Terai and 10 in Terai. National Foundation for Development of Indigenous Nationalities (NFDIN, 2005) has classified them into five broad categories based on the level of their socioeconomic development status or the degree of marginalization. Table B.3: describes the Indigenous Peoples of Nepal and level of marginalization.

**Table B.3: Indigenous Peoples and their Level of Marginalization**

Region	Endangered	Highly Marginalized	Marginalized	Disadvantaged	Advantaged
Mountain	-	Shiyar, Shingsawa (Lhomi), Thudam	Bhote, Dolpo, Larke, Lhopa, Mugali, Topkegola, Walung	Bara Gaunle, Byansi (Sauka), Chhairrotan, Marphali Thakali, Sherpa, Tangbe, Tingaule Thakali	Thakali
Hill	Bankariya, Hayu, Kusbadiya, Kusunda, Lepcha, Surel	Baramu, Thami (Thangmi), Chepang	Bhujel, Dura, Pahari, Phree, Sunuwar, Tamang	Chhantyal, Gurung(Tamu), Jirel, Limbu (Yakthung), Magar, Rai, Yakkha, Hyolmo	Newar
Inner Terai	Raji, Raute,	Majhi Bote, Danuwar	Darai, Kumal	-	-
Terai	Kisan, Meche	Dhanuk (Rajbansi), Jhangad, Santhal (Satar)	Dhimai, Gangai, Rajbanshi, Tajpuriya, Tharu	-	-

Source: NFDIN. 2005.

8. Based on the socioeconomic survey result of 86 households in transmission line and substations, total 40 households belong to different 5 Indigenous Peoples groups are residing. They are Tharu, Magar, Gurung, Tamang and Newar. Out of total affected Indigenous Peoples under this project, the Tharu are dominant followed by Tamang and other Indigenous Peoples. Details of Indigenous Peoples affected under this project is presented in Table B.4 below.

**Table B.4: Indigenous Peoples Population Affected by Project**

S. No	Indigenous Peoples Groups	Households	Population		Total
			Male	Female	
1	Tharu	32	138	117	255
2	Tamang	5	12	10	22
3	Magar	1	2	1	3
4	Gurung	1	1	2	3
5	Newar	1	1	2	12
Total		40	154	132	286

Source: Field Survey, 2021

9. **Household Size.** Average size of the family in Nepal is 4.8 person who is 4.2 in Urban and 4.8 in Rural. There are 17.1% nuclear households (family size 1-2) in Nepal. Nearly half (47.2%) of the household heads are in the age group 30 to 49 years and 25.9% households are headed by female members which must be due to the high proportion of male labor migration (CBS: Annual households survey, 2015/2016). Two types of family structures are found among 86 households. Joint and nuclear families. Joint family is a family that consists of grandfather, father/mother and their children who share a common kitchen in a single roof and household is headed by grandfather or father and these types of family are found in Tharu and Muslim groups. A nuclear family where parents and unmarried children are living together and sharing a kitchen in a single roof.

10. The survey findings of 86 households shown that average household size is 6.8 which is very high compared to the national average. The Tharu community generally practices joint family system and in subproject location about 32 households were surveyed and most of them are following joint family system and which is the reason of reflecting the big household size. The surveyed result states that household size of the surveyed Tharu households is 7.9 which helps to increase the household size of affected households.

11. The Tharu people are an indigenous group inhabiting the Terai of Nepal. They represent 6.6% (1.7 million) of Nepal's total population (Nepal Central Bureau, 2011). Although they comprise the second largest indigenous community of Nepal (Dahit, 2009, p.2; Nepal Central Bureau, 2011), Tharu have been in the margins for centuries. Many scholars believe that the Tharu are the aboriginal people of the region.

12. **Religion and Language.** Out of 86 households surveyed, majority of households that is 537 (96.51%) follow Hindu religion and followed by Islam and Buddhist 2.32% and 1.16% respectively. All the affected population can speak Nepali and their mother tongue but out of the total, Tamang, Magar and Gurung cannot speak their mother tongue. Details of Language and religion is presented in Table B.6 and B.7 below.

**Table B. 5: Household by Language and Religion**

S. No	Religion	Households	%
1	Hindu	83	96.51
2	Buddhist	1	1.16
3	Islam	2	2.32
<b>Total</b>		<b>86</b>	

Source: Household survey 2021

**Table B. 7: Household by Language**

S. No	Language	Households
1	Nepali only	17
2	Tahru+ Nepali	32
3	Awadhi+Muslim	36
4	Newari+ Nepali	1
<b>Total</b>		<b>86</b>

Source: Household survey 2021

13. **Literacy status of affected households.** Along the corridor of impacts of transmission line and substations, out of the total surveyed households were interviewed and total 465 population were counted for measuring the literacy status of affected population. Among the population, literate population is 74.2% and out of counted population the illiterate is 25.59%. The literate population of affected households is high compared with national literate population (65.94% -(CBS: Census Survey 2011) whereas among the affected population there is big gap between male and female literacy rate. The educational status of project affected area is better than the project district. As per the Census Survey 2011, the literate percentage in Banke district is 69%. When comparing the literacy rate with Provincial level the education status of affected population is better compared with educational status of Lumbini province (66.43%). The level of education and the affected population is presented in Table B.8.



**Table B.8: Literacy Statues of Surveyed Households of Age 5 years and Above**

S. No	Level of Education	Male	Female	Total	
				No	%
2	Illiterate	37	82	119	25.59
3	Literate only	39	30	69	14.84
4	1-10 class	126	110	236	50.75
5	12 class/secondary level	19	7	26	5.59
6	Bachelors and above	7	8	15	3.23
<b>Total</b>		<b>228</b>	<b>237</b>	<b>465</b>	<b>100</b>

Source: Field study, 2021.

13. **Occupation of surveyed households.** In the sub-project areas (transmission line and substations) the major occupation followed by surveyed population is agricultural (54.92%), labour/daily wages (10.02%), foreign employment, business, pension etc. Out of the total economically active population 26.09% are unemployed and 29.29% are student. Majority of the women of the project area are engaging in household works and supporting to men for agricultural activities during farming season. The details of surveyed population and occupation is presented in Table B.9 below.

**Table B.9: Occupation of the affected population**

S No.	Occupation	Male	Female	Total Population	Percent
1	Agriculture/Farming	146	94	240	54.92
2	Business	7		7	1.60
3	Foreign employment	9	2	11	2.52
4	Pension	2	0	2	0.46
5	Labor/daily wages	29	15	44	10.07
6	Unemployed	101	13	114	26.09
7	Self-employed	5	0	5	1.14
8	Student	74	54	128	29.29
<b>Total</b>		<b>245</b>	<b>122</b>	<b>367</b>	<b>100</b>

Source: Field study, 2021.

14. **Means of Livelihoods.** The overall livelihood strategy of the affected household is characterized by a mixture of farm and nonfarm activities. The majority of households depend on agricultural activities for food supply and as a source of livelihoods and other requirements. Out of total 86 surveyed households, 48.84% households depend on farm work in own land and share cropping and 17.44% households found depending on agriculture labor and share cropping for their livelihood and income sources and followed by foreign employment ((12.79%), Business (8.14%), unskilled labour (6.98%), only share cropping (3.49%) and pension (2.33%) respectively. The means of livelihoods of surveyed households is presented in Table B.10 below.

**Table B.10: Affected Households by Means of Livelihoods.**

S. No	Means of Livelihoods	Households	%
1	Farm work in own land and share cropping	42	48.84
2	Sharecropping only	3	3.49
3	Agriculture labour and share cropping	15	17.44
4	Business	7	8.14
5	Foreign employment	11	12.79
6	Unskilled Labour	6	6.98
7	Pension	2	2.33
<b>Total</b>		<b>86</b>	

Source: Field study, 2021.

15. **Access to Water, Sanitation and Electricity.** Nepal have been declared Open Defecation Free (ODF) on 30 September 2019, but quality of toilets and adequate water supply system still need to be improved in rural as well as in urban areas. As of the Nepal Demographic and Health Survey (NDHS) 2016, overall, 62% of households (63% in rural areas and 61% in urban areas) use improved toilet facilities and as data shown that about 15% of households have no toilet facility (21% in rural areas and 11% in urban areas (NDHS: 2016). Under this project, out of total surveyed households, 78% households are using pumped water for drinking and other uses and remaining households mostly located near to Kohalpur Municipality area using Piped water for drinking. More than 98% households have their own toilet facility, and 1.4% households have no toilet facility. During survey it was observed that most of the households specially Madhesi community would not like to use toilet but gradually they are constructing toilets. The households survey report also stated that out of total 99.5% households connected with national grid and using electricity mainly for lighting and operating small industries and remaining households especially landless/squatters cannot connect the electricity services. In Dumkibas substation location all surveyed households have access to piped water supply and out of total 10 households, 9 have permanent toilet structures with pan and safety tank.

16. **Access to Education and Health Centers.** In each Ward Center there is a Health post where a Medical Doctor with minimum facilities such as maternal facility, child vaccines and other basic health checkup facilities are available. People can easily visit Nepalgunj and Kohalpur Medical Collage if any critical issues. All project influence area connected with all-weather standard roads. During field survey, respondent was asked about the distance of primary, secondary education schools and found that there are one or more government and private schools within 20-to-45-minute walking distances. For higher education student can go Nepalgunj or Kohalpur cities by bicycle or using other means of transportation.

### Appendix C: Consultation and Discussion Report: Subproject Sites

**1. Mulpani and Lagankhel substation.** Two substations in Mulpani and Lagankhel will be constructed in NEA's own land. In Mulpani NEA has already acquired land for substation construction and in Lagankhel there is an existing 66 kV substation and new one 132 kV substation will be constructed within the premises of existing substation. No additional land will be required in both locations. Local people residing around in Mulpani proposed substation area were consulted and no outstanding issues identified. NEA officials of Lagankhel substation were also consulted and observed the existing substation and availability of additional land for 132 kV substation construction within compound wall of existing building. The summary of consultation report.

Date and Place of Consultation	Participants, Issues discussed and opinion and recommendation about the project
24 January 2021, Babachock, Gajurel Danda, Mulpani, Bagshwori Manahara Municipality, Ward No 6, Kathmandu.	<p>In Mulpani Proposed substation area consultation with local peoples have been conducted in two phases first on January 24, 2021 and next one is on April 1, 2021. Total 13 persons were participated in the consultation. The proposed Mulpani 132kV SS will be constructed in existing land of NEA. To assess the due diligences of proposed locations, we have visited the site and made consultation with local peoples residing surrounding area. Altogether 4 residential building and one land plot are existed near to the NEA's land and the access road for these HHs passes close to the NEA land. We had met separately two household owners (one male and one female) and discussed with them about substation to be constructed in that area. All participants raised the issues of width of access road. Recently they are using the road from the left corner of NEA's land. Regarding this matter they had already visited NEA office in Kharipati, Bhaktapur. NEA assured them that same road will be used for substation and width of road will not be narrowed. During construction period if any issues will be raised or any local peoples will feel disturbances appropriate mitigation measures will be adopted close coordination with locals.</p> <p>We have also visited in Lagankhel existing substation where 132 kV new substation will be constructed. Substation engineer Mr. Abhishek Jha and discussed with him about the proposed substation construction within the premises of existing substation. He facilitated to show us the available area where huge masses of electrical materials are stored. He also informed us that there are not any social issues within the compound of substation, but issue will be raised for power inlet and outlet of 132 kV line he further added. In this regards NEA will consult local peoples before finalization of inlet and outlet design.</p>
<p><b>2. Consultation meeting held in Dumkibas substation area:</b> Under this project, NEA proposed a 132/33 kV substation to be constructed in Dumkibas of Binayee Tribeni Rural Municipality, Ward No 2. The proposed site <i>has been visited jointly with NEA team and local peoples and discussed with local peoples including affected landowners. Proposed area found appropriate and having access of road. Views, concerns and recommendation made by locals about the proposed substation area collected.</i> The summary of major issues discussed are presented below.</p>	
10 February 2021	NEA proposed three locations for substation construction in Dumkibas and Arunkhola areas. 5 peoples from NEA (2 from head office and 3 from

<b>Date and Place of Consultation</b>	<b>Participants, Issues discussed and opinion and recommendation about the project</b>
Binayetribeni Rural Municipality, Ward No 2, East Nawalparasi.	regional office) jointly visited the proposed substation locations and conducted a consultation and discussion meeting with affected persons in Dumkibas of Binaye Tribeni Municipality Ward No 2, East Nawalparasi district. 6 local peoples residing surrounding area of proposed locations were consulted and discussed. NEA team briefed them about the objective of project and need of substation construction. Mr Dhupendra Jha, Project Manager of EGMP-AF described the need of substation construction and likely impacts due to involuntary land acquisition. Participants were also put their queries about the process and procedures to be followed for land acquisition and total area need to be acquired and benefit for local people after constructions of substation. After construction of substation electricity supply will be reliable in Dumkibas and in Arunkhola where new industries are establishing. In the proposed substation power will be tapped from tower no 11 or 12 of 132 kV line that is under construction for supplying power to Hongse Cement industry located Northern part of Dumkibas, briefed by Mr Jha. People were found positive for substation construction, but they recommended that adequate compensation must be ensured before acquiring their land. People expressed a desire for cash compensation so they can choose how to spend the money. Total 14 households are residing around the proposed locations and land will be acquired with 3 households only.
<b>Consultation meeting with the stakeholders along the Chova-Lagankhel Underground Transmission Line</b>	
17 March 2021 Chovar-Lagankhel 132 kV UG TL.	<p>Total 9 persons (8 male and 1 female) were consulted throughout the proposed alignment of Chovar-Lagankhel Underground Transmission Line. Main stakeholders consulted along this alignment were Ward Chair of Kirtipur Municipality Ward No 6, Jalabinayek Forest User Committee, Priest and Chairperson of Mahalaxmi Temple and other local people residing along the underground transmission route. First consultation was held with Ward Chair in Ward Office at Chovar. After briefing about the project to Ward Chair, he expressed his happiness about the power development project. He recommends to project team to design the project very carefully without any disturbances in historical, religious, and natural areas of Chovar. If any support will require for further assessment and discussion, ward level support will be provided as of necessary.</p> <p>Chairman of Forest User Committee also suggested that Forest around Chovar maintained is important for environmental point of view on the one hand and people can enjoy with greenery during weakened on the other hand. Forest User Committee collect charges from those visitors who come for picnic.</p> <p>Consultation with Chairman and Priest of Mahalaxmi Temple, Lalitpur has also been conducted. Mahalaxmi Temple is the famous God Laxmi's temple where thousands of devotees visit this temple every year. Project team described in detail about the project activities during underground construction. Chairman and Priest suggested that to avoid the possible impacts on temple area due to vibration, underground work should be carried out from opposite side of temple because the width of road and footpath is sufficient to do undergrounding the transmission line. Temple</p>

Date and Place of Consultation	Participants, Issues discussed and opinion and recommendation about the project
	Chairperson suggested that before starting the construction work further discussion will have to be conducted with technical team and concern persons of temple need to be informed in detail. In this regard, project team assured that NEA will consult to Temple Management and will discuss in detail of technical aspects.
<b>3. Consultation meeting and discussion in Kohalpur-Nepalgunj Transmission line:</b> <i>Consultation meetings with affected households as well as other peoples have been made in different locations of the transmission route and collected concerns, views and recommendations made by affected persons including concern Ward Chairs during consultation period. Two round of consultation meeting in same area have been conducted. First round of consultation was made during transect walk survey of alignment and consulted local people and discussed with them in brief and second round of consultation were organized during household survey of affected person and consultation was focused for disseminating project related information and collecting the concern of affected persons. Second round of consultation were held in six major settlements Bakaspur, Kapasi, Thanda, Shikhapur, Dhordpur, Chhanahawa and Chaudhariya Tole of Janaki Rural Municipality (ward No 5 &amp; 6) and Kohalpur Municipality (ward no 14 and 15) areas. Consultation was conducted in small groups considering the risk of COVID-19. The summary of major issues discussed during first and second round of consultation meetings are as follows.</i>	
21 March 2021, Janaki RM ward No 5 & 6, Bakaspur and Kapasi village, Banke. (Tower No 37, 38, 39 and 40 area)	<p>Total 21 (3 female and 18 male) participants from different Terai caste groups were participated. All participants were from the RoW and tower foundation area of tower no 37 to 40. Tower no 37 to 40 follow the embankment of existing Sikta Irrigation canal which is approximately 25 meters away from the center line of access road of canal. Barma/Kurmi, Muslim and few other Terai caste groups area residing in Bakaspur and Kapasi settlement area.</p> <p>In the beginning of the consultation meeting project team described about the objective of project, likely impacts on land and other assets in tower foundation area and under RoW. They were also informed that NEA will provide compensation of affected private as well as community assets along the transmission route. After briefing the project information, participants were asked to put their views and suggestions about project. The major issues raised by the participants are: i) adequate compensation of affected land; ii) recent market-based land valuation; iii) full compensation for restrictions to RoW area and iv) support for irrigation system (due to lack of irrigation facility in upper part of Kapasi village farmers depend on rainwater for cultivation and participants requested to project to provide either surface irrigation facility or ground water lifting system). People indicated their preference for cash compensation. Finally, they suggested that some section of this transmission route especially in Bakaspur area, all affected land parcels are connected with existing road the value of land very is high, and project should consider the possible mitigation measures for minimizing the impacts on these land parcels considering the commercial importance of land through alternatives design. Some participants raise the issues of risk of high-tension line and its safety measures to be followed by local as well as project site. They further suggested that (if possible), the alignment should be shifted either from roadside or follow the embankment of irrigation canal. Though, they</p>

