

**Updated Resettlement Action Plan (RAP)
of
Hetauda-Dhalkebar-Duhabi 400 kV TL**

Submitted To:

**Nepal India Electricity Transmission and Trade Project
Hetauda-Dhalkebar-Duhabi 400 kV Transmission Line
Nepal Electricity Authority
Kharipati, Bhaktapur**

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ABBREVIATIONS

CBO	Community Based Organization
CDO	Chief District Officer
CDC	Compensation Determination Committee
CFUG	Community Forest User Group
DADO	District Agriculture Development Office
DDC	District Development Committee
DFO	District Forest Office
DHO	District Health Office
EIA	Environmental Impact Assessment
EMF	Electromagnetic Fields
ESMF	Environmental and Social Management Framework
ESSD	Environment and Social Studies Department
FGD	Focus Group Discussion
GON	Government of Nepal
HEP	Hydro Electric Project
HH	Household
HDD-ESMU	Hetauda-Dhalkebar-Duhabi Environment & Social Mgmt. Unit
INPS	Integrated Nepal Power System
IPP	Independent Power Producers
IRPA	International Radiation Protection Association
KIIs	Key Informant Interviews
km	Kilometer
kV	Kilovolt
LCF	Local Consultative Forum
LDO	Local Development Officer
LARU	Land Acquisition and Rehabilitation Unit
NEA	Nepal Electricity Authority
NRs.	Nepalese Rupees
NGO	Non Governmental Organization
PAF	Project Affected Family
PAP	Project Affected Person
PCU	Program Coordination Unit
PRA	Participatory Rapid Appraisal
RAP	Resettlement Action Plan
ROW	Right of Way
SIA	Social Impact Assessment
TL	Transmission Line
VDC	Village Development Committee
WB	The World Bank

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EXECUTIVE SUMMARY

At present Nepal faces power deficit, due to severe imbalance in demand and supply of electricity in the country. It has led to unexpected load shedding (even more than 12 hours) in Nepal since the last 2 to 3 years. This situation has resulted negative impact on production and service sectors and overall development of the nation.

Many independent power producers (IPP) are putting their efforts on developing hydroelectric projects to address power demand of Nepal as well as export excess power to India. At present in absence of 400 kV transmission line power generated in one part of Nepal could not be transmitted to other parts as well as import power from India to address the present power crisis of Nepal. The existing 132 kV transmission line capacity is not sufficient for this purpose and a strong 400 kV double circuit transmission line is required.

Therefore, the proposed Hetauda- Dhalkebar- Duhabi 400 kV Transmission Line Project is a high priority project of NEA to address the current power crisis by importing power from India. Similarly, it will also help power transmission within Nepal and export excess power to India in the future.

The proposed project is located in Central and Eastern Development Regions of Nepal. The total estimated length of the Hetauda-Dhalkebar-Duhabi transmission line 288.213 km

The proposed transmission line will be double circuit comprising of duplex overhead conductor. Each line circuit will have three phases, each phase comprising two separate aluminum conductor steel reinforced (ACSR). The right of way (RoW) of the proposed transmission line is 23 meters on each side from the centerline of the overhead transmission line as per the Electricity Regulation, 1993.

While selecting the transmission line alignment, due consideration has been given to avoid the settlement areas, inbuilt structures, religious places, schools and other community infrastructures as far as possible.

Major structures of the project include construction of a substation at Bokraha tole of Bokraha VDC of Sunsari district one substation at Dhalkebar of Dhanusha and one substation at Hetauda of Makawanpur. A total of 42 ha private land will be acquired by the project for the substations and tower pands.

The duration of the project is 7 years including 6 months of pre-construction phase. About 1000 people including 100 skilled, 300 semi-skilled and 600 unskilled will be require for construction of the project. The unskilled people will be hired locally.

An assessment of the project was conducted from June to Dec 2016 to assess its adverse social impacts and prepare updated RAP Report.

Both the primary and secondary data was collected for the assessment. The primary data was collected using both the qualitative and quantitative research techniques. The methods of RAP include but not limited to review of literature, socio-economic survey of all affected households, PRA, key informant interview (47), market survey of the area and consultation with local and district level stakeholders.

Based on the data collected for assessment and inputs from experts, this RAP for the Hetauda- Dhalkebar- Duhabi 400 kV transmission line project has been prepared. The RAP has been prepared in compliance with prevailing legislation of GON, The World Bank policies, guidelines and best practices.

According to the Safeguard Policy of the World Bank, if a development project requires acquisition of land or property, which displaces people physically and/or economically, involuntary resettlement policy is triggered and RAP preparation becomes mandatory. Similarly, if the project is implemented in the inhabited areas of indigenous people the Policy of Indigenous People is also activated.

The basic principles of Involuntary Resettlement Policy are to avoid, minimize involuntary resettlement where possible and if unavoidable mitigate its adverse impacts by improving living standard of the affected persons or at least restore their livelihood to pre-project level.

The Bank defines indigenous people, as the people, who have their self-identification, collective attachment to ancestral lands, customary culture, economic, social, political institution and indigenous language.

It recognizes that the indigenous people are among the most marginalized and vulnerable segment of population who have limited ability to resist and participate in and derive benefit from development. They could play a vital role in planning and implementation of development projects and their continued consultation, participation and cooperation are of profound significance in all projects.

This RAP covers three categories of households: i) households affected by angle towers and suspension towers, ii) households affected by sub-stations iii) households/structures along the ROW.

For the RAP the project affected households/families have been categorized into three categories as follows:

- *Marginally Affected Households*: Households losing less than 10.0% of their total land.
- *Severely Affected Households*: Households losing more than 10% of their total land (This includes two sub-categories: i) Households losing more than 10% to 50% of their land and ii) Households losing more than 50% of their land. The households losing residential structures are also included in this category).
- *Vulnerable Households*: Women headed households, single women headed households, household heads with disabilities/old age, infected

with chronic disease and HIV/AIDS, and Dalit households affected by the project are categorized under this category.

The Hetauda-Dhalkebar-Duhabi 400 kV transmission line crosses 10 districts (one Hill and 9 Terai), 29 VDCs and 18 municipalities of two development regions.

The project area is inhabited by more than 50 different caste/ethnic groups of hill, Terai and mountain origin including Brahmin/Chhetri, Terai origin high caste/ethnic groups, indigenous and Dalits.

Of the total population, the population of Janjati and Bramhin/Chhetri constitute about half population of the project area. Similarly, there is a significant proportion of Dalits and Muslim population in the project area.

The households of indigenous people are scattered in the project area except concentration of Tharu in Northern VDCs of Rautahat, Bara, Siraha, Saptari districts of the project area.

The indigenous people of the area though have their self-identification and some (Tharu and Tamang) have customary culture and own language they do not have collective attachment to ancestral lands, economic, social and political institution.

Most of the indigenous people of the project area, excluding the Tharu and Majhi/Malaha in Terai and Tamang in Makawanpur, are of hill/mountain migrants, of them few have migrated and inhabited after eradication of Malaria (late fifties) and most after construction of the East-West Highway in search of quality of life.

Almost all the indigenous people of the project area are mixed together with other caste/ethnic groups of the area. They share common language, they have similarity in dress, follow culture and festivals of other caste/ethnic groups and other also follow their culture/festivals, share common resources and facilities and have social harmony.

In this way, the indigenous people of the project area are not much distinct with other caste/ethnic groups of the area regarding social and economic aspects.

The project will directly affect 564 households of seven districts of the project area. The total population of the 564 affected households is 3439, consisting of 52.9% males and 47.1% females. The average HH size of the surveyed Households is 6.1 persons.

Of the surveyed population aged five years and above, nearly 13.7% is illiterate. The gender gap in literacy is wide. The illiteracy among women is 19.3% whereas the illiteracy among men 8.9%.

The project affected households comprises of 22 different caste/ethnic groups of hill and Terai origin. These caste/ethnic groups have been further broadly categorized as Terai origin caste groups (advance), Janajati, Brahmin/Chhetri/Thakuri, Dalit and Muslim (ethnic minority). Of the affected households 28.72% are Terai origin caste groups, 44.68% are Janajati, 17.91% are Brahmin/ Chhetri, 3.38% are Dalit and 5.32% are Muslim. Maithali is the main spoken language in the family of the surveyed households of the project area (55.3%). The other spoken languages in the family are Nepali (36.2%), Tamang (6.0%) and Tharu (1.40%).

Agriculture, service (salaried job), wage employment and business/small industry are the main sources of livelihoods of the affected households. The project area is food deficit area. Only 38.1% of the surveyed households could grow enough food for their consumption in a year.

Of the surveyed households, about 56.4% have family debt for various reasons. The proportion of the households having family debt is more than 50.0% in almost all the districts.

The weighted average annual income of surveyed households is NRs 270,323. The contribution of off-farm is 73.68%, agriculture 23.5%, and livestock 2.86% to the total household income. Similarly, the annual weighted average expenditure of the surveyed households is NRs 202,421. Food items form the largest expense category, accounting for 50.21% of total reported expenditure.

The average land holding of the affected households is 1.1 ha. The highest holding (1.9ha) is in Rautahat and lowest (0.40 ha) in Makwanpur.

Paddy, sugarcane, wheat, maize and millet are the main crops cultivated by the surveyed households. Other crops include vegetables, potato and pulses. In terms of area coverage, paddy cultivation ranks first, sugarcane second, wheat third and maize fourth. Livestock ownership is an integral part of agriculture for the surveyed households of the project area.

The major sources of drinking water for the households of the area are tube-well, piped water and public tap. Of the surveyed households, 86.3% have tube well.

Most of the surveyed households of the area are aware of using toilets for personal hygiene and environmental sanitation. Of the surveyed households, over 87.4% use own toilet for defecation.

Of the affected households, 76.1% have positive attitude and 16.7% have negative attitude while 5% were neutral regarding the project and its implementation.

The affected households are expecting good compensation, employment, local development, and electrification from the project. Of the surveyed households, 52.1% expecting good compensation, 20.7% expecting

employment opportunity, 19.3% expecting skill development training, 5.0% expecting local development and 3.2% expecting electrification from the project.

The major socioeconomic and cultural environmental impact includes acquisition of 25.09 ha cultivated land owned by 493 households of 7 districts for construction of 2 sub-stations (Dhalkebar of Dhanusha, Bhokraha of Sunsari) and 792 towers. A total of 69 houses, 36 cowsheds, 42 other structures owned by 71HHs will be affected under RoW. Moreover, there will be the relocation of 2 temples, one at Dhalkebar of Dhanusha and one at Badaharmal of Siraha.

The key areas of concerns/issues raised by the local people and other stakeholders during community consultation are compensation rate and its determination mechanism, guarantee of compensation after construction of structures, livelihood support, change in alignment of the transmission line, community support programs and community participation in the project activities.

Based on the findings of the assessment, considering the size of the project and its national importance the social adverse impacts of the project are minimal. Appropriate mitigation/enhancement measures have been recommended for the affected households/families, community and public property to mitigate adverse social impact of the project and maximize its benefits. The key mitigation measures designed to support the project affected families during implementation of this RAP include: i) full compensation for the affected assets (land, structures, trees etc) at replacement value ; ii) dislocation as well as transportation allowances to those who need to be relocated due to loss of residential structures; iii) livelihood restoration measures comprising of different supports like cash assistance for the losses incurred due to land loss based on degree of severity, provision of different types of skill enhancement training designed for employment and income generation, provision of agricultural inputs for better crop production; iv) relocation of structures and facilities of cultural and religious importance and public services such as temples/ holy places and school; v) awareness raising on health and safety measures including HIV/AIDS. If the proposed mitigation and enhancement measures and social support programs are properly implemented adverse social impacts of the project could be minimized as well as the project would get implemented smoothly with supports from local people and communities.

Therefore, the study concludes that implementation of the proposed project is socially viable and there are no major social impacts that could not be mitigated or minimized.

1. INTRODUCTION

1.1 Background

Nepal Electricity Authority (NEA) has recently constructed the first cross border Dhalkebar-Muzaffarpur 400 kV transmission line in order to trade energy between Nepal and India and 220 kV Khimti-Dhalkebar transmission line to evacuate power generated from Upper Tamakoshi (with an installed capacity of 456 MW) and other energy generated from Tamakoshi Basin. Electric power potential of Tamakoshi basin exceeds 2000 MW and the nearest INPS center is Dhalkebar. Many independent power producers (IPP) are putting their efforts on developing hydroelectric projects (HEPs) in the country to address power demand of Nepal as well as export excess power to India via Dhalkebar-Muzaffarpur 400 kV and other planned cross border transmission lines.

At present Nepal faces power deficit, due to severe imbalance in demand and supply of electricity in the country. The annual peak electricity demand is increasing with an average of 10% annually. It has led to unprecedented load shedding since the last few years, and this situation is expected to continue in the coming years. This has resulted in severe loss to the productive sectors like industries and commerce in addition to the inconveniences to the consumers.

Realizing the importance of energy and current problem the Ministry of Energy (than the Ministry of Water Resources) has formulated National Electricity Crisis Management Plan, which was endorsed by cabinet decision of Government of Nepal. This plan includes short term, mid term and long-term program and activities, and responsibilities have been allocated accordingly. The proposed Hetauda-Dhalkebar-Duhabi 400 kV TL is under long-term program of the plan.

Similarly, NEA has signed a Memorandum of Understanding (MoU) with IL & FS of India to establish a separate company in Nepal to develop 4 interconnection links.

The imported power from India will be transmitted to Inarwua in the Eastern Development Region and Hetauda in the Central Development Region of Nepal. The existing 132 kV transmission line capacity will not be sufficient for this purpose. After commissioning of HEPs of higher capacity in this region there will be a requirement of a transmission backbone to transmit power from center to East and vice versa to transmit power to Dhalkebar for export to India via the planned cross-border transmission line. For this reason a strong 400 kV double circuit transmission line from Hetauda to Inarwua has been proposed.

In this context, the Hetauda- Dhalkebar- Duhabi 400 kV Transmission Line Project is one of the priority projects of NEA. The line starts from Hetauda Municipality of Makawanpur district and terminates at Duhabi VDC of Sunsari district. Therefore, the Hetauda- Dhalkebar- Duhabi 400 kV Transmission Line

will be an important transmission line of Nepal for power transmission and power trade between Nepal and India.

The Hetauda-Inarwua stretch of the transmission line passes through 10 districts, 29 VDCs and 18 municipalities of Central and Eastern Development Regions. It covers Makawanpur, Bara, Rautahat, Sarlahi, Mahottari, Dhanusha, Siraha, Saptari, Udayapur and Sunsari districts.

The total length of the transmission line is 288.213 Km of Hetauda-Inarwua stretch. Right of Way (RoW) of the transmission line is 46m (23m on each side of centerline) as per Electricity Regulation and each tower occupies an average area of 15mx15m.

A total of 3 substations are under construction- one each at Bhokraha of Sunsari, Dhalkebar of Dhanusha and Hetauda of Makawanpur. A total of 20.2ha. private land has been acquired by the project for the substations.

Resettlement means relocation of object, people, activity and performance to address tangible development over a period of time. This concerns the identification of area where the population to be relocated, resource planning to complement population need and develop linkage between other development infrastructures, such as market, road, drinking water, school, college, health post, hospital and communication in a cohesive manner.

The RAP has been prepared in accordance to the The World Bank policies, guidelines and best practices. The Bank policies emphasize the need to avoid or minimize involuntary resettlement on development projects. Where the acquisition of private property is unavoidable, involuntary resettlement should be regarded as an integral part of project design, preparation and implementation.

According to the Safeguard Policy of World Bank if a development project requires acquisition of land or property, which displaces people physically and/or economically, involuntary resettlement policy is triggered and RAP preparation becomes mandatory. The basic principles of Involuntary Resettlement Policy are to avoid, minimize involuntary resettlement where possible and if unavoidable mitigate its impacts by improving living standard of the affected persons or at least restore their livelihood to pre-project level.

This first RAP of Hetauda-Dhalkebar-Duhabi 400 kV Transmission Line has been prepared in 2011. Since the project alignment has been changed at some locations during the construction period of the line, this updated RAP has been prepared in order to update the previously prepared RAP Report. It covers the change in alignment, substation, towers including suspension towers and structures on RoW. This has been prepared based on the findings of census of affected households, inventory of affected private and public assets as well as resettlement impact assessment conducted from June to Dec 2016. This RAP covers two categories of households: i) households affected by substation and towers, ii) households/structures affected along the ROW.

1.2 Objectives of the Study

The main objective of the study was to assess adverse impacts of Hetauda-Dhalkebar-Inarwua transmission line on the land and infrastructures along its way and to update the previously prepared RAP.

The specific objectives of this study were to:

- Assess private and community resources affected by the project components and activities (i.e. loss of land, houses/property, infrastructures etc.) and the entitlements required for effective resettlement and rehabilitation,
- Conduct census survey of identified affected households and individuals including their socio-economic status and assets loss,
- Identify organizational and institutional requirement for the implementation of compensation,
- Conduct public consultations with various stakeholders focusing project impact, issues and mitigation measures including grievance handling,
- Develop resettlement and rehabilitation activities, implementation schedule and monitoring mechanisms, and
- Provide cost estimation for compensation, resettlement and rehabilitation activities.

1.3 Scope of the Study

The scope of this study is to update the RAP report of Hetauda-Dhalkebar-Duhabi 400 kV Transmission Line prepared in 2011. It includes 46 m right of way of the line in the project affected areas as mentioned in Chapter 3 under "Study Area".

1.4 Layout of the Report

This RAP contains 12 chapters. Chapter 1 includes introduction, chapter 2 contains project description, chapter 3 outlines the study methodology, chapter 4 provides information on resettlement policy and legal framework, chapter 5 describes about community consultation and grievance redressal mechanism,, chapter 6 details socio-economic condition of the project affected families, chapter 7 details impact assessment, chapter 8 includes mitigation and enhancement measures, chapter 9 details institutional arrangement, chapter 10 describes implementation schedule, Chapter 11 includes monitoring and evaluation and chapter 12 details mitigation and enhancement cost, source of funding, budgetary process and timing of expenditure.

2. PROJECT DESCRIPTION

2.1 Project Location

The proposed project is located in Central and Eastern Development Regions of Nepal. Physiographically, the project is located in Siwaliks and Terai area of Nepal. East-West Highway is the main access to the project area. Dhulikhel-Sindhuli- Bardibas road, Mirchaiya-Katari-Gaighat and Kadamchok-Bhediatar road are the other main access to the project area. The transmission line is accessible through feeder roads and foot trails from these roads. Simara, Janakpur and Biratnagar are the nearest airports to the site (Fig. 2.1).

2.2 Transmission Line Route

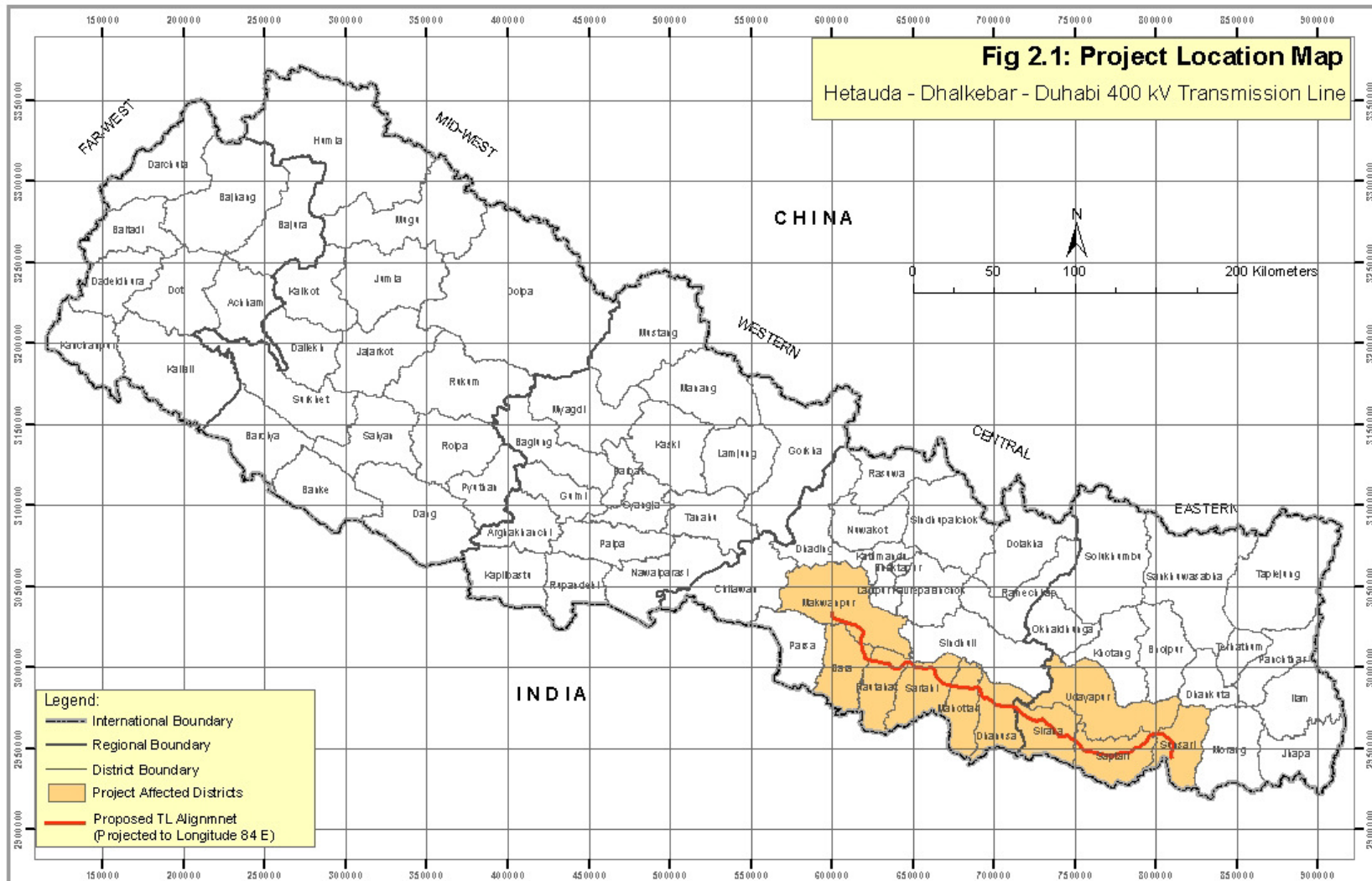
The under construction 400 kV HDDTL is 288.213 km in length and aligned parallel to existing 132 kV line to the extent possible. The TL starts from Hetauda Sub Metropolitan City Ward no 1 of Makwanpur district and terminates at the new Duhabi substation located at Ward no 7 (Bhokraha Tole/ Hanif tole) of Bhokraha VDC of Sunsari district.

The initial 18.6 km stretch of HDDTL passes through hill section (Hetauda–Harnamadi). The immediate next 23.4 km section passes through hill to Terai (Harnamadi–Nijgadh) and the remaining 246.213 km (Nijgadh–Dhalkebar–New Duhabi) passes through flat plain of Terai. There are altogether 792 tower pads as identified from the detailed check survey, out of which 454 are located on private land and 313 are located on forest land and remaining 25 are on other land.

The route of the line is dominated by flat cultivated plains. The land use of the alignment consists mainly of cultivated fields and forest, rivers, sand beaches and barren land. Most of the land within the RoW is currently being used for agriculture and there are settlements at various locations.

The transmission line passes through 10 districts (6 district of Central Development Region and 4 district of Eastern Development Region). The transmission line covers 29 VDCs and 18 municipalities.

While selecting the transmission line alignment, due consideration has been given to avoid the settlement areas, inbuilt structures, religious places, schools and other community infrastructures as far as possible. The project feature of the transmission line is given in Table 2.1.



2.3 Project Features

The proposed transmission line will be double circuit comprising of duplex overhead conductor. Each line circuit will have three phases, each phase comprising two separate aluminum conductor steel reinforced (ACSR).

The vertical double circuit configuration tower will have an average height of 45 m and the standard tower base dimensions will be 15 m x 15 m from centre to centre of each tower leg foundation/ footing. Steel tower leg and body extensions will be utilized to reduce foundation excavation on slopes and provide greater tower foundation structural security. The design span between tower structures is 400 m.

The right of way (RoW) of the proposed transmission line is 23 meters on each side from the centerline of the overhead transmission line as per the Electricity Regulation, 2050 (1993). The transmission line design features are given in Table 2.1.

Table 2.1: Project features

Features	Description	
General features		
Project	Nepal India Electricity Transmission and Trade Project, Hetauda – Dhalkebar – Duhabi 400 kV Transmission Line	
Zones	Narayani, Janakpur, Sagarmatha and Koshi	
Districts	10 districts	
Zones	Districts	VDCs/Municipalities*/Sub metropolitan city**
Narayani	Makwanpur	Hetauda**and Shreepur Chhatiwan and Dhiyal VDCs
”	Bara	Nijgadh*
”	Rautahat	Chandrapur*and Kanakpur, and Rangapur VDCs
Janakpur	Sarlahi	Hariwon*, Lalbandi* and Raniganj, Kalinjor, Dhungrekhola and Karmaiya VDCs
”	Mahottari	Bardibas municipality and Khayarmara VDC
”	Dhanusha	Chhirreswornath, Dhanushadham, Ganeshman Charnath and Mithila municipalities, andPuspapur VDC
Sagarmatha	Siraha	Lahan, Mirchaiya, Golbazar municipalities, and Dhangadi, Karjanha, Badahramal and Ayodhyanagar VDCs
”	Saptari	Shambhunath, Saptakoshi, and Kanchanpur municipalities, and Pansera, Paraswani, Madhupatti, Sitapur, Kusaha, Daulatpur, Jandaul, Kalyanpur, Bakdhuwa, Rayapur, Tehrauta and Khojpur VDCs
”	Udayapur	Tapeswari VDC.
Koshi	Sunsari	Ramdhuni Bhasi municipality, and Mahendranagar, Bhokraha and Dumraha VDCs
Initial point	New Hetauda Substation, Makwanpur Municipality 2, Makwanpur 2.	

<i>Terminal point</i>	1.New Duhabi Substation, Bhokraha VDC, Sunsari district	
<i>Number of major road crossing</i>	3	
<i>Number of major river crossings</i>	4	
<i>Number of 33 kV line crossings</i>	1	
<i>Number of 66 kV line crossings</i>	1	
<i>Number of 132 kV line crossings</i>	1	
Design features		
Line length	288.213km	
Total number of towers	792	
<i>Number of angle points/tower</i>	317	
Number of suspension towers	475	
Average span between towers	400m	
Right-of-way	46m (23m on either side of centerline)	
<i>Voltage level</i>	400kV	
Land area requirement for each tower	15m x15m area is assumed for all tower foundations	
Current at normal operating condition and maximum value	Maximum current carrying capacity of Moose conductor is 890A	
<i>Voltage at normal operating condition and maximum value</i>	400kV	
Conductor configuration	Vertical	
Standard tower height	45m	
Circuit	Double	
<i>Foundation area</i>	15m x 15m	
<i>Insulator</i>	Porcelain or glass type	
<i>Foundation type</i>	Concrete pier and pad type	
<i>Tower type</i>	Steel lattice structure	
<i>Conductor</i>	Aluminum Conductor Steel Reinforced 525 mm ² "Moose"	
<i>Earth wire</i>	Optical Fiber Ground Wire (OFGW) and EHS Steel wire	
Clearances		
Highways	9.5m	
Normal ground for pedestrians only	8.6	
Power lines	6.5m for 11 & 33kV and 6.1 for 66 & 132kV	
Telecommunication lines	36m	
Roads and streets	9.5m	
Residential areas	9.2m	
Water surface at maximum flood	7.5m	
To metal clad or roofed sheds or structures upon which a man may stand	6m	
Vertical clearance for forest	7.5m	
Horizontal clearance for forest and settlement	46m	
Substation		
New Substation	400/220/132 kV at Hanif Tole of Bhokraha VDC	
Upgrading	Construction of 400,220,132 and 33 kV voltage level buses at Dhalkebar Substation and 220 kV bus and establishment	

	of transformers at new Hetauda Substation.
Total Cost and Funding	
Total Cost	USD 144 million for both transmission line and substation
Funding	GON / World Bank

2.3.1 Substations

Dhalkebar Substations

New Dhalkebar substation is under construction at Dhalkebar of Dhanusha district close to the existing substation. This will receive power from cross border Dhalkebar-Muzaffarpur 400 kV transmission line until there is deficit of energy in Nepal. When there will be excess of power in Nepal power system, electric power purchased from various IPPs will flow to this substation via proposed Hetauda – Dhalkebar –Inarwua transmission line. This substation will also serve for providing required power for the existing 132 and 33 kV network in this area. For this purpose there will be 400, 220, 132 and 33 kV voltage level buses. The project has acquired 6.67 ha private cultivated land nearby the existing Dhalkebar substation for the construction of the substation.