Date and Place of Consultation	Participants, Issues discussed and opinion and recommendation about the project
	<p>have no objection for providing the land for transmission line construction, but adequate compensation must be ensured before project implementation. During discussion and field observation with locals around tower no 37 area one mango tree, three number timber trees might be removed during construction period. Tower no 32, 33, 34, 35, 36 and 37 are in Bakaspur and Kapasi area and pass from open farming land and few areas found covered with wheat crops. 33 kV distribution line cross near AP15 (tower no 34)</p>
<p>22 March 2021, Kohalpur Municipaliriy, Ward No 14 &amp; 15, Dhorpur &amp; Chaudhariya Tole, Banke district</p>	<p>Total 16 participants (12 male and 4 female) were attended the consultation meeting. Tharu are dominant groups in this settlement and followed by Yadav and Chidimar (Terai Dalit) in Dhorpur and Chaudhariya Tole. 14 participants were from Tharu community. Project team briefly introduced the transmission line project, need of land for tower foundation and for maintaining the ROW throughout the alignment and provision of compensation of affected land and other assets. They were also shown the route map of alignment of transmission line and impact on land. In both village alignment passes from the open agricultural farming land which are far from the settlement area.</p> <p>After disseminating the project related information, requested them to put their questions and queries related to project. Tharu community leader Mr Jagat Ram Tharu expressed his views representing the whole community. He raised main two issues first one is project should provide detailed information of affected land parcels including affected area for tower erection and ROW to landowners before starting the construction work. Second issue was impact and risk of high-tension electricity cable especially during farming season. Another important issue raised by the participants was adequate compensation of affected land. They are found very happy with compensation provided by Siktta Irrigation project and recommended to follow the same compensation rate so that affected household could buy more and better land after receiving compensation.</p> <p>All participants were found very positive and supportive toward project, but their demand was equal compensation of RoW and tower foundation area.</p> <p>During consultation participants were also asked about their cultural practices, languages they speak, community resources, natural resources that Tharu community are using, worship places etc. As they informed Tharu Indigenous Peoples have their own Tharu language, they follow Hindu religion and they constructed God Shiva Temple within village. They have no such natural resources and common places where traditionally they depend on it. All Tharu have their own land and their livelihoods completely depend on agricultural production.</p>
<p>23 March 2021, Kohalpur Municipality, Ward No 15,</p>	<p>Chanahawa Village is also known as Tharu settlement where about 223 households of Tharu Indigenous Peoples are living in surrounding area. The consultation meeting with affected as well as other stakeholders in Chanahawa village has been organized and total 16 participants were participated in the discussion. Most of the affected households were found</p>

<b>Date and Place of Consultation</b>	<b>Participants, Issues discussed and opinion and recommendation about the project</b>
Channahawa Village	<p>familiar about transmission line because the technical survey team informed them about the proposed route of transmission line. During consultation, the project team also described in detail about project and potential impacts on land and other assets. They also informed about the provision of cash compensation for affected land and other assets, provision of other resettlement assistance to vulnerable households and other capacity enhancement activities.</p> <p>Major issue raised by the participants was compensation rate of losses assets, especially of land because the Siktta Irrigation Project provided them adequate compensation and affected households found satisfied with compensation provided by irrigation project. And based on this experience all affected households suggested to EGMP-AF to decide same compensation rate of affected land. In this regards project team clarified that compensation determination committee will fix the rate of affected assets and project will only facilitate to the committee but compensation will be provided in replacement value.</p> <p>During consultation discussion was also focused on Thrus's cultural practices, major economic activities, and sacred and worship places. Participants informed us that farming is the major source of income and livelihoods of all households. There is no specific places or natural resources found where Tharu's livelihood and other cultural and traditional practices located. Therefore, project will not impact on Tharus traditional cultural practices, dignity, identity, and livelihood practices due to construction of transmission line.</p>
26 March 2021, Kohalpur Municipality, Ward No 14, Thada Village & Janki Rural Municipality 5, Shikhapur	<p>Consultation was held in Thanda village of Kohalpur Municipality ward no 14 and Sheekhapur of Janaki Rural Municipality ward no 5. Total 14 number of affected persons (10 male and 4 female) were participated in the consultation. In both settlement Terai Dalit caste (Khatik) groups are residing and all participants were also Dalit caste groups. Project related information have been disseminated in the beginning verbally. Transmission will pass from their land which are situated far from the settlement and they were informed about land required for tower erection and maintaining ROW.</p> <p>All participants expressed their support for constructing transmission line, but they put their queries that how much land will be loosed in RoW and tower foundation area Project team clarified the total area of tower foundation and ROW area. This Khatik community had no objection to providing the required land for constructing transmission line but wished to be compensated in cash for the affected area according to recent market values of land. Due to lack of skill and education among Khatik community, almost young generation are unemployed, and they suggested to project to provide the market-oriented skill training.</p>
<b>Consultation meeting summary during transect walk survey.</b> From 12-15 February 2021 transect walk survey of Kohalpur-Nepalgunj transmission route have been conducted and during	

<b>Date and Place of Consultation</b>	<b>Participants, Issues discussed and opinion and recommendation about the project</b>
that period consultation with available local peoples, affected persons and respective Ward Level representatives have been made. Summary of consultation is presented below.	
14 February 2021. Janaki Rural Municipality Ward No 6, Ganapur, Banke.	The alignment passes from Ward No 6 of Janaki Rural Municipality and we have met Ward Chair Mr Suresh Ahir and other representatives in his office at Ganapur, Banke. We have briefed them about the project objective and likely impacts on land for tower foundation and maintaining RoW in Ward 6 of Janaki Rural Municipality area. He put his queries about the compensation provision for affected private land and other assets. Land Acquisition Act will follow for acquiring land permanently but in case of maintaining ROW where land will be restricted for constructing permanent types of structures and compensation will be provided as per Electricity Act, we clarified to all representatives of Wards. Finally, ward chair Mr Ahir suggested to project for consulting affected households and take consent before implementation of the project and also ensure adequate compensation of affected land both tower foundation and ROW area. He again recommended to project for making regular and close coordination with respective wards. If required, ward level support will be provided to project.
14 February 2021. Janaki Rural Municipality Ward No 5, Belari, Banke.	We have also made consultation meeting with Ward Chair Mr. Ramesh Kumar Barma, Janaki Rural Municipality, Ward No 5 in Belari of Banke district. We shortly informed him about the alignment route of transmission line showing the satellite map with tower foundation area and required area for maintaining ROW of transmission cable. Compensation of affected land and other assets will be provided as per the prevailing Acts and Laws of Government of Nepal and NEA will coordinate and facilitate for all these processes of land acquisition, we informed him. He suggested to project that alignment should follow the embankment of irrigation channel or roadsides which will minimize the impacts on commercial land.
14 February 2021, Sikta Irrigation Project, Nepalgunj, Banke	Almost alignment of transmission line is within the command area of Sikta irrigation project, and some sections of transmission line will follow the embankment of main and secondary cannel of Sikta. To know the overall planning of Sikta Irrigation Project, we have consulted Mr. Lok Bahadur Thapa, Project Director, Sikta Irrigation Project in Nepalgunj. During the consultation we informed him about the transmission line and its proposed underground and overhead transmission line route. He elaborated the objective of Sikta Irrigation Project and the command area of project is highly potential for agricultural production after the completion of different level of irrigation channel. He emphasized for agricultural related support instead of industrial development throughout the transmission alignment and substation area. If there is a real requirement of more power supply, design of transmission line should not disturb the irrigation system because Irrigation Project have already acquired required land for channel construction and project will not allowed to construct transmission line following the channel but in case of unavoidable situation NEA's technical design should be acceptable to irrigation project, he further elaborated.



Date and Place of Consultation	Participants, Issues discussed and opinion and recommendation about the project
14 February 2021. Baijanath Rural Municipality, Ward No 5, Bankattwa, Banke	<p>The ward level consultation meeting has been held in no. 5 Ward Office of Baijhanath Rural Municipality at Bankatawa, Banke. Ward Chair Mr Man Bahadur Khatri and other ward level representatives and local people participated in the consultation meeting. However, duration of meeting was very short but important issues were discussed and agreed with them. In the beginning we have briefed the project objective and project facilities to be constructed with this Ward area. Small portion of Ward will be affected because tower no. 19 of Kohalpur-Mahendranagar 132 kV Transmission Line is in this ward area and power will be trapped from that tower. We informed to the Ward Chair including other representatives about the likely impact of project on private land and other assets due to land acquisition for tower foundation area and maintaining ROW. The major concern of Ward Chair are: i) Avoidance of residential building during selecting or designing the tower foundation location and RoW; ii) In unavoidable situation NEA should ensure adequate cash compensation including required other assistance; iii) Tower no. 19 is located southern part of East West Highway and this area is connected with Kohalpur market and growing as a residential area and the value of land is rapidly growing, therefore, before finalizing the route intensive assessment will require to mitigate the impacts of transmission line. Finally, he suggested that due to transmission line the value of private land should not be hampered.</p>
15 February 2021, Janaki Rural Municipality, Ward No 6, Amritpur, Banke. Around tower no 27 and 28.	<p>Two brothers Joghnan Dhobi and Juddi Dhobi both are residing in government land. As they informed us total occupied government land is 0.34 ha. Two structures where they are living will be felled under transmission line and need to be shifted back from the present location. We have discussed with them and both brothers have their own land in Kapasi village and other members of family are residing there. The occupied land has no irrigation facility and only Monsoon seasonal crops could plant. We have informed them about the transmission line project and anticipated impacts on their structures. Both households have no objection for shifting the structures back from the center line and they requested to project for financial support to shift and construct the new house.</p> <p>Around the tower no. 31 found a playground (in government land) which is developed by Janaki Rural Municipality and a temporary shed is also constructed by Municipality for playground of that area. This temporary shed will also be affected due to transmission line.</p>
15 February 2021, Janaki Rural Municipality, Ward No 6, Amritpur, Banke (Tower no 18, 26, 26)	<p>The consultation with affected households around tower no. 28 has been made and three people were consulted. The land occupied by locals is belong to government land. During consultation they informed us that they are residing since last 15 years. Each household occupied about 0.51 ha of government land and all households who occupied government land are paying tax to local government regularly. Ram Kumar Khatik will be affected due to erection of tower no 28. We have informed him about the project and tower foundation area and transmission cable. They have no objection or development of transmission cable from their land, but their</p>

Date and Place of Consultation	Participants, Issues discussed and opinion and recommendation about the project
	residential houses should not be in risk for maintaining ROW. No other issues were raised and found positive for project.
15 February 2021, Kohalpur Municipality, Ward No 14, Prempur, Banke	Another consultation with local people has been made around tower no 23 area. Mr Tham Bahadur Pun who is migrated from Dang district and residing there since last 6 year informed us about land where 23 no. tower will be erected. The owner of that location is residing in Nepalgunj and operating other business. As we observed during walkover survey. The affected area is highly productive area for Paddy and wheat. A Crusher Industry is operating near AP10 (tower no 22), and a cross material dumping will be affected due to tower foundation and maintaining RoW. We have consulted with Mr Shiva Yadav, Manager of crosses industry and he has no objection for transmission line because other land will be rented for dumping the material.

## Appendix D: Photographs

### Photographs of Mulpani and Lagankhel Substation and Underground 143 kV Chovar-Lagankhel Transmission Lines



Munpani substation location and 132 kV Chapali to Bhaktapur TL



Mulapni substation site from another angle



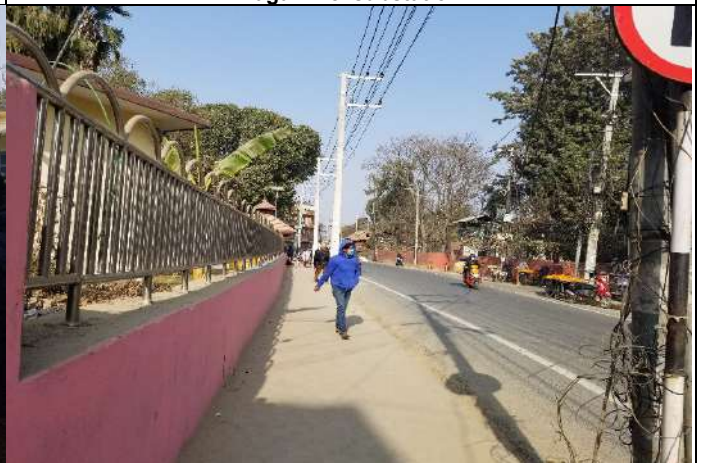
Proposed site for 132 kV SS in within existing Lagankhel substation



From another proposed site for 132 kV SS in within existing Lagankhel substation



Lagankhel existing substation



Proposed underground TI route near Lagankhel substation





**Proposed underground TL route between Lagankhel substation and Mahalaxmi Temple area**



**Proposed underground TL route near Lagankhel substation area**



**Chovar Bridge over Bagmati River and Proposed UG Route of Chovar-Lagankhel (16 March 2021)**



**Chovar-Lagankhel alignment visit by NEA, ADB team (16 March 2021)**

## Consultation and Site Visit Photographs of Kohalpur-Nepalgunj 132 Transmission Line



Consultation in Bakaspur village, Janaki RM-5, Banke



Discussing with local peoples near Bakaspur, village



Survey team at tower no 20 observing field with affected persons



A consultation with affected woman headed households at Kohalpur Municipality 14-Chanahawa, Banke.





**Consultation with Affected people (Tharu women headed)  
Kohalpur Municipality-15, Chaudhariya Village.**



**Consultation with Ward Chair Mr Ramesh Kumar Barma, Janaki  
RM-5**



**Local people discussing In Baijanath RM-5, Bankatawa, Bank**



**Env't Expert discussing with Ward Chair Mr Man Bdr Khatri,  
Baijanath RM-5, Banke**



**Consultation with Suresh Ahir, Ward Chair and other representatives of Janaki RM-6, Ganapur, Banke.**



**Consultatio meeting with locals and affected persons at Shiva Temple, Kohalpur Municipality-15, Chaudhariya Village**



**A Photographs after consultation with affected household in Kohalpur-14**



**A public structure (shed) in playground, constructed in government land fall under transmission cable**





Consultation with Joghnan Dhobi and his affected structure around tower no 29, Amprampur



Consultation with Gulav Khatik around tower no 28, Amprampur



Env't Expert showing photos of animals whether these are found



Consultation with affected peoples in Chanahawa village, Kohalpur Municipality, ward no 15



Sikta Irrigation channel and proposed underground alignment along the access road



After discussion with PD, Lok Bahadur Thapa, Sikta Irrigation.



### Photos of Proposed Substation Location in Nepalgunj



### Photographs of Consultation in Proposed Dumkibas Substation



### Appendix E: Mini Plan & Computation Template

The project will pre-populate the form below based on analysis of official records. Form data will be taken to affected landowners for verification. Landowners will have the opportunity to offer corrections for reconsideration. Consultants will be informed with adequate tools to make adjustments to compensation offers based on corrections offered in the field.

Form Number:	
Plot Number:	
Land Owner:	

#### Land Compensation

S.N	Type	Plot Size (unit)	Unit Rate*	Compensation Amount
Sub Total (A)				

\*The source of the unit rate is presented in the section 9.

#### Structure Compensation

S.N	Type	Structure Size (unit)	Features	Market Rate	Compensation Amount
Sub Total (B)					

\*The source of the unit rate is presented in the section 9.

#### Assets Compensation

S.N	Type	Number	Productive Period	Year Yield	Unit Rate per year	Amount
	Fruit Trees					
	Timber Trees					
	Other Trees					
	Crops					
Sub Total (C)						

\*The source of the unit rate is presented in the section.

#### Assistance and Allowances

S.N	Particular	Eligibility (yes/no)	Entitlement	Measure	Amount
	Livelihood				
	Vulnerable				
Sub Total (D)					

\*The source of the unit rate is presented in the section 9.

Total compensation, assistance and allowance amount from subtotals (A)+(B)+(C)+(D).

Payment method:

Reference Data

[Data demonstrating that the unit rate is based on a fair market price, for example:]

S.N	Particular	Official registered rate	Market rate	Determined rate	Remarks
	Land unit rate				
	Structure unit rate				
	Fruit tree unit rate				
	Timber tree unite rate				

The information indicated above is explained, discussed and agreed between the owner and the THL, and it is observed by the consultant(s) engaged with Asian Development Bank.

Upon receipt of the compensation and allowances agreed, the owner will permit THL to take over the land and/or asset and transfer its ownership to the THL.

Date:

For agreement

For acknowledgement

-----  
Signature of the owner

-----  
Signature of the consultant 1

-----  
Signature of the THL

-----  
Signature of the consultant 2

## Appendix F: Sample of Completed Field Survey Forms

## Dumkibas Substation – Household Survey Form

The image displays 12 sample completed field survey forms for the Dumkibas Substation Household Survey, arranged in three rows of four. Each form contains various tables, charts, and text fields for data collection. The forms are numbered 1 through 12. The forms include sections for household information, electricity usage, and other relevant data. The forms are filled out with handwritten data in blue ink.

Form 1: Household Information. Includes sections for household details, electricity usage, and other relevant data.

Form 2: Electricity Usage. Includes sections for electricity usage, household details, and other relevant data.

Form 3: Household Information. Includes sections for household details, electricity usage, and other relevant data.

Form 4: Electricity Usage. Includes sections for electricity usage, household details, and other relevant data.

Form 5: Household Information. Includes sections for household details, electricity usage, and other relevant data.

Form 6: Electricity Usage. Includes sections for electricity usage, household details, and other relevant data.

Form 7: Household Information. Includes sections for household details, electricity usage, and other relevant data.

Form 8: Electricity Usage. Includes sections for electricity usage, household details, and other relevant data.

Form 9: Household Information. Includes sections for household details, electricity usage, and other relevant data.

Form 10: Electricity Usage. Includes sections for electricity usage, household details, and other relevant data.

Form 11: Household Information. Includes sections for household details, electricity usage, and other relevant data.

Form 12: Electricity Usage. Includes sections for electricity usage, household details, and other relevant data.



## Kohalpur-Nepalgunj Transmission Line: Household Survey Form

The images show ten individual pages of a household survey form. The forms are filled out with handwritten text in Nepali and English. The sections include:

- Household Information:** Name, address, and contact details.
- Electricity Usage:** Details about the electricity connection, including the meter and the type of connection.
- Appliance Ownership:** A list of electrical appliances owned by the household, such as fans, lights, and refrigerators.
- Surveyor Information:** Details about the person conducting the survey.

Each form has a small label at the bottom indicating it is a 'Scan with CamScanner'.

## Kohalpur-Nepalgunj Transmission Line: Focus Group Discussion (FGD) Survey Form

[illegible]

## Appendix G: Booklet/Information Brochures

### I. Project Description

1. The proposed additional financing for the project is the continuation of the original loan. This additional will finance to increase and modernize the power transmission system capacity in Kathmandu valley and outside valley which will increase the access of connectivity of electricity grid power of those parts where people are facing low quality and unreliable electricity supply. Nepal Electricity Authority (NEA) will be responsible for implementing the all-project activities.

2. The project is expected to be completed by 2026. The total time for project implementation after loan effectiveness is estimated at 6 years for detailed design, engineering, tender preparation, evaluation and contract award.

3. This draft Resettlement and Indigenous Plan (RIPP) is for the proposed Electricity Grid Modernization Project (hereafter 'the Project'). The Nepal Electricity Authority is the Executing Agency for the project and is responsible for all project activities.

4. **The project aims to achieve two main outputs.** The proposed additional financing will yield expansion of output 1 and 2 (transmission and distribution network expansion and strengthening) of the original project. Under output 1, an additional 16 km 132 kV transmission line from Kohalpur to Nepalgunj and from Chovar to Lagankhel, plus an additional 501 megavolt-ampere (MVA) of substation capacity in Dumkibas, Lagankhel, Mulpani and Nepalgunj will be constructed and under output 2, an Enterprise Resource Planning (ERP) and a Revenue Management System (RMS) will be implemented with a project supervision consultant firm appointed to enhance supply and system security

5. **Output 1:** There are 6 subprojects under output 1. They are:

- i. Subproject 1: Construction of 6 km of underground 132kV transmission line from Chovar to Lagankhel existing Substation for Kathmandu Valley Transmission Reinforcement;
- ii. Subproject 2: Construction of 10.46 km of 132 kV overhead transmission line from Kohalpur to Janaki Rural Municipality, Nepalgunj, Banke district of Lumbini Province; Construction of 132/33kV Substation at Janaki Rural Municipality, Nepalgunj;
- iii. Subproject 3: Construction of 132kV substation in Nepalgunj, Banke
- iv. Subproject 4: Construction of 132/33 kV substation at Dumkibas;
- v. Subproject 5: Construction of 132/11kV Substation at Mulpani and;
- vi. Subproject 6: Upgradation of Lagankhel existing substation with 132/33 kV. This will help to cater the unserved energy and demand of electricity for domestic as well as industrial consumers.

### Summary of Impacts

S. No.	Impacts	Quantity	Mitigation Measures
1	Physical relocation (not applicable to majority of affected people).	9 HHs	Due to loss of residential building, few individuals would need to be resettled for the Project. Practice throughout Nepal indicates that cash compensation plus resettlement assistance is preferred by most stakeholders, with fewer interested in land for land. Both options will be consulted with affected stakeholders. The Project will analyze for alternative siting options.
2	Loss of land.	6.62 ha for SS and tower pad and 29.07 for ROW	Few households will lose land to the Project. Practice throughout Nepal indicates that cash compensation plus resettlement assistance is preferred by most stakeholders, with fewer interested in land for land. Both options will be consulted with affected stakeholders. The Project will analyze for alternative siting options.
3	Loss of access to land	NA	People and communities living in the areas near to the Project will experience temporary impacts from loss of access to land and resources. After Project construction, those living near to the Project will regain use all lands except for those physically occupied by Project infrastructure.
4	Diminished or altered access to natural resources	NA	The Project will have little consequence for access to natural resources. While access to Project area will be restricted during installation of new transmission lines, substation construction, and extension of new substations, these activities are not anticipated adversely impact on affected people.
5	Loss of productive economic resources and livelihood impacts.	9 HHs	Tower siting will be pre-consulted with affected stakeholder to avoid requiring greater than 10% of the affected person's total land holdings.
6	Loss of cultural heritage resources.	NA	The Project is not anticipated to affect cultural heritage resources. The project will put into place a 'Chance Finds Protocol' (or similar) and will ensure construction contractors are trained in the mitigation of risk to physical cultural heritage.

### Entitlements, Assistance and Benefits

Type of Loss	Entitled Person	Entitlement
Loss of land	Legal title or legalizable right	Cash compensation at replacement value
	Tenant/sharecroppers and leaseholders	50% amount will be paid to tenant and sharecroppers and for leaseholders 100% rental value of land will be provided.
	Owner without legal title (squatters, informal dwellers, encroachers)	Cash compensation of non-land assets (no compensation for land)
	Contractor use land temporarily	Based on MoU between contractor and land owner,
	Having legal title, non-titleholders or encroachers/squatters.	Cash compensation at replacement value, one time shifting allowances @ NPR 30,000 or at the transport rate of concern local government and All households losing residential structures will be



Type of Loss	Entitled Person	Entitlement
Loss of structures: commercial and residential		provided up to 6 months transitional subsistence allowances to meet the cost of renting for accommodation and other management cost (estimated time for rebuilding the house) @ NPR 20,000.00 per months i.e. total 120,000.00 per affected/displaced household
Loss of livelihood	Business, tenants, leaseholders, employee, agricultural workers, mobile vendors, wage labors	<p>All affected households are eligible to enroll at no cost in livelihood enhancement program, according to the preferences of affected households and aligned to opportunities in the local market. Project-provided trainings will aim at helping affected people to diversify their sources of income. Specific topics of training will be finalized through TNA of target trainee. Affected households losing lands will receive a transitional allowance for the duration of construction activities (period of disruption), which is estimated to last on average for a period 60 days. Amounts will be calculated using the current years' agricultural labor rate fixed by Local government or NRs 60,000 (whichever greater). Households receiving additional cash assistance as a severely affected households or vulnerable households will not be eligible for this assistance.</p> <p>Business affected by construction activities will receive a transitional allowance of one-time cash assistance of NRs 60,000, which is based on current district labor rates [equivalent to 60 days @ of NRs 1,000/day or the equivalent amount for the duration of construction activities.</p> <p>Employees of businesses being economically impacted will be paid a transitional allowance equivalent to NRs 60,000, or the equivalent amount for the duration of construction activities whichever is greater.</p> <p>Mobile vendors/hawkers (if found) will receive a transitional cash assistance to shift economic activity; this amount will ensure that affected people's livelihoods are not lower than the current district labor rates [NRs 1,000/day] for the duration of construction activities.</p>
Loss of crops, fruits and timber tress	owners with legal title, tenants, leaseholders, squatters	For immature, non-bearing fruit/crop trees, asset owners will receive replacement value calculated as the average annal

Type of Loss	Entitled Person	Entitlement
		<p>harvest values/ yearly production for the same fruit/crop multiplied by the years that the tree must grow before reaching productive age. Where tenants claim rights to trees, the project will divide compensation payments equally between asset owners and tenants.</p> <p>For mature fruit trees, asset owners will receive replacement value calculated as average annual harvest values/ yearly production value for lost productive life of the crop plus cost of seedling and required input to replace the asserts; values will be calculated based on rate established by the concerned Kirshi Gyan Kendra and will account for existing market rate.</p> <p>Matured non-fruit trees or timber bearing trees will follow the rate calculated in cubic meter (height multiplied by girth and diameter) by concerned Forest Offices/Department; market rate including cost of cutting and shifting will be provided. For the immature timber trees cost of seedling and required input to grow and replace new trees will be calculated.</p>
Severely Affected Households	HHs losing residential home and over 10% of their productive land or income sources and displaced households	<p>Severely affected households and vulnerable households are entitled to information about the project in a language understandable to them. The project commits to working in good faith with stakeholders to clearly communicate projects impacts, mitigation measures, and entitlements.</p> <p>Additional one-time cash assistance of Nrs.100,000.00 will be provided to for each severely affected household to offset stresses of resettlement and the help ensure maintenance of daily subsistence during the transitional period</p>
Vulnerable Households	Households headed by women, persons with disabilities, elderly, indigenous HHs, those households who will lose more than 10% of productive assets and residential houses.	<p>90 days wage rate cash assistance and additional onetime cash assistance of 60,000 NRs per household will be provided. One time assistance will be provided based on vulnerability but not double counting.</p> <p>Enrolment of the family members in income generation or skill training activities for the improvement of household income. Priority to them for local contractor's work.</p>
Loss of cultural & community structures /facilities/resources	Community/cultural/ religious structures/ resources affected by the project	Cash compensation for restoring/ reestablishment of the affected cultural/community structures and

Type of Loss	Entitled Person	Entitlement
		installations, to the recognized patron/custodian.

## II. Cut-off Date

6. For each of the following areas affected households have already been identified and a cut-off date will be posted once the engineering design finalized.

Location/Subproject	Cut-off Date
Kohalpur-Nepalgunj 132 kV transmission line (subproject 2)	Affected households have been identified. Land acquisition process will be started after finalization of engineering design. Deadline of land acquisition notice will be cut-off date and for non-title holders final engineering design will be the cut-off date
Nepalgunj Substation (subproject 3)	Identified Nepalgunj substation site and land acquisition process will be started and land acquisition notice published by CDC will be the Cut-off date.
Dumkibas Substation (subproject 4)	Substation site in Dumkibas has identified. Cut-off date will be the deadline of land acquisition notice published by CDC.

7. Correction to the cut-off date will be determined on a case-by-case basis among those engaging the project with a claim. Few claims are expected for this project.

8. For those areas where the cut-off date is not posted, this information will be available from your Rural/Municipalities and Ward offices.

## III. Eligibility

9. Information for public notification:

Notification of Eligibility for Project Compensation
<p>You may be eligible for benefits if:</p> <ul style="list-style-type: none"> <li>You lived in, or had connections to, the project area prior to the cut-off date.</li> <li>You utilized the project area for productive purposes (income/livelihood) prior to the cut-off date.</li> <li>You are being resettled due to the project.</li> <li>You are being losing land to the project.</li> <li>You are losing access to land or natural economic resources because of the project (e.g. Forest Users).</li> </ul> <p>If the project has not contacted you about your benefits and you feel that you are impacted, you may request to be included in project planning. Claims are examined on a case by case basis and decided more expediently where the claimant prepares supporting evidence of entitlements.</p>

## IV. Compensation

10. Compensation of land and other assets will have to be paid to affected persons prior to contractors mobilization in field. The compensation payment will be made through bank cheque or compensation amounts will be deposited directly in the bank account of the affected households. NEA can request landowners to open joint account for husbands and wives.

## **V. Information Dissemination and Stakeholders Consultation**

11. During the project preparation period several round of consultation meetings with local level stakeholders and affected households have been organized in different locations of subprojects. Project information including social and environmental requirement were disseminated to the stakeholders and issues and queries of participants were also discussed and clarified.

12. Additional consultation will take place with affected households as the design is finalized and will inform updates to this draft resettlement and Indigenous Peoples Plan. The draft and updated RIPP will be disclosed as per disclosure requirements laid out in ADB's Safeguard Policy Statement (2009). A Resettlement Brochure (based on the draft RIPP and subsequently updated for the final RIPP) will be translated into Nepalese and in local languages and distributed to all affected households as well as other general customers to ensure they understand their entitlements and other associated matters.

## **VI. Grievances Redress Mechanisms**

13. The additional financing of the project will follow the GRM mechanism established for original EGMP loan which is under implementation. to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances will be established. The proposed mechanism does not impede access to the country's judicial or administrative remedies. The affected person has the right to refer the grievances to appropriate courts of law at any stage of the process. The executing agency will ensure that affected persons have the right to approach courts of law any time during the process of grievances redress.

## **V. Institutional arrangement**

14. The NEA will serve as an executing agency and will implement all ADB funded project through its Project Management Department (PMD). PMD has established its own dedicated Environment and Social Safeguard Management Department (SSEMD) headed by director level and supported by required staff. If required SSEMD will hire required number of Environmental and Social Safeguard Specialist.

## **VI. Resettlement Budget**

15. The estimated cost for implementing this RIPP has been provisioned and as per requirement cost will be updated and revised. The source of funds will be managed by NEA in annual program.

### Appendix H: Estimated Cost of Affected Structures of Kohalpur-Nepalgunj and Dunmkibas substation

#### 1. Kohalpur-Nepalgunj Transmission line and affected structures with estimated cost

Type of structure	Name of Owner	Plinth Area (sq. ft.)	No. of story	Total area (sq.ft.)	Total quantity affected	Cost for land occupied by structure based on plinth area		Construction Cost of Structure based on total area		Total Compensation Cost (NRs)
						Rate (NRs/sq.ft.)	Amount (NRs)	Rate (NRs./sq.ft.)	Amount (NRs)	
1. House		136	1	136		500	68,000	LS	50,000	118,000.00
		112	1	112		500	56,000	LS	50,000	106,000.00
	<b>Total (1)</b>	<b>248</b>		<b>248</b>						<b>224,000.00</b>
2. Shed (public)		LS	LS	LS	LS	LS				100,000.00
	<b>Total (2)</b>									<b>100,000.00</b>
3. Hand Pump			-	-	1	-	-			15,000.00
			-	-		-	-			
	<b>Total (3)</b>									<b>339,000.00</b>

Note: construction cost for the structures is calculated on the basis of the consultation with affected household owner and cost of hand pump is calculated based on installation cost and public shed also calculated based on construction cost including adding shifting cost.

## 2. Dumkibas Substation and details of affected structures and estimated cost.

S No	Name of owner	Types of structures and estimated cost												Total cost of structures of individual house
		Residential houses						Separate kitchen		Toilet		Separate shed		
		NO	Residential houses	Kitchen attached with residential house	Baranda or open terrace attached with residential house	Sheds attached with residential house	Total cost of houses with attached structures	No	Cost of Kitchen	No	Cost of toilet	No	Cost	
1		1	2,000,000.00		20,000.00		2,020,000.00			1	30,000.00	1	45,000.00	2,095,000.00
2		1	2,200,000.00		25,000.00		2,225,000.00			1	30,000.00	1	55,000.00	2,310,000.00
3		1	1,950,000.00	50,000.00	26,000.00		2,026,000.00							2,026,000.00
4		1	1,500,000.00			20,000.00	1,520,000.00			1	30,000.00	1	10,000.00	1,560,000.00
5		1	2,000,000.00				2,000,000.00			1	50,000.00	1	20,000.00	2,070,000.00
6		2	4,700,000.00			120,000.00	4,820,000.00	1	100,000.00	1	30,000.00	1	250,000.00	5,100,000.00
7		1	2,000,000.00	35,000.00		20,000.00	2,055,000.00			1	30,000.00			2,085,000.00
8		1	3,000,000.00			15,000.00	3,015,000.00			1	30,000.00			3,045,000.00
Total cost		9	19,350,000.00	85,000.00	71,000.00	175,000.00	19,681,000.00	1	100,000.00	7	230,000.00	5	380,000.00	20,291,000.00

Source: Field survey, 2021 and consultation with affected households

Note: Cost of structures calculated based on construction cost of same types of structures and cost may vary from the engineering point of view. Total area of each structures in presented in Appendix K.

**Appendix I: Details of Tree/Fruit Trees Loss**

S No	Name of Owner	Name of trees/fruit		Age (year)	Height (m)	Quantity
		Local Name	Scientific Name			
Tree/fruit trees affected in Kohalpur Nepalgunj Transmission line						
1		Masala tree	Eucalyptus	4-5 yrs	4	250
2		Masala tree	Eucalyptus	3-4 yrs	3	25
3		Sisau tree	Dalbergia Sissoo	15 yrs	15	3
4		Mango fruit tree		12 yrs	9	1
5		Masala tree	Eucalyptus	2 yrs	2.5	14
Tree/fruit trees affected in Dumkibas substation						0
6	Durga Bahadue Tamang	Mango fruit tree		4 yrs	3	2
Total						295

### Appendix J: Affected Parcel and Land Loss Status of Tower Pad Area

#### Total land parcels and affected area in tower foundation area with loss percent

S NO	Owner Name	District	VDC Name	Ward No	Parcel type	Tower No	Parcel No	Affected by tower area	Total area of affected parcel	Affected by RoW area	Land in other area (sqm)	Total Holding	% of loss in tower pad area from the affected parcels
1		Banke	Samsergunj	4	0	2	290002	157.00	5896.47	800		5896.47	2.66
2		Banke	Samsergunj	4	0	3	650	22.00	5020.97	631		5020.97	0.44
3		Banke	Samsergunj	4	0	3	32	135.00	2695.08	5		2695.08	5.01
4		Banke	Samsergunj	4	0	4	580	93.00	5631.43	428		5631.43	1.65
5		Banke	Samsergunj	4	0	4	576002	64.00	1150.50	775		1150.50	5.56
6		Banke	Samsergunj	4	0	5	145	13.00	3433.76	748		3433.76	0.38
7		Banke	Samsergunj	4	0	5	691	143.00	2902.87	599		2902.87	4.93
8		Banke	Samsergunj	4	0	6	134	113.00	1834.41	247		1834.41	6.16
9		Banke	Samsergunj	4	0	6	133	39.00	1468.94	546		1468.94	2.65
10		Banke	Samsergunj	4	0	6	717	4.00	206.34	0.85		206.34	1.94
11		Banke	Samsergunj	4	0	7	49	155.00	4186.82	1100		4186.82	3.70
12		Banke	Samsergunj	4	60	7	370001	2.00	5186.14	547		5186.14	0.04
13		Banke	Samsergunj	4	0	8	149	31.00	4296.29	106		4296.29	0.72
14		Banke	Samsergunj	4	0	8	148	126.00	3742.42	943		3742.42	3.37
15		Banke	Samsergunj	3	0	9	44	18.00	22608.76	88		22608.76	0.08
16		Banke	Samsergunj	3	0	9	174	110.00	3551.40	183		3551.40	3.10



S NO	Owner Name	District	VDC Name	Ward No	Parcel type	Tower No	Parcel No	Affected by tower area	Total area of affected parcel	Affected by RoW area	Land in other area (sqm)	Total Holding	% of loss in tower pad area from the affected parcels
17		Banke	Samsergunj	3	0	9	173	29.00	29364.78	2792		29364.78	0.10
18		Banke	Samsergunj	3	0	10	154001	3.00	537.98	41		537.98	0.56
19		Banke	Samsergunj	3	0	10	199	154.00	8688.32	2694		8688.32	1.77
20		Banke	Samsergunj	3	0	11	999995	80.00	1383.36	187		1383.36	5.78
21		Banke	Samsergunj	3	0	11	108	76.00	7293.76	1450		7293.76	1.04
22		Banke	Samsergunj	6	0	12	24	157.00	6950.37	1795		6950.37	2.26
23		Banke	Samsergunj	9	0	13	31	154.00	6634.52	697		6634.52	2.32
24		Banke	Samsergunj	9	0	13	30	2.00	3706.89	375		3706.89	0.05
25		Banke	Samsergunj	6	0	14	365	157.00	11591.66	2347		11591.66	1.35
26		Banke	Samsergunj	6	0	15	103	39.00	3566.12	839		3566.12	1.09
27		Banke	Samsergunj	6	0	15	425	118.00	3712.56	465		3712.56	3.18
28		Banke	Samsergunj	5	0	16	244	12.00	634.78	55		634.78	1.89
29		Banke	Samsergunj	5	0	16	999961	145.00	1649.80	980		1649.80	8.79
30		Banke	Samsergunj	5	0	17	117	43.00	2547.91	306		2547.91	1.69
31		Banke	Samsergunj	5	0	17	209	113.00	1122.41	665	1463.22	2585.63	4.37
32		Banke	Samsergunj	5	0	18	233	4.00	810.27	418		810.27	0.49
33		Banke	Samsergunj	5	0	18	237	35.00	301.30	183	6772.63	7073.93	0.49
34		Banke	Samsergunj	5	0	18	235	113.00	335.95	335	122.74	458.69	24.64
35		Banke	Samsergunj	5	0	18	236	4.00	122.75	119		122.75	3.26