New Duhabi Substation

New Duhabi substation has been proposed in Haniftol of Bhokraha VDC and accordingly is under construction. Koshi corridor TL will be connected to this substation at 220 kV and the existing 132 kV line will be looped in and out in this substation. The existing Duhabi substation is at around 17 km east from this location.

The existing Duhabi substation is now surrounded by settlements therefore there is a problem of constructing a new substation there. Therefore Bhokraha VDC has been selected for new substation construction. Koshi corridor has huge capacity and generated power of this corridor will be connected to this new substation with 220 kV TL in the initial stage. Therefore, in the initial stage this substation will have 220, 132 and 33 kV voltage level buses. In future, 400 kV bus will also be required and an additional cross border TL will be constructed in this area to link Jogbani, India. The project has acquired 13.54 ha private cultivated land for the construction of this new substation at Bhokraha VDC.

New Hetauda Substation

NEA is constructing a new Hetauda substation at Ward no. 1 of Hetauda Municipality. A 220 kV transmission line from this substation to Bharatpur is under construction. Under this project, 220 kV bus will be added and 2 X 150 MVA, 220/132 kV transformers will be installed. The proposed expansion work will be conducted within the boundary of the substation and no additional land will be acquired.

2.3.2 Towers

Altogether 792 towers are being constructed along the TL alignment including 317 Angle Towers (AT) and 475 Suspension Towers (ST). Out of these towers 452 Towers (314 ST and 138 AT) will be constructed on private land. The average span of the tower is 400 m.

2.4 Construction Planning

The implementation of proposed project comprises the construction of new 400/220/132 kV substations, extension of existing newly built substations (Hetauda); tower foundation and erection of towers, stringing of conductor, testing and commissioning of the 288.213 km 400 kV transmission line.

2.4.1 Tower Foundation

The construction of tower foundation is being undertaken manually by labor force assisted by the mechanical equipments wherever possible. The mechanical equipments will be limited to small demountable steel skid framed concrete mixers, air compressors, air drills/chisels and tamping/compaction tools.

Excavation and the concreting of the tower foundations is being carried out as per the design requirements and after necessary curing, the foundations will be backfilled with suitable material.

2.4.2 Erection of Galvanized Steel Towers

Manufactured galvanized steel lattice towers will be transported to the individual tower locations and will be erected manually by employing pulleys, wenchers, etc. into the tower foundations.

2.4.3 Insulator Fittings, Conductor and Ground Wire Stringing

Conductors, OPGW, ground wires, insulators and necessary accessories will be transported manually to the tower locations. The fitting of insulators on the tower will be carried out manually. Stringing of conductors, OPGW and EHS wire will be carried out with the help of tensioners and other pulling devices as per the design requirements.

2.4.4 Transportation

Primary site access for the project construction will be gained from the East-West Highway. No permanent access roads will be constructed to tower sites from existing road. Existing feeder roads and tracks will be used for construction and maintenance as per need. The construction material up to the nearest road head will be carried out through vehicle and latter it will be transported manually up to the individual tower location.

2.4.5 Spoil Dumping Site

Since the construction of transmission line towers requires clearing and excavation of fairly small areas at tower locations, construction work will not

require spoil dumping sites. The spoil will be filled up and compacted in the tower base area. Similarly, spoil generated from the substation construction will be used to the switchyard location where borrowed earth materials have to be filled and compacted for the site grading.

2.4.6 Construction Materials

The materials required for civil construction works related to the transmission line and substation will be:

- a. Steel reinforcement
- b. Cement
- c. Coarse aggregate
- d. Fine aggregates (sand)

Steel reinforcing bars and cement will be purchased from local manufacturers or imported as per the supply situation. Coarse aggregates will be produced at site from excavated materials or purchased from the nearby market. Likewise, fine aggregates will be collected from major quarries along riverbanks, the excavated foundation material can be used as a backfill material required for the foundation construction.

2.4.7 Construction Manpower

Altogether 1000 people will be deployed during the construction of the project, which includes 600 unskilled, 300 semi-skilled and 100 skilled manpower. Out of which till the date of upgrading study, 219 unskilled and 33 semi-skilled local manpower are deployed in the construction activities. Local people those are affected by the project implementation are highly encouraged for employment.

2.4.8 Project Duration

The estimated duration of the project is 7 years. Implementation will consist of a 6-month pre-construction phase and 6.5 years of construction and commissioning phase.

The construction work of transmission line will primarily be carried out during the dry season when ground conditions are essentially dry and river flows low to allow easy movement of materials and construction of towers. Construction activities during the monsoon season will primarily be restricted to stringing of conductors, although this activity may also be restricted by the weather. However, the construction work of the substation will be conducted throughout the year.

3. STUDY METHODOLOGY

The methodology to collect data on socio-economic and cultural aspects for updation of RAP has included but not limited to literature review, survey of affected households (HHs), key informant interviews (KIIs), participatory rapid appraisal (PRA) in the affected VDCs, market survey in the affected VDCs,. Based on the data collected as well as detailed census survey of affected households and inventory of affected private/public assets, this RAP has been prepared.

The study team has adopted a participatory approach with maximum involvement of different stakeholders of the project at the local and district levels to generate relevant information for the RAP. The study team has maintained close contacts with the district level government relevant line agencies, VDC level key stakeholders and other stakeholders while conducting the fieldwork for the RAP.

The following methodology has been applied to collect social, economical and cultural data for the RAP.

3.1 Project Area Delineation

Based on the review of maps, technical survey and field assessment for the RAP of the proposed TL project, the project area is defined as the area for the construction of a 400 kV transmission line alignment, construction of 400 kV substations (Bhokraha- Sunsari and Dhalkebar, Dhanusha), and upgrading of 400/220/132 kV substation (Hetauda-Makawanpur) as well as the area that will be impacted due to the construction and operation of the project.

The study area includes 10 districts, 18 municipalities and 29 VDCs of Eastern and Central Nepal. The study area has been delineated based on the transmission route alignment passing through the VDCs and municipalities. The project area does not lie in the national park, the wildlife reserve, the and environmentally sensitive & fragile areas. However, it passes through nearby the buffer zone of Parsa Wildlife Reserve in Makawanpur and Koshi Tappu Wildlife Reserve in Udayapur and Sunsari districts. The study area is divided into two parts on the basis of the proximity and magnitude of impacts as follows.

3.1.1 Core Project Area

The "Core Project Area" consists of the 46 m Right-of-Way (RoW), encompassing 23 m on each side of the alignment measured from its center line and the area occupied by the substations are considered as the core project area. This area is defined as the direct impact zone.

3.1.2 Surrounding Area

The term "Surrounding Area" indicates a wider area, which will be directly or indirectly influenced by the construction and operation of the project. This area includes all alignment encompassing VDCs/municipalities of the 10

districts excluding areas mentioned as core project area (Table 2.1). This area is also termed as the “indirect impact zone”.

3.2 Literature Review

Relevant literature including survey report, publication of Central Bureau of Statistics, profile of District Development Committees (DDCs), RAP and other relevant documents/reports related to transmission line project were collected and reviewed extensively to collect required data/information for the RAP. The following publications were particularly collected and reviewed to prepare the RAP:

- Population of Nepal, Population Census 2011, Central Bureau of Statistics, Government of Nepal.
- District profiles of concerned District Development Committees.
- Village Development Committee Profile of Nepal.
- Collection and review of National Plans, Policies, Acts and Rules related to social impacts and other losses especially the land acquisition, compensation and resettlement.
- Review of The World Bank Safeguard Policies

3.3 Identification of the Stakeholders and Consultations

The stakeholders were identified by the study team with the help of site based Environment and Social Management Unit Offices of ESSD, local leaders, teachers, and other key informants of the area.

The identified key stakeholder are project affected families (PAFs), affected communities/groups, vulnerable groups, representatives of local government bodies/line agencies, non governmental organizations (NGOs), community based organizations (CBOs), forestry user groups (FUGs), women organization, teachers and political party.

The identified stakeholders were consulted to solicit their views, concerns regarding the project and their expectations from the project as they are the directly or indirectly affected by the project and have important role to influence the project implementation.

3.4 Preparation and Finalization of Study Tools

After discussion with the field staff of Unit Offices of ESSD and review of relevant documents, study tools such as questionnaires, PRA guidelines, checklist for KIIs were prepared to collect required information/data from the field for the updation of RAP.

3.5 Sample Distribution

The RAP studies have covered 29 VDCs and 18 municipalities of the 10 project affected districts. Altogether 146 PRAs, census of 564 affected

households (losing land and structures), 47 KIIs, and market survey in all VDCs and municipalities was conducted in the project area (Table 3.1 and 3.2).

Table 3.1: Sample Distribution

District	PRA				KII
	No. of PRA	No. of Participants			No. of KII
		Total	Male	Female	
Makwanpur	9	210	101	109	3
Bara	3	70	48	22	1
Rautahat	9	291	149	142	3
Sarlahi	18	542	186	356	5
Mahottari	6	231	110	121	2
Dhanusha	15	408	156	252	5
Siraha	21	497	158	339	7
Saptari	49	940	404	536	16
Sunsari	13	214	114	100	4
Udaypur	3	41	27	14	1
Total	146	3444	1453	1991	47

3.6 Fieldwork

Fieldwork of the updated RAP report preparation was started in June 2016. Due to large coverage the study area, the field work was divided into three sections. Six field based staffs of ESMU offices were mobilized to collect data. The collected data was properly checked in the field before leaving the site and any missing or inconsistent information was collected or corrected before leaving the site.

3.7 Census of Directly Affected Households and Structures

Till end of Dec. 2016, a total of 564 Households (HHs) are identified to be affected by the project components (i.e. substations, tower pads and RoW). Among 564 HHs, 464 HHs are affected by tower pads (ATs and STs), 29 HHs by the substations and 71 HHs who lose their structures under RoW. The detail of the project affected surveyed HHs is given in the table. The HH survey was conducted using a semi-structured HH survey questionnaire. This questionnaire (in Nepali) has captured basic socio-economic characteristics of the affected HHs.

Table 3.2: Detail of the Surveyed Project Affected HHs

S.No	Project Component	Type of losing Structures	Surveyed HHs
1.	Substation	Land Only	28
		Land and structure	1
2	Tower (AT and ST)	Land Only	464
3	RoW	Structures	71
		Total	564

Source: Household Survey 2016

3.8 Key Informant Interviews (KIIs)

Key Informant Interviews (KIIs) was conducted with 47 purposively selected key informants of the area including one key informant from each affected VDC/municipality to assess their views, concerns, and expectation from the TL and collect relevant information of the project affected families and communities. The number of KII was highest (16) in Saptari. Of the key informants 53.2% were job holders, 25.5% were involved in social work, 12.8% were engaged in agriculture, and 8.5% were teachers (Table 3.3).

Table 3.3: Distribution of Key Informant Interviews

District	No. of KII
Makwanpur	3
Bara	1
Rautahat	3
Sarlahi	5
Mahottari	2
Dhanusha	5
Siraha	7
Saptari	16
Sunsari	4
Udaypur	1
Total	47

Source: Field Survey 2016

The key informants included representatives of affected households, vulnerable communities, teachers, representative/employees of local government bodies/line agencies, NGOs, CBOs and activists working for the target groups, representatives of CFUGs, women organization, political party leaders and other intellectual of the study area. The KIIs was conducted using an in-depth interview guideline.

3.9 Participatory Rapid Appraisal

In total 146 PRAs were conducted in the area. At least three PRAs (1 with Occupational ethnic groups/Dalits and 2 with Indigenous peoples) were conducted in each VDC/municipality affected by the TL to collect basic socioeconomic data, views, concerns and expectation of the target groups from the area (Table 3.1). Participants included directly affected households, beneficiaries, vulnerable groups among others. The participants were also informed regarding the transmission line, its construction activities, updated RAP during the PRA. A total of 3444 participants had participated in the PRA including 42.2% male and 57.8% were female

3.10 Market Survey

Market survey in the 29 project VDCs and 18 municipalities was conducted to collect prevailing market price of consumption goods, construction materials, wage rate, land price etc. A market survey checklist was prepared and used to conduct the market survey.

3.11 Meetings/Consultations

Informal meetings/consultations were also conducted with the relevant government officials (CDO, LDO, VDC Secretary), NGOs, CBOs, CFUGs of the project districts to collect information about the project area, their concerns/expectation and inform them about the project and its ongoing activities.

3.12 Data Encoding and Analysis

The Field Supervisors were responsible to make sure that all the required information collected properly and consistent. Any missing or inconsistent information was collected or corrected in the field before leaving the site. After completion of the field work the collected data was encoded and analyzed in Kathmandu. The household survey data was processed using computer software whereas the other data was processed manually. One Data Manager was responsible to develop data entry program, data cleaning/editing, managing the data entry process and processing data in Kathmandu. The Data Manager has worked in close coordination with the experts.

3.13 Categorization of Impacts and Mitigation Measures

Matrix method has been used to assess impact of the project. The significance of both identified and predicted impacts were evaluated. Based on the evaluation each significant impact was further categorized as high, medium and low in terms of magnitude, short term, medium term and long term in terms of duration and local, site specific and regional in terms of extent. The magnitude, extent and duration were categorized as per National EIA Guideline, 1993. Considering the impacts appropriate mitigation measures have been developed.

3.14 Criteria for Defining Project Affected and Vulnerable Households

The criteria for defining project affected and vulnerable households has been set based on followings:

- *Marginally Affected Households*: Households losing less than 10.0% of their total land.
- *Severely Affected Households*: Households losing more than 10% of their total land. This includes two sub-categories: i) Households losing more than 10% to 50% of their land and ii) Households losing more than 50% of their land. The households losing residential structures are also included in this category.
- *Vulnerable Households*: Women headed households, single women headed households, household heads with disabilities/old age, infected with chronic disease and HIV/AIDS, and Dalit households affected by the project are categorized under this category.

3.15 Definitions

The following definitions will be applied in the Resettlement Action Plan for the project:

- **Compensation:** The payment in cash or kind for private property acquired by the project at replacement value as defined by the Compensation Determination Committee (CDC) based on the RAP guidelines and framework.
- **Compensation Determination Committee (CDC):** The district-level committee established under Section 13 (2) of the Land Acquisition Act, 2034 (1977) to determine replacement value and compensation rates for property acquired under the Act.
- **Cut-off Date for Eligibility to Entitlement:** The cut-off date for eligibility to compensation and assistance will be the date of notification by the CDC/HDDTL Project, NEA for land acquisition and compensation of affected households/assets.
- **Entitled Person:** Any person who is entitled to compensation due to loss of privately owned assets and other rehabilitation assistance.
- **Project Affected Person:** Any person directly affected by the project through the acquisition of assets belonging to him/her or his/her household or community. This includes any person whose rights, standard of living, subsistence and income-generating capacity are adversely affected through the acquisition of assets, whether full/partial, or permanent/temporary.
- **Project Affected Household:** Family members living together and sharing a single kitchen affected by acquisition of their assets, will be entitled for compensation, resettlement and rehabilitation measures.
- **Project Affected Group:** Communities or groups, that loses community resources due to the project.
- **Rehabilitation:** The measures taken to mitigate identified social impacts, including compensation, resettlement, rehabilitation and transition allowances where required.
- **Replacement Cost:** With regard to land and structures, “replacement cost” is defined as follows:
 - For agricultural land, it is the pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes.
 - For houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structures or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors’ fees, plus the cost of any registration and transfer taxes.

- **Titleholder:** The person in whose name the project-affected land and/or building is registered and the person who is authorized by law to receive the compensation provided for the acquisition of land and/or building.
- **Tenant:** A person occupying/using land of a titleholder according to the stipulations of the Land Act, 2021 (1964).
- **Vulnerable Groups:** Social categories whose livelihoods may be particularly vulnerable to disturbances created by the project. These groups include women headed households and Dalits.

3.16 Team Composition

The RAP is prepared by team of professionals specialized in field of social science, resettlement and rehabilitation and community development with the help of field support team.

- Team Coordinator- Rabindra Chaudhary
- Team Leader – Raju Gyawali
- Unit Chief/ Environmental Expert- Bijaya Mishra
- Sociologist- Janak Bahadur Shahi
- Environmentalist- Bijay Maharjan
- Environmentalist- Kashi Chaudhary
- Sociologist- Dinesh Sharma
- Sociologist- Ramraj Chaudhary

4. REVIEW OF RELEVANT POLICIES, ACTS, REGULATIONS, GUIDELINES AND CONVENTIONS

4.1 General

Environmental management is relatively a new subject in Nepal. This chapter focuses on brief description of the policy, legal and administrative framework within which Hetauda-Dhalkebar-Duabi 400 kV Transmission Line Project will be implemented (including Dhalkebar-Bhittamod stretch). The proponent will fulfill the legal requirement of Government of Nepal (GoN) as well as The World Bank Environmental and Social Safeguard Policies and will be responsible for fulfilling provisions of all relevant acts while implementing the project.

Some of these national and international policies, acts, rules, guidelines and conventions relevant to the proposed project regarding RAP are described below. The proponent will obey and follow if any other legal provisions besides those already mentioned in this chapter are attracted due to various activities that will be undertaken as part of the project.

4.2 Constitution, National Plan/Policies, Acts, Rules and Guidelines

4.2.1 Constitution and Policy

4.2.1.1 Constitution of Nepal, 2015

In the Article 30 of Part 3 of the Constitution of Nepal, 2072 states about the Right to Clean Environment: According to this article all citizens shall have the right to live in clean environment, and in case if there is injury caused from environmental pollution or degradation, the victim have the right to obtain compensation. In the same way, Article 51(g) explains Policies relating to Protection, Promotion and use of Natural resources under the Policies of the State as follows;

- to protect, promote, and make environmental friendly and sustainable use of, natural resources available in the country, in consonance with national interest and adopting the concept of intergenerational equity, and make equitable distribution of fruits, according priority and preferential right to the local communities,
- to make multi-purpose development of water resources, while according priority to domestic investment based on public participation,
- to ensure reliable supply of energy in an affordable and easy manner, and make proper use of energy for the fulfilment of the basic needs of citizens by generating and developing renewable energy,
- to develop sustainable and reliable irrigation by making control of water-induced disasters, and river management,

- to conserve, promote, and make sustainable use of forests, wildlife, birds, vegetation and bio-diversity, by mitigating possible risks to environment from industrial and physical development, while raising awareness of general public about environment cleanliness,
- to maintain the forest area in necessary lands forecological balance,
- to adopt appropriate measures to abolish or mitigate existing or possible adverse environmental impacts on the nature, environment or biological diversity,
- to pursue the principles of environmentally sustainable development such as the principles of polluter pays, of precaution in environmental protection and of prior informed consent,
- to make advance warning, preparedness, rescue, relief and rehabilitation in order to mitigate risks from natural disasters.

Article 18 explains about right to equity. The article 18 (3) stated that discrimination shall not be on the grounds origin, religion, race, caste, ethnicity, gender, sex, economic status, language, region, ideological conviction or any of these. Provided that nothing shall be deemed to prevent the making special provision by law for the protection, empowerment, or advancement of women, Dalt, indigenous people Aadibashi Janjati, Madeshi, Tharu, Muslim, suppressed group, ethnic minority, marginalized group, farmer, labor, youth, children, elder citizen, gender minority, disable, pregnant, helpless, remote area or poor Khas Arya. Article 18 (4) mentioned that there shall be no discrimination with regard to remuneration for same kind of work and social security on the basis of gender. Article 25 (2) mentioned that that the state shall acquire legal private property only for public interest, and Article 25 (3) mentioned that compensation shall be provided for such acquired property on the basis of compensation as prescribed by law.

4.2.1.2 Forestry Policy, 2000

The Forestry Policy 2000 (revised) highlight the forest conservation, management and their sustainable use through people's participation. The long term objectives of the policy are to meet people's basic needs for fuel wood, timber, fodder and other forest products on sustainable yield basis to protect land against degradation and to conserve the ecosystem and genetic resources. The implementation of the project should not hamper the objectives.

4.2.2 Acts

4.2.2.1 Land Acquisition Act, 1977

It is the main legislation to guide the land acquisition process in the country. Government can acquire land at any place in any quantity by giving the compensation pursuant to the act for the land required for any public purpose or for the operation of any development project initiated by government institution (sections 3 and 4).

The compensation paid under this act will be given in cash. To decide about the amount of compensation the act has made provision for the constitution of Compensation Determination Committee (CDC). This act is silent about the payment of compensation at market rate, which pose difficulty for the payment of compensation at present value.

4.2.2.2 Forest Act, 1993

Act, 1993, Section 49 of the act prohibits reclaiming lands, setting fires, grazing, removing or damaging forest products, felling trees or plants, wildlife hunting and extracting boulders, sand and soil from the national forest without the prior approval. Section 68 (1) of the Act empowers the government to permit the use of any part of government managed forest, community forest; leasehold forest etc, if there is no alternative except to use the forest area for the implementation of a plan or a project of national priority without significantly affecting the environment.

4.2.2.4 Local Self Governance Act, 1999

Local self Governance Act, 1999 empowers the local authorities and makes them more responsible towards local development. Article - 6 of VDC deals with the environment conservation and management while design the project/program. Article - 8 deals with penalty if any body/person/institution is found polluting the environment. The act empowers municipality to control and manage different type of pollution, forest resources and other natural resources.

4.2.2.5 Labor Act 1992

This act has been enforced by GoN in May 15, 1992. This act classified people below 15 years as child and minor "*Nabalik*" for the age group of above 14 years and below 18 years. The act has also made provision of labor court and Department of Labor. The act clearly mentioned that appointment letter should be issued for all the employees, which include their working hours, working time, wages and other benefits. The act allows for the time bond contract for the manpower required for development work. The act specifies that working hours for the *Nabalik* and women must be within the period of 6 AM to 6 PM that clearly restrict to deploy women in night works. The act also stated that equal opportunity shall be given to women as man. Similarly, working period of other employees must not exceed 8 hours a day and 48 hours in a week. If some people work beyond that period overtime allowances must be paid which is 150 % of the normal per hour wages and such overtime must not exceed 4 hours in each day. According to this act wages rate of the employees shall not be less than rate fixed by the GoN.

4.2.2.6 Land Reform Act, 2021 (1964)

The Land Reform Act, 1964 is considered as a revolutionary step towards changing the existing system of land tenure by establishing rights of tenants

and providing ownership rights to actual Tiller. To date it has been amended five times. Article sets ceiling on land ownership according to geographical zones. Article 25 (1) of this act deals with tenancy rights that also exists.

4.2.3 Rules/ Regulations

4.2.3.1 Electricity Regulations, 1992

Section *Chha* of Article 12 and section *Chha* of Article 13 of Electricity Regulation 1992 are important from environmental viewpoint. The Initial Environmental Examination report should address the environmental issues, measures required to mitigate the significant adverse impacts. This regulation has also made provision for the formation of Compensation Determination Committee for compensation of the land required for the project.

4.2.3.2 Local Self Governance Regulation, 2000

Local Self-Governance Regulation empowers the local bodies to coordinate and implement development programs and for rationale utilization of local natural resources. Article -7 (69) empowers the VDCs for monitoring and supervision of development work implemented in the VDC. The Article - 4 of DDC has provision of three members (Agriculture, Forest, and Environment) committee to look after the concerned issues.

4.2.3.3 Forest Regulation, 1995

Rule 65 of the Forest Regulation stipulates that in case the execution of any project having national priority in any forest area causes any loss or harm to any local, individual, or community, the proponents of the project itself shall bear the amount of compensation to be paid. Similarly, the entire expenses required for the harvesting, logging and transporting of the forest products in a forest area should be borne by the proponents of the projects.

4.2.4 Guidelines

4.2.4.1 National Environmental Impact Assessment Guidelines, 1993

According to the guidelines, IEE is mandatory for hydroelectric projects with generating capacities up to 5 MW. This guideline is frequently used and quite helpful right from making terms of reference to preparing impact assessment matrix and assigning values on impacts ranking. The other important feature of the guideline is description on community participation. Clause 49 deals with the methods to involve the public.

4.2.4.2 EIA Guideline for Agriculture Sector 2003

The EIA Guideline for Agriculture Sector 2003 was developed to minimize impacts on the agriculture sector due to increase in agricultural products and production and the activities of projects implemented by other organizations.

Schedule 2 of the Guideline discusses the screening process for environmental studies, Schedule 4 relates to EIA scoping and Schedule 5 describes the requirements for the EIA TOR.

The construction of the transmission line will involve the acquisition of cultivated land for tower sites and may involve the leasing of cultivated land for temporary construction sites, thus standing crops may be affected and therefore the provisions of this Guideline are relevant to the project.

4.3 ILO Convention on Indigenous and Tribal Peoples, 1989 (No.169)

Nepal ratified ILO Convention No. 169 on September 14, 2007. In 2007 the UN Declaration on the Rights of Indigenous Peoples was adopted by the General Assembly. The declaration reaffirms the importance of the principles and approaches provided for under Convention No. 169 and its adoption therefore provide afresh impetus for promoting the ratification and implementation of Convention No. 169. ILO Convention No.169 highlights the need to recognize indigenous and tribal people's specific knowledge, skills and technologies as the basis for their traditional economies and self-determined development process. Article -1 of the convention provide definition of the tribal and indigenous people. Article -6 deals the consultation of the peoples concerned through appropriate procedure and in particular through their representative institutions, whenever consideration is being given to legislative or administrative measures which may affect them directly.

In Article 15, the rights of the peoples concerned to the natural resources pertaining to their lands shall be specifically safeguarded. These rights include the right of these people to participate in the use, management and conservation of these resources. The use of the term lands includes the concept of territories, which covers the total environment of the areas that the peoples concerned occupy or otherwise use. The peoples concerned wherever possible shall participate in the benefits of such activities and shall receive fair compensation for any damages that they may sustain as a result of such activities. Article 16 (2) clearly mention that where the relocation of these peoples is considered necessary as an exceptional measures such relocation shall take place only with their free and inform consent. Where their consent cannot be obtained, such relocation shall take place only following appropriate procedures established by national laws and regulations, including public inquiries where appropriate, which provide the opportunity for effective representation of the peoples concerned. Article 16 (3) mention that whenever possible these peoples shall have the right to return their traditional land as soon as the grounds for relocation cease to exist. Article 16(5) elaborated the persons thus relocated shall be fully compensated for any resulting loss or injury.

4.4 The World Bank Safeguard Policies

The World Bank has ten safeguard policies mainly environmental assessment, natural habitats, forest, pest management, safety of dams, involuntary resettlement, indigenous people, cultural property, projects involving international waters, projects in disputed area etc. The objectives of Safeguard policies are to integrate environmental and social issues in to decision making, to support Participatory approaches and transparency, to effective implementation of project for achieve sustainable development etc.

The objective of these policies is to prevent and mitigate undue harm to people and their environment in the development process. These policies provide guidelines for bank and borrower staffs in the identification, preparation, and implementation of programs and projects. Safeguard policies have often provided a platform for the participation of stakeholders in project design, and have been an important instrument for building ownership among local populations.

4.4.1 Involuntary Resettlement

Involuntary resettlement may cause severe long-term hardship, impoverishment, and environmental damage unless appropriate measures are carefully planned and carried out. The basic principle of Involuntary Resettlement Policy is; avoid, minimize and mitigate involuntary resettlement impacts, payment of compensation before taking possession of the property, compensation at replacement cost and carry out consultation from beginning to end of the project. For these reasons, the overall objectives of the Bank's policy on involuntary resettlement are the following:

- (a) Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.
- (b) Where it is not feasible to avoid involuntary resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits.
- (c) Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.
- (d) Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

To address the impacts covered of this policy, the borrower must prepare a resettlement plan or a resettlement policy framework. The framework shall include consultation process, alternatives, compensation at full replacement cost for losses of asset, assistance (such as moving allowances) during relocation, residential housing, or housing sites, or, as required, agricultural

sites, offered support after displacement for a transition period to restore their livelihood and standards of living and provide with development assistance such as land preparation, credit facilities, training, or job opportunities in addition to compensation measures.

4.4.2 Indigenous People

The World Bank defines indigenous people, as the people, who have their self-identification, collective attachment to ancestral lands, customary culture, economic, social, political institution and indigenous language. The World Bank recognizes that the identities and cultures of indigenous peoples are inextricably linked to the lands on which they live and the natural resources on which they depend. These distinct circumstances expose indigenous people to different types of risks and levels of impacts from development projects, including loss of identity, culture, and customary livelihoods, as well as exposure to disease.

As social groups with identities that are often distinct from dominant groups in their national societies, indigenous peoples are frequently among the most marginalized and vulnerable segments of the population. As a result, their economic, social, and legal status often limits their capacity to defend their interests in and rights to lands, territories, and other productive resources, and/or restricts their ability to participate in and benefit from development. At the same time, The World Bank recognizes that indigenous people play a vital role in planning and implementation of development projects and their continued consultation, participation and cooperation are of profound significance in all projects.

4.4.3 Disclosure Policy

As per Bank's disclosure policy, the safeguard documents, especially the RAP and Social Impact Management Framework (SIMF) will be disclosed for access to the public at various levels and sites. At the central level, the soft copy of the documents would be posted in the website of NEA, the Executing Agency of the Project. In parallel, this would be disclosed in the Infoshop of the World Bank. Disclosure of the summarized translated Nepali version of these documents would also be made at the local level in compliance with the World Bank Disclosure Policy to enable ordinary people of the project area. The hard copies would be made public in different places viz Project site offices, DDCs, CDCs and VDCs were relevant.

5. COMMUNITY CONSULTATION AND GRIEVANCE REDRESSAL MECHANISM

The public, as the citizens of a republic country and key stakeholders in development have the right to know and to be involved in information exchange and decision-making that affects their lives, resources and properties from the beginning of a project. Community participation and consultation from the beginning is crucial to reduce misunderstandings and successful implementation of a project and it is also a legal provision. When the public is well informed and motivated, project implementation could be relatively trouble-free. Considering this, the project has given emphasis to community participation and consultation throughout the preparation of this RAP.

5.1 Procedure for Consultation and Participation

Census of the Project affected Families, Participatory rapid appraisal (PRA) and key informant Interviews (KIIs) with key stakeholders were used as main tools for community consultation and participation. During the consultation the participants and households were requested to express their concerns/issued regarding the project as well as they were informed regarding the project and its activities. Information such as project purpose, project type, impact area, likely impacts and potential opportunities were informed to the people during the consultation.

As part of public consultation, PRA and KIIs were conducted. A total 146 PRAs including three in each affected VDC and 47 KII were conducted in the project area. Moreover, all the PAF was consulted including IPs and other vulnerable community.

Besides this household survey, informal meetings with key stakeholders of the project area, visit by the experts and interaction with local people were also the part of public consultation. The district and local level organizations such as District Development Committees, Village Development Committees, health posts, non-governmental organizations (NGOs) and other related organizations were also consulted during the study.

The concerns/issues of local people/institutions have been incorporated in relevant section of the RAP.

5.2 Key Issues/Concerns Raised During Community Consultation with PAFs

The local people have positive attitude regarding implementation of the project realizing the need of transmission line for regular supply of electricity and solve the problem of load shedding. During the community consultation several issues and concerns were raised by the people. The key issues and concerns raised by the local people are related to compensation,

employment, alignment of the transmission line, mitigation and enhancement measures and community participation in the project activities. The summary of key issues/concern raised by the local people during community consultation are grouped and summarized in Table 5.1.

Table 5.1: Summary of Key Issues and Concerns

Key Areas of Concerns	Details of Issues/Concerns
Compensation	<ul style="list-style-type: none"> • Appropriate compensation for land and private property • Compensation of land/property as per the prevailing market rate • Ease the land acquisition/compensation process • Information regarding valuation process • Low valuation of land under the Row • Refusal of land within ROW for collateral by banks • Participation of representative of landholder in valuation process. • Transparency in land and crop valuation process with scientific mechanism of price determination. • Land for land and structure for structure (in urban and semi-urban area)
Livelihood	<ul style="list-style-type: none"> • Employment to local people during the construction period • Provide Job to seriously project affected people • Agriculture training (vegetable, cash crops, mushroom farming, fishery, goat raising etc.) • Driving/heavy equipment operation/ vehicle/bike repairing training • Provide skill development/ IG training (forest/agriculture based, and vocational training (wiring, driving, plumbing, carpentry and masonry, computer related, sewing/weaving, micro enterprises etc.)
Alignment of Transmission Line	<ul style="list-style-type: none"> • Avoid agricultural/private land as far as possible • Avoid settlements and market centers near the TL • Avoid/minimize impact on religious places • Protect/conservate religious/tourist places • Shift alignment to minimize tree loss of forest • Timely completion of TL • Temple under RoW • Houses of vulnerable group near TL • Risk of electricity/health hazards • Likely impacts on wildlife habitat • Minimize loss of community forest trees during

		construction
Community Programs	Support	<ul style="list-style-type: none"> • Support for education, adult literacy, health and drinking water • Support for small infrastructure development (like rural road improvement, embankment, bridge, school, irrigation etc.) • Minimize load shedding • Regular supply of electricity • Electrification in the villages • Reduce electricity tariff • Free electricity • Provide electricity for irrigation (poles in the agriculture field) • Support for flood control • Promote industrialization for employment generation • Protection of human and livestock from high voltage (electric hazards) • Information about negative impact/risk of 400 kV TL and safety measures
Community Participation		<ul style="list-style-type: none"> • Involve local people during implementation of the project work • Maintain transparency in the project activities • Provide proper information regarding the project • Ensure PAF participation in crop and land compensation determination process • Develop scientific and common mechanism for crop compensation determination.

5.3 Continuation of Consultation Process

The consultation process will be continued during the entire project period. A GRC will be established for continuation of the process. All the genuine issues/concerns raised by the local people will be collected and addressed accordingly by the project. In addition, monthly reporting in Nepali will ensure that the public and stakeholders are well informed regarding the project activities.

The major issues raised during consultation process will be addressed through different mechanism and support system to the affected people. Major areas of public concerns pertain to right amount of compensation for their lost assets, supports for their livelihood, selecting best TL alignment to avoid and minimize losses and enhanced participation of the people at different forums and levels of project implementation. The role of Project and CDC will be crucial to identify and listen the issues raised by the people and address them rightly in close and continued consultation process. In addition, the public have demanded several community support programs as a measure to improve their livelihood and it seems important for the project and public to sit together and come up with consensus regarding the areas of

supports that they might be provided. Continued consultations with the public, therefore, seem to be the most strategic approach for the project to discuss and decide areas of supports at different stages of project cycle i.e design, implementation and post implementation.

5.4 Grievance Redress Mechanism

Grievance redress mechanism will be established to allow project affected persons/households (PAPs/HHs) to appeal any disagreeable decisions, practices and activities arising from compensation for land and assets. The PAPs/HHs will be made fully aware of their rights and the procedures.

There is the potentiality for two types of grievances: grievances related to land acquisition and resettlement requirements, and grievances related to compensation or entitlement. The PAPs/HHs will have access to both locally constructed grievances redress committees specified i.e. LCF and formal courts of appeal system. Under the latter system every PAP/HH can appeal to the court if they feel that they are not compensated appropriately. They may appeal to appellate court within 35 days of the public notice given to them.

Grievance recording will be maintained at HDD Division Offices established at site. Project affected people as well as local people can lodge their complaints related to assets acquisition and construction related activities.

Special project grievance mechanisms such as on site provision of complain hearings allows project affected persons/HHs and communities to interface and get fair treatment on time. The project authority will ensure that funds are delivered on time to CDC and the implementing partners for timely preparation and implementation of social activities, as applicable. The compensation issues and rehabilitation measures will be completed before civil work starts, as far as possible.

PAPs/HHs and community will be exempted from all administrative fees incurred, pursuant to the grievance redressal procedures except for cases filed in court. Proposed mechanism for grievance resolution is given below:

Stage- 1

Complaints of PAPs/HHs and community on any aspect of compensation, relocation, or unaddressed losses of private and community property shall in first instance be settled verbally or in written form in field based project office on sites. The complaint can be discussed in an informal meeting with the PAPs/HHs and project Land Acquisition and Rehabilitation Cell. This cell will be created within the HDD Division Offices of NEA. The cell will be solely responsible to be in close contact with all affected people and public and hear, record and informally file their complaints in the registers on a regular basis. The cell in close coordination with the Project Manager and other units within the project and ESMU will address the issue within 7 days of complain registered.

Stage -2

If issue is not addressed within 7 days of written application to the satisfaction of PAPs/HHS they can file formal type written complain to HDD Environment and Social Management Unit to be headed by Social Development/Resettlement Expert. While lodging the complaint, the PAP/HH and community must produce documents to support their claim. The unit will make field observation and discuss the issue with Project Director or Division Chief. If issue is still not resolve to the satisfaction of both the parties, the issue will be discussed in Local Consultative Forums (LCFs). The LCF will be established in each Division Offices to handle initial grievances of the project affected people and community. Although formed at Division level, the LCF will be led by locally respected person with other members being the VDC representatives and PAF representative and will be inclusive in nature represented by female, Dalits, Janajatis etc. The HDD–ESMU will coordinate the meetings with LCF and will attempt to make a decision acceptable to all parties. The LCF will play key roles in public consultations, grievance handling/ managing at local level, participate proactively in planning and implementation process and key decision making matters that contribute to better outcomes and performances, especially in RAP implementtion. The issue thus brought to LCF will be resolved within 15 days from the date of the complaint received. The community liaison officer and resettlement and rehabilitation expert will play active role to resolve the issues.

Stage -3

If no understanding or amicable solution reached or no response from the project office, the PAP/HH or community can appeal to the CDC, particularly if the issue is related with loss of private assets and compensation. As a formal body with legal standing, all other relevant complaints/ grievances not resolved at earlier stages, may also be registered with CDCs for timely resolution. While lodging the complaint, the PAP/HH and community must produce documents to support their claim. The CDC will provide the decision within 15 days of registering the appeal.

Stage -4

If the PAP/HH and local community are not satisfied with the decision of CDC or in absence of any response of its representatives, within 35 days of the complaint, the PAP/HH and community may submit its case to the district court. The decision of the court will be acceptable to both parties.

6. SOCIOECONOMIC CONDITION OF THE PROJECT AFFECTED HOUSEHOLDS

This section describes the socioeconomic status of project affected households based on the findings of survey of 493 households of 7 districts of the project area. Till Dec. 2016 no of the project affected households have been identified in Bara, Mahottari and Udaypur districts. The alignment of the transmission line passes through forest and public (government) land in these districts. Of the 493 project affected HHs, most (34.28%) HHs are located in Saptari whereas only few (0.41%) HHs are located in Makwanpur and Rautahat districts (Table 6.1).

Table 6.1: Total Number of Project Affected Households

District	Project Affected Households			
	Initial RAP Report		Updated RAP	
	Total	%	Total	%
Dhanusa	43	32.30	109	19.33
Mahottari	13	9.80	0	0
Makwanpur	6	4.50	28	4.96
Rautahat			2	0.35
Saptari	19	14.30	175	31
Sarlahi	7	5.30	47	8.33
Siraha	22	16.50	135	23.94
Sunsari	23	17.30	68	12.06
Total	133	100	564	100.00

Source: Field Survey, 2016

6.1 Demographic Characteristics

Population and Households

The total population of the 564 affected HHs is 3439, consisting of 1819 (52.9%) males and 1620 (47.1%) females. The population of surveyed HHs is high in Saptari and low in Rautahat. The sex ratio (number of males per hundred females) ranges from 72.7 in Rautahat to 123.5 in , with an overall sex ratio of 112.3. The ratio is higher than the ratio recorded in the Population Census 2001 (99.80).

The average size of the surveyed HHs is 6.1 persons which is higher than the national size recorded in the Population Census 2011. The average HH size ranges from 4.8 persons to 9.5 persons (Table 6.2)

Table 6.2: Distribution of Project affected HHs and Population

Districts	Population				Households	
	Male	Female	Total	Sex Ratio	Total	Average HH Size
Dhanusa	289	234	523	123.5	109	4.8
Makwanpur	91	78	169	116.7	28	6.0
Rautahat	8	11	19	72.7	2	9.5
Saptari	568	520	1088	109.2	175	6.2
Sarlahi	126	127	253	99.2	47	5.4
Siraha	531	448	979	118.5	135	7.3
Sunsari	206	202	408	102.0	68	6.0
Total/Ave.	1819	1620	3439	112.3	564	6.1
Percentage	52.9	47.1	100			

Source: HH Survey 2016

Regarding family structure of the surveyed HHs, 56% are living in a nuclear family and 44% are living in a joint family.

Broad Age Structure of Population

The surveyed population comprises 24.3% children (0-14 years), 65.3% people in the economically active category (15-59 years) and 10.5% aged people (above 60 years).

The overall dependency ratio is 53.18% with child dependency ratio 32.01% and aged dependency 16.04% (Table 6.3).

Table 6.3: Distribution of Surveyed Population by Broad Age Groups

Districts	Broad Age Groups			Total Population
	0-14 Years	15-59 Years	60 Years and Above	
Dhanusa	146	315	62	523
Makwanpur	52	108	9	169
Rautahat	3	13	3	19
Saptari	223	742	123	1088
Sarlahi	69	164	20	253
Siraha	260	621	98	979
Sunsari	81	282	45	408
Total	834	2245	360	3439
Percentage	24.3	65.3	10.5	100.0
Dependency ratio	32.01	53.18	16.04	

Source: Household Survey, 2016

Literacy Status

Of the surveyed population aged five years and above, nearly 13.7% is illiterate. The gender gap in literacy is wide. The illiteracy among women is 19.3% whereas the illiteracy among men 8.9% (Table 6.4).

Table 6.4: Literacy Status (5 Years and Above)

Literacy Status	Male		Female		Total	
	No.	%	No.	%	No.	%
Illiterate	150	8.9	283	19.3	433	13.7
Literate	1539	91.1	1187	80.7	2726	86.3
Total	1689	100	1470	100	3159	100

Source: Household Survey, 2016

Educational Attainment

The record of PRA meeting shows that the educational attainment among the 2533 people is not satisfactory, with about 29% having no formal education and a further 16.9% achieving a primary level education only. Of the literate population, 16.10% had passed the School Leaving Certificate (SLC) and nearly 12.4% the intermediate level; and 10.5% had a bachelor's or higher degree (Table 6.5).

Table 6.5: Educational Attainment among the Literate Population

Educational Attainment	Male		Female		Total	
	No.	%	No.	%	No.	%
Literate only	343	25.3	391	33.2	734	29.0
Primary level	245	18.1	183	15.5	428	16.9
Lower secondary	172	12.7	125	10.6	297	11.7
Secondary	157	11.6	110	9.3	267	10.5
SLC	248	18.3	160	13.6	408	16.1
Intermediate	185	13.7	129	10.9	314	12.4
Bachelor's and above	184	13.6	81	6.9	265	10.5
Total (Literate)	1354	100.0	1179	100.0	2533	100.0

Source: Household Survey, 2016

Caste and Ethnic Composition

The project area is diverse in caste/ethnicity. The project affected households comprises of 22 different caste/ethnic groups of hill and Terai origin. These caste/ethnic groups have been further broadly categorized as Terai origin caste groups (advance), Janajati, Brahmin/Chhetri/Thakuri, Dalit and Muslim (ethnic minority). Of the affected households 28.72% are Terai origin caste groups, 44.68% are Janajati, 17.91% are Brahmin/ Chhetri, 3.37% are Dalit and 5.32% are Muslim (Table 6.6).

Table 6.6: Caste/Ethnic Composition of the Surveyed Population

Caste/Ethnic Group	No. of HHs	Percent
Terai Origin Caste Groups (Yadav, Thakur, Kalwar, Haluwai, Kapar, Shah)	162	28.72
Janajati (Magar, Tamang, Newar, Tharu, Bhujel, Danuwar, Majhi)	252	44.68
Brahmin/Chhetri	101	17.91
Dalit (Kami, Damai, Sarki, Musahar. Chamar.)	19	3.37
Muslim	30	5.32
Total	564	100

Source: Household Survey of affected HH, 2016

Language

Maithali is the main spoken language in the family of the surveyed households of the project area. Of the households, 55.3% speak Maithali in their family. Similarly, the other spoken languages in the family are Nepali (36.2%), Tamang (6.0%) and Tharu (1.4%). Maithali is the spoken language of Terai origin caste/ethnic groups (Table 6.7)

Table 6.7: Distribution of Surveyed Households by Spoken Language

Districts	Language										Total HHs
	Nepali		Maithali		Urdu		Tharu		Tamang		
	No.	%	No.	%	No.	%	No.	%	No.	%	
Dhanusa	57	52.3	50	45.9	0	0	0	0.0	2	1.8	109
Makwanpur	7	25.0	0	0.0	0	0	0	0.0	21	75.0	28
Rautahat	1	50.0	1	50.0	0	0	0	0.0	0	0.0	2
Saptari	30	17.1	133	76.0	6	3.4	6	3.4	0	0.0	175
Sarlahi	42	89.4	2	4.3	0	0	0	0.0	3	6.4	47
Siraha	37	27.4	89	65.9	0	0	1	0.7	8	5.9	135
Sunsari	30	44.1	37	54.4	0	0	1	1.5	0	0.0	68
Total	204	36.2	312	55.3	6	1.1	8	1.4	34	6.0	564

Source: Household Survey, 2016

Religion

The households of the project area follow Hinduism, Buddhism and Islam religions. Of the surveyed households 86.2% follow Hinduism, 5.7% follow Islam religion and 8.2% follow Buddhism. (Table 6.8)

Table 6.8: Distribution of Surveyed Households by Religion of the Project Area

Districts	Religion						Total Households
	Hinduism		Buddhism		Islam		
	No.	%	No.	%	No.	%	No.
Dhanusa	95	87.2	13	11.9	1	0.9	109
Makwanpur	9	32.1	18	64.3	1	3.6	28
Rautahat	2	100.0	0	0.0	0	0.0	2
Saptari	149	86.1	0	0.0	24	13.9	173
Sarlahi	37	78.7	7	14.9	3	6.4	47
Siraha	126	93.3	8	5.9	1	0.7	135
Sunsari	68	97.1	0	0.0	2	2.9	70
Total	486	86.2	46	8.2	32	5.7	564

Source: Household Survey, 2016

6.2 Economic Characteristics

Occupation/Employment

Agriculture, service (salaried job), wage employment and business/small industry are the main sources of livelihoods of the surveyed households. Agriculture is the main occupation of 28.5% of the economically active population, followed by foreign employment (8.1), service (7.9%), Business and small industry (4.4%) and wage employment (2.7%). Nearly 24.9% of the economically active population is students and 21.4% of the economically active population is engaged in household work (Table 6.9).

Table 6.9: Occupational Composition of Surveyed Population (14 to 59 Years)

Main Occupation	Male		Female		Total	
	No.	%	No.	%	No.	%
Agriculture	452	34.8	239	21.3	691	28.5
Business and small industry	86	6.6	21	1.9	107	4.4
Labor/Wage (In Country)	58	4.5	8	0.7	66	2.7
Service	150	11.5	42	3.7	192	7.9
Foreign Employment	187	14.4	10	0.9	197	8.1
Household Works	21	1.6	498	44.4	519	21.4
Student	326	25.1	278	24.8	604	24.9
Others	19	1.5	26	2.3	45	1.9
Total	1299	100	1122	100	2421	100

Source: Household Survey, 2016

The gender difference in occupational composition among the surveyed households is evident from the table 6.9. Most of the economically active

men, compared to the economically active women, are engaged in non-farm. On the other hand, the economically active women, compared to male are involved in non-income generating activities i.e. household works. This scenario is typical in Nepal where women, traditionally engaged more in household work and men in other non-farm activities.

Ownership of house

Almost all of the 564 affected households (99.5 %) are living in their own house in the project area. A few households (1 in Sunsari District and 2 in Dhanusa Districts) are living in rented houses.

Food Security

The project area is food deficit area. Only 38.1% of the surveyed households could grow enough food for their consumption in a year. HHs of Sarlahi (89.4%) and HHs of Siraha (71.1%) are found in poor position regarding food production compared to the HHs of other districts (Table 6.10).

Table 6.10: Food Sufficiency of the Surveyed Households by Own Production

Districts	Sufficiency				Total No. of HHs
	Yes		No		
	No.	%	No.	%	
Dhanusa	44	40.4	65	59.6	109
Makwanpur	6	21.4	22	78.6	28
Rautahat	2	100.0	0	0.0	2
Saptari	73	42.2	100	57.8	173
Sarlahi	5	10.6	42	89.4	47
Siraha	39	28.9	96	71.1	135
Sunsari	46	65.7	24	34.3	70
Total	215	38.1	349	61.9	564

Source: Household Survey, 2016

Of the surveyed households, about 43.3% reported food deficiency of 4-6 months, 16.3% for months than 9 months. Similarly, about 12.6% reported food shortage for less than 3 months (Table 6.11).

Table 6.11: Food Deficiency of the Surveyed Households

Districts	Deficiency Period in month								Total No. of HHs
	less than 3		4 to 6		6 to 9		9 to 12		
	No.	%	No.	%	No.	%	No.	%	
Dhanusa	6	9.2	27	41.5	14	21.5	18	27.7	65
Makwanpur	6	27.3	10	45.5	1	4.5	5	22.7	22
Rautahat	0	0.0	0	0.0	0	0.0	0	0.0	0
Saptari	8	7.8	59	57.8	17	16.7	18	17.6	102
Sarlahi	5	11.9	7	16.7	6	14.3	24	57.1	42
Siraha	18	18.8	34	35.4	17	17.7	27	28.1	96
Sunsari	1	4.5	14	63.6	2	9.1	5	22.7	22
Total	44	12.6	151	43.3	57	16.3	97	27.8	349
percentage	88								100

Source: Household Survey, 2016

The households were found to be working as wage labour, depend on small business, sell their property and take loan to cope with their food dependency. Some of the HHs were employed within or out of the country, making them economic viable to cope food insecurity.

Family Debt

Family debt is another important indicator to assess economic status of a family. No debt or small amount of debt indicates healthy economic status of the family. However, it also depends on the purpose of the debt. Of the surveyed households, about 56.4% have family debt for various reasons. The proportion of the households having family debt is more than 50.0% in almost all the districts (Table 6.12)

Table 6.12: Debt Status of the Surveyed Households

Districts	Debt Status				Total No. of HHs
	Yes		No		
	No.	%	No.	%	
Dhanusa	68	62.4	41	37.6	109
Makwanpur	16	57.1	12	42.9	28
Rautahat	2	100.0	0	0.0	2
Saptari	85	48.6	90	51.4	175
Sarlahi	36	76.6	11	23.4	47
Siraha	75	55.6	60	44.4	135
Sunsari	36	52.9	32	47.1	68
Total	318	56.4	246	43.6	564

Source: Household Survey, 2016

The main purpose for taking loan to the project affected families is to cope their basic needs of food and clothing, some take loans for education of their

children. The other reasons for taking loan are treatment of disease, house construction/repair, purchase agriculture land, treatment.

Income and Expenditure

Income

The main sources of income of the surveyed households are agriculture, animal husbandry and other off-farm (non-agricultural) activities. Off-farm activities include professional services, petty trade, cottage industry, pensions, wage labor, remittance and others.

The weighted average annual income of surveyed households is NRs 270,323. The contribution of off-farm is 73.68%, agriculture 23.5%, and livestock 2.86% to the total household income.

The contribution of the various income sources to total household income varies considerably. The off-farm income ranges from NRs. 65, 96,500 in Rautahat to NRs. 265,950 in Dhanusha. Agricultural income varies from NRs. 47,710 in Saptari to NRs. 96,200 in Rautahat (Table 6.13).

Table 6.13: Average Annual Income of Surveyed Households

Districts	Annual Average Income from Different Sources							
	Agriculture		Livestock		Non-Agriculture		Total	
	NRs	%	NRs	%	NRs	%	NRs	%
Dhanusa	71,014	20.51	9,348	2.7	265,950	76.8	346,312	100.0
Makwanpur	53,550	29.17	25,000	13.6	105,000	57.2	183,550	100.0
Rautahat	96,200	45.77	17500	8.3	96,500	45.9	210,200	100.0
Saptari	47,710	22.83	2840	1.4	158,426	75.8	208,976	100.0
Sarlahi	88,581	27.76	15,592	4.9	214,907	67.4	319,080	100.0
Siraha	68,593	23.87	9,275	3.2	209,490	72.9	287,358	100.0
Sunsari	51,685	27.27	8,437	4.5	129,406	68.3	189,528	100.0
Average	63,424		7,731		199,168		270,323	
Percentage	23.5		2.86		73.68		100	

Source: Household Survey, 2016

The share of non- agriculture income is found highest (73.68%) in. Similarly, the other important household income sources of the surveyed households are agriculture (23.5%), livestock (2.86%) etc.

Expenditure

The expenditure of the surveyed households could be broadly categorized under two headings: expenditure on food items; and expenditure on non-food items. Non-food expenditure items, in turn, can be broadly grouped as fuel and light (kerosene and electricity); and other (education, medicine, clothing, festivals, transportation).

The annual weighted average expenditure of the surveyed households is NRs 202,421. Food items form the largest expense category, accounting for 50.21% of total reported expenditure. Expenditure on food items ranges from 43.71% in Sunsari to 62.56% in Sarlahi. Expenditure on education is the second important category, accounting 19.06% of the total expenditure ranging from 9.14% in Sarlahi to 22.72% in Makawanpur (Table 6.14).

Table 6.14: Average Annual Expenditure of the Surveyed Households

District	Expenditure Headings (%)							Total Expenses (NRs)
	Food Items	Clothing	Education	Fuel	Communication	Water/Electricity	Transportation	
Dhanusa	53.15	10.38	19.25	5.79	3.55	2.44	5.43	215697
Mahottari	54.38	11.73	21.38	5.71	2.09	1.34	3.37	127321
Makwanpur	50.47	7.56	22.72	5.93	3.09	2.62	7.61	201102
Saptari	46.79	16.76	18.82	8.00	4.96	1.71	2.96	182812
Sarlahi	62.56	17.74	9.14	4.54	1.60	1.15	3.27	298850
Siraha	50.45	14.55	18.88	5.93	3.72	2.00	4.46	215115
Sunsari	43.71	15.65	20.06	10.37	3.71	2.04	4.46	176048
Percentage/Average	50.21	13.70	19.06	6.84	3.52	2.00	4.67	202,421

Source: Household Survey, 2016

The affected households were asked about the minimum monthly income required in order to meet their basic requirements like food, clothing and education and others. The respondents of different districts mentioned different range like Sunsari (NRs.5000 to 25000), Saptari (NRs.10,000 to 30,000), Siraha (NRs. 7,000 to 35,000), Dhanusha (NRs.5,000 to 45,000), Sarlahi (NRs.6,000 to 30,000), Rautahat (NRs.15,000 to 35,000) and Makwanpur (NRs.10,000 to 15,000) depending upon their family size, number of family members and their living standard.

Energy Sources

Fuel wood is the main source of energy for cooking and electricity for lighting purpose to the households of the project area.

Of the surveyed households, 55.1% use fuel wood as the main source of energy for cooking. About 30.7% of the households used both wood and cowdung for cooking purpose. Meanwhile only 14.2% of the households use LPG for cooking, which could be due to the distance to forest and availability of LPG in the area (Table 6.15).

Table 6.15: Source of Energy for the Surveyed Households for Cooking

Districts	Source					
	Fuel wood		Wood and Guitha		LPG	
	No.	%	No.	%	No.	%
Dhanusa	71	65.1	21	19.3	17	15.6
Makwanpur	26	92.9	0	0.0	2	7.1
Rautahat	1	50.0	0	0.0	1	50.0
Saptari	71	40.6	82	46.9	22	12.6
Sarlahi	40	85.1	4	8.5	3	6.4
Siraha	83	61.5	25	18.5	27	20.0
Sunsari	19	27.9	41	60.3	8	11.8
Total	311	55.1	173	30.7	80	14.2

Source: Household Survey, 2016

Major source of fuelwood used for cooking purpose in the project is from the community forest. About 25% of the households also purchase fuelwood from the market. This is particularly high in the case of Dhanusa, Siraha and Sunsari. Besides community forest and purchase, the households also collect fuelwood from government forest and private forest as well.

Table -6.16: Source of Fuel wood

Districts	Source							
	Govt. Forest		Private Forest		Community Forest		Purchase	
	No.	%	No.	%	No.	%	No.	%
Dhanusa	13	18.3	6	8.5	21	29.6	31	43.7
Makwanpur	0	0.0	8	30.8	16	61.5	2	7.7
Rautahat	0	0.0	0	0.0	1	100.0	0	0.0
Saptari	14	19.7	18	25.4	34	47.9	5	7.0
Sarlahi	7	17.5	9	22.5	19	47.5	5	12.5
Siraha	13	15.5	25	29.8	16	19.0	30	35.7
Sunsari	0	0.0	10	52.6	2	10.5	7	36.8
Total	47	15.1	76	24.4	109	34.9	80	25.6

Source: Household Survey, 2016

Of the surveyed households, majority of them use electricity for lightning. About 5% of the households do not have access to electricity. The area deprived of electricity are using alternative source of energy. About 18 households (3.2%) are using kerosen lamps as source of lightning whereas 8 households (1.5%) households are using solar home system for source of lightning.

Table 6.17: No. of Household Having Electricity Connection in the Project Area

Districts	Source					
	Electricity		Kerosene lamp		Solar	
	N	%	N	%	N	%
Dhanusa	103	94.5	5	4.6	1	0.9
Makwanpur	21	75.0	2	7.1	5	17.9
Rautahat	2	100.0	0	0.0	0	0.0
Saptari	171	97.7	3	1.7	1	0.6
Sarlahi	45	95.7	2	4.3	0	0.0
Siraha	131	97.0	4	3.0	0	0.0
Sunsari	65	95.6	2	2.9	1	1.5
Total	538	95.4	18	3.2	8	1.4

Source: Household Survey, 2016

6.3 Agriculture

Landholding

As in other parts of Nepal, land is a primary asset for livelihoods in the project area. Ownership of 'large' landholdings is also symbolic of economic and social status. In Nepalese society, land is regarded a permanent productive asset and inherited.