S NO	Owner Name	District	VDC Name	Ward No	Parcel type	Tower No	Parcel No	Affected by tower area	Total area of affected parcel	Affected by RoW area	Land in other area (sqm)	Total Holding	% of loss in tower pad area from the affected parcels
36		Banke	Samsergunj	5	0	19	571	157.00	3241.44	874		3241.44	4.84
37		Banke	Samsergunj	5	0	20	34	94.00	690.37	587	332.37	1022.74	9.19
38		Banke	Samsergunj	2	0	20	590	55.00	16274.43	1374		16274.43	0.34
39		Banke	Samsergunj	5	0	20	35	6.00	332.56	30		332.56	1.80
40		Banke	Samsergunj	2	0	21	612	156.13	3111.91	404		3111.91	5.02
41		Banke	Samsergunj	7	0	22	23	126.88	11019.30	623		11019.30	1.15
42		Banke	Samsergunj	7	0	22	151	29.86	7697.64	843		7697.64	0.39
43		Banke	Samsergunj	7	0	23	12	25.57	7347.68	132		7347.68	0.35
44		Banke	Samsergunj	7	0	23	13	131.18	3891.29	281		3891.29	3.37
45		Banke	Samsergunj	7	0	24	1435	156.75	4183.91	1624		4183.91	3.75
46		Banke	Samsergunj	7	0	25	1050	3.05	936.59	463		936.59	0.33
47		Banke	Samsergunj	7	0	26	96	156.75	2377.25	790		2377.25	6.59
48		Banke	Samsergunj	8	0	27	80	156.76	12795.32	1125		12795.32	1.23
49		Banke	Samsergunj	8	0	28	69	156.76	3146.57	175		3146.57	4.98
50		Banke	Samsergunj	8	0	29	10	90.04	5551.63	1458		5551.63	1.62
51		Banke	Bageshwori	9	0	29	3	31.14	33078.48	1128		33078.48	0.09
52		Banke	Bageshwori	9	0	29	4	35.58	6014.85	207		6014.85	0.59
53		Banke	Ganapur	8	0	30	12	156.76	6588.46	1863		6588.46	2.38
54		Banke	Ganapur	8	0	31	26	1.46	1529.31	670		1529.31	0.10

S NO	Owner Name	District	VDC Name	Ward No	Parcel type	Tower No	Parcel No	Affected by tower area	Total area of affected parcel	Affected by RoW area	Land in other area (sqm)	Total Holding	% of loss in tower pad area from the affected parcels
55		Banke	Ganapur	8	0	31	771	155.31	9895.80	1027		9895.80	1.57
56		Banke	Ganapur	8	0	32	38	46.37	3223.16	730		3223.16	1.44
57		Banke	Ganapur	8	0	32	857	44.22	2413.75	954		2413.75	1.83
58		Banke	Ganapur	8	0	32	768	66.18	3104.25	876		3104.25	2.13
59		Banke	Ganapur	8	0	33	51	147.67	1967.63	740		1967.63	7.50
60		Banke	Ganapur	8	0	33	52	9.11	5523.90	1163		5523.90	0.16
61		Banke	Belhari	7	0	34	223	156.66	2386.70	1280		2386.70	6.56
62		Banke	Belhari	7	0	35	266	127.61	1185.22	469	1485.84	2671.06	4.78
63		Banke	Belhari	7	0	35	264	29.17	803.47	479		803.47	3.63
64		Banke	Ganapur	7	0	36	625	141.05	4486.99	1788		4486.99	3.14
65		Banke	Ganapur	7	0	36	626	15.63	439.45	440		439.45	3.56
66		Banke	Ganapur	7	0	37	379	137.25	2331.29	825		2331.29	5.89
67		Banke	Ganapur	7	0	37	381	19.54	6091.05	961		6091.05	0.32
68		Banke	Ganapur	7	0	38	335	47.09	165.50	77		165.50	28.45
69		Banke	Ganapur	7	0	38	334	88.24	1023.45	386		1023.45	8.62
70		Banke	Ganapur	7	0	38	336	20.60	275.23	86		275.23	7.48
71		Banke	Ganapur	7	0	39	279	66.32	982.32	394		982.32	6.75
72		Banke	Ganapur	7	0	39	286	90.47	4523.70	1524		4523.70	2.00
	Total area affected for tower foundation (In SQM)							5798.11					
	Total area affected for tower foundation (In ha)							0.57					

### Appendix K: Affected Land of Tower Pad Area and Estimated Cost

S No.	AP	Tower No	Parcel No	VDC Name	Ward No	Total affected area (SQM)	Local unit (Katta)	Average Market local unit Rate (NRs)	Total cost (NRs)	Owner Name
1	AP 1	2	290002	Samshergunj	4	157.00				
2	AP 2	3	650	Samshergunj	4	22.00	0.06	2,000,000.00	120,000.00	
3	AP 2	3	32	Samshergunj	4	135.00	0.40	2,000,000.00	800,000.00	
4		4	580	Samshergunj	4	93.00	0.27	2,000,000.00	540,000.00	
5		4	576002	Samshergunj	4	64.00		2,000,000.00	0.00	
6	AP 3	5	145	Samshergunj	4	13.00	0.04	2,000,000.00	80,000.00	
7	AP 3	5	691	Samshergunj	4	143.00	0.42	2,000,000.00	840,000.00	
8		6	134	Samshergunj	4	113.00	0.33	2,000,000.00	660,000.00	
9		6	133	Samshergunj	4	39.00	0.12	2,000,000.00	240,000.00	
10		6	717	Samshergunj	4	4.00	0.01	2,000,000.00	20,000.00	
11	AP 4	7	49	Samshergunj	4	155.00	0.46	2,000,000.00	920,000.00	
12	AP 4	7	370001	Samshergunj	4	2.00		2,000,000.00	0.00	
13		8	149	Samshergunj	4	31.00	0.09	2,000,000.00	180,000.00	
14		8	148	Samshergunj	4	126.00	0.37	2,000,000.00	740,000.00	
15		9	44	Samsergunj	3	18.00	0.05	2,000,000.00	100,000.00	
16		9	174	Samsergunj	3	110.00	0.32	2,000,000.00	640,000.00	
17		9	173	Samshergunj	3	29.00	0.09	2,000,000.00	180,000.00	
18	AP 5	10	154001	Samshergunj	3	3.00	0.01	2,000,000.00	20,000.00	
19	AP 5	10	199	Samsergunj	3	154.00	0.45	2,000,000.00	900,000.00	
20		11	999995	Samshergunj	3	80.00	0.24	2,000,000.00	480,000.00	
21		11	108	Samshergunj	3	76.00	0.22	2,000,000.00	440,000.00	
22		12	24	Samsergunj	6	157.00	0.46	2,000,000.00	920,000.00	
23	AP 6	13	31	Samshergunj	9	154.00	0.46	2,000,000.00	920,000.00	
24	AP 6	13	30	Samshergunj	9	2.00	0.01	2,000,000.00	20,000.00	
25		14	365	Samsergunj	Samshergunj	157.00	0.46	2,000,000.00	920,000.00	

26		15	103	Samsergunj	Samshergunj	39.00	0.12	2,000,000.00	240,000.00	
27		15	425	Samsergunj	6	118.00	0.35	2,000,000.00	700,000.00	
28		16	244	Samsergunj	5	12.00	0.04	2,000,000.00	80,000.00	
29		16	999961		5	145.00		2,000,000.00	0.00	
30		17	117	Samsergunj	5	43.00	0.13	2,000,000.00	260,000.00	
31		17	209	Samsergunj	5	113.00	0.33	2,000,000.00	660,000.00	
32	AP 7	18	233	Samsergunj	5	4.00	0.01	2,000,000.00	20,000.00	
33	AP 7	18	237	Samsergunj	5	35.00	0.10	2,000,000.00	200,000.00	
34	AP 7	18	235	Samsergunj	5	113.00	0.13	2,000,000.00	266,000.00	
35	AP 7	18	236	Samsergunj	5	4.00	0.01	2,000,000.00	20,000.00	
36		19	571		5	157.00	0.46	2,000,000.00	920,000.00	
37	AP 8	20	34	Samsergunj	5	94.00	0.27	2,000,000.00	540,000.00	
38	AP 8	20	590	Samsergunj	2	55.00	0.16	2,000,000.00	320,000.00	
39	AP 8	20	35	Samsergunj	5	6.00	0.02	2,000,000.00	40,000.00	
40	AP 9	21	612	Samshergunj	2	156.13	0.46	2,000,000.00	920,000.00	
41	AP 10	22	23	Samshergunj	7	126.88	0.37	2,000,000.00	740,000.00	
42	AP 10	22	151	Samshergunj	7	29.86	0.09	2,000,000.00	180,000.00	
43		23	12	Samsergunj	7	25.57	0.08	2,000,000.00	160,000.00	
44		23	13	Samshergunj	7	131.18	0.39	2,000,000.00	780,000.00	
45		24	1435	Samshergunj	7	156.75	0.46	2,000,000.00	920,000.00	
46	AP 11	25	1050	Samshergunj	7	3.05	0.01	2,000,000.00	20,000.00	
47		26	96	Samsergunj	7	156.75	0.46	2,000,000.00	920,000.00	
48	AP 12	27	80	Samshergunj	8	156.76	0.46	2,000,000.00	920,000.00	
49		28	69	Samshergunj	8	156.76	0.46	2,000,000.00	920,000.00	
50	AP 13	29	10	Samshergunj	8	90.04	0.27	2,000,000.00	540,000.00	
51	AP 13	29	3	Bageshwori	9	31.14	0.09	2,500,000.00	225,000.00	
52	AP 13	29	4	Samshergunj	9	35.58	0.10	2,000,000.00	200,000.00	
53		30	12	Samshergunj	8	156.76	0.46	2,000,000.00	920,000.00	
54		31	26	Samshergunj	8	1.46	0.00	2,000,000.00	8,000.00	
55		31	771	Ganapur	8	155.31	0.46	2,000,000.00	920,000.00	

56	AP 14	32	38	Ganapur	8	46.37	0.14	2,000,000.00	280,000.00	
57	AP 14	32	857	Ganapur	8	44.22	0.13	2,000,000.00	260,000.00	
58	AP 14	32	768	Ganapur	8	66.18	0.20	2,000,000.00	400,000.00	
59		33	51	Ganapur	8	147.67	0.44	2,000,000.00	880,000.00	
60		33	52	Ganapur	8	9.11	0.03	2,000,000.00	60,000.00	
61	AP 15	34	223	Ganapur	7	156.66	0.46	2,000,000.00	920,000.00	
62		35	266	Belhari	7	127.61	0.38	2,000,000.00	760,000.00	
63		35	264	Belhari	7	29.17	0.09	2,000,000.00	180,000.00	
64		36	625	Belhari	7	141.05	0.42	2,000,000.00	840,000.00	
65		36	626	Belhari	7	15.63	0.05	2,000,000.00	100,000.00	
66	AP 16	37	379	Belhari	7	137.25	0.41	2,000,000.00	820,000.00	
67	AP 16	37	381	Belhari	7	19.54	0.06	2,000,000.00	120,000.00	
68		38	335	Belhari	7	47.09	0.14	2,000,000.00	280,000.00	
69		38	334	Belhari	7	88.24	0.26	2,000,000.00	520,000.00	
70		38	336	Belhari	7	20.60	0.06	2,000,000.00	120,000.00	
71	AP 17	39	279	Belhari	7	66.32	0.20	2,000,000.00	400,000.00	
72	AP 17	39	286	Belhari	7	90.47	0.28	2,000,000.00	560,000.00	
<b>Total</b>						<b>5798.11</b>	<b>15.85</b>		<b>31,694,000.00</b>	

**Appendix L: Affected Land Parcel and Affected of RoW of Kohalpur-Nepalgunj Transmission Line**

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	6	306001	1722.524541	372.00	1.116		ROW 1 to 20
Samsergunj	6	109	1958.105076	30.00	0.09	Yadav Puri	ROW 1 to 20
Samsergunj	6	451	207.2145245	73.00	0.219	Chhedi Ram Tharu	ROW 1 to 20
Samsergunj	6	452	236.9727006	235.00	0.705	Munsi Tharu	ROW 1 to 20
Samsergunj	6	83	540.5059275	237.00	0.711		ROW 1 to 20
Samsergunj	6	381	6091.051044	961.00	2.883	Narendra-Rajendra (Joint) Kumar Regmi	ROW 1 to 20
Samsergunj	6	98	10659.53223	513.00	1.539		ROW 1 to 20
Samsergunj	6	103	3566.120288	839.00	2.517	Thagga Tharu	ROW 1 to 20
Samsergunj	6	405	391.0708026	89.00	0.267	Pradip Malla	ROW 1 to 20
Samsergunj	6	379	2044.948522	672.00	2.016	Mangal Tharu	ROW 1 to 20
Samsergunj	5	325	646.781147	84.00	0.252	Shova Ram Tharu	ROW 1 to 20
Samsergunj	5	310	820.7734933	164.00	0.492	Dayaram Tharu	ROW 1 to 20
Samsergunj	5	324	646.1754132	52.00	0.156	Durjan Tharu	ROW 1 to 20
Samsergunj	5	244	634.7833676	55.00	0.165	Chhadeniya-Jhagaru-Basanta-Hinga (Joint) Kawadiya	ROW 1 to 20
Samsergunj	5	292	476.8960153	33.00	0.099	Chhadeniya-Jhagaru-	ROW 1 to 20

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
						Basanta-Hinga (Joint) Kawadiya	
Samsergunj	5	1	10300.90818	338.00	1.014		ROW 1 to 20
Samsergunj	5	243001	621.5758375	56.00	0.168		ROW 1 to 20
Samsergunj	5	999961	1649.799742	980.00	2.94		ROW 1 to 20
Samsergunj	6	357	1463.220382	165.00	0.495	Madhuram Tharu	ROW 1 to 20
Samsergunj	6	358	1337.469427	185.00	0.555	Sodhe Tharu	ROW 1 to 20
Samsergunj	6	120	546.860788	252.00	0.756	Sita Ram Tharu	ROW 1 to 20
Samsergunj	6	463	460.7922334	26.00	0.078	Mewalal Tharu	ROW 1 to 20
Samsergunj	6	115	982.0328327	185.00	0.555		ROW 1 to 20
Samsergunj	5	999778	1162.970869	700.00	2.1		ROW 1 to 20
Samsergunj	6	118	905.9197812	127.00	0.381	Maya Ram Tharu	ROW 1 to 20
Samsergunj	6	116	435.0278798	154.00	0.462	Tikaram Tharu	ROW 1 to 20
Samsergunj	5	234001	216.2463169	62.00	0.186		ROW 1 to 20
Samsergunj	5	999993	113.4308687	109.00	0.327		ROW 1 to 20
Samsergunj	5	123	297.6249546	244.00	0.732	Bijuli Prasad Tharu	ROW 1 to 20
Samsergunj	5	125	235.9458401	79.00	0.237	Phatu Tharu	ROW 1 to 20
Samsergunj	3	252	2037.824229	571.00	1.713		ROW 1 to 20
Samsergunj	3	254	3703.035085	613.00	1.839		ROW 1 to 20
Samsergunj	5	999999	4.952977486	5.00	0.015		ROW 1 to 20
Samsergunj	6	23	11019.29741	623.00	1.869	Kabita Acharya	ROW 1 to 20



VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	6	370	1956.99278	804.00	2.412	Jasmaya Pun	ROW 1 to 20
Samsergunj	5	265	1351.287065	171.00	0.513	Patiram Tharu	ROW 1 to 20
Samsergunj	6	376	1070.963965	205.00	0.615	Kaliram-Narendra-Ram (Joint) Tharu	ROW 1 to 20
Samsergunj	5	284	2259.231377	295.00	0.885	Lohari Tharu	ROW 1 to 20
Samsergunj	9	31	6222.899029	2158.00	6.474		ROW 1 to 20
Samsergunj	5	268	6929.057395	744.00	2.232		ROW 1 to 20
Samsergunj	9	32	2695.07913	5.00	0.015		ROW 1 to 20
Samsergunj	5	266	1683.481173	911.00	2.733	Lohari Tharu	ROW 1 to 20
Samsergunj	6	365	11591.65744	2347.00	7.041	Rama Kumari Mahara	ROW 1 to 20
Samsergunj	5	126	1004.985605	241.00	0.723	Samai Tharu	ROW 1 to 20
Samsergunj	6	447	554.619268	1.00	0.003	Aasha Ram Tharu	ROW 1 to 20
Samsergunj	5	999986	224.6737139	224.00	0.672		ROW 1 to 20
Samsergunj	6	371	1277.916978	500.00	1.5		ROW 1 to 20
Samsergunj	5	283	1428.966829	779.00	2.337		ROW 1 to 20
Samsergunj	6	448	568.5226038	84.00	0.252	Phulram Tharu	ROW 1 to 20
Samsergunj	5	833	494.3831671	0.00	0		ROW 1 to 20
Samsergunj	6	435	1090.669828	2.00	0.006		ROW 1 to 20
Samsergunj	6	1	16294.36409	125.00	0.375		ROW 1 to 20
Samsergunj	9	30	3706.888439	375.00	1.125		ROW 1 to 20
Samsergunj	6	239	431.915492	220.00	0.66		ROW 1 to 20