The surveyed households own and operate 645.7 ha land. This land consists of three types, namely *Khet* (lowland – irrigated and un-irrigated), *Bari* (upland) and *Ghaderi* (plots for house construction). The average land holding of the affected households is 1.1 ha. . The highest holding (1.9ha) is in Rautahat and lowest (0.0.4 ha) in Makwanpur (Table 6.18).

Table 6.18: Landholdings of the Surveyed Households by Type of Land

Districts	HH	Khet (Ha)	Bari (Ha)	Others (Ha)	Total	Ha/HH
Dhanusa	109	129.7	6.4	4.5	140.6	1.3
Makwanpur	28	3.5	7.2	1.8	12.5	0.4
Rautahat	2	1.0	0.7	2.0	3.7	1.9
Saptari	175	176.7	5.6	0.3	182.6	1.0
Sarlahi	47	21.0	2.7	7.6	31.3	0.7
Siraha	135	179.3	4.2	7.2	190.7	1.4
Sunsari	68	80.3	4.1	0.0	84.4	1.2
Total /Average	564	591.5	30.9	23.3	645.7	1.1
Percentage		91.6	4.8	3.6	100	

Source: Household Survey, 2016

The grouping of the surveyed households according to landholding size shows that the majority have very small landholdings – 32.3% are marginal landholders with landholdings up to 0.5 ha, while 50.5% have landholdings of between 0.5 ha and 2.0 ha (classified as small landholders). Thus, marginal

and small landholders comprise about 82.8% of the surveyed households. About 17.2% of the surveyed households have landholdings larger than 2.0 ha.

Marginal landholders operate 7.2% of the total reported landholdings while medium and large landholders own about 49.4%. Whereas the small farmers operate 43.5% of the total reported landholdings (Table 6.19).

Table 6.19: Distribution of Households by Landholding Size in the Project Area

Landholding Categories*		Households		Total Landholding	
Category	Size of Holding (ha)	No.	%	Area (ha)	%
Marginal	Up to 0.5	182	32.3	46.2	7.2
Small	0.5 – 1.0	137	24.3	92.0	14.3
	1.0 - 1.5	122	21.6	144.0	22.4
	1.5 – 2.0	26	4.6	43.7	6.8
Medium	2.0 - 4.0	74	13.1	189.0	29.4
Large	> 4.0 ha.	23	4.1	128.7	20.0
Total		564	100.0	643.5	100.0

Source: Household Survey, 2016 *Landholding categories based on Rural Credit Review Study 1991/92, Nepal Rastra Bank (Central Bank of Nepal), 1993.

Of the affected households, 21.5% are female headed households and 78.5% are male headed households. Of the female headed households 35.54% are marginal farmers. The average landholding for both male headed households and female headed households is 1.1 ha (Table 6.20).

Table 6.20: Landholding by Sex of Household Head

Landholding Categories		Number of Households		Total Area		Average Holding per Household (ha)	
Category	Size of Holding (ha)	Male-headed	Female-headed	Male-headed	Female-headed	Male-headed	Female-headed
Marginal	Up to 0.5	134	43	33.8	12.0	0.3	0.3
Small	0.50 - 1.00	109	33	74.2	19.4	0.7	0.6
	1.00 - 1.50	102	20	120.7	23.3	1.2	1.2
	1.50 - 2.00	22	4	36.6	7.1	1.7	1.8
Medium	2.00 - 4.00	59	15	151.1	37.9	2.6	2.5
Large	> 4.0 ha.	17	6	92.7	36.0	5.5	6.0
Total		443	121	489.7	132.4	1.1	1.1

Source: Household Survey, 2016

Crop Production

Paddy, sugarcane, wheat, maize and millet are the main crops cultivated by the surveyed households. Other crops include vegetables, potato and pulses.

In terms of area coverage, paddy cultivation ranks first, sugarcane second, wheat third and maize fourth. Paddy is primarily grown in *Khet*. Similarly, maize is primarily grown in *Bari*, however nowadays its cultivation in *Khet* is also increasing in the project area.

Table 6.21: Major Crop Area Coverage, Production and Yield in the Project Area

Description	Major Crops				
	Paddy	Wheat	Maize	Sugarcane	Vegetables
Total area cropped (Bigha)	447.4	160.8	62.9	48.55	15.9
Total production (MT)	978.9	257.1	97.5	411	61.6
Yield (MT/Bigha)	2.2	1.6	1.6	8.5	3.9
Percentage	54.20	14.24	5.40	22.76	3.41

Source: Household Survey, 2016

Horticulture

Some of the households in the project area grow fruits such as banana, guava, mango, *Leechi*, jackfruit, citrus species as commonly grown in Terai.

Livestock

Livestock ownership is an integral part of agriculture for the surveyed households of the project area. These households mainly rear buffalo, goat/sheep, cattle, poultry and cow.

6.4 Drinking Water, Sanitation and Health

Drinking Water

The major sources of drinking water for the households of the area are tube-well, piped water and public tap. Of the surveyed households, 86.3% have tube well. Similarly, 7.6% households collect water from private taps and 6% from public taps (Table 6.22).

Table 6.22: Source of Drinking Water of the Surveyed Households

Districts	Sources					
	Well/Tube Well		Public Tap		Private Tap	
	N	%	N	%	N	%
Dhanusa	84	77.1	15	13.8	10	9.2
Makwanpur	17	60.7	2	7.1	9	32.1
Rautahat	2	100.0	0	0.0	0	0.0
Saptari	169	96.6	3	1.7	3	1.7
Sarlahi	30	63.8	5	10.6	12	25.5
Siraha	117	86.7	9	6.7	9	6.7
Sunsari	68	100.0	0	0.0	0	0.0
Total	487	86.3	34	6.0	43	7.6

Source: Household Survey, 2016

There is shortage of drinking in the project area. The scarcity of drinking water is high in Sarlahi, Siraha (Lahan, Padariya and surroundings), Dhanusha (Dhalkebar periphery area), Sunsari (Mahendranagar and Dumraha area) Mahottari (Tuteswor and Laxminiya area) compared to the other districts

Sanitation

Most of the surveyed households seem to be aware of the aware of using toilets for personal hygiene and environmental sanitation. Of the surveyed HHs, over 87% use own toilet for defecation. The use of own toilet is particularly high in Saptari (95%). However, 71 households (12.6%) still do not use toilets. They use open field, riverside and forest area for the purpose. (Table 6.23).

Table 6.23: Location for Defecation by the Surveyed Households in the Project Area

Districts	Location							
	Own Toilet		Open Field		River Side		Forest Area	
	No.	%	No.	%	No.	%	No.	%
Dhanusa	88	80.7	14	12.8	4	3.7	3	2.8
Makwanpur	21	75.0	3	10.7	0	0.0	4	14.3
Rautahat	2	100.0	0	0.0	0	0.0	0	0.0
Saptari	167	95.4	4	2.3	4	2.3	0	0.0
Sarlahi	36	76.6	10	21.3	0	0.0	1	2.1
Siraha	117	86.7	15	11.1	3	2.2	0	0.0
Sunsari	62	91.2	6	8.8	0	0.0	0	0.0
Total	493	87.4	52	9.2	11	2.0	8	1.4

Source: Household Survey, 2016

Most households of the core project area are aware regarding waste management. Of the surveyed households, 69.17% dump waste at safe location. Similarly, 11.28% burn it, 15.04% bury it and 4.51% use other

methods for waste management. The proportion of households managing waste at safe location is high in Mahottari (84.62%) and low in Sarlahi (Table 6.24).

Table 6.24: Methods of Solid Waste Disposal in the Project Area

District	Location							
	Dump at Safe Location		Burn		Buried		Others	
	No.	%	No.	%	No.	%	No.	%
Dhanusa	30	69.77	5	11.63	7	16.28	1	2.33
Mahottari	11	84.62	-	-	1	7.69	1	7.69
Makwanpur	3	50.00	2	33.33	1	16.67	-	-
Saptari	12	63.16	1	5.26	4	21.05	2	10.53
Sarlahi	2	28.57	1	14.29	4	57.14	-	-
Siraha	18	81.82	3	13.64		0.00	1	4.55
Sunsari	16	69.57	3	13.04	3	13.04	1	4.35
Total	92	69.17	15	11.28	20	15.04	6	4.51

Source: Household Survey, 2016

Health

To assess health status of the family members of the affected households, data on seriously sick family members during the last 12 months was collected. From the survey as well as field observation no families are found seriously sick during the period.

6.5 Knowledge, Attitude and Expectations of the Affected HHs from the Project

To assess attitude and expectation of the affected households, questions were asked. This section describes attitude and expectation of the affected households.

Regarding knowledge about the TL project 87.9% had knowledge about the project and 1.1% had no knowledge about the project. Of the households who had knowledge regarding the project, 63.7% had received the information from NEA staff/Surveyors, 11% from newspaper and notice publications and 15% from other source.

Of the affected households, 76.1% have positive attitude and 16.7% have negative attitude regarding the project. However, 5% are neutral and 2.3% have yet not formed any opinion in absence of detail information about the project during the time of survey. Regarding reason for negative attitude, these households are doubtful regarding proper distribution of compensation, unwilling to leave the place and one is reluctant to provide his land.

The affected households are expecting employment, good compensation, local development, and electrification from the project. Of the surveyed households, 52.1% expecting good compensation, 20.7% expecting employment opportunity, 19.3% expecting skill development training, 5%

expecting local development and 3.2% expecting electrification from the project (Table 6.25).

Table 6.25: Expectation from the Project

S.N	Expectations	Households	Percentage
1	Good Compensation	294	52.1
2	Employment	117	20.7
3	Electricity Facility	18	3.2
4	Skill Development Training	109	19.3
4	Local Development	28	5.0

Source: Household Survey, 2016

6.6 Compensation

To know views of the affected households regarding compensation for loss of land/assets and use of compensation questions were asked. This section describes views of the affected households regarding compensation and its use.

The households were asked regarding their willingness to receive compensation in cash or kind. Of the households a majority said that they are willing to receive cash compensation. However, some of the the people of urban area and probable urban development areas like Lahan, Padheriya, Mirchiya, Golbazzar, lalbandi, Hetauda, Hariwon, Tapeswori, Mahendranagar, Bagmati, Dhalkebar, Bandipur, Birendrabazzar demanded land for land and house for house compensation because of high value of land at those places.

7. IMPACT ASSESSMENT

This section describes the details of affected assets due to implementation of the Hetauda-Dhalkebar-Duhabi 400 kV Transmission Line Project. The major affected assets include loss of private property and public property. The private property includes loss of land, houses, cowsheds and trees. Similarly, the public property includes one primary school (Sunsari), two small temples in Siraha and Dhanusha.

These losses will occur due to construction of 792 towers pads, two substations of the project in different locations of different districts. The details of affected private and public assets have been described in the following sections of the chapter.

7.1 Loss of Land

The total identified and surveyed HHs affected till end of 2016 is 564. Among, them 493 HHs lose land because of construction of project component (like AT, ST and substations) and 71 HHs lose structure that lie under RoW. However, this number is likely to be increased in future because the final alignment is yet to be finalized at some disputed places and notice for land acquisition is to be published in National Dailies. The detailed HH survey has been carried out for 493 HHs who lose their permanent land because of construction of towers and substations; and 71 HHs losing structure under RoW of the TL. It is estimated that about 42 ha of private land will be acquired for substation and tower pads construction. The list of affected households losing land and other structures is provided in Annex – 1 and 2 respectively.

7.1.1 Land Loss by Land Holding

Regarding loss of land, altogether 85.40% (421 HHs out of 493) will lose less than 10% of their total land, 12.71% (60 HHs) will lose more than 10.0% to 50.0% of their holding and the remaining 2.43% (12 HHs) will lose more than 50% of their total land. The HHs losing more than 50.0% of their holding requires special assistance (Table 7.1).

Table 7.1: Percentage Loss of Land from the Total Land of the Affected HHs

Affected Categories of HHs and Land Loss (%)	Tower Pads		Substation		Total		
	No.	(%)	No.	(%)	No.	(%)	
1. Marginally (<10%)	413	89.01	8	27.59	421	85.40	
2. Severely	10-50%	45	9.70	15	51.72	60	12.17
	>50%	6	1.29	6	20.69	12	2.43
Total	464	100	29	100	493	100	

Source: Household Survey, 2016

Of the affected households, 108 (21.91%) are female headed households and 385 (78.09%) male headed households. The total land holding of the female headed households is 130.34 ha from which they will lose 4.402 ha (26.0% of

their total land) whereas the male headed households will lose 21.046ha 4.29% of their total holding 491.8 ha. This indicates that female headed households will lose more land than the male headed households. Therefore, the female headed households require special assistance (Table 7.2)

Table 7.2: Distribution of affected Households due to land acquisition by Landholding and gender category

Landholding Size	HH		Area		(%)
	Project component	HH	Total Area (ha.)	Loss Area (ha.)	
Female headed	Substation	4	2.57	0.864	33.62
	Tower	104	127.77	3.178	2.49
	Total	108	130.34	4.042	3.10
Male headed	substation	25	40.94	9.311	
	Tower	360	450.86	11.735	2.61
	Total	385	491.8	21.046	4.29
Total		493	622	25.088	4.04

Source: Household Survey, 2016

7.1.2 Loss of Land by Farm Category

Altogether 25.088 ha of private land owned by 493 surveyed HHs will be acquired for construction of the project. However, the total private land to be acquired by the project is 25.1 ha. Of the affected surveyed HHs whose land will be acquired by the project, 24.5% are marginal farmers, 55.98% are small farmers, 15% are medium farmers and 4.46% and large farmers.

Of the marginal farmers, 33.88% farmers have total 6.15 ha land holding and will lose 13.33% (0.82ha) of their total land. While, 66.12% farmers whose total land holding is 30.64ha will lose 2.31 ha land, which is 7.54% of their total holding.

Of the small farmers, 39.86% have 71.74ha total holding, will lose 10.18% (7.3 ha) of their land. Similarly, 7.61% small farmers whose total holding is 17.3ha will lose 3.64% of their total land holding. Further, 43.48% small farmers whose total holding is 141.2ha will lose 2.97% land of their total holding and the remaining 9.06% small farmers whose total holding is 41.9ha will lose 2.53% of their total holding.

The medium and large farmers whose holding is 189.07 ha and 124 ha will lose 3.22% and 2.17% of their total land holding. This indicates that total 30.63% (150 HH) marginal and small farmers will lose more than 10.0% of their total land holding (Table 7.3)

Table 7.3: Percentage of Land Loss by Land Holding Size

Landholding Categories*		Total		Affected		Land loss
		HH	Area (ha.)	Area (ha.)	%	%
Category	Landholding Size					
Marginal	Up to 0.25 ha.	41	6.15	0.82	3.27	13.33
	0.25 – 0.50 ha.	80	30.64	2.31	9.2	7.54
Small	0.50 – 0.75 ha.	110	71.74	7.3	29.08	10.18
	0.75 – 1.0 ha.	21	17.3	0.63	2.51	3.64
	1.0 – 1.5 ha.	120	141.2	4.19	16.69	2.97
	1.5 – 2.0 ha.	25	41.9	1.06	4.22	2.53
Medium	2.0-4.0ha	74	189.07	6.09	24.26	3.22
large	>4.0ha	22	124	2.7	10.76	2.17
Total		493	622.0	25.1	25.1	100

Source: Household Survey, 2016

7.2 Acquisition of House and Other Structures

Till Dec. end 2016, a total of 72 HHs have been identified to be affected due to the loss of their structure (under RoW and sub stations). A total of 66 houses, 36 cowsheds and 42 other structures including toilets are identified which are owned by 72 HHs throughout the transmission line alignment. In Makawanpur district only, total of 69 structures including 24 houses, 17 cowsheds, and 28 other structures owned by 26 HHs are located within RoW. Moreover, 17 non-titleholders will lose houses due to transmission lie RoW. The detail of the structures within RoW is given in table 7.4.

Table 7.4: Households Losing Structures

District	Total HHs	Houses	Cowshed	Others	Total	Non-title holders losing structures
Makawanpur	26	24	17	28	69	4
Sarlahi	20	18	10	9	37	7
Dhanusha	14	12	7	4	23	6
Siraha	1	1	0	1	2	0
Saptari	6	6	0	0	6	0
Sunsari	5	5	2	0	7	0
Total	72	66	36	42	144	17

Source: Field Survey, 2016

Out of total households affected due to loss of structure majority are male-headed households. Only 14 are female headed households lose structure. Of the female headed households losing structures, 4 are from Saptari and 5 from Sarlahi District.

Table 7.5: Distribution of affected households due to loss of structures by gender category

District	Total HHs	Female Headed HHs	Male Headed HHs	Remarks
Makawanpur	26	0	26	
Sarlahi	20	5	15	
Dhanusha	14	2	12	
Siraha	1	1	0	
Saptari	6	4	2	
Sunsari	5	2	3	
Total	72	14	58	

Source: Field Survey, 2016

The detail regarding affected structures is presented in Annex 2.

7.3 Loss of Private Trees

Altogether 12000 trees of fruit species, timber species and others are likely to be clear felled from private land throughout the project alignment. Appropriate compensation will be paid for the private trees that need to be removed before tower erection and line stringing in future.

The magnitude of impact is considered to be low, extent is site specific and duration is short term.

7.4 Impact on Community Facility, Services and Resources

Community infrastructures, facilities and services (e.g. health, education, communication and drinking water, community forest etc.) are important social resources that will be used by the construction workforce. However, as the size of construction workforce is about 1000, of them 600 local and work nature is short term and site specific, the pressure on community infrastructures/facility and services is likely to be limited.

The implementation of the proposed project will affect 485ha forest from 97 forests (Community, Leasehold and Collaborative) of ten project districts. Furthermore, due to use of forest resource by workforce pressure on forest resource will also increase.

Considering nature of the project and availability of local labor this impact is considered to be low, site specific and of short term.

7.5 Affected Community Structures

i) School

The Yuba Barsha Primary School located at Hanif Tole of Bhokraha VDC that falls nearby the sub-station area. This is a small school where about 200 students are enrolled and about 100 students are regular. The school building is roofed with corrugated sheet and wall made of brick and cement.

The land of this school has been acquired by the project and compensation is paid. From the compensation amount paid, the school has constructed new building about 1 km South-west of the current location nearby Bhokraha-7.

The magnitude of impact is considered to be medium, extent is site specific and duration is long term.

ii) Temples

Altogether two small temples have been affected and require relocation due to the project. The affected temples and their significances are as follows:

Table 7.5: Affected Temples and Their Significance

S.N.	Name of Temple	Location	Significance	Remarks
1	Gram Devata Dewhar Than	Badaharamal, Siraha	This is a small open sacred area worshiped by Hindu caste/ethnic groups. Local people worship here with a hope of better crop production and income one time in a year. This area falls within the angle tower area.	Under process of relocation.
2	Gram Devata Dewhar Than	Dhalkebar, Dhanusha	A narrow throat temple of about 15 ft height constructed and worshiped by local Hindu caste/ethnic groups. This temple falls within sub-station	This has been relocated.

7.6 Reduction in Agricultural Production

A total of 25.1 ha of cultivated land of 493 affected households will be permanently acquired and there will be permanent annual loss of 65 mt. of food grains (including winter crops and summer crops). Paddy, wheat, maize, millet, potato, mustard, sugarcane and pulses are the crops likely to be affected by the land acquisition.

7.7 Acquisition of Temporary land

The areas required temporarily during construction of transmission lines, camps and storage facilities will be leased in at market price. Since such land will be taken by the contractors as to their ease, the contract document will ensure that the rentals to such lands will be paid not less than the annual agricultural production of the land which will be based on negotiation between contractors and land owner. Besides, the contractor will have to rehabilitate such lands like previous conditions during the time of handover to the landowners.

8. RESETTLEMENT, REHABILITATION AND ENHANCEMENT MEASURES

There are some adverse impacts of the project during its construction and operation phases that cannot be avoided. The proponent as its prime responsibility will implement the proposed Resettlement and Rehabilitation (R &R) and enhancement measures to minimize the impacts of the project. The project has its impact at two levels i.e. household and community. In this section, following measures are suggested.

8.1 Resettlement and Rehabilitation (R &R) Assistance

The project will acquire permanently 42 ha private land, 66 houses, 36 cow-sheds and 42 other structures like toilet, gohar gas, storage room, water tap, poultry house etc. All the affected assets will be properly recorded and verified by the project and delegated Government and community representatives. Census and asset information will be maintained in a computerized database to manage and monitor compensation activities.

Eligibility, Cut-off-date and Entitlement: All PAFs/ SPAFs and affected peoples (APs) identified and recorded in the project-impact areas on the cut-off date (date of public notification for property acquisition in case of title holders and census survey date in case of non title holders) will be entitled for different types of mitigation measures proposed in this RAP. These include primarily the cash compensation at replacement value for the affected assets, and combinations of rehabilitation measures that are sufficient to assist them to improve or at least restore the pre-project income/ living standards and production.

The entitlement matrix given below in this chapter summarizes the main types of losses and the corresponding nature and scope of entitlements in accordance with GoN and WB policies. Based on technical design, the detailed losses of land and/or non land assets (structures) have been used for determining actual impacts and replacement values of assets. This information will be used by the CDC for valuation and the negotiation of land and property value between the project and owners as per the legal framework.

8.1.1 Compensation Determination Committees (CDC)

All affected households will be compensated for their lost assets. As per legal requirements a Compensation Determination Committees (CDC) will be formed and undertake the valuation of assets. The CDC will consist of:

- Chief District Officer of concerned district,
- District Land Revenue (*Malpot*) Officer of concerned district,
- Representative of the District Development Committee of concerned district,

- Representative of concerned VDC,
- representatives of affected communities and households, and
- Representative of the Project.

8.1.2 Valuation of Assets and Compensation

Considering the limitations of the Land Acquisition Act, 2034 (1977) improvements will be made to the principles of valuation in consultation with the local administration, affected households and stakeholders. The compensation to be determined by the CDC will be at replacement value. To ensure this, the CDC will take account of prevailing rates in the local market, transaction values and price information provided in this RAP. All the required procedures will be completed prior to implementation of the project. Apart from the rate fixed by the CDC, percentage loss of land of the households will also be a basis for compensation as per degree of losses.

Obviously, higher rates are recorded for urban area followed by semi-urban and rural area that seem to be quite realistic with the prevailing practice in the field and also scientific than an adhoc or single rate system which could generally invite conflicts on land prices across different areas within project area. The CDC, which also consist one member from District Land Revenue Office (LRO), also refers current transaction value of land and structures that have prevailed at free markets in each district. Once the CDC collects and verifies different rates established in the project area, it is only thereafter that the committee works out the compensation rates that best represent the replacement value for particular category of land.

Considering the nature of the project single payment will be made to individual household for the entire compensation money to avoid administrative problem.

Land for land compensation is not proposed in this project due to the small area of land to be permanently acquired from various affected families. It is also impractical and difficult to allocate similar piece of agricultural land in the vicinity of the project area.

8.1.3 Assistance to Different Categories of Households Losing Land

Different types of assistance have been proposed for different category of affected households as follows.

i) Household losing less than 10% of their total holding

There are altogether 421 households who will lose <10.0% land. These households are under the category of marginally affected group and will be compensated for their land loss at replacement value as determined by CDC. Besides this due priority will be given for employment during construction.

ii) Household losing more than 10% their total holding

As per the defined criteria household losing more than 10.0% of their holding are considered as severely affected families. This group includes the following two categories:

a) Household losing 10.0% to 50.0% of total holding: There are altogether 60 households in the first severely affected category. These households will receive following assistance apart from the cash compensation.

- Livelihood assistance: Each household will receive NRs. 37275 for three years crop loss from the acquired land @ rate of NRs. 12425/year of crop loss/year¹. The total cost for the livelihood assistance is NRs. 2236500.
- Basic technical skill training: One family member of each household will be provided technical training in the areas of driving, plumbing, house wiring and motor rewinding as per their interest from government recognized training institutions. The cost of skill development assistance is estimated to be NRs. 55000/household².
- Agriculture assistance: As these households still own their agriculture land, they will be provided agriculture assistance to increase their land productivity. The assistance will include livestock/agriculture training to one family member of each household and inputs support including hybrid seed, small agriculture tools and others based on their interest. The estimated cost of agriculture assistance is NRs. 25000/household that includes NRs. 10000 for inputs support and NRs.15000 for training.
- Priority for employment: First priority will be given to the family members of the households for employment in project construction.

b) Households losing more than 50.0% of their total holding: There are altogether 12 households in the second severely affected category. These households will receive following assistance apart from the cash compensation.

- Livelihood assistance: Each household will receive NRs. 37275 for three years crop loss from the acquired land @ rate of NRs. 12425/year of crop loss.
- Skill training: One family member of each household will be provided technical training in the areas of repair and maintenance of mechanical and electrical equipment, motor rewinding and advance house wiring or others as per their interest from government recognized training

¹ The value of crop loss is derived based on estimated crop production and market price of crops grown in the project area.

² The training cost is based on the rates provided by formal training institutes organizing such programs on a regular basis.

institutions. The cost of basic skill development assistance is estimated to be NRs. 55000/person.

- **Agriculture assistance:** As these households still own their agriculture land, they will be provided agriculture assistance to increase their land productivity. The assistance will include livestock/agriculture training to one family member of each household and inputs support including hybrid seed, small agriculture tools and livestock (goat/pig, poultry) based on their interest. The estimated cost of agriculture assistance is NRs. 25000/household that includes NRs. 10000 for inputs support and NRs.15000 for training³.
- **Employment:** Employment will be provided to at least one family member of the households in the project during construction and priority during operation.

8.1.4 Assistance to Households Losing House and Cowshed

Construction of the project will involve the removal of 69 residential structures, 36 cow-sheds and 42 other structures like toilet, gobar gas, storage room, water tap, poultry house etc of six districts owned by 71 households. The project proponent will provide compensation at replacement cost for the structures acquired by the project. This will include compensation for land occupied by the structure and cost of the structure and other accessories (hand pump, dug-well). Owners will have the right to use salvage materials from the affected buildings. The value of salvaged materials will not be deducted from the compensated amount. The valuation of each structures within RoW of the line will be carried out and the appropriate compensation will be provided. Since the valuation of land and structure differs with the localities and type, the estimated amount has not been included in this report.

A house rent allowances for 6 months will be paid to the concerned household losing their residential house at the rate of NRs. 4000/month assuming that a new house will be constructed within that period.

Besides this a one time dislocation allowance NRs. 15000 and NRs. 10000 transportation allowance will be provided for transportation of goods and materials. These households shall be eligible to receive compensation and other benefits as per the criteria of land and agriculture income loss.

- **Compensation for the Private Trees**

For the loss of private trees, the appropriate valuation of each tree will be made from the concerned government agency and the compensation amount will be paid to the owner.

- **Compensation for loss of Agricultural Production**

³ The cost of agriculture inputs and training is based on the estimate provided by service provider NGOs conducting such programs in the area.

A total of 25.1 ha of cultivated land of 493 affected households will be permanently acquired and there will be permanent annual loss of 65 mt of food grains (including winter crops and summer crops). Paddy, wheat, maize, millet, potato, mustard, sugarcane and pulses are the crops likely to be affected by the land acquisition. Based on the prevailing price, the permanent yield loss per year will be estimated from the District Agriculture Office and payment will be made to the owners accordingly. Moreover, the appropriate compensation will be paid for the loss of standing crops due to project activities.

8.1.5 Mitigation Measures for the Women Headed and Vulnerable Households

There are 19 Dalit households who are affected by the project (Kami, Damai, Sarki, Chamar and Mushar) while 252 Janjati household are affected (Tamang, Chaudhary, magar and Newar). These households are considered as vulnerable groups. Besides this there are 122 women headed HHs affected by land acquisition and structures and 17 non-titleholders affected due to loss of residential structures respectively. All the households need to benefit more from project activities therefore the following measures will be implemented:

- Priority in employment during construction, for both the women headed and the vulnerable households (Dalits).
- Entrepreneurship/skill development (tailoring, knitting/weaving, handicraft etc.) for women and distribution of stitching machine to each women headed household.
- In addition to this, each household will be provided skill training as per their interest from government recognized training institutions. The cost of basic skill development assistance is estimated to be NRs. 55,000.

8.1.6 Awareness Program

The proponent will implement various awareness programs to minimize any impacts on lifestyle and public health through different IEC activities (hoarding boards, pamphlets, leaflets, awareness programs etc).

The workers will be instructed to act in a responsible manner during and after the working hours, respecting the rights, property, socio-cultural norms and practice of local people. The awareness program will incorporate the problem associated with social and cultural disintegration and awareness regarding girls trafficking, sexually transmitted disease (STD), HIV/AIDS, health and sanitation, education (formal, non-formal), family planning. The program will also include awareness regarding proper use of compensation money, job availability in project and its nature, importance of project with regards to local and national scenario etc.

8.1.7 Health and Sanitation

Permanent camp will be made on rented house which include toilet, drinking water and other facilities to accommodate the project staff at substations. Toilets will be constructed in temporary camps and drinking water facilities will

be installed prior to occupancy. Health check-up of workers will be made periodically. Priority will be given to the local people in project works to minimize the impacts on health and sanitation. Drinking water available for the camps will be tested and necessary treatment will be made to make safe drinking water. A one days health sanitation awareness training will be implemented for the project workers living in camps.

8.1.8 Affected Community Structures

i) School

The project has acquired 0.17ha land of Yuva Barsha Primary School located at Hanif Tole of Bhokraha VDC for the construction of substation. The land compensation amount has already been paid to the school. The school has been shifted to the new location at Bhokraha. ESSD of NEA will provide support for the boundary wall construction of the school at new location. The estimated cost for the purpose is NRs 12,00,000.

ii) Temples

Altogether two small temples (Gram Devata Dihibar Mandir of Badaharamal and Dhalkebar;) have been affected by the project requiring their relocation. the Dihibar temple located inside Dhalkebar substation has already been relocated and the relocation of Dihibar temple at Badaharmal is underway. The estimated cost for the relocation of both the temples is NRs 1600000.

8.2 Entitlement Matrix

Through the acquisition of private and community assets, the HDDTL Project will affect property owners, their dependants and local community. This Entitlement Framework accordingly specifies compensation and/or rehabilitation measures for two units of entitlement individuals including affected individuals/ households and the local community.

Compensation will be provided to the affected private property. Furthermore, the owners of affected house will be provided house rent allowance for 6 months, and one time dislocation and transportation allowances. Apart from the compensation for acquired land, assistance will be provided to the households losing >10.0% of their total land owned within the country and reduction in agriculture for reestablishment and improvement of livelihood. Similarly, the women headed and Dalit households losing land will be supported for reestablishment and improvement of livelihood. This assistance will include livestock/agriculture training to one member of each household and assistance (hybrid seed, small agriculture tools), technical training in the areas like basic plumbing, house wiring, driving, tailoring, repair and maintenance of mechanical/electrical equipments and others as per their interest.

Loss of private and community assets will be valued and compensated based on the entitlement matrix given in Table 8.1 below.

Table 8.1: Entitlement Matrix

Type of Loss	Entitlement Unit	Description of Entitlements	Implementation Measures
1. House and Other Structures			
1.1 Loss of Residential Structures	Titleholder	<ul style="list-style-type: none"> ▪ Cash compensation for loss of house at replacement cost, according to house type. ▪ Compensation for land occupied by the structure 	<ul style="list-style-type: none"> ▪ Primary land and building valuation will be done by HDD T/L Project ▪ Due consultation will be made with Department of Housing and Planning for the valuation of structures ▪ CDC will be formed in each district and compensation rates established by CDC will be provided to the concerned households. ▪ Compensation will be paid at replacement cost and depreciation will not be deducted ▪ Salvaged material will be allowed to use by concerned HH without deduction from compensation amount. ▪ 50% compensation will be paid in advance and remaining 50% will be paid after demolishing the structure ▪ House rent allowance for 6 months will be provided ▪ Transportation allowance for transportation of goods and materials and dislocation allowance will be paid to minimize the impacts. ▪ In addition these household are also entitle to receive additional training and benefits allocated for the household losing more than 10% of their land ▪ Notice to vacate will be served at least 35 days prior to acquisition date ▪ To ensure fair compensation, determination of rates will be done not more than one year prior to property acquisition.
1.2 Loss of other private structures	Titleholder	<ul style="list-style-type: none"> ▪ Other private structures include: cowsheds, toilets, hand pump, dug-well, etc ▪ Cash compensation for full or partial loss at replacement cost, according to structure type. ▪ Compensation for land occupied by the structure 	<ul style="list-style-type: none"> ▪ Loss of structures other than houses does not entail payment of other allowance. ▪ Compensation determination by CDC ▪ Notice to vacate will be served at least 35 days prior to acquisition date
1.3 Loss of residential and the private structures	Non-titleholders	Compensation at replacement value for loss of structures. However, compensation will not be paid for the lands illegally occupied by the structure.	<ul style="list-style-type: none"> ▪ Compensation determination by CDC and advance notice to vacate the structure ▪ In addition to cash compensation, livelihood improvement/ income restoration measures i.e employment, skill training will be considered.
2. Land			
2.1 Loss of private land	Titleholder	<ul style="list-style-type: none"> ▪ Provide compensation at full replacement cost ▪ Provide cash compensation at full replacement cost based on current market rate or Government rate which ever is higher. ▪ In the case of farmland, the PAP/HH will be entitled the cultivation disruption allowance equal to one crop production. 	<ul style="list-style-type: none"> ▪ Primary land valuation will be done by HDD T/L Project ▪ CDC will be formed in each district and compensation rates established by CDC will be provided to the concerned households. ▪ A list of affected and entitled persons and the area of land loss is required. ▪ Notice to vacate will be provided at least 35 days prior to acquisition date. ▪ Cash compensation will be provided either by cash or by cheque, depending on the owner's preferences. ▪ To ensure fair compensation, rates will be established not more than one year prior to property acquisition
2.2 Loss of private land	Non title holder/tenant	<ul style="list-style-type: none"> ▪ Non title holder with traditional land use right and recognized by GON and who are in process of getting land ownership title will be provided compensation for land. ▪ Resettlement assistance in lieu of compensation for land occupied (land, other assets, employment) at least restore their livelihoods and standards of living to pre-displacement levels. 	<ul style="list-style-type: none"> ▪ In addition to compensation, non title holders will also be eligible for resettlement assistancesfor income/ livelihood restoration. ▪ CDC to decide the status of such non title holder as per the legal framework.
2.3 Temporary loss of private land	Titleholder	<ul style="list-style-type: none"> ▪ Compensation for crop, land productivity and other property losses for the duration of temporary occupation. ▪ Compensation for other disturbances and damages caused to property. ▪ Proponent to negotiate a lease agreement on the lease rate with the owner for 	<ul style="list-style-type: none"> ▪ A lease contract will be signed with the affected landowner, specifying: <ul style="list-style-type: none"> - Lease period - Annual inflation adjustments; - Frequency of payment; and - Land protection and rehabilitation measures. ▪ The land will be returned to the owner at the end of

Type of Loss	Entitlement Unit	Description of Entitlements	Implementation Measures
		<ul style="list-style-type: none"> temporary acquisition of land. Land should be returned to the owner at the end of temporary acquisition period, restored to its original condition or improved as agreed with owner. 	temporary acquisition, restored to its original condition.
3. Other Privately Owned Resources			
3.1 Loss of non perennial crops	Titleholder; other evidence of ownership	<ul style="list-style-type: none"> Advance notice to harvest crops. Net value of crops where harvesting is not possible. 	<ul style="list-style-type: none"> Crop market values and production losses will be determined by the CDC (based on prevailing market price and in consultation with local stakeholders) or concerned government agencies.
3.2 Loss of privately-owned trees and perennial crops	Titleholder; other evidence of ownership	<ul style="list-style-type: none"> Advance notice to harvest crops. Net value of crops where harvesting is not possible. Compensation for future production losses, based on 5 years annual net production for fruit/fodder trees and 3 years annual net production for timber/fuel wood trees and other perennial crops. Right to all other resources from privately owned trees 	<ul style="list-style-type: none"> Crop market values and production losses will be determined by the CDC (based on prevailing market value and in consultation with local stakeholders) or concerned government agencies. The proponent will assist the affected owners and communities with the reestablishment of new trees and other perennial crops.
4. Community Structures and Resources			
4.1 Community buildings and Structures	Local Community	<ul style="list-style-type: none"> Community buildings and structures include: schools, temples, health posts, tube-well, dug-well etc.. 	<ul style="list-style-type: none"> Restoration of affected community structures to at least previous condition, or replacement in areas identified in consultation with affected communities
4.2 Trees	CFUGs or local community	<ul style="list-style-type: none"> Assistance for plantation Restoration of access to community resources. 	<ul style="list-style-type: none"> The proponent will assist communities in coordination of GON line agencies (District Forest Office, District Agriculture Development Office) and CFUGs for plantation
5. Rehabilitation Assistance			
5.1 Displacement of household	Titleholder/tenant	<ul style="list-style-type: none"> Housing displacement allowance for loss of own residential accommodation. Dislocation allowance Transportation allowance 	<ul style="list-style-type: none"> Displaced households will receive a house rent allowance for 6 months Dislocation allowance Allowances will be paid at the time of serving the notice to vacate.
5.2 Loss of agriculture land	Titleholder Tenant/tenant	<ul style="list-style-type: none"> Assistance based on degree of the land loss 	<ul style="list-style-type: none"> The following loss of agriculture land and agriculture income will apply to: <ol style="list-style-type: none"> Household losing less than 10% of their total agriculture land: <ul style="list-style-type: none"> Compensation of land loss and priority for employment in the project construction Household losing 10.0% to 50.0% of total holding: <ul style="list-style-type: none"> Livelihood Assistance: Each household will receive NRs. 37275 for three years crop loss from the acquired land @ rate of NRs. 12425/year of crop loss. Technical Skill Training (Basic): One family member of each household will be provided technical training in the areas of driving, plumbing, house wiring, etc. as per their interest from government recognized training institutions. The cost of skill development assistance is estimated to be NRs. 55000/household. Agriculture Assistance: As these households still own their agriculture land, they will be provided agriculture assistance to increase their land productivity. The assistance will include livestock/agriculture training to one family member of each household and inputs support including hybrid seed, small agriculture tools and livestock (goat/pig, poultry) based on their interest. The estimated cost of agriculture assistance is NRs. 25000/household that includes NRs. 10000 for inputs support and NRs.15000 for training. Priority for Employment: First priority will be given to the family members of the households for employment in project construction Household Losing more than 50% of their total holding: <ul style="list-style-type: none"> Livelihood Assistance: Each household will receive NRs. 37275 for three years crop loss from the acquired land @ rate of NRs. 12425/year of crop loss. Technical Skill Training (Basic and Advance): One family member of each household will be provided technical training in the areas of driving, plumbing, house wiring, etc. as per their interest from

Type of Loss	Entitlement Unit	Description of Entitlements	Implementation Measures
			<p>government recognized training institutions. The advance training includes repair and maintenance of mechanical and electrical equipments, motor rewinding training and advance house wiring training. The cost of skill development assistance is estimated to be NRs. 55000/household.</p> <p>-Agriculture Assistance: As these households still own their agriculture land, they will be provided agriculture assistance to increase their land productivity. The assistance will include livestock/agriculture training to one family member of each household and inputs support including hybrid seed, small agriculture tools and livestock (goat/pig, poultry) based on their interest. The estimated cost of agriculture assistance is NRs. 25000/household that includes NRs. 10000 for inputs support and NRs.15000 for training.</p> <p>-Employment: Employment will be provided to at least one family member of the households in the project during construction and priority during operation.</p>
5.3 Vulnerable social categories	Affected households	<ul style="list-style-type: none"> ▪ Vulnerable social categories actually affected by the project will be identified as: <ul style="list-style-type: none"> - Dalit - Women headed households ▪ - Landless households 	<ul style="list-style-type: none"> ▪ Assistance in reestablishment and improvement of livelihood. ▪ Preferential employment during construction and operation to the extent possible
6. Government Property			
6.1 Loss of infrastructure	Relevant agency	<ul style="list-style-type: none"> ▪ Facilities will be repaired or replaced. 	<ul style="list-style-type: none"> ▪ To be undertaken in consultation with the relevant GON line agencies
6.2 Loss of forest areas	Department of Forest/CFUGs	<ul style="list-style-type: none"> ▪ Mitigation by means of afforestation. 	<ul style="list-style-type: none"> ▪ An assessment for maintaining that kind of vegetation ▪ To be undertaken in consultation with Department of Forest and District Forest Office
6.3 Loss of Government land	Relevant agency	<ul style="list-style-type: none"> ▪ No provision of compensation. 	<ul style="list-style-type: none"> ▪ Consultation with relevant government line agencies.
7. General Counseling			
7.1 All project impacts	Communities, key stakeholders and affected HHs of the transmission line alignment	<ul style="list-style-type: none"> ▪ General counseling on project impacts; construction schedules and acquisition dates; valuation, compensation and grievance resolution mechanisms; construction employment procedures; and local development initiatives. 	<ul style="list-style-type: none"> ▪ This will be achieved through the periodic IEC activities (distribution of pamphlets, leaflet, posters, awareness programs, group meeting and consultation with local stakeholders etc.). ▪ Cooperation with line agencies of GoN (Ministries, Departments, District Offices, DDC, VDC) to support effective project implementation, resource utilization and local development.

9. INSTITUTIONAL ARRANGEMENT

This section outlines the institutional arrangement for RAP implementation. It also discusses monitoring requirements, before concluding an overview of the major planning, administrative and logistical requirements for the successful implementation of the RAP.

As the project authority, HDDTL Project will assume overall responsibility for the management procedures as mentioned in the RAP. Key activities to be undertaken to ensure effective implementation of resettlement, compensation and rehabilitation activities are:

In HDDTLP, there are couple of key actors whose roles, functions and responsibilities are closely interlinked which requires them to work in a coordinated manner. The key actors and their roles are as presented below.

Key Actors	Functions/Roles	Remarks
NEA/ Transmission Line/ SS Cons. Dept.	Central / national and corporate level policy making including for land acquisition/ compensation	In coordination with DoED/Line Ministry and other high level bodies.
NEA/ESSD	Planning, supervision and internal monitoring of social safeguards programs; implementation, supervision and progress reporting of field works	In close coordination with the Project office at centre and field.
HDDTLP/ ESMU	Day to day planning and implementation of project construction and safeguard activities and progress reporting on a regular basis. ESMU to work proactively on all safeguard related issues in all stages.	ESMU to be set up within HDDTLP will support to carry out the works.
CDC	The CDC is a body with legal stand which will be responsible to address all issues/ grievances relating to land and property acquisition, compensation, resettlement and rehabilitatin.	Will work in close coordination with other actors of GRM viz ESMU/ HDDTLP and LCF.
LCF	All LCFs will work to resolve local level issues on RAP implementation including compensation in close coordination with Project./ APs	The Project/ ESMU will coordinate and support LCFs to carry out their roles/ functions.
NGOs	Specialized/ capable NGOs to work responsibly to provide R&R assistance/ income restoration/ livelihood improvement.	Work in close coordination with APs/ ESMU/ Project

- Implementation of procedures to minimize adverse social impacts including acquisition of land and assets throughout the planning, design and implementation phases and accurately record all project-affected persons/households, by means of census and asset verification and quantification exercises, and the issuing of identification,
- Establishment of CDC and its procedures for the co-ordination of resettlement and compensation activities,
- Establishment of Local Consultative Forum (LCF) at Division level (3 LCFs at 3 Division Offices of the project) to address the social issues associated with the project. The objectives of this LCF will be to: (a) ensure ongoing dissemination of project information to affected households, (b) structure, regulate and strengthen communication between affected households/communities, (c) involve affected households/communities and local government structures in social impact management, grievance resolution and monitoring,
- Distribution of copies of the approved entitlement policy, and follow-up community meetings to ensure full understanding of its contents,
- Capacity-building initiatives for NEA and local NGOs to create a supportive environment for the implementation of RAP activities, including training on accepted resettlement and rehabilitation practices, training in the establishment of compensation plans for affected households,
- Co-ordination with other government line agencies to ensure effective delivery of mitigation and rehabilitation support measures, and
- Collaboration with NGOs to provide grassroots expertise and resources in the areas such as project information campaigns, awareness raising, community participation and mobilization, poverty alleviation, income-generation, and impact monitoring of the projects.

9.1 Organizational Framework

An organizational setup for RAP implementation is necessary for effective coordination to ensure compliance with policies and procedures, land acquisition and resettlement activities and implementation of mitigation measures. To ensure the achievement of these activities, organization for RAP implementation and management will occur at both central and district project level (Table 9.1).

9.1.1 Central Level Arrangement

i) Environment and Social Studies Department

ESSD is one of the three departments of Engineering Services of NEA and executes all the activities related to identifying, conducting and coordinating environmental aspects of project developed by NEA in all stages such as studies, design, construction and operation. This department will be responsible for the overall control of social management program of the project. This department will also be responsible for the coordination of work of the project at central level management of NEA and central line agencies. It is proposed that

ESSD will implement monitoring program and some of the social mitigation work in coordination with concerned line agencies and local NGOs.

ii) Central Level Line Agencies

The central level line agencies such as Ministry of Energy, Department of Electricity Development have responsibility for the monitoring of project activities with regards to Environmental and Social Management, Mitigation and Monitoring Plan. ESSD will coordinate with central level line agencies regarding the monitoring work.

9.1.2 Project Level Arrangement

i) Project Manager/Director Office

The HDD Project Manager Office will be established under the organizational setup of NEA. The project manager will have overall responsibility regarding the implementation of RAP. He will be responsible for establishment of Compensation Determination Committee (CDC), Local Consultative Forum (LCF) and Environment Management Unit. The Project Manager will be responsible to make sure the incorporation of RAP recommendations in tender document and contract agreement and allocation of necessary budget for the implementation of the program. He will be responsible for the overall coordination of the work and make final decision on environmental, social and public concern issues.

Under the Project Manager/Director Office, a Land Acquisition and Rehabilitation Unit (LARU) will be established. The in-charge of unit will be responsible for the acquisition of land and house, asset valuation and verification, implementation of compensation and rehabilitation grant (house rent, transportation and dislocation allowances) and coordination of the work with District and Central level agencies with regard to acquisition of private property. The officer in-charge of the unit will also work as member of secretary of the CDC and member of LCF-.

ii) Hetauda- Dhalkebar Duhabi Environment and Social Management Unit (HDD- ESMU)

HDD Environment and Social Management Unit will be established for day to day environmental and social management of the project, implementation of social support program and mitigation measures and coordination of work with VDCs, DDCs and district level line agencies. The unit will work under the guidance of ESSD

iii) Compensation Determination Committee

A Compensation Determination Committee (CDC) will be formed to fix compensation for loss of land and private property. The CDC will comprise of Chief District Officer, District Land Revenue Officer, District Land Survey Officer, District Forest Officer, DDC Representative, HDDTL Project Representative, Representative from

ESSD and PAP/HH Representative. The main functions of the CDC will be confirmation of entitled process, assessment/Identification of PAP/HHs, compensation determination for land and private property and grievance resolution.

iv) Local Consultative Forums (LCF)

Local Consultative Forums (LCFs) will be established at Division level to address the social issues associated with the project. The objectives of this LCFs will be to: (a) ensure ongoing dissemination of project information to affected households, (b) structure, regulate and strengthen communication between affected households/communities, (c) involve affected households/communities and local government structures in social impact management, grievance resolution and monitoring.

vi) Construction Contractor

The construction contractor will be responsible for implementation of some of the social mitigation measures specified in his part and compliance with the tender clauses. He will be responsible for implementation of construction related mitigation measures such as occupational safety, recruitment of local labor, health and sanitation measures etc.

vii) District Level Line Agencies

The district level line agencies such as District Administrative Office, Land Revenue Office, District Development Committee Office , Agriculture Office, Forest Office and Education Office will be consulted regarding the implementation of RAP.

viii) Donor Agency

Donor agency (s) will have specific responsible for the monitoring of compliance of loan agreement. The experts from donor agency will review the project plan and program, and make direct observation at site to make sure the implementation mechanism is going smoothly and public concerns are well considered..

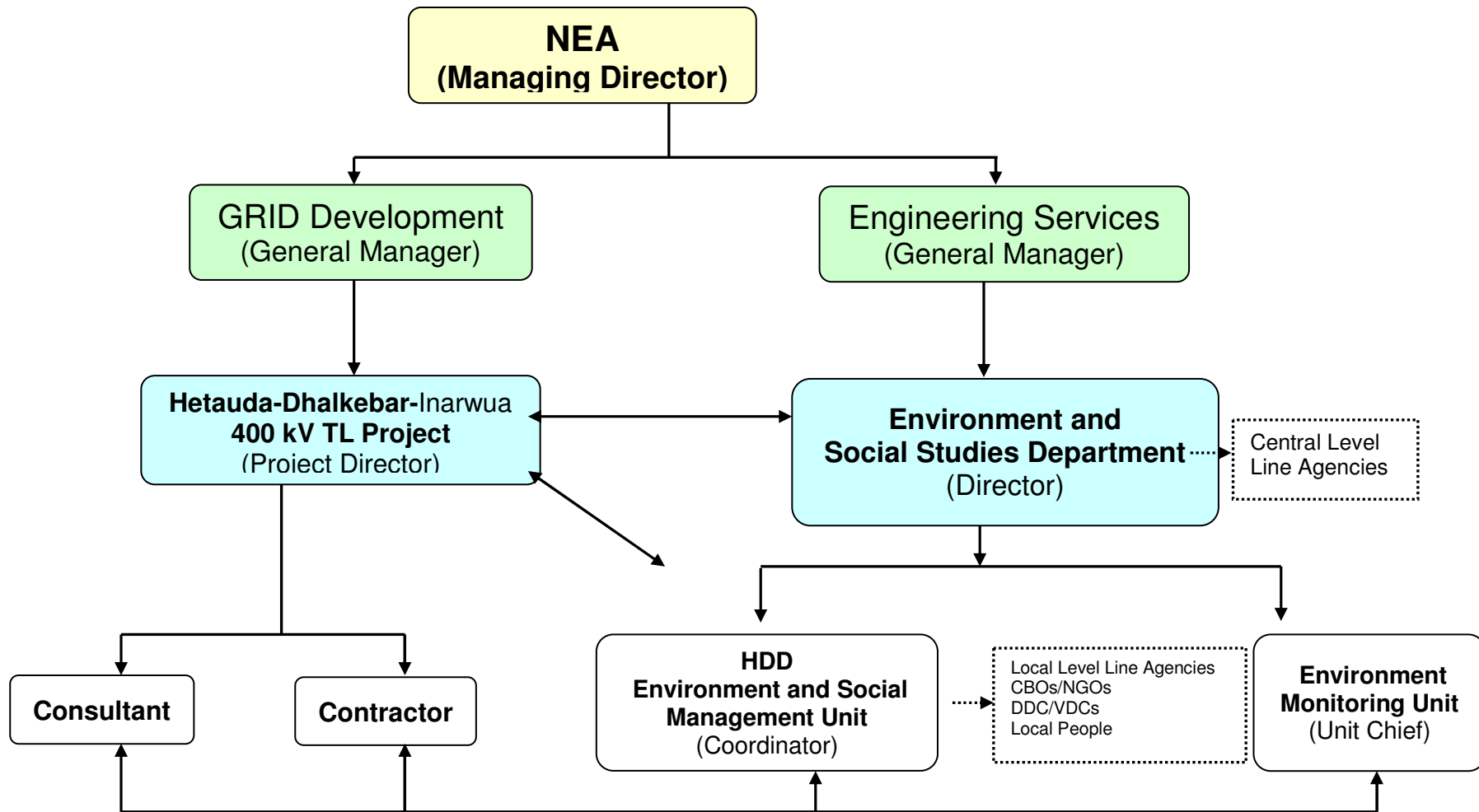


Fig. : Organization Chart for Environment Management of Hetauda-Dhalkebar-Inarwua 400 kV TL Project

10. IMPLEMENTATION SCHEDULE

The HDDTL Project will ensure that funds are delivered on time to CDC and the implementing consultants for timely preparation and implementation of RAP, as applicable. The compensation issues and rehabilitation measures will be completed before starting construction work at particular location. RAP implementation will be completed by 2019 AD.

11. MONITORING AND EVALUATION

One of the main objectives of the project is to improve living standard of the affected persons/households or at least restore their livelihood to pre-project level by implementing appropriate mitigation measures. Effective monitoring and evaluation systems will be introduced to ensure it by the project.

11.1 Monitoring

Internal and external monitoring will be conducted to: (a) record and assess project inputs and the number of persons/households affected and compensated and (b) confirm that the living standard of the affected persons/households improved or at least restored to pre-project level.

11.1.1 Internal Monitoring

The project (ESSD) will conduct internal monitoring of the social activities especially the compensation, resettlement and rehabilitation grant and other social parameters arises during project implementation. ESSD will prepare quarterly environmental and social monitoring report regarding progress of RAP implementation. Field level monitoring will be carried out through:

- Review of census information for project affected persons
- Consultation and informal interview with project affected persons/households
- Random sample survey of project affected persons
- Key informants interview
- PRA
- FGD
- Public consultation

11.1.2 External Monitoring

An independent consultant will be hired by the project for social monitoring of the project. The consultant will carry out continuous monitoring of the social performance. External Monitoring report should be shared with WB and ESSD every six months. The External monitor will also prepare the project resettlement completion report.

11.2 Monitoring Parameter, Method Schedule and Location

Land acquisition, compensation, resettlement and rehabilitation issues, damage of standing crop, occupational safety and employment are the major parameters of monitoring.

Table 11.1 Monitoring Parameters, Method, Schedule and Location

Parameters	Indicators	Method	Schedule	Location
A. Construction Phase				
Public health	Types of disease and incidence of disease in the project workers and local community	Meeting and discussion with local health posts and district hospitals	Quarterly	Project affected VDCs
Land Acquisition	Acquisition of land, lease of land and temporary disturbances in land	Cross checking the list of compensation	Quarterly	Tower pad , RoW and leased area
House Acquisition	Relocation of house, compensation, use of construction material etc	Observation of new construction area, cross checking the list of compensation etc.	Quarterly	Affected area and relocation sites
Crop	Actual damage to standing crop or loss of cropping season for the particular area	Observation and discussion	Weekly	Tower pad , RoW and leased area
Economy	Local employment, rental, sell of consumable goods	Meeting and discussion with local communities	Quarterly	Project affected area
First Aid	Availability of first Aid	Observation and record review	Periodic as per construction schedule	Project site
Losing of life and disability	Compensation to losing of life and disability	Interview/observation	periodic	Project site
Occupational safety	Adequacy of occupational safety measures (helmets, boots, warning signs etc.) and use of safety gears	Interview/observation	Periodic as per construction schedule	Project site
Employment	Employment of local labor including women and children	Cross checking the list of employment	Monthly	Project site
Camp site	Campsite management including lodging arrangement and campsite facilities	Site observation, interaction with laborers, contractors	Monthly	Permanent and temporary camps
Lease of land	Temporary leasing of private land	Site observation, contractors, check contract agreement	Monthly	Leases area
Discrimination	Discrimination of wage rate between male and female	Interaction with labors, labor survey, record of wage	Monthly	Project site

	workers	payment		
Public land	Encroachment into public land like grazing land, forest, temples etc	Visit the identified public land interact with local people, take photographs	Quarterly	Project site
Migration	Migration /displacement of local people	Review of land holding records, discussion with local people	Quarterly	Project area
Accidents	Incidence of accidents/health hazards	Discuss with local people, health institutions' records	Quarterly	Project site
Land price	Changes in the land price, land use and agricultural practices, productivity and crop export	Discuss with farmers and extension workers, agricultural statistics of District Agriculture Office	6 months	RoW area
Social and Cultural practices	State of social harmony and social security (gambling, prostitution, alcoholism, narcotism etc.)	Police records, discussion with local residents	Quarterly	Project affected VDCs
Life style	Changes in the living standard of people	Interview with families, VDC records, discussion with local leaders, NGOs/CBOs	6 months	PAFs
Cultural and historical site	Condition of cultural and historical areas and aesthetic qualities	Visit the area, discuss with people, observation and photographs	Quarterly	Project affected VDCs
B. Operation Phase				
Employment	Employment of local labor including women and children	Site observation, attendance record, interaction with laborers and contractors	Annually	Project office
Health and safety	Use of health and safety measures	Site observation, interaction with laborers, contractors	Annually	Project office
Wages rate	Discrimination of wage rate between male and female workers	Interaction with laborers, labor survey, record of wage payment	Annually	Project workers

Migration	Migration /displacement of local people	Review of land holding records, discussion with local people	Annually	Project area
Health hazards	Incidence of accidents/health hazards	Discuss with local people, health institutions' records	Annually	Project site
Land price	Changes in the land price, land use and agricultural practices, productivity and crop export	Discuss with farmers and extension workers, agricultural statistics of District Agriculture Office	Annually	Project area
Living standard	Changes in the living standard of people	Interview with families, VDC records, discussion with local leaders, CBOs	Annually	PAFs
Cultural and historical site	Condition of cultural and historical areas and aesthetic qualities	Visit the area, discuss with people, observation and photographs	Annually	Newly constructed temples, Lunthar park area etc
Economic status	Changes in economic condition of local people due to withdrawal of economic opportunity	Interview and discussion	Annual	Project affected families

11.3 Reporting

The monitoring unit will be responsible for the preparation of the Social Monitoring Report. The report will be distributed through Project Managers office to the concerned agencies. The unit will prepare following reports.