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	9	29	4193.685695	281.00	0.843		ROW 1 to 20
Samsergunj	6	1	22274.40683	793.00	2.379		ROW 1 to 20
Samsergunj	6	183	480.3548628	335.00	1.005		ROW 1 to 20
Samsergunj	3	29	14311.98402	2787.00	8.361		ROW 1 to 20
Samsergunj	6	22	6026.664562	1050.00	3.15	Bahadur Tharu	ROW 1 to 20
Samsergunj	6	228	2914.201731	270.00	0.81	Devisara Kami	ROW 1 to 20
Samsergunj	6	436	1486.054665	158.00	0.474		ROW 1 to 20
Samsergunj	6	24	6950.370941	1795.00	5.385	Kabita Acharya	ROW 1 to 20
Samsergunj	6	237	3035.682679	30.00	0.09	Mangal Tharu	ROW 1 to 20
Samsergunj	5	228	2944.691318	7.00	0.021	Gyanu Sharma Aryal	ROW 1 to 20
Samsergunj	5	231	2046.069059	830.00	2.49		ROW 1 to 20
Samsergunj	5	227	2064.313658	139.00	0.417	Chhallu Basphor Lal	ROW 1 to 20
Samsergunj	5	230	499.586588	33.00	0.099		ROW 1 to 20
Samsergunj	5	117	2547.913015	306.00	0.918	Goreta Tharu	ROW 1 to 20
Samsergunj	5	209	1122.406255	665.00	1.995	Madhuram Tharu	ROW 1 to 20
Samsergunj	5	42	2148.452778	657.00	1.971	Kirau Ahir	ROW 1 to 20
Samsergunj	5	11	5636.508011	275.00	0.825		ROW 1 to 20
Samsergunj	5	999962	287.5394306	36.00	0.108		ROW 1 to 20
Samsergunj	5	225	1657.077169	366.00	1.098	Ram Gulam Tharu	ROW 1 to 20

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	5	291	433.0431362	30.00	0.09	Chhadeniya-Jhagaru-Basanta-Hinga (Joint) Kawadiya	ROW 1 to 20
Samsergunj	5	216	4128.498468	875.00	2.625	Harilal Tharu	ROW 1 to 20
Samsergunj	5	183	93.51347896	38.00	0.114	Sagyan Aryal	ROW 1 to 20
Samsergunj	5	187	270.9482233	271.00	0.813	Hari Lal Tharu	ROW 1 to 20
Samsergunj	5	999964	1340.518425	121.00	0.363		ROW 1 to 20
Samsergunj	5	186	53.90840041	54.00	0.162	Sagyan Aryal	ROW 1 to 20
Samsergunj	5	19	3592.04683	89.00	0.267		ROW 1 to 20
Samsergunj	5	45	572.9661579	321.00	0.963		ROW 1 to 20
Samsergunj	5	46	607.3949735	188.00	0.564		ROW 1 to 20
Samsergunj	6	105	587.9463653	74.00	0.222	Bhode Tharu	ROW 1 to 20
Samsergunj	6	110	1395.210377	902.00	2.706	Shankar Ahir	ROW 1 to 20
Samsergunj	6	425	3712.556075	465.00	1.395	Tilak Ram Tharu	ROW 1 to 20
Samsergunj	6	104	685.7369806	404.00	1.212	Motilal Tharu	ROW 1 to 20
Samsergunj	6	125	8028.370179	110.00	0.33		ROW 1 to 20
Samsergunj	5	200001	5140.416945	809.00	2.427		ROW 1 to 20
Samsergunj	5	48	708.0855942	85.00	0.255	Santaram Tharu	ROW 1 to 20
Samsergunj	5	17	2232.986228	17.00	0.051	Samai Tharu	ROW 1 to 20
Samsergunj	5	3	2934.539241	865.00	2.595		ROW 1 to 20
Samsergunj	5	47	749.5228435	495.00	1.485	Sitaram Tharu	ROW 1 to 20
Samsergunj	5	29	602.4640665	356.00	1.068	Sita Ram Sharma	ROW 1 to 20

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	2	13	3891.291857	281.00	0.843		ROW 1 to 20
Samsergunj	5	1057	1869.697805	217.00	0.651	Uday Bahadur Rawal	ROW 1 to 20
Samsergunj	5	262	4748.518222	478.00	1.434		ROW 1 to 20
Samsergunj	5	913	374.6217147	252.00	0.756	Huma Kumari Ale Magar	ROW 1 to 20
Samsergunj	5	259	3732.88202	1245.00	3.735	Duhan Tharu	ROW 1 to 20
Samsergunj	5	238	333.2009682	316.00	0.948	Kailasi Tharuni	ROW 1 to 20
Samsergunj	5	237	301.3017146	183.00	0.549	Kallu Tharu	ROW 1 to 20
Samsergunj	5	571	3241.437172	874.00	2.622		ROW 1 to 20
Samsergunj	5	1056	1457.197129	206.00	0.618		ROW 1 to 20
Samsergunj	5	210210	255.2305363	13.00	0.039		ROW 1 to 20
Samsergunj	5	234	95.30011211	60.00	0.18	Dhore Tharu	ROW 1 to 20
Samsergunj	5	233	810.2711601	418.00	1.254	Sagyan Aryal	ROW 1 to 20
Samsergunj	5	236	122.7457971	119.00	0.357	Radha Krishna Chaudhary	ROW 1 to 20
Samsergunj	5	232	913.3619257	716.00	2.148		ROW 1 to 20
Samsergunj	5	914	429.3648639	321.00	0.963		ROW 1 to 20
Samsergunj	5	211	236.3698049	115.00	0.345	Bhusuwa Tharu	ROW 1 to 20
Samsergunj	5	247	1236.968004	37.00	0.111	Samir Aryal	ROW 1 to 20
Samsergunj	5	35	332.5564485	30.00	0.09	Nirmala Gurung	ROW 1 to 20
Samsergunj	5	34	690.3696211	587.00	1.761	Nirmala Gurung	ROW 1 to 20
Samsergunj	5	235	335.9486897	335.00	1.005	Ram Gulam Tharu	ROW 1 to 20

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	5	239	363.7839904	31.00	0.093	Sitaram Tharu	ROW 1 to 20
Bankatawa	4	148	3742.422361	943.00	2.829		ROW 1 to 20
Bankatawa	4	147	4217.942089	1022.00	3.066		ROW 1 to 20
Bankatawa	4	161	1041.672482	238.00	0.714		ROW 1 to 20
Bankatawa	4	149	4296.294647	106.00	0.318		ROW 1 to 20
Bankatawa	4	223	236.5479914	25.00	0.075		ROW 1 to 20
Bankatawa	4	288	1867.19293	91.00	0.273		ROW 1 to 20
Bankatawa	4	146	1730.12931	465.00	1.395		ROW 1 to 20
Bankatawa	4	222	2308.346015	392.00	1.176		ROW 1 to 20
Samsergunj	3	159	6118.358733	71.00	0.213		ROW 1 to 20
Samsergunj	3	109	19850.04844	775.00	2.325	Lisanu Tharu	ROW 1 to 20
Samsergunj	3	199	8688.315587	2694.00	8.082	Harilal Upadhyay	ROW 1 to 20
Samsergunj	3	107	2101.533261	109.00	0.327	Nandu Tharu	ROW 1 to 20
Bankatawa	4	163	1030.196292	350.00	1.05		ROW 1 to 20
Bankatawa	4	162	1335.69062	426.00	1.278		ROW 1 to 20
Bankatawa	4	165	578.5739897	275.00	0.825		ROW 1 to 20
Bankatawa	4	164	931.8297495	279.00	0.837		ROW 1 to 20
Bankatawa	4	50	368.4764534	366.00	1.098		ROW 1 to 20
Bankatawa	4	48	3663.246816	431.00	1.293		ROW 1 to 20
Bankatawa	4	51	17264.88462	1028.00	3.084		ROW 1 to 20
Bankatawa	4	49	6128.078822	1064.00	3.192		ROW 1 to 20
Bankatawa	4	30	13365.95147	428.00	1.284		ROW 1 to 20

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	5	20	2498.080974	189.00	0.567		ROW 1 to 20
Samsergunj	3	108	7293.756067	1450.00	4.35		ROW 1 to 20
Samsergunj	3	999995	1383.355702	187.00	0.561		ROW 1 to 20
Bankatawa	4	39	662.8688123	322.00	0.966		ROW 1 to 20
Bankatawa	4	6	2784.793447	120.00	0.36		ROW 1 to 20
Bankatawa	4	281	1971.790139	210.00	0.63		ROW 1 to 20
Bankatawa	4	200	89.03711366	82.00	0.246		ROW 1 to 20
Bankatawa	4	8	400.5050374	83.00	0.249		ROW 1 to 20
Bankatawa	4	7	938.3881321	140.00	0.42		ROW 1 to 20
Bankatawa	4	38	3223.161574	730.00	2.19		ROW 1 to 20
Bankatawa	4	370001	5186.143214	547.00	1.641		ROW 1 to 20
Bankatawa	4	300002	6707.065032	707.00	2.121		ROW 1 to 20
Bankatawa	4	290002	5896.469146	801.00	2.403		ROW 1 to 20
Bankatawa	4	32	3039.888995	312.00	0.936		ROW 1 to 20
Bankatawa	4	31	6634.515052	697.00	2.091		ROW 1 to 20
Samsergunj	3	44	22608.76069	88.00	0.264	Jholeram-Sukhiram-Somai (Joint) Tharu	ROW 1 to 20
Samsergunj	3	174	3551.395471	183.00	0.549	Indrajit Singh Tharu	ROW 1 to 20
Bankatawa	4	26	3769.501627	641.00	1.923		ROW 1 to 20
Bankatawa	3	999978	7469.713903	219.00	0.657		ROW 1 to 20
Bankatawa	4	803	398.8276629	105.00	0.315		ROW 1 to 20
Bankatawa	4	610002	1274.737893	122.00	0.366		ROW 1 to 20

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Bankatawa	4	573	4281.596342	996.00	2.988		ROW 1 to 20
Bankatawa	4	804	405.6799272	111.00	0.333		ROW 1 to 20
Bankatawa	4	848002	2045.645898	487.00	1.461		ROW 1 to 20
Bankatawa	4	36	5740.769459	672.00	2.016		ROW 1 to 20
Bankatawa	4	590	16274.43154	1374.00	4.122		ROW 1 to 20
Bankatawa	4	834	2018.583283	32.00	0.096		ROW 1 to 20
Samsergunj	3	137	5063.079871	462.00	1.386		ROW 1 to 20
Samsergunj	3	136	1424.883755	388.00	1.164		ROW 1 to 20
Bankatawa	3	29	4752.514548	169.00	0.507	Balaram Shah	ROW 1 to 20
Samsergunj	3	140002	11046.50956	174.00	0.522		ROW 1 to 20
Samsergunj	3	138	1781.278586	715.00	2.145	Babadin Tharu	ROW 1 to 20
Samsergunj	3	198	1591.553164	10.00	0.03		ROW 1 to 20
Samsergunj	3	139	4892.556498	305.00	0.915		ROW 1 to 20
Samsergunj	3	154001	537.9804428	41.00	0.123		ROW 1 to 20
Bankatawa	3	999979	927.7071547	93.00	0.279		ROW 1 to 20
Bankatawa	3	22	7522.841734	1005.00	3.015	Nar Bahadur Oli	ROW 1 to 20
Bankatawa	3	173	29364.78295	2792.00	8.376		ROW 1 to 20
Bankatawa	3	4	6014.850211	207.00	0.621	Government of Nepal	ROW 1 to 20
Bankatawa	3	360001	19730.64232	1595.00	4.785		ROW 1 to 20
Samsergunj	3	999981	7134.252897	1222.00	3.666		ROW 1 to 20
Bankatawa	3	20	909.5058133	82.00	0.246	Shova Lama	ROW 1 to 20
Bankatawa	3	231	1304.753106	2.00	0.006		ROW 1 to 20

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Bankatawa	4	800	2562.496546	713.00	2.139		ROW 1 to 20
Bankatawa	4	69	3146.570537	175.00	0.525		ROW 1 to 20
Bankatawa	4	516	174.6232185	94.00	0.282		ROW 1 to 20
Bankatawa	4	799	2730.891008	776.00	2.328		ROW 1 to 20
Bankatawa	4	912	180.349519	105.00	0.315		ROW 1 to 20
Bankatawa	4	911	1696.199456	955.00	2.865		ROW 1 to 20
Bankatawa	4	145	3437.757625	749.00	2.247		ROW 1 to 20
Bankatawa	4	910	2996.817929	152.00	0.456		ROW 1 to 20
Bankatawa	4	576002	1150.496274	775.00	2.325		ROW 1 to 20
Bankatawa	4	563	518.5180257	149.00	0.447		ROW 1 to 20
Bankatawa	4	576001	237.1451952	138.00	0.414		ROW 1 to 20
Bankatawa	4	580	5631.432383	428.00	1.284		ROW 1 to 20
Bankatawa	4	561	246.6133703	124.00	0.372		ROW 1 to 20
Bankatawa	4	562	568.6389625	370.00	1.11		ROW 1 to 20
Bankatawa	4	565001	111.6578981	112.00	0.336		ROW 1 to 20
Bankatawa	4	560	210.9787025	85.00	0.255		ROW 1 to 20
Bankatawa	4	189002	2006.427377	755.00	2.265		ROW 1 to 20
Bankatawa	4	490	214.8353881	142.00	0.426		ROW 1 to 20
Bankatawa	4	718	322.2694377	133.00	0.399		ROW 1 to 20
Bankatawa	4	488	158.9165506	91.00	0.273		ROW 1 to 20
Bankatawa	4	290001	5942.9604	1161.00	3.483		ROW 1 to 20
Bankatawa	4	691	2902.872214	600.00	1.8		ROW 1 to 20



VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Bankatawa	4	131	1754.331863	692.00	2.076		ROW 1 to 20
Bankatawa	4	390001	348.9015589	109.00	0.327		ROW 1 to 20
Bankatawa	4	140	2426.591344	351.00	1.053		ROW 1 to 20
Bankatawa	4	128	3346.329909	103.00	0.309		ROW 1 to 20
Bankatawa	4	141	5305.924982	1328.00	3.984		ROW 1 to 20
Bankatawa	4	400003	5756.436019	118.00	0.354		ROW 1 to 20
Bankatawa	4	133	1468.94121	546.00	1.638		ROW 1 to 20
Bankatawa	4	717	206.3360199	85.00	0.255		ROW 1 to 20
Bankatawa	4	129	2249.798606	208.00	0.624		ROW 1 to 20
Bankatawa	4	134	1864.412373	247.00	0.741		ROW 1 to 20
Bankatawa	4	6	1597.371344	46.00	0.138		ROW 1 to 20
Bankatawa	4	589	5282.235732	489.00	1.467		ROW 1 to 20
Bankatawa	4	26	881.5652402	286.00	0.858		ROW 1 to 20
Bankatawa	4	800001	37544.26502	229.00	0.687		ROW 1 to 20
Bankatawa	4	578	6553.169131	42.00	0.126		ROW 1 to 20
Bankatawa	4	577	362.7952111	4.00	0.012		ROW 1 to 20
Bankatawa	4	650	5020.974694	631.00	1.893		ROW 1 to 20
Bankatawa	4	400002	7023.682439	1518.00	4.554		ROW 1 to 20
Bankatawa	4	105	725.8781424	28.00	0.084		ROW 1 to 20
Bankatawa	4	106	3649.613136	51.00	0.153		ROW 1 to 20
Bankatawa	4	100004	5430.852756	937.00	2.811		ROW 1 to 20
Samsergunj	6	113	864.8102749	97.00	0.291	Hari Lal Tharu	ROW 1 to 20

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	2	360	358.0302458	78.00	0.234	Patiram Tharu	ROW 21 to 40
Samsergunj	2	590	1947.021597	537.00	1.611	Sita Ram Tharu	ROW 21 to 40
Samsergunj	2	27	1608.70306	152.00	0.456	Ram Bahadur Rana	ROW 21 to 40
Samsergunj	2	565	733.8026439	0.00	0	Pau Ahir	ROW 21 to 40
Samsergunj	2	25	934.9571464	417.00	1.251		ROW 21 to 40
Samsergunj	2	24	2071.48456	709.00	2.127	Om Prakash Tharu	ROW 21 to 40
Samsergunj	2	22	6427.189764	1200.00	3.6	Pramita Chaudhary	ROW 21 to 40
Samsergunj	2	564	5573.349951	588.00	1.764		ROW 21 to 40
Samsergunj	2	999980	4448.253241	137.00	0.411		ROW 21 to 40
Samsergunj	2	51	3309.068925	388.00	1.164		ROW 21 to 40
Samsergunj	2	52	3367.229013	0.00	0		ROW 21 to 40
Samsergunj	2	612	3111.909312	404.00	1.212		ROW 21 to 40
Samsergunj	2	50	3543.924724	910.00	2.73		ROW 21 to 40
Samsergunj	2	26	1529.310565	670.00	2.01	Mewalal Tharu	ROW 21 to 40
Samsergunj	2	436	2078.84298	159.00	0.477	Gauri Shankar Tharu	ROW 21 to 40
Ganapur	8	670	362.4729224	317.00	0.951	Lala Singh Bhandari	ROW 21 to 40
Ganapur	8	867	563.617575	139.00	0.417	Ram Kisun Loniya	ROW 21 to 40
Ganapur	8	858	2413.750032	996.00	2.988	Briji Chamar	ROW 21 to 40
Ganapur	8	120001	6378.830482	2418.00	7.254		ROW 21 to 40

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Ganapur	8	25	4591.225844	1943.00	5.829		ROW 21 to 40
Ganapur	8	3	33078.47788	1128.00	3.384		ROW 21 to 40
Ganapur	8	866	1015.890029	229.00	0.687		ROW 21 to 40
Ganapur	8	38	1664.796802	682.00	2.046		ROW 21 to 40
Ganapur	8	857	2413.750006	954.00	2.862	Sattan Chamar	ROW 21 to 40
Ganapur	8	768	3104.247057	876.00	2.628	Aaisan Khan	ROW 21 to 40
Ganapur	8	340	1254.821477	667.00	2.001		ROW 21 to 40
Ganapur	8	341	1191.871499	304.00	0.912		ROW 21 to 40
Ganapur	8	11	13610.78162	383.00	1.149		ROW 21 to 40
Ganapur	8	13	25232.33489	411.00	1.233		ROW 21 to 40
Ganapur	8	859	4964.829595	2250.00	6.75		ROW 21 to 40
Ganapur	7	373	11357.54729	1.00	0.003		ROW 21 to 40
Ganapur	7	675	692.6658203	307.00	0.921		ROW 21 to 40
Ganapur	7	700	1940.862273	32.00	0.096		ROW 21 to 40
Ganapur	7	699	3432.052973	24.00	0.072		ROW 21 to 40
Ganapur	7	376	1544.524618	598.00	1.794		ROW 21 to 40
Ganapur	7	377	1470.32985	460.00	1.38		ROW 21 to 40
Ganapur	7	625	4486.993445	1788.00	5.364		ROW 21 to 40
Ganapur	7	626	439.450994	440.00	1.32		ROW 21 to 40
Ganapur	7	624001	3829.117608	171.00	0.513		ROW 21 to 40
Ganapur	7	384	2040.782638	446.00	1.338		ROW 21 to 40
Ganapur	7	387	1029.463667	430.00	1.29		ROW 21 to 40