Construction Phase Social Report

The construction phase social report will be prepared on quarterly basis as a part of Environmental and Social Monitoring Report. A final report will be prepared after the completion of the construction work.

Operation and Maintenance Phase Report

Operation and maintenance phase social report will be prepared for the two years following the construction. The monitoring unit will prepare this report for project. The report will describe status of implemented mitigation measures, problems and recommended solution. The report shall clearly identify where operational mitigation measures are not being met or where mitigation efforts are inadequate to protect

social impacts. Unanticipated deleterious impacts of the projects will be clearly identified. Measures to solve problem will be proposed and be funded by NEA.

11.4 Impact Evaluation

After completion of the construction work (7years) an evaluation study will be conducted. The evaluation work will focus on following aspects:

- Evaluation of social activities implementation focusing on resettlement and land acquisition activities
- Evaluation of social activities by summing up the outcomes of activities as per the RAP report
- Socioeconomic survey to measure changes in living standard of the affected households/persons compared to pre-project situation

12. MITIGATION & ENHANCEMENT COST, SOURCE OF FUNDING, BUDGETARY PROCESS & TIMING OF EXPENDITURE

12.1 Mitigation and Enhancement Cost

The estimated cost of mitigation and enhancement measures for RAP activities of the Hetauda-Dhalkebar-Duhabi 400 kV Transmission Line Project is NRs. 429980984. This cost is inclusive of compensation amount for acquired land/leased land, structures under RoW, loss of tree, loss of agriculture production and other mitigation/enhancement programs targeted to affected HHs. A detail of the mitigation and enhancement cost is presented in Table 12.1.

Table 12.1: Estimated Cost for Mitigation Measures

Mitigation Measures	Unit	Quantity	Rate (NRs)	Cost (NRs.)		Total	Remarks
				Construction	Operation		
Mitigation Measures							
Compensation for Acquired Land	ha	42	7500000/ha	315000000	0	315000000	The rate will be determined by CDC
Compensation for leased land	ha	5	18000/ha/yr for 5 yrs	450000	0	450000	
Compensation for 69 residential house, 36 cowsheds and other structures	Nos	147		50000000	0	50000000	The rate will be determined by CDC
Dislocation and transportation allowance	Nos	69 HHs	25000	1725000	0	1725000	
House rent for dislocated households	Nos	6 months for 69 HHS	4000	1656000	0	1656000	
Livelihood restoration allowance to severely affected HHs (losing >10% land and house)	Nos	141	12425/yr/HHs for 3 years	5255775	0	5255775	72 HHs losing >10% land and 69 HHs losing residential house.
Skill training to severely affected HHs (losing >10% land and house)	Nos	141	55000	7755000	0	7755000	
Agriculture assistance to severely affected HHs (losing >10% land)	Nos	72	25000	1800000	0	1800000	
Loss of trees	Nos	12000	2500	30000000		30000000	As per valuation done by a committee
Agriculture assistance, Entrepreneurship/skill development training to the women headed HHs (who actually require assistance)	Nos	20 HHs	55000	1100000	0	1100000	Total women headed HHs are 121 including 108 affected by land and 13 by structures.
Loss of agriculture production				7500000	0	7500000	As per valuation done by HDD Project and DAO
Relocation of temple	Nos	2	800000	1600000	0	1600000	Will be done from IEE budget
Support to school (Bhokraha)	Nos	1	1400000	1400000	0	1400000	Will be done from IEE budget
Social awareness program at 20 locations	Nos	20	LS	1500000	0	1500000	Will be done from IEE budget
Health awareness program			LS	100000	0	100000	Will be done from IEE budget
Community safety awareness program at 10 places	Nos	10	100000	1000000	0	1000000	Will be done from IEE budget
Total				427841775	0	427841775	
Miscellaneous	%	0.5%		2139209	0	2139209	
Grand Total				429980984	0	429980984	

12.2 Funding Source

The cost required for the implementation of mitigation measures will be paid by Nepal Electricity Authority under the Projects regular budget.

12.3 Budgetary Process and Timing of Expenditure

The expenses required for the RAP will be made within 7 years of project construction with major expenses on land acquisition, compensation and rehabilitation measures on first year of the project development followed by second and third years. The major component of the mitigation measures is land use restriction cost, which will require at the 3rd year of project development at the end of construction before charging the line.

ANNEXES

Annex –1
List of HH losing Land

SN	District	VdC/Mun.	Ward	Name	Affected_Area(Kattha)			
					Bigha	Kattha	Dhur	Kauna
1	Siraha	Badaharmal	2	Bishwanath Sah (Baishya)	0	0	8	
2	Siraha	Badaharmal	5	Sugriv Giri	0	0	8	
3	Siraha	Badaharmal	5	Gita Devi Bhandari	0	1	5	
4	Siraha	Badaharmal	5	Dilli Bd. Kshetri	0	0	4	
5	Siraha	Badaharmal	2	Khadak Kumari Pokharel	0	0	1.5	
6	Siraha	Badaharmal	1	Gita Basnet	0	0	4	
7	Siraha	Badaharmal	1	Hira Khadaka	0	1	12	
8	Siraha	Badaharmal	2	Januka Dahal	0	1	1	
9	Siraha	Karjanha	6	Arun Mahato	0	0	18	
10	Siraha	Karjanha	8	Jibachh Sah Haluwai	0	0	15	
11	Siraha	Karjanha	8	Sirajo Haluwai	0	0	10.5	
12	Siraha	Mirchiya	1	Surendra Pd. Sah	0	0	4	
13	Siraha	Mirchiya	1	Shesh Abdul Rahaman	0	1	6	
14	Siraha	Mirchiya	1	Sobhit Yadav	0	0	9	
15	Siraha	Karjanha	6	Ram Bilash Kapar	0	0	8	
16	Siraha	Karjanha	6	Ram Dev Kapar	0	0	3	
17	Siraha	Dhangadhimai	10	Soniya Devi Yadav	0	0	17.75	
18	Siraha	Dhangadhimai	10	Mina Devi Yadav	0	0	19.75	
19	Siraha	Dhangadhimai	10	Chandra Kumar Rai	0	1	10	
20	Siraha	Dhangadhimai	11	Indra Kumari Kshrestha	0	0	5	
21	Siraha	Dhangadhimai	9	Lalita Ghising	0	1	15	
22	Siraha	Dhangadhimai	9	Antimaya Kami	0	0	19.75	
23	Siraha	Golbazar	2	Ram Kumar Mahato	0	0	1.25	
24	Siraha	Golbazar	2	Man Bd. Magar	0	0	10	
25	Siraha	Golbazar	2	Pradeep Kumar Mahato	0	0	1.25	
26	Siraha	Golbazar	2	Ganesh Mahato	0	0	6	
27	Siraha	Golbazar	2	Shiv Shankar Sah	0	1	1	
28	Siraha	Golbazar	2	Ashreswar Sah	0	1	1	
29	Siraha	Golbazar	2	Mahadev Sah	0	0	18	
30	Siraha	Golbazar	1	Kari Yadav	0	2	15	
31	Siraha	Golbazar	1	Darsi Devi	0	1	2.8	
32	Siraha	Golbazar	6	Kusheshwar Sah	0	0	18.6	
33	Siraha	Golbazar	6	Phuleshwar Nayak	0	0	1.75	
34	Siraha	Golbazar	3	Chunimaya Ale	0	0	18	
35	Siraha	Golbazar	2	Satya Narayan Sahu	0	0	3	
36	Siraha	Dhangadi	8	Siya ram Mahato			18	
37	Siraha	Dhangadi	8	sita ram Mahato			2	
38	Siraha	Badharamal	9	Surman Mahara			2	
39	Siraha	Badharamal	5	Jugal Pr Rai			21	
40	Siraha	Badharmaal	5	Jaylal Dash		1		

41	Siraha	GolbazarManu cipality	6	Laxman Yadav			3	8
42	Siraha	GolbazarManu cipality	3	Ratna Kumar Pulami			1	3
43	Siraha	GolbazarManu cipality	6	Promad yadav			17	
44	Siraha	Michira Muunicipality	8	Mahandr Yadav		1		
45	Siraha	Dhanghadimai	10	Lok bd. Mashrangi Magar			0	4
46	Siraha	Dhanghadimai	10	Balbahadur Mashrangi Magar			9	4
47	Siraha	Dhanghadimai	10	Manbahadur Mashrangi Magar			10	4
48	Siraha	Karjhana	8	Kashilal Sah teli			4	8
49	Siraha	Karjhana	2	Muglal Shrestha		0	12	
50	Siraha	Karjhana	2	kalu Shrestha			9	
51	Siraha	Golbazar	7	Ramparichhan Yadav			2	8
52	Siraha	Golbazar	4	Rekha Devi Yadav			18	8
53	Siraha	Golbazar	10	Sumitra devi Yadav		1	7	12
54	Siraha	Mirchiya	9	Niratini Yadabni		1	7	12
55	Siraha	Golbazar	1	Ajab Sah Teli		1	1	
56	Siraha	Golbazar	2	Birlal Tamang			1	
57	Siraha	Golbazar	2	Gyan Kumar Tamang			11	8
58	Siraha	Dhangadimai	8	Dhaneshwori devi Yadav			3	
59	Siraha	Golbazar	3	Kariman Pulami		1	1	
60	Siraha	Golbazar	3	Ram sagar Sah		1	1	
61	Siraha	Golbazar	10	Bal BD. Magar		1	1	
62	Siraha	Golbazar	10	Ram Udghar Yadav			2	
63	Siraha	Golbazar	10	Dorje Jimma		6		
64	Siraha	Golbazar	10	Butimaya Tamang			21	
65	Siraha	Golbazar	10	Guru dayal Mukhiya			17	
66	Siraha	Golbazar	10	Fulmati Tamang			6	
67	Siraha	Mirchiya	8	Ram Shankar Sah teli		1	1	
68	Siraha	Mirchiya	8	Ram Babau Sah Teli		1		
69	Siraha	Mirchiya	8	Shiva Datta Roy Kurmi		1	1	
70	Siraha	Mirchiya	5	Prakash Mahashet			10	1
71	Siraha	Lavtoli	4	Sukmaya Kamini		1	17	
72	Siraha	Mirchiya	4	Kishwori Yadav		1	3	
73	Siraha	Badharmal	5	Dinesh Das			1	
74	Siraha	Badharmal	4	Rita kr. Rawat (BC)		2		
75	Siraha	Badharmal	7	Murari Bishwokarma		8		
76	Siraha	Mirchiya	6	Ram pari Devi		1	1	
77	Siraha	Mirchiya	2	Akshya Sah		8		
78	Siraha	Karjana	4	Babita devi Mahato			13	
79	Siraha	Mirchiya	9	Satyanarayan Yadav			5	
80	Siraha	Golbazar	2	Shyam Suner Mandal			18	8
81	Siraha	Golbazar	6	Anand Kr. Sah			0	8

82	Siraha	Mirchiya	5	Ram sah sudi			10	8
83	Siraha	Mirchiya	2	Harinarayan Shrestha		12	16	
84	Siraha	Dhangadimai	8	Jogindar Yadav		0	17	
85	Siraha	Dhangadimai	8	Ram dev Yadav			4	
86	Siraha	Dhangadimai	9	Gore Yonjan Tamang		1	1	
87	Siraha	Dhangadimai	9	Surendra Pd. Sah		1	1	
88	Siraha	Dhangadimai	8	Dharmanath Yadav		1	1	
89	Siraha	Dhangadimai	8	Ramchandra Yadav			0	8
90	Siraha	Dhangadimai	8	Puldev Yadav			18	
91	Siraha	Dhangadimai	8	Prem Mahat			17	
92	Siraha	Dhangadimai	8	Jibach Mahato			3	10
93	Siraha	Bastipur	4	Ram lal Yadhav	0	0	19	12
94	Siraha	Bastipur	8	Ram avatar Shah	0	2	0	12
95	Siraha	Bastipur	5	Sajan Kumari Yadhav	0	0	2	0
96	Siraha	Bastipur	4	Nanda Kishr thakur	0	0	21	0
97	Siraha	Bastipur	5	Ram lovit Yadhav	0	0	13	8
98	Siraha	Bastipur	5	Ramu Chaudhary	0	0	10	8
99	Siraha	Bastipur	5	Jhumra mochi	0	0	9	8
100	Siraha	Bastipur		Usha Kumari shah	0	0	3	0
101	Siraha	Bastipur	5	Rajendra Prasad Shah	0	0	9	0
102	Siraha	Bastipur	5	Kashilal Chaudhary	0	0	16	8
103	Siraha	Padariya	5	Chedi lal Chaudhary	0	1	1	0
104	Siraha	Padariya	2	Nanuwati Chaudhary	0	0	1	8
105	Siraha	Padariya	1	Dev Narayan Chaudhary	0	0	19	8
106	Siraha	Padariya	1	Bilat Chaudhary	0	1	1	8
107	Siraha	Padariya	1	Bindeshwor Shah	0	1	1	4
108	Siraha	Padariya	1	Ram Ashish Shah	0	0	2	0
109	Siraha	Nainpur	8	Urmila Yadhav	0	1	1	0
110	Siraha	Nainpur	8	Ganga Prasad Yadhav	0	0	14	0
111	Siraha	Badarmahal	7	Kedaar rayamajhi	0	0	0	0
112	Siraha	Badarmahal		Bishnu Maya Thapa	0	1	4	0
113	Siraha	Badarmahal	9	Yosodha Pokheral	0	0	4	0
114	Siraha	Badarmahal	2	Krishna Thapa	0	0	0	0
115	Siraha	lovetoli	3	Indu Shahi	0	0	0	0
116	Siraha	Karjana	6	Rambilash Kapr	0	0	8	0
117	Siraha	Karjana	8	Sadulan Khatun	0	0	10	12
118	Siraha	Karjana		Riman Mahato	0	0	3	0
119	Siraha	Karjana	7	Lal Babu Shah	0	0	15	4
120	Siraha	Karjana		Jasodha devi Mahato	0	0	13	0
121	Siraha	Karjana	7	Bechani Devi Mahato	0	0	5	0
122	Siraha	Karjana	6	Pradip Paidar	0	0	8	0
123	Siraha	Ramnagar	5	yogendra Pokharel	0	0	0	0
124	Siraha	Fulbariya	7	Jiwachi devi Tharuni	0	1	6	0
125	Siraha	Fulbariya	5	Bhup Narayan Mahaset	0	1	1	0
126	Siraha	Fulbariya	4	Shree Narayan yadhav	0	1	0	0

127	Siraha	Fulbariya	5	Rameshwor Shah	0	0	16	0
128	Siraha	Ramnagar	5	Lal dev Shah	0	0	3	0
129	Siraha	Ramnagar	5	Shah dev teli	0	0	1	8
130	Siraha	Bhawanipur	1	Ram kripal Mahato	0	0	7	12
131	Siraha	Asanpur	9	Dhukhiya Mukhiya	0	0	18	0
132	Siraha	Golbazar	7	Ram Chanra Shah	0	0	0	0
133	Siraha	Rampur Birta	8	Ram Udthagar shah	0	0	12	0
134	Saptari	kalyanpur	1	Suklal Mandal	0	0	19	0
135	Saptari	Kalyanpur	1	Lilawati Devi Chaudhary	0	1	1	0
136	Saptari	Kalyanpur	3	Raj kumar Shah	0	0	17	0
137	Saptari	Kalyanpur	3	Muslim Miya	0	1	2	0
138	Saptari	Kalyanpur	1	Upendra Yadhav	0	0	19	0
139	Saptari	Kalyanpur	3	Hamid Miya	0	0	14	8
140	Saptari	Kalyanpur	3	Bhola Miya	0	0	2	8
141	Saptari	Kalyanpur	3	Hamid Miya	0	0	9	8
142	Saptari	Kalyanpur	3	Mohamad Miya	0	1	8	0
143	Saptari	Kalyanpur	3	Mustakim Miya	0	1	5	0
144	Saptari	Kalyanpur	4	Late.Hamju Ansari	0	0	9	8
145	Saptari	Kalyanpur	1	Ram Charitra Yadhav	*	*	*	*
146	Saptari	Kalyanpur	1	Kamananda Dev	0	0	3	8
147	Saptari	Kalyanpur	6	Sadananda Dev	0	0	13	0
148	Saptari	Kalyanpur	1	Pitambar Dev, Naresh Dev	0	0	7	8
149	Saptari	kalyanpur	3	Birbal chaudhary	0	1	17	0
150	Saptari	Kalyanpur	6	Kisun Yadhav	0	0	17	0
151	Saptari	Kalyanpur	4	Habun Khatum	0	0	5	0
152	Saptari	Daulatpur	7	Chandra kant Chaudahry	0	0	3	8
153	Saptari	Daulatpur	2	Ram Jatan Yadhav	0	0	7	0
154	Saptari	Daulatpur	2	Khusi Lal Das	0	0	8	8
155	Saptari	Daulatpur	2	Rampari Devi Thakur and Lal daye thaku	0	1	7	0
156	Saptari	Daulatpur	2	Prithivi Lal Lekhi	0	0	3	8
157	Saptari	Daulatpur	2	Manchun Thakur	0	0	3	0
158	Saptari	Daulatpur	2	Sita ram Thakur	0	1	4	0
159	Saptari	Daulatpur	9	Chandra Kala Tharuni	0	0	3	8
160	Saptari	Daulatpur	2	Ram Krishna Thakur	0	0	1	0
161	Saptari	Daulatpur	2	Sanchun Thakur	0	0	0	8
162	Saptari	Madhupatty	7	Ram devi mochi	0	1	0	0
163	Saptari	Madhupatty	7	Lukhiwati Chaiman	0	0	13	8
164	Saptari	Madhupatty	7	Ramnarayan Chaudhary	0	0	9	0
165	Saptari	Madhupatty	8	Anand Narayan Chaudhary	0	0	10	0
166	Saptari	Madhupatty	6	Durga Devi yadhav	0	0	14	0
167	Saptari	Madhupatty	6	Adhi lal Chaudhary	0	0	5	0
168	Saptari	Madhupatty	4	Urmila KumariChaudhary	0	0	19	0
169	Saptari	Madhupatty	5	Dukhani devi Chaudhary	0	0	10	0
170	Saptari	Madhupatty	5	Ganaur Chaudhary	0	0	9	0

171	Saptari	Madhupatty	8	Nur Mohamd Miya	0	1	4	0
172	Saptari	Kusaha	2	Mo Eushi Miya	0	0	1	0
173	Saptari	Kusaha	2	Hari Kr Chaudhary	0	0	18	0
174	Saptari	Kusaha	1	Kari Chuadhry	0	0	9	0
175	Saptari	Kusaha	2	Volahi Chaudhary	0	0	7	8
176	Saptari	Kusaha	2	Vikhan Chaudahry	0	0	2	8
177	Saptari	Kusaha	2	Chauthanai Wati Chaudhary	0	0	18	8
178	Saptari	Kusaha	1	Nathari Devi Chaudhary	0	0	4	0
179	Saptari	Kushaha	8	Sukarlal Chaudhary	0	0	19	0
180	Saptari	Kusaha	2	Pampa Devi Tharuhni	0	0	12	0
181	Saptari	Kusaha	1	Eulin Miya	0	0	19	0
182	Saptari	Kusaha	3	Hajrat ali	0	0	16	0
183	Saptari	Kusaha	6	Mo. Sawari husain	0	0	3	0
184	Saptari	Pansera	5	Panchu Chaudhary	0	0	1	0
185	Saptari	Pansera	6	Raj Kumari Devi Chaudhary	0	0	8	0
186	Saptari	Pansera	6	Nathari Devi Haluwai	0	0	12	0
187	Saptari	Pansera	6	Jholai Chaudhary	0	0	10	0
188	Saptari	Pansera	6	Pratp Chanda Chaudahry	0	0	1	0
189	Saptari	Pansera	6	Bhuti Devi Shah	0	0	19	0
190	Saptari	Pansera	7	Mariya Khatun	0	0	3	0
191	Saptari	Pansera	7	Harilal Shah Teli	0	0	3	0
192	Saptari	Pansera	7	Andu Chaudhary	0	0	2	0
193	Saptari	Pansera	7	Rehna Khatun	0	0	2	0
194	Saptari	Pansera	7	Latif Miya	0	0	12	0
195	Saptari	Pansera	7	Satuniya Khatun	*	*	*	*
196	Saptari	Pansera	7	Mo. Chedi Miya	*	*	*	*
197	Saptari	Pansera	3	Mo. Yusuf Neapli	0	0	18	0
198	Saptari	Khojpur	8	Samjhana Jha	0	0	13	4
199	Saptari	Khojpur	8	Guru dev Shah Teli	0	0	15	4
200	Saptari	Khojpur	8	Nur Mohamad Miya	0	0	2	0
201	Saptari	khojpur	6	Enral Chaudhary	0	1	17	0
202	Saptari	Khojpur	8	Jago Devi Mochi	0	0	17	0
203	Saptari	Khojpur	8	Chandeswori Pandit	0	0	3	0
204	Saptari	Khojpur	8	Bilat Chaudhary	0	1	14	0
205	Saptari	Vangaha	8	Bishow Nath Chaudhary	0	0	19	0
206	Saptari	Vangaha	4	Ram Charitra Chaudhary	0	0	3	0
207	Saptari	Vangaha	4	Ram Lagan Chaudhary	0	0	10	0
208	Saptari	Vangaha	5	Tej Narayan Xchaudhary	0	0	8	8
209	Saptari	Vangaha	7	Sanjana Chaudhary	0	0	19	0
210	Saptari	Vangaha	7	Lalita Devi Shah	0	0	4	0
211	Saptari	Vangaha	6	Durgi Devi Shah	0	0	6	8
212	Saptari	Vangaha	6	Ram Prasad Shah Teli	0	0	11	8
213	Saptari	Vangaha	7	Deveshwor Chaudhary	0	0	18	16
214	Saptari	Vangaha	4	Dev raj Chaudhary	0	0	6	0

215	Saptari	Vangaha	5	Sasti Chaudhary	*	*	*	*
216	Saptari	Vangaha	5	Neb Kumar Das	0	0	2	8
217	Saptari	Mohanpur	5	Lilam Devi Chaudhary	0	0	14	4
218	Saptari	Mohanpur	5	Janaki Devi Chaudhary	0	0	6	0
219	Saptari	Khosarparwa	3	Harihar Chaudhary	0	0	19	0
220	Saptari	Khoksarparwa	7	Amarkant chaudhary	0	0	2	8
221	Saptari	Khoksarparwa	7	Aasawati Chaudhary	0	0	3	8
222	Saptari	Khoksarparwa	7	Sita devi chaudhary	0	0	14	0
223	Saptari	Khosarparwa	7	Chandan Chaudhary	0	0	12	0
224	Saptari	Khosarparwa	3	Pashupati Devi shah	0	0	4	0
225	Saptari	Khosarparwa	3	Raso Devi Shah,Anil Kumar chaudhary	0	0	7	8
226	Saptari	Khosarparwa	2	Shiva Narayan Shah	0	0	7	0
227	Saptari	Khosarparwa	2	Parmeshworai devi shah	0	0	19	0
228	Saptari	Khosarparwa	2	Bauliya Devi Bhagat	0	0	19	0
229	Saptari	Naktiyapur	8	Birahi Yadhav	0	0	19	0
230	Saptari	Parasbani	5	Yogenra Pr Chaudhary	0	0	11	8
231	Saptari	Parasbani	5	Mahani devi Tharuni	0	0	12	0
232	Saptari	Parasbani	3	Dev raj Chaudhary	0	0	19	0
233	Saptari	Parasbani	5	Chhatr ydhav	0	0	19	0
234	Saptari	Jandol	9	Bhatu Chaudhary	0	0	11	8
235	Saptari	Jandol	9	Moti shah teli	0	0	6	0
236	Saptari	Jandol	9	Gosai Shau Teli	0	0	1	0
237	Saptari	Jandol	9	Gundev Chaudhary	0	0	16	8
238	Saptari	Jandol	8	Dulari Devi Chaudhary	0	0	0	8
239	Saptari	Jandol	6	Tirahu Hajam Thakur	0	0	16	8
240	Saptari	Jandol	9	Magan Chaudhary	0	0	2	0
241	Saptari	Jandol	8	Keshar Prasad Chaudhary	0	0	2	0
242	Saptari	Jandol	9	Durga Naha Chaudhary	0	0	2	8
243	Saptari	Jandol	9	Parsuram Chaudhary	0	0	0	8
244	Saptari	Jandol	9	Mahesh Chaudhary	0	0	12	0
245	Saptari	Jandol	9	shyam Sundar Chaudhary	*	*	*	*
246	Saptari	Vakduwa	7	Nar Bdr B.K	0	0	1	5
247	Saptari	Vakduwa	7	Kaji Bdr Sarki	0	0	1	9
248	Saptari	Vakduwa	7	Prabhuinath koirala	0	1	7	6
249	Saptari	Vakduwa	7	Sita Maya Rai	0	0	13	8
250	Saptari	Vakduwa	7	Shyam dev chaudhary	0	0	1	0
251	Saptari	Vakduwa	7	Dropati Chaudhary	0	0	14	0
252	Saptari	Vakduwa	9	Dewananda Lekhi	0	0	5	0
253	Saptari	Vakduwa	9	Man Bhura Chaudhary	0	0	1	0
254	Saptari	Vakduwa	9	Bhuuti Devi Tharuni	0	0	18	0
255	Saptari	Vakduwa	9	Ganesh Kr Magar	0	0	13	0
256	Saptari	Vakduwa	9	Jay kumari Chaudhary	0	0	15	8
257	Saptari	Theliya	1	Kannan Chaudhary	0	0	15	0
258	Saptari	Theliya	1	Karodevi Shah	0	0	3	8

259	Saptari	Theliya	1	Maja devi Ram	0	0	19	8
260	Saptari	Theliya	1	Uhadevi Rajput ni	0	0	15	0
261	Saptari	Theliya	5	Bir Bahadur Rana Magar	0	0	5	0
262	Saptari	Theliya	5	Ramnanda Chaudhary	0	0	4	8
263	Saptari	Rupnagar	8	Ramfal Shau	0	2	6	4
264	Saptari	Rupnagar	8	Hajur Ali Miya	0	0	6	0
265	Saptari	Rupnagar	3	Rahim Khatun	0	0	2	8
266	Saptari	Rupnagar	4	sairul vivi	0	0	1	0
267	Saptari	Rupnagar	3	Ishowari Prasad Nirula	0	1	2	8
268	Saptari	Rupnagar	2	Shiva Narayan Shah	0	0	3	8
269	Saptari	Rupnagar	2	Man kishan Shrestha	0	0	3	8
270	Saptari	Dharmpur	9	motilal Raut	0	0	1	0
271	Saptari	Dharmpur	8	Jaydev Khadka Rajdhobi	0	0	12	0
272	Saptari	Dharmpur	8	Parasu Ram Chaudhary	0	0	11	8
273	Saptari	Dharmpur	8	Sekhar nath pokheral	0	0	5	12
274	Saptari	Dharmpur	8	Devi Bdr Khatri	0	0	1	0
275	Saptari	Goganpur	9	Om Narayan shrestha	*	*	*	*
276	Saptari	Goganpur	9	Digambar Bdr shrestha	0	0	17	0
277	Saptari	Goganpur	9	Purna Maya Shrestha	0	0	12	8
278	Saptari	Goganpur	9	Harka narayan Shrestha	0	0	4	0
279	Saptari	Goganpur	9	Man Kumar Shrestha	0	0	1	2
280	Saptari	Goganpur	9	Krishna Prasad Bhattari	0	0	12	0
281	Saptari	Goganpur	9	Puspha narayan Shrestha	*	*	*	*
282	Saptari	VaruwaKhal	9	Sona Kumari Chaudhary	0	0	27	16
283	Saptari	VaruwaKhal	9	Kastu Chaudhary	0	0	19	0
284	Saptari	VaruwaKhal	2	Dharma lal Chaudhary	0	0	19	0
285	Saptari	VaruwaKhal	1	Rm Kumar Chaudhary	0	0	19	0
286	Saptari	VaruwaKhal	1	Rajan basnet	0	0	19	0
287	Saptari	Varuwakhal	9	Loknatha ojha	0	0	19	0
288	Saptari	Varuwakhal	5	Urmila Kumari Chaudhary	0	0	16	0
289	Saptari	Varuwakhal	4	Gaga devi katuwal	0	0	15	0
290	Saptari	VaruwaKhal	3	Balum Tharu	0	0	3	0
291	Saptari	VaruwaKhal	4	Sarswoti Kumari Chaudhary	0	0	0	8
292	Saptari	VaruwaKhal	4	Krishna Dev chaudhary	*	*	*	*
293	Saptari	Sitapur	8	Pratham Lal Chaudhary	0	0	2	0
294	Saptari	Sitapur	3	Tek Narayan Chaudhary	0	0	19	0
295	Saptari	Sitapur	3	Laxmi NarayanTharu	0	0	8	0
296	Saptari	Sitapur	3	Mahbir prasad Chaudhary	0	0	19	0
297	Saptari	Sitapur	1	Aasa Chaudhary	0	0	19	0
298	Saptari	Sitapur	3	Jhallu Chaudahary	0	1	0	0
299	Saptari	Sitapur	1	Resham Lal Chaudhary	0	0	6	0
300	Saptari	Sitapur	3	Sita Devi Das	0	0	10	0
301	Saptari	Sitapur	1	Mallu Chaudahry	*	*	*	*
302	Sunsari	Mahendranaga	3	Kedar Prasad Bjhattari	0	0	11	0

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303	Sunsari	Mahendranagar	3	Rupa limbu	0	1	4	0
304	Sunsari	Mahendranagar	3	Muna Thapa Magar	0	1	0	0
305	Sunsari	Mahendranagar	3	Sukha Dhoj Limbu	0	1	0	0
306	Sunsari	Mahendranagar	8	Amrit Basnet	0	0	10	0
307	Sunsari	Mahendranagar	8	Lila maya Basnet	0	0	10	0
308	Sunsari	Mahendranagar	8	Bir Bahadur Rai and Mina Rai	0	1	14	0
309	Sunsari	Mahendranagar	3	Padma Bahadur Karki	0	0	0	12
310	Sunsari	Mahendranagar	8	Rit Bahadur Khanal	0	0	20	0
311	Sunsari	Mahendranagar	7	Man Bahadur Thapa	0	2	2	8
312	Sunsari	Mahendranagar	3	Tika Bahadur Tamang	0	1	0	0
313	Sunsari	Singiya	2	Lok Bdr Maghi	0	0	10	0
314	Sunsari	Singiya	2	Jitendra Gupta	0	0	15	0
315	Sunsari	Singiya	2	Dip Narayan Shah	0	0	*	0
316	Sunsari	Singiya	2	Ayodhya Khadka	0	0	10	0
317	Sunsari	Singiya	2	Bal Bahadur Karki	0	0	10	0
318	Sunsari	Singiya	2	Ganga Bahadu Basnet	0	0	*	0
319	Sunsari	Singiya	8	Bir Bdr kami	0	0	6	8
320	Sunsari	Singiya	9	Man Kumari Bk	0	0	12	0
321	Sunsari	Dumraha	3	Rudra karki	0	0	0	0
322	Sunsari	Dumraha	9	Devendra Shah	0	1	2	0
323	Sunsari	Dumraha	2	Chandra narayan mandal	0	1	0	0
324	Sunsari	Dumraha	3	Jagat Bahadur Karki	0	0	0	0
325	Sunsari	Dumraha	2	Khadak Bahadur Karki	0	0	0	0
326	Sunsari	Dumraha	1	Devki Devi Mandal	0	0	0	0
327	Sunsari	Dumraha	9	Sambhu Mandal	0	0	0	0
328	Sunsari	Dumraha	9	Parmila Khatwe	0	0	6	0
329	Sunsari	Dumraha	9	Jaleswari devi shah	0	0	11	0
330	Sunsari	Dumraha	9	Mamita Sahu Teli	0	0	10	0
331	Sunsari	Dumraha	3	Hari lal uraw	0	0	3	0
332	Sunsari	Dumraha	3	Umesh karki	0	0	0	0
333	Sunsari	Dumraha	2	Yograj Subedi	0	0	0	0
334	Sunsari	Dumraha	9	Radhiya devi mandal	0	0	0	0
335	Sunsari	Bokhara	1	Dev Krishna Mehata	0	0	10	0
336	Sunsari	Bokhara	8	Hari Prasad urau	0	0	0	0
337	Sunsari	Bokhara	8	Rabi lal Urau	0	0	14	0
338	Sunsari	Bokhara	1	Nebilal Mahato	0	0	10	0
339	Sunsari	Bokhara	1	Ram Kumar Mehata	0	0	12	0

340	Sunsari	Bokhara	7	Ram Sagar Mehata	0	0	0	0
341	Sunsari	Bokhara	8	Rama Devi Mehata	0	0	0	0
342	Sunsari	Bokhara	8	Gita Devi Mahato	0	0	0	0
343	Sunsari	Bokhara	4	Ram Dev Mahato	0	1	0	0
344	Sunsari	Bokhara	1	Jay Krishna Mehata	0	0	11	0
345	Sunsari	Bokhara	1	Kantalal Mahato	0	0	0	0
346	Sunsari	Bokhara	7	Jhallu Mehata	0	0	0	0
347	Sunsari	Bokhara	1	Bal Krishna Mehata	0	0	10	0
348	Sunsari	Bokhara	1	Harilal Mehata	0	0	10	0
349	Sunsari	Bokhara	7	Bhuwanshwor yadhav	0	4	5	0
350	Sunsari	Bokhara	7	Bimal Basnet	0	4	0	0
351	Sunsari	Bokhara	7	Bishal Basnet	0	14	4	0
352	Sunsari	Bokhara	7	Jiya Bul Ansari	0	15	0	0
353	Sunsari	Bokhara	7	Jogindar Mushar	0	4	0	0
354	Sunsari	Bokhara	7	Khadka Bdr Nepali	0	17	0	0
355	Sunsari	Bokhara	7	Khinna Bdr Khadka	1	1	0	0
356	Sunsari	Bokhara	6	Kumar Basnet	0	15	0	0
357	Sunsari	Bokhara	7	Laxmi Mandal	0	7	0	0
358	Sunsari	Bokhara	7	Pramila Devi Mahaato	2	10	0	0
359	Sunsari	Bokhara	7	Raja Ram Mehata	3	0	0	0
360	Sunsari	Bokhara	6	Rajesh Mehata	0	15	0	0
361	Sunsari	Bokhara	7	Ram Prasad Mandal	0	9	0	0
362	Sunsari	Bokhara	7	Sambhu mandal	0	6	0	0
363	Sunsari	Bokhara	7	Sita Devi Yadhav	0	5	0	0
364	Sunsari	Bokhara	7	Sanjeev Mandal	0	5	8	0
365	Sunsari	Bokhara	7	uma Devi Mandal	0	3	4	0
366	Dhanusa	Ganesmannath Charnath	7	Subash Prasd Jaiswal			17	4
367	Dhanusa	Ganesmannath Charnath	5	Bharat Pajiyar			1	2
368	Dhanusa	Ganesmannath Charnath	5	Som Bahadur Amsani			7	8
369	Dhanusa	Pusbalpur	6	Ram Varosh Mahato			16	
370	Dhanusa	Dhanuadham	7	Prithivi Bdr Tamang			11	12
371	Dhanusa	Dhanuadham	9	Gauri devi Losya			14	
372	Dhanusa	Dhanuadham	9	Sanuri Yadhav			16	
373	Dhanusa	Dhanuadham	9	Check Pani Moktan			19	
374	Dhanusa	Dhanuadham	9	Safari Yadhav			18	
375	Dhanusa	Dhanuadham	9	Sauraa Khatun			2	8
376	Dhanusa	Dhanuadham	9	Ambika devi KC		1	13	
377	Dhanusa	Dhanuadham	9	Manju Adhakari			2	
378	Dhanusa	Dhanuadham	9	Mohan Kumar Baral			4	12
379	Dhanusa	Mithila	4	Bhakta Natha Sharma			1	1
380	Dhanusa	Mithila	4	Janaki Kumari Baniya			1	1
381	Dhanusa	Mithila	7	Vogendara Mahato			2	8
382	Dhanusa	Mithila	4	Kishori Shah		1	4	

383	Dhanusa	Mithila	4	sukdev Yadhav			5	
384	Dhanusa	Mithila	4	Pulkit Yadhav			13	8
385	Dhanusa	Mithila	4	Rampukar Yadhav		1	8	8
386	Dhanusa	Mithila	4	Teji Thakur Badhai		1	1	
387	Dhanusa	Mithila	4	Ganga Devi			11	8
388	Dhanusa	Mithila	4	Pulish Yadhav			2	4
389	Dhanusa	Mithila	4	Hom P Sharma		1	1	
390	Dhanusa	Mithila	7	Janakai Maya Tamang			12	12
391	Dhanusa	Mithila	5	Tilotama Raut			6	
392	Dhanusa	Mithila	7	LilaMaya B.K			2	13
393	Dhanusa	Mithila	4	Ramnath Shaha Haluwai			8	16
394	Dhanusa	Mithila	4	Asarfi Yadhav		7		
395	Dhanusa	Mithila	4	Ram P Yadhav		13	6	
396	Dhanusa	Mithila	4	Ram Jevan Yadhav		3	13	
397	Dhanusa	Mithila	4	Shiwani Devi Kathwania		9	16	
398	Dhanusa	Mithila	4	Rajendara Mahato		6		
399	Dhanusa	Mithila	4	Sitaram Shah Sudi		4	11	
400	Dhanusa	Mithila	4	Sukmaya Tamang		9		
401	Dhanusa	Mithila	4	Dip Narayan Yadhav		13	17	
402	Dhanusa	Mithila	4	Chandra Bdr Moktan		6		
403	Dhanusa	Mithila	4	Nema maya Tamang		3	16	
404	Dhanusa	Mithila	4	Raj lal yadhav		1		
405	Dhanusa	Mithila	3	Harilal Mochi		1		
406	Dhanusa	Mithila	3	Ram Lal Mochi		1		
407	Dhanusa	Mithila	3	Indradevi Yadhav		17		
408	Dhanusa	Mithila	3	Ram narayan Mahato			3	
409	Dhanusa	Mithila	4	Govinda bdr Karki		1	18	
410	Dhanusa	Mithila	4	Hari Prasad Mandal			3	
411	Dhanusa	Mithila	4	Khusi lal Mahato		1	1	
412	Dhanusa	Mithila	9	Durga Bdr Paudal			3	
413	Dhanusa	Mithila	9	Ramu P Dhungel		1	7	
414	Dhanusa	Mithila	4	Kisun Yadhav		2		8
415	Dhanusa	Hariharpur	8	Dlari devi Koirai			1	15
416	Dhanusa	Hriharpur	7	Rabinath Mahato			17	
417	Dhanusa	Pushwalpur	3	Laganwati devi		1	2	
418	Dhanusa	Pushwalpur	8	Bhan Bdr kyapchake		1	1	
419	Dhanusa	Pushwalpur	8	Mahendra Mahato			16	
420	Dhanusa	Pushwalpur	7	Sahabir Kami		1	8	
421	Dhanusa	Pushwalpur	7	Luk Bahadur Kami			2	8
422	Dhanusa	Ganeshman charnath	5	Ramlal Mahato		1	1	
423	Dhanusa	Ganeshman charnath	2	puja lama		1	1	
424	Dhanusa	Ganeshman charnath	5	Niramli devi Karki			9	
425	Dhanusa	Ganeshman	5	Dhana Maya Shrestha		1	2	4

		charnath						
426	Dhanusa	Ganeshman charnath	5	Urmila devi yadhav		1	1	
427	Dhanusa	Baribas	1	Bindeshwor Shah		1	1	
428	Dhanusa	Mithila	9	Bhakta Devi Gari	0		16	
429	Dhanusa	Mithala	4	Shiv Shankar Shah		3	5	
430	Dhanusa	Mithala	4	Ram Narash Shah		4		
431	Dhanusa	Mithala	4	Ram Kamal Shah		3	15	
432	Dhanusa	Gineshman Charnath manucipality	5	Sushila Devi Pangiyar		1	6	
433	Dhanusa	Gineshman Charnathmanu cipality	4	Jay Prakash Yadav		1	1	
434	Dhanusa	Gineshman Charnathmanu cipality	2	Chanra Dev Yadav		1	8.8	
435	Dhanusa	Gineshman Charnathmanu cipality	1	Latu Shah			16	
436	Dhanusa	Gineshman Charnathmanu cipality	1	Bachani Devi Yadav			17.12	
437	Dhanusa	Gineshman Charnathmanu cipality	1	Ram Dulari Mandal			12	
438	Dhanusa	Gineshman Charnathmanu cipality	1	Ginesh Prasad shah			4	
439	Dhanusha	Dhanushadha m	7	Parmeshwori Yadav			4	12
440	Dhanusha	Ganeshman Charnath	7	Malati Devi Sah Sudi			16	
441	Dhanusha	Mithila	4	Mishrilal Sah		2	5	
442	Dhanusha	Ganeshman Charnath	6	Rajeev Jaisawal		1	1	
443	Dhanusha	Mithila	4	Lagamidevi Sah Sudi		3	13	
444	Dhanusha	Ganeshman Charnath	6	Ajablal Raut			16	
445	Dhanusha	Ganeshman Charnath	6	Purna BD. Thapamagar			4	8
446	Dhanusha	Ganeshman Charnath	4	Kapil Dev Yadav		3		
447	Dhanusha	Mithila	4	Netra Kr. Devi Kadari		4	10	
448	Dhanusha	Mithila	4	Devi Bd. Kadari			15	
449	Dhanusha	Mithila	4	Rajendra Mahato			25	
450	Dhanusha	Mithila	4	Phul kr. Mahato		5	17	
451	Dhanusha	Mithila	4	Shiva Narayan Mahato		23		
452	Dhanusha	Mithila	4	Bikau Yadav			6	
453	Dhanusha	Mithila	4	Julphe Dumjan		11	8	
454	Dhanusha	Mithila	4	Ojirnam Yonjan			12	

455	Dhanusha	Mithila	4	Ek Bd. Kadari Chhetri			6	
456	Dhanusha	Mithila	4	Dulari devi Sah		15		
457	Dhanusha	Mithila	4	Bim Pd. Dahal		1	10	
458	Dhanusha	Mithila	4	Ram Bd. Yadav		3		
459	Dhanusha	Mithila	4	Ram Bharos Mahato		1	10	
460	Dhanusa	Bharatpur	2	Pan kumari Thakur	0	0	0	0
461	Dhanusa	Yagabhomi	8	Chakra Bdr Magar	0	0	0	0
462	Sarlahi	lalbandi	9	Bachan mahato			15	8
463	Sarlahi	lalbandi	9	Lal Babu Mahato			15	12
464	Sarlahi	Hariwan	2	Nav Raj Mainali		1	12	
465	Sarlahi	Hariwan	9	Ganpati Dahal			2	4
466	Sarlahi	Hariwan	9	Bishnu Maya Mainali	0		19	
467	Sarlahi	Karmaiya	6	Januka Devi Shrestha		1	14	
468	Sarlahi	Hariwon	9	Lilamaya Khadka		0	13	12
469	Sarlahi	Hariwon	9	Subash Bika		0	12	12
470	Sarlahi	Karmiya	2	Isha Maskey	0	1	14	
471	Sarlahi	Dhungrekhola	1	Tulamaya Susling			9	12
472	Sarlahi	Hariwon	7	Thakur Pd. Uprety			14	8
473	Sarlahi	Hariwon	2	Laxmi Pd. Mainali			2	
474	Sarlahi	Hariwon	2	Durga Pd. Thapaliya			19	
475	Sarlahi	Hariwon	2	Ram Pd. Uprety			17	4
476	Sarlahi	Hariwon	1	Chirinjivi Bhetwal			15	4
477	Sarlahi	Hariwon	1	Laxm devi Shrestha			19	
478	Sarlahi	Hariwon	8	Purna Bd. Mahat		2	13	
479	Sarlahi	Hariwon	8	Sangram Singh Waiba			19	
480	Sarlahi	Hariwon	8	Bhagwati Nepali			2	8
481	Sarlahi	Karmiya	6	Bir Bd. Roy Chetteri			11	
482	Sarlahi	Hariwon	8	Bal bd. Khadka			19	
483	Sarlahi	Golbazar	10	Pabitra devi Mukhiya		7	17	
484	Sarlahi	Atrauli	7	Gita Muri Magar	0	1	6.5	
485	Sarlahi	Atrauli	8	Sarmila Gole	0	0	15.5	
486	Sarlahi	Atrauli	7	Ramkrishna Muri Magar	0	0	1	
487	Sarlahi	Atrauli	9	Rambahadur B.K.	0	1	4	
488	Sarlahi	Atrauli	9	Buddha Maya Magar	0	0	11.25	
489	Sarlahi	Atrauli	9	Shyam Bd. Muri	0	0	10	
490	Rautahat	Chandrapur	3	Basudev Acharya	0	1	5	
491	Rautahat	Chandrapur	3	Surendra Sahani	0	0	17.5	
492	Makwanpur	Chhatiwan	8	Singh Bd. Thing	0	1	15	
493	Makwanpur	Chhatiwan	8	Santa Lal Thing	0	1	12	

Annex – 2

List of Households Losing Structures

S.N	Name of Owner	Address	Structure				House 1 (measurement in m)				House 2 (measurement in m)				Cowshed 1 (measurement in m)				Cowshed 2 (measurement in m)			Toilet 1 (measurement in m)			Toilet 2 (measurement in m)		Others (measurement in m)			Remarks			
			House	Cowshed	Toilet	Others	L	B	Storey	Type	L	B	Storey	Type	L	B	Storey	Type	L	B	Storey	L	B	Type	L	B	Str Name	L	B				
	Hetauda Section																																
1	Bikram Jimba	Hetauda - 18, Chitrepani	1	1	1		10	7	1						7	6	1	semi pakki					3	2									
2	Indre Jimba	Hetauda - 18, Chitrepani	1	0	0	0	7	5	1																								
3	Monic Gole	Hetauda - 18, Chitrepani	1	1		0	11	7	1						7	5	1	semi pakki															
4	Gyanendra Gole	Hetauda-18, Shikharpani	1	1	0	0	10	7	1						12	7	1	semi pakki					3	2	block								
5	Bhim Bhr Gole	Hetauda-18, Shikharpani	1	1	1	0	6	5	1						7	4	1	kacchi					3	2	block								
6	Bhanu prasad Bidari	Hetauda-18, Shikharpani	1	0	1	0	14	8	2														2	1.5	pakki								
7	Umesh Bidari	Hetauda-18, Shikharpani	1	0	1	0	14	8	2														2	1.5	pakki								
8	Bijendra Thing	Hetauda-18, Shikharpani	1		0	1	13	3	1														1.5	1.5	pakki			hen house	6	5	tyle and jali		
9	Akkala bhr Thing	Shreepur Chhatiwan-9, Sanosudha	1	0	0	0	10	7	1																								

10	Megha bhr Srestha	Shreepur Chhatiwan-4, Adheri	0	0	0	1																			Pig farm	30	85	cemented	
11	Dil bhr Lopchan	Shreepur Chhatiwan-4, Andheri	1	0	0	1	15	3	1	pakki															Flour mill	15	10	cemented	
12	Prathavima n Gole	Shreepur Chhatiwan-4, Aapdamar	1	0	0	0	7	3.5	1	Semi pakki																			
13	Tulman Tamang	Shreepur Chhatiwan-9, Jaspal	1	1	0	0	10	6	1	Semi pakki				7	7	1	semi pakki												
14	Mohan singh Waiba	Shreepur Chhatiwan-9, Jaspal	0	1	0	0							4.5	3	1	semi pakki													
15	Kajiman Bal	Shreepur Chhatiwan-9, Jaspal	0	1	0	0							8	5	1	semi pakki													
16	Bir bhr Moktan	Dhiyal-9, Kaileni	1	2	0	0	10	6	1	Semi pakki			6	4	1	semi pakki	9	5	semipakki										
17	Nir bhr Moktan	Dhiyal-9, Kaileni	1	1	0	0	7.5	5	1	Semi pakki			5	3	1	semi pakki													
18	Sanju Jimba	Hetada-18, Chitrepani	1	0	1	1	8	7	1	Semi pakki									3	2	pakki				Gobar Gas	3	2	Poultry House 7*5 s	
19	Fulman Bomjong	Shreepur Chhatiwan-9, Sanosudha	1	0	1	1	12	8	2	Semi pakki			4	3	1	pakki										water tap	3	3	pakki
20	Harka bhr Bomjong	Chhatiwan-9, Sanosudha	1	1	1	0	12	10	2	kachhi			15	7	2	semi pakki			3	2	pakki								
21	Janak bhr Bomjong	Chhatiwan-9, Sanosudha	1	1	1	0	10	6	1	Semi pakki			10	6	1	semi pakki			2	1.5	pakki								

22	Sher bhr Singar	Chhatiwan-9, Sanosudha	1	1	1	1	8	7	2	Semi pakki				9	7	1	semi pakki					2	1.5	pakki														
23	Motilal Singar	Chhatiwan-9, Sanosudha	1	1	0	0	8	7	2	Semi pakki				8	7	1	semi pakki																					
24	Chin bhr Singar	Chhatiwan-9, Sanosudha	2	1	1	0	12	8	2	kachhi	13	7	2	pakki	14	8	2	kacchi					3	2	pakki													
25	Dil bhr Shrestha	Shreepur Chhatiwan-4, Andheri	1	1	0	1	10	7	1	Semi pakki				10	7	1	semi pakki																	Store house	5	3	1	
26	Gobinda Shrestha	Shreepur Chhatiwan-4, Andheri	1	1	0	0	10	7	2	Semi pakki	10	5	1	semi kachhi																								
	Dhalkebar section																																					
27	Sankar bhr Lopchan	Karmaiya-6, Sarlahi	2	0	0	1	9.75	4.5	1	pakki	9.14	4.5	2	Kachhi									3	3	Pakki										Gobar gas	6	ft	
28	Santi bikram Baral	Dhungre-1, Sukuwani, Sarlahi	0	1	0	0									8	4	1	Kachhi																				
29	Narayan Lamichhan	Dhungre-2, Dumajor, Sarlahi	1	0	0	0	10	6	1	kachhi																												
30	Nainamaya Lungeli	Dhungre-2, Dumajor, Sarlahi	0	0	1	0																	3	1.5	pakki													
31	Kasimaya Khapangi	Dhungre-1, Milancho wk, Sarlai	1	1	0	0	9	5	2	kachhi					8	4	1	kachhi																				
32	Gorkha bhe Darlami	Dhungre-1, Milancho wk, Sarlai	1	0	0	0	10	5	1	kachhi																												
33	Ambar bhr Darlami Magar	Dhungre-1, Milancho wk, Sarlai	1	0	0	0	10	5	2	kachhi																												

34	Sunmaya Balampakhi	Dhungre-1, Gauridada, Sarlahi	1	0	0	0	10	5	2	kachhi																								
35	Prem bhr Pulami	Dhungre-1, Milanchowk, Sarlahi	1	1	0	0	8	4	1	kachhi				6	4	1	kachhi																	
36	Thulimaya Pahari	Karmaiya-4, Pahari tole, Sarlahi	1	1	1	0	8	6	1	kachhi				6	4	1	kachhi					2	2	pakki										
37	Buddiman Pahari	Karmaiya-4, Pahari tole, Sarlahi	1	0	0	1	10	5	2	kachhi																		PASAL	1	0	5			
38	Jukta bhr Pahari	Dhungre-1, Milanchowk, Sarlahi	1	0	0	0	8	6	2	kachhi																								
39	Dambar bhr Pahari	Dhungre-1, Paharitole, Sarlahi	1	0	1	0	10	4	1	kachhi																1.5	1	kacchi						
40	Rakesh Pahari	Karmaiya-4, Pahari tole, Sarlahi	1	0	1	0	8	4	1	kachhi																	1.5	1	kacchi					
41	Budha Pahari	Dhungre-1, Milanchowk, Sarlahi	1	1	1	0	8	5	2	kachhi				6	4	1	kachhi										1.5	1	kacchi					
42	Narayeni devi Shresta	Karmaiya-4, Parijat tole	2	1	1	0	13	5	1	kachhi	10	8	2	kachhi	10	5	1	kachhi								3	2	pakki						
43	Hom bhr Bhujel	Hariwan-8, Sarlahi	1	1	0	0	8	7	1	kachhi				5	4	1	kachhi																	
44	Dilli bhr Bhattarai	Hariwan -1	1	1	1	0	6	5	1	kachhi				4	4	1	kachhi										1.5	1	kacchi					
45	Kesab Thakuri	Hariwan -1	1	1	0	0	8	4	1	kachhi				7	4	1	kachhi																	
46	Ram Bd. Bika	Hariwan -9	1	1	0	0	8	4	1	kachhi				7	5	1	kachhi																	
47	Sarswati Subedi	Badharmal-2, Milantole, Siraha	2	0	1	0	6.5	4.5	2	kachhi	7	5	2	kachhi														2	1.5	Pakki				

48	Bijaya Kumar Khanal	Ganeshman Charnath Municipality -5,Dhanusa	1	1	0	0	9	5	1	kachhi				7.5	3	1	kachhi																				
49	Dhan bhr Rokamagar	Dhanusadh am municipality -9,Dhanusa	1	1	1	0	7	5	1	kachhi				6.5	4	1	kachhi			2.5	2	kachhi															
50	Dhan bhr Mijar	Dhanusadh am municipality -9,Dhanusa	2	0	0	0	5	4	1	kachhi	5	4	1	kachhi																							
51	Om prakash Yadav	Dhanusadh am municipality -9,Dhanusa	1	0	0	0	7	5	2	kachhi																											
52	Kajiman Bomjong	Pusapalpur - 8,Chaukitole,Dhanusa	1	0	0	0	10	6	1	kachhi																											
53	Tek bhr Ghising	Pusapalpur - 8,Chaukitole,Dhanusa	1	0	0	0	5.5	4	1	kachhi																											
54	Gyan bhr Thokar	Pusapalpur - 8,Chaukitole,Dhanusa	1	0	0	0	6	4	1	kachhi																											
55	Gambhir bhr B.K	Pusapalpur - 8,Chaukitole,Dhanusa	1	0	1	0	7	4	1	kachhi										2	1.5	kachhi															
56	Dewen Chaudhary	Pusapalpur - 8,Chaukitole,Dhanusa	1	0	0	0	5	4	1	kachhi																											

57	Devlal Yadav	Ganeshman Charnath Municipality -1, Dhanusa	1	1	0	0	5	4	2	kachhi						9	6	1	kachhi															
58	Dhan bhr Gole	Pusapalpur - 8,Chaukitole,Dhanusa	0	1	0	0										4.9	1.52	1	kachhi															
59	Aaita bhr Moktan	Pusapalpur - 8,Chaukitole,Dhanusa	1	1	1	0	7	7	1	kachhi						4	2	1	kachhi						3	3	under construction [pakki							
60	Hom Pd. Sharma	Mithila 4, Dhanusha	0	1	0	0										6.4	4.26	1	kachhi															
61	Puja Lama	Ganeshman Charnath Municipality -2, Dhanusa	0	1	0	0										14	5.48	1	kachhi															

Inaruwa Section

62	Champa Rai	Bokhara 7, Sunsari	1				8	6	1	Pakii																										
63	Raja Ram Mehata	Bokhara 7, Sunsari	1				6	5	1	Kachi																										
64	Dhanilal Urau	Dumraha 3, Sunsari	1				9	6	1	Kachi																										
65	Harilal Urau	Dumraha 3, Sunsari	1	1		1	9	8	1	Kachi						13	6	1	kaachi														6	5	1	kachi (kitchen)
66	Ram Kumari Shah	Terautha, Birendra bazar, Saptari	1				11	5	1	Pakii																										

67	Rupa Subedi	Terautha, Birendra bazar, Saptari	1				5	9	1	Pakii																	
68	Shyam Kamet	Terautha, Birendra bazar, Saptari	1				9	9	3	Kachi																	
69	Lal Bahadur Tamang	Terautha, Birendra bazar, Saptari	1				6	2	1	Pakii																	
70	Laxmi Maya Magar	Terautha, Birendra bazar, Saptari	1				9	5	1	Pakii																	
71	Aarati ale Magar	Terautha, Birendra bazar, Saptari	1				6	1	1	Pakii																	

ANNEX 3: REVIEW OF LAND ACQUISITION PRACTICE FOR SUSPENSION TOWERS

By ESSD/NEA

Context:

During the Implementation support mission August 2016 the Bank team identified the need to update RAP to include adjustments made in Transmission line alignment as the existing (first) RAP prepared for the project only covered Angle Towers and substations as the locations of other project components were not fixed during the preparation stage. According to Social Impact Management Framework (SIMF) prepared by the project, additional RAP is required to be prepared for the suspension towers and transmission line as soon as the exact location of the towers and alignment is fixed and before civil works are initiated. However, the project has started construction of the suspension towers without preparing the RAP. Furthermore, compensation payment has not been done to the affected households prior to starting civil works for suspension towers. This a serious violation of the Bank's Operational Policy requirement and SIMF prepared by the project.

Objective of the review:

This review report assesses if the land acquisition procedure followed by the project for suspension towers and implementation of social mitigation measures for the losses incurred is in line with requirements of the World Bank and SIMF. Then, propose action plan to meet Bank requirement if any gaps are identified between land taking process and the requirements of World Bank.