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Ganapur	7	378	775.8710271	306.00	0.918		ROW 21 to 40
Ganapur	7	381	2292.375557	389.00	1.167		ROW 21 to 40
Ganapur	7	383	6136.113538	837.00	2.511		ROW 21 to 40
Ganapur	7	388	2728.953099	29.00	0.087		ROW 21 to 40
Ganapur	7	382	2361.473701	373.00	1.119		ROW 21 to 40
Ganapur	7	379	2331.285179	825.00	2.475		ROW 21 to 40
Ganapur	7	999994	793.6275787	176.00	0.528		ROW 21 to 40
Ganapur	7	292	2183.763211	755.00	2.265		ROW 21 to 40
Ganapur	7	293	196.1379596	106.00	0.318		ROW 21 to 40
Ganapur	7	311	1928.27557	736.00	2.208		ROW 21 to 40
Ganapur	7	344	2341.130725	140.00	0.42		ROW 21 to 40
Ganapur	7	701	334.0504007	0.00	0		ROW 21 to 40
Ganapur	7	312	2187.154081	719.00	2.157		ROW 21 to 40
Ganapur	7	333	251.6492481	131.00	0.393		ROW 21 to 40
Ganapur	7	332	259.2297065	163.00	0.489		ROW 21 to 40
Ganapur	7	334	1023.453471	386.00	1.158		ROW 21 to 40
Ganapur	7	289	199.8223656	187.00	0.561		ROW 21 to 40
Ganapur	7	290	113.1466949	16.00	0.048		ROW 21 to 40
Ganapur	7	287	166.2411743	1.00	0.003		ROW 21 to 40
Ganapur	7	288	219.8212348	208.00	0.624		ROW 21 to 40
Ganapur	7	291	154.0036704	38.00	0.114		ROW 21 to 40
Ganapur	7	553	838.7407761	71.00	0.213		ROW 21 to 40

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Ganapur	7	563	1942.294073	36.00	0.108		ROW 21 to 40
Ganapur	7	286	4523.704913	1524.00	4.572		ROW 21 to 40
Ganapur	7	277	543.5630398	19.00	0.057		ROW 21 to 40
Ganapur	7	278	872.1690763	256.00	0.768		ROW 21 to 40
Ganapur	7	279	982.323786	394.00	1.182		ROW 21 to 40
Ganapur	7	554	1058.927026	295.00	0.885		ROW 21 to 40
Ganapur	7	561	2495.235392	694.00	2.082		ROW 21 to 40
Ganapur	7	13	10428.28056	240.00	0.72		ROW 21 to 40
Ganapur	7	12	7347.683945	132.00	0.396		ROW 21 to 40
Ganapur	7	11	5807.471977	140.00	0.42		ROW 21 to 40
Ganapur	7	195	2584.883675	60.00	0.18		ROW 21 to 40
Belhari	7	264	803.4740031	479.00	1.437	Raghu Kurmi	ROW 21 to 40
Belhari	7	266	1185.215361	469.00	1.407	Ramawati Kurmi	ROW 21 to 40
Belhari	7	275	827.6685847	491.00	1.473	Amrita Devi Khatri	ROW 21 to 40
Belhari	7	265	1464.389762	62.00	0.186		ROW 21 to 40
Belhari	7	261	325.3928317	134.00	0.402	Kunji-Pappu- Ramraj (Joint) Lal Kurmi	ROW 21 to 40
Belhari	7	262	362.4298567	252.00	0.756	Raghu Kurmi	ROW 21 to 40
Belhari	7	426	74.50263103	40.00	0.12		ROW 21 to 40
Ganapur	7	427	173.7177684	20.00	0.06		ROW 21 to 40
Ganapur	7	426	2563.962222	463.00	1.389		ROW 21 to 40
Belhari	7	429	1921.434797	235.00	0.705		ROW 21 to 40

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Belhari	7	300	1710.039357	114.00	0.342	Prahlad Ahir	ROW 21 to 40
Belhari	7	301	1787.687617	74.00	0.222	Radheshyam Kurmi	ROW 21 to 40
Belhari	7	263	5595.189535	771.00	2.313		ROW 21 to 40
Belhari	7	259	919.4961312	55.00	0.165	Munna Ahir	ROW 21 to 40
Belhari	7	740	305.6391873	297.00	0.891		ROW 21 to 40
Belhari	7	260	2197.000729	826.00	2.478	Tara Manihar	ROW 21 to 40
Belhari	7	741	268.1941246	146.00	0.438		ROW 21 to 40
Ganapur	7	340	284.5289436	182.00	0.546		ROW 21 to 40
Ganapur	7	341	560.5756346	356.00	1.068		ROW 21 to 40
Ganapur	7	676	619.9244289	319.00	0.957		ROW 21 to 40
Ganapur	7	374	1743.033484	1069.00	3.207		ROW 21 to 40
Ganapur	7	339	315.1468953	204.00	0.612		ROW 21 to 40
Ganapur	7	335	165.50431	77.00	0.231		ROW 21 to 40
Ganapur	7	336	173.2325198	86.00	0.258		ROW 21 to 40
Ganapur	7	338	360.1200419	172.00	0.516		ROW 21 to 40
Ganapur	7	337	1838.661764	645.00	1.935		ROW 21 to 40
Belhari	7	223	2436.192978	149.00	0.447		ROW 21 to 40
Belhari	7	374	310.9088094	183.00	0.549		ROW 21 to 40
Belhari	7	12	224.757343	19.00	0.057	Gangaram Kurmi Chaudhary	ROW 21 to 40
Belhari	7	375	523.1882527	4.00	0.012	Ram-Rampal (Joint) Pal Kurmi	ROW 21 to 40

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Belhari	7	269	351.046301	337.00	1.011		ROW 21 to 40
Belhari	7	375	94.07557315	55.00	0.165	Ram-Rampal (Joint) Pal Kurmi	ROW 21 to 40
Belhari	7	274	737.4284016	402.00	1.206	Kunji-Pappu-Ramraj (Joint) Lal Kurmi	ROW 21 to 40
Belhari	7	268	6299.919311	1622.00	4.866	Ayodhya Prasad Kurmi	ROW 21 to 40
Belhari	7	270	1485.844767	361.00	1.083	Ramawati Kurmi	ROW 21 to 40
Belhari	7	273	1601.372499	226.00	0.678		ROW 21 to 40
Ganapur	8	41	5910.372214	216.00	0.648		ROW 21 to 40
Ganapur	8	42	7649.477256	968.00	2.904		ROW 21 to 40
Ganapur	8	50	3199.696181	862.00	2.586	Surendra Prasad Barma	ROW 21 to 40
Ganapur	8	52	5523.904836	1163.00	3.489		ROW 21 to 40
Ganapur	8	48	2871.746506	72.00	0.216		ROW 21 to 40
Ganapur	8	770	2077.046371	491.00	1.473	Phulmata Karwal	ROW 21 to 40
Ganapur	8	51	1967.629902	740.00	2.22	Surendra Prasad Barma	ROW 21 to 40
Belhari	7	223	2386.697502	1280.00	3.84		ROW 21 to 40
Ganapur	8	49	4186.821501	1101.00	3.303		ROW 21 to 40
Samsergunj	7	915	1877.768438	632.00	1.896	Sohan Khatik	ROW 21 to 40
Samsergunj	7	834	462.9361576	121.00	0.363	Sohan Khatik	ROW 21 to 40
Samsergunj	7	917	921.2738535	53.00	0.159	Sohan Khatik	ROW 21 to 40
Samsergunj	2	440	3654.976559	798.00	2.394		ROW 21 to 40

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	2	439	3647.770128	30.00	0.09		ROW 21 to 40
Samsergunj	7	22	3948.711212	967.00	2.901		ROW 21 to 40
Samsergunj	7	151	7697.642588	843.00	2.529		ROW 21 to 40
Samsergunj	2	6	11702.40708	319.00	0.957		ROW 21 to 40
Samsergunj	2	48	6957.522671	1565.00	4.695	Subodh Kumar Chaudhary	ROW 21 to 40
Samsergunj	7	23	3985.85189	460.00	1.38		ROW 21 to 40
Samsergunj	7	149	114.6435482	98.00	0.294	Sitaram Ahir	ROW 21 to 40
Samsergunj	7	81	1496.758036	169.00	0.507	Kali Ahirni	ROW 21 to 40
Samsergunj	7	17	3270.273102	298.00	0.894		ROW 21 to 40
Samsergunj	7	152	418.1320517	105.00	0.315		ROW 21 to 40
Samsergunj	7	156	19824.95577	1326.00	3.978		ROW 21 to 40
Samsergunj	7	915	3164.470072	26.00	0.078	Sohan Khatik	ROW 21 to 40
Samsergunj	7	999976	5088.554921	260.00	0.78		ROW 21 to 40
Samsergunj	7	11	5306.01382	292.00	0.876		ROW 21 to 40
Samsergunj	7	12	5951.683725	977.00	2.931	Gyanmata Bandawal	ROW 21 to 40
Samsergunj	7	80	947.2994132	319.00	0.957		ROW 21 to 40
Samsergunj	7	13	4348.294277	941.00	2.823		ROW 21 to 40
Samsergunj	7	155	1319.611981	474.00	1.422	Kali Ahirni	ROW 21 to 40
Samsergunj	7	14	1145.992659	111.00	0.333		ROW 21 to 40
Samsergunj	7	916	350.2811454	202.00	0.606		ROW 21 to 40
Samsergunj	7	1451	1345.699171	446.00	1.338		ROW 21 to 40



VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	7	917	214.5849253	114.00	0.342	Sohan Khatik	ROW 21 to 40
Samsergunj	7	690	532.6320533	122.00	0.366		ROW 21 to 40
Samsergunj	7	1070	737.7160038	86.00	0.258		ROW 21 to 40
Samsergunj	7	1052	1646.557668	1.00	0.003		ROW 21 to 40
Samsergunj	7	693	2893.78989	356.00	1.068		ROW 21 to 40
Samsergunj	7	693	4256.893939	306.00	0.918		ROW 21 to 40
Samsergunj	7	691	3884.589305	609.00	1.827		ROW 21 to 40
Samsergunj	7	1434	4907.6542	5.00	0.015	Sabariya Sonkhar Khatik	ROW 21 to 40
Samsergunj	7	1435	4183.907813	1624.00	4.872		ROW 21 to 40
Samsergunj	7	836	697.5768406	143.00	0.429		ROW 21 to 40
Samsergunj	7	260001	8569.157145	1070.00	3.21		ROW 21 to 40
Samsergunj	7	12	6588.46274	1863.00	5.589	Gyanmata Bandawal	ROW 21 to 40
Samsergunj	7	1050	936.5891866	463.00	1.389		ROW 21 to 40
Samsergunj	7	27	8132.676402	1150.00	3.45	Jamuni-Dubar-Sanihi Khatik (Joint)	ROW 21 to 40
Samsergunj	7	771	9895.804141	1027.00	3.081		ROW 21 to 40
Samsergunj	7	300001	7523.685587	157.00	0.471		ROW 21 to 40
Samsergunj	7	43	4285.032427	695.00	2.085	Koili Khatik	ROW 21 to 40
Samsergunj	7	96	2377.247685	790.00	2.37	Chhedan Khatik	ROW 21 to 40
Samsergunj	7	94	2324.817297	730.00	2.19	Magare Gaderiya	ROW 21 to 40

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	7	64	4355.747306	668.00	2.004	Chhotelal Khatik	ROW 21 to 40
Samsergunj	7	999991	171.7873219	50.00	0.15		ROW 21 to 40
Samsergunj	7	63	370.7790475	47.00	0.141	Koili Khatik	ROW 21 to 40
Ganapur	8	103	6486.086719	2122.00	6.366	Uma Devi Nyaupane	ROW 21 to 40
Ganapur	8	105	2372.586116	880.00	2.64		ROW 21 to 40
Ganapur	8	80	12795.31804	1125.00	3.375		ROW 21 to 40
Ganapur	8	16	1297.992883	988.00	2.964		ROW 21 to 40
Ganapur	8	14	15382.71588	532.00	1.596		ROW 21 to 40
Ganapur	8	70	9399.879069	359.00	1.077		ROW 21 to 40
Ganapur	8	125	5407.118408	2111.00	6.333		ROW 21 to 40
Ganapur	8	124	5617.736534	0.00	0	Patiram Khatik	ROW 21 to 40
Ganapur	8	69	5907.689479	1463.00	4.389		ROW 21 to 40
Bageshwori	9	4	1715.798509	382.00	1.146		ROW 21 to 40
Bageshwori	9	154	1045.045248	107.00	0.321	Harsha Bahadur Kathayat	ROW 21 to 40
Bageshwori	9	153	1025.030227	318.00	0.954	Radhika Mahatara	ROW 21 to 40
Bageshwori	9	120001	14791.12699	295.00	0.885		ROW 21 to 40
Bageshwori	9	3	995.0964762	61.00	0.183	Government of Nepal	ROW 21 to 40
Ganapur	8	10	5551.628272	1458.00	4.374		ROW 21 to 40
Ganapur	8	12	6273.184513	2292.00	6.876		ROW 21 to 40
Ganapur	8	56	3293.479007	184.00	0.552	Samkot Loniya	ROW 21 to 40

VDC Name	Ward No	Parcel No	TotalArea of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Bageshwori	9	152	1044.769255	396.00	1.188	Dal Bahadur Mahatara	ROW 21 to 40
<b>Total affected are in SQM</b>				<b>186059.00</b>			
<b>Total affected are in local unit</b>				<b>290,699.73</b>			
<b>Total affected area in Ha</b>				<b>18.60</b>			
<b>Total area of tower pad (in Ha)</b>				<b>0.57</b>			
<b>Total area of RoW after deducting the tower pad</b>				<b>18.03</b>			
<b>Total affected area in Local unit ( in Kattha)</b>				<b>532.44</b>			
<b>Estimated cost of per kattha</b>				<b>1,064,880,000.00</b>			
<b>30% of total estimated cost</b>				<b>319,464,000.00</b>			

Source: Digital cadastral data and name list of owners collected from Department of Survey and Department of Land Management and Archive

**Appendix M: Affected Land in Right-of-Way Area and Estimated Cost**

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	6	306001	1722.52454	372	1.116		ROW 1 to 20
Samsergunj	6	109	1958.10508	30	0.09		ROW 1 to 20
Samsergunj	6	451	207.214525	73	0.219		ROW 1 to 20
Samsergunj	6	452	236.972701	235	0.705		ROW 1 to 20
Samsergunj	6	83	540.505928	237	0.711		ROW 1 to 20
Samsergunj	6	381	6091.05104	961	2.883		ROW 1 to 20
Samsergunj	6	98	10659.5322	513	1.539		ROW 1 to 20
Samsergunj	6	103	3566.12029	839	2.517		ROW 1 to 20
Samsergunj	6	405	391.070803	89	0.267		ROW 1 to 20
Samsergunj	6	379	2044.94852	672	2.016		ROW 1 to 20
Samsergunj	5	325	646.781147	84	0.252		ROW 1 to 20
Samsergunj	5	310	820.773493	164	0.492		ROW 1 to 20
Samsergunj	5	324	646.175413	52	0.156		ROW 1 to 20
Samsergunj	5	244	634.783368	55	0.165		ROW 1 to 20
Samsergunj	5	292	476.896015	33	0.099		ROW 1 to 20
Samsergunj	5	1	10300.9082	338	1.014		ROW 1 to 20
Samsergunj	5	243001	621.575838	56	0.168		ROW 1 to 20
Samsergunj	5	999961	1649.79974	980	2.94		ROW 1 to 20
Samsergunj	6	357	1463.22038	165	0.495		ROW 1 to 20
Samsergunj	6	358	1337.46943	185	0.555		ROW 1 to 20
Samsergunj	6	120	546.860788	252	0.756		ROW 1 to 20

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	6	463	460.792233	26	0.078		ROW 1 to 20
Samsergunj	6	115	982.032833	185	0.555		ROW 1 to 20
Samsergunj	5	999778	1162.97087	700	2.1		ROW 1 to 20
Samsergunj	6	118	905.919781	127	0.381		ROW 1 to 20
Samsergunj	6	116	435.02788	154	0.462		ROW 1 to 20
Samsergunj	5	234001	216.246317	62	0.186		ROW 1 to 20
Samsergunj	5	999993	113.430869	109	0.327		ROW 1 to 20
Samsergunj	5	123	297.624955	244	0.732		ROW 1 to 20
Samsergunj	5	125	235.94584	79	0.237		ROW 1 to 20
Samsergunj	3	252	2037.82423	571	1.713		ROW 1 to 20
Samsergunj	3	254	3703.03509	613	1.839		ROW 1 to 20
Samsergunj	5	999999	4.95297749	5	0.015		ROW 1 to 20
Samsergunj	6	23	11019.2974	623	1.869		ROW 1 to 20
Samsergunj	6	370	1956.99278	804	2.412		ROW 1 to 20
Samsergunj	5	265	1351.28706	171	0.513		ROW 1 to 20
Samsergunj	6	376	1070.96397	205	0.615		ROW 1 to 20
Samsergunj	5	284	2259.23138	295	0.885		ROW 1 to 20
Samsergunj	9	31	6222.89903	2158	6.474		ROW 1 to 20
Samsergunj	5	268	6929.0574	744	2.232		ROW 1 to 20
Samsergunj	9	32	2695.07913	5	0.015		ROW 1 to 20
Samsergunj	5	266	1683.48117	911	2.733		ROW 1 to 20
Samsergunj	6	365	11591.6574	2347	7.041		ROW 1 to 20