Suspension tower and private land requirement:

Technical survey of the project indicates that a total of 314 suspension towers will be built on private land. Twenty types of suspension towers have been constructed. Foundation area required for different types of suspension tower ranges from 272 square meter to 1459 square meter (see annex 4 for details). About 10 ha of private land are estimated to be required for construction of suspension towers. The project has changed alignment in several sections during implementation to avoid and minimize private losses, in particular.

Physical progress of suspension tower on private land:

The project has already started construction of suspension towers. Construction of first suspension tower on private land was completed on 3rd January 2014. Till march 2017, construction of 90% of the suspension towers that fall on private land has been completed. 282 suspension towers out of 314 have already been constructed. It is further noted that majority of the suspension towers planned on private land has been completed in Siraha (90 out of 103) and Saptari (89 out of 95) District (Table 1).

Table 1: Detail of suspension towers on private land

S.N.	Section	No. of Towers planned in Pvt. Land	No. of towers constructed in Pvt. Land	Percentage
1	Makawanpur	16	4	25
2	Bara	0	0	0
3	Rautahat	1	1	100
4	Sarlahi	19	18	95
5	Mahottari	1	1	100
6	Dhanusha	41	42	102
7	Siraha	103	90	87
8	Saptari	95	89	94
9	Udaypur	15	14	93
10	Sunsari	23	23	100
	Total	314	282	90

Source: Project Office, 2017

Progress in land acquisition and compensation payment for private land required for suspension towers

Considering the physical progress of the suspension towers, private land was taken without compensation payment in advance. Land acquisition process for suspension towers on private land was initiated around the time construction of first suspension tower was ongoing but compensation payment was done much later. The first notice for land acquisition was published on 27th January 2014 on the Gorkhapatra (National Daily Newspaper). The notice was also kept at project office. First compensation payment for land loss due to suspension towers was made on 14 July 2014 to an affected household in Dhanusha District. Till March 2017, notice for about 17.9 ha of land required permanently for tower pads, including both suspension tower and angle towers, had been published. Half of which is estimated to be required for suspension towers (Table 2). The assessment reveals that land requirement for suspension towers on private land has resulted in loss of land, loss of trees and crops.

Table 2: Permanent land requirement for Tower pads (Suspension tower and Angle towers) – according to notice published till March 2017.

S.N.	District	Land required (Ha)
1	Makwanpur	0.702406389
2	Sarlahi	2.192427318
3	Mahottari	0.071112615
4	Dhanusha	2.372960236
5	Siraha	4.471099846
6	Saptari	6.798027363
7	Sunsari	1.25473553
	Total	17.86277

Source: Project office, 2017

Land acquisition procedure

Land acquisition and compensation payment for the project has been done as per the Land Acquisition Act (1977) of Nepal. Following procedure was followed by the project for permanent land acquisition:

- Project affected households were first identified during technical survey. Affected households and community were consulted and provided information about the project activities.
- Once the location and project affected people (PAP) was fixed, a copy of land ownership certificate and citizenship was obtained from the PAP after consultation and permission from the landowner.
- A cadastral survey was carried out by District Survey Office which identified and provided land details - number of land plots affected, plot number, land owners
- A notice of list of affected landowner was published in Gorkhapatra (National daily). The notice publication date was taken as the cut-off date for that particular project area.
- Public notice was also posted at project site office.
- The ESSD and Project team followed up with each of the affected landowners to inform them about the land acquisition process and further requirements.
- Compensation Determination Committee (CDC) chaired by the Chief District Officer (CDO) was formed for compensation fixation.
 - First market valuation was done.
 - Local market value for each VDC was collected
 - Valuation rate used by the other commercial Banks were collected
 - Valuation rate from each District Revenue Office was collected
 - Then, under the CDC, a Sub – Committee was formed which visited the project sites and recommended market rate to be used for the land loss due to the project.
 - Based on the recommendation by the sub-committee, CDC fixed the land rates according to different types and land use.

- The project then transferred the equivalent amount of fund to concerned District Administration Office for distribution of compensation payment of the land.
- The project also informed (verbally) each of the PAPs about the rate fixed for their land and requested them to contact the project office for authorization letter addressed to DAO for compensation payment.
- Once the landownership was transferred in the name of the project the DAO disbursed the compensation to the PAPs.

During the land acquisition and compensation payment process, the project has considered different factors in compensation payment to ensure that the project affected receive fair compensation. For example, compensation payments have been made based on different types of land use like residential land, cultivated land, fruit orchard, etc. Similarly, in cases where the remaining land is not economically viable, the project has acquired all the remaining land of that particular land plot and provided compensation. The project also stated that none of the project-affected families have been rendered landless as result of the land acquisition for suspension towers. Additionally, households losing more than 10% of their total land holding has been identified as well. Though, mitigation measures have been identified in line with the SIMF but it is also yet to implemented.

While compensation rates fixed by CDC for land loss is equivalent to market rate in most of the cases, there are instances where fixed rates have found to be much lower than the market rate. Thus, the affected families have not received compensation amount at a replacement cost. For instance, in Padariya (Siraha District) about 8 land owners are affected due to construction of 7 suspension towers. The affected households have refused to receive the compensation amount stating that the rate fixed is very low compared to the market rate. As agreed between the landowners and project during consultation, the project approached the Regional Administration Office (RAO) for re-evaluation of the compensation rate. However, the RAO declined the request to re-evaluate the compensation rate as the complaint/request was filed after the period to file complaint was over. The alternative option considered by the project in such cases is to provide additional cash assistance to compensate for the loss of land.

Payment of compensation for other losses

Loss of private structures:

Acquisition of land for suspension towers did not affect any private structures.

Loss of private trees:

Due to construction of suspension towers (and angle towers), 2000 private trees have been cut down. About 90% of the compensation payment for the trees have been made. Pending payment is due to absence of landowners, demands of higher compensation rate and alignment shift. The project is responsible for payment of compensation for any loss of private trees. Following procedure was followed for determination compensation for the private trees.

- Record of each of the affected tree (fruit, timber, others) on private land
- Calculation of the height and girth of tree

- A norm is prepared by a committee comprising of representatives from District Forest Office, District Agriculture Office, CDO and Project team.
- Based on these norms the project calculates the value of tree.

Loss of crops and other temporary losses

Under the project, contract agreement states that the contractor is responsible for payment of any loss of privately-owned crops and other temporary losses, however the project does not have details on payment for this category of private loss. Although the general procedure of the compensation fixation for the crops requires that advance notice is given to harvest crops, or where harvesting is not possible, compensate net value of crops based on prevailing market value in consultation with local stakeholders. However, the project is not aware of the procedure followed by the contractor. Essentially the project should be monitoring and keeping record of all the losses and compensation payments made. However, it is noted that the project does not maintain a record of the losses. Reluctance of the contractor to share the data with the team was given as the main reason.

Loss of community structures:

Community structures will not be affected due to construction of suspension towers.

Consultation and Information Disclosure

The project has been carrying out consultation with the affected community and the key stakeholders and different project information dissemination activities from the beginning of the project. Different informal and formal consultative methods were used for land acquisition for suspension towers as well. The affected households and community were first informed and consulted during the first technical survey. Once the affected households were identified, they were informed about the project activities, impact due to the project, their entitlements, land compensation procedure among others. Additionally, the project through ESSD has been regularly organizing social awareness programs relating to project activities and social safeguard mitigation measures to the affected community at project sites (See Annex 5).

Extensive consultation with the affected households and the affected community was also carried out throughout the length of the transmission line during preparation of VCDP. Different consultative methods were carried out which included, but not limited to: Participatory Rural Appraisal (PRA), focus group discussion (FGD), public meetings, community discussions, and key informant interviews. There was participation from directly affected families, vulnerable community, project beneficiaries and local government agency representatives during the consultation process. At least one FGD with Dalit group and 2 FGD with Indigenous people were carried out in each affected VDC.

During implementation period, the project has been carrying out public awareness and information dissemination campaigns on a regular basis to minimize project's adverse impacts on the community and their livelihood through different IEC activities (hoarding boards, etc.). Additionally, the awareness training to workers have been organized regularly. The workers

have been instructed to act in a responsible manner during and after the working hours, respecting the rights, socio-cultural norms and practice of the local community.

Grievances Redress Mechanism:

The project however does not have a functional Grievance Redress Mechanism (GRM) in place. ESSD collects the grievances received from PAPs in written form and reports it to the project for its resolution. But not all grievances are registered, grievances received through project staffs and contractors are not always recorded and resolved. According to the record with ESSD, HDI has received around 100 grievances so far (See Annex 6). Most of the grievances are related to compensation payment for the loss of land, crops and trees. Complaints related to contractors conduct have also been received. Some of the grievances have been resolved. And in some cases, the project has held several rounds of consultation in an attempt to resolve community grievances. However, a functional GRM with assigned focal person for timely and effective response is non-existent.

Conclusion:

In overall, the project appears to have carried out land acquisition procedure as prescribed by the Land Acquisition Act (1977), however, other measures required by the SIMF and the World Bank have not fulfilled. Additional resettlement and rehabilitation assistance, compensation for crops, trees have not been provided. In addition, vulnerable communities have been identified among the affected families for which mitigation measures have not been implemented yet. A functional GRM for systematic handling of grievances is also not present.

Therefore, the project should prepare an updated RAP immediately that is in line with the SIMF and the World Bank requirement and implement it. Consultation and information disclosure activities in relation to implementation of RAP should also be continuously carried out throughout the project implementation period. In addition, a functional GRM should be established to ensure timely and effective response to the complainant. Furthermore, a third party monitoring of implementation of the RAP is required to strengthen oversight and ensure compliance of SIMF and the World Bank requirements.

Annex 4: Different types of Suspension towers for HDI TL

AIL LTB J/V							
HDD-400KV D/C TRANSMISSION LINE PROJCT NEPAL							
Area required for different types of tower foundations							
sr no	type fo tower	Foundation Classification	BACK TO BACK of Stub at level x-x mm	Size of pitone Side mm	Required Area one side m	Required area one side-mtr rounded off	Required Area SQ mtr
1	DA+0	Category 1	12711	3780	16.491	16.5	272.25
2	DA+3M	Category 1	13547	3920	17.467	17.5	306.25
3	DA+6M	Category 1	14382	3920	18.302	18.4	338.56
4	DA+9M	Category 1	15217	3920	19.137	19.2	368.64
5	DA+18M	Category 1	17724	4100	21.824	21.9	429.61
6	DA+25M	Category 1	19674	4100	23.774	23.8	566.44
7	DB+0	Category 1	14936	5730	20.666	20.7	428.40
8	DB+3M	Category 1	16094	5770	21.864	21.9	479.61
9	DB+6M	Category 1	17252	5770	23.022	23.1	533.61
10	DB+9M	Category 1	18410	5770	24.18	24.2	585.64
11	DC+0	Category 1	16134	6220	22.354	22.4	501.76
12	DC+3M	Category 1	17366	6310	23.676	23.7	561.69
13	DC+6M	Category 1	18512	6310	24.929	25.0	625.00
14	DC+9M	Category 1	19872	6310	26.182	26.2	686.44
15	DD+0	Category 1	18647	7390	25.737	25.8	665.64
16	DD+3M	Category 1	20102	7150	27.252	27.3	745.29
17	DD+6M	Category 1	21582	7150	28.732	28.8	829.44
18	DD+9M	Category 1	23062	7150	30.212	30.3	918.09
19	DD+18M	Category 1	27602	7240	34.742	34.8	1211.04
20	DD+25M	Category 1	30955	7240	38.195	38.2	1459.24



Annex 5: List of social awareness programs conducted during implementation

S.N.	Training Date	Venue	Target Group	Number of Participants	Remarks
1.	2071/07/30 (16 Nov 2014)	Kalyanpur, Saptari	Project affected people and communities located nearby the TL alignment	36	
2.	2071/08/01 (17 Nov 2014)	Dharapani, Dhanusha	Do	42	
3.	2071/08/05 (21 Nov 2014)	Bhokraha, Sunsari	Do	41	
4.	2071/10/12 (26 Jan 2015)	Badaharmal, Bastipur, Siraha	Do	43	
5.	2071/10/13 (27 Jan 2015)	Dhungrekholra, Sarlahi	Do	27	
6.	2071/10/18 (1 Feb 2015)	Tapeshwori, Udaypur	Project affected people and communities located nearby the TL alignment	56	
7.	2072/11/8 (20 Feb 2016)	Geetabar School Rajdamar, Chatiwan 8	Project affected people and communities located nearby the TL alignment	42	
8.	2072/11/9 (21 Feb 2016)	Juina, Chaitwan 5	Project affected people and communities located nearby the TL alignment	47	
9.	2072/11/15 (27 Feb 2016)	Ramjanaki School, Ekhrari, Sunsari	Project affected people and communities located nearby the TL alignment	57	
10.	2072/12/19 (1 April 2016)	Danuwari Tole Sarlahi	Project affected people and communities located nearby the TL alignment	63	
11.	2073/1/11 (23 April 2016)	Pashupati Samudayik Pra. Vi., Karmiya, Sarlahi	Project affected people and communities located nearby the TL alignment	36	
12.	2073/1/15 (27 April 2016)	Mahikar H.S.S, Parshabani, Saptari	Project affected people and communities located nearby the TL alignment	56	
13.	2073/03/11 (25 June 2016)	Netrodaya Ma. Vi., Yojana tole, Bara	Project affected people and communities located nearby the TL alignment	80	
14.	2073/03/12 (26 June 2016)	Sundarbasti, Chidiyadaha, Cha. Pur, Rautahat	Project affected people and communities located nearby the TL alignment	47	

Annex 6: Grievance record for HDI as of April 2017

Nepal Electricity Authority
Environment and Social Studies Department
Hetauda-Dhalkebar-Duhabi 400 kV TL

Record of Grievances Received from Affected Households/Owners

S.N	Date	Ap no.	Location	Name of the individual	Issue	Status (as of April 2017)	Remarks
1	02/11/2071	30G/0	karmiya 5, Sarlahi	Mohan Bd Bhujal	Pipe damaged during construction	Replaced by new pipe after 2 months	Solved
2	02/11/2071	30B/0	karmiya, Sarlahi	Bahadur Bote	Delayed compensation and no water billing paid	solved after 1 month	Solved
3	12/12/2071	30H/0	karmiya 6, Sarlahi	Bishnu Lopchan	land compensation not received	Land compensation has been paid.	solved
4	12/12/2071	31/4	Bishanpur, Saptari		dispute in bamboo cut in private land	Dispute has been settled after information disseminated to project office.	solved
5	05/12/2072		Musharniyakhori, Mirchiya, Siraha	Shambu shrestha (son of Lt. Muglal shrestha)	no crop , land compensation received	Solved	Solved
6	05/12/2072		Musharniyakhori, Mirchiya, Siraha	Shambu shrestha (son of Lt. Muglal shrestha)	4 mango trees and 20 Daleghash trees destroyed, no money received	Solved	Solved
7	05/12/2072		Musharniyakhori, Mirchiya, Siraha	Shambu shrestha (son of Lt. Muglal shrestha)	wants to know rate of land analysed		Solved
8	05/12/2072		Musharniyakhori, Mirchiya, Siraha	Kalu Shrestha	no compensation received of land, 4 trees and crops	Solved	Solved
9	06/12/2072		Chainpur, mauwa danda , Siraha	Dharmanath Yadav	Construction company borrowed 16,000 and didn't pay	Informed to the Project	Project and Contractor informed that this case is Not relevant
10	06/12/2072		Chainpur, mauwa danda, Siraha	Dharmanath Yadav	land stooped by malpot, urgency to sell as have to pay money of other	Solved	

11	06/12/2072		Chainpur, mauwa danda, Siraha	Shiyaram mahato	compensation of 8 trees cut at first received but that 5 cut during work not paid	Solved	
12	06/12/2072		Chishapani Hariwon, Sarlahi	Thakur Pd. Uprety	land compensation not received	Solved	
13	06/12/2072		Chishapani Hariwon, Sarlahi	Thakur Pd. Uprety	low compensation of tree received	Informed to Project (P) and Contractor ©	As per P and C it is Not Relevant
14	07/12/2072		Titariya, Golbazzar, Siraha	Ratna kumari pulami	said not to crop at 6 kattha, and 4 kathha crop destroyed but will give compensation; nothing received till date	Under process	Unsolved
15	07/12/2072			Ratna kumari pulami	no proper site clearance, stones remained	Informed to the Project	Unsolved
16	12/12/2072	33A/3	Pakargachii hariwon, Sarlahi	Ram Pd. Uprety	low compensation amount of 1 mango tree	Discussed this with project office	As per P and C it is Not Relevant
17	12/12/2072		Pakargachii hariwon, Sarlahi	Ram Pd. Uprety	no compensation of crop during constructational work	Solved	
18	12/12/2072		Pakargachii hariwon, Sarlahi	Ram Pd. Uprety	Compensation of land not received. Delay in compensation distribution.	Under process	
19	12/12/2072	33A/2	Hariwon licchi tole, Sarlahi	Chirinjivi Bhetwl	just planted sugarcane destroyed but Compensation not received	Amount paid	Solved
20	12/12/2072		Hariwon licchi tole, Sarlahi	Chirinjivi Bhetwl	Delay in compensation distribution.	Solved	Solved
21	12/12/2072	33A/1	Hariwon licchi tole, Sarlahi	Laxmi devi Shrestha	low compensation received of crop	Solved	Solved
22	12/12/2072		Hariwon licchi tole, Sarlahi	Laxmi devi Shrestha	Lodging and fooding of worker at my house, money unpaid till date	Solved	Solved
23	14/12/2072		Hariwon, Kauwa, Sarlahi	Ramu Bhujel	structures on ROW	Compesation paid of structure.	solved
24	14/12/2072		Hariwon, Kauwa, Sarlahi	Ramu Bhujel	no information about compensation procedure	Procedure has been explained by ESMU	solved
25	15/12/2072	.9/0	charnath ganeshman mu., Dhanusha	Chandradev Parsela	low compensation than assumed (20 tree and crops)	Discussed with Projec office and Contractor.	As per P and C it is Not Relevant
26	15/12/2072		charnath ganeshman mu., Dhanusha	Chandradev Parsela	improper site clearence	Forwarded to Project office and discussed during monthly meeting.	Not solved

27	15/12/2072		charnath ganeshman mu., Dhanusha	Chandradev Parsela	said they will provide employment before construction of work	Forwarded to Project office	Not solved
28	15/12/2072		charnath ganeshman mu., Dhanusha	Chandradev Parsela	same compenstion distributed for land with and without road access	Informed to Project	Not solved
29	15/12/2072		charnath ganeshman mu., Dhanusha	Chandradev Parsela	no information of notice published	Informed by ESMU	Solved
30	17/12/2072	33A/3	chishapani 2 hariwon, Sarlahi	Lila prasad Mainali	no compensation of 3 katta crop destroyed by walking during foundation	Informed to Project	Solved
31	17/12/2072	33A/5	chishapani 2 hariwon, Sarlahi	Durga Pd. Thapaliya	Low compensation of tree received no compensation of 2 kaththa crop destroyed by walking during foundation	Informed to Project (P) and Contractor ©	As per P and C it is Not Relevant
32	17/12/2072		chishapani 2 hariwon, Sarlahi	Durga Pd. Thapaliya	crop destroyed during construction but compensation not received	Solved	
33	17/12/2072		chishapani 2 hariwon, Sarlahi	Durga Pd. Thapaliya	Compensation of land not received. Delay in compensation distribution.	Solved	
34	18/12/2072		Chishapani hariwon, Sarlahi	Dinesh Muri Magar	low compensation of 10 mango trees and crop in 15 kaththa	Informed to Project and Contractor	As per P and C it is Not Relevant
35	18/12/2072		Chishapani hariwon, Sarlahi	Dinesh Muri Magar	demands land compensation at Rs 2,000,000 per kaththa	Discussed with project office and contractor	As per P and C it is Not Relevant
36	18/12/2072		Attroauli, Hariwon, Sarlahi	Tank Pd. Ghimire	demands land compensation at Rs 1,000,000 per kaththa	Discussed with project office and contractor	As per P and C it is Not Relevant
37	18/12/2072		Attroauli, Hariwon, Sarlahi	Deepa Ghimire	demands land compensation at Rs 1crore	Discussed with project office and contractor	As per P and C it is Not Relevant
38	19/12/2072		hariwon danuwaritole, Sarlahi	Bishnu maya Mainali	no good backfilling, stones remainig at land	Informed to Project and Contractor	Unsolved
39	19/12/2072		hariwon danuwaritole, Sarlahi	Bishnu maya Mainali	no notice published till date, want fast	Solved	
40	19/12/2072		hariwon danuwaritole, Sarlahi	Bishnu maya Mainali	want compensation of land and crop fast	Solved	
41	20/05/2073		Dhanusha, Harharpur	Shiv narayan Mahoto	Land subsidence, need to maintain	Informed to Project and Contractor	Not solved
42	20/05/2073		Dhanusha, Harharpur	Shiv narayan Mahoto	Destroyed the canal during construction, and no paid for its maintenance.	Informed to Project and Contractor	Not solved

43	05/03/2071		Bamandanda, Tapeswori, Udaypur	Chitramaya Tamang	Crop compensation	NRs 4000 paid as compensation	solved
44	19/04/2071	22/6	Padhariya, Siraha	Kashi Sha	Crop compensation	Compensation paid	solved
45	15/05/2071	35/5	Prabasani	Bhola Yadhav	Local people was not used during construction of tower.	informed to contactor	Not solved
46	02/06/2071	35/4	Sitapur	Kishan Chaudhary	Delay in work and compensation	solved	solved
47	12/10/2071	35/6	Bisnampur	Moti Teli shau	Constuction of road which was damaged.	informed to contactor	
48	08/07/2072	21D/2	Dhangadi, Diraha	Ganga prasad yadhav	No proper crop compensation	Consultion with contractor	solved
49	22/07/2072		Theliiya		Land owners are demanding g to give compensation from NEA project office directly on the field.	informed to project office	Not solved
50	02/10/2072	61/4	Dumhara	Gita devi Mahato	Crop Loss but compensation not paid	Compensation paid On 2072/11/1	solved
51	20/11/2072		Amaha and pansera	Purnadevi chaudhary	crop compensation not received	Under process	Solved
52	25/11/2072	37A/0	Mahulo	Bhesh bdr Giri	conformation of buliding under RoW	Comfirmed by Informing surveyor through contractor	solved
53	06/12/2072		Terehauta	Govinda singh thap and 14 others	Asked to change route alingment with alternative route	Informed to the Project	
54	06/12/2072		Pidarboni	Sarita Giri and 8 others	Not informed to locals during survey of TL	Informed to the Project	
55	06/12/2072	22/6	Basipur, Siraha	Rajerndra prasad shah, Urmila shah	Crop and tree (shaphed- 100) loss but compensation not paid.	informed to project office	solved
56	16/12/2072	21/2	Shyampur, Dhangadimai mu	Durga Rai	compensation of land received is not satisfactory		

57	16/12/2072	21A/1	Shyampur, Dhangadimai mu	Soniya devi yadav	compensation of sugarcane at 4 kattha and 4 trees along with land compenation not received	Under process	Solved
58	16/12/2072		nainpur, Dhangadimai mu	Maden pd. Sha	Not information during survey	Explained by ESMU	Not Relevant
59	16/12/2072	23/0-25/0	Padairya, lahan		Rerouting of the allignment and recompensation of land.	Continue consultation	Not solved
60	16/12/2072		Birendrabazar, Saptari		Shifting of tower to noth of current .	Continue consultation	Not solved
61	29/01/2073	30/0	Kusaha	Narayan Sad	tress loss compensation not paid	informed to project office	solved
62	20/03/2073		Theliya-1	Binita Korila	During construction of tower ,the land was damaged by using as road.	Infromed to Contractor	Not solved
63	01/05/2073		Theliya-1	Devendra Shah, Karo dei, Dropati	Crop and land compensation should be paid on time	informed to project office	Not solved
64	15/11/2073	47/0	Tapeshwori	Amarjyoti C F	Flood control should be done before clearance of forest and regular health Check up of communities.	Continue consultation	Not solved
65	22/11/2073	62/0	Bokhara	Kailu Mehata	No proper crop comensation	Consultion with contractor	solved
66	1/3/2072	38/0	Theliya-1	Karo devi	The compensaation of land has to given as soon as possible	informed to Project office	solved
67	10/3/2072	60/3	Dumhara-2	Chanranarayan Mandal	Employment and awareness on the issues of project.	Awareness was done by ESMU team and for employment informed to project office	solved
68	15/3/2072	37A/2	Vakduwa-8	Ganesh kumar	Crop compensation not received	informed to contactor	solved

69	20/11/2072	30/1	Pansera	Purni devi Chaudhary	Crop compensation was not paid and construction material(gravel , sand) was left in land.	Informed to Contractor	Not solved
70	20/3/2072		Kusaha		Land owners are refusing to take compensation from CDO office and deming to give from NEA project office directly on the field.	informed to project office	Not solved
71	22/4/2072	Sub station	Bokhara-7	Raja ram Mehata	Construction of building of replaced school as soon as possible.	informed to project office	Construction of building was finished and bounday wall is under construction with support of ESSD.
72	22-4-2072	Sub station	Bokhara-7	Kumar Basnet	Get money less than the said.	informed to contactor	As per C it is Not Relevant
73	24-4-2072	Sub station	Bokhara-7	khadak Bdr Nepali	Few land is left which is difficult to cultivate and will have no use . So better to acquire remaning land also.	informed to project office	Not solved
74	24-4-2072	Sub station	Bokhara-7	Kumar Basnet	Few land is left which is difficult to cultivate and will have no use . So better to acquire remaning land also.	informed to project office	Not solved
75	27-4-2072	54/2	Mahenranagar -8	Moti ram panchakoti	Farmers were not informed previously and said for irrigation during survey	informed to project office	Not solved
76	28/8/2071	30A/0	Khojpur-8	Dasi lal Chaudary	He was injured in feet and have to pay by labor not contractor.	informed to contactor and money was provided for his	Solved
77	28-4-2072	53/0	Mahenranagar -3	Rupa Limbu	Misconception about the TL that it affects pregent women and birth miscariage may happen	Carried out social awareness program.	solved
78			nainpur, Dhangadimai mu	Maden pd. Sha	most of land under ROW, so 100% compensation of all land needed	Not relevant	
79			Amaha and pansera	(Shyam kr. Chaudhary, Jitendra KR. Chaudhary,	After completion of work, the site has not been properly cleared.	Informed to the Project	Unsolved

				Mahamod Afroj, Suman Kr. Yadav and Sanjeeb Chaudhary)			
80			Terehauta	Govinda singh thap and 14 others	District Administration office and NEA Project office said they will shift alingment by 650m, but did not implemented	Informed to the Project	Not solved
81			Pidarboni	Sarita Giri and 8 others	40 people after getting information asked for re-survry and alternate route to District Administration office and NEA office Inaruwa	Informed to the Project	Not solved
82			Pidarboni	Sarita Giri and 8 others	Asked for map of route alignment, but not received after continous follow up.	Informed to the Project	Not solved
83			Pidarboni	Sarita Giri and 8 others	Ram kumari Sah with very poor economic condition with 1.5 kattha land will be affected as tower is in her land	Informed to the Project	Not solved
85	12/12/2072	21B/0	shyampur, Dhangadimai mu	Rambahadur shrestha	demand compensation of 1 lakh per dhur, so has stopped work	Informed to projcet office	Not relevant
86	12/12/2072	21/2	shyampur, Dhangadimai mu	Lok bd. Masargyi magar	demand compensation of one year as it disturbed crop pattern	Informed to projcet office	Not solved
87	12/12/2072			Lok bd. Masargyi magar	compensation of 4 trees not received	Informed to projcet office	Not solved
88	12/12/2072	21/2	shyampur, Dhangadimai mu	Bal bd. Masargyi magar	appropriate land compensation	Solved	Solved
89	12/12/2072	21/2	shyampur, Dhangadimai mu	Man bd. Masargyi magar	appropriate land cmpensation	Solved	Solved
90	12/12/2072			Man bd. Masargyi magar	wants tree compensation of 1 tree	Solved	Solved
91			Hatiya, Makwanpur		o T/L alignment to be shifted because of T/L alignment passes through valuable settlement land	Public consultation had been done	Unsolved

92					○ Some of lands are planned for settlements, thus the alignment has to be changed	Project (NEA) will be done alternative analysis for T/L alignment shifting	Unsolved
93			Chhatiwan , Makwanpur		Private land value should be 14 lakhs per katha.	Public consultation had been done; Foundation completed	Not solved
94					Land values of non-tittle holders (<i>Ailani</i>) also should be as per private land	Land on tower pads are measured by <i>Napi Karyalay</i> .	Not solved
95					25 percent compensation should be provided of land under RoW.	The file related to land issues forwarded to each related agencies (offices)	Not solved
96	05/10/2073		Nijgadh, Bara	Uprety Bhojanalya	Royal construction used Bhojanalya for its fooding in due for a month but did not paid its due	Informed to the Project and contractor in monthly meeting	Not solved