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	5	126	1004.98561	241	0.723		ROW 1 to 20
Samsergunj	6	447	554.619268	1	0.003		ROW 1 to 20
Samsergunj	5	999986	224.673714	224	0.672		ROW 1 to 20
Samsergunj	6	371	1277.91698	500	1.5		ROW 1 to 20
Samsergunj	5	283	1428.96683	779	2.337		ROW 1 to 20
Samsergunj	6	448	568.522604	84	0.252		ROW 1 to 20
Samsergunj	5	833	494.383167	0	0		ROW 1 to 20
Samsergunj	6	435	1090.66983	2	0.006		ROW 1 to 20
Samsergunj	6	1	16294.3641	125	0.375		ROW 1 to 20
Samsergunj	9	30	3706.88844	375	1.125		ROW 1 to 20
Samsergunj	6	239	431.915492	220	0.66		ROW 1 to 20
Samsergunj	9	29	4193.6857	281	0.843		ROW 1 to 20
Samsergunj	6	1	22274.4068	793	2.379		ROW 1 to 20
Samsergunj	6	183	480.354863	335	1.005		ROW 1 to 20
Samsergunj	3	29	14311.984	2787	8.361		ROW 1 to 20
Samsergunj	6	22	6026.66456	1050	3.15		ROW 1 to 20
Samsergunj	6	228	2914.20173	270	0.81		ROW 1 to 20
Samsergunj	6	436	1486.05466	158	0.474		ROW 1 to 20
Samsergunj	6	24	6950.37094	1795	5.385		ROW 1 to 20
Samsergunj	6	237	3035.68268	30	0.09		ROW 1 to 20
Samsergunj	5	228	2944.69132	7	0.021		ROW 1 to 20
Samsergunj	5	231	2046.06906	830	2.49		ROW 1 to 20

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	5	227	2064.31366	139	0.417		ROW 1 to 20
Samsergunj	5	230	499.586588	33	0.099		ROW 1 to 20
Samsergunj	5	117	2547.91301	306	0.918		ROW 1 to 20
Samsergunj	5	209	1122.40626	665	1.995		ROW 1 to 20
Samsergunj	5	42	2148.45278	657	1.971		ROW 1 to 20
Samsergunj	5	11	5636.50801	275	0.825		ROW 1 to 20
Samsergunj	5	999962	287.539431	36	0.108		ROW 1 to 20
Samsergunj	5	225	1657.07717	366	1.098		ROW 1 to 20
Samsergunj	5	291	433.043136	30	0.09		ROW 1 to 20
Samsergunj	5	216	4128.49847	875	2.625		ROW 1 to 20
Samsergunj	5	183	93.513479	38	0.114		ROW 1 to 20
Samsergunj	5	187	270.948223	271	0.813		ROW 1 to 20
Samsergunj	5	999964	1340.51842	121	0.363		ROW 1 to 20
Samsergunj	5	186	53.9084004	54	0.162		ROW 1 to 20
Samsergunj	5	19	3592.04683	89	0.267		ROW 1 to 20
Samsergunj	5	45	572.966158	321	0.963		ROW 1 to 20
Samsergunj	5	46	607.394974	188	0.564		ROW 1 to 20
Samsergunj	6	105	587.946365	74	0.222		ROW 1 to 20
Samsergunj	6	110	1395.21038	902	2.706		ROW 1 to 20
Samsergunj	6	425	3712.55607	465	1.395		ROW 1 to 20
Samsergunj	6	104	685.736981	404	1.212		ROW 1 to 20
Samsergunj	6	125	8028.37018	110	0.33		ROW 1 to 20

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	5	200001	5140.41695	809	2.427		ROW 1 to 20
Samsergunj	5	48	708.085594	85	0.255		ROW 1 to 20
Samsergunj	5	17	2232.98623	17	0.051		ROW 1 to 20
Samsergunj	5	3	2934.53924	865	2.595		ROW 1 to 20
Samsergunj	5	47	749.522843	495	1.485		ROW 1 to 20
Samsergunj	5	29	602.464067	356	1.068		ROW 1 to 20
Samsergunj	2	13	3891.29186	281	0.843		ROW 1 to 20
Samsergunj	5	1057	1869.69781	217	0.651		ROW 1 to 20
Samsergunj	5	262	4748.51822	478	1.434		ROW 1 to 20
Samsergunj	5	913	374.621715	252	0.756		ROW 1 to 20
Samsergunj	5	259	3732.88202	1245	3.735		ROW 1 to 20
Samsergunj	5	238	333.200968	316	0.948		ROW 1 to 20
Samsergunj	5	237	301.301715	183	0.549		ROW 1 to 20
Samsergunj	5	571	3241.43717	874	2.622		ROW 1 to 20
Samsergunj	5	1056	1457.19713	206	0.618		ROW 1 to 20
Samsergunj	5	210210	255.230536	13	0.039		ROW 1 to 20
Samsergunj	5	234	95.3001121	60	0.18		ROW 1 to 20
Samsergunj	5	233	810.27116	418	1.254		ROW 1 to 20
Samsergunj	5	236	122.745797	119	0.357		ROW 1 to 20
Samsergunj	5	232	913.361926	716	2.148		ROW 1 to 20
Samsergunj	5	914	429.364864	321	0.963		ROW 1 to 20
Samsergunj	5	211	236.369805	115	0.345		ROW 1 to 20



VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	5	247	1236.968	37	0.111		ROW 1 to 20
Samsergunj	5	35	332.556449	30	0.09		ROW 1 to 20
Samsergunj	5	34	690.369621	587	1.761		ROW 1 to 20
Samsergunj	5	235	335.94869	335	1.005		ROW 1 to 20
Samsergunj	5	239	363.78399	31	0.093		ROW 1 to 20
Bankatawa	4	148	3742.42236	943	2.829		ROW 1 to 20
Bankatawa	4	147	4217.94209	1022	3.066		ROW 1 to 20
Bankatawa	4	161	1041.67248	238	0.714		ROW 1 to 20
Bankatawa	4	149	4296.29465	106	0.318		ROW 1 to 20
Bankatawa	4	223	236.547991	25	0.075		ROW 1 to 20
Bankatawa	4	288	1867.19293	91	0.273		ROW 1 to 20
Bankatawa	4	146	1730.12931	465	1.395		ROW 1 to 20
Bankatawa	4	222	2308.34601	392	1.176		ROW 1 to 20
Samsergunj	3	159	6118.35873	71	0.213		ROW 1 to 20
Samsergunj	3	109	19850.0484	775	2.325		ROW 1 to 20
Samsergunj	3	199	8688.31559	2694	8.082		ROW 1 to 20
Samsergunj	3	107	2101.53326	109	0.327		ROW 1 to 20
Bankatawa	4	163	1030.19629	350	1.05		ROW 1 to 20
Bankatawa	4	162	1335.69062	426	1.278		ROW 1 to 20
Bankatawa	4	165	578.57399	275	0.825		ROW 1 to 20
Bankatawa	4	164	931.829749	279	0.837		ROW 1 to 20
Bankatawa	4	50	368.476453	366	1.098		ROW 1 to 20

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Bankatawa	4	48	3663.24682	431	1.293		ROW 1 to 20
Bankatawa	4	51	17264.8846	1028	3.084		ROW 1 to 20
Bankatawa	4	49	6128.07882	1064	3.192		ROW 1 to 20
Bankatawa	4	30	13365.9515	428	1.284		ROW 1 to 20
Samsergunj	5	20	2498.08097	189	0.567		ROW 1 to 20
Samsergunj	3	108	7293.75607	1450	4.35		ROW 1 to 20
Samsergunj	3	999995	1383.3557	187	0.561		ROW 1 to 20
Bankatawa	4	39	662.868812	322	0.966		ROW 1 to 20
Bankatawa	4	6	2784.79345	120	0.36		ROW 1 to 20
Bankatawa	4	281	1971.79014	210	0.63		ROW 1 to 20
Bankatawa	4	200	89.0371137	82	0.246		ROW 1 to 20
Bankatawa	4	8	400.505037	83	0.249		ROW 1 to 20
Bankatawa	4	7	938.388132	140	0.42		ROW 1 to 20
Bankatawa	4	38	3223.16157	730	2.19		ROW 1 to 20
Bankatawa	4	370001	5186.14321	547	1.641		ROW 1 to 20
Bankatawa	4	300002	6707.06503	707	2.121		ROW 1 to 20
Bankatawa	4	290002	5896.46915	801	2.403		ROW 1 to 20
Bankatawa	4	32	3039.88899	312	0.936		ROW 1 to 20
Bankatawa	4	31	6634.51505	697	2.091		ROW 1 to 20
Samsergunj	3	44	22608.7607	88	0.264		ROW 1 to 20
Samsergunj	3	174	3551.39547	183	0.549		ROW 1 to 20
Bankatawa	4	26	3769.50163	641	1.923		ROW 1 to 20

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Bankatawa	3	999978	7469.7139	219	0.657		ROW 1 to 20
Bankatawa	4	803	398.827663	105	0.315		ROW 1 to 20
Bankatawa	4	610002	1274.73789	122	0.366		ROW 1 to 20
Bankatawa	4	573	4281.59634	996	2.988		ROW 1 to 20
Bankatawa	4	804	405.679927	111	0.333		ROW 1 to 20
Bankatawa	4	848002	2045.6459	487	1.461		ROW 1 to 20
Bankatawa	4	36	5740.76946	672	2.016		ROW 1 to 20
Bankatawa	4	590	16274.4315	1374	4.122		ROW 1 to 20
Bankatawa	4	834	2018.58328	32	0.096		ROW 1 to 20
Samsergunj	3	137	5063.07987	462	1.386		ROW 1 to 20
Samsergunj	3	136	1424.88375	388	1.164		ROW 1 to 20
Bankatawa	3	29	4752.51455	169	0.507		ROW 1 to 20
Samsergunj	3	140002	11046.5096	174	0.522		ROW 1 to 20
Samsergunj	3	138	1781.27859	715	2.145		ROW 1 to 20
Samsergunj	3	198	1591.55316	10	0.03		ROW 1 to 20
Samsergunj	3	139	4892.5565	305	0.915		ROW 1 to 20
Samsergunj	3	154001	537.980443	41	0.123		ROW 1 to 20
Bankatawa	3	999979	927.707155	93	0.279		ROW 1 to 20
Bankatawa	3	22	7522.84173	1005	3.015		ROW 1 to 20
Bankatawa	3	173	29364.7829	2792	8.376		ROW 1 to 20
Bankatawa	3	4	6014.85021	207	0.621		ROW 1 to 20
Bankatawa	3	360001	19730.6423	1595	4.785		ROW 1 to 20

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	3	999981	7134.2529	1222	3.666		ROW 1 to 20
Bankatawa	3	20	909.505813	82	0.246		ROW 1 to 20
Bankatawa	3	231	1304.75311	2	0.006		ROW 1 to 20
Bankatawa	4	800	2562.49655	713	2.139		ROW 1 to 20
Bankatawa	4	69	3146.57054	175	0.525		ROW 1 to 20
Bankatawa	4	516	174.623219	94	0.282		ROW 1 to 20
Bankatawa	4	799	2730.89101	776	2.328		ROW 1 to 20
Bankatawa	4	912	180.349519	105	0.315		ROW 1 to 20
Bankatawa	4	911	1696.19946	955	2.865		ROW 1 to 20
Bankatawa	4	145	3437.75763	749	2.247		ROW 1 to 20
Bankatawa	4	910	2996.81793	152	0.456		ROW 1 to 20
Bankatawa	4	576002	1150.49627	775	2.325		ROW 1 to 20
Bankatawa	4	563	518.518026	149	0.447		ROW 1 to 20
Bankatawa	4	576001	237.145195	138	0.414		ROW 1 to 20
Bankatawa	4	580	5631.43238	428	1.284		ROW 1 to 20
Bankatawa	4	561	246.61337	124	0.372		ROW 1 to 20
Bankatawa	4	562	568.638962	370	1.11		ROW 1 to 20
Bankatawa	4	565001	111.657898	112	0.336		ROW 1 to 20
Bankatawa	4	560	210.978702	85	0.255		ROW 1 to 20
Bankatawa	4	189002	2006.42738	755	2.265		ROW 1 to 20
Bankatawa	4	490	214.835388	142	0.426		ROW 1 to 20
Bankatawa	4	718	322.269438	133	0.399		ROW 1 to 20

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Bankatawa	4	488	158.916551	91	0.273		ROW 1 to 20
Bankatawa	4	290001	5942.9604	1161	3.483		ROW 1 to 20
Bankatawa	4	691	2902.87221	600	1.8		ROW 1 to 20
Bankatawa	4	131	1754.33186	692	2.076		ROW 1 to 20
Bankatawa	4	390001	348.901559	109	0.327		ROW 1 to 20
Bankatawa	4	140	2426.59134	351	1.053		ROW 1 to 20
Bankatawa	4	128	3346.32991	103	0.309		ROW 1 to 20
Bankatawa	4	141	5305.92498	1328	3.984		ROW 1 to 20
Bankatawa	4	400003	5756.43602	118	0.354		ROW 1 to 20
Bankatawa	4	133	1468.94121	546	1.638		ROW 1 to 20
Bankatawa	4	717	206.33602	85	0.255		ROW 1 to 20
Bankatawa	4	129	2249.79861	208	0.624		ROW 1 to 20
Bankatawa	4	134	1864.41237	247	0.741		ROW 1 to 20
Bankatawa	4	6	1597.37134	46	0.138		ROW 1 to 20
Bankatawa	4	589	5282.23573	489	1.467		ROW 1 to 20
Bankatawa	4	26	881.56524	286	0.858		ROW 1 to 20
Bankatawa	4	800001	37544.265	229	0.687		ROW 1 to 20
Bankatawa	4	578	6553.16913	42	0.126		ROW 1 to 20
Bankatawa	4	577	362.795211	4	0.012		ROW 1 to 20
Bankatawa	4	650	5020.97469	631	1.893		ROW 1 to 20
Bankatawa	4	400002	7023.68244	1518	4.554		ROW 1 to 20
Bankatawa	4	105	725.878142	28	0.084		ROW 1 to 20

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Bankatawa	4	106	3649.61314	51	0.153		ROW 1 to 20
Bankatawa	4	100004	5430.85276	937	2.811		ROW 1 to 20
Samsergunj	6	113	864.810275	97	0.291		ROW 1 to 20
Samsergunj	2	360	358.030246	78	0.234		ROW 21 to 40
Samsergunj	2	590	1947.0216	537	1.611		ROW 21 to 40
Samsergunj	2	27	1608.70306	152	0.456		ROW 21 to 40
Samsergunj	2	565	733.802644	0	0		ROW 21 to 40
Samsergunj	2	25	934.957146	417	1.251		ROW 21 to 40
Samsergunj	2	24	2071.48456	709	2.127		ROW 21 to 40
Samsergunj	2	22	6427.18976	1200	3.6		ROW 21 to 40
Samsergunj	2	564	5573.34995	588	1.764		ROW 21 to 40
Samsergunj	2	999980	4448.25324	137	0.411		ROW 21 to 40
Samsergunj	2	51	3309.06892	388	1.164		ROW 21 to 40
Samsergunj	2	52	3367.22901	0	0		ROW 21 to 40
Samsergunj	2	612	3111.90931	404	1.212		ROW 21 to 40
Samsergunj	2	50	3543.92472	910	2.73		ROW 21 to 40
Samsergunj	2	26	1529.31056	670	2.01		ROW 21 to 40
Samsergunj	2	436	2078.84298	159	0.477		ROW 21 to 40
Ganapur	8	670	362.472922	317	0.951		ROW 21 to 40
Ganapur	8	867	563.617575	139	0.417		ROW 21 to 40
Ganapur	8	858	2413.75003	996	2.988		ROW 21 to 40
Ganapur	8	120001	6378.83048	2418	7.254		ROW 21 to 40

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Ganapur	8	25	4591.22584	1943	5.829		ROW 21 to 40
Ganapur	8	3	33078.4779	1128	3.384		ROW 21 to 40
Ganapur	8	866	1015.89003	229	0.687		ROW 21 to 40
Ganapur	8	38	1664.7968	682	2.046		ROW 21 to 40
Ganapur	8	857	2413.75001	954	2.862		ROW 21 to 40
Ganapur	8	768	3104.24706	876	2.628		ROW 21 to 40
Ganapur	8	340	1254.82148	667	2.001		ROW 21 to 40
Ganapur	8	341	1191.8715	304	0.912		ROW 21 to 40
Ganapur	8	11	13610.7816	383	1.149		ROW 21 to 40
Ganapur	8	13	25232.3349	411	1.233		ROW 21 to 40
Ganapur	8	859	4964.82959	2250	6.75		ROW 21 to 40
Ganapur	7	373	11357.5473	1	0.003		ROW 21 to 40
Ganapur	7	675	692.66582	307	0.921		ROW 21 to 40
Ganapur	7	700	1940.86227	32	0.096		ROW 21 to 40
Ganapur	7	699	3432.05297	24	0.072		ROW 21 to 40
Ganapur	7	376	1544.52462	598	1.794		ROW 21 to 40
Ganapur	7	377	1470.32985	460	1.38		ROW 21 to 40
Ganapur	7	625	4486.99345	1788	5.364		ROW 21 to 40
Ganapur	7	626	439.450994	440	1.32		ROW 21 to 40
Ganapur	7	624001	3829.11761	171	0.513		ROW 21 to 40
Ganapur	7	384	2040.78264	446	1.338		ROW 21 to 40
Ganapur	7	387	1029.46367	430	1.29		ROW 21 to 40

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Ganapur	7	378	775.871027	306	0.918		ROW 21 to 40
Ganapur	7	381	2292.37556	389	1.167		ROW 21 to 40
Ganapur	7	383	6136.11354	837	2.511		ROW 21 to 40
Ganapur	7	388	2728.9531	29	0.087		ROW 21 to 40
Ganapur	7	382	2361.4737	373	1.119		ROW 21 to 40
Ganapur	7	379	2331.28518	825	2.475		ROW 21 to 40
Ganapur	7	999994	793.627579	176	0.528		ROW 21 to 40
Ganapur	7	292	2183.76321	755	2.265		ROW 21 to 40
Ganapur	7	293	196.13796	106	0.318		ROW 21 to 40
Ganapur	7	311	1928.27557	736	2.208		ROW 21 to 40
Ganapur	7	344	2341.13073	140	0.42		ROW 21 to 40
Ganapur	7	701	334.050401	0	0		ROW 21 to 40
Ganapur	7	312	2187.15408	719	2.157		ROW 21 to 40
Ganapur	7	333	251.649248	131	0.393		ROW 21 to 40
Ganapur	7	332	259.229707	163	0.489		ROW 21 to 40
Ganapur	7	334	1023.45347	386	1.158		ROW 21 to 40
Ganapur	7	289	199.822366	187	0.561		ROW 21 to 40
Ganapur	7	290	113.146695	16	0.048		ROW 21 to 40
Ganapur	7	287	166.241174	1	0.003		ROW 21 to 40
Ganapur	7	288	219.821235	208	0.624		ROW 21 to 40
Ganapur	7	291	154.00367	38	0.114		ROW 21 to 40
Ganapur	7	553	838.740776	71	0.213		ROW 21 to 40



VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Ganapur	7	563	1942.29407	36	0.108		ROW 21 to 40
Ganapur	7	286	4523.70491	1524	4.572		ROW 21 to 40
Ganapur	7	277	543.56304	19	0.057		ROW 21 to 40
Ganapur	7	278	872.169076	256	0.768		ROW 21 to 40
Ganapur	7	279	982.323786	394	1.182		ROW 21 to 40
Ganapur	7	554	1058.92703	295	0.885		ROW 21 to 40
Ganapur	7	561	2495.23539	694	2.082		ROW 21 to 40
Ganapur	7	13	10428.2806	240	0.72		ROW 21 to 40
Ganapur	7	12	7347.68395	132	0.396		ROW 21 to 40
Ganapur	7	11	5807.47198	140	0.42		ROW 21 to 40
Ganapur	7	195	2584.88368	60	0.18		ROW 21 to 40
Belhari	7	264	803.474003	479	1.437		ROW 21 to 40
Belhari	7	266	1185.21536	469	1.407		ROW 21 to 40
Belhari	7	275	827.668585	491	1.473		ROW 21 to 40
Belhari	7	265	1464.38976	62	0.186		ROW 21 to 40
Belhari	7	261	325.392832	134	0.402		ROW 21 to 40
Belhari	7	262	362.429857	252	0.756		ROW 21 to 40
Belhari	7	426	74.502631	40	0.12		ROW 21 to 40
Ganapur	7	427	173.717768	20	0.06		ROW 21 to 40
Ganapur	7	426	2563.96222	463	1.389		ROW 21 to 40
Belhari	7	429	1921.4348	235	0.705		ROW 21 to 40
Belhari	7	300	1710.03936	114	0.342		ROW 21 to 40

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Belhari	7	301	1787.68762	74	0.222		ROW 21 to 40
Belhari	7	263	5595.18953	771	2.313		ROW 21 to 40
Belhari	7	259	919.496131	55	0.165		ROW 21 to 40
Belhari	7	740	305.639187	297	0.891		ROW 21 to 40
Belhari	7	260	2197.00073	826	2.478		ROW 21 to 40
Belhari	7	741	268.194125	146	0.438		ROW 21 to 40
Ganapur	7	340	284.528944	182	0.546		ROW 21 to 40
Ganapur	7	341	560.575635	356	1.068		ROW 21 to 40
Ganapur	7	676	619.924429	319	0.957		ROW 21 to 40
Ganapur	7	374	1743.03348	1069	3.207		ROW 21 to 40
Ganapur	7	339	315.146895	204	0.612		ROW 21 to 40
Ganapur	7	335	165.50431	77	0.231		ROW 21 to 40
Ganapur	7	336	173.23252	86	0.258		ROW 21 to 40
Ganapur	7	338	360.120042	172	0.516		ROW 21 to 40
Ganapur	7	337	1838.66176	645	1.935		ROW 21 to 40
Belhari	7	223	2436.19298	149	0.447		ROW 21 to 40
Belhari	7	374	310.908809	183	0.549		ROW 21 to 40
Belhari	7	12	224.757343	19	0.057		ROW 21 to 40
Belhari	7	375	523.188253	4	0.012		ROW 21 to 40
Belhari	7	269	351.046301	337	1.011		ROW 21 to 40
Belhari	7	375	94.0755732	55	0.165		ROW 21 to 40
Belhari	7	274	737.428402	402	1.206		ROW 21 to 40

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Belhari	7	268	6299.91931	1622	4.866		ROW 21 to 40
Belhari	7	270	1485.84477	361	1.083		ROW 21 to 40
Belhari	7	273	1601.3725	226	0.678		ROW 21 to 40
Ganapur	8	41	5910.37221	216	0.648		ROW 21 to 40
Ganapur	8	42	7649.47726	968	2.904		ROW 21 to 40
Ganapur	8	50	3199.69618	862	2.586		ROW 21 to 40
Ganapur	8	52	5523.90484	1163	3.489		ROW 21 to 40
Ganapur	8	48	2871.74651	72	0.216		ROW 21 to 40
Ganapur	8	770	2077.04637	491	1.473		ROW 21 to 40
Ganapur	8	51	1967.6299	740	2.22		ROW 21 to 40
Belhari	7	223	2386.6975	1280	3.84		ROW 21 to 40
Ganapur	8	49	4186.8215	1101	3.303		ROW 21 to 40
Samsergunj	7	915	1877.76844	632	1.896		ROW 21 to 40
Samsergunj	7	834	462.936158	121	0.363		ROW 21 to 40
Samsergunj	7	917	921.273853	53	0.159		ROW 21 to 40
Samsergunj	2	440	3654.97656	798	2.394		ROW 21 to 40
Samsergunj	2	439	3647.77013	30	0.09		ROW 21 to 40
Samsergunj	7	22	3948.71121	967	2.901		ROW 21 to 40
Samsergunj	7	151	7697.64259	843	2.529		ROW 21 to 40
Samsergunj	2	6	11702.4071	319	0.957		ROW 21 to 40
Samsergunj	2	48	6957.52267	1565	4.695		ROW 21 to 40
Samsergunj	7	23	3985.85189	460	1.38		ROW 21 to 40


VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	7	149	114.643548	98	0.294		ROW 21 to 40
Samsergunj	7	81	1496.75804	169	0.507		ROW 21 to 40
Samsergunj	7	17	3270.2731	298	0.894		ROW 21 to 40
Samsergunj	7	152	418.132052	105	0.315		ROW 21 to 40
Samsergunj	7	156	19824.9558	1326	3.978		ROW 21 to 40
Samsergunj	7	915	3164.47007	26	0.078		ROW 21 to 40
Samsergunj	7	999976	5088.55492	260	0.78		ROW 21 to 40
Samsergunj	7	11	5306.01382	292	0.876		ROW 21 to 40
Samsergunj	7	12	5951.68372	977	2.931		ROW 21 to 40
Samsergunj	7	80	947.299413	319	0.957		ROW 21 to 40
Samsergunj	7	13	4348.29428	941	2.823		ROW 21 to 40
Samsergunj	7	155	1319.61198	474	1.422		ROW 21 to 40
Samsergunj	7	14	1145.99266	111	0.333		ROW 21 to 40
Samsergunj	7	916	350.281145	202	0.606		ROW 21 to 40
Samsergunj	7	1451	1345.69917	446	1.338		ROW 21 to 40
Samsergunj	7	917	214.584925	114	0.342		ROW 21 to 40
Samsergunj	7	690	532.632053	122	0.366		ROW 21 to 40
Samsergunj	7	1070	737.716004	86	0.258		ROW 21 to 40
Samsergunj	7	1052	1646.55767	1	0.003		ROW 21 to 40
Samsergunj	7	693	2893.78989	356	1.068		ROW 21 to 40
Samsergunj	7	693	4256.89394	306	0.918		ROW 21 to 40
Samsergunj	7	691	3884.58931	609	1.827		ROW 21 to 40


VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Samsergunj	7	1434	4907.6542	5	0.015		ROW 21 to 40
Samsergunj	7	1435	4183.90781	1624	4.872		ROW 21 to 40
Samsergunj	7	836	697.576841	143	0.429		ROW 21 to 40
Samsergunj	7	260001	8569.15714	1070	3.21		ROW 21 to 40
Samsergunj	7	12	6588.46274	1863	5.589		ROW 21 to 40
Samsergunj	7	1050	936.589187	463	1.389		ROW 21 to 40
Samsergunj	7	27	8132.6764	1150	3.45		ROW 21 to 40
Samsergunj	7	771	9895.80414	1027	3.081		ROW 21 to 40
Samsergunj	7	300001	7523.68559	157	0.471		ROW 21 to 40
Samsergunj	7	43	4285.03243	695	2.085		ROW 21 to 40
Samsergunj	7	96	2377.24769	790	2.37		ROW 21 to 40
Samsergunj	7	94	2324.8173	730	2.19		ROW 21 to 40
Samsergunj	7	64	4355.74731	668	2.004		ROW 21 to 40
Samsergunj	7	999991	171.787322	50	0.15		ROW 21 to 40
Samsergunj	7	63	370.779047	47	0.141		ROW 21 to 40
Ganapur	8	103	6486.08672	2122	6.366		ROW 21 to 40
Ganapur	8	105	2372.58612	880	2.64		ROW 21 to 40
Ganapur	8	80	12795.318	1125	3.375		ROW 21 to 40
Ganapur	8	16	1297.99288	988	2.964		ROW 21 to 40
Ganapur	8	14	15382.7159	532	1.596		ROW 21 to 40
Ganapur	8	70	9399.87907	359	1.077		ROW 21 to 40
Ganapur	8	125	5407.11841	2111	6.333		ROW 21 to 40

VDC Name	Ward No	Parcel No	Total Area of affected parcel (SQM)	Affected Area (SQM) for RoW	Affected area in local unit (Kattha)	Owner Name	Remarks
Ganapur	8	124	5617.73653	0	0		ROW 21 to 40
Ganapur	8	69	5907.68948	1463	4.389		ROW 21 to 40
Bageshwori	9	4	1715.79851	382	1.146		ROW 21 to 40
Bageshwori	9	154	1045.04525	107	0.321		ROW 21 to 40
Bageshwori	9	153	1025.03023	318	0.954		ROW 21 to 40
Bageshwori	9	120001	14791.127	295	0.885		ROW 21 to 40
Bageshwori	9	3	995.096476	61	0.183		ROW 21 to 40
Ganapur	8	10	5551.62827	1458	4.374		ROW 21 to 40
Ganapur	8	12	6273.18451	2292	6.876		ROW 21 to 40
Ganapur	8	56	3293.47901	184	0.552		ROW 21 to 40
Bageshwori	9	152	1044.76925	396	1.188		ROW 21 to 40


<b>Total affected land as per design in RoW area (in SQM)</b>	<b>290,699.73</b>
<b>Total affected area in local unit (Kattha)</b>	<b>858.45</b>
<b>Average cost of land in local unit (Per Kattha)</b>	<b>2,000,000.00</b>
<b>Total cost of restricted area of land</b>	<b>1,716,900,000.00</b>
<b>30% cost of total value of affected land (ROW)</b>	<b>515,070,000.00</b>


**Appendix N: Details of Affected Structures in Substation and Transmission Line**


Household No: Dumkibas SS-01		Affected Structures and Measurement and Estimated Cost			
	Story	Total Area (sq. ft.)	Area of structure to be acquired (sq. ft.)	Rate Per unit (sq. ft.)	Total
	First	500	500	LS	2,000,000.00
	Veranda Open terrace	60	60	LS	20,000.00
	Shed	120	120		45,000.00
	Toilet	30	30		3,0000.00
	<b>Total</b>				<b>3,000,000.00</b>
Name of owner:					
Residential house:		Type of structure: Permanent, Material used in wall: Cement block, Cement, wood, rod, Material used in roof: Tin (Zink), Present use: Residential, Construction year: 2075 (2018)			
Toilet:		Cement Block wall, Pan with safety tank and tin roof, household use.			
Baranda/ Open terrace and shed:		Attached with residential building			



Household No: Dumkibas SS-02	Affected structures and Measurement and estimated cost				
	Story	Total Area (sq. ft.)	Area of structure to be acquired. (sq. ft.)	Rate Per unit (sq. ft.)	Total
	First	572	572	LS	2,200,000.00
	Veranda open terrace	70	70	LS	25,000.00
	Shed	150	150	LS	55,000.00
	Toilet	30	30	LS	30,000.00
	Total				2,315,000.00
Name of owner: Address: Binayeetribeni - 2, Sustapurba, Nawalparasi Name of father / Husband:					
Residential house	Type of structure: Permanent Material used in wall: Cement block and Cement, rod. Material used in roof: Tin (Zink plate) Present use: Residential Construction year: 2076 (2019)				
Toilet:	Cement Block wall, Pan with safety tank and tin roof				
Baranda/ Open terrace and shed:	Attached with residential building				
Shed:	Wood, tin roof, open shed not in use.				




<b>Household No: Dumkibas SS-03</b>	<b>Affected structures and Measurement and estimated cost</b>				
	Story	Total Area (sq. ft.)	Area of structure to be acquired (sq. ft.)	Rate Per unit (sq. ft.)	Total
	First	460	460	LS	1,950,000.00
	Veranda open terrace	72	72	LS	26,000.00
	Toilet				
	Kitchen	55	55	LS	50,000.00
	<b>Total</b>				<b>2,026,000.00</b>
Name of owner:					
<b>Residential house:</b>	Type of structure: Permanent Material used in wall: Cement block and Cement, rod Material used in roof: Tin (Zink plate) Present use: Residential Construction year: 2076 (2019)				
Baranda/open terrace	Attached with Residential house				

Household No. Dumkibas SS-04		Affected structures and Measurement and estimated cost				
	Story	Total Area (sq. ft.)	Area of structure to be acquired (sq. ft.)	Rate Per unit (sq. ft.)	Total	
	First	260	260	LS	1,500,000.00	
	Shed house	100	100		20,000.00	
	Shed	50	50		10,000.00	
	Toilet	30	30		30,000.0	
	Total				1,650,000.00	
Name of owner:						
Residential House		Type of structure: Permanent, Material used in wall: Wood, tin and mud, Material used in roof: Tin (Zink plate), Present use: Residential. Construction year: 2074 (2017)				
Toilet		Stone, mud, cement, and tin roof, pan with safety tank				
Shed		Temporary type, straw roof, using as a store of firewood.				


Household No. Dumkibas SS-05		Affected structures and Measurement and estimated cost				
	Story	Total Area (sq. ft.)	Area of structure to be acquired. (sq. ft.)	Rate Per unit (sq. ft.)	Total	
	First	600	600	LS	200,000.00	
	Shed	60	60		20,000.00	
	Toilet	30	30		50,000.0	
	Total				1,650,000.00	
Name of owner:						
Residential house		Type of structure: Permanent Material used in wall: Wood, tin, mud. Material used in roof: Tin (Zink plate) Present use: Residential Construction year: 2073 (2016)				
Toilet		Stone and cement wall, RCC roof, pan with safety tank and overhead water tank				
Shed		Wood pillar and tin roof				

Household No. Dumkibas SS-06		Affected structures and Measurement and estimated cost				
 <p>House (1)</p>  <p>Housee (2)</p> <p>Name of owner:</p>	Story	Total Area (sq. ft.)	Area of structure to be acquired. (sq. ft.)	Rate Per unit (sq. ft.)	Total	
	Ground Floor	336	336	LS	3,200,000.00	
	First floor	336	336	LS		
	Pali/shed	190	190	LS	100,000.00	
	Another house	270	270	LS	1500000.00	
	Shed/pali	99	99	LS	20,000.00	
	Kitchen	64	64	LS	60,000.00	
	Shed	117	117	LS	100,000.00	
	Cow shed	260	260	LS	150,000.00	
	Next kitchen	100	100	LS	40,000.00	
	Toilet	30	30	LS	30,000.00	
			Total			
Residential house (two story)		Type of structure: Permanent Material used in wall: Stone, tin, mud. Material used in roof: Tin (Zink plate) Present use: Residential Construction year: 2043/2073 (1986/87 and 2016) House is surrounded by shed with tin roof for additional Space.				
Residential house (single story)		Permanent type of structures and constructed Cement block and with Tin roof and recently not in use. Constructed 2069 (2012)				

Kitchen	Two kitchens constructed using wood pillar, mud and tin Roof but only one is using.
Cow Shed	Wood pillar and tin roof
Shed	Wood pillar, tin roof
Toilet	Cement Block and tin roof, pan with safety tank


Household No. Dumkibas SS-07	Affected structures and Measurement and estimated cost				
	Story	Total Area (sq. ft.)	Area of structure to be acquired (sq. ft.)	Rate Per unit (sq. ft.)	Total
	First	600	600	LS	200,000.00
	Shed/Pali	125	125		20,000.00
	Kitchen	260	260		35,000.00
	Toilet	30	30		30,000.0
	<b>Total</b>				<b>1,650,000.00</b>
Name of owner:					
Residential house	Type of structure: Permanent Material used in wall: Cement Block, Cement, Rod and stone Material used in roof: Tin (Zink plate) Present use: Residential Construction year: 2072 (2015)				
Toilet	Cement Block, Cement, tin roof, pan with safety tank				
Shed/Pali	Attached with residential house				
Kitchen	Attached with residential house in the back site				
Shed	Tin roof, wood and cement block, using as a firewood store				


Household No. Dumkibas SS-08	Affected structures and Measurement and estimated cost
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	Story	Total Area (sq. ft.)	Area of structure to be acquired (sq. ft.)	Rate Per unit (sq. ft.)	Total
	First floor	315	315	LS	3,000,000.00
	Second floor	315	315		
	Shed/Pali	105	105		15,000.00
	Toilet	30	30		30,000.0
	<b>Total</b>				<b>3,045,000.00</b>
Name of owners					
Residential house	Type of structure: Permanent Material used in wall: Cement Block, Cement, wood. Material used in roof: Tin (Zink plate) Present use: Not in use Construction year: 2071 (2014/2015)				
Toilet	Cement Block, Cement, tin roof, pan with safety tank				
Shed/Pali	Attached with residential house				



### Affected structures in Kohalpur-Nepalgunj Transmission Line

Household No. KNTL-01	Affected structures and Measurement and estimated cost				
	Story	Total Area (sq. ft.)	Area of structure to be acquired. (sq. ft.)	Rate Per unit (sq. ft.)	Total
	First floor	136	136	LS	118,000.00
	Hand Pump	1 no		L S	15,000.00
	<b>Total</b>				<b>133,000.00</b>
Name of owners:					
Residential house	Type of structure: Temporary Material used in wall: Wood and straw. Material used in roof: Straw Present use: Residential Construction year: 2070 (2013/2014)				

Household No. KNTL-02	Affected structures and Measurement and estimated cost				
	Story	Total Area (sq. ft.)	Area of structure to be acquired. (sq. ft.)	Rate Per unit (sq. ft.)	Total
	First floor	112	112	LS	106,000.00
	<b>Total</b>				<b>106,000.00</b>
Name of owners:					
Type of structure: Temporary, Material used in wall: Straw and wood, Material used in roof: Straw					
Present use: Residential, Construction year: 2070 (2013/2014)					

Household No. KNTL-03	Affected structures and Measurement and estimated cost				
	Story	Total Area (sq. ft.)	Area of structure to be acquired. (sq. ft.)	Rate Per unit (sq. ft.)	Total
	Shed	-	-	LS	100,000.00
	<b>Total</b>				<b>100,000.00</b>
Name of owners:					
Type of structure: Temporary, Material used: Iron pipe frame and tin roof Present use: Shed for playground, Construction year: 2076 (2020/2021)